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CHARACTERISTICS, SUPPORT SERVICE NEEDS, AND PROGRAM EVALUATIONS
OF GRADUATE STUDENTS AT FIVE UNIVERSITIES

By

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A DISSERTATION

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ABSTRACT

CHARACTERISTICS, SUPPORT SERVICE NEEDS, AND PROGRAM EVALUATIONS OF GRADUATE STUDENTS AT FIVE UNIVERSITIES

By

Barbara Ann O'Kelly

A study was undertaken of graduate students at five disparate institutions and student advisers at two to provide a task force of the Council of Graduate Schools with a basis for developing recommendations.

A combination of career-related and personal motives were important to students at all the institutions, and all types of students valued personal growth. Financing their education was the most common personal problem, and the times, locations, and/or frequency of offering needed courses was the most common institutional barrier cited.

A library with a comprehensive collection in their major field was the most needed and used support service. Availability of library materials was a problem for one-third to half the respondents at all five universities. Other support services with considerable demand include career assistance (which was less than satisfactory at all five schools), parking (also generally unsatisfactory), long-term loans, and part-time employment.

Cluster analysis was used to differentiate among various types of traditional and nontraditional (e.g., older, working full-time) graduate students at each of the five universities and to detect similarities among the types found at each school. Fifteen second order clusters were identified ranging from re-entry women and older

male full-time workers to young traditional men and women.

The clusters appeared to differ in the extent to which financing, study time, job and family responsibilities, and instructor attitudes were problems. There were differences in the importance assigned to several support services.

Most of the groups of relatively "nontraditional" graduate students were more satisfied with their programs than more traditional students, and the nontraditional students expressed little need for university support services other than access to courses, advisers, and libraries during the evening.

The high response rates obtained (nearly 80 percent) confirm that attention to details in survey instruments, cover letters, and follow-up yields high returns. Cluster analysis proved to be a useful technique for dividing the samples into groups of more or less traditional graduate students with differences in problems and needs.

The low demand for support services among nontraditional graduate students invites further study of the population of potential graduate students to ascertain whether the lack of services is a barrier to their enrollment. Models should be sought for the several services and facilities which were relatively important to some types of graduate students and which were rated less than good by users.

Despite their relatively high satisfaction and low demand for adjunct services, and despite the favorable evaluations received by faculty members at the two universities at which faculty advisers were questioned, many universities do not seek nontraditional graduate students. Perhaps the most important question raised by the present study is how to persuade university administrators to offer graduate programs designed to serve more of these students.

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Producing dissertations, and Ph.D.s, is inevitably a complex process involving a large cast of characters. This one seems to be the quintessence to date of such projects. It would not have been possible without the enormous amounts of support and cooperation I received from many sources.

The pivotal person throughout my administrative career has been Dr. Herbert J. Oyer. As Dean of The Graduate School at Michigan State and chairman of the Committee -- and later the Task Force -- on the Part-time Graduate Student for the Council of Graduate Schools, his actions on my behalf include giving me my first post in higher educational administration, facilitating my progress throughout my doctoral program, giving me a central role with the CGS Committee and Task Force, acting as the bridge between the Task Force members and the members of my MSU doctoral committee, being a sterling role model for an aspiring administrator, and providing never-failing guidance and encouragement. My gratitude to Herb, and also to Dr. Jane Oyer, is enormous.

Surely it was the luck of the Irish that led me to be assigned as one of the advisees of Dr. Richard Featherstone. His support and assistance were unflagging, and I consider his friendship one of my most cherished assets.

Thanks to the Dick's excellent advice, one of my first professors in the program was Dr. Marylee Davis. Her demonstration that one can be an effective administrator while genuinely caring for people, her willingness to share her expertise and insights, and her courage make Marylee another wonderful role model for me.

The final member of my advisory committee, Dr. Fred Ignatovich, admirably fulfilled his function of assuring the rigor of the research and the conclusions drawn from it. As is so often true, his stamp of approval was the more valued for being hard to win.

The larger project of which this dissertation is an important component was conducted under the auspices of the Council of Graduate Schools of the U.S., headquartered in Washington, D.C. Dr. Michael J. Pelczar, President of CGS from 1978 to 1984, was instrumental in forming the Task Force on the Part-time Graduate Student and provided considerable support to it, including funding the printing, mailing, and keying of this study. Additional welcome moral and logistical support came from his assistant, Ms. Edna Khalil, and other members of the CGS staff.

Members of the Task Force, and of their staffs, not only helped to formulate the issues to be addressed in this study and compose the questionnaire; they also bore major responsibility for collecting the data, patiently waited for me to share results, and thoughtfully critiqued the drafts. Their generous cooperation has been a vital element in the success of this project. Dr. Dominic Martia, Vice President for Student Affairs at Roosevelt University, is second in seniority only to Herb Oyer on the CGS Task Force and has been a continuing morale booster. Dr. Norma Rees, former Dean of Graduate Studies at the City University of New York and now Vice Chancellor for Academic Affairs at the University of Wisconsin at Milwaukee, has persisted in her interest and support in her new position; her assistant, Dr. Charlotte Frick, who remains at CUNY, managed a superior data collection effort and has been another significant

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Although many others at MSU have made important contributions to my progress, the role of Vice President Jacweir Breslin has been unique. Counselor, advocate, and role model, his perspectives regarding Michigan State University -- and those of us associated with it -- has often helped me regain balance.

When I embarked on this doctoral program, I was more knowledgeable about the potential pitfalls (as well as benefits) than most students: I had already essentially completed one Ph.D. -- in psychology at another university. Consequently, at the outset, I convened my closest personal support group. As charged, Glenn Wright has persistently prodded me towards completion of the degree and Ellen Strommen has always been available when a sounding board or a crying towel were needed.

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CHAPTER 1. THE PROBLEM

1.1. Purpose of the study

Over the past decade there have been significant changes in the composition of the graduate student body in the United States. The best documented change has been a dramatic increase in the proportion of students who are enrolled on a part-time basis: at the present time nearly 60 percent of U.S. graduate students attend school part-time (Council of Graduate Schools-Graduate Record Examination Board, 1984). Part-time students comprise the majority in both public and private graduate schools and in both master's-highest and doctorate-granting institutions.

Speculation concerning probable characteristics of the part-time graduate student body has included suspicions that they probably are older than graduate students of the 1950s, include more full-time workers, include significant numbers of women who interrupted their education in order to rear children to school age, and include men and women who are embarking upon a mid-life career change after several years in one career pattern. However, there had been no systematic study of the demographic characteristics of part-time or full-time graduate students. In 1980 the Task Force on the Part-time Graduate Student of the Council of Graduate Schools in the U.S. (CGS) questioned a random sample of graduate school deans to see how much information on such characteristics could be obtained from institutional records. The results of that survey indicated that virtually none of the colleges and universities had or could obtain such information.

In spite of the growth in part-time graduate enrollment, the norm for delivering services to graduate students and for evaluating the quality of graduate programs generally remains full-time graduate study. Part-time graduate study has been considered by some so inferior to full-time study that one of the indices of program quality cited in Clark et al.'s (1976) literature review is the percentage of full-time graduate students, which is presumed to be positively correlated with quality. The CGS Committee's survey of graduate deans conducted in 1977 revealed that over 35 percent of doctorate-granting universities prohibit part-time study in at least one graduate program, and nine percent prohibit part-time pursuit of all Ph.D. degrees. Over three-quarters of master's students study part-time, yet a study by Solmon (1981) indicated that, despite the dismal job market in many fields for holders of Ph.D.s, most institutions continue to consider their master's programs as primarily "stepping stones" to doctoral study (presumably on a full-time basis) and to academic careers.

There have also been several suggestions regarding the supportive services needed by current graduate students, usually based on particular assumptions about the nature of these students. For example, the Project on the Status and Education of Women assumes that there are or would be numerous adult women beginning or resuming higher education programs, including graduate programs, who need facilities such as on-campus child care, women's lounges, and peer support groups (Fisher-Thompson, 1980). Future Directions for a Learning Society (1979) published a pamphlet listing 350 Ways Colleges Are Serving Adult Learners to inspire institutions to more

aggressively seek and serve this segment of the student population. There has not been, however, a systematic assessment of how many "adult learners" are enrolled in college, specifically at the graduate level, or of what services are most important to these students, or of how well they are being served by present academic and support programs.

The present study was designed to develop a format for addressing several questions about today's graduate students, to enable the formulation of specific hypotheses about current U. S. graduate students, and to explore several aspects of graduate education at five major universities. Particular attention was paid to possible differences between traditional and nontraditional graduate students. Among the questions considered were the following:

1. Are there distinct types of graduate students at each of the five universities as revealed by cluster analyses? Are there significant differences between types regarding their graduate programs, support needs, and problems? Do the types seem to be the same at each institution? What is the proportion of each type of student in the graduate student body at each of the five institutions?
2. What support services and facilities do graduate students need? How well are these needs being met at the five participating schools? What are the relationships between degree of need, quality, and frequency of use for each of the support services and facilities being studied?
3. What quality of education is being experienced by graduate students at these five institutions? Are there differences in

educational quality for part-time and full-time students enrolled in programs designed for part-time versus full-time study? Between research and applied programs? In scholarly quality versus student-centeredness?

1.2. Context of the study

The present study was part of a larger plan of research and action which had been planned by the CGS Task Force on the Part-time Graduate Student, to which this author served as "Resource Person" for four and one-half years. The 1977 survey of graduate deans conducted by the Committee on the Part-time Graduate Student, predecessor to the Task Force, revealed the need for considerable additional information about present day graduate students and their programs. The 1980 Information Availability Survey conducted by the writer for the Task Force determined from a random sample of graduate school deans the extent of information available from central administration sources. That study confirmed the need for directly contacting graduate students to obtain many types of data.

The present project was designed to be a large-scale pilot study for an investigation of a nation-wide sample of graduate students. The objectives of the national study were:

1. To provide answers to the research questions posed above, more precisely formulated on the basis of the current study, for the general population of U.S. graduate students, and also,
2. To develop a Graduate Student Needs and Satisfaction instrument, based upon the first four sections of the questionnaire for the present study, which individual institutions can use to identify

the problems and needs of their graduate students and assess the quality of those supportive services already provided.

The national study would provide information enabling the identification of several of the most pressing unresolved issues or problems for current graduate students. The next phase which had been planned by the Task Force was finding programs which successfully address these problems or issues via a survey of graduate school deans. "Model" programs were to be tentatively selected on the basis of having resolved one or more of the posed problems in a manner which appears promising for application at other institutions. After verifying the success of each "model" solution via the Graduate Student Needs and Satisfaction instrument, procedures were to be developed as necessary to guide implementation elsewhere -- such as workshops given by members of the Task Force and/or personnel from the model schools, manuals describing the solutions in detail, and/or individual consulting service to institutions wishing to adopt or adapt a model.

The Council of Graduate Schools has disbanded the Task Force, but the members have continued to act as advisers to the author.

1.3. Design of the study

1.3.1. Populations

All the graduate students enrolled for Spring Term at five major universities comprised the population for the study. The universities were: the Graduate Center of the City University of New York (CUNY), Michigan State University (MSU), Roosevelt University, the University of Minnesota (UM), and the University of Tennessee at Knoxville (UTK). Representatives of these institutions comprise the CGS Task Force on

the Part-time Graduate Student. Faculty advisers at CUNY and Roosevelt also were questioned.

1.3.2. Samples

The sampling frame consisted of the official records of all graduate students enrolled Spring Term at the time of sampling from each institution. A random sample of four percent of the graduate students in the sampling frame was drawn. At Roosevelt and CUNY the faculty adviser for each sampled student was identified and sent a questionnaire. (Financial constraints prevented surveying the larger group of advisers at the other three universities.)

The students in the sample received a questionnaire designed in close consultation with the CGS Task Force on the Part-time Graduate Student, based on over five years of exploration of the issues surrounding the changing graduate student body. The faculty survey closely parallels the student instrument. Portions of both questionnaires are drawn or modified from the "Graduate Program Self-Assessment" questionnaires developed and copyrighted by Educational Testing Service; CGS has received permission from ETS for this use of the material, as indicated in the letters attached as Appendix B. The University Committee on Research Involving Human Subjects at MSU has approved this study (Appendix B also contains the letters of approval), as have the human subjects committees at the other four participating institutions.

The conduct of the survey followed as closely as possible the recommendations of Dillman (1978). The survey cover page indicates the national scope of interest in the study by its Council of Graduate Schools' sponsorship, while the cover letters emanated from the

appropriate office of each institution with individual signatures. A business reply or stamped, self-addressed envelope for return to the student's university was included with each survey form. Faculty mailings and returns were accomplished through campus mail services.

One week after the original mailings each subject was to receive a postcard (again, via campus mail for faculty members) thanking those who had returned their forms and reminding those who had not. Three weeks after the original mailing, nonrespondents were to be mailed a duplicate questionnaire with a new cover letter emphasizing the importance of their return. Finally, five weeks after the original mailing, nonrespondents were to be contacted by telephone to urge their reply (this part of the procedure departs from Dillman's scenario, which omits telephone contact but includes a third questionnaire mailing by certified mail seven weeks after the original dispatch). The departures which occurred from this ideal schedule enable preliminary conclusions about the importance of various aspects of the total design for conducting such a survey on a national scale.

1.4. Analysis of the results

The results from each sample were described by frequency distributions. Sample means and standard errors were calculated for the interval variables as well as for some of the ordinal variables. Ward's hierarchical and Wishart's density methods of cluster analysis were applied to a similarity matrix for each sample based on the mean inter-subject distance on 17 demographic variables; the same methods were applied to the mean values of the variables in the resulting groups to conduct second order cluster analyses on the set of groups from all the institutions. Cross tabulations with chi-square analyses

and one-way analyses of variance were used to explore differences between the groups and second order clusters regarding problems, needs for support services, and program evaluations.

1.5. Definitions

Part-time graduate student: The information availability study done for the Council of Graduate Schools in 1980 confirmed the impression from other studies and discussions that different colleges and universities have many different definitions of "part-time" in relation to graduate study and students. Furthermore, an individual student's self-perception regarding being engaged in part-time versus full-time study (the measure used in this study) may differ from the status accorded by institutional records. The present study explored the relations between several definitions of part-time graduate study; one result was that 82 percent of respondents in the combined sample who estimated their "effective credit load" as seven or more credits considered themselves full-time students whereas 73 percent of those working as though they were registered for six or fewer credits identified themselves as part-time graduate students.

Nontraditional graduate student: Again, there is no definition of this concept which has gained general acceptance. In fact, two different categories of student are often labelled "nontraditional": students who are markedly older (or, occasionally, younger) than the "traditional" graduate school age of approximately 22 to 30 years and/or who are engaged in part-time study are often called "nontraditional", as are students who are studying in a discipline area historically uncommon for their gender and/or ethnic identity -- for example, a woman or minority student in engineering may be called

"nontraditional". One major purpose of this study was to find out whether graduate students can in fact be divided into meaningful groups on the basis of demographic characteristics, some of which groups may be identified as being "nontraditional" and others as "traditional" in the first sense of this label.

Clusters and groups: When a cluster analysis is performed on a set of entities, the resulting subsets are usually called "clusters." In this narrative, the subsets resulting from performing cluster analyses on the matrices representing students from the individual universities are referred to as "groups" and the subsets formed by cluster analyzing the groups from all five universities are called "clusters." This distinction was made to clarify the two stages of the analyses.

1.6. Limitations of the study

The five institutions included in the study were selected because an administrator at each was on the CGS Task Force on the Part-time Graduate Student. The institutions were not selected scientifically, and consequently, conclusions about students and programs at these schools cannot be generalized with any measurable confidence to other institutions. Further restricting generalizability is the fact that all five universities are among the largest and most prestigious of their type in the country, rather than in any way being representative of all institutions granting graduate degrees.

Some conclusions can be drawn about each of the participating schools, but interpretations should be tempered with the knowledge that a large number of hypotheses are being tested, in keeping with the exploratory nature of this investigation, and it can be expected

that approximately five percent of the null hypotheses have been rejected when in fact they are true -- that five percent of the differences accepted as "real" within the 95 percent confidence limit are in fact spurious. Conversely, an unknown percentage of the the differences among the means failed to attain the five percent level of significance despite the existence of a "real" difference; some of these which are suspected to be real differences are discussed.

The main safeguard against making either of these types of errors in interpretation is the replication of the analyses on data from five independent samples. The probability of the same Type I or Type II errors recurring in several sets of data is much smaller than the occurrence in any one set. The depth of experience with the issues in this field possessed by the author and other project personnel also suggest distinctions between those results that are reasonable and those that are spurious.

1.7. Overview of the study

Chapter 1 provides a brief summary of the purpose and methodology of the study.

Chapter 2 discusses the background of the study, including a review of the literature and a discussion of the previous work by the C.G.S. Committee and Task Force on the Part-Time Graduate Student.

Chapter 3 presents the study's design and methods, including the research questions, the populations and samples, procedures for obtaining data, and descriptive and analytical tools.

Chapter 4 describes the results of the study: results from the student sample at each institution, the cluster analyses of each, and

the responses from faculty advisers at Roosevelt University and the Graduate Center of City University of New York.

Chapter 5 discusses the implications of the study's findings, including tentative conclusions about the nature of traditional and nontraditional graduate student groups and their problems and needs and guidelines for conducting a survey of graduate students on a national scale.

CHAPTER 2. BACKGROUND

2.1. Historical context

In higher education, as elsewhere, new enterprises emerge in response to perceived needs. Once extant, changes are made (though often with difficulty) in response to both new needs in the larger society and pressures for survival and structural integrity within. Graduate education in the United States was born out of a need for a domestic source of better intellectual training for college and university teachers. The emergence of the sciences, with the different types of training and research required for success, was an important factor in generating this need (Rudolph, 1962). Recognition of the need resulted in attempts to establish master's degree programs at the University of Virginia in 1831, at Harvard in 1846, and at the University of Michigan in 1858. All of these programs failed, however, due to lack of enrollment (Rudolph, 1962). Yale offered the first successful graduate program in the U.S., a Ph.D. program which began in 1860 and awarded its first three degrees in 1861. By 1876, when Johns Hopkins was formed as the first institution focusing primarily on graduate education, 25 American universities had Ph.D. programs and that year awarded 44 degrees.

There were also early advocates of the master's as a terminal professional degree. The founders of the University of the City of New York, which opened in 1832, hoped to establish a new type of American college which would provide high caliber professional training ". . . in subjects more likely to be used in a country that was undergoing such dynamic expansion" (Rudolph, 1962, p. 128). They

initiated an M.A. program in 1835. This effort, too, was ahead of its time: "Among other things, there was not a job in the United States for which an M.A. was required or desired" (Rudolph, 1962, p. 129-130).

The fear that catering to the needs of aspiring professionals (or farmers, or mechanics, or elementary school teachers) would dilute the scholarly quality of graduate (and undergraduate) programs has a history in the U.S. as old as graduate education itself. But the educational philosophy which dominated the period from about 1870 to 1920 was summarized by Rudolph (1962, p. 340) as: "in the United States all careers were honorable, and therefore the university would offer itself as an appropriate agency of instruction and preparation for all careers for which some formal body of knowledge existed." This philosophy has generally prevailed, with periodic surges of concern for insuring the academic content and quality of graduate degrees such as the action of the American Association of Universities in 1900 of defining minimum standards for the Ph.D.; the general education movement of the 1920s, precipitated by the New Humanists and other critics of ". . .the amoral or neutral emphasis of the scientific outlook, the almost exclusive intellectual orientation of the university. . ." (Rudolph, 1962, p. 450), succeeded in returning the liberal arts to a more central position at least in undergraduate education -- notably through the "core course" concept.

City College of New York in 1909 was the first institution to establish a bachelor's degree program taught at night (Rudolph, 1962). Subsequently many other colleges instituted evening courses, but most

programs were outside the schools' mainstream and lacked the same standards of quality demanded of daytime programs.

Roosevelt University appears to have been the first established specifically to provide high-quality degree programs for nontraditional students. It was founded in 1945 with funding from the Rockefeller Foundation to serve the urban workers of Chicago's inner city. Among its novel features was (and is) the class schedule: classes were offered very early in the morning, after 4:00 P.M., and on weekends.

Since 1970 many writers have recommended that universities expand their accomodation to nontraditional graduate students both to serve the demand of society for such programs and to maintain their enrollments in the face of the projected decrease in the population of 18 to 24 year olds. According to a special report of the American Council on Education issued in 1972, however, in order to accomodate nontraditional students (graduate and undergraduate), colleges and universities must ". . .set aside three traditional assumptions that in the past have controlled much of what they have done: (1) The assumption that college students are all young and financially dependent. (2) The assumption that there is a fundamental difference between what is learned in residence and what is learned in extension courses or independently. (3) The assumption that the ideal college serves an essentially middle class clientele and has no important responsibilities to disadvantaged urban and rural populations." (Quoted in The Committee on the Financing of Higher Education for Adult Students, 1974, p. 1.)

A widespread assumption not mentioned by that Committee is that nontraditional graduate students are not as worthy or desirable as traditional ones. According to Pelowski (1981), Beach (1965) reported that, "Some educators expressed dismay that only a small percentage of college graduates were enrolling in graduate schools immediately upon graduation; that Ph.D.'s were being awarded to part-time 'gradualist' students; that many bright students were postponing their graduate work; and that there was insufficient financial aid for single and married men, and single women." Beach did not see increased enrollment of nontraditional students as a possible way of fulfilling needs for more college teachers and noncollege researchers; he perceived serious attrition problems among older students and those working full-time. Berelson (1960) noted that some deans felt that marriage and a family distract students' attention from intense concentration on their graduate work and that few women aspired to full-time professional careers immediately following their graduate work, so he did not advocate recruiting such students.

During the past decade all these assumptions have been weakening, and even national organizations such as the Council of Graduate Schools have suggested that serving nontraditional students may, for some universities, be a moral responsibility as well as a survival strategy. For example, in a 1977 CGS newsletter, Cassara noted (p. 1), "Business as usual for the urban university is being challenged by the changing demographic characteristics of the student body and by the horrendous urban problems which crowd its very doorstep."

2.2. Characteristics of U.S. graduate students

Characteristics of the traditional graduate students have been aptly summarized by Cassara (1977, p. 1):

"The stereotype is of a young person finishing undergraduate work, searching for the right program in his subject field in a variety of institutions across the country, and ending up in one of them as a full-time student preparing for a career that is all in the future, who is probably unmarried, seeking a spouse along the way, and most likely will be receiving financial support from his parents. Not too long ago that person might also have been perceived as white and male."

During the 1960s graduate school enrollments enjoyed a steady growth. The young adult population was growing, a larger proportion was seeking higher education, and more women and minorities were among the graduate students. While only about 9,000 doctorates were awarded in 1959, there were over 33,000 in 1977. The proportion of women changed from 31 percent in 1963 to 49 percent in 1977 (Pelowski, 1981); minority enrollment grew steadily between 1968 and 1977.

But projections of the U.S. Census Bureau noted the reduced birth rates and foresaw smaller populations of potential undergraduate and graduate students. These projections, of course, also signaled a reduced demand for a principal product of graduate education, college teachers.

In fact, some rather dramatic changes took place even before the decline in the population of young adults. Between 1972 and 1976 the age distribution of college students shifted: the number of students under age 25 decreased (despite an increase in this age group in the overall population) but the number enrolled from older age groups increased significantly (Pelowski, 1981). A 1978 survey by the National Center for Educational Statistics (reported in the March 10,

1980 Chronicle of Higher Education) found that the more education adults had had, the more likely they were to be getting more. They estimated that nearly 28 percent of adults with four or more years of college were enrolled in adult education courses.

Various authors have addressed the actual or potential importance of different groups of nontraditional graduate and undergraduate students to reduce the impact of the expected population shift. Hall (1980) pointed out that large numbers of women over 35 years of age were already participating in higher education; they outnumbered male postsecondary students in this age group by two to one in 1979. Pelowski (1981) studied the role of graduate school in mid-life transitions for both men and women aged 35 and older and concluded that graduate school can be an important factor in enabling a desired change to occur in an adult's life. The Institute for the Study of Educational Policy (1980) discussed the importance of involving more minority students, especially black students, in part-time study as a major element in any strategy to increase the representation of minorities among postsecondary students and degree recipients. The Project on the Status and Education of Women of the Association of American Colleges has focused on another type of nontraditional graduate student: the "re-entry woman" who interrupted her higher education due marriage, child rearing, starting a career, following her husband to a different location, or financial difficulties. Because women often have conflicting family responsibilities, some people believe that policies that restrict part-time graduate study unfairly discriminate against women.

Barbe (1980, quoted in Epstein, 1980) noted that within graduate professional education, part-time programs have been the rule rather than the exception for the past 25 years. The feasibility and outcomes of such programs have received some attention. Singer (1980) documented the success of increasing the number of practicing nurses participating in master's level study by designing a program of part-time graduate study compatible with the nurses continuing their full-time jobs. Epstein (1980) surveyed 87 accredited graduate programs of social work; over two-thirds of the respondents indicated that they had a program for part-time study, and few problems were noted with these programs.

In 1980 the National Center for Educational Statistics predicted that total college enrollment would peak in 1981 and then decline at least through 1988. They noted, however, that a decrease in full-time students might be somewhat offset by a continuing increase in part-time students, at least through 1986 (reported in the March 28, 1980 issue of Higher Education & National Affairs). At the graduate level, however, the pattern shown by the CGS-GRE annual surveys of graduate enrollment (graphed in Figure F-2.1 of Appendix F) do not indicate that trend. The majority of graduate students in the United States have been studying part-time since 1971, but the proportion enrolled part-time appears to have peaked in 1976, when 60 percent of students in CGS member institutions were enrolled part-time, and has remained steady or declined slightly since then. The most recent CGS-GRE survey indicates that about 55 percent of graduate students were enrolled part-time in Fall 1984. These conclusions need to be tempered with the observation that the response rate to the CGS-GRE

surveys has also been declining; whereas the between 1971 and 1975 over 80 percent of CGS member institutions responded to the annual enrollment questionnaire, during the last five years response rates have declined steadily -- from 76 percent in 1979 to 64 percent last year.

Nonetheless, the number of part-time graduate students is substantial, and the adult population offers a larger potential pool of graduate students than the traditional market of 18- to 24-year-olds.

While the 1977 CGS survey of graduate school deans indicated that programs in the field of education most frequently catered to part-time students, large increases in part-time study occurred in the sciences and engineering during the 1970s; according to the National Science Foundation (1983), part-time enrollment in these fields grew at an annual rate of 3.8 percent between 1975 and 1981, and in 1982 36 percent of science and engineering graduate students were studying part-time.

Nor is the popularity of part-time study limited to students at urban institutions. Institutions whose graduate deans responded to the 1977 CGS survey (which had a response rate of over 75 percent) were categorized as urban, suburban, or rural according to their designation in the 1976 Peterson's Guide (Hegener, 1975). Part-time graduate students constituted a majority in all three types of schools (Committee, 1977).

A caveat needs to be inserted here regarding the definition of "part-time" study. All three of the surveys referenced above (CGS-GRE, NSF, and CGS Committee) asked the institutional

representative completing the questionnaire to use the institution's own definition of "part-time ". On the 1980 Information Availability study, the CGS Task Force on the Part-time Graduate Student asked each graduate dean included in the sample what the definition of "part-time" was for graduate students at their school. The results indicate a wide range in the definitions. Most institutions separated part-time graduate students from full-time ones on the basis of number of credit hours being taken, but a few used number of courses. The minimum credit hour load for full-time study ranged from six to twelve, the median number being nine. To further complicate the pattern, institutions differ in the way in which graduate assistants are counted. Some institutions count all graduate assistants as full-time students, irrespective of the number of credit hours carried, and one reported actually granting credits for assistantships.

The present study asked graduate students whether they characterized themselves as part-time or full-time students as well as how many courses and credits they were taking. It also explored the diversity of the graduate student bodies at five universities and asked whether there appeared to be some structure in the wide range of values on demographic variables in the form of clusters of types of students.

2.3. Motives of graduate students

The Committee on the Financing of Higher Education for Adult Students (1974) stated that three-quarters of part-time students are in the labor force and are seriously concerned with occupational needs. The Committee members concluded that although part-time and

full-time students share an interest in higher education for personal and family reasons, part-time students may have other motives such as job incentives or requirements (e.g., salary incentives, professional certification requirements), participation in employer-sponsored programs, or participation in state or federally-sponsored programs aimed at specific problems (e.g., law enforcement education, drug abuse education). Nearly 39 percent of the adult education students responding to a 1977 NCES survey said that the main reason for pursuing education was to advance in their jobs; another 31 percent had personal reasons. Over 17 percent were pursuing degrees, 16 percent professional or trade certification (Watkins, 1980).

The Center for Continuing Education of Women (CEW) (1982) of the University of Michigan in 1981 conducted a survey of nontraditional students (defined as undergraduate and graduate students who were at least two years older than the traditional student at their class level) at Michigan. The results suggested that these students were generally highly motivated and quite clear in their objectives. Seven of eight checked "the work I want to do in the future requires the education" as an important reason for enrolling, and 80 percent indicated that they knew what type of work or career they wanted after finishing their degrees. Over 50 percent of the nontraditional respondents felt that they were different from other students in their classes in being more serious in their approach to school.

Emling (1981) conducted a survey of adults interested in higher education on a sample that included prospective and current students at Michigan State University and six other Michigan colleges. The most important reason for pursuing higher education for the entire

sample, and for the Michigan State group, was for personal satisfaction. Obtaining a degree was cited with the second highest frequency; improving income potential was third for the entire group, but "for intellectual stimulation" was selected more frequently by the MSU sample.

Cassara observed (1977, p. 2),

"Motivation is perhaps the single most important determinant of the kind of work students prefer and the quality of the work they do. No longer is motivation homogeneous or predictable. . . One student may be training for a career, academic or professional, with very high intellectual standards. Another may be fulfilling qualifications for a salary increase in a current position with no thought of changing occupations. Still another will be retired and using the university as a way of discovering new interests or fulfilling a dream that had never been possible previously. The student may be a homemaker, displaced or otherwise, seeking new identity and career skills. . . These are all bona fide reasons for doing graduate work, especially at the master's level, especially in a democracy where each individual has a right to private reasons for education, even when it comes at public expense."

It seems well accepted that nontraditional graduate students are motivated principally by career-related goals, but the results reported by Emling (1981) call this assumption into question. The present study explores the motives and goals of nontraditional graduate students and the extent to which they differ from those of traditional graduate students.

2.4. Problems of graduate students

The University of Michigan's CEW (1982) requested information about the severity of various problems for the nontraditional students in their sample. Getting along financially was selected most frequently among the alternatives presented followed by conflicting demands on time due to domestic responsibilities and, third,

conflicting demands posed by job responsibilities. The report of the study speculated that these problems would be less severe for traditional students.

The survey conducted by Project LEARN (Emling, 1982) separated problems into personal problems and institutional hindrances. Again, financing education was the most frequent personal problem for both men and women. Family responsibilities posed an equal problem for women, whereas job responsibilities posed conflicts for almost as many men as cited financial difficulties. Among the possible barriers posed by the educational institutions, only times when courses were offered was selected by over half the sample (and the MSU stratum of it). Ostar (1981) cited other frequent institutional obstacles: inflexible admissions policies, difficulty in transferring credits, rigid residence requirements, and inconvenient locations. Cassara (1977) added the absence of administrative or counseling services during evening hours.

The emphasis on financing in these recent studies may mark a change from a decade earlier in either the resources available or the types of students needing them. Among the adult graduate students studied by Heistand in 1971, two-thirds of the men and women reported little or no financial difficulty. Their problems included deficiencies in research skills, conflicting demands on their time, physical stamina, and needing more time to obtain a broader picture. Nearly half of the subjects reported feeling that their age, experience, and maturity made their studies easier. The responses from the Project LEARN study suggest that student age may be a principal factor: Finances were cited most frequently as a barrier by

23 to 29 year olds in the sample, while family responsibilities were the main problem for those 30 to 39 and physical stamina and conflicting community responsibilities for those 40 and over.

The present study drew heavily upon the Project LEARN survey for items regarding student motivation, problems, and support service needs.

2.5. Needs of graduate students

What support services and facilities do graduate students need from universities? The results above suggest that financial aid may be primary. The importance of financing is nothing new on the graduate education scene. Fellowships have long been used to recruit and retain graduate students, beginning in the United States with an endowment to Yale University in 1831 for pre-M.A. fellowships to Yale bachelor's recipients (Rudolph, 1962). In the early 1870s several of the Ivy League schools subsidized foreign post-baccalaureate study for their most promising graduates. However, Johns Hopkins University inaugurated the practice of luring graduate students from all over with \$500 fellowships; they succeeded in attracting perhaps the most remarkable groups of college graduate assembled in America to that date (Hawkins, 1960). Federal support of higher education began in earnest during the Depression; between 1935 and 1943 nearly ten million dollars of emergency assistance went to college and university students (Rudolph, 1962). By 1960, 70 percent of university research was supported by the federal government, much of the support in the form of research assistantships, traineeships, and postdoctoral research associates or fellowships. Federal loans were also well established by 1960; during that year approximately 100,000 students

borrowed 53 million dollars to finance their educations (Rudolph, 1962).

Recently, however, federal support for graduate education has been declining. The Institute for the Study of Educational Policy (1980) noted that the trend toward more reliance on personal sources of financing has been especially devastating for Black graduate students. Black parents are less likely to be able to help their children, a much smaller proportion of Black doctoral students than white have graduate assistantships, and "Black students accumulate almost twice as much debt as white students do for college expenses" (p. 55), thus frequently exhausting the allowable amounts for Guaranteed Student Loans.

The Committee on the Financing of Higher Education for Adult Students noted that,

"...part-time students are the recipients of both the most advantageous and the least advantageous financing arrangements for their educational activities. At one extreme, some organizations pay their employees' full salaries and all subsistence, travel and tuition costs when attending educational programs. At the other extreme, some low-income, fully-employed persons not only have to pay their own tuition costs because, as part-time students, they are not eligible for student aid, but they must also participate on their own free time and pay taxes on their income without deductions for educational costs unless the educational program is directly work-related. Regardless of family income, part-time students on the whole are massively discriminated against in federal and state student and institutional aid programs. . ." and other programs (pp. 2-3).

In their publication on support services, Creange and Hall (1980) list several basic services provided on many campuses: housing and food service, medical insurance and health care programs, student employment and graduate placement services, and extracurricular activities. Re-entry women may have special needs such as on-campus

child care, counseling, and refresher courses in basic skills. They may also need access to the more traditional services listed above, and to bookstores and libraries, at different times than those convenient for traditional students.

Future Directions for a Learning Society conducted a telephone survey of approximately 50 "representative" institutions asking about practices that they have found effective in better serving adult learners. The result was a pamphlet of 350 Ways Colleges Are Serving Adult Learners (1979) that form a veritable wish list of support services as well as novel programs, faculty retraining, and marketing and communication techniques.

Over half the nontraditional graduate and undergraduate students in the CEW study had made use of the University of Michigan's academic counseling service, student health service, and financial aid office; lower proportions had used the Center (41 percent), the housing office (35 percent) and career planning and placement service (28 percent).

The Project LEARN study is of special interest because they included prospective as well as actual adult students in their sample. The five programs or services of great importance to the most respondents were evening classes, flexible registration options (e.g., by mail or telephone), credit for prior learning, convenient parking, and tuition payment options such as deferred, installment, or credit card payment. The least important services were participating in performing or studio arts, expanded hours of food service, child care, campus transportation, and public transportation. The Michigan State sample agreed with all five of the most important services; student

government and assistance solving personal problems appeared on their least important list replacing child care and campus transportation.

The Higher Education Research Institute at the University of California at Los Angeles reported that, in a 1982 survey of 1,600 undergraduates, about two-thirds were dissatisfied with the quality of academic and career-related support services such as academic advising, career counseling, and job placement (Watkins, 1983). The CEW study assessed some University of Michigan support services on the particular dimension of quality of personnel attitudes -- whether staff members were "interested and caring," "okay -- businesslike," or "appeared not to care." Evaluations of quality are most useful to individual institutions and unlikely to be broadly generalizable. Those requested in the present study, however, had a purpose beyond institutional feedback.

One of the frequent criticisms of needs assessments is their failure to predict use. Wood and Davis (1978), for example, pointed out, ". . .there are important differences between 'needs' and 'wants,' on the one hand, and 'needs' and 'demand' on the other." Nice to have available does not always mean necessary and used. One objective of the present study was to explore the relationship between extent of expressed need and frequency of use of several university-provided support services and facilities. Quality of the service can also be an important factor in that equation, however. One subsidiary hypothesis of the present study was that the combination of need and quality would better predict the use of support services than need alone.

2.6. Quality of graduate programs and students

Both part-time post-secondary students and programs designed for them have long been branded as inferior. The Committee on the Financing of Higher Education for Adult Students aptly summarized the stereotype:

According to the critics, part-time students are not serious in their motivations, are not as competent as regular students, and worst of all, adult education is synonymous with flower arranging, French and Chinese gourmet cooking and other less academic subjects (1974, p. 31).

Similarly, Bowman and Van Dusen (1978, p. 25) found that, "The 'seriousness of purpose argument' [against part-time students] is. . . pervasive. . . This is particularly true of adults and returning women." Yet data assembled by the A.C.E. Committee indicate that adult part-time college students are as able as younger students, perform at least as well, and have lower attrition rates. Heikkinen (1975) studied the quality of 340 graduates of the master's degree program in guidance and counseling at Boston College; he found no meaningful differences in desirable characteristics between those who had studied part-time and those who had studied full-time. The results of the 1977 CGS survey of graduate school deans indicate some change in the stereotype by that time: 70 percent of the respondents said that their institutions actively seek to enroll part-time graduate students. Over 80 percent said that part-time graduate programs were very important to meeting institutional goals and in meeting their perceived societal responsibilities. Over 87 percent expected such programs to be very important in these respects five years hence. When asked to compare the performance of part-time and full-time graduate students, sizable proportions of respondents (29 to

40 percent) could not reply, but 65 percent said that part-time were equivalent to full-time students regarding academic achievement, 54 percent said their research products were of the same quality, and 38 percent noted no difference in attrition rates.

The quality of graduate programs is a persistent topic of concern. Pressures for individual institutions to evaluate quality increased during the 1970s, as pointed out by Clark et al. (1976), due to financial shortages, allegations of overproduction of advanced degrees, and increasing authority of state-level oversight boards. Prior to the study of dimensions of quality of doctoral education by Educational Testing Service, the primary indices of program quality were the reputational ratings. Clark summarized the deficiencies of those ratings: they tend to be highly related to program size and visibility, slow to reflect changes (either good or bad), and useless as guidance toward improvement. Clark's group reviewed other checklists for assessing program quality, concluding that they are usually based on input quality of students and faculty members, faculty research productivity, degree productivity (e.g., number of degrees granted and mean elapsed time to degree), and physical facilities and resources. In this writer's view, a fatal shortcoming of all these as quality indicators is that they do not measure performance in comparison with the objectives of either the program's designers and executors (especially the faculty members) or its beneficiaries (the students). Furthermore, common criteria such as proportion of full-time students and mean elapsed time to degree are predicated on the assumption that part-time students, and programs oriented to serving them, are inherently inferior.

The Program Quality Assessment instruments developed by ETS in cooperation with the Council of Graduate Schools and with support from the National Science Foundation offer a much improved method for assaying graduate programs. The project to develop the instruments first looked at the Ph.D. The program characteristics to be studied were devised with the advice of a panel of graduate school deans on the bases of the agreement between them about the most important program characteristics, variations in importance depending on a Ph.D. program's major purpose, adequacy or acceptability of possible measures of each characteristic, and availability of desired information. The panel's work resulted in a list of 42 important characteristics of Ph.D. programs and 133 possible measures which might be "good" or "very good" measures of their quality. These measures were translated into questionnaires for faculty, students, recent alumni, and administrators. The summary of data on a department consists of multiple indicators of quality. Furthermore, as data accumulates from a variety of institutions, a department may be compared with other departments in the same field that are larger and smaller than the one studied (Clark et al., 1976). Results from the national study of three disciplines and early field use of the Ph.D. program quality assessment service were sufficiently successful that ETS then developed a parallel plan for assessing master's degree programs.

Although the Program Quality Assessment instruments were not developed with a view toward evaluating programs for part-time students, they appear to be suitable for judging most graduate programs. Items from the student and faculty ETS quality assessment

instruments formed a major segment of the questionnaires used in the present study.

2.7. Work leading to the present study

The sections above have referred to several prior studies conducted for the Council of Graduate Schools regarding nontraditional, particularly part-time, graduate students.

The growth in the proportion of graduate students enrolled part-time, coupled with the stereotype that part-time programs and students are inferior to full-time, prompted the Council of Graduate Schools to establish the Committee on the Part-time Graduate Student in 1974. In 1977 the Committee surveyed CGS member institutions to determine the status of part-time graduate study in relation to institutional policies, procedures, and attitudes. The high level of response to this survey (75 percent) and of attendance at the committee-sponsored workshop at the Seventeenth Annual Meeting of CGS (between two-thirds and three-quarters of convention participants attended that session among four held concurrently) illustrated the active interest of graduate school deans in improving their service to part-time graduate students. This writer drafted the report of the 1977 survey and helped organize the workshop.

In 1979 CGS elevated the Committee to Task Force status and charged it with carrying out the Committee's recommendations based on the 1977 survey. One of these recommendations was that a sample of graduate deans be contacted ". . .to determine (a) what kinds of information can be obtained (b) from what institutional sources (c) with how much difficulty" (Committee, 1977, p. 12). During 1980 the Task Force conducted the Information Availability study, which

confirmed that most college administrators had access to little information about their part-time graduate students; they did not know the students' distribution by gender or ethnic identification, they did not know how many were full-time workers or whether they were receiving employer support for their education; and they did not know whether part-time graduate students felt they had adequate access to faculty advising or library or computer facilities. The Task Force concluded that it would be necessary to ask these questions of graduate students themselves and began formulating the areas to be covered in a student survey.

As the Task Force explored the issues associated with the part-time graduate student, the members came to realize that most of the concerns were largely based on the underlying factors which lead students to part-time enrollment rather than on that enrollment status itself. The Task Force adopted the term "nontraditional" graduate student to describe the focus of attention, but recognized the need for a detailed look at all graduate students.

The Task Force proposed a nation-wide study covering a broad range of institutions and types of programs to determine how many of various types of nontraditional graduate students are currently enrolled, what factors influenced their decisions to attend graduate school, what (if any) special needs they have, and how well their needs are being met by existing programs and services. As the first step in conducting such a project, a major pilot study was felt necessary to test the survey instruments, guide the administration procedures, and aid in formulating hypotheses for the national study.

The universities whose graduate school administrators formed the Task Force provided a logical site for such testing.

The major pilot testing constitutes the present study.

A number of pre-pilot activities were undertaken. An extensive literature search had already been completed; although it failed to produce many facts about nontraditional graduate students or programs for them, it did suggest numerous issues to be explored. Construction of the questionnaires was accomplished by this writer drafting items, circulating them to the Task Force for comment, trying out sets on colleagues, and revising. A preliminary version of the student questionnaire was first tested on associates of all Task Force members, then was circulated to small random samples (15 to 20 students) at each institution along with a request for fairly extensive evaluation. Several revisions were made on the basis of the evaluations received. The faculty instrument was designed to parallel most sections of the student form, with additional information based on the proven ETS faculty instrument.

CHAPTER 3. RESEARCH PROCEDURES AND ANALYSES

3.1. Research questions3.1.1. Substantive questions3.1.1.1. Questions regarding support services for graduate students

What support services and facilities do graduate students need? Are these services and facilities being provided at the five participating institutions? Of those provided, how is their quality rated? What is the interrelationship of degree of need, quality, and frequency of use for each of the support services and facilities being studied?

3.1.1.2. Questions regarding program quality

What quality of education is being experienced by graduate students at these five institutions? Are there differences in educational quality for part-time and full-time students enrolled in programs designed for part-time versus full-time study? Between research and applied programs? In scholarly quality versus student-centeredness?

3.1.1.3. Questions regarding types of graduate students

Are there distinct types of graduate students at each of the five universities as revealed by cluster analyses? Are there differences between types regarding their graduate programs, support needs, and problems? Do the types seem to be the same at all institutions? What is the proportion of each type of student in the graduate student body at each of the five institutions?

3.1.2. Questions regarding conduct of a national study

What modifications should be made to the survey instrument for administration nationally? What procedure should be followed in administering the survey nationally? What are the hypotheses for a national study?

3.2. Populations and samples

3.2.1. Populations

3.2.1.1. Student populations

All the graduate students enrolled for Spring Term at each of five major universities comprised the population for the study. The universities were: the City University of New York (CUNY), Michigan State University (MSU), Roosevelt University, the University of Minnesota (UM), and the University of Tennessee at Knoxville (UTK). Representatives of these institutions comprised the Task Force on the Part-time Graduate Student of the Council of Graduate Schools in the U.S.

3.2.1.2. Faculty populations

Faculty advisers of graduate students at CUNY and Roosevelt comprised the faculty population for the study.

3.2.2. Sampling frames

3.2.2.1. Student sampling frames

The sampling frame for each university was its official records of graduate students enrolled for Spring Term 1982, organized sequentially. Differences among the universities included the physical characteristics of the list (e.g., computer tapes, on-line disk files, index cards) and the time of the term (e.g., tenth day of

term, day sample drawn). The sample for MSU had to be drawn from two different sampling frames: the sample for on-campus students was selected from the computerized file of students enrolled the tenth day of Spring Term, but a contemporaneous file was not maintained for students registered at off-campus locations; this sample had to be selected from the end-of-term file. Thus the questionnaires were mailed to these two samples at different times, and the students were generally different in current status (currently enrolled vs. enrolled previous term but not necessarily currently).

3.2.2.2. Faculty sampling frames

At Roosevelt all graduate advisers were included in the sampling frame, while at CUNY the sampling frame consisted of the advisers of those students included in the student sample.

3.2.3. Sample selection and results

Appendix A contains the instructions to study coordinators at each of the universities and includes the instructions for selecting the student and faculty samples at their institution.

3.2.3.1. Student samples

A random number between one and 25 was selected for each university as the starting point for selecting a systematic four percent random sample (every 25th student after the first) of the sequential file of Spring Term graduate students. This procedure yielded samples of 87 students at Roosevelt, 108 at CUNY, 211 at UTK, 291 at UM, and 318 at MSU.

3.2.3.2. Faculty samples

At both CUNY and Roosevelt, the faculty sampling frame and sample were identical.

3.3. Procedures for obtaining data

3.3.1. Permission to use human subjects

The MSU University Committee on Research Involving Human Subjects approved the request to conduct the study using graduate students at Michigan State University as subjects on March 1, 1982. A copy of the approval letter is included in Appendix B. This approval served as the model for securing approval from the appropriate committees at the other four universities.

3.3.2. Permission to use items copyrighted by Educational Testing Service

Educational Testing Service (ETS) developed its Graduate Program Quality Assessment Service with support from the Council of Graduate Schools. While the doctoral assessment procedures were well-documented (Clark et al., 1976), procedures for assessing master's programs were still experimental and had not been compared with the doctoral assessments. As part of continuing the development and improving of this service, ETS granted permission for the study to include items from its program quality assessment instruments. Appendix B contains copies of the letters of permission from ETS.

3.3.3. Procedures for students

3.3.3.1. Survey instrument

The student questionnaire is contained in Appendix C (materials sent to students). In its final form the instrument was 11 pages long

(plus cover page) with sections on personal problems and problems with the institution; support service needs, quality evaluations, and use frequency estimates; program evaluation items; and extensive demographic data including educational history, employment history, and personal characteristics.

3.3.3.2. Pilot testing

A preliminary student questionnaire was circulated to members of the CGS Task Force on the Part-time Graduate Student and to a number of other people experienced in survey research. A revised version of the student questionnaire was mailed to random samples of 18 graduate students at MSU (three off-campus and 15 on-campus), 20 at CUNY, and 20 at Roosevelt. The MSU and CUNY questionnaires were eight pages long (8 1/2 by 11 inches, elite type reduced to 77 percent), while Roosevelt students received a six page version. An additional sheet requesting evaluation of the questionnaire and asking about the time required to complete it was sent with these forms.

Ten to fourteen days after the mailing the study coordinator at each campus attempted telephone contact with the nonrespondents. Revisions were made to the questionnaire on the basis of the initial returns, including enlarging the print to full-size elite and allowing more white space. These changes resulted in a 12 page questionnaire used in follow-up for MSU and CUNY pilot subjects and an eight page instrument for Roosevelt students. The follow-up mailing of the revised questionnaires and a new cover letter was made approximately three weeks after the original mailing.

The purposes of this pilot work were:

1. To ascertain whether the questionnaire and administration procedures would yield a response rate of at least 60 percent, and whether the shorter questionnaire elicited a higher response rate than the long version.
2. To try out the instructions and procedures for administering the survey so that appropriate modifications could be made for the larger study.
3. To guide revision of any questions whose wording or instructions resulted in inaccurate or incomplete responses.
4. To estimate the reliability of the instrument.

The response rates for this pilot study are shown in Table 3.1. The rates to the long version were judged sufficiently high to proceed with a 12 page questionnaire rather than shortening it by eliminating the section on program quality assessment.

The experience with administering the pilot study led to the adoption of the procedures specified in the instructions to campus coordinators (Appendix A). The final questionnaire (in Appendix C) incorporates revisions suggested at each stage of the pilot work.

Internal consistency was estimated on the basis of several questions with duplicate content, though not identical wording, on the four pilot versions of the student instrument. The results of the consistency checks are shown in Table 3.2. The inter-item correlations were judged to be sufficiently high to proceed with administration to the larger samples. Internal consistency check questions were not included in the final questionnaire due to the number of comments on the pilot evaluation forms about "unnecessary" and "careless" duplication of items.

Table 3.1. Response rates for pilot study questionnaire mailings

	<u>Sample size</u>	<u>Number returned</u>	<u>Percent returned</u>
<u>Michigan State University</u>			
Original mailing	18	7	38.9
Follow-up, revised version	<u>11</u>	<u>3</u>	<u>27.2</u>
MSU Total	18	10	55.6
<u>Roosevelt University</u>			
Original mailing	20	10	50.0
Follow-up, revised version	<u>10</u>	<u>4</u>	<u>40.0</u>
Roosevelt Total	20	14	70.0
<u>City University of New York</u>			
Original mailing	20	9	45.0
Follow-up, revised version	<u>11</u>	<u>4</u>	<u>36.4</u>
CUNY Total	20	13	65.0
<u>TOTAL</u>			
Original mailing	58	26	44.8
Follow-up, revised version	<u>32</u>	<u>11</u>	<u>34.4</u>
TOTAL	58	37	63.8

Table 3.2. Internal consistency of responses to pilot questionnaire

Consultation with instructors	Pearson's r
Faculty helpfulness with classwork	0.58
Participation in academic governance	
Participation in decisions regarding graduate programs	0.75
Quality of laboratories, studios, practice rooms	
Quality of specialized facilities as labs, studios, & equipment	0.68
Have taken courses on main campus	0.92
Number of courses on main campus	
Have taken courses off-campus	0.96
Number of courses taken off-campus	
Are you receiving financial aid?	1.00
Sources of support	
Type of employment	1.00
Setting of employment	
Type of employment	0.73
Sources of support	
Type of employment	0.94
Job responsibilities as hindrance	

3.3.3.3. Administration

The conduct of the survey followed as closely as possible the recommendations of Dillman (1978). The length was within the maximum suggested, and the layout emphasized flow and clarity. The survey cover page indicated the national scope of interest in the study by its Council of Graduate Schools' sponsorship, while the cover letters (worded and laid out following Dillman) emanated from the appropriate office of each institution with appropriate individual signatures. (Appendix C contains the cover letters sent by each institution.) On the basis of the feedback from the pilot study, full-size elite type was used rather than reducing it to 77 percent, the survey instrument was a full 8 1/2 by 11 inches, and the mailing was in a 9 by 12 inch manila envelope rather than a standard letter-size envelope as recommended by Dillman. A business reply envelope or stamped, self-addressed envelope for return to the student's university was included with each survey form.

One week after the original mailings each subject was to be mailed a postcard thanking those who had returned their forms and reminding those who had not (see Appendix 3C), again following the format and schedule advised by Dillman. Three weeks after the original mailing (nine weeks later at the University of Minnesota) a duplicate questionnaire was to be mailed to nonrespondents with a new cover letter (also in Appendix C; two universities used the same cover letter as the original mailing) emphasizing the importance of their return. Dillman's scenario calls for sending a third questionnaire by certified mail seven weeks after the original dispatch; the procedure

recommended to coordinators of the present study instead involved telephoning nonrespondents approximately five weeks after the first mailing. Appendix A includes the instructions to campus coordinators for conducting the telephone follow-up, a sample protocol for the conversations, and sample call record forms.

Some departures occurred from the recommended timetable and letter content. Table 3.3 shows the time schedule actually followed at each of the participating universities.

3.3.4. Procedures for faculty advisers

3.3.4.1. Survey instrument

Appendix D contains the questionnaire sent to the Roosevelt and CUNY faculty advisers. The faculty instrument closely parallels the student survey. Sections are included on perceived personal and institutional problems of graduate students, student support service needs and the quality of those provided, program evaluation, and personal and professional characteristics.

3.3.4.2. Administration

The recommended methods and schedule for the faculty survey was similar to that for students. Campus mail was recommended for distributing questionnaires and postcards and for receiving returns. Personal contact rather than telephoning was used for the final follow-up at Roosevelt University, while this last step was omitted at CUNY, as indicated in Table 3.3.

Table 3.3. Events related to data collection.

	CUNY		Roosevelt		Michigan State		U.Minn.	U.Tenn
	Stud.	Fac.	Stud.	Fac.	On-Camp.	Off-C.	Stud.	Stud.
<u>Original mailing</u>								
Date	5/12	5/25	5/12	5/27	5/11	6/9	5/17	5/13
<u>Reminder postcard</u>								
Date	5/19	6/1	5/25		5/18	6/16	5/24	5/20
Days after original	7	7	13	--	7	7	7	7
<u>Duplicate mailing</u>								
Date	6/7	--	7/26		6/1	6/30	7/22	6/3
Days after original	26	--	75	--	21	21	66	21
<u>Telephone calls</u>								
Date	6/23+	--	6/14+	--	6/15+	7/15+	7/20+	7/2+
Days after original	42+	--	33+	--	35+	36+	64+	50+

3.4. Design of the survey instrument

The topics of the student questionnaire were selected in consultation with the CGS Task Force on the Part-time Graduate Student. The phrasing of the items drew on several sources including general principles espoused by Payne (1951) and Dillman (1978) and specific techniques and questions used by, for example, Emling (1981) and Clark et al. (1976).

A frequent criticism of simple needs assessments such as that contained in the support services section (item E, page 2, of the student questionnaire in Appendix C) is that expressions of need do not necessarily indicate that students will use the service if it is provided. One reply to this criticism is that use of a service depends on how well it meets the need as well as its presence. Therefore additional sections were added asking students to evaluate the quality of those services or facilities available and to estimate how frequently they use those services and facilities. These data enabled calculation of multiple correlation coefficients to estimate the influence of need and quality on frequency of use.

3.5. Procedures for analyzing student data

Since the student sample for each institution constituted a scientific random sample of the graduate students at that university, while the combination of universities was dependent on the variable of membership on the CGS Task Force, the data for each institution were analyzed separately.

The responses of each student were coded and key punched on to cards. On-line data files were then created and stored on magnetic tape. Corrections to the data sets were made to the on-line files and

tape rather than to the cards. These data were also entered into programs using the Statistical Package for the Social Sciences* (SPSS) as implemented on the Cyber 750 at Michigan State, and the SPSS files were saved on tape for repeated use.

At the suggestion of one of the author's informal advisers, consideration was given to methods of estimating the responses of nonrespondents to the survey. The method tentatively selected was soliciting interviews with approximately five randomly selected nonrespondents at each university; it was believed that high cooperation rates could be obtained if the university administrators acting as study coordinators personally solicited and conducted these interviews. After collecting the pilot data, the author consulted with Dr. Graham Kalton of the Survey Research Center, Institute for Social Research, University of Michigan, an authority on response estimation (cf., Kalton, 1983) on the conduct of the interviews and using the resulting data. When he learned that the response rate to the pilot study had been over 60 percent, and that similar rates were expected for the final survey, Dr. Kalton said that elaborate estimation procedures were not necessary to draw valid conclusions from the data collected.

3.5.1. Description of the student sample of each institution

3.5.1.1. Response rates

Return rates were calculated for each institution. Completion rates for each question by students at each institution, obtained from

* For a complete description of the statistical system, refer to Nie, Hull, Jenkins, Steinbrenner and Bent, 1970.

frequency distributions which included recoded blanks as within the permissible range of the distributions, were also inspected to indicate changes which would be advisable in the questionnaires for national distribution.

3.5.1.2 Accuracy of key punching

Frequency distributions allowing a wide range of values permitted detection of errors in key punching consisting of values out of the range of permissible values, an important check in view of the lack of verification of the original keying due to funding restrictions. After correcting each file, response patterns and item response rates were determined from these distributions.

3.5.1.3. Personal and institutional problems

Frequency distributions also were used to summarize the data on the 18 personal problems and 19 barriers posed the university listed on the questionnaire. Four additional variables were derived describing individuals who had not identified any personal problems, any institutional problems, and those who had not specified a unique worst problem personally or with the institution.

3.5.1.4. Support service needs, quality, and frequency of use

Frequency distributions were obtained for these variables. In addition, the response choices not important, somewhat important, and very important were treated as scalar, and means and standard errors were determined for the need for each named service or facility. Support service quality (with choices of poor, fair, good, and excellent) and frequency of use (from several times per week to less

than once per year) responses were treated similarly. Both the means and frequency distributions were used to address the questions of what support services and facilities graduate students at each institution needed, whether the needed services were being provided, what the quality was of the various supports, and how frequently graduate students use some support services and facilities.

One question arising from any needs assessment is the extent to which expressed need is related to actual use of a service or facility. Quality of a service or facility may also be expected to influence use. Again, the responses to the questions regarding extent of need and use and evaluating the quality of each university's support services and facilities were treated as points on continuous scales, and multiple regression analyses were used to address the question, what is the interrelationship of degree of need, quality, and frequency of use for each of the support services and facilities being studied?

3.5.1.5. Program quality evaluation

Similar to the treatment of support service variables, frequency distributions were obtained for each alternative response to each item. Items were also combined into the scales used by Educational Testing Service for its program quality assessments. The scales investigated, and the items comprising each scale, are shown in Table 3.4. Both frequency distributions for the scale scores, rounded to whole numbers between one (poor) and four (excellent), and means and standard errors were used to assess the results of the scales.

Table 3.4. Student program quality evaluation scales from Educational Testing Service.*

Environment for learning: Different scholarly points of view are encouraged, department has a humane environment, students help each other meet academic demands, some professors exploit students (reversed), little in the way of team effort (reversed), and faculty receptive to new ideas.

Scholarly excellence of the program: Intellectual environment, scholarly competence of faculty, scholarly promise of graduate students, and program is intellectually stimulating.

Overall satisfaction with the program: I have learned a great deal, I would advise a friend to enroll, I would enroll again, and program is providing good preparation for later work.

Relevance of degree requirements: Agreement between degree requirements and program objectives, relevance of requirements to anticipated work, relevance of courses in related fields to program objectives.

Faculty concern for students: Faculty-student relationships, faculty members are genuinely interested in student welfare, good communication between faculty and graduate students, many opportunities for interaction with major professor, many opportunities for interaction with other faculty.

Rating of curriculum: Interaction between department and related disciplines, variety of offerings, depth of offerings, flexibility of program, and opportunities to pursue individual projects.

Quality of teaching: Evaluation procedures used in courses, teaching methods, overall quality of teaching, usefulness of faculty criticism, faculty helpfulness in dealing with classwork, faculty awareness of new developments, and faculty members prepare carefully for courses.

Evaluation of student performance: Administration of degree requirements, evaluation procedures used in courses, evaluation of progress toward degree, evaluation of doctoral student comprehensive exams, procedures for dissertation supervision and defense, procedures for master's thesis supervision and acceptance, and evaluation of students' professional competency.

*All are from responses to items L and M (pages 5 and 6) of the student questionnaire. All scales were adjusted to use actual number of nonmissing values and to be set to -1 (no response) if too many values were missing; the criterion number for each scale was based upon the total number of variables comprising the scale.

The individual items and scale scores were the basis for addressing the question of the quality of education experienced by the graduate students at each institution.

3.5.1.6. Motivation

Student motivation was addressed in two different sections of the questionnaire: section K -- personal goals, part of the ETS question set, and section AP -- reasons for pursuing graduate study at this time. Frequency distributions were obtained for responses to the items in both sets. In addition, the responses in section K (as well as section J on perceived departmental goals) regarding degree of importance from none through extreme were treated as items on a continuum, and means and standard errors were obtained for use in comparing student goals with those perceived held by their departments. Nonresponse variables were derived for section AP for no reasons selected as important and for no one most important reason. and frequencies of these variables were also computed.

3.5.1.7. Demographic information

Frequency distributions were obtained for each of the demographic variables. Table 3.5 lists several derived variables and their bases; frequency distributions were also obtained for these.

3.5.2. Types of graduate students and the differences between them

3.5.2.1. Why cluster analyses?

3.5.2.1.1. Problems with definitions

As discussed in Chapter 2, the original mission of the CGS Task Force on the Part-time Graduate Student was to explore the

Table 3.5. Derived variables for student sample data.

Missing values: -1 for no response when one was expected, -2 for no response where none was required (e.g., on item Q, no ratings of graduate assistantship expected if none held)

Stopout: number of years "stopped out" after first enrollment in post-secondary education; maximum=10. From item Q: find earliest year in which response 1, 2, or 3 was selected, then cumulate number of 4s selected for more recent years.

Total number of children: From item AF, number of pre-kindergarten children plus elementary or middle school plus in high school plus in college plus out of school. Maximum=20.

School of first bachelor's: Whether first bachelor's degree is from the same institution as present enrollment or a different one. If response to item Q for the year of receiving first bachelor's degree (item V) is 1, school is same; if response to Q is 2, school is different; if neither, school is scored -1.

School of second bachelor's: If held, computed on same basis as first bachelor's above.

School of first master's: If held, computed on same basis as first bachelor's above.

School of second master's: If held, computed on same basis as first bachelor's above.

School of doctorate: If held, computed on same basis as first bachelor's above.

School of professional degree: If held, computed on same basis as first bachelor's above.

Program time: Expected number of years in program. Computed from appropriate section of item V minus item AA.

Years of full-time employment in same field as current field of study: From the section on occupational experience, number of years for which the response to item AI was 1 (employed), to AJ was S (same), and to AK was F (full-time).

Years of part-time employment in same field as current field of study: From the section on occupational experience, number of years for which the response to item AI was 1 (employed), to AJ was S (same), and to AK was P (part-time).

Years of full-time employment in a field different from current field of study: From the section on occupational experience, number of years for which the response to item AI was 1 (employed), to AJ was D (different), and to AK was F (full-time).

Table 3.5 (continued)

Years of part-time employment in a field different from current field of study: From the section on occupational experience, number of years for which the response to item AI was 1 (employed), to AJ was D (different), and to AK was P (part-time).

Total years of employment in same field: Sum of years employed part-time plus years employed full-time in same field, above.

Total years of employment in different field: Sum of years employed part-time plus years employed full-time in a different field, above.

Total years of full-time employment: Sum of years employed full-time in same field and in a different field, above.

Total years of part-time employment: Sum of years employed part-time in same field and in a different field, above.

Total years of employment: Total number of years for which response 1 (employed) was selected for item AI.

Years as a volunteer in same field as current study: Number of years for which response 2 (volunteer) was selected for item AI and response S (same) for item AJ.

Years as a volunteer in a field different from current study: Number of years for which response 2 (volunteer) was selected for item AI and response D (different) for item AJ.

Total number of years as a volunteer: Total number of years for which response 2 (volunteer) was selected for item AI.

Total number of years retired: Number of years for which response 3 (retired) was selected for item AI.

Total number of years not active in the ways listed: Number of years for which response 4 (none of the preceding) was selected for item AI.

ramifications of the increasing number and proportion of part-time graduate students. However, the information availability study done for the Council of Graduate Schools in 1980 confirmed the impression from other studies and discussions that colleges and universities have many different definitions of "part-time" in relation to graduate study and students. Furthermore, an individual student's self-perception regarding being engaged in part-time versus full-time study may differ from the status accorded by institutional records. The present study explored the relationships between self-reported student status (part-time or full-time), self-reported number of credits carried, and the number of "effective credits" carried Spring Term 1982. While these variables were interrelated, as expected, no clear dividing point between part-time and full-time graduate students was found -- also as expected -- although a work load equivalent to seven or more credits was generally considered full-time study by the respondents while six or fewer credits were part-time.

There is also no generally accepted definition of the term "nontraditional graduate student". In fact, the term is often used in reference to two quite different types of students: students who are somewhat older than the "traditional" graduate student age of approximately 22 to 30 years old and/or who are engaged in part-time study, and students who are majoring in a discipline area historically uncommon for someone of their gender and/or ethnic identity -- for example a women student in engineering or a Black student in veterinary medicine.

A major purpose of this study was to find out whether graduate students can in fact be divided into meaningful groups on the basis of

demographic characteristics, some of which groups may be identified as being "nontraditional" and others as "traditional" in the first sense that this label is used.

3.5.2.1.2. Alternative methods of dividing a sample into groups

Most techniques of multivariate analysis are concerned with problems of prediction and of evaluating the goodness of prediction (Guilford & Fruchter, 1973). Examples of such techniques include multiple analysis of variance, principal component analysis (cf. Overall & Klett, 1972), multiple regression analysis (cf. Kerlinger & Pedhazur, 1973), and multiple classification analysis (Andrews, Morgan, & Sonquist, 1967). According to Overall & Klett (1972), principal-component analysis should be used where the aim is to describe differences between individuals in a heterogeneous sample in terms of a relatively few composite variables. Factor analysis also reduces the number of variables, but is particularly useful for understanding the structure and relationships among the multiple measurements.

Multiple classification analysis (MCA) was developed to provide the some of the information desired from multiple analysis of variance, analysis of covariance, multiple regression, and discriminant functions without requiring the independence among the predictor variables characteristic of the first nor the restrictions that variables be of at least interval nature, relationships be linear, and distributions be bivariate normal characteristic of the others. MCA is directed however, at predicting one dependent variable which is an interval scale which is not extremely skewed from a number (three to ten is best) of predictor variables (Andrews et al., 1967).

"By contrast, the problems of classification have evolved more slowly" (Guilford & Fruchter, 1973); according to Overall & Klett (1972), the recognition of a need to refine classification concepts through empirical analysis of similarity relationships has occurred only recently. Furthermore, the appropriate methods for correctly assigning individuals to preestablished groups are quite different from those used to classify without regard to a previously existing scheme.

Discriminant analysis and pattern recognition are applicable to the first type of classification problem. Both rely on a sample of observations from each category of interest. The classification structure need not be rigidly defined initially, but some structure must be provided; the missing information is estimated from the labeled samples so that new observations may be added and classified (Overall & Klett, 1972; Anderberg, 1973).

Cluster analysis, on the other hand, has been developed (one might more properly say "is being developed") specifically for the purpose of dividing a set of data units (or of variables) into groups when little or nothing is known about the category structure (Anderberg, 1973). According to Kendall (quoted in Jones, 1969), "In cluster analysis, the populations are unknown; we don't even know how many there are. The problem is to determine how to divide a number of individuals into natural groups or clusters with similar characteristics. . ."

A disadvantage of cluster analysis is that it seems in many ways less rigorous than more common descriptive statistical procedures. Numerous authors have emphasized this point: Williams et al. (1976,

p. 178) quote Strauss' admonition (1973), "Despite the intuitive appeal of cluster analysis it is not clear to what extent clustering methods define the most meaningful groups that comprise the population, or merely produce one of an almost infinite number of possible subdivisions of a population;" Everitt (1974) notes that most definitions of a "cluster" are vague and/or circular with no agreement among authorities and suggests that the ultimate meaning of a "cluster" may be a value judgment of the user; and even Anderberg notes (1973, p. 8), "The actual search for clusters in real data involves a series of intuitive decisions as to which elements of the cluster analysis repertory should be utilized."

Several authors have suggested approaches to making cluster analysis more rigorous or less intuitive. For example, Kendall suggested (according to Jones, 1969) using factor analysis to determine the principal components orthogonal to one another among a groups of variables as a way to reduce the number of variables on which one needed to measure the distance between subjects. Wishart (1978, p. 57) suggests with respect to his DENSITY technique,

"It should be possible to devise a method of measuring the error of the density estimate at different levels for different clusters, and to use this as the basis for a test of confidence in the separation of two modes. . . We offer this problem as a challenge to statisticians wishing to develop further the theoretical basis of this method."

Another drawback that some have encountered in using some methods of cluster analysis is low reproducibility. Overall & Klett (1972, p. 181), for example, comment,

"The authors have found profile cluster-analysis methods relatively sensitive to sampling variability, so that the modal types derived from one sample are often not replicated closely in the next. Most often certain modal patterns tend

to reappear consistently, while, in different analyses, one or more unreproducible patterns will also appear."

But, "Cluster analysis can be a useful tool for exploring data, summarizing and illustrating data, and suggesting new avenues for investigation," according to Morgan (1981, p. 205). Similarly, Dixon (1981, p. 11) advises, "Clustering is a good technique to use in exploratory or early data analysis when you suspect that the data may not be homogeneous. . ." Thus it seemed an appropriate type of technique to use in the present, essentially exploratory, study.

Factor analysis was initially developed as a tool for reducing the number of independent variables to a set of "true" underlying factors which predicted a criterion variable. As the technique has been become more sophisticated and widely used, however, interest has grown in the factors themselves. Some psychologists and educators, for example, believe that intelligence is best defined as a combination of some 100 "primary intellectual abilities" (Guilford & Fruchter, 1973) that have been discerned via factor analysis.

While the standard factor analytic techniques operate on matrices of correlations between variables (R analyses), from similar raw data one can also construct a matrix of the correlations between subjects across measurement variables and apply the same techniques (Q analyses). According to Overall & Klett (1972, p. 201), ". . .this type of application of factor-analysis methodology has had a stormy and controversial history. . .," being criticized by those who do not see any sense in partitioning the variance into persons. Overall & Klett, however, conceive of the 'person factors' as "ideal types" and the factor loadings as "indices of relationship of individuals to the several ideal types" (p. 203). "From a practical point of view, we

have found the application of cluster-oriented factor methods to the study of natural groupings among individuals so useful that we recommend it as a preferred approach" (p. 201).

For this author, there were two principal reasons for using cluster analysis rather factor analysis to divide each sample into groups: (1) the relatively greater ease of conceptualizing cluster analysis to the administrators who would be using the results and (2) the capacity to define varying distances between individuals differing on a nominal variable (e.g., defining the distance between a Caucasian and a Black as being greater than between a Black and an Hispanic) available in determining similarity scores for cluster analysis. The latter distinction was particularly important in view of the large number of nominal variables present: of the 22 variables initially considered for this study as components of differentiating traditional and nontraditional graduate students, 12 were nominal variables, six of them involving multiple classifications which would require constructing multiple dummy binary variables in order to enter into correlation computations. Thus in computing the correlations between individuals most of the values in the analysis would be binary rather than ordinal.

3.5.2.2. Design of cluster analyses

The analysis plan followed fairly closely the strategy recommended by Lorr (1983): selection of the sample, selection of the attributes to define similarity, assessment of the similarity between pairs of subjects, selection and application of a clustering algorithm, characterization and interpretation of the profiles of each cluster, application of a second cluster analysis procedure to check

the accuracy of the results of the first method, and replication on a second sample (in this study, from a different population).

3.5.2.3. Selection of variables for defining distance between individuals

According to Anderberg (1973, p.12), "It is probably the choice of variables [whose values are used to measure the extent of difference between each pair of subjects] that has the greatest influence on the ultimate results of a cluster analysis." Similarly, Overall & Klett comment (1972, p. 181), "Variables that will define a typology must be carefully selected with reference to the purpose for which the typology is to be used."

Table 3.6 shows the 22 demographic variables initially considered for inclusion in the formula for determining the distance between each pair of individuals for the cluster analyses. These variables were selected on the basis of their probable utility in distinguishing between traditional and nontraditional graduate students.

The range for rank orders -- age, age of first enrollment in current program (equal to current age - (1982 - year first enrolled in program), and commute distance -- was from 1 to (N minus the number of individuals with no responses) rather than from 1 to N. Age at first enrollment initially was considered in addition to current age to allow the appearance of clusters centered on transition ages such as the onset of the stages proposed by Levinson (1979).

Pre-kindergarten children were included as a separate variable, in addition to comprising one element of the "total children" variable, due to an hypothesis that if one or more groups of students (especially women) with pre-school age children emerged, they would

Table 3.6. Demographic variables used to measure similarity between individuals for cluster analyses.

<u>Final?</u>	<u>Range*</u>	<u>Description</u>
F	0,1	Current student status: part-time vs. full-time (Item R, 1981-82)
F	xx-82	Year first bachelor's degree attained (Item V, a)
	0,1	Institution of first bachelor's degree: same as current vs. different (Item Q, year of Item V,a)
	0,1	Field of first bachelor's degree: same as current vs. different (Item S, year of Item V,a)
F	0-11	Number of years "stopped out" of higher education (Item Q: number of "Not enrolled" responses after first "This" or "Other Coll./Univ.")
	0-1	Proportion of courses in current program taken on main campus (Item X,a divided by Items X(a+b+c+d))
F	0-1	Number of years expected to complete program (Item V - Item AA)
F	1,2,3,4 5,6	Ethnicity (Item AB)
F	1-N	Rank order of age (Item AC)
	1-N	Rank order of age when first enrolled in current program (Item AC -(82-Item AA))
F	1,2	Sex (Item AD)
F	1,2,3	Marital status (Item AE)
F	0-4	Number of pre-kindergarten children (Item AF,a)
F	0-20	Total number of children (Items AF(a+b+c+d+e))
	1,2	Source of financial support (Items AS,a through h)
F	0-99	Number of hours worked per week (Item AO)
F	0-11	Number of years of full-time employment (Items AI and AK)
	1,2	Field of current or past full-time employment compared to field of study: same vs. different**
F	1,2,3,4, 5,6,7,8, 9,0	Setting of current employment (Item AL,1)
F	1,2,3,4, 5,6,7,8, 9,0	Desired setting of future employment (Item AL,2)
F	0,1	Match between current and desired future settings (Items AL,1 and 2: same vs. different)
F	1,2,3,4, 5,6,7,8	Primary activity desired in future employment (Item AR)
F	1-N	Rank of distance commuted to classes from home or job (Item AN)

*All variables may also assume the value of -1 indicating no response.

**Derivation is explained in text section on derived variables.

have distinctive problems in pursuing their educational objectives and needs for support services.

The variable of the concurrence between field of full-time employment and field of study was considered in order to allow exploration of possible career switches by nontraditional graduate students, but since it was determinate only for students with a history of full-time employment and depended upon nonblank responses to three different items, the proportion of missing values was high. The indicator of planned career switch, comparing the current setting in which the student was employed (whether part-time or full-time, with "none" being an alternative response) with the preferred future employment setting, was used due to its higher incidence.

The number of variables used was reduced from 22 to the 17 marked in Table 3.6. Institution of bachelor's degree, field of bachelor's degree, and match between field of study and field of employment were eliminated because the algorithms used to determine these were indeterminate for large proportions (over 25 percent) of cases. Main campus courses and source of financial support did not appear to contribute to discriminating among groups on trial runs. Current age and age of first enrollment in the program were highly redundant, essentially doubling the weight of age which would also be expected to correlate highly with other variables such as year of first bachelor's degree, years stopped out, marital status, and number of children; age was retained rather than age of first enrollment since the latter, dependent upon two separate responses, had a somewhat higher number of indeterminate values.

Only those subjects were included in the cluster analyses who had

determinate values on at least 14 of the 17 variables. Consequently, each pair of subjects had values for at least 11 of the 17 variables.

3.5.2.4. Definition of distance between subjects for each selected variable

Anderberg noted (1973, p.13), "A common problem in real data is the lack of homogeneity among variables. . .Some investigators recommend reducing all variables to standard form (zero mean and unit variance) at the outset. Such suggestions simplify the mechanics of analysis but constitute a complete abdication of the analyst's responsibilities and prerogatives to a mindless procedure." This comment underscores the essentially subjective nature of cluster analysis; converting all continuous variables to standard scores would not necessarily add to the utility of the results of the analysis and does not seem useful in the present case. Two further drawbacks exist to this approach: (1) many of the variables of interest are binary or nominal rather than continuous, and (2) normal distributions may not be assumed for any of the (relatively) continuous variables; years "stopped out", age, and number of children, for example, might be expected to have Poisson distributions.

Anderberg (1973) proposed a method for constructing "disagreement indices" suitable for combining distance measures on different types of variables. This method, with slight modification, was used in these cluster analyses. For each pair of subjects, (a) binary variables either agree (distance=0) or they do not (distance=1) (e.g., sex); (b) nominal variables may agree (distance=0) or may disagree with different levels of disagreement (e.g., on ethnicity, the difference between a white and a minority was assigned a value of 1.0,

while the difference between members of different minority groups, for example a Black and a Hispanic, was assigned a value of 0.5.; (c) ordinal variables (none of which were included in the indices for this study) differ by the difference between ranks divided by the total number of ranked individuals; and (d) interval variables differ by the difference between the two subjects divided by the total range of differences (e.g., year in which bachelor's degree was received). In the current application of the technique rank order was used for some of the interval variables (age and commute distance in the final set) to reduce the effect of extreme values. The differences between subjects on each of the 17 variables could assume values between 0 and 1.0*, and the final disagreement index was the sum of the distances on those measures available for both subjects divided by the total number of measures for that pair, a number between 0 and 1.0. Lorr (1983) refers to this type of distance measure as "taxi-cab" or "city block" distance, contrasted with "crow-flying" distance which would be the square root of the sum of the squared differences for each variable.

Table 3.7 shows the definitions of difference for each of the components of the similarity measure used to construct the matrices for the final set of cluster analyses.

The weights given to each of the 17 variables were ostensibly equal. However, the binary variables (e.g., gender, comparison between current and future career settings) which could assume only

* Due to an error in programming, the maximum difference between rank scores was actually slightly less than 1.0, since rank was divided by N rather than by N-1 (maximum rank - minimum rank). The largest discrepancy occurred for Roosevelt University, having the smallest N, and was $1/49 = 0.0204$, giving a possible range of 0 to 0.9796.

Table 3.7. Computation of measures of difference between each pair of individuals on each demographic variable for cluster analyses.

<u>Range</u>	<u>Computation</u>
0,1	Part-time vs. full-time status: same (0) vs. different (1)
0-1	Difference in years elapsed since first bachelor's degree as a proportion of the maximum difference for students sampled from that institution
0-1	Difference in number of years "stopped out" divided by 11 (maximum possible)
0-1	Difference in number of years expected to complete degree divided by institutional range
0,0.5,1	Ethnicity: 0 if both of same ethnicity 1 if one is a non-resident alien 1 if one is a white non-Hispanic, the other a minority 0.5 if both are minorities
0-1	Difference in rank order of age divided by total N ranked
0,1	Sex: 0=same, 1=different
0,1	Marital status: 0=same, 1=different
0,1	Pre-kindergarten children: 0=both have or neither has; 1=one has, other does not
0-1	Total children: 0=same number; 0-0.5=both have, different numbers (difference/40); 0.5-1=one has none, other has total/40
0-1	Difference in hours worked per week divided by range
0-1	Difference in years of full-time employment divided by 11
0,1	Match of current and future employment settings: 0=both same or both different; 1=one of each
0-1	Difference in rank order of commute distance/total number of ranks

Table 3.7 (continued)

<u>Range</u>	<u>Computation</u>
0,0.25,	Current employment setting:
0.5,0.67,	0=both employed in same setting
0.75,1	0.25=one employed in this institution, other in another 4-year institution
	0.5=one employed at this institution or another 4-year school, other at a community college
	0.5=one employed at community college, other in K-12 system
	0.5=difference among government, non-profit agency, and industrial employment
	0.67=one in the K-12 system, other in this or another 4-year institution
	0.75=one in education (this institution, other 4-year, community college, or K-12), other in government or a non-profit agency
	1=education vs. industry
	1=self-employment vs. all others
	1="other" vs. all others
	1="none" vs. all others
0,0.25,	Desired setting of future employment: same as current
0.5,0.67,	setting above
.75,1	
0,0.25,	Desired primary activity in future employment
0.5,0.75,1	0=both same
	0.25=research or teaching vs. research & teaching
	0.5=administration vs. professional service
	0.75=research, research & teaching, or teaching vs. administration and professional service
	1="other", "none", or "don't know/no preference" vs. all others

extreme values would be expected to contribute more to the overall score than those variables whose differences could assume the entire range of values between zero and one (e.g., age, commute distance). It was of interest, therefore, that when block cluster analysis was used for the Roosevelt University sample (described below), number of pre-kindergarten children (zero, one, or more than one) was the best predictor of cluster membership, followed by the binary variable of part-time or full-time student, then employment (part-time, full-time, or not at all), followed by total number of children (zero, one, two, or more than two), ethnicity (nonresident alien, Caucasian, or minority), and source of financial support.

3.5.2.5. Construction of similarity matrices

The measure of distance between each pair of subjects can be conceived as a linear measure of their vectorial distance in a 17-dimensional space, very simply expressed as the average distance between them over those of the 17 variables on which measurements were available for both subjects. A similarity (or distance) matrix was constructed for each university consisting of the mean distances between each pair of student respondents.

The computer programs in the CLUSTAN package, discussed below, do not allow for missing values in the raw data for constructing the similarity matrix, but they do allow input of the matrix rather than raw data. Consequently, the author wrote a FORTRAN program converting some raw scores to ranks or proportions as discussed above, computing distances between each pair of subjects for each variable, and defining the similarities between each pair of subjects as the average

of their differences on those of the 17 variables which were determinate.

3.5.2.6. Selection of clustering techniques employed

Two types of clustering techniques were applied to the demographic similarity matrices constructed by Anderberg's method for each of the five universities. Both are part of the CLUSTAN package of clustering programs developed by Wishart (1978) as implemented on Michigan State University's Cyber 750.

Hierarchical clustering begins with N clusters, each constituting a single individual. N-1 fusion cycles are performed. At each cycle, the two most similar clusters are fused, and new similarity coefficients are computed between the remaining clusters. The CLUSTAN HIERARCHY procedure provides eight different methods for computing the new similarity coefficients, but Wishart points out (1978, p. 32) that all methods produce identical results if each similarity is multiplied by a scalar constant. The principal difference is in the interpretation that is placed on the similarities.

The hierarchical method used for these analysis was that of Ward (1963). Ward defined the "error sum of squares" for a population as the sum of the distances from each individual to the centroid of its parent cluster. Prior to the first fusion cycle, when each individual is a cluster, the error sum of squares for the population is zero. At each step Ward's method "combines those two clusters P and Q whose fusion yields the least increase in the error sum of squares. . ." (Wishart, 1978, p. 33). The Ward method was selected on the bases of Wishart's recommendation that it is "possibly the best of the HIERARCHY options" (p. 33) and the familiarity of the concept of

minimizing the error sum of squares in other statistical procedures. According to Wishart, this method tends to produce "minimum-variance spherical clusters" (p. 34).

A hierarchical procedure results in N sets of clusters from which to select one or more sets as 'best' describing the population. Following Wishart's suggestion, successive values of the similarity coefficient (actually the increase in error caused by each fusion) were inspected for discontinuity. Groupings immediately preceding a relatively large increase in error and dividing the population into approximately the same number of groups as the optimum number of divisions resulting from the DENSITY procedure were further analyzed.

The second method used to identify clusters in the defined similarity matrix was Wishart's DENSITY which estimates "all the modes of a multivariate sample density" (1978, p. 55). The user specifies a parameter k related to the smallest group likely to be of interest (5 was used in these analyses), and the "density" $d(j)$ of each individual is estimated -- the radius of a sphere which would contain that point and its k nearest neighbors -- on the basis of the mean of the $2k-1$ least distances between that point and others. Next the individuals are ordered by their density. The "most dense" point (that with the smallest d), $P(1)$, becomes the nucleus of the first cluster. Moving to the second most dense point, $P(2)$, whose density is $d(2)$, the question is asked, Is $P(2)$ within distance $d(2)$ of $P(1)$? If so, $P(2)$ joins cluster $P(1)$; otherwise $P(2)$ becomes the nucleus of a new cluster at density $d(2)$. In general, if the n th point, $P(n)$, is within distance $d(n)$ of $P(1)$ it joins the first cluster; if sequential tests show it to be within $d(n)$ of $P(j)$ where $j \leq n$, it joins the

cluster including $\underline{P}(j)$; otherwise $\underline{P}(n)$ initiates a new cluster. The process continues until all points have been incorporated into a cluster with at least one other point. The resulting set may be considered the optimal or "natural" set of approximately spherical clusters, some of which may have 'flat sides', with decreasing densities.

A unique feature of the DENSITY program is that note is taken of when increasing radii could result in the fusion of two clusters, but no mergers are effected until after the formation of the original set (hence the 'flat sides'). Then successive mergers are made, beginning with the pair of clusters with the closest neighbors, and the density noted at which the merger would have occurred. Whether to use the initial set of clusters or those resulting from one or more merges is left to the researcher.

The DENSITY procedure differs from Ward's hierarchical method in that Ward's method of hierarchical clustering is one of a group of techniques which begins with each individual being considered a cluster and proceeding through N cycles in each of which the two most similar clusters are fused, whereas DENSITY considers individuals as unique until they are incorporated into a cluster, and clusters are not fused during the initial process. The DENSITY procedure results in a what may be considered an optimal number of groups for a given sample, whereas Ward's method leaves the selection of level of merger entirely to the user. Also, DENSITY considers the linear distance

between points, Ward's method considers the sum of the squared distances between points and their centroid.

Several other methods of cluster analysis were applied to the smallest data subset, that for Roosevelt University. Wishart's DENDRITE procedure is a "polythetic divisive method for optimising the error sum of squares. . ." relative to the total sum of squared distances of the minimum spanning tree for the population (Wishart, 1978, p. 68). The procedure provides potentially useful information on the within groups and between groups sums of squares for the population optimally divided into each of the requested number of groups. However, trial runs established that this procedure would be very expensive for a realistic number of groups for even the smallest data subset--over \$100 for division of 49 Roosevelt University students into five groups using the same similarity matrix established for the HIERARCHY and DENSITY procedures. The maximum N for the procedure is 140, so that it could have been applied only to the two smallest institutions. Consequently this method was not pursued.

In order to explore the influence of the algorithm used for . scaling and combining the variables to measure similarities for the CLUSTAN procedures, a procedure for simultaneous clustering of cases and variables was applied to some of the demographic data of the Roosevelt University students. The "block clustering" procedure in the BMDP statistical program package (Dixon, 1981) ". . . is appropriate for categorical variables with few levels" (p. 474). Seventeen variables were included in the block cluster analysis, most based on the same raw data as the 17 used for the CLUSTAN programs. Ethnicity was recoded to three levels--non-resident alien, white U. S.

citizen, and minority U. S. citizen; number of pre-kindergarten children was recoded none, one, or more than one; total number of children was recoded as none, one, two, or three or more; age at first enrollment in the program was recoded into five groups in relative rank order as were commute distance and hours worked per week; and years stopped out was recoded as 0, 1, 2, and more than 2.

The matrix of 49 subjects X 17 variables yielded 833 data points which the program organized into 275 blocks, more than are desired to be considered good clustering. However, some interesting information emerged about the relative utility of the variables in dividing that sample into clusters as was discussed above.

3.5.2.7. Comparison of clusters derived by the HIERARCHY and the DENSITY methods

Crosstabulations were used to explore the differences between the assignment of individuals to groups by Ward's hierarchical method and Wishart's density method of cluster analysis. The symmetric uncertainty coefficient developed by Kim for the SPSS programs (Nie et al., 1970), which was designed for crosstabulations of nominal variables, was used to estimate the agreement between the two methods.

3.5.2.8. Description of each group

Each group was described in terms of the 17 variables used to define differences among individuals for the CLUSTAN similarity matrix. Means of the original values of the ordinal variables and proportions of the nominal variables for each group were used. In addition, one way analyses of variance were performed on the interval variables (age, year of first bachelor's degree, years stopped out, commute distance, years expected to complete degree, and total number

of children) and chi-square tests on the nominal variables (part-time or full-time student, employed part-time or full-time, gender, marital status, ethnicity, living with one or more pre-kindergarten children, current and future career settings, match between current and future career setting, and preferred future professional activity) to obtain information on which variables were likely to have contributed to differentiating among the groups.

3.5.2.9. Analyses of differences between clusters at each university

Chi-square analyses were used to explore the differences between groups regarding their discipline area, type of program, personal problems, barriers posed by the institution, professional experiences, sources of financial support, and reasons for graduate study. One way analyses of variance were used to explore potential differences between the clusters on ordinal and interval variables: importance of the various support services or facilities, personal and departmental goals, items of the program quality evaluation section and the eight scales derived from them, course and credit loads (including "effective credits"), and year program was begun. Because pilot work was an important component of this study, the five percent level of confidence was chosen for identifying variables for discussion. These analyses were the basis for discussing the questions regarding differences among types of graduate students in their graduate programs, support needs, and problems.

3.5.3. Second order clusters across institutions

One hypothesis regarding the student demographic clusters was that similar groups of students would be found at the five

universities although in differing proportions. This hypothesis was tested by performing second order cluster analyses on the groups derived from each of the five institutions.

3.5.3.1. Definition of distance between groups

The measures of distance between clusters were based upon the same variables as the distances between individuals, except that commute distance was excluded since it did not contribute meaningfully to cluster formation at any of the institutions. Each difference had a possible range of 0 to 1.0. The details of the distance measure between clusters are shown in Table 3.8. The total distance between each pair of clusters was the sum of their differences over the 16 variables.

3.5.3.2. Cluster analyses

Both Ward's hierarchical and Wishart's density clustering methods were used, and the results of the two methods were compared in the same fashion used for the first order clusters at the individual universities.

3.5.3.3. Description of clusters

The second order clusters were described in terms of the range of the values of the means or proportions of the groups comprising the clusters.

3.5.3.4. Comparison of clusters

The clusters were compared on those of the dependent variables studied in the analyses of the individual institutions on which institutional groups showed differences at one or more university.

Table 3.8. Computation of distance measures between clusters on each variable for second order cluster analyses*.

1. Difference in the proportion of part-time graduate students.
2. Difference in the mean years of obtaining first bachelor's degree divided by the range of the means.
3. Difference in the mean numbers of years "stopped out" divided by 11 (the maximum possible).
4. Difference in the ethnic distribution of students:
 - a. difference in proportion of non-resident alien students plus
 - b. difference in proportion of Caucasian students plus
 - c. difference in proportion of minority students
 divided by 2.0, the maximum possible sum of these differences.
5. Difference in mean ages divided by the range of the means.
6. Difference in the proportion of women.
7. Difference in the distribution of marital status: Difference in proportion married plus difference in proportion previously married plus difference in proportion never married divided by 2.
8. Difference in proportion having no pre-kindergarten children.
9. Difference in mean total number of children divided by the range of the means.
10. Difference in mean numbers of hours worked per week divided by the range of the means.
11. Difference in the proportion of students planning to remain in the setting of their current employment.
12. Difference in the distribution of setting of current employment: sum of the differences in proportion for each of the nine settings divided by 2.
13. Difference in the distribution of preferred setting for future employment: sum of the differences in proportion for each of the nine settings divided by 2.
14. Difference in the distribution of preferred future employment activity: sum of the proportion differences for each of the seven activities divided by 2.
15. Difference in the mean numbers of years of full-time employment divided by the range of the means.
16. Difference in the mean numbers of years estimated for completing program divided by the range of the means.

*Each difference was transformed to have a range between zero and one, and the sum of differences for each pair of clusters was divided by 16 so that the final distance was between zero and one.

Crosstabulations and chi-square analyses were used for nominal variables, one-way analyses of variance for ordinal and interval variables. Again, the five percent level of significance was chosen as the criterion for discussing the possible significance of differences.

3.5.4. Other analyses of student data

Among the original research questions were: Are there differences in educational quality for part-time and full-time students enrolled in programs designed for part-time versus full-time study? Between research and applied programs? Chi-square analyses were planned to explore these relationships. The variables regarding program design (research or applied and for part-time or full-time study) were to be addressed on the faculty survey instruments. However, the two universities whose faculties were questioned (selected on the basis of their small size) were not sufficiently diverse to address these questions; virtually all Roosevelt students were enrolled in applied programs designed for part-time study, whereas most CUNY students were in research programs designed for full-time study. Thus these analyses were not conducted.

3.6. Procedures for analyzing faculty data

The analyses of data for the faculty samples paralleled those for students. However, no inferences can be drawn from these data to the entire faculty bodies of either university, since the sampling frame was limited to advisers. The main value of these data was to suggest modifications in procedures and items for a national study of students and their advisers.

3.6.1. Response rates

Both return rates and item response rates were calculated for each institution.

3.6.2. Accuracy of key punching

The occurrence of values outside the permissible range in frequency distributions was used to detect errors in key punching. If an error occurred for one variable, the entire card containing the variable was checked by hand for that subject.

3.6.3. Perceptions of graduate student personal problems and problems with the university, graduate student needs for support services and quality of those services provided, and student motivation

Frequency distributions were used to summarize these data. As with the student data, the responses regarding support service needs and quality and student and departmental goals were also treated as points on continuous scales, and means were calculated for each item for each university.

3.6.4. Program quality evaluation

Frequency distributions were obtained for the responses to each item. Scales were also constructed based on, but not identical, to those used by ETS on the faculty questionnaires of its program quality evaluation system. A major difference between the current instrument and the questions used by ETS involved the questions regarding graduate students; whereas the ETS surveys address either master's or doctoral programs and students, but not both, the present questionnaire sought information on both types of students and also sought to learn whether faculty members distinguish between part-time

and full-time students. Thus several single questions from ETS instruments were split into four separate items. When included in an ETS scale, one-fourth of the sum of responses to the four items was used to represent the score for the single ETS item. Table 3.9 shows the faculty scales constructed and their relation to the ETS scales.

3.6.5. Demographic information

Again, frequency distributions were the main descriptive tool for the demographic information on the faculty.

Table 3.9. Faculty program quality evaluation scales.*

Work environment: Responsibilities create conflicting demands (reversed), personal views are compatible with department objectives, academic freedom is secure, satisfied with influence on decisions, and good department in which to work.

Scholarly excellence of program: Intellectual environment, scholarly competence of faculty, and scholarly promise of graduate students.

Evaluation of student performance: Administration of degree requirements, evaluation procedures in courses, evaluation of progress toward degree, evaluation of doctoral comprehensive exams, procedures for supervising dissertations, procedures for supervising master's theses, and evaluation of students' professional competency.

Student commitment: Part-time master's students do a lot of unassigned reading, full-time master's students do a lot of unassigned reading, part-time doctoral students do a lot of unassigned reading, full-time doctoral students do a lot of unassigned reading, part-time master's students demonstrate enthusiastic involvement, full-time master's students demonstrate enthusiastic involvement, part-time doctoral students demonstrate enthusiastic involvement, full-time doctoral students demonstrate enthusiastic involvement, part-time master's students handle assignments with care, full-time master's students handle assignments with care, part-time doctoral students handle assignments with care, full-time doctoral students handle assignments with care, part-time master's students complete projects, full-time master's students complete projects, part-time doctoral students complete projects, and full-time doctoral students complete projects.

Quality of part-time master's students: Part-time master's students work hard, part-time master's students support each other, part-time master's students do a lot of unassigned reading, part-time master's students demonstrate enthusiastic involvement, part-time master's students handle assignments with care, and part-time master's students complete projects.

*The first four scales are based on, but not identical to, scales developed by Educational Testing Service. The other five are a priori scales devised for this study. All are from responses to items L and M (pages 5 and 6). All scales were adjusted to use actual number of nonmissing values and to be set to -1 (no response) if too many values were missing; the criterion number for each scale was based upon the total number of variables comprising the scale.

Table 3.9 (continued)

Quality of full-time master's students: Full-time master's students work hard, full-time master's students support each other, full-time master's students do a lot of unassigned reading, full-time master's students demonstrate enthusiastic involvement, full-time master's students handle assignments with care, and full-time master's students complete projects.

Quality of part-time doctoral students: Part-time doctoral students work hard, part-time doctoral students support each other, part-time doctoral students do a lot of unassigned reading, part-time doctoral students demonstrate enthusiastic involvement, part-time doctoral students handle assignments with care, and part-time doctoral students complete projects.

Quality of full-time doctoral students: Full-time doctoral students work hard, full-time doctoral students support each other, full-time doctoral students do a lot of unassigned reading, full-time doctoral students demonstrate enthusiastic involvement, full-time doctoral students handle assignments with care, and full-time doctoral students complete projects.

Comparison of traditional and nontraditional graduate students: Part-time students not as committed (reversed), students who have stopped out do not do as well (reversed), increased maturity should offset outdated prerequisites, part-time students do not learn as well, older graduate students have an advantage, part-time students contribute to course content, part-time students have higher drop-out rate (reversed), students that have stopped out have forgotten relevant material (reversed), part-time students earn lower grades (reversed), part-time graduate students earn lower grades, and full-time students are more concerned about quality (reversed).

CHAPTER 4. PRESENTATION AND ANALYSES OF DATA

4.1 Administration procedures, return rates, and item completion rates for student questionnaires

Table 3.3 summarizes the schedule of administration followed at each university. Table 4.1 shows the return rates attributable to each stage of administration.

4.1.1. University of Tennessee at Knoxville

The sampling of the computerized file of spring term graduate students at the University of Tennessee at Knoxville (UTK) began with the fourth student and selected every 25th student thereafter for a four percent sample. This procedure yielded a systematic random sample of 211 survey subjects. The first questionnaire mailing occurred on May 13, 1982, and the follow-up postcards were mailed a week later. Duplicate questionnaires were mailed to 121 nonrespondents on June 3 (three weeks after the initial mailing), and attempts to reach nonrespondents by telephone were made between July 2 and July 8 (seven to eight weeks after the original mailing) and again at the end of July. One hundred forty-seven completed questionnaires were returned, for a response rate of 69.7 percent. The original mailing and postcard yielded approximately 43 percent returns, the duplicate mailing added approximately 20 percent, and the telephone calls resulted in another six percent being completed. Of the 52 nonrespondents after the duplicate mailing, 30 were successfully contacted by telephone; 22 of these students said they would definitely or probably return their completed questionnaires, and 13 (59.1 percent) did so.

Table 4.1. Student survey return rates by university by stage of administration

Sample size	#	CUNY	U.Tenn.	Michigan State				U.Minn.	TOTAL
				On-Camp.	Off-Camp.	Roosevelt			
		108	211	241	77	87		291	1015
Original mailing plus postcard	#	71	91	141	32	47		212	594
	%	65.7%	43.1%	58.5%	41.6%	54.0%		72.9%	58.5%
Duplicate mailing	#	15	43	42	22	7		33	122
% of those out	%	13.9%	20.4%	17.4%	28.6%	8.0%		11.3%	19.2%
	%	40.5%	35.8%	42.0%	48.9%	17.5%		41.8%	40.4%
Telephone calls	#	7	13	27	5				52
% of those out	%	6.5%	6.2%	11.2%	6.5%				8.2%
	%	31.8%	16.9%	46.6%	21.7%				20.8%
TOTAL	#	93	147	210	59	54		245	768
	%	86.1%	69.7%	87.1%	76.6%	62.1%		84.2%	75.7%

There were 255 items on the questionnaire which requested a response from all those sampled or all those in degree programs. The mean rate of item completion for UTK respondents was 96.3 percent. Response rates for Tennessee fell below 90 percent on only 17 items: 11 of the 13 years for which "Type of Institution" was requested (question Q) under "Educational Experience," the five least recent years of the 11 years for which "Type of Activity" was requested (question AI) under "Occupational Experience," and the estimate of their effective credits (item Z).

4.1.2. University of Minnesota

The file of Spring Term 1982 graduate students at the University of Minnesota (UM) yielded a systematic random sample of 291 survey subjects. The sampling began with the twenty-fifth student (25 was the random number picked for UM) and selected every twenty-fifth student thereafter for a four percent sample. The first questionnaire mailing occurred on May 17, 1982, and follow-up postcards were mailed a week later. Attempts to reach nonrespondents by telephone were made on July 20 (nine weeks after the original mailing) and August 12, and duplicate questionnaires were mailed to 55 nonrespondents (18.9 percent) on July 22. Two hundred forty-five completed questionnaires were returned, for a response rate of 84.2 percent. The original mailing and postcard yielded approximately 212 returns, 72.9 percent; the duplicate mailing and telephone calls added approximately 25 returns, 8.6 percent. Of the 79 nonrespondents to the first mailing, telephone listings were obtained for 62 (78.5 percent), and 43 were successfully contacted by telephone (54.4 percent of nonrespondents, 69.4 percent of those for whom telephone numbers were available); 35

of these students (81.4 percent of those contacted) said they would definitely or probably return their completed questionnaires, and 30 did so (38.0 percent of nonrespondents, 69.8 percent of those contacted), as did one person who indicated she would not return the form and two who were not contacted. Of the remaining 46 nonrespondents, three questionnaires were returned to sender as nondeliverable, one subject was not a graduate student, and three students were traveling extensively outside the continental U.S.; thus the questionnaire was probably received by 284 UM graduate students, 86.3 percent of whom completed it.

The mean rate of item completion for Minnesota respondents was 96.3 percent. Response rates fell below 90 percent on only 23 items, including 11 of the 13 years of "Type of Institution" (item Q) under "Educational Experience," the least recent five years of "Type of Activity" (item AI) under "Occupational Experience," four of the six years in which degrees were received or expected (item V), and all five categories requesting number of children (item AF).

4.1.3. Michigan State University

Two separate files had to be used to select the sample for Michigan State University (MSU). The file of graduate students enrolled on campus for spring term 1982 yielded a systematic random sample of 241 survey subjects, one of whom never began classes and was not mailed a questionnaire because he had no address listed. There were no records of current enrollment of off-campus students; the term-end file of students enrolled off campus during spring term 1982 was used to generate a sample of 77 students for a total MSU sample of 318 subjects. The sampling began with the first student (01 was the

random number selected) in each file and selected every 25th student thereafter for a four percent systematic random sample.

The first questionnaire mailing to on-campus students occurred on May 11, 1982. Follow-up postcards were mailed a week later, and duplicate questionnaires were mailed to nonrespondents three weeks after the first mailing. Attempts to reach on-campus nonrespondents by telephone began June 15, five weeks after the original mailing.

Two hundred nine completed questionnaires and eight blank questionnaires were returned by on-campus students. The rate of completed instruments for the total on-campus sample (209/241) was thus 86.7 percent. The original mailing and postcard yielded approximately 141 replies (58.5 percent); the duplicate mailing added approximately 42 returns, an additional 17.4 percent, bringing the total to 80.1 percent, and another 27 were returned after telephoning began, adding 11.2 percent. Of the 51 nonrespondents after the duplicate mailing, 37 were successfully contacted by telephone; 34 of these students indicated they already had or would definitely or probably return their completed questionnaires, and 23 (69 percent) did so. Five of the 12 outstanding questionnaires of students not contacted by phone were returned (41.7 percent), three of them prior to reaching them and two from students for whom no phone listings were available.

The initial questionnaire mailing to off-campus students occurred on June 9, the week after the end of spring term, with postcards a week later and duplicate questionnaires to nonrespondents three weeks later. Telephone calls began July 15, approximately five weeks after the initial mailing.

Fifty-nine completed questionnaires, including four of the five sent to overseas students (the fifth was returned as undeliverable), and five blanks were returned from off-campus students. Thus completed forms were obtained from 76.6 percent of the MSU off-campus sample. Thirty-three forms (42.9 percent), including one blank, were received prior to mailing the duplicate questionnaire and an additional 22 (28.6 percent) before beginning telephoning. Attempts were made to reach 13 nonrespondents by telephone; three others did not have listed numbers, one was overseas and received a personal note, one phoned MSU before being contacted, a new address was found for one and the questionnaire was remailed, and four were returned before being contacted by phone. Eight nonrespondents of the 14 were contacted and a message was left for a ninth. One was reluctant to complete the form but eventually did; seven indicated willingness to cooperate but only three were returned (42.9 percent) plus one as a result of leaving the message.

In total, 268 completed questionnaires were received from a sample of 318, a return rate of 84.6 percent. On-campus students comprised 75.8 percent of the Spring 1982 graduate student population and of the sample but, due to their slightly higher return rate, they account for 77.7 percent of the respondents.

For the 255 items on the questionnaire which requested a response from all those sampled or all those enrolled in degree programs, the mean rate of item completion for the combined MSU samples was 93.8 percent. MSU response rates fell below 90 percent on 32 items, including 12 of the 18 years of "Type of Institution" (item Q) under "Educational Experience," the least recent five years of "Type of

Activity" (item AI) under "Occupational Experience," four of the six years in which degrees were received or expected (item V), and all five categories requesting number of children (item AF); completion rates for these items were also low at the other universities. The other six questions with low completion rates were questions 30, 36, 38, and 39 of the program ratings (item L) and 9 and 19 of program evaluation via agreement or disagreement (item M); of these, only rating item 39, quality of support staff, had completion rates lower than 90 percent at more than one other university.

4.1.4. Roosevelt University

Sampling of the Roosevelt University students, which began with the twenty-second student and selected every 25th student thereafter, resulted in a sample of 87 students to whom questionnaires were sent. The first questionnaire mailing occurred on May 12, 1982, after the completion of classes and final examinations for Spring term. One packet was returned as having an incorrect address, and correction could not be made, so a substitute student was selected and mailed the questionnaire and cover letter. On May 25 (two weeks after the original mailing) follow-up postcards were mailed to 57 nonrespondents. Between June 14 and June 23 attempts were made to reach the remaining 32 nonrespondents by telephone; ten students were contacted, eight declined to participate (three because they felt they had not taken enough courses to be able to evaluate the program, three because they did not have the time), and two agreed to complete the form. Duplicate questionnaires with a new cover letter were mailed to the remaining nonrespondents on July 26, about 10 weeks after the

original mailing, and further telephone follow-up of 32 nonrespondents took place in late August, when six students were contacted.

Fifty-four completed questionnaires were returned for a response rate of 62.1 percent. Thirty returns (35 percent) were received in the first two weeks, prior to mailing the postcards; an additional 17 questionnaires (19 percent) were received prior to the first round of telephone calls which began June 14. The telephoning and duplicate questionnaires yielded only seven additional returns (eight percent). This return pattern, and the total response rate, is substantially different from those of the other four participating universities, but the timing of mailings and phoning was also quite different.

The mean rate of item completion for Roosevelt students was 94.0 percent, similar to that of the other four universities. Response rates fell below 90 percent on 34 items, including all 13 years of "Type of Institution" (item Q) under "Educational Experience", five of the 11 years of "Type of Activity" (AI) under "Occupational Experience", five of the six years in which degrees were received or expected (V), and three of the five categories of number of children (item AF).

4.1.5. City University of New York

Sampling of the computerized file of spring term graduate students at the City University of New York (CUNY) began with the sixth student and selected every twenty-fifth student thereafter, yielding 108 survey subjects.

The first questionnaire mailing occurred on May 12, 1982, and follow-up postcards were mailed a week later. Duplicate questionnaires were mailed to nonrespondents on June 7, and attempts

to reach nonrespondents by telephone were made between June 23 and June 30. Ninety-three completed questionnaires were returned, for a response rate of 86.1 percent, highest among the five participating universities. The original mailing and postcard yielded approximately 66 percent returns, the duplicate mailing added approximately 14 percent, and the telephone calls resulted in another six percent being completed. Of the 22 nonrespondents after the duplicate mailing, 12 were successfully contacted by telephone; nine of these students said they would definitely or probably return their completed questionnaires, and seven did so.

The mean rate of item completion for CUNY students was 94.1 percent, similar to that of the other four universities. Response rates fell below 90 percent on 33 items, including 10 of the 13 years of "Type of Institution" (item Q) under "Educational Experience", six of the 11 years of "Type of Activity" (item AI) under "Occupational Experience", five of the six years in which degrees were received of expected (item V), number of courses taken at three of the four sites (item X), and four of the five categories requesting number of children (item AF). Response rates also fell below 90 percent on four items of the ETS program evaluation section and on the estimate of effective credits (item Z).

4.1.6. Summary of administration procedures, return rates, and item completion rates for student questionnaires

As shown in Table 4.1, the overall return of 768 questionnaires constituted a rate of 75.7 percent. The mailings of the original questionnaire and postcard yielded the greatest return, 58.5 percent. The duplicate questionnaire mailing and the telephone calls overlapped

temporally at two universities, so their effects could not be estimated separately. For the other three institutions, the duplicate mailing resulted in additional returns of approximately 19 percent, 45 percent of those outstanding. The telephone calls another eight percent, nearly 36 percent of those not previously returned. The latter rate compares favorably with Dillman's experience (1978) of attracting approximately one-third of those outstanding in response to using certified mail for the third follow-up.

Only three types of items had completion rates of less than 90 percent at three or more institutions. Item Q -- type of institution in which enrolled for the past 10 years, current year, and next two years -- fell below 90 percent at four or five institutions for all years except the current and immediately previous. Item AI, requesting information about the subject's occupational activity during the current year and past 10 years, had a format similar to that of item Q and had completion rates of less than 90 percent at four or five universities for the least recent five years. Item V requested the year in which the subject received or planned to receive each of several degrees. If the student did not plan to seek the degree, zeros were to be placed in the spaces provided. Response rates were below 90 percent at three or more universities regarding second bachelor's, second master's, doctorate, and first professional degrees.

The questions from these three items total 20 of the 255 requesting responses from most or all respondents. There was no consistency among the other items which had completion rates of less than 90 percent at one or two institutions. Of particular interest is

the finding that there was no tendency for items near the end of this lengthy questionnaire to have lower completion rates than the early items.

4.2. Administration procedures, return rates, and item completion rates for faculty questionnaires

4.2.1. Roosevelt University

Faculty questionnaires were sent to 22 faculty members -- all of Roosevelt's graduate program advisers -- on May 27, 1982. Follow-up was informal via personal contact. A total of 18 completed questionnaires was returned for a response rate of 81.8 percent.

There were 268 items requiring a response from all participants. However, six of these items asked the respondent to write in numbers of courses taught in each of six categories, filling in zeros for the categories in which they had taught no courses during Spring term. So few respondents at either participating university included the zeros that, if the respondent supplied non-zero figures in one or more categories, the scorer supplied the zeros for the blank boxes. Hence these six items were not included in the tabulation of the mean item response rate. The mean response rate of the Roosevelt advisers for the remaining 262 items was 89.4 percent, somewhat below the 94 percent mean for the student questionnaire.

Response rates on the faculty questionnaire fell below 80 percent on 26 items. Fourteen of these (with response rates of 44 to 78 percent) were the questions about doctoral programs for which one response option was "not applicable" but which instead were frequently left blank by the Roosevelt advisers. Only 78 percent of the respondents estimated the importance to students of courses held once

per week, of "off-campus" courses (with this term not defined for the Roosevelt situation), and of foreign language training. Between 72 and 78 percent rated specialized facilities, opportunities for students to develop mentors or sponsors, usefulness of faculty criticism of student work, faculty helpfulness with class work, faculty awareness of new developments in their field, facilities for classes and administration, and number and quality of the support staff. Only 44 percent replied regarding the extent to which they were involved with their department in ways "other" than the seven previously listed.

4.2.2. City University of New York

On May 25, 1982 faculty questionnaires were sent to 29 advisers ("Executive Officers") and/or instructors of the graduate students included in the student sample. A week later all members of the faculty sample received follow-up letter. A total of 20 completed questionnaires was returned for a return rate of 69 percent.

The mean response rate of the CUNY faculty members for the 262 items requiring responses from all subjects was 94.1 percent, about equal to the item response rate for the CUNY student questionnaires. Response rates fell below 85 percent for only six questions. The lowest response rate, 25 percent, was to the item regarding the extent to which they were involved with their department in ways "other" than the seven previously listed, an item which also had a low completion rate among the Roosevelt advisers. Three items with response rates of 70 to 80 percent involved part-time and/or full-time master's students or programs, one regarded the importance of "off-campus" courses (as

at Roosevelt, without defining that term for CUNY), and one regarded the importance of statistical consultants.

4.3 Presentation of data on total student samples

4.3.1. Roosevelt University

Based on the final sample size of 54, the 95 percent confidence interval for population proportions is no more than ± 13.3 percent of the sample percentages reported below. The frequency distributions for Roosevelt University student responses to each item are given in Table E-1 of Appendix E. The figures are contained in Appendix F.

4.3.1.1. Demographic characteristics

As shown in Figure F-4.1, the Roosevelt University graduate student respondents included 22 women (41 percent) and 30 men (56 percent); two respondents (three percent) did not indicate their gender. The ethnic distribution of the sample (Figure F-4.2) was 70 percent non-Hispanic Caucasian, 13 percent Black, two percent Chicano, four percent other Hispanic, and seven percent non-resident aliens. Of the five universities studied, Roosevelt had the highest proportion of minorities and one of the two lowest percentages of women. Twenty-four respondents (44 percent) were married, 10 (19 percent) had been married at one time, and 18 (33 percent) had never been married (Figure F-4.3). The majority of respondents (61 percent) had no children living with them (Figure F-4.4), and 78 percent had no pre-kindergarten children.

The age of respondents ranged from 22 to 71 with a mean of 33.2 years old, the highest mean age among the five participating universities; the population's mean was between 30.4 and 36.0.

4.3.1.2. Educational history

Virtually all Roosevelt University graduate students (96 percent of the sample) were enrolled in programs leading to a master's degree. Figure F-4.5 illustrates the distribution among majors of the respondents. Most (41 percent) were enrolled in programs in business and management. Education, psychology, and interdisciplinary studies each were represented by 15 percent of the respondents. Eighty percent of the respondents reported being enrolled part-time in 1981-82 (Figure F-4.6). Like most graduate students, those at Roosevelt maintain good grade point averages; 68 percent of respondents reported GPAs of A or A-.

Some responses regarding current enrollment may be distorted due to the distribution of the questionnaires after the conclusion of the term. Although the students were requested to report their status during spring term, only 80 percent indicated that they were enrolled at "this institution" during 1981-82, compared to a minimum of 89 percent at any of the other four institutions, and 15 percent of Roosevelt respondents indicated they were currently taking no courses (Figure F-4.7). The majority of respondents (56 percent) took one course, and 12 percent enrolled for more than one course during Spring term. Seventeen percent reported being registered for zero credits, 50 percent for three credits, and 13 percent for more than three credits. The distribution of courses taken between "main campus" and "off campus" locations is not meaningful for Roosevelt since the questionnaire did not provide instructions on how to categorize courses taken at Roosevelt's satellite campuses.

The majority (59 percent) of respondents had "stopped out" of higher education for one or more years following their initial enrollment at Roosevelt or another college or university, the number of years out ranging from one to nine (Figure F-4.8) with a mean of 2.8 years (population mean between 1.6 and 3.2 years). Nineteen respondents (35 percent) had been continuously enrolled in higher education.

Sixty percent of the Roosevelt University respondents had first enrolled in their program within the past two years. They expect to take one to nine years to complete their master's degrees (Figure F-4.9); 60 percent expect completion in two to four years from the date of their first enrollment. Confidence about successful program completion is high; only four percent disagreed somewhat, and none disagreed strongly, with the statement, "I am sure I will complete the degree on which I am now working."

Fifteen percent of the respondents had received their bachelor's degrees within the academic year preceding the survey, while two respondents (about four percent) had received their first bachelor's degrees some 30 years earlier. Most respondents acquired their bachelor's degrees in the decade of the 1970s, the median year for those reporting being 1974, eight years prior to the survey.

4.3.1.3. Employment characteristics

Roosevelt had the highest proportion among the five schools studied of respondents employed full-time, illustrated in Figure F-4.10, and the highest mean hours worked per week by graduate students. Eighty percent of the respondents were employed during 1982, 91 percent of these on a full-time basis. The mean number of

hours worked per week by all Roosevelt graduate students was between 33.9 and 43.2 (including the zero hours for those not employed). Fifty-four percent of the respondents reported that employment other than a graduate assistantship was their primary source of support, with 63 percent reporting employment other than an assistantship being one source of support, although 54 percent also listed personal assets as contributing to their support while enrolled as a graduate student (Figure F-4.11). Only 15 percent of the respondents indicated receiving support from a student loan. Forty-eight percent received no educational aid or incentives from their employers, while 37 percent received tuition payment or reimbursement.

Since four respondents reported being employed 11 or more years, the estimated mean number of years of full-time employment, 6.2 years ± 0.55 , is probably slightly lower than the actual mean for all Roosevelt graduate students. The distribution of years of full-time employment for the sample is shown in Figure F-4.12. Of 39 respondents employed full-time at the time of the survey, 72 percent were employed in the same field they were studying. Forty-six respondents (85 percent) had been employed full-time for at least one year. Most respondents had some work experience in their field of study; 30 percent had never worked in their field, while 35 percent had no work experience in any other field. Eight (15 percent) of the students had held part-time jobs at the University (and all but one of these reported it being a good or excellent experience).

The majority of respondents (52 percent) were currently employed in business or industry, and 46 percent planned to work in that sector after completing their program (Figure F-4.13) -- a higher proportion

than at any other institution, but the only sample with fewer planning employment in business after graduation than were currently employed there. Another 17 percent planned to become self-employed or go into private practice, the highest proportion among the participating schools planning this career setting, although none currently worked in that setting, accounting for approximately 45 percent of the Roosevelt respondents hoping to change their employment setting following completion of their program. As shown in Figure F-4.14, the preferred activities following graduation were administration or management (designated by 46 percent) and professional services (preferred by 31 percent), the highest percentages planning both these activities among the four universities studied.

4.3.1.4. Motivation

Like the graduate students studied at the other four universities, Roosevelt students most frequently cited professional advancement items as reasons for pursuing graduate education at this time: 83 percent of Roosevelt respondents listed improving income potential (10 percent more than the next highest institution), 78 percent obtaining skills helpful in their field, 63 percent advancing in their present jobs (nearly 30 percent more than the next highest school), and 56 percent preparing for a new job. But, as shown in Figure F-4.15, personal goals were also important: personal growth or satisfaction was the leading single most important reason (cited by 24 percent) and was mentioned by 74 percent of the respondents, while intellectual stimulation was mentioned by 59 percent (10 percent fewer than the next lowest institutional percentage) and obtaining a degree by 83 percent of the respondents.

The questions from Educational Testing Service comparing departmental and personal purposes provide a somewhat different viewpoint on student motivation (Figure F-4.16). Again, professional preparation was most important, rated extremely important by 56 percent and considerably important by 29 percent for a total of 85 percent; although seventy-five percent also perceived this to be their departments' major goal, only 25 percent of the respondents felt that this was extremely important to their departments (and no more than eight percent viewed any other purpose as extremely important to their departments). Personal enrichment was quite important to 69 percent of the students questioned, a proportion similar to that at the other universities, although only 35 percent thought that their departments viewed this goal as considerably or extremely important -- a divergence similar to the perceptions of students at the other schools in the study.

Neither teaching nor research experience were very important to Roosevelt students in comparison to those at the other participating institutions, but those interested in obtaining such experience gave low ratings to opportunities at Roosevelt (Figure F-4.22a); 29 percent rated opportunities for research experience as poor, and 36 percent gave that rating to the chance for teaching experience, each being the largest proportion of poor ratings of the five universities.

4.3.1.5. Problems

When asked about personal problems, the most frequently cited were "job responsibilities" (mentioned by 65 percent of the sample), "finding time to study" (57 percent), and "financing your education" (46 percent) (Figures F-4.17a and b). Job responsibilities and study

time were problems for a higher proportion of the Roosevelt students surveyed than for students at the other four schools, while financing was mentioned by fewer students at Roosevelt than elsewhere. These three areas were also most frequently identified as the "one worst problem or hindrance", with financing cited as their most significant problem by 24 percent, job responsibilities by 22 percent, and study time by 19 percent. No other personal problem was most troublesome to over 10 percent of respondents (seven percent did not single out a worst problem), but those mentioned as somewhat of a hindrance by over 20 percent were family responsibilities and transportation. Two other problems involve the classroom: 33 percent said that the attitudes of some instructors were a problem, and 20 percent had trouble working with other students on class projects.

Most of the students in the sample had had problems arising from conflicts between school and their jobs or families. When asked the extent of agreement or disagreement with a number of statements, 69 percent agreed somewhat or strongly that they had difficulty using administrative offices, 63 percent agreed that they had difficulty scheduling time to consult with their advisers, 75 percent had difficulty meeting with instructors outside class, and 54 percent reported difficulty registering for classes (Figures F-4.18a and b). Among the five participating universities, Roosevelt students expressed the strongest agreement with all four of these statements regarding conflicting time schedules, reflecting the high proportions of evening students and full-time workers.

However, the leading institutional problem at Roosevelt was the times, locations, and/or frequency of offering needed courses, cited

as the worst institutional hindrance by 37 percent of the respondents (15 percent more than the proportion at institution with the next greatest problem in this area) and as one significant problem by 63 percent. Adviser accessibility was mentioned as a problem by 37 percent (11 percent more than at the institution with the next greatest problem here). Getting information about the institution (mentioned by 26 percent) and their departments (31 percent), and general quality of instruction (30 percent) were problems at all five universities. Availability of library materials, although cited a a problem by 35 percent of the sample, was less of a problem at Roosevelt than at any other institution except Michigan State.

4.3.1.6. Academic programs

Flexibility regarding course offerings was important to most Roosevelt students. Courses taught evenings or weekends were very important to 87 percent of the respondents, courses held once a week to 69 percent, and off-campus courses very important to 52 percent (Figure F-4.21a).

The evaluation of Roosevelt's programs measured by the eight scales devised by ETS are generally good (Figure F-4.19). With a possible range of 1.0 (poor) to 4.0 (excellent), mean scores for the survey respondents ranged from 2.41 (fair+) to 3.00 (good). Among the five participating universities, Roosevelt students gave their programs the highest mean score on one scale (environment for learning) and the lowest on five (scholarly excellence of faculty, faculty concern for graduate students, quality of teaching, evaluation of students, and overall satisfaction), but the largest difference between the highest and lowest institutional score on any of the

scales was 0.34, so differences are unlikely to be meaningful even though the standard errors were less than 0.10.

Overall satisfaction rated highest with a sample mean of 3.0 (good). Among the components of the overall satisfaction scale, only 17 percent agreed strongly with the assertion that they would enroll in this program again if starting over (16 percent lower than the next lowest proportion elsewhere), only 17 percent strongly agreed that they would advise a friend to enroll in the program (19 percent below the other schools), and only 19 percent agreed strongly that their program was giving them good preparation for later professional work (eight percent below the next lowest proportion).

The environment for learning was clearly good, with 87 percent of respondents agreeing strongly or somewhat with the item, "The department has a humane environment characterized by mutual respect between students and professors."

Among the items comprising the "faculty concern for students" scale, 79 percent agreed somewhat or strongly with the statement, "Faculty members are genuinely interested in the welfare and professional development of graduate students" (although the 21 percent agreeing strongly with this statement was the lowest proportion among the five universities), but 61 percent disagreed somewhat or strongly with the statement, "There are many opportunities for interaction with my major professor outside the classroom," and 74 percent disagreed that, "There are many opportunities for interaction with other members of the program's faculty outside the classroom." Thus the relatively low mean (2.51) on the faculty concern scale probably reflects the commuting, part-time nature of the Roosevelt

graduate students rather than a lack of concern on the part of faculty members. The lack of student-faculty interaction probably also accounts for the respondents' low rating (31 percent poor, 29 percent fair) of opportunities to develop mentors or sponsors. One-third of the students (10 percent more than at any of the other participating universities) expressed strong disagreement with the assertion that, "Some professors. . .unduly exploit their students. . ."

The student evaluation scale had a mean of only 2.41, with 58 percent of students less than satisfied with evaluation of progress toward the degree and another 58 percent with evaluation of students' professional competence.

The relatively low mean of the quality of teaching scale (2.67) corresponds to the citation of general quality of instruction as a problem area by 30 percent and the ratings of poor or fair given overall quality of teaching by 43 percent earlier on the survey form. In particular, only 12 percent of the respondents (nine percent fewer than at any of the other schools) agreed strongly that instructors use many examples in their teaching. Although the scholarly excellence of the faculty scored only 2.70, faculty awareness of new developments in their field was rated good to excellent by 71 percent of the respondents.

A discrepancy appeared between respondents' evaluations of specialized facilities in two different sections of the questionnaire. When evaluating support facilities, 63 percent said that "laboratories, studios, practice rooms, or other specialized facilities" were not important to them; of the 13 respondents who had used such facilities, 69 percent rated them good. But on the ETS

rating items, "Specialized facilities such as laboratories, studios, and equipment needed for teaching and creative work in your field," were rated poor by 25 percent and fair by 52 percent of the sample.

Most students found the degree requirements appropriate for both the program objectives (agreement rated good or excellent by 69 percent) and their anticipated work (relevance rated good or excellent by 68 percent, and 75 percent agreement that the program is good preparation for later professional work). Twenty-two percent mentioned meeting course requirements as somewhat of a problem, a higher proportion than at any of the other universities.

On other specific items, 38 percent of the respondents strongly agreed with the assertion that "graduate students work hard in this program" (the lowest proportion of the five participating institutions) and 33 percent agreed strongly that the work paid off -- "I have learned a great deal in this program" (again, the lowest of the universities). However, 66 percent felt a need for better advice on using the department's people and resources to further their progress. Seventy-seven percent agreed strongly or somewhat that their programs were intellectually stimulating, with 66 percent rating the University's intellectual environment as good or excellent and 73 percent agreeing that different scholarly points of view are encouraged.

4.3.1.7. Professional activities

The most common professional activity among those itemized by ETS was independently planned reading or practice, conducted by 69 percent of respondents (Figures F-4.20a and b). Talking with professionals about graduate programs or career plans was also frequent, having been

done within the previous 12 months by 56 percent. Thirty-eight percent reported participating in a professional clinical, field work, or internship experience. The proportions of 36 percent carrying out an independent research or creative project and 25 percent participating in a cooperative project were the lowest among the five institutions, but may be the norm for master's students, and the actual population proportions may be up to 13 percent greater (or smaller) than those of the sample; similarly low was the 40 percent who had attended a meeting of a professional society.

Since few respondents had held an assistantship or participated in a structured practical experience, general evaluation of these areas would not be meaningful. However, the majority of graduate students, who were working full-time in their field of study, may be considered to be engaging in professional activity virtually constantly.

4.3.1.8. Support services

The needs of Roosevelt graduate students for support services and facilities are illustrated in Figures F-4.21a, b, c, d, and e and their ratings of those provided appear in Figures F-4.22a, b, c, d, and e. Figures F-4.23a and b summarize their estimated frequency of use of selected services and facilities. Like the previous percentages, those for the estimated population need support services are within ± 13 percent of the sample means. However, the standard error the the means and proportions for quality of the services provided are substantially larger since they are based on only the smaller number of respondents who had experience using the service or facility.

Parking facilities were the most important support facility for Roosevelt students (and were second in importance only to libraries at the other four universities), rated very important by 57 percent of respondents and somewhat important by an additional 26 percent.

Parking was the most frequently used of the support facilities, used several times weekly by 56 percent of the 39 students (72 percent of respondents) who had used it at all and several times a month by another 31 percent. And like students elsewhere, Roosevelt students judged the parking facilities inadequate; of those respondents who had used the available parking, 32 percent rated the facilities poor and 38 percent fair.

Library facilities were very important to 46 percent (20 percent fewer than any of the other four institutions) and somewhat important to 28 percent of the respondents. Quality evaluations of the library facilities had the largest variance of any support service, with equal proportions (17 percent of users) rating them poor and excellent. However, when asked specifically about library holdings in their field, 63 percent rated them poor or fair. Only 28 percent of the graduate students reported that they use the library several times a month or oftener.

The other support service important to a large proportion of graduate students (and even more important at all the other participating universities) was a placement service for graduates -- very important to 44 percent and somewhat important to 30 percent of the respondents. If Roosevelt offers placement service, it was unknown to 31 percent of the respondents, and another 48 percent believe it is offered but had not yet used it. Only eight respondents

rated the quality of the placement service -- four as poor, two good, and two excellent. Faculty members were not viewed as being leads to jobs; 69 percent disagreed with the statement, "Faculty members actively help graduate of this program find appropriate employment."

As might be expected from the large proportion of students holding full-time jobs, part-time employment and a service to assist students finding such employment was less important to Roosevelt students (each very important to less than 25 percent of respondents) than to graduate students elsewhere; however, half the students surveyed who had tried to use a student employment service rated it poor.

Personal counseling was at least somewhat important to 50 percent of the respondents, with the 19 users rating this service fair to good. Career counseling was somewhat or very important to 57 percent of the graduate students sampled; the quality of Roosevelt's career counseling had a modal rating of fair from its 18 users (with a lower proportion of ratings of poor than at any of the other institutions). "Fair" was also the modal rating of career advice from their department in the program quality evaluation section of the questionnaire.

With the current attention to computer literacy, it seems noteworthy that computer facilities and consultants were not important to over half of the Roosevelt graduate students questioned. Fifty-three percent of those who had used the computer facilities rated them only fair, and 29 percent of computer consultant users rated them poor. Statistical consultanting was also relatively unimportant to Roosevelt students, and 22 percent of users of this

service rated it poor. Neither computers nor consultants were used regularly by graduate students.

An emergency locator service was very important to 22 percent of the respondents; of those with some experience with Roosevelt's service, one-quarter rated it excellent and one-quarter poor.

Lounge and study areas were somewhat or very important to 58 percent of the students and had been used by about 70 percent. Those who used lounge or study areas did so fairly frequently (56 percent at least several times a month) even though 60 percent gave the areas quality ratings of only poor or fair.

Flexibility of support services was important to many respondents. Registration options such as registering by mail or telephone, or for extended times, were very important to 59 percent of these students. Available options were rated good or excellent by 58 percent of users. Tuition payment options were very important to 50 percent and somewhat important to another 37 percent of the respondents. Roosevelt's payment plan received high marks from its users, rated good by 48 percent and excellent by 35 percent.

Several facilities used by few students received evaluations which appear noteworthy. The eight respondents who had taken advantage of English language training all rated the service as good or excellent. Good and excellent ratings totaled 82 percent for cultural events, 82 percent for long-term loan programs, and 80 percent for emergency short-term loans. On the other hand, recreational facilities were rated poor by 80 percent of users. Tutoring service was rated poor by one-third of its users, excellent by a quarter. Evaluation for credit for nonacademic learning was very

important to only seven percent of students, but half those who had undergone such evaluation rated it poor. Only four percent of students needed on-campus housing, but all those using it rated the quality as excellent.

On-campus health care and student health insurance were less important to Roosevelt students than to those elsewhere, but in this sample 20 percent of users of each rated the quality as poor.

4.3.2. City University of New York

The frequency distributions for CUNY student responses to each item are given in Table E-2 of Appendix E, and the figures for CUNY are contained in Appendix F. The final sample of 93 respondents enables estimation of proportions of the 1982 CUNY graduate student population as being within ($\pm$) a maximum of 10.2 percent of the sample percentages with 95 percent confidence.

4.3.2.1. Demographic characteristics

As shown in Figure F-4.24, the respondents from the Graduate Center of the City University of New York included 52 women (56 percent, the highest proportion of women among the samples from the five universities) and 41 men (44 percent). The ethnic distribution (Figure F-4.25) was 68 percent non-Hispanic Caucasian (lowest among the five schools), five percent Black, no Chicanos, four percent other Hispanic, one percent Native American, four percent Asian American, and 11 percent non-resident aliens (highest among the five universities); five percent of the respondents did not indicate ethnicity. Regarding marital status (Figure F-4.26), 48 percent were married (between 38 and 58 percent of the population), 17 percent had

been married at one time, and 34 percent had never been married. The majority of respondents (54 percent) had no children living with them (Figure F-4.27), but the 21 percent reporting pre-kindergarten children living at home was the highest proportion among the five participating institutions.

The age of respondents ranged from 22 to 58; the population mean of 30.2 to 33.5 was similar to that of the other schools, all of whose sample means were between 30 and 33. Mean age of the CUNY sample at first enrollment was 28.2 years, ranging from 20 to 50.

4.3.2.2. Educational history

Virtually all CUNY Graduate Center students (95 percent of the sample) were enrolled in programs leading to a doctoral degree, a much higher proportion than that of the other four universities. CUNY majors were also more evenly distributed among a variety of fields than those at the other schools; as can be seen from Figure F-4.28, the largest proportion of CUNY respondents, 20 percent, was enrolled in the social sciences, with another 15 percent studying psychology. Eleven percent were enrolled in biological science disciplines, while letters and fine and applied arts were each represented by 10 percent of respondents and the physical sciences by nine percent. Two-thirds of the respondents were enrolled full-time in 1981-82 (Figure F-4.29), the highest proportion among the participating institutions. Like graduate students elsewhere, those at CUNY maintain good grade point averages; 76 percent of all respondents, and 83 percent of those who had received grades, reported GPAs of A or A-.

A high 38 percent of CUNY respondents indicated they were currently taking no courses (Figure F-4.30), and 23 percent reported

carrying no credits, although only nine percent reported an "effective credit" load (estimated effort actually devoted to courses plus research) of zero; the latter students may have completed the questionnaire after the end of spring term and erroneously reported their status for the summer. Eighteen percent of the graduate students surveyed were enrolled for six credits and 27 percent for 12 credits. Twelve was also the modal response for effective credits. Since no instructions were given regarding the definitions of "main campus" and "off campus" for CUNY students, responses to items involving this differentiation cannot be meaningfully interpreted. Of the original sample of 108, 67 students (62.0 percent) were placed at the Graduate School and another 16 (14.8 percent) were placed at City College; three were CUNY staff members, and the remaining 22 were located at five different campuses.

The majority (52 percent) of the sample (but 42 to 62 percent of the population, not necessarily the majority) had stopped out of higher education following their initial undergraduate enrollment at CUNY or another college or university, most (19 percent of all respondents) for just one year. Forty-four percent had been continuously enrolled in higher education, tie for the highest proportion among the five graduate school samples. Figure F-4.31 shows the distribution of years stopped out for CUNY respondents.

Half of the CUNY students questioned had first enrolled in their program in 1979 or later. They expected to take from two to thirteen years to complete their doctoral degrees (Figure F-4.32); 55 percent expected completion in four to seven years from the date of their first enrollment. Confidence about successful program completion was

high; only two percent disagreed somewhat and one percent strongly with the statement, "I am sure I will complete the degree on which I am now working."

Over half the CUNY graduate students queried had received their bachelor's degrees between 1974 and 1981 with the distribution fairly even between 1972 and 1979. The mean year of receiving the bachelor's, 1974, was similar to the mean elsewhere, but only two percent of the CUNY respondents reported receiving their undergraduate degree from CUNY compared with 15 to 20 percent having done their undergraduate work at each of the other four universities. Three respondents had received their first bachelor's degrees during the 1950s.

4.3.2.3. Employment characteristics

As illustrated in Figure F-4.33, 66 respondents (71 percent) were employed during 1982, 40 (57 percent of those employed) on a part-time basis, 33 as graduate assistants. Of the 30 students employed full-time, 18 (60 percent) were employed in their field of study. The largest proportion of students, 31 percent, were employed at CUNY with an additional 11 percent employed by another college or university (Figure F-4.34). Fourteen percent were employed in business or industry, and 12 percent worked for a nongovernmental nonprofit agency or institution. The mean number of hours worked per week by CUNY graduate students was 21.5 ± 1.7 (with sample values ranging from 0 to 56), the lowest mean among the five universities studied.

Fifty-four percent of the CUNY respondents reported that employment other than a graduate assistantship contributed to their support (Figure F-4.35), with 39 percent reporting such employment as

their primary source of support. Thirty percent listed personal assets as contributing to their support while enrolled as a graduate student. Twenty-nine percent of the respondents indicated receiving support from a student loan, the highest proportion of the participating graduate schools, with five percent designating loans as their primary support source. Fellowships, scholarships and traineeships contributed to the income of 22 percent, the highest proportion receiving these honors among the five universities. Approximately half of the employed respondents reported receiving some educational aid or incentives from their employers, most frequently tuition payment or reimbursement (received by 15 percent of all respondents) and/or use of facilities or equipment (12 percent).

Since the maximum number of years of full-time employment recorded was 11, the estimated mean of 2.4 to 3.9 years of full-time employment experience is probably slightly lower than the actual mean for CUNY graduate students. It was, however, the lowest of the five institutional means. Figure F-4.36 shows the distribution of years of full-time employment for the respondents. Of the 66 students employed full-time during the spring of 1982, 70 percent were employed in the same field they were studying. Sixty-two percent of the respondents had been employed full-time for at least one year. Seventy-one percent had had at least one year of part-time or full-time work experience in their field of study, and 40 percent had no work experience in any other field. Sixty-two (67 percent) of the students in the sample had held part-time jobs at the University, 50 as graduate assistants.

The majority of the respondents (58 percent; 48 to 68 percent of the population) preferred to work in an institution of higher education following completion of their degrees (Figure F-4.34), the largest proportion among the five participating schools and consistent with CUNY's preponderance of doctoral candidates, with a high nine percent planning to work at CUNY. Thirteen percent planned employment in business or industry, and 10 percent planned to become self-employed or go into private practice, although only two of the respondents currently worked in that setting. Sixty-three percent of the CUNY respondents (again, highest among the participating institutions) were preparing to pursue academic activities following graduation (Figure F-4.37), with 17 percent emphasizing research, 16 percent teaching, and 38 percent planning an approximately equal balance of research and teaching. Administration or management activities were the first preference of 10 percent and professional services of another 10 percent.

4.3.2.4. Motivation

The most frequently cited reasons for CUNY students pursuing graduate education were related to achievement of personal goals (Figure F-4.38). The single most important reason for 27 percent of the respondents (greatest of the five universities) was to obtain a degree, and this was one important reason for a total of 87 percent. Personal growth or satisfaction was also frequently cited, being the most important reason for 22 percent and an important factor for a high 82 percent of CUNY graduate students. And intellectual stimulation was an important reason for 73 percent. Among the reasons related to professional advancement, 63 percent said that gaining

skills helpful in their field was important (less frequently mentioned than at any of the other schools) and 53 percent cited improving income potential (also lowest among the universities). For 16 percent the primary motivation was preparing for a new or different job (another low).

Responses to the ETS questions comparing departmental and personal purposes are illustrated in Figure F-4.39. Personal enrichment was extremely important to 49 percent of the respondents (highest of the five institutions surveyed) and considerably important to another 30 percent (for a total of 79 percent), but only 33 percent believed that personal enrichment of the students was considerably or extremely important to their departments. Preparation to be a scholar or researcher was extremely important to 48 percent of the students and considerably important to another 35 percent (totaling 83 percent); this objective was in line with the perceived objectives of the departments, which consider scholarly preparation extremely important according to 45 percent of the students (the greatest perceived emphasis on scholarly preparation among the five graduate schools) and considerably important according to another 41 percent (totaling 86 percent). Preparation for college teaching was more important to the students (considerably or extremely important to 70 percent) than to the departments (believed considerably or extremely important by only 47 percent of respondents). These student objectives are consistent with the objective of the majority to pursue careers in a college or university setting and with the high importance they attached to opportunities for teaching experience (rated very important by 68 percent of the respondents) and

opportunities for research experience (very important to 69 percent), both more important to the CUNY students surveyed than to those at other participating universities.

4.3.2.5. Problems

When asked about personal problems, the most frequently cited was financing your education, a problem for 57 percent of the respondents and the most serious problem for 25 percent (Figures F-4.40a and b) (mentioned more frequently than at any of the other universities but the most serious at all five). Finding time to study was the worst problem for 13 percent (mentioned by a total of 44 percent, lowest among participating institutions), and family responsibilities were the most severe problem for 10 percent (mentioned by 39 percent). These four problems were also the most common among graduate students at the other four universities surveyed. No other personal problem was most troublesome to over 10 percent of respondents (12 percent did not single out a worst problem), but problems mentioned as somewhat of a hindrance by over 20 percent were job responsibilities (a problem for 49 percent), adequacy of places to study (20 percent), transportation (24 percent), and self-confidence (26 percent). Another problem involves the classroom: 29 percent said that the attitudes of some instructors were a problem, about the same proportion as at other institutions.

Twenty-three percent of the respondents, the highest proportion among the participating universities, did not single out a worst problem with the institution (Figures F-4.41a and b). Of those who did, availability of library materials was cited most frequently, mentioned as a problem by a high 51 percent of the students -- the

only problem selected by over half the respondents -- and as the worst problem by 16 percent. Times, locations, and/or frequency of offering needed courses was cited as the worst institutional hindrance by 10 percent of CUNY respondents and as one significant problem by 32 percent, less than at other institutions. The only other problem for more than 30 percent of the students was the times when institutional services are available, mentioned more frequently by CUNY students (34 percent) than by those elsewhere.

4.3.2.6. Academic programs

As measured by the scales devised by Educational Testing Service, illustrated in Figure F-4.42, the graduate programs of the City University of New York are generally good. With a range of 1.0 (poor) to 4.0 (excellent), mean scores for the survey respondents ranged from 2.43 (fair+) to 3.05 (good). The standard errors of these means were between 0.049 and 0.083, less than four percent of the means.

Overall satisfaction rated highest with a sample mean of 3.05; on component items, 55 percent (highest among the five institutions) agreed strongly with the statement, "I have learned a great deal in this program," 40 percent (again the highest) strongly agreed that "I would advise a friend to enroll in this program," and 38 percent (another high) agreed strongly that they would enroll in their program again if starting over. Congruently, elsewhere on the questionnaire, 57 percent of the respondents (highest among the participating graduate schools) rated the general quality of once per week courses as excellent, and 47 percent gave the same rating to on-campus courses.

The scholarly excellence of the faculty also rated a clear good with a mean rating of 3.03; 43 percent of CUNY respondents (highest among the five universities) rated the scholarly or professional competence of the faculty as excellent, 34 percent (another high) stated that faculty awareness of new developments in their field was excellent, 41 percent (yet another high) agreed strongly that their program was intellectually stimulating, a high 27 percent agreed strongly that different points of view are encouraged, and a high 27 percent gave an excellent rating to the general intellectual environment.

At 2.81, the quality of teaching scale for CUNY was the highest among the five participating schools (with a high 26 percent rating overall teaching quality as excellent and another high 25 percent agreeing strongly that faculty members prepare carefully for their courses), as was the evaluation scale at 2.63. Regarding faculty concern for students, 24 percent (highest among the schools) agreed strongly that faculty members had a realistic view of the students' outside responsibilities. Only the curriculum scale had a mean below good (and the lowest mean of the five universities) with the component "interaction between the department and related disciplines at this school" receiving especially low ratings of poor by 28 percent and fair by 39 percent of the respondents. The variety of graduate course and program offerings was rated only fair or poor by 56 percent of the students, but the depth of program offerings was rated good or excellent by 63 percent, higher than the rating of this factor at the other institutions.

CUNY students also tended to regard their peers favorably, with the respondents expressing especially strong agreement with statements that graduate students work hard (48 percent strongly agreeing) and do a lot of unassigned reading (26 percent).

The major problems for CUNY graduate students emerging from the ETS items were similar to those mentioned in the problem section: Financial resources for graduate students were rated poor by 40 percent, library holdings in their field were rated poor by 30 percent, and specialized facilities got a poor from 28 percent (all three the largest proportions among the institutions). Advice received about their programs was rated poor by 22 percent, and 35 percent rated career advice as poor, again both the largest percentages of poors among the five schools. Facilities for classes and administration were rated poor by a high 20 percent.

Fifty-eight percent of the respondents indicated that there should be more opportunities for graduate students to participate in departmental decisions, but the responses to the other items indicate that CUNY graduate students are generally well-satisfied with the results of those decisions.

4.3.2.7. Professional activities

Higher proportions of CUNY graduate students participated in several of the professional activities listed by ETS than of students at the other four institutions surveyed. The most common professional activity at all five was independently planned reading or practice, conducted within the previous 12 months by 88 percent of CUNY respondents (Figures F-4.43a and b) and 69 to 80 percent of the students elsewhere. Other frequent activities included talking with

professionals about graduate programs or career plans (done within the previous year by 68 percent of the CUNY sample), attending meetings of a scholarly or professional society (66 percent of CUNY respondents compared with 40 to 65 percent elsewhere), carrying out an independent research or creative project (61 percent), and preparing a detailed proposal for a major research project (59 percent for CUNY, 21 to 53 percent at other schools). Nearly half the respondents (46 percent) had held a fellowship, traineeship, or scholarship during the previous year (six to 36 percent elsewhere).

Over half the CUNY students questioned had held a graduate assistantship during the course of their program. The overall rating of these experiences was fair to good. On the more detailed ratings of assistantships, 31 percent reported that the departmental training for their duties was poor and 58 percent rated the supervision received as fair or poor (both the lowest among the schools); but the contribution to their academic development was rated excellent by 43 percent and good by an additional 33 percent, and 68 percent rated the chance to practice their professional skills as good or excellent.

Nineteen respondents reported participating in a clinical, field work, or internship experience required by their graduate program. These practicums generally received good to excellent ratings regarding the chance to practice professional skills, contribution to academic development, and variety of assignments but were less satisfactory regarding preliminary training and ongoing supervision.

4.3.2.8. Support Services

Figures F-4.44a, b, c, d, and e illustrate support service needs expressed by CUNY graduate students; Figures F-4.45a, b, c, d, and e

show their ratings of the quality of the services and facilities provided; and Figures F-4.46a and b indicate the estimated frequency of use of selected services by the survey respondents. The library was the most important support facility to the graduate students at all four doctorate-granting universities studied, with the CUNY students expressing the strongest need: the library was considered very important by 85 percent of the respondents. But the quality of the library facilities received the lowest rating of any of the participating institutions: 29 percent ranked the facilities poor and 36 percent fair, and only 13 percent rated the library facilities as excellent. The ratings were based on use several times a week by 40 percent and several times a month by another 27 percent of the students. As discussed earlier, library holdings in their fields were rated poor by 30 percent and fair by 32 percent, and availability of library materials was mentioned as a problem by over half the respondents.

Laboratories, studios, or other specialized facilities were very important to 34 percent (the highest proportion among the universities) and somewhat important to 26 percent of the respondents. Quality of these facilities as rated by users was also the lowest among the five institutions; 26 percent rated these specialized facilities as poor and 30 to 32 percent as fair. Fifty-one percent of CUNY students in the sample used such facilities several times a week. Computer facilities also were very important to 34 percent of CUNY graduate students surveyed and somewhat important to another 26 percent; computer consultants were very important to 28 percent and somewhat important to 27 percent. Sixty percent of users rated the

computer facilities good or excellent, with frequency of use varying from several times a term to several times a week. Computer and statistical consultants at CUNY were less satisfactory. The modal frequency of computer consultation was several times per term, and consultants were rated poor by 30 percent (lowest among the universities) and fair by 43 percent of users. Statistical consultants were also rated poor by 30 percent of their clients in the sample, another low among participating institutions.

Colloquia or special lectures were important to 70 percent of the respondents and had been attended by 71 percent, several times a term or more often by 39 percent of all respondents and by 50 percent of those who had attended at all. The quality of these events was highly rated, receiving a rating of good from 51 percent of users and excellent from another 24 percent.

Evening and once per week classes were important even to CUNY's full-time graduate students: evening or weekend classes were at least somewhat important to 51 percent of the respondents, and once weekly class meetings were very important to 41 percent and somewhat important to another 25 percent of the students questioned.

Services related to employment and financing were important to many students. Part-time employment was very important to 63 percent (the highest proportion among the five institutions) and somewhat important to 20 percent; some type of employment service was very important to 53 percent and somewhat important to 23 percent, although 72 percent of the 33 respondents who have used this service rated it only poor or fair. For the future, placement service was very important to 66 percent (highest proportion among the schools

surveyed) and somewhat important to 16 percent, but of the 29 respondents who had used it, 45 percent rated the CUNY placement service as poor and 24 percent as fair. Career counseling was equally or more important to CUNY graduate students compared to those elsewhere -- very important to 30 percent of the respondents -- but of the 30 students who reported seeking career counseling at the University, 40 percent rated the service as poor (lowest among the schools) and 33 percent as fair; when asked specifically about career advice received from their departments, respondents again rated it as poor (35 percent) to fair (38 percent).

Loan services were also important to the majority of respondents -- emergency short-term loans to 61 percent and long-term loans to 65 percent of the students. Provision of emergency loans was rated good by 45 percent of users and excellent by another 12 percent, while long-term loan service was rated even higher: good by 54 percent and excellent by 13 percent. Sixty-three percent of the respondents believed that the financial resources for graduate students were less than adequate. Financial planning assistance was at least somewhat important to 53 percent, but the modal rating of those 22 students who had sought such assistance was poor. The provisions for tuition payment options, important to 74 percent of respondents, were rated good or excellent by 59 percent of users. Health insurance was also important to the majority of CUNY students, moreso than to students at the other universities, with a higher proportion than elsewhere dissatisfied (34 percent rating as poor the insurance available). Health care provided by the University was important to 49 percent of the respondents and received very low marks compared to health care at

other institutions: it was rated poor by 63 percent of those who had used the present service (compared to only four to 20 percent ranking their institutional health care as poor at the other universities).

New York City's public transportation was very important to 43 percent and somewhat important to 29 percent of the CUNY graduate students and was used several times weekly by 51 percent of them. Parking facilities were a very important support facility for 22 percent of CUNY students sampled and were somewhat important to an additional 25 percent. Of the 16 respondents who had used CUNY parking facilities, 56 percent used them several times weekly. Users of parking facilities at all five universities judged them inadequate, but the CUNY students were the most dissatisfied: 57 percent rated the parking facilities poor and 22 percent fair.

Food service facilities, used several times a week by 42 percent of all graduate students, were somewhat more important to CUNY respondents than to those elsewhere: very important to 28 percent of the respondents. One-quarter of the patrons rated food service as poor, the worst rating among the institutions. Lounge and study areas were somewhat or very important to 71 percent of the students and were used at least several times a term by 55 percent, with 74 percent of users rating these areas poor or fair, again the lowest rating among the five universities.

Registration options were very important to only 26 percent of CUNY respondents, the lowest proportion among the five universities, but 28 percent of those respondents who had taken advantage of the options available rated them excellent.

Low ratings received by a few other support services seem noteworthy even though based on the reports of only a few users. Peer support groups were very important to 16 percent of CUNY respondents, a larger proportion than elsewhere, and 38 percent reported that existing groups were poor, a lower rating than received at other schools. Recreational facilities were very important to only 13 percent, but 48 percent of users rated the existing facilities as poor. Eight students reported having used University child care service, and six (75 percent, highest proportion among participating institutions) rated it poor. Of seventeen users of the emergency locator service in the sample, 35 percent rated the service poor and 29 percent fair. Fifteen respondents reported using campus housing, and 60 percent rated it as poor, the worst rating among the schools surveyed.

4.3.3. Michigan State University

The frequency distributions for each questionnaire item for all MSU respondents are given in Table E-3 of Appendix E. For the sample size of 268, the maximum 95 percent confidence interval for proportions is $\pm .0602$. Thus the population percentages for Michigan State graduate students of Spring 1982 on the items discussed below were generally within six percent of the sample percentages reported.

4.3.3.1. Demographic characteristics

As illustrated in Figure F-4.47 of Appendix F, Michigan State University graduate student respondents included 121 women (46 percent) and 137 men (52 percent); seven respondents (three percent) did not identify their gender. The ethnic distribution was 76 percent

non-Hispanic Caucasian, six percent Black, one percent Chicano, two percent other Hispanic, no Native American, one percent Asian American, and nine percent non-resident alien; five percent did not indicate ethnicity (Figure F-4.48). Fifty-four percent of the respondents were married (the highest percent married among the five participating universities), six percent had been married at one time, and 36 percent had never been married (Figure F-4.49). Thirty-two percent of these MSU graduate students had children living with them, a higher proportion than at the other four schools, though only 19 percent had pre-kindergarten children; the distribution of total number of children living at home is illustrated in Figure F-4.50.

The mean age of respondents was 30.7 (between 29.8 and 31.6 for the population), ranging from 20 to 66. Mean age at first enrollment in their graduate program was 28.22 (± 0.44 for the population).

4.3.3.2. Educational history

Fifty-five percent of the respondents (± 6.0 percent for all MSU graduate students) were enrolled in programs leading to a master's degree and 30 percent were seeking a doctoral degree (Figure F-4.51). Figure F-4.52 shows the distribution of major fields of study.

Education was the most common field, accounting for 29 percent of the respondents -- the largest proportion of education majors at any of the universities in the study; 11 percent were enrolled in agriculture and natural resources (also highest among the institutions), nine percent in business, and ten percent (all enrolled off-campus) in "other/undeclared" fields. Fifty-two percent of the respondents reported being enrolled full-time in 1981-82, 42 percent part-time (Figure F-4.53).

Like most graduate students, those at MSU maintain good grade point averages; 87 percent of respondents reported GPAs of A or A-.

Thirteen percent of MSU respondents indicated they were currently taking no courses (Figure F-4.54), and seven percent reported carrying no credits. Some of the latter may have been reporting their status when filling out the questionnaire after completion of the term, particularly the six percent who reported an "effective credit" load of zero; 12 of the 18 respondents carrying no credits and 11 of the 17 students reporting no effective credits were off-campus students who did not receive the initial questionnaire until after the end of their term. Thirty percent of the graduate students sampled were taking one course, 29 percent two, and 18 percent three courses; 51 percent of the students were carrying six or fewer credits. Twenty-four percent of the respondents reported having taken a course away from the main campus, but only six percent of those from the Spring on-campus population.

The majority (61 percent) of respondents had "stopped out" of higher education following their first undergraduate enrollment at "this" or another college or university, most (41 percent) for one to four years (Figure F-4.55). Ninety-five respondents (36 percent) had been continuously enrolled in higher education.

Sixty-three percent of the MSU respondents had begun their current graduate program in 1980 or later. Most (63 percent) expected to take from one to four years to complete their degrees, as shown in Figure F-4.56. Confidence about successful program completion was high; no one disagreed strongly, and only four percent disagreed

somewhat, with the statement, "I am sure I will complete the degree on which I am now working."

Over half the MSU graduate students sampled had received their bachelor's degrees since 1974; the 95 percent confidence interval for the population mean year of first bachelor's degree was 1978.3 to 1975.0. On the other hand, 10 respondents had received their first bachelor's degrees prior to 1960. Twenty percent of MSU respondents, the largest proportion among the participating universities, indicated that they had received their bachelor's degrees from Michigan State.

4.3.3.3. Employment characteristics

As can be seen from Figure F-4.57, 197 respondents (74 percent) reported being employed during 1982, 93 of them (47 percent) on a full-time basis. Whether working part-time or full-time, most students (80 percent of the sample and 74 to 86 percent of the graduate student population) were employed in their field of study. Ninety-one respondents (34 percent) held graduate assistantships, accounting for nearly all of the 93 students working part-time, and an additional 20 students were working in other capacities at MSU. Twenty-two percent were employed in primary or secondary schools (the highest proportion among the five institutions, consistent with MSU's high percentage of education majors), six percent by the government, and four percent each by non-profit groups and by business or industry (Figure F-4.58). The mean number of hours employed MSU students reported working was 32.7 (± 1.1 hours), ranging from three to 60.

Figure F-4.59 illustrates the sources of financial support for MSU graduate students. Forty-four percent of the sample reported that employment other than a graduate assistantship contributed to their

support, with 30 percent reporting such employment as their primary source of support. Forty-five percent listed "personal assets" as contributing to their support while enrolled as graduate students. Only 17 percent of the respondents indicated receiving support from a student loan, five percent designating this as their primary support source.

Approximately 51 percent of the employed students received some educational aid or incentives from their employers, most frequently use of facilities or equipment (reported by 21 percent) and/or tuition payment or reimbursement (received by 18 percent of all respondents) or reduced tuition (13 percent, some of whom may have been graduate assistants reporting their out-of-state tuition waivers).

Since the maximum number of years of full-time employment recorded by the questionnaire was 11, the estimated mean of 4.4 years (± 0.25 years for the population mean) of full-time employment experience is probably slightly lower than the actual mean for MSU graduate students. Sixty percent of the respondents had been employed full-time for at least one year (Figure F-4.60). Eighty percent had had at least one year of part-time or full-time work experience in their field of study, and 55 percent had no work experience in any other field. One hundred thirty-nine (52 percent) of the students in the sample had held part-time jobs at the University at some time during their graduate study, 105 as graduate assistants, and 62 percent rated these experiences good or excellent.

Regarding their future plans, 29 percent of the respondents preferred to work in an institution of higher education following completion of their degrees (Figure F-4.58). Twenty-four percent

planned employment in business or industry and 19 percent (more than at any other institution) in K-12 educational systems. Regarding their anticipated professional activities (Figure F-4.61), 24 percent planned to concentrate on administration or management, 24 percent on teaching (highest among the five institutions), 16 percent on a combination of teaching and research, 11 percent on research, and 18 percent on other professional services.

4.3.3.4. Motivation

The frequencies with which the Michigan State respondents cited various motives for study were similar to those of students at the other participating institutions. Career-related objectives dominated the reasons MSU graduate students gave for pursuing their education, as shown in Figure F-4.62. The most frequently cited (by 20 percent) primary reason was to acquire skills helpful in their field, important to 86 percent of respondents; preparing for a new or different job was a primary reason nearly as often (to 19 percent), but this reason had some importance to only half the respondents, and advancement in their present job was important to only 32 percent. Improved income potential was primary to 11 percent and important to 69 percent.

More personal goals were also important. Obtaining a degree was important to 82 percent and most important to 13 percent of the graduate students surveyed, personal growth and satisfaction was important to 79 percent and the single most important reason for 15 percent, and intellectual stimulation was important to 72 percent.

The questions from ETS's Program Quality Evaluation comparing departmental and personal purposes provide another perspective on student motivation (Figure F-4.63). Personal enrichment was extremely

important to 31 percent of the respondents and considerably important to another 46 percent (for a total of 77 percent), but only 33 percent believed that personal enrichment of the students was considerably or extremely important to their departments. Preparation for a career other than scholarship or college teaching was considerably or extremely important to 65 percent, but only 47 percent perceived this objective to be considerably or extremely important to their departments; whereas 56 percent of the students considered preparation to be a scholar or researcher extremely or considerably important, and 63 percent felt this type of preparation was emphasized by their departments.

4.3.3.5. Problems

When asked about personal problems, "financing your education" was the worst problem for 28 percent of the respondents, double the frequency of the next worst problem, and was at least somewhat of a problem for 54 percent (Figures F-4.64a and b); finances were the most frequently mentioned worst problem at all five universities studied. Among the ETS questions, the adequacy of financial resources available to graduate students was rated poor by 20 percent and fair by 35 percent of the students.

"Finding time to study" was the worst problem for 14 percent (mentioned by a total of 50 percent) which was probably related to the "conflicting job responsibilities" mentioned as a problem by 47 percent of the respondents and the most severe problem for 12 percent. No other personal problem was most troublesome to over 10 percent of the sample (eight percent did not single out a worst problem), but family responsibilities were somewhat of a hindrance for 41 percent.

Self-confidence was somewhat of a problem for 24 percent. Another problem involves the classroom: 29 percent said that the attitudes of some instructors posed problems.

No one problem with the university was mentioned by over half the respondents (Figures F-4.65a and b); 15 percent did not single out any worst problem. The most common institutional problem was "times, locations, and/or frequency of offering needed courses", mentioned by 48 percent and the worst problem for 22 percent. Availability of library materials was cited as the worst problem with the institution by seven percent and as at least somewhat of a problem by 33 percent of the respondents. The general quality of instruction was cited as a problem by 29 percent and as the most important problem by eight percent of the students. The other problems mentioned by more than 20 percent include getting information about the institution (23 percent) and about the department (26 percent), and the accessibility of their adviser or major professor (23 percent).

4.3.3.6. Academic programs

The perceived quality of the programs offered by the Michigan State University as measured by the scales devised by Educational Testing Service is generally good. With a possible range of 1.0 (poor) to 4.0 (excellent), mean scale scores for the survey respondents (shown in Figure F-4.66) ranged from the high 3.24 (good+) rating of overall satisfaction (the highest rating on any scale at any of the universities) to the low 2.59 (fair to good) for student evaluation. The standard errors of the means of these scales for the MSU graduate student population were 0.025 to 0.042, a maximum error of less than two percent of the mean.

Among the components of the overall satisfaction scale, 50 percent of the respondents (between 44 and 56 percent of the population) agreed strongly with the statement, "I have learned a great deal in this program," and another 39 percent agreed somewhat for a total of 89 percent generally agreed. Eighty-one percent were in general agreement that "I would advise a friend to enroll in this program" and would enroll again themselves if starting over. Thirty-four percent agreed strongly and 49 percent agreed somewhat (for a total of 83 percent) that the program was providing them good preparation for later professional work.

The scholarly excellence of MSU programs received a mean rating of 3.04, the same as the University of Minnesota and higher than the other three schools. Eighty-six percent of the Michigan State sample agreed somewhat or strongly that their program was intellectually stimulating, 76 percent rated the intellectual environment as good or excellent, 73 percent rated the scholarly or professional competence of the faculty as good or excellent, and 78 percent also rated faculty awareness of new developments in their field as good or excellent. However, 56 percent rated their department's interaction with other disciplines as poor or fair.

The mean rating of the environment for learning was 2.86, highlighted by 81 percent agreement that their departments have a humane environment and 80 percent concurrence that different scholarly points of view are encouraged. On the other hand, 34 percent agreed somewhat or strongly that some professors unduly exploit their students.

Faculty concern for students scored 2.79. Eighty-three percent of the respondents agreed at least somewhat that faculty members are genuinely concerned about student welfare, and 70 percent characterized faculty-student relations as good to excellent. Forty-eight percent felt that opportunities to develop mentors or sponsors among the faculty rated poor or fair. Accessibility of advisers was scored excellent by 27 percent and of course instructors by 22 percent, but 53 percent disagreed somewhat or strongly with the assertion that they had been well advised on using the department's people and resources.

The mean rating of teaching quality was 2.78, and there was especially high agreement (81 percent) with the assertion that instructors use many examples in their teaching.

Respondents' perceptions of their fellow graduate students were quite favorable: 49 percent agreed strongly and 39 percent somewhat (totaling 88 percent) that graduate students work hard in their programs, 26 percent agreed strongly and 60 percent somewhat (for a total of 86 percent) that graduate students handle course assignments with care and responsibility, 33 percent agreed strongly and 57 percent somewhat (90 percent total) that graduate students continue projects until they are completed, 19 percent agreed strongly and 34 percent somewhat (53 percent altogether) that graduate students do a lot of unassigned reading, and 20 percent agreed strongly and 58 percent somewhat (78 percent total) that graduate students demonstrate enthusiastic involvement with their field.

Fifty-two percent of the respondents felt that there should be more opportunities for graduate students to participate in

departmental decisions, but the responses to the other items indicate that MSU graduate students are generally satisfied with the results of those decisions. The majority of respondents felt that facilities for classes and/or administration were fair to good, as was the number of support staff, and that support staff quality was good.

4.3.3.7. Professional activities

Among those itemized by ETS and shown in Figures F-4.67a and b, the most common professional activities of MSU graduate students -- and those elsewhere -- were independently planned reading or practice, conducted within the previous 12 months by 78 percent of respondents, and talking to other professionals about their graduate program or career plans, done by 80 percent. Fifty-six percent of the sample had carried out an independent research or creative project (the opportunity for which was rated excellent by 24 percent and good by 44 percent), and 44 percent had collaborated on such a project with a student or a faculty member, but only one-third reported preparing a proposal for a major research project -- a lower proportion than at any of the other participating doctorate-granting institutions. Fifty-six percent had attended a meeting of a scholarly or professional society within the past the year.

Forty-three percent of the MSU students surveyed had held a graduate assistantship during the course of their program. On the detailed ratings of assistantships, 55 percent reported that the departmental training for their duties was fair or poor but all other aspects of the experience were rated much higher, with the contribution to their academic development rated good or excellent by

82 percent and the chance to practice professional skills rated good or excellent by 77 percent of assistants.

Only 18 percent had participated in a clinical, field work, or internship experience required by their graduate program, but the high ratings given to those experiences indicates that they are highly valued. All aspects received good to excellent ratings; the chance to practice professional skills was rated excellent by 51 percent and contribution to academic development excellent by 46 of practicum participants, both the strongest ratings among the five institutions studied. Even the preparatory training was rated good to excellent by 60 percent.

4.3.3.8. Support services

Figures F-4.68a, b, c, d, and e illustrate the extent to which several support services and facilities are needed by Michigan State graduate students and Figures F-4.69a, b, c, d, and e summarize their evaluations of the quality of the services provided. Figures F-4.70a and b portray the estimated frequency of use of selected services.

According to the Michigan State students surveyed (and those at the other three doctorate-granting institutions), the most important support facility the University provides for its graduate students is the library: 68 percent of MSU respondents rated the library as "very important". Eighty-five percent of the respondents (97 percent of on-campus students) had used the library facilities, 32 percent of them several times a week, and their ratings of the quality were generally favorable: 30 percent ranked the facilities "excellent" (tie with Minnesota for the highest proportion of excellent ratings) and 44 percent "good". Library holdings in their field were rated

excellent by 19 percent (the highest percentage among the participating institutions) and good by 39 percent.

Services related to employment and financing were important to many students. Part-time employment was very important to 48 percent and somewhat important to another 17 percent of the respondents. An employment service to locate student jobs was at least somewhat important to 52 percent; of the 57 respondents who have used such service at MSU, 42 percent rated it good but 28 percent rated it poor. For the future, a placement service was very important to 47 percent and somewhat important to 28 percent; 90 respondents had already used placement service, generally rating it fair (26 percent) to good (37 percent).

Career counseling was very important to 26 percent and somewhat important to an additional 43 percent of the students sampled (so of at least some importance to 69 percent), and the ratings of the 109 students who had sought career counseling at the University again were fair (26 percent) to good (37 percent), with more excellent ratings (14 percent) than received by any other institution in the study. When asked specifically about career advice received from their departments, this sample also rated it fair (43 percent) to good (28 percent). Personal counseling, on the other hand, was very important to only 10 percent and somewhat important to 31 percent of the students (totaling 41 percent of the respondents); 54 percent of the 64 students who had used this service rated it good or excellent.

Loan services were also somewhat or very important to the majority of respondents -- long-term loans to 59 percent of the students and emergency short-term loans to 51 percent. Provision of

emergency loans received high ratings: of the 63 users, 25 percent labeled the service excellent and 29 percent good. Provision of long-term loans was rated excellent or good by 54 percent of users, but 28 percent rated it poor, a higher proportion than elsewhere. Ratings of the provisions for tuition payment options, important to 65 percent of respondents, ranged from poor (15 percent) to excellent (25 percent). Financial planning assistance was somewhat or very important to only 37 percent of the respondents. Of those 30 students who had sought such assistance at MSU, 67 percent rated the service as poor; no other institution's financial planning assistance was labeled poor by more than 45 percent of users.

Health insurance was important to less than half of the MSU students questioned, but University-provided health care was important to 50 percent of the respondents; the quality of this service according to users was fair (37 percent) to good (43 percent).

Opportunities for teaching experience were very important to 33 percent of respondents and somewhat important to another 24 percent for a total of 57 percent; however, if the assumption is made that those respondents currently teaching in primary, secondary, and community college settings did not express a need for teaching experience, that opportunity was important to 76 percent of the other graduate students. Most respondents felt that the teaching opportunities present at MSU were good to excellent. Opportunities for research experience were even more important to MSU graduate students: very important to 44 percent of respondents and somewhat important to another 24 percent. Thirty-nine percent (highest among the universities studied) of those who had participated in research

felt that the opportunities at MSU were excellent and 38 percent rated them good; similarly, 24 percent rated the opportunity to pursue individual projects as excellent. But laboratories, studios, or other specialized facilities were very important to only 26 percent and somewhat important to 20 percent, although these facilities were rated excellent by a higher proportion of users (23 percent) than the facilities at the other four institutions and were ranked good or excellent by 76 percent of users. Computer facilities were important to 58 percent and were rated good or excellent by 68 percent of users, again receiving a higher percent of excellent ratings (24 percent) than computer facilities elsewhere. Similarly, computer consultants were somewhat or very important to 53 percent of respondents and statistical consultants to 48 percent, with these services receiving more favorable ratings by their users than consultants at the other institutions received. However, even with these highly rated services available, half of the MSU graduate students (± 6.0 percent) had never used the computer facilities, over two-thirds had never used a Michigan State computer consultant, and over three-quarters had not consulted a statistician.

Colloquia and/or special lectures were at least somewhat important to 57 percent of the respondents; 47 percent had taken advantage of such events and rated them good (62 percent) to excellent (15 percent). Cultural events were at least somewhat important to 63 percent of the students surveyed and had been attended by 64 percent; 89 percent of this audience rated MSU's cultural programs good or excellent. Recreational facilities were somewhat or very important to, and had been used by, over half of the respondents, and received

very high ratings from users: 50 percent good and 36 percent excellent. On the other hand, athletic events such as football and basketball games were not important to 59 percent, although over half reported attending such events once a term or oftener and rated their quality extremely highly -- 91 percent good or excellent.

Informal contact with other students was very important to 27 percent and somewhat important to 46 percent of the respondents, and the opportunities for such contact were generally rated as good. Lounge and study areas were somewhat or very important to 53 percent, 67 percent of whom used such facilities (which 51 percent rated good) at least several times a term. Food service facilities, at least somewhat important to 53 percent of the sample, were used several times a month by 55 percent of patrons, 52 percent of whom rated the services as good.

The average commute distance for MSU graduate students was over 12 miles, and several expressed needs related to commuting. Parking facilities were very important to 51 percent and somewhat important to another 27 percent of respondents, being used several times weekly by 55 percent of the respondents. Quality of parking facilities was rated poor by 30 percent and fair by 34 percent, the lowest rating given a service with a substantial number of users, but receiving a lower proportion of "poors" than did parking at the other four participating schools. Registration options were very important to 45 percent of graduate students sampled and somewhat important to an additional 26 percent, and again the quality was rated low by users: 38 percent (more than elsewhere) rated the available options poor and 20 percent fair. Evening courses were important to 59 percent (and

rated good to excellent by 60 percent), and courses which meet only once per week were important to 57 percent.

Half the respondents expressed some need for an emergency locator service; 26 respondents reported attempting to use such a service at MSU and 31 percent of them rated the service received as poor, another 31 percent as fair, and 35 percent as good.

Low ratings received by five other support services are noteworthy even though the services were not important to the majority of students. Tutoring or other individualized help was at least somewhat important to 29 percent of the respondents, but 62 percent of those who had received such assistance at MSU rated it fair or poor. Thirty-six students reported trying to receive evaluation for nonacademic learning, and 61 percent of them rated that service poor or fair. Thirty-seven percent of the students expressed a need for peer support groups, but 60 percent of those reporting participation in such groups rated their experiences as less than good. Only 24 students reported using university-sponsored child care service, but over three-quarters of them rated the service poor or fair. Eighteen students had sought English language training, and 28 percent of them rated it as poor although 33 percent gave it a rating of good.

4.3.4. University of Minnesota

The frequency distributions for UM student responses to each questionnaire item comprise Table E-4 of Appendix E. For a sample size of 237, the maximum 95 percent confidence interval for proportions is $\pm .0637$. Thus the percentages for Spring 1982 population of University of Minnesota graduate students were generally within six percent of the sample percentages reported.

4.3.4.1. Demographic characteristics

As shown in Figure F-4.71 (Appendix F), University of Minnesota graduate student respondents included 98 women (41 percent) and 138 men (58 percent). Figure F-4.72 illustrates the ethnic distribution: 82 percent non-Hispanic Caucasian, one percent Black, no Chicanos, two percent other Hispanic, no Native American, three percent Asian American, and 11 percent nonresident alien; only one respondent did not indicate ethnicity. Fifty-one percent of the respondents were married, seven percent had been married at one time, and 42 percent (the largest proportion among the five universities studied) had never been married (Figure F-4.73). Figure F-4.74 shows the distribution of number of children. Sixty-two percent had no children living with them, and 73 percent had no pre-kindergarten children.

The mean age of respondents was 30.1 (± 0.43 years for the population), ranging from 22 to 64. Mean age at first enrollment in their graduate program was 27.2 (± 0.39), ranging from 20 to 62.

4.3.4.2. Educational history

Forty-nine percent of the sample of UM graduate students (between 43 and 55 percent of the population) were enrolled in programs leading

to a master's degree and 47 percent were seeking a doctoral degree (Figure F-4.75). Sixty-six percent of the respondents (60 to 72 percent of the population) were enrolled full-time in 1981-82 (Figure F-4.76). Figure F-4.77 shows that UM students were distributed among many disciplines: business was the most common field of study, accounting for 17 percent of the respondents; 13 percent were enrolled in education, nine percent in engineering, eight percent in the health professions, seven percent each in the social sciences, physical sciences, and biological sciences, and six percent in agriculture and natural resources.

Like most graduate students, those at UM maintained good grade point averages; 80 percent of respondents reported GPAs of A or A-.

Twenty-six percent of UM respondents indicated they were currently taking no courses (Figure F-4.78), and 24 percent reported carrying no credits (a higher percentage than at any other institution); many of these students were enrolled for dissertation or thesis work, but others may have been reporting their status when filling out the questionnaire after completion of the term. When asked to estimate how much time they are actually spending on their research plus course work, 11 percent reported an 'effective credit' load of zero.

Twenty-six percent of the graduate students surveyed were taking one course, 19 percent two, and 17 percent three courses; 52 percent of the students were carrying nine credits or fewer. Only three percent of the respondents reported having taken a course away from the main UM campus.

The students were asked to indicate whether they had been enrolled in "this" institution, another college or university, another

postsecondary institution, or not enrolled during each of the past 10 years. Judging by years for which "not enrolled" was checked after the first year of postsecondary enrollment, the majority (59 percent) of respondents had 'stopped out' of higher education, most (33 percent) for one to three years. As shown in Figure F-4.79, 92 respondents (39 percent) had been continuously enrolled in higher education.

Sixty-one percent of the UM respondents had begun their current graduate program in 1980 or later. They expected to take from one to fourteen years to complete their degrees, two to three years being the mode (Figure F-4.80). Confidence about successful program completion was high; only five percent of the sample disagreed somewhat and one percent strongly with the statement, "I am sure I will complete the degree on which I am now working."

About half the Minnesota graduate students studied had received their bachelor's degrees since 1976. On the other hand, five respondents had received their first bachelor's degrees during the 1950s. The mean year of receipt of first bachelor's degree for the population was between 1974.25 and 1975.02.

4.3.4.3. Employment characteristics

One hundred seventy-four respondents (73 percent of the sample representing 67 to 79 percent of the population) reported being employed during 1982, 66 of them (37 percent) on a full-time basis (Figure F-4.81). Whether working part-time or full-time, most students (83 percent of those with jobs) were employed in their field of study, the highest proportion among the five universities. One hundred respondents held graduate assistantships (42 percent, the

greatest proportion of students holding assistantships among the institutions), accounting for nearly all of the 109 students working part-time, and 16 others were working in other capacities at UM. Fourteen percent were employed in business or industry and five percent in primary, secondary, or community college education (Figure F-4.82). The mean number of hours worked by UM students was between 22.6 and 24.9, the values in the sample ranging from 0 to over 50.

Figure F-4.83 illustrates the sources of financial support for UM graduate students. Forty-three percent of the sample reported that employment other than a graduate assistantship contributed to their support, with 29 percent reporting such employment as their primary source of support. Forty-seven percent checked personal assets as contributing to their support while enrolled as graduate students. Twenty-one percent of the respondents indicated receiving support from a student loan, with eight percent designating this as their primary support source. Approximately 60 percent of the employed students received some educational aid or incentives from their employers, most frequently tuition payment or reimbursement (received by 23 percent of all respondents, including graduate assistants) and/or use of facilities or equipment (reported by 25 percent, UM having the largest percentage of students receiving this type of aid).

Since the maximum number of years of full-time employment recorded was 11, the estimated mean of 3.5 ± 0.23 years of full-time employment experience is probably slightly lower than the actual mean for UM graduate students. Sixty-five percent of the respondents had been employed full-time for at least one year (Figure F-4.84). Seventy-nine percent had had at least one year of part-time or

full-time work experience in their field of study, and 46 percent had no work experience in any other field. One hundred sixty-one (64 percent) of the students questioned had held part-time jobs at the University, 133 as graduate assistants, and 60 percent rated these experiences good or excellent.

Regarding their future plans, also portrayed in Figure F-4.82, 37 percent of the respondents preferred to work in an institution of higher education following completion of their degrees, with five percent planning to work at UM. Thirty percent planned employment in business or industry. Preferred future professional activity is shown in Figure F-4.85. Fifty-five percent of the respondents were preparing to pursue intellectual activities following graduation, with 18 percent emphasizing research, 13 percent teaching, and 24 percent planning an approximately equal balance of research and teaching. Administration or management activities were the first preference of 19 percent and professional services of another 23 percent.

4.3.4.4. Motivation

University of Minnesota graduate students held personal and career-related objectives about equally important as reasons for pursuing their education, illustrated in Figure F-4.86. The most frequently cited (by 19 percent of respondents) primary reason was to prepare for a new or different job, but this reason was important to only a slight majority of respondents (54 percent). On the other hand, obtaining a degree was important to 90 percent and most important to 18 percent. Personal growth and satisfaction was important to 82 percent, tied with CUNY for the largest proportion citing this reason, and was the single most important reason for 17

percent. Intellectual stimulation was important to 77 percent. Obtaining skills helpful in their career field was important to 81 percent (most important to 16 percent), and obtaining a theoretical background for existing skills was mentioned by 46 percent, the largest fraction mentioning this among the institutions surveyed. Improving income potential was a factor for 62 percent but was most important to only 9 percent.

ETS's questions comparing departmental and personal purposes provide another perspective on student motivation (Figure F-4.87). Personal enrichment was extremely important to 36 percent of the respondents and considerably important to another 38 percent (for a total of 74 percent), but only 22 percent believed that personal enrichment of the students was considerably or extremely important to their departments. Preparation to be a scholar or researcher was extremely important to 29 percent of the students sampled and considerably important to another 34 percent (totaling 63 percent), much more closely matched to the perceptions of the departmental priorities; 29 percent of the respondents believed their departments also considered scholarly preparation extremely important, another 41 percent considerably important (totaling 70 percent). Preparing for other practice was cited exactly as often as scholarly preparation as being extremely or considerably important to the respondents, but this objective was not perceived to be equally important to the departments; only 17 percent believed their departments felt it extremely important (whereas 29 percent felt that way personally) and 27 percent considerably important to the department (compared to 34 percent of the students).

4.3.4.5. Problems

When asked about personal problems (Figures F-4.88a and b), financing their education was the worst problem for 22 percent of the respondents and was at least somewhat of a problem for 51 percent; elsewhere on the questionnaire, the adequacy of financial resources available to graduate students was rated poor by 19 percent and fair by 37 percent of the students responding. Finding time to study was the worst problem for 15 percent (mentioned by a total of 52 percent, the most frequently mentioned personal problem), which was probably related to the conflicting job responsibilities mentioned as a problem by 43 percent of the respondents and the most severe problem for 12 percent. Inadequate places to study were also mentioned more frequently by Minnesota students (by 24 percent) than by those at the other universities.

No other personal problem was most troublesome to over 10 percent of respondents (eight percent did not single out a worst problem), but family responsibilities were somewhat of a problem for 37 percent. Other problems mentioned as somewhat of a hindrance by over 20 percent were self-confidence (32 percent, the highest percentage mentioning this among the student groups studied) and transportation (23 percent). Another problem involves the classroom: 33 percent (a higher proportion than at three other universities and tied with Roosevelt) said that the attitudes of some instructors posed problems.

No problem with the University was mentioned by over half the respondents, and 10 percent did not single out any worst problem (Figures F-4.89a and b). The most common institutional problem mentioned was the availability of library materials; this was cited as

the worst problem with the institution by 13 percent and as at least somewhat of a problem by 41 percent of the respondents (thus probably troublesome to between 35 and 47 percent of the population). Times, locations, and/or frequency of offering needed courses was cited as the worst institutional hindrance by 11 percent of the UM graduate student sample and as one significant problem by 35 percent. The general quality of instruction was cited as a problem by 30 percent (tie with Roosevelt for the highest proportion mentioning this problem) and as the most important problem by nine percent of the respondents. The other problems mentioned by more than 20 percent include getting information about the institution (30 percent, highest among the five universities) and about the department (27 percent), times administrative offices are open (30 percent) and times services are available (26 percent), the adequacy of computer facilities (27 percent), and the accessibility of their adviser or major professor (26 percent).

4.3.4.6. Academic programs

The quality of the programs offered by the University of Minnesota as measured by the scales devised by Educational Testing Service is generally good, as shown in Figure F-4.90. With a possible range of 1.0 (poor) to 4.0 (excellent), mean scale scores for the survey respondents ranged from the high 3.15 (good) rating of overall satisfaction to the low 2.58 (fair to good) for student evaluation. The standard errors for these means were between 0.023 and 0.045, less than two percent of the means.

Among the components of the overall satisfaction scale, 52 percent of the respondents (46 to 58 percent of the population) agreed

strongly with the statement, "I have learned a great deal in this program," and another 36 percent agreed somewhat for total general agreement of 88 percent of the sample. Seventy-four percent were in general agreement that "I would advise a friend to enroll in this program;" and 34 percent (highest among the five universities) agreed strongly, and 48 percent agreed somewhat, that the program was providing them good preparation for later professional work.

The scholarly excellence of the faculty received a mean rating of 3.04, the highest mean on this scale among the participating institutions; 32 percent rated the scholarly or professional competence of the faculty as excellent, and 32 percent also stated that faculty awareness of new developments in their field was excellent. However, 44 percent agreed at least somewhat that their department faculty had very little team effort, and 52 percent rated their department's interaction with other disciplines as poor or fair.

Faculty concern for students scored 2.70. Eighty percent of the respondents agreed strongly or somewhat that faculty members are genuinely concerned about student welfare, and 79 percent tended to agree that their department had a humane environment characterized by mutual respect between faculty members and students. On the other hand, faculty-student relations were rated excellent by only 15 percent, and 39 percent agreed somewhat or strongly that some professors unduly exploit their students. Fifty-six percent felt that opportunities to develop mentors or sponsors among the faculty rated poor or fair. Accessibility of advisers was scored excellent by 29 percent and of course instructors by 20 percent, but 55 percent disagreed at least some that they had been well advised on using the

department's people and resources. The majority of students surveyed disagreed with the statement that "Faculty members help graduates find employment."

Respondents' perceptions of their fellow graduate students were quite favorable: 46 percent agreed strongly and another 46 percent agreed somewhat that graduate students in their program work hard, 21 percent agreed strongly and 37 percent somewhat that graduate students do a lot of unassigned reading, 27 percent (highest among the universities) agreed strongly and 53 percent somewhat that graduate students demonstrate enthusiastic involvement with their field, 34 percent (also highest) agreed strongly and 57 percent somewhat that graduate students handle course assignments with care and responsibility, 35 percent (again, highest) agreed strongly and 53 percent agreed somewhat that graduate students continue projects until they are completed, and 34 percent (yet another high) agreed strongly plus 49 percent somewhat that graduate students support and help each other.

Sixty-four percent of the respondents felt that there should be more opportunities for graduate students to participate in departmental decisions, but the responses to the other items indicate that UM graduate students are generally satisfied with the results of those decisions. The majority of respondents felt that facilities for classes and/or administration were only fair to poor, but most felt that the number of support staff were adequate and that support staff quality was good.

4.3.4.7. Professional activities

Among those itemized by ETS, the most common professional activities of UM graduate students -- and those elsewhere -- were talking to other professionals about their graduate program or career plans, done within the previous 12 months by 80 percent of the sample, and independently planned reading or practice, conducted by 75 percent (Figures F-4.91a and b). Nearly two-thirds of the respondents, the highest proportion among the participating graduate schools, had carried out an independent research or creative project (the opportunity for which was rated excellent by 23 percent and good by 47 percent), and over half had collaborated on such a project with a student or a faculty member (also highest among the institutions surveyed); 53 percent had prepared a proposal for a major research project. Fifty-six percent had attended a meeting of a scholarly or professional society within the past the year.

Fifty-six percent of the UM students had held a graduate assistantship during the course of their program. On the ratings of their assistantships, 60 percent reported that the departmental training for their duties was fair or poor; other aspects of the experience were rated fair to good, with the contribution to their academic development rated good or excellent by 80 percent.

Only 21 percent of the respondents had participated in a clinical, field work, or internship experience required by their graduate program, but these experiences received good to excellent ratings; for example, the chance to practice professional skills was rated excellent by 50 percent of practicum participants compared to 32 percent of graduate assistants. Thirty-four percent gave an excellent

rating to the supervision they received, the strongest rating of this aspect of practicums among the five universities.

4.3.4.8. Support services

Figures F-4.92a, b, c, d, and e illustrate the ratings of graduate student needs for support services; Figures F-4.93a, b, c, d, and e show the mean quality rating of services offered; and Figures F-4.94a and b show the estimated frequency of use of some services or facilities.

According to the students questioned, the most important support facility provided to graduate students by the four doctorate-granting universities is the library. Seventy-nine percent of UM respondents (73 to 85 percent of all UM graduate students) rated the library as very important. Ninety-seven percent of the respondents had used the library facilities, half of them several times a week, and their ratings of the quality were generally favorable: 30 percent ranked the facilities excellent (the highest proportion of "excellent" among the five universities in the study) and 40 percent good. Library holdings in their field were rated excellent by 18 percent and good by 49 percent, although as discussed above the availability of the materials was cited as a problem by many students in the sample.

Opportunities for teaching experience were very important to 40 percent of respondents and somewhat important to another 28 percent; 30 percent of these students, the highest percentage among the participating universities, felt that the opportunities present at Minnesota were excellent. Opportunities for research experience were even more important to UM graduate students: very important to 64 percent of respondents and somewhat important to another 22 percent,

and the quality of these opportunities at UM was rated even more highly than the opportunities for teaching experience. But laboratories, studios, or other specialized facilities were very important to only 30 percent and somewhat important to 27 percent; quality of these specialized facilities was rated fair to good by the users, 52 percent of whom used such facilities several times a week.

Colloquia and/or special lectures were at least somewhat important to 66 percent of the respondents; 64 percent had taken advantage of such events and rated them good (49 percent) to excellent (28 percent, the highest proportion of excellent among the institutions). Cultural events were somewhat important to 45 percent and very important to another 19 percent of the respondents and had been attended by nearly 70 percent; 88 percent of this audience rated UM's cultural programs good or excellent. Recreational facilities were somewhat or very important to, and had been used by, over half of the respondents, with 48 percent of the users rating the facilities good. On the other hand, athletic events such as football and basketball games were not important to 64 percent, although those attending them gave them an excellent rating.

Courses taught evenings or weekends were not important to 58 percent of the respondents, but courses meeting just once a week were at least somewhat important to the majority.

Computer facilities were more important to Minnesota graduate students than to those at the other universities: very important to 42 percent of the UM graduate students questioned and somewhat important to another 32 percent (so at least somewhat important to between 66 and 78 percent of the Spring 1982 population); computer

consultants were very important to 35 percent and somewhat important to 32 percent of the sample. Sixty-eight percent of users rated the computer facilities good or excellent, with 70 percent of computer users accessing the facility several times a term. Most computer consultant clients used this service once a term or less; the advice received was rated fair (33 percent) to good (39 percent) by the users. Statistical consultants, though infrequently used, were also somewhat or very important to over half the UM sample, and this service was rated good by 53 percent of its users.

Services related to employment and financing were important to many students. Part-time employment was very important to 62 percent and somewhat important to another 12 percent of the respondents. An employment service to locate student jobs was very important to 30 percent and somewhat important to 32 percent; of the 57 respondents who had used the service provided by UM, 42 percent rated it good and 32 percent fair. For the future, a placement service was very important to 52 percent and somewhat important to 27 percent; 74 respondents reported already having used this service and rated its quality from poor (23 percent) to good (36 percent). Career counseling was somewhat or very important to 67 percent of the students surveyed, and the ratings of the 90 students who had sought career counseling at the University ranged from poor (33 percent) to good (29 percent); when asked specifically about career advice received from their departments, respondents again rated it from poor (26 percent) through fair (41 percent) to good (27 percent). Personal counseling, on the other hand, was of some importance to only

45 percent of the sample, but nearly two-thirds of the 54 students who had used this service rated it good or excellent.

Loan services were also important to the majority of respondents -- long-term loans to 60 percent of the sample and emergency short-term loans to 53 percent. Provision of emergency loans received low ratings: of the 25 users, 44 percent labeled the service poor (the greatest proportion of poor ratings among the universities studied) and 20 percent fair. Provision of long-term loans was rated considerably higher: excellent by 24 percent and good by 51 percent of users. However, financial planning assistance was even somewhat important to only 33 percent; of those 21 students who had sought such assistance at UM, 38 percent rated the advice as poor and 52 percent fair. The provisions for tuition payment options, important to 60 percent of respondents, received a modal rating of good.

Health insurance was very important to over a third of the UM students surveyed and somewhat important to another 25 percent, with 67 percent rating the insurance available as good or excellent, better evaluations than health insurance received elsewhere. Health care provided by the University was important to 62 percent of the respondents (very important to a higher proportion of students at UM than elsewhere) and was rated exceptionally highly: good or excellent by 79 percent of the 155 students who had used the present service.

Parking facilities were a very important support facility for 47 percent of Minnesota respondents and were somewhat important to another 29 percent. Like students elsewhere, users of the UM parking facilities judged them inadequate; 52 percent of the users (who included 85 percent of the respondents) rated the facilities poor and

31 percent fair. Forty-one percent of the students reported using the parking facilities several times weekly. Public transportation was nearly as important as parking to UM students and received a modal rating of good.

Informal contact with other students was very important to 35 percent (the highest proportion among the five institutions) and somewhat important to 43 percent, and the opportunities for such contact were generally rated as good. Lounge and study areas were very important to 30 percent (also highest) and somewhat important to 37 percent of the respondents, 64 percent of whom used such facilities (which they rated fair to good) at least several times a term. Food service facilities, somewhat or very important to 65 percent of respondents, were used several times a week by 47 percent of the respondents and at least several times a term by 75 to 87 percent of all graduate students, with 66 percent of users in the sample rating the facilities good or excellent.

Low ratings received by two other support services seem noteworthy even though the services were not important to the majority of students. Tutoring or other individualized help was at least somewhat important to 30 percent of the respondents, but 55 percent of those who have used such a service at UM rated it fair or poor. Forty-one students in the sample reported trying to receive credit for nonacademic learning, and 71 percent of them rated that service poor or fair. Thirty-six percent of the respondents expressed a need for peer support groups, but the majority of those reporting participation in such groups rated their experiences less than good. Only 12 students reported using University-sponsored child care service, and

two-thirds of them rated the service poor or fair. Twenty-one respondents had had experience with the University's emergency locator service, and 57 percent of them (more than anywhere else) rated it poor. The majority of the 69 students who had lived in campus housing rated it less than good.

4.3.5. University of Tennessee

The frequency distributions for UTK student responses to each item are given in Table E-5 of Appendix E. For the final sample size of 147, the maximum 95 percent confidence interval for a proportion is ± 8.1 percent. Thus the proportions for the Spring 1982 population of Tennessee graduate students were usually within eight percent of the sample percentages reported in Table E-5 and below.

4.3.5.1. Demographic characteristics

As shown in Figure F-4.95 of Appendix F, University of Tennessee at Knoxville graduate student respondents included 77 women (52 percent) and 68 men (46 percent); two respondents did not indicate gender. The ethnic distribution of the sample (Figure F-4.96) was 84 percent non-Hispanic Caucasian, five percent Black, no Chicanos, one percent other Hispanic, one percent Native American, two percent Asian American, and seven percent nonresident aliens; again, two respondents (one percent) did not indicate ethnicity. Fifty-two percent of the respondents were married (between 44 and 60 percent of the population), 10 percent had been married at one time, and 38 percent had never been married (Figure F-4.97). The majority of respondents (65 percent) had no children living with them (Figure F-4.98), and 82 percent had no pre-kindergarten children.

The age of respondents ranged from 22 to 59 with a mean of 30.2 years old; the population mean was between 29.1 and 31.2 years. Mean age at first enrollment was 27.8 years, ranging from 17 to 43 for those students whose values could be determined.

All of these demographic means and percentages were within the range of values found at the other four universities whose graduate students were surveyed.

4.3.5.2. Educational history

Sixty-two percent of the UTK graduate students questioned were enrolled in programs leading to a master's degree and 33 percent were seeking a doctoral degree (Figure F-4.99). Figure F-4.100 illustrates the distribution of majors. Education was the predominant field of study, accounting for 25 percent of the respondents; 11 percent were enrolled in engineering (the highest proportion of engineering graduate students among the five participating institutions), nine percent in the social sciences, another eight percent in psychology, and eight percent in public affairs and services. As shown in Figure F-4.101, 56 percent of the respondents reported being enrolled full-time.

Like most graduate students, those at UTK maintain good grade point averages; 81 percent of respondents reported GPAs of A or A-.

Only six percent of UTK respondents indicated they were currently taking no courses (Figure F-4.102), and two percent reported carrying no credits, with only one percent reporting that their 'effective credits' -- the number of credit hours that would describe their time devoted to research plus courses -- as zero. UTK students reported carrying the heaviest course and credit loads among the five

universities, with means of 2.2 courses and 7.2 credits. Twenty-eight percent of the graduate student sample were enrolled for three credits, 23 percent for six, and 19 percent for nine credits. Of the original sample of 211, 180 students (85 percent) were registered at the Knoxville campus, 32 (15 percent) at off-campus facilities. Among the respondents, 71 percent reported that they had never taken an off-campus course, while 13 percent had had all their courses off-campus.

The majority of respondents (55 percent; between 47 and 63 percent of the population) had stopped out of higher education following their initial enrollment at UTK or another college or university, most (16 percent) for just one year. As can be seen from Figure F-4.103, 65 respondents (44 percent) had been continuously enrolled in higher education, tied with CUNY for the largest proportion of continuously enrolled students.

Nearly two-thirds (63 percent) of the UTK respondents had first enrolled in their current graduate program in 1980 or later. They expected to take from one to ten years to complete their degrees (Figure F-4.104), two years being the mode. Confidence about successful program completion was high; only four percent disagreed somewhat and two percent strongly with the statement, "I am sure I will complete the degree on which I am now working."

Over half the UTK graduate students had received their bachelor's degrees between 1974 and 1981 with the distribution fairly even between 1972 and 1979; the mean date of receipt, 1974.8 (± 0.5 for the population) was similar to the means of the other five institutions

surveyed. Three UTK respondents had received their first bachelor's degrees during the 1950s.

4.3.5.3. Employment characteristics

Figure F-4.105 shows the distribution of employment of UTK graduate students. One hundred seventeen respondents were employed during 1982 (80 percent, tie with Roosevelt for the highest proportion employed), 62 (52 percent of those employed) on a full-time basis. Most students (77 percent of those working) were employed in their field of study. Thirty-one percent of the respondents held graduate assistantships, accounting for 79 percent of those employed part-time, and another 10 percent were working in other capacities at UTK. As shown in Figure F-4.106, 10 percent of the sample were employed in business or industry, and 12 percent worked in a primary or secondary school system. The mean number of hours worked per week by the UTK graduate students surveyed ranged from 0 to 65 with a sample mean of 26.2 (population mean between 23.5 and 28.9).

Sources of financial support for Tennessee graduate students are illustrated in Figure F-4.107. Fifty-nine percent of the respondents reported that employment other than a graduate assistantship contributed to their support, with 35 percent reporting such employment as their primary income. Forty percent indicated that personal assets contributed to their support while enrolled as graduate students. Spouses contributed to the support of 35 percent of the UTK sample, the largest percentage receiving such support among the five schools studied. Twenty-one percent of the respondents indicated receiving support from a student loan, with eight percent designating this as their primary support source. Approximately 60

percent of the employed student respondents received some educational aid or incentives from their employers, most frequently tuition payment or reimbursement (received by 33 percent of all respondents, including graduate assistants) and/or use of facilities or equipment (19 percent).

Since the maximum number of years of full-time employment recorded was 11, the estimated population mean of between 3.8 and 5.0 years of full-time employment experience is probably slightly lower than the actual mean for UTK graduate students. The distribution of years of full-time employment is shown in Figure F-4.108. Seventy-seven percent of the respondents had been employed full-time for at least one year. And 77 percent had had at least one year of part-time or full-time work experience in their field of study, 38 percent having had no work experience in any other field. Eighty-four (57 percent) of the students surveyed had held part-time jobs at the University, 59 as graduate assistants, and 66 percent rated these experiences good or excellent.

Regarding their future plans (Figure F-4.106), one-third of the respondents preferred to work in an institution of higher education following completion of their degrees, with four percent planning to work at UTK. Twenty-four percent planned employment in business or industry (tied with Michigan State for the lowest proportion planning careers in that sector), and 10 percent planned to become self-employed or go into private practice, although only five of the respondents currently worked in that setting. Forty-eight percent of the respondents were preparing to pursue intellectual activities following graduation (Figure F-4.109), with 11 percent emphasizing

research, 21 percent teaching, and 16 percent planning an approximately equal balance of research and teaching. Administration or management activities were the first preference of 21 percent and professional services of another 22 percent.

4.3.5.4. Motivation

University of Tennessee at Knoxville graduate students held personal and career-related objectives about equally important as reasons for pursuing their education. The frequencies with which various reasons for attending graduate school at this time were cited, and their selection as the single most important reason for attending, are illustrated in Figure F-4.110. None of the proportions represent extreme values with respect to the other four universities.

The personal goal of obtaining a degree was important to 85 percent and most important to 17 percent of the respondents; personal growth and satisfaction was important to 78 percent, and intellectual stimulation to 69 percent. Preparing for a new or different job was important to a bare majority of respondents (52 percent) and was the primary reason most frequently mentioned (by 20 percent). Obtaining skills helpful in their career field was important to 80 percent (most important to 16 percent), and improving income potential was an important factor for 73 percent (most important to 16 percent).

Student motivation was also explored via the questions from ETS comparing departmental and personal purposes. As was true elsewhere, student goals diverged somewhat from the students' perception of departmental or faculty goals as shown in Figure F-4.111; in general departments were not perceived to be as enthusiastic as the students. Personal enrichment was extremely important to 37 percent of the

respondents and considerably important to another 42 percent (for a total of 79 percent), but only 36 percent believed that personal enrichment of the students was considerably or extremely important to their departments. Preparation to be a scholar or researcher was extremely important to 33 percent of the students and considerably important to another 27 percent (totaling 60 percent), and this objective also was perceived to be somewhat less important to the departments; only 15 percent of the respondents believed that their departments considered scholarly preparation extremely important, another 37 percent considerably important (totaling 52 percent). Preparing for other practice was most frequently cited as extremely important by the students (by 48 percent, with another 27 percent labeling it of considerable importance for a total of 75 percent), and this was also seen as the departments' primary objective, believed considerably important by 44 percent and extremely important by 25 percent of the sample.

4.3.5.5. Problems

The frequency with which various personal and institutional problems were cited by UTK students was similar to their severity at the other participating universities. When asked about personal problems, financing their education was the worst problem for 27 percent of the respondents and was at least somewhat of a problem for 52 percent (Figures F-4.112a and b). Elsewhere on the questionnaire, the adequacy of financial resources available to graduate students was rated poor by 24 percent of UTK respondents and fair by 40 percent. Finding time to study was the worst problem for 15 percent (mentioned by a total of 48 percent), which was probably related to conflicting

job responsibilities -- at 54 percent the most frequently mentioned personal problem and the most severe problem for 10 percent. No other personal problem was most troublesome to over 10 percent of respondents (eight percent did not single out a worst problem), but family responsibilities were somewhat of a problem for 42 percent. Other problems mentioned as somewhat of a hindrance by over 20 percent were self-confidence (24 percent) and transportation (24 percent). Another problem involves the classroom: 30 percent said that the attitudes of some instructors were a problem.

Times, locations, and/or frequency of offering needed courses was cited as the worst institutional hindrance by 22 percent of UTK respondents and as one significant problem by 56 percent -- the only institutional problem mentioned by over half the students (Figures F-4.113a and b). Availability of library materials was the worst institutional problem for 22 percent of the students and was somewhat of a problem for 45 percent. The general quality of instruction was cited as a problem by 23 percent and as the most important problem by 10 percent of the respondents. The other problems mentioned by more than 20 percent involved getting information -- about the institution (26 percent) and about their department (25 percent). UTK students cited difficulties due to times institutional services are available less frequently (mentioned by 19 percent) than respondents at three other schools.

4.3.5.6. Academic programs

The quality of the programs offered by the University of Tennessee at Knoxville as measured by the scales compiled by Educational Testing Service is generally good. With a possible range

of 1.0 (poor) to 4.0 (excellent), mean scale scores for the survey respondents ranged from the high 3.16 (good) rating of overall satisfaction to the low 2.55 (fair to good) evaluation of the curriculum (Figure F-4.114). The standard errors of the means ranged from 0.035 to 0.060, the largest being less than 2.5 percent of the mean.

The UTK means on seven scales were within the range of the scores of the other four universities, but Tennessee programs scored highest among the schools (2.83) on faculty concern for graduate students. Among the components of this scale, faculty-student relations were rated excellent by 27 percent; accessibility of advisers scored excellent by 39 percent and of course instructors by 25 percent; 38 percent agreed strongly that, "Faculty members are genuinely interested in. . .graduate students;" 37 percent agreed strongly that, "The department has a humane environment characterized by mutual respect between students and professors;" 27 percent agreed strongly that, "There are many opportunities for interaction with my major professor outside the classroom;" and 21 percent agreed strongly that, "Professors have a realistic view of my responsibilities outside class."

The scholarly excellence of the faculty received a mean rating of 2.88; 36 percent rated the scholarly or professional competence of the faculty as excellent, and 25 percent stated that faculty awareness of new developments in their field was excellent.

The overall quality of teaching was rated excellent by 20 percent, highlighted by instructors' good use of examples (strong agreement from 25 percent). Perceptions of their fellow graduate

students were also favorable: 41 percent agreed strongly that graduate students work hard in their programs, 23 percent agreed strongly that graduate students handle course assignments with care and responsibility, 27 percent agreed strongly that graduate students continue projects until they are completed, and 27 percent agreed strongly that graduate students support and help each other.

Among the components of the overall satisfaction scale, the statement, "I have learned a great deal in this program," elicited strong agreement from 51 percent of the students and some agreement from another 40 percent (totaling 91 percent general agreement), and 78 percent were in general agreement that, "I would advise a friend to enroll in this program;" 32 percent agreed strongly and 40 percent somewhat (for a total of 72 percent) that their program was providing them good preparation for later professional work. Over half the respondents, however, rated the interaction between their department and related disciplines as only poor or fair.

Sixty-three percent of the respondents indicated at least some agreement that there should be more opportunities for graduate students to participate in departmental decisions, but the responses to the other items indicate that UTK graduate students tended to be satisfied with the results of those decisions. The majority of respondents felt that both facilities for classes and/or administration and the number of support staff were less than adequate.

4.5.3.7. Professional activities

Among the professional activities itemized by ETS, those most common at all five institutions studied were (1) independently planned

reading or practice and (2) talking to other professionals about graduate program or career plans. Each of these had been conducted within the previous 12 months by 79 percent of Tennessee respondents (Figures F-4.115a and b). Nearly two-thirds of the respondents had attended a meeting of a scholarly or professional society with the year, and 58 percent had conducted an independent research or creative project (the opportunities for which were rated excellent by 20 percent and good by 44 percent of the students). Higher percentages of Tennessee students than of those elsewhere had participated in a clinical, field work, or internship experience (49 percent) and had conducted a for-profit activity (29 percent).

Forty-two percent of the UTK respondents had held a graduate assistantship during the course of their program. Fifty percent of these students reported that the departmental training for their duties was fair or poor. Other aspects of their experience were rated fair to good, with the contribution to their academic development rated good or excellent by 62 percent, but lower proportions than elsewhere gave excellent ratings to the contribution to academic development, chance to practice skills, and treatment as a colleague.

Thirty-one percent of the UTK sample had participated in a clinical, field work, or internship experience required by their graduate program. These experiences generally received good to excellent ratings regarding the chance to practice professional skills, contribution to academic development, variety of assignments or experiences, and even office space and equipment available.

4.3.5.8. Support services

Figures F-4.116a, b, c, d, and e show the mean need for each support service about which students were queried; Figures F-4.117a, b, c, d, and e give the mean quality rating for each; and Figures F-4.118a and b show the estimated frequency of use of some services and facilities. Unless otherwise mentioned, the extent of need and the rated quality of services by UTK students were similar to those reported at other institutions. As with the other samples, the standard errors of the means and proportions regarding quality of services vary considerably but are all higher than those for other sample values (including support service needs and use) since they include only the smaller number of respondents who had experience using the service or facility.

According to the sample, the most important support facility UTK provides its graduate students is the library, very important to 80 percent at UTK and also most frequently very important at the other three doctorate-granting universities. Ninety-two percent of the respondents had used the library facilities, and their ratings of the quality varied widely: 21 percent ranked the facilities poor, 27 percent fair, 33 percent good, and 19 percent excellent. These ratings were based on use several times a week by 47 percent and several times a month by another 28 percent of the students questioned. Library holdings in their field were rated fair by 39 percent and good by 38 percent.

Laboratories, studios, or other specialized facilities were very important to 31 percent and somewhat important to 29 percent of the respondents. Quality of these facilities was rated fair to good by

the users, 48 percent of whom use such facilities several times a week. Computer facilities also were very important to 31 percent of UTK graduate students and were somewhat important to another 35 percent; computer consultants were very important to 23 percent and somewhat important to 37 percent. Sixty-eight percent of users rated the computer facilities good or excellent, with frequency of use varying from several times a week to less than once a year. Computer consultants were somewhat or very important to 60 percent of the sample, although less than half the respondents had used such consultants more than once or twice a year; the advice of these consultants was rated fair (38 percent) to good (33 percent) by the users. Statistical consultants were also somewhat or very important to over half the UTK students, and this service was also rated fair (33 percent) to good (37 percent) by its users.

Services related to employment and financing were important to many students. Part-time employment was very important to 56 percent and somewhat important to another 18 percent. Employment service was very important to 34 percent and somewhat important to 23 percent; of the 39 respondents who had used the service provided by Tennessee, 46 percent rated it fair. For the future, placement service was very important to 53 percent and somewhat important to 27 percent; 52 respondents had already used this service, giving it quality ratings ranging from poor (23 percent) to good (33 percent). Career counseling was important to 65 percent of the students questioned, and the ratings of the 61 students who had sought career counseling at the University ranged from poor (25 percent) to good (41 percent); when asked specifically about career advice received from their

departments, the respondents again rated it from poor (20 percent) through fair (37 percent) to good (36 percent). Loan services were also important to the majority of sample members -- long-term loans to 54 percent of the students and emergency short-term loans to 47 percent. Provision of emergency loans received a particularly low rating: of the 24 users, 42 percent labeled the service poor and 21 percent fair. Provision of long-term loans was rated considerably higher: excellent by 22 percent, good by 39 percent, and fair by 24 percent of users. Sixty-four percent of the respondents believed that the financial resources for graduate students were less than adequate. Financial planning assistance was at least somewhat important to 40 percent, but the modal rating of those 17 respondents who had sought such assistance was poor. The provisions for tuition payment options, important to 55 percent of the students sampled, also received a modal rating of poor.

Health insurance was very important to a third of UTK students surveyed and somewhat important to another 16 percent, with 60 percent rating the insurance available as good or excellent. Health care provided by the University was important to 61 percent of the respondents and was rated fair to good by the 86 students who had used the present service.

Evening and once per week classes are important to UTK's graduate students: evening or weekend classes were very important to 40 percent of the respondents and somewhat important to another 20 percent, and once weekly class meetings were at least somewhat important to 61 percent of the sample (53 to 69 percent of all the Spring 1982 graduate students).

Parking facilities were a very important support facility for 65 percent of UTK respondents (second only to library facilities) and were somewhat important to another 23 percent. Like students elsewhere, users of the UTK parking facilities judged them inadequate; 54 percent of the users (who constitute 92 percent of the respondents using the facilities several times weekly) rated the facilities poor and 32 percent fair. Public transportation was also important to a majority of UTK students and was rated fair to good by most.

An emergency locator service was very important to 28 percent of the respondents and somewhat important to another 32 percent; 45 percent believed such a service was not available at UTK, but 14 students said they had used the service -- six of them (43 percent of users) rating it poor.

Recreational facilities were more important to Tennessee graduate students than to those at any of the other participating universities: they were somewhat or very important to, and had been used by, about two-thirds of the respondents, with 90 percent of the users rating the facilities good or excellent. Cultural events were somewhat important to 52 percent and very important to another 18 percent of the sample and had been attended by over 70 percent, and 77 percent of that audience rated UTK's cultural programs good or excellent. Colloquia or special lectures were also important to the majority of students questioned, having been attended by half of them, and 64 percent rated this aspect of campus life good or excellent.

Lounge and study areas were very important to 23 percent and somewhat important to 43 percent of the respondents, 65 percent of whom used such facilities (which they rated fair to good) at least

several times a term. Informal contact with other students was very important to 30 percent and somewhat important to 44 percent, and the opportunities for such contact were generally rated good. Food service facilities, used several times a week by 33 percent and at least several times a term by two-thirds of the sample, were important to 69 percent of the respondents, with 88 percent of users rating the facilities fair or good.

Low ratings received by two other support services were based on the reports of only a few users. Ten respondents reported having used University child care service, and five rated it poor. Evaluation or credit for nonacademic learning was more important to UTK students than to those elsewhere, being at least somewhat important to 43 percent of the respondents, and this service also received a very low rating by its users: it was rated "poor" by nearly half of those who had sought such evaluation.

4.3.7. Summary of data from total samples

4.3.7.1. Demographic, educational, and employment information

Considered together, the graduate students from the five universities which participated in the study represent a diverse spectrum with respect to age, gender, ethnicity, marital status, and children.

Their current educational statuses were also varied: although most were enrolled in either master's or doctoral programs, there were one or more respondents from each type of program except (as intended) students seeking first professional degrees. Reported number of courses and credits had wide ranges, and all the major discipline areas of the Higher Education General Information Survey (HEGIS) were

represented except for law and theology. It is interesting, however, that the majorities of students at all five institutions were nontraditional in that they had stopped out of higher education for one or more years between beginning their undergraduate education and the time of the survey.

Regarding their reasons for pursuing graduate study, the students from all five schools rated personal growth and personal enrichment highly: personal growth was mentioned as a reason by 74 to 82 percent at each university, and among the goals listed in the ETS portion of the questionnaire, personal enrichment was rated as extremely important by 31 to 39 percent. All five samples perceived that students' personal satisfaction was considerably less important to their departments than it was to the students.

Employment experience and plans were also diverse. The graduate students at the City University of New York were the only sample containing one-third or more students planning careers in colleges or universities.

4.3.7.2. Problems of graduate students

Respondents at the five universities were in general agreement about both personal problems and barriers imposed by their institutions. Financing their education was selected the worst personal problem by 22 to 38 percent of respondents at all five; other problems mentioned by over 20 percent of respondents at all the schools were finding time to study, job responsibilities, family responsibilities, and self-confidence; transportation was mentioned by over 20 percent at four of the universities.

Among the institutional barriers given, the times, locations, or frequency of offering needed courses was indicated as a barrier by over 20 percent of the respondents at all five institutions and was the worst institutional problem for over 20 percent at three of the schools. Other hindrances mentioned frequently at all the universities were availability of library materials, general quality of instruction, attitudes of some instructors, and getting information about the institution and about their own department. Accessibility of their adviser was mentioned as a problem by over 20 percent of the respondents at four of the schools (but, as reported below, was also rated as excellent by 20 percent or more at four of the universities).

4.3.7.3. Program quality

Of the eight scales of program quality derived by ETS, overall satisfaction and scholarly excellence of the program were rated highest at all five institutions, curriculum and evaluation of student performance lowest. Thus none of the institutions showed a general split between scales dealing with scholarly excellence and those more related to the quality of the learning environment.

Among individual items regarding program quality, 20 percent or more of the respondents at four or five institutions gave ratings of excellent to the accessibility of their instructors and faculty awareness of new developments. Similar percentages agreed strongly that faculty members are interested in graduate students' welfare, their department has a humane environment, there are many opportunities for interacting with their major professor, professors use many examples in their teaching, the program is intellectually stimulating, and different points of view are encouraged; high

proportions disagreed that some professors unduly exploit their graduate students. Many students also gave high marks to their peers: over 20 percent at four or five institutions agreed strongly that graduate students in their program work hard, complete assignments with care and responsibility and despite setbacks, and help each other. Over 60 percent at each institution agreed strongly that they would complete the degree on which they were working, and over 20 percent at at least four schools agreed strongly that the program was good preparation for later work, they had learned a lot, they would enroll again if starting over, and they would advise a friend to enroll in the program.

The only aspects of their programs rated poor by 20 percent or more of the respondents at most institutions were the career advice received and the financial resources available to graduate students, although the majority of all samples rated as only poor or fair the opportunities for student participation in departmental decisions.

The ETS Program Quality Evaluation instrument for students also asks about the professional activities in which students have engaged during the past 12 months. Although the proportions of students engaging in each varied among the five participating universities, the order among the most frequently reported activities was the same at all: independent reading in the field was most frequent, then talking with others about the field, attending professional meetings, and conducting independent projects.

Teaching experience, research experience, and courses which meet once a week (none of which are actually support services) were all very important to one-third or more of the students at four

universities. Few students at any institution had participated in a clinical, field work, or internship experience required by their programs, but nearly all those who had rated the experience very highly.

4.3.7.4. Support services needed by graduate students

Library facilities were very important to at least one-third of the respondents from all five institutions as was placement service, and part-time employment, long term loans, and parking were very important to over one-third of the respondents at four of the universities.

4.3.7. Relationships of needs for support service and their quality to frequency of use

Multiple correlation coefficients were calculated to investigate the influence of need and quality on the frequency of use of those support services which might be used on a regular basis.

4.3.7.1. Roosevelt University

Since most of the respondents had not used many of the listed services and facilities, several of the variables had too few cases to compute meaningful correlations.

Library facilities had been used by most students, and although the multiple correlations was a significant .504, accounting for 25.4 percent of the variance in use, most of the correlation was due to variations in need which had a .483 correlation with use based upon the 36 cases which had values for all three variables. Use of public transportation (28 cases) was correlated with need ($r=.384$) rather than with rated quality. The multiple correlation coefficient for use

of lounge and study areas was a significant .503, accounting for 25.3 percent of the variance in use by 33 respondents, with rated quality of the facilities being more highly correlated with use ($r=.35$) than rated importance ($r=.25$), although both simple coefficients were significant. The correlation coefficients for colloquia and special lectures did not attain statistical significance with only five users, but the combination of quality and importance accounted for 71 percent of the variance in use (multiple $R=.85$) with the correlation with quality predominating ($r=.68$, $p=.15$).

4.3.7.2. City University of New York

The use of five services was highly correlated with their importance to the CUNY respondents. Three of these coefficients were significant at the five percent level: computer consultants ($r=.42$), library facilities ($r=.40$), and lounge and study areas ($r=.38$). Peer support groups were used by only nine subjects, and use was highly correlated with expressed need ($r=.62$) although it failed to achieve statistical significance ($p=.10$). Similarly, only 13 respondents had used CUNY parking facilities, but use was highly correlated with need ($r=.59$, $p=.08$).

Attendance at cultural events was related to both their quality and their importance to the student; the multiple R was .58, accounting for one-third of the variance in frequency of attendance, with the correlation with quality .50 ($p<.05$) and with importance .35 ($p=.14$). Use of recreational facilities was also jointly determined by importance and quality, with both individual correlations statistically significant: the correlation with quality was .57, with

importance .40, and the multiple R was .81, accounting for nearly two-thirds of the reported variance in use.

4.3.7.3. Michigan State University

The reported use of MSU graduate students of several services or facilities was significantly correlated with their stated importance: computer facilities ($r=.49$, accounting for 24 percent of the variance in use), computer consultants ($r=.37$, thus accounting for only 14 percent of the variance), library facilities ($r=.43$, variance $=.18$), laboratories, studios or other specialized facilities ($r=.39$, variance $=.15$), recreational facilities ($r=.48$, variance $=.23$), public transportation ($r=.47$, accounting for 22 percent of the variance), food service facilities ($r=.35$), lounge and study areas ($r=.25$, accounting for only six percent of the variance), and health care facilities ($r=.36$). In each of these cases, the addition of quality raised the multiple correlation coefficient less than .05, and quality alone was not significantly correlated with use.

Although used by only 15 respondents, frequency of seeking tutoring or other individualized help was dependent on both need ($r=.52$) and the quality of the service ($r=.55$), the combined variables yielding a multiple R of .64, accounting for 41 percent of the variance. Similarly, child care service had been used by only seven respondents, but frequency of use was strongly correlated with both need ($r=.38$) and quality ($r=.43$) with a multiple R of .92, accounting for 86 percent of the variance in use.

Attendance at colloquia and special lectures, at cultural events, and at athletic events was also related to perceptions of both their importance to the respondent and their quality. For colloquia, the

correlation between expressed need and attendance was .41 while that between quality and frequency was .26; the multiple correlation was .47, accounting for 22 percent of variation in frequency of attendance. Frequency of attendance at cultural events had a correlation with rated importance of .38 and with quality of .22, with a multiple R of .41 accounting for 17 percent of the variance. For athletic events the correlation with need was .46, with quality .38, and the multiple correlation was .52 which accounted for nearly 27 percent of the variance in reported frequency of attendance.

4.3.7.4. University of Minnesota

At UM the services and facilities whose use was significantly correlated with their stated importance were: computer facilities ($r=.53$, accounting for 28 percent of the variance in use), computer consultants ($r=.38$, thus accounting for only 14 percent of the variance), statistical consultants ($r=.35$, variance = .12), library facilities ($r=.46$, variance = .21), laboratories, studios or other specialized facilities ($r=.48$, variance = .23), parking facilities ($r=.48$), public transportation ($r=.54$, accounting for 29 percent of the variance), food service facilities ($r=.41$), and health care facilities ($r=.35$). In each of these cases, the addition of quality raised the multiple correlation coefficient less than .05, and quality alone was not significantly correlated with use.

Attendance at cultural events and at colloquia and special lectures, however, was related to perceptions of both their importance to the respondent and their quality. For cultural events the multiple correlation was .54, accounting for 29 percent of variation in frequency of attendance; the correlation with need was .49 and with

quality .30. The correlations were smaller for special lectures: the relations with need ($r=.37$) and quality ($r=.17$) combined for a multiple R of .41 and variance of .17.

4.3.7.5. University of Tennessee at Knoxville

The reported use of several services or facilities by UTK respondents was significantly correlated with their stated importance: computer facilities ($r=.59$); library facilities ($r=.47$); laboratories, studios or other specialized facilities ($r=.47$); colloquia or special lectures ($r=.36$); cultural events ($r=.42$); athletic events ($r=.44$); recreational facilities ($r=.48$); public transportation ($r=.37$); and lounge and study areas ($r=.47$). In each of these cases, the addition of quality raised the multiple correlation coefficient less than .05, and quality alone was not significantly correlated with use. The use of health care facilities, however, was related to perceptions of both their importance to the respondent ($r=.35$) and their quality ($r=.26$, $p=.06$), the multiple correlation being .41 and accounting for 17 percent of the variance in use. Peer support groups had been used by only 11 respondents, but their frequency of attendance seems related to the perceived quality of this service with $r=.54$, although statistical significance was not attained ($p=.12$).

4.3.7.6 Summary of multiple correlations

Of the 17 support services or facilities about whose frequency of use information was requested, the use of eight was significantly correlated with need at three or more universities: library facilities, public transportation, lounge and study areas, computer facilities, computer consultants, laboratories and other specialized

facilities, recreational facilities, and health care facilities. The only services whose use was dependent on both need and quality at three or more institutions were cultural events and colloquia and special lectures. Two other services -- tutoring and child care -- had so few users that significant correlations were not found except at the largest university, Michigan State, but there the multiple correlation coefficients were larger than for virtually all other services: multiple Rs of .64 for tutoring and .92 for child care.

4.4. Cluster analyses

As described in Chapter 3, both Ward's hierarchical method and Wishart's density method of cluster analysis were applied to the similarity matrices (which were based on the mean inter-subject distances on 17 variables) computed for each of the five participating universities.

In general, "clusters" are the subsets resulting from partitioning a set of points via cluster analysis. In the following discussion, however, the term "groups" will be used to identify the outcomes of cluster analyses on the matrices derived from the samples from individual institutions, while "clusters" will be used for the outcomes of the second order cluster analyses combining the institutional groups.

Identifiable groups were found with both methods at all the institutions. One indication of good clustering with Ward's method (according to Wishart, 1978) is the presence of relatively well defined discontinuities in the increase in the error sum of squares at some stages of clustering. The groups into which the sample was partitioned prior to the increase may constitute "good" clusters. At

the points of discontinuity chosen as defining clusters for these samples, illustrated in Figure F-4.119 of Appendix F, the increase in the error sum of squares for the sample ranged from 0.100 (an increase from 0.581 to 0.681) at CUNY to 0.332 (an increase from 0.573 to 0.905) at Roosevelt. The percent change ranged from 13.0 percent for the University of Minnesota matrix (from 0.786 to 0.888) to 57.9 percent for Roosevelt. Although these changes vary considerably, it may be noteworthy that the range of fusion coefficients leading to the final groups was relatively narrow -- 0.573 to 0.885 -- as was the range for coefficients for the next fusion -- 0.681 to 1.063, although each judgements about cutoff point was made without reference to that of the other universities.

The number of hierarchical groups selected for further analysis was 13 at MSU and Minnesota, eight at Tennessee, ten at CUNY, and five at Roosevelt.

In addition to the change in error coefficient, the number of "natural" groups identified via the density method (a nonhierarchical approach to clustering) was used as an indication of the approximate number of groups sought. The crosstabulations between the assignment of individuals to groups by the density method and to the same number of groups (not necessarily identical with the final number selected for further study) derived by Ward's method showed considerable overlap at all five universities, with symmetric uncertainty coefficients ranging from 0.48 at Roosevelt to 0.70 at CUNY and Minnesota. These coefficients may be interpreted as ". . .the proportional reduction in uncertainty which is gained by knowing the joint distribution of cases as opposed to the combined uncertainty of

the row and column marginal distributions" (Nie et al., 1975, p. 227). A less precise, but helpful, interpretation is that the coefficient represents approximately the proportion of uncertainty in distributing the students by one of the methods is eliminated by knowing their distribution by the other.

Wishart (1978) developed the DENSITY procedure to simultaneously identify both large and small clusters, but when operating on the matrices computed for this study, the DENSITY procedure seemed to result in one or a few relatively large clusters and numerous very small clusters. The hierarchical clusters also varied considerably in size (from five to over 20 subjects per group) but did not have the extreme ranges (from two to 59) characteristic of the DENSITY method. Mindful of the low reproducibility of clusters found with some methods (commented on by Overall & Klett, 1972), the decision was made to use the less extremely divided hierarchical groups for further analyses of all the samples.

The sequence of analyses performed was (1) several exploratory analyses of the data from the smallest institution, Roosevelt University, (2) hierarchical and density analyses of the 17-variable matrices from all five universities, (3) analyses of group differences on other variables for each institution, and (4) second order clusters of groups across universities based on the similarity matrix calculated from the group means on 16 variables. In the opinion of the author, meaningful clusters of clusters emerged from this last procedure (indicating possible reproducibility of the cluster structure), and the groups derived from each university will be

discussed with reference to their position in the array of second-order clusters.

4.4.1. Michigan State University

The largest sample was that from Michigan State University, and its partitioning resulted in 13 hierarchical groups, the same number as the University of Minnesota -- whose sample was nearly as large. Of the 15 second order clusters derived, MSU groups were present in nine.

Figure F-4.120 shows the hierarchical clusters for the Michigan State University graduate students. Thirteen respondents (4.9 percent) were not included in the similarity matrix from which the clusters were derived because they did not have measures on at least 14 of the 17 variables.

As shown in Figure F-4.119, the first relatively large increase in the fusion coefficient occurred when 13 clusters were reduced to 12; prior to that fusion, the largest coefficient was .103 (reducing from 17 to 16 clusters), while the coefficient to reduce from 13 to 12 groups was .173. Thus 13 groups were studied further.

On the basis of the criteria used by the DENSITY program, the optimal division of MSU students was into 13 clusters -- another reason for selecting the 13 hierarchical clusters rather than 17 for further study. A chi-square comparison of the 13-cluster grouping of the HIERARCHY method with that of the DENSITY method showed significant overlap between the two ($p < .001$). The symmetric uncertainty coefficient between the two distributions is 0.64, which may be roughly interpreted as indicating that 64 percent of the uncertainty in distributing the respondents by one of the methods is

eliminated by knowing their distribution on the other. This level of agreement between methods indicates that the groups derived by either method are likely to be meaningful.

Values of the defining demographic variables for each hierarchical group are shown in Table 4.2 as well as the number of respondents in each group, their percentage of the sample, and the standard error for the population percentage. Group numbers are merely the lowest sequence number among the group's members, while group labels correspond to the designation given the second order cluster to which the group belongs. Analyses of group values of the defining variables revealed differences among the groups with probable error of five percent or less on 16 of the 17 variables; the groups did not differ on the mean number of years groups' members expected to take to complete the degrees on which they were working. The groups are discussed below on the basis of their relationships in the structure of the second order clusters.

Six of the clusters of MSU respondents were composed primarily of part-time students, five of full-time students, and two were about equally divided. Five groups were predominantly male, five female, and three nearly equal.

The chi-square analyses and analyses of variance revealed differences beyond the five percent level of significance on 91 of 223 original variables and eight of 12 derived variables tested. Table G-1 of Appendix G lists the variables on which the clusters differed and gives the values of the percents or means for those groups representing the extreme(s).

Table 4.2. Michigan State University Student Clusters:
Percent or mean values of variables used to
define clusters.

<u>Personal characteristics</u>	<u>Educational characteristics</u>	<u>Employment characteristics</u>
GROUP 6: Traditional young women. N=27 (10.2+3.1 percent)		
100.0% female	81.5% full-time	work 19.0 hrs./week
96.3% never married	Bach. 1978.8	current: 70.8% this inst.
77.8% Caucasian	stopped out 0.7 yrs.	future: 36.0% bus./ind., 24.0%
24.7 years old	commute 5.2 miles	each coll./univ., non-prof.
100.0% no pre-kind.chil.	2.6 yrs. for degree	78.3% curr. <u>not</u> fut. setting
0 total children		25.9% plan <u>each</u> admin./mgmt., prof.serv.
		1.2 yrs. FT work exper.
GROUP 1: Traditional young men. N=19 (7.2+2.3 percent)		
89.5% male	87.5% full-time	work 17.4 hrs./week
52.6% married	Bach. 1977.2	current: 83.3% this univ.
100.0% non-res.alien	stopped out 1.6 yrs.	future: 47.7% bus./ind.,
28.1 years old	commute 3.0 miles	31.6% coll./univ.
50.0% no pre-kin.chil.	3.6 yrs. for degree	61.1% current <u>not</u> fut. set.
0.8 total children		31.6% plan teach.+ res.,
		26.3% admin./mgmt.
		1.6 yrs. FT work exper.
GROUP 2: Traditional young men. N=37 (14.0+3.5 percent)		
100.0% male	88.9% full-time	work 19.6 hrs./week
100.0% never married	Bach. 1978.3	current: 81.1% this inst.,
97.3% Caucasian	stopped out 1.2 yrs.	future: 45.9% bus./ind.,
25.7 years old	commute 2.4 miles	32.4% coll./univ.
100.0% no pre-kin.chil.	2.4 yrs. for degree	70.3% curr. <u>not</u> fut. setting
0 total children		30.6% plan admin./mgmt.,
		19.4% <u>each</u> teach.+ res.,
		prof. serv.
		2.2 yrs. FT work exper.
GROUP 5: Traditional young men. N=28 (10.6+3.1 percent)		
71.4% male	70.4% full-time	work 24.0 hrs./week
100.0% married	Bach. 1976.9	current: 67.9% this inst.
96.4% Caucasian	stopped out 1.2 yrs.	future: 48.1% coll./univ.,
27.4 years old	commute 11.6 miles	25.9% bus./ind.
100.0% no pre-kin.chil.	3.3 yrs. for degree	66.7% curr. <u>not</u> fut. setting
0 total children		32.1% <u>each</u> plan teach.+ res., prof.serv.
		2.6 yrs. FT work exper.
GROUP 37: Older male full-time workers with children. N=17 (6.4+2.5 percent)		
100.0% male	78.6% part-time	work 37.8 hrs./week
100.0% married	Bach. 1969.0	current <u>and</u> fut.: 47.1% K-12,
93.8% Caucasian	stopped out 4.6 yrs.	17.6% govt.
36.4 years old	commute 20.9 miles	100.0% current=future setting
52.9% 1-2 pre-kin.chil.	4.4 yrs. for degree	52.9% plan admin./mgmt.
1.5 total children		7.8 yrs. FT work exper.
GROUP 11: Schoolteachers. N=19 (7.2+2.3 percent)		
100.0% female	100.0% part-time	work 38.6 hrs./week
100.0% married	Bach. 1966.8	current <u>and</u> future: 73.7%
88.9% Caucasian	stopped out 3.4 yrs.	K-12 ed.
39.8 years old	commute 17.6 miles	100.0% curr.=fut. setting
84.2% no pre-kin.chil.	4.2 yrs. for degree	68.4% plan teach., 26.3%
2.1 total children		admin./mgmt.
		7.2 yrs. FT work exper.

Table 4.2. (continued)

Personal characteristics	Educational characteristics	Employment characteristics
GROUP 18: Schoolteachers. N=12 (4.5+2.1 percent)		
66.7% female	91.7% part-time	work 37.7 hrs./week
83.3% married	Bach. 1974.1	current <u>and</u> future: 91.7%
100.0% Caucasian	stopped out 1.8 yrs.	K-12
29.2 years old	commute 27.1 miles	91.7% plan teaching
100.0% no pre-kin.chil.	4.3 yrs. for degree	100.0% curr. = fut. setting
0 total children		4.2 yrs. FT work exper.
GROUP 41: Schoolteachers. N=14 (5.3+2.3 percent)		
92.9% female	71.4% part-time	work 42.9 hrs./week
50.0% prev., 50.0% never married	Bach. 1969.0	current <u>and</u> future: 64.3%
92.3% Caucasian	stopped out 4.4 yrs.	K-12
35.9 years old	commute 14.4 miles	100.0% curr.= fut. setting
100.0% no pre-kind.chil.	3.7 yrs. for degree	42.9% plan teach., 14.3%
0.6 total children		each teach.+ res.,
		admin./mgmt., prof.serv.
		6.8 yrs. FT work exper.
GROUP 36: Prospective business managers. N=7 (2.6+1.6 percent)		
57.1% female	57.1% part-time	work 38.6 hrs./week
50.0% married	Bach. 1976.4	current <u>and</u> future:
100.0% Caucasian	stopped out 0.7 years	100.0% bus./ind.
29.3 years old	commute 6.9 miles	100.0% current=future set.
83.3% no pre-kin.chil.	3.5 yrs. for degree	42.9% plan admin./mgmt.,
1.0 total children		28.6% prof. serv.
		5.3 yrs. FT work exper.
GROUP 9: Single full-time workers. N=9 (3.4+1.8 percent)		
55.6% female	75.0% part-time	work 41.1 hrs./week
100.0% never married	Bach. 1971.5	curr.: 44.4% govt., 33.3% K-12
88.9% Caucasian	stopped out 3.7 yrs.	future: 44.4% bus./ind., 33.3%
33.8 years old	commute 23.1 miles	coll./univ.
85.7% no pre-kin.chil.	5.2 yrs. for degree	66.7% curr. <u>not</u> fut.setting
0.3 total children		44.4% plan adm./mgmt., 22.2%
		each teach., prof. serv.
		8.6 yrs. FT employ.
GROUP 17: Men with pre-kindergarten children. N=23 (8.7+2.9 percent)		
100.0% male	61.9% full-time	work 35.1 hrs./week
100.0% married	Bach. 1972.7	current: 56.5% this inst.
95.5% Caucasian	stopped out 3.0 years	future: 50.0% coll./univ.,
31.8 years old	commute 17.2 miles	22.7% bus./ind.
82.6% 1-3 pre-kin.chil.	4.3 yrs. for degree	59.1% curr. <u>not</u> fut. setting
1.6 total children		26.1% plan teach.& res.,
		21.7% res.
		5.9 yrs. FT work exper.
GROUP 3: Re-entry women with pre-kindergarten children. N=24 (9.1+2.9 percent)		
100.0% female	78.3% part-time	work 21.9 hrs./week
100.0% married	Bach. 1970.4	curr.: 33.3% K-12, 29.2% none
82.6% Caucasian	stopped out 2.7 yrs.	future: 21.7% coll./univ.,
35.2 years old	commute 23.2 miles	17.4% each K-12, bus./ind.
60.9% no pre-kin.chil.	3.4 yrs. for degree	82.6% curr. <u>not</u> fut. setting
1.6 total children		37.5% plan teach.,
		25.0% prof.serv.
		5.0 yrs. FT work exper.
GROUP 24: Non-Caucasian full-time students with full-time work experience. N=13 (4.9+2.2 percent)		
53.8% male	84.6% full-time	work 24.5 hrs./week
69.2% prev. married	Bach. 1972.8	current: 69.2% this inst.
50.0% minor., 41.7% Caucasian	stopped out 3.8 yrs.	future: 61.5% coll./univ.
32.7 years old	commute 9.4 miles	53.8% curr. <u>not</u> fut. set.
92.3% 0 pre-kin.chil.	3.6 yrs. for degree	30.8% plan teach.+ res.,
0.6 tot. children		23.1% each teach.,
		admin./mgmt.
		7.1 yrs. FT work exper.

Group 6, one of four groups in the cluster of traditional women graduate students, comprised the largest group of women, 7.1 to 13.3 percent of all MSU graduate students. They were young (mean age of 25), single and childless, had stopped out less than a year, and worked part-time for MSU. Over a third planned to work in business and industry, and nearly a quarter sought careers in non-profit agencies.

The women of Group 6 were majoring in a variety of fields, business being the most common; 70 percent were seeking master's degrees, 22 percent doctorates. They were carrying an average of 2.4 courses (all on-campus) for 8.9 credits, the highest load reported, and their estimate of their "effective credits", 10.9, was also highest, although the ratio of effective credits to actual (1.22) was about mid-range.

Group 6 had no extreme ratings regarding their academic programs on either the composite scales or individual items. Their main reason for pursuing graduate study was to prepare for a new or different job (most important to 31 percent), but they also felt that obtaining a degree and developing a more independent life style were more important than did most other groups. The most pressing personal problems for the women of Group 6 were finding time to study (at least somewhat of a problem for 59 percent) and the attitudes of some instructors (52 percent). Thirty-seven percent of Group 6 received at least some support from their parents, the largest proportion benefiting from this source.

The support services especially important to Group 6 included placement service for graduates, an employment service for working

students, public transportation, eating facilities, and health care facilities.

Group 1, representing 4.9 to 9.5 percent of 1982 Michigan State graduate students, was one of three MSU groups among the eight groups comprising the cluster of traditional men. Group 1 consisted of nonresident alien men whose mean age was 28 years old, half of them married with pre-kindergarten children. Nearly 90 percent were studying full-time, and over 80 percent were employed part-time at MSU an average of 17 hours per week.

Group 1 members were primarily engineering majors (35 percent), half seeking master's degrees and half doctorates. Most were full-time students, carrying an average of 7.2 credits with all their courses having been on campus. The most frequently cited main reason for pursuing their graduate education was obtaining skills helpful in their field, selected by half of Group 1. Their mean score on the personal goal of preparing to be a scholar or researcher was 3.5, the highest of the clusters. Developing a more independent life style was also at least somewhat important to half of the group.

Opportunities for both research and teaching experience were very important to Group 1 members, but they were the least satisfied among the clusters with the manner in which MSU was assisting them in attaining their educational objectives. They rated their programs lowest on seven of the eight evaluation scales developed by ETS -- on all except "curriculum". With 4.0 the maximum possible rating, the mean scores for Group 1 were 2.7 for "environment for learning", 2.4 for "relevance", 2.4 for "faculty concern for students", and 2.9 for "overall satisfaction". General quality of instruction was cited as

an institutional problem by half the group members. On individual evaluation items, Group 1 gave the lowest ratings regarding variety of graduate course and program offerings (2.0 of 4) and faculty-student relationships (2.4). They tended to neither agree nor disagree with the statements "Faculty members are genuinely interested in the welfare and professional development of graduate students," "If I were starting over, I would enroll in the program again," "There is good communication between faculty and graduate students. . .," and "Instructors here use many examples in their teaching," whereas members of other groups tended to agree with these statements.

Group 1 had a relatively high level of professional activity, with one-quarter having been author or coauthor of a scholarly paper submitted for publication within the previous year, 80 percent reporting participation in a research or creative project, and half having held a fellowship, scholarship, or traineeship during the previous 12 months.

The most frequent main financial support source for this group was graduate assistantships, primary for 44 percent and held at some time by 74 percent. Thirty percent reported receiving some parental support, and 40 percent reported significant use of personal assets. Financing their education was the principal personal problem for 39 percent of Group 1, although meeting residence requirements was the main barrier for 25 percent and a problem for another 25 percent (but perhaps they had in mind U.S. residence rather than MSU requirements). Forty percent benefited from reduced tuition (i.e., waiver of nonresident tuition for graduate assistants) as a result of their

employment, and 30 percent reported receiving clerical or research assistance from their employers (i.e., MSU which employed 83 percent).

Group 1 expressed the greatest need for support services among the clusters. They felt relatively strong needs for computer facilities and consultants, laboratories and/or other specialized facilities, English language training (though still a relatively low 2.2 with 3.0 being "not important to you"), part-time student employment and a service to locate such jobs, emergency short-term loans, placement service for graduates (an unexpected need for nonresident alien engineers!), financial planning assistance, public transportation, lounge and study areas, campus housing, health care facilities and health insurance, and an emergency locator service.

Group 2 was also in the cluster of traditional male graduate students. This group was composed of single Caucasian men, slightly younger (mean of 26) than Group 1, and though currently working for MSU, nearly half sought careers in the private sector. Representing between 10.5 and 17.5 percent of the graduate student body, Group 2 was the largest cluster at the selected level of aggregation.

The men of Group 2 were majoring in a variety of disciplines, including nearly one-quarter in agriculture and natural resources and 32 percent in the physical, social, and biological sciences. About two-thirds were seeking master's degrees, 30 percent doctorates. They were carrying fairly heavy loads of 8.6 credits and 10.9 'effective' credits. Virtually all their courses had been taken on campus. Professional activities during the past year included 28 percent being author or coauthor of a scholarly paper submitted for publication and

67 percent cooperating in a research or creative project with another student or faculty member, both relatively high proportions.

Over 80 percent of Group 2 members had held a graduate assistantship at some time, and it was currently the major source of income for 57 percent of the group. Among possible types of employer aid, 22 percent reported benefiting from reduced tuition (perhaps waiver of out-of-state tuition for some graduate assistants) and another 22 percent from clerical or research assistance. Student loans provided significant support for 38 percent and personal assets for 59 percent. Financing their education was the main personal problem for 49 percent of group members.

The main reason for pursuing graduate education for 31 percent of Group 2 was to facilitate obtaining a new or different job, although just obtaining their degree was important to over 90 percent. Their scores on the program evaluation items and composites were mid-range among the groups.

The only two supportive services particularly important to Group 2 members were part-time employment for students (such as graduate assistantships) and placement service for graduates.

Group 5, the third group of traditional men, consisted primarily of married, childless Caucasians averaging 27 years old, currently working part-time for MSU, and nearly half planning careers in higher education. Eleven percent of the sample belonged to Group 5, representing 7.5 to 13.7 percent of the 1982 population of Michigan State graduate students.

Group 5 members had varied majors, although 21 percent were in agriculture and natural resources and 36 percent in the physical,

biological, and social sciences. Fifty-four percent sought master's degrees, 43 percent doctoral degrees. They reported carrying an average of 6.3 credits but working the equivalent of 10.4 'effective credits' for the highest ratio of effective to actual credits (1.64) among the MSU groups.

The program evaluations of Group 5 members were about mid-range. Opportunities for both research and teaching experience were especially important to this group. Inadequate laboratory facilities were cited as a major institutional problem by 21 percent of this group, but 46 percent had submitted a scholarly paper for publication within the past year (the highest MSU group percentage), and 68 percent had prepared a proposal for a major research project.

The most frequently cited reason for pursuing graduate study among members of Group 5 was obtaining a degree (important to 96 percent), but they also cited as main reasons preparing for a new job (25 percent) and personal growth and satisfaction (29 percent) more frequently than most other groups.

Personal problems for this group included finding time to study (54 percent) and lack of opportunities for their spouses (39 percent, the highest among the clusters). Their spouses' incomes were the main support source for 39 percent of this group and contributed significantly to another 21 percent; 61 percent also had income from a graduate assistantship, which 79 percent had held at some time.

Support services important to Group 5 included laboratories or other specialized facilities, colloquia or special lectures, part-time employment for students, and placement service for graduates.

Group 37, representing 3.9 to 8.9 percent of MSU graduate students, was one of three groups of older, married Caucasian men with several years of full-time employment experience. The average age of Group 37 was 36, they had received their bachelor's degrees about 13 years ago, over half had pre-kindergarten children, and most were studying part-time and working full-time. Like Groups 41 and 11 below, these men planned to remain in their current job settings, a K-12 educational system for nearly half, but this group planned to engage primarily in administration rather than in teaching following completion of their programs.

Fifty-three percent of the men in Group 37 were majoring in education; 47 percent sought master's degrees and 18 percent doctorates. Another 29 percent were classified as "other" majors and were in non-degree programs. Employment outside the University was the main source of financial support for 53 percent, and 47 percent received tuition payment or reimbursement from their employers.

The most frequently cited primary reason for graduate study for this group, unlike any other, was improving income potential -- most important to 31 percent. Advancement in their present job was mentioned as a reason by 53 percent. Finding time to study was the personal problem most often mentioned by Group 37, at least somewhat of a problem for 82 percent. Contributing to this problem were conflicting job responsibilities, most frequently mentioned (by 29 percent) as their worst problem and a factor for 71 percent, and family responsibilities, mentioned by 73 percent.

Like Group 41, Group 37 members gave their curricula a relatively low mean rating: 2.3 with a maximum possible of 4.0. On individual

items they gave low marks to interaction between their departments and related disciplines and to opportunities for student participation in departmental decisions, and they tended to disagree with the assertion that "There are many opportunities for interaction with. . .faculty outside the classroom." The professional experiences of this group as measured by the ETS list were relatively low; few had prepared a research proposal or pursued independently planned reading or practice; only eight percent had held a fellowship, scholarship, or traineeship; and none had held a graduate assistantship.

While Group 37 generally expressed no strong needs for support services other than evening classes, and they had very low needs for six of the 23 services, registration options were quite important to them, and they expressed the most difficulty using administrative offices, scheduling time to meet with their advisers, and meeting with instructors outside class due to their job, family, or commuting.

Group 11 was one of four groups (three from MSU) in the cluster of schoolteachers. It was comprised of perhaps the most non-traditional of the students sampled: married Caucasian women whose mean age was 39.8 years old (the oldest group), who received their bachelor's degrees an average of 15 years ago (the least recently), most having two or three children in school (the largest mean number of children), studying part-time, and teaching full-time in K-12 educational systems with the objective of continuing to teach. Students of the type in Group 11 constituted seven percent of the sample of MSU graduate students, the 95 percent confidence interval for the population mean being 4.9 to 9.5 percent.

The women of Group 11 were majoring in education (53 percent) or "other" (42 percent) fields, consistent with their employment in K-12 school systems. Over one quarter were in non-degree programs, and 58 percent were seeking master's degrees. Seventy-four percent relied on non-MSU employment for their financial support, although their spouses' incomes were at least contributory for 74 percent. Their employers contributed to the tuition of 26 percent. Advancement in their present job was most frequently cited as a reason for pursuing graduate education, mentioned by 53 percent. However, personal enrichment was also rated a high 3.5 as a goal for graduate study, and this group felt that their departments also valued this goal (mean of 3.0).

Only eight percent of Group 11 had cooperated in a research or other creative project with students or faculty during the past year. Their program ratings on four of the five ETS scales on which the groups differed were in mid-range, but they gave a high mean score of 3.1 to the environment for learning. The groups differed at or beyond the five percent level of significance on 20 of the 74 individual program evaluation items, and Group 11 gave the highest rating among the groups to faculty-student relationships and expressed especially strong agreement with statements regarding the humane environment of their departments, their willingness to reenroll if beginning again, and the receptivity of the faculty to new ideas; they disagreed with the assertion that faculty members help students find appropriate employment, probably not an important factor for these women whose main reason for graduate education was advancement in their present jobs. Finding time to study was a frequent problem for Group 11

(mentioned by 68 percent) due to family responsibilities (mentioned by 90 percent) and job responsibilities (also mentioned by 90 percent).

Members of Group 11 needed evening or weekend classes off-campus and registration options; they expressed difficulty using administrative offices, scheduling time to meet with advisers, and meeting with instructors outside class. They had little need for most nonacademic support services, with exceptionally low need for 16 of the 23 services on which the groups differed.

Group 18, the second group of schoolteachers at MSU and representing 2.4 to 6.6 percent of MSU graduate students, was younger than Groups 11 and 41, with a mean age of 29 years, and was composed of childless married Caucasians, two-thirds female, nearly all employed full-time in K-12 education and all planning to remain in their current settings. Like the predominantly female Groups 11 and 41, most of Group 18 planned to remain in teaching rather than administrative roles.

Half of Group 18's members were majoring in education, and another third were categorized as "interdisciplinary" or "other". About two-thirds of the total courses taken by this group were offered off-campus. Three-quarters sought master's degrees, 17 percent certificates. They were carrying an average of 4.7 credits and, like Group 36, rated their 'effective credit' load as equivalent to their actual credits.

In terms of the activities presented by ETS, the level of professional participation by members of Group 18 was low. None of them had prepared a detailed research plan within the past year, less than 10 percent had cooperated in a research project, and only 54

percent had pursued independently planned reading or practice in their field; none had held a traineeship, fellowship, or scholarship.

Obtaining a degree was cited as an important reason for being enrolled by every member of Group 18 and was the main reason for 42 percent. Personal growth and satisfaction was also extremely important to this group, receiving the highest mean rating of 3.6 from them, and they gave their departments the most credit (mean of 3.3) for supporting this goal. Preparing for further study ranked 3.2 of four, the highest mean for this goal among the groups. The major barrier to attaining their goal for a third of the group was conflicting job responsibilities, somewhat of a hindrance for half of the group's members.

Group 18 gave their programs the highest ratings among the clusters. There were significant differences among the groups in their means on five of the eight ETS scales, and Group 18 had or equaled the highest means on all five; in addition they had the highest means on the three that did not discriminate among the groups.

This group also had the extreme means on 12 of the 20 individual program evaluation items that differentiated among the groups. They gave the highest ratings to interaction between the department and related disciplines, opportunities for student participation in decisions, variety of graduate course and program offerings, and faculty-student relationships. They expressed the strongest agreement with the statements on faculty interest in the welfare of graduate students, the humane environment of the department, their willingness to enroll in the program if starting over, help in integrating past experience with new learning, faculty receptiveness to new ideas,

communication between faculty and graduate students, opportunities for interaction with faculty outside the classroom, and use of examples in teaching.

While 42 percent of Group 18 cited other employment as their primary source of financial support, an even higher proportion -- 50 percent -- indicated primary reliance on personal assets with an additional third drawing on this source. (Perhaps the questionnaires for off-campus students arrived in June after the final school year pay checks had been distributed.)

These satisfied students had few support service needs. Classes taught evenings or weekends, once a week, and/or off-campus were very important to them. Regarding general support services, however, their needs were lowest on 13 of the 29 items which distinguished among the various clusters.

Group 41, the third MSU group of schoolteachers, was comprised of single Caucasian women with no pre-kindergarten children. Their mean age, 35.9 years old, was between Groups 11 and 18. These women were currently employed full-time and planning to remain in their present settings, nearly two-thirds of them in primary or secondary education, and most of the women planned to remain teaching. Five percent of the sample (3.0 to 7.6 percent of all Michigan State graduate students) were of the type represented by Group 41.

Like Group 11, Group 41 was dominated by majors in education (57 percent) and "other" fields (29 percent, primarily the 21 percent in nondegree programs). Fifty-seven percent sought master's degrees, 21 percent doctorates. They were taking an average of only 0.9 courses

for 3.1 credits and 3.7 effective credits, the lowest load among the groups.

Group 41 gave a low rating of 2.3 to the ETS curriculum scale. They also had a low mean of 2.0 on the item regarding quality of their programs' support staff and expressed disagreement with the statement "Graduate students in this program pursue subjects by doing a lot of unassigned reading." Obtaining acceptance of previously earned credit had been a problem for 29 percent of group members.

Seventy-one percent of the group obtained their primary financial support from employment outside the University, and 71 percent cited job responsibilities as a hindrance to their education (the main problem for 36 percent); finding time to study was also a problem for 57 percent. Advancement in their present job was a reason for pursuing graduate study for 62 percent and the main reason for 29 percent. Thirty-six percent receiving tuition payment or reimbursement from their employers.

Evening and/or weekend classes were important to Group 41, but many support services were not; as would be expected for people employed full-time off campus, they expressed particularly low need for part-time employment, student employment service, campus housing, health care facilities, and health insurance. Child care service was also a low priority.

Group 36, one of five groups of young prospective business managers, represented three percent of the Michigan State sample (1.0 to 4.2 percent of the population). Over 40 percent of Group 36 members were enrolled full-time, but all were also working full-time in business or industry -- and all intended to remain in that sector,

most in management roles. This group was entirely Caucasian but was about evenly divided between single and married men and women and between part-time and full-time students; the mean age was 29.

Business was the dominant major of Group 36 (43 percent), with another 29 percent in education, and the master's degree was the goal of 86 percent. The average credit load was 5.1, and this group felt that they were studying exactly commensurate with the credits carried: their mean effective credit estimate was also 5.1.

The main motives for these student's pursuit of graduate education were obtaining skills helpful in their field and personal growth or satisfaction, each cited as the most important reason by 29 percent.

The program ratings of Group 36 tended to be about mid-range. In comparison with the other groups, they gave an unusually high rating to the quality of their departments' support staff (mean of 3.2) and agreed relatively strongly with the assertion that "The department has a humane environment characterized by mutual respect between students and professors." On the other hand, they tended to disagree with the statements that "Faculty members actively help graduates of this program find appropriate employment," "Faculty members have helped me integrate past experience with new learning," and "There are many opportunities for interaction with other members of the program's faculty outside the classroom." Twenty-nine percent of this group reported problems gaining acceptance of previously earned credit.

Employment other than a graduate assistantship was the main source of financial support for 57 percent of Group 36 and contributory to the support of another 29 percent; loans, parental

help, and personal assets were also important to many group members. No one in the group had held a graduate assistantship, fellowship, scholarship, or traineeship. Forty-three percent reported receiving tuition payment or reimbursement from their employers.

Finding time to study was the principal personal problem for this group, the dominant problem for 43 percent and one problem for another 43 percent. Conflicting job responsibilities were also sometimes a hindrance for 57 percent.

There were no supportive services noteworthy for their high demand by this group; on the contrary, the group placed the least importance on seven of the 29 services on which the groups differed.

Group 9, one of three groups in the cluster of single commuting full-time workers, was split nearly evenly between men and women, most Caucasian and all single, mean age 34 years old, most working full-time in K-12 education or government. Three percent of the respondents (and 1.6 to 5.2 percent of the population) were in Group 9.

Two-thirds of Group 9 were majoring in education, although 44 percent hoped to find post-graduate employment in business or industry, primarily in administration or management. Master's degrees were the goal of 38 percent, doctorates of another 38 percent, and intermediate awards of 25 percent. One-third of this group cited MSU's acceptance of their previously earned credit as a problem.

The program ratings of Group 9 were generally in mid-range. However, they gave the highest rating among the groups, 3.1 on a four point scale, to faculty-student relations and expressed the strongest agreement of the groups with the statement "There is good

communication between faculty and graduate students. . ." They also agreed relatively strongly with the statement that "Graduate students. . .[do] a lot of unassigned reading."

Most members of Group 9 worked in government or K-12 education, and 56 percent derived their primary financial support from such employment; 22 percent also received tuition payments from their employers. Fifty-six percent relied significantly on personal assets for support.

Although not their primary reasons for enrolling in graduate school, a higher proportion of this group than most others mentioned advancement in their present jobs (44 percent) and developing more independent life styles (56 percent) as motives. Job responsibilities were mentioned as a problem by over half of the group, as their worst personal problem by 22 percent.

Group 9 students did not have strong needs for support services; evening courses that meet once a week were, however, very important to them.

Group 17 was one of four groups in a cluster of married men with pre-kindergarten children. Its members were similar to those in Group 36 above in that over 60 percent of Group 17 members reported being full-time students, and their average hours worked per week -- between 30 and 40 -- put them in the class of full-time workers, although over half worked at MSU. These Caucasian married men were also somewhat 'nontraditional' with respect to their age (mean of 32), number of years stopped out (mean 3.0), and number of children (one or two, usually of pre-kindergarten age). Half of this group planned to seek future positions in colleges and universities. Nine percent of the

respondents, 5.8 to 11.6 percent of MSU graduate students, were like those in Group 17.

Group 17 also contained a preponderance of education majors (35 percent) working on doctoral degrees (73 percent). These men were carrying a usual load of 5.6 credits, but their mean of 1.2 courses was the lowest among the groups; presumably most were carrying several dissertation credits. Their motives for graduate education were getting a degree (important to 91 percent) and getting a different job (the primary reason of 35 percent), with preparation for college teaching especially important to them.

On most program evaluation variables and scales their means were mid-range. However, they expressed especially strong agreement with the statements that "Graduate students in this program. . .[do] a lot of unassigned reading" and "If I were starting over, I would enroll in the program again."

Equal proportions of Group 17 (35 percent) received their primary financial support from graduate assistantships and from other employment; personal assets were also a significant source for over half.

Despite their work weeks averaging 35 hours, effective credit load of 6.4, and family responsibilities, finding time to study was reported less frequently as a problem for this group than for any other cluster except Group 9. The most frequently cited primary personal problem, however, was family responsibilities -- the worst problem for 26 percent and mentioned by an additional 30 percent. Job

responsibilities were somewhat of a hindrance for 52 percent, and limited opportunities for their spouses was a problem for 26 percent.

Group 17 had few strong requirements for supportive services. Long-term loans were more important to this group than to any other as was child care service.

Group 3, nine percent of the sample and probably between 6.2 and 12.0 percent of the Spring 1982 graduate students, was one of four groups in the second order cluster of married women with pre-kindergarten children. Group 3 contained predominantly white married women whose average age was 35 and who had one or two children. Over a quarter were unemployed, and a third were working in primary or secondary schools. Their career goals varied widely.

Over half of Group 3 members were education majors, although only 17 percent were planning future careers in K-12 education. Two-thirds were seeking master's degrees, eight percent each sought certificates and doctorates, and 17 percent had non-degree status. Their average load for Spring 1982 of 1.2 courses and 4.5 credits was the lightest of the clusters as was their "effective credit" average of 5.1.

Regarding their program evaluations, members of Group 3 gave the highest rating (mean of 3.0) to the variety of graduate course and program offerings; they tended to disagree with the assertion that "There are many opportunities for interaction with. . .faculty outside the classroom."

Finding time to study was a problem for 71 percent of Group 3 and conflicting job responsibilities for 54 percent. The primary problem for 29 percent, however, and somewhat of a problem for another 46 percent, was conflicting family responsibilities.

Although the employment of more than one-third of Group 3 women contributed to their financial support, 42 percent depended primarily on the incomes of their spouses, and an additional 29 percent relied partially on this source. One-quarter of the group received tuition payment or reimbursement from their employers.

Group 3 did not have strong needs for support services other than courses offered evenings and meeting once a week, but they expressed the most difficulty using administrative offices and meeting with their instructors outside class due to competing demands of job, family, or commuting.

Group 24 was one of two groups in a cluster of non-Caucasian full-time students with several years of full-time work experience. It was similar to Group 17 with respect to age (average of 33), years stopped out (mean of four), preponderance of current employment at MSU, and higher education career goals. It differed in being divided between men and women and being primarily minorities; over two-thirds were single but had been married, and most were part-time employees, working an average of 24 hours per week. Group 24 represents between 2.7 and 7.1 percent of 1982 MSU graduate students.

Over two-thirds of Group 24 members were pursuing doctoral degrees (31 percent sought master's), 23 percent of them in education. They were taking an average of 2.3 courses, the highest of the clusters, for 7.8 credits; with 11.0 mean effective credits, they rated themselves the most studious of the groups.

Since 62 percent indicated an intention to pursue careers in higher education (the only MSU group with a majority planning careers in that sector), it is not surprising that Group 24 assigned the

highest value (2.9) of the groups to the personal goal of preparing to become a college teacher. Opportunities for research experience were especially important to this group. Their evaluation of MSU's assistance to their pursuit of their goals fell in mid-range for the various ETS scales and most of the individual items; they expressed the lowest agreement among the groups with the statements "The faculty is receptive to new ideas and ways of doing things" and "There is good communication between faculty and graduate students. . ." Attitudes of some instructors were cited as somewhat of a problem by 38 percent of the group and as their most pressing personal problem by 23 percent, the highest levels on this item among the clusters. Nearly one-quarter reported submitting a scholarly paper for publication within the past year, indicating some success in achieving their goal of research experience.

Financing their education was the principal personal problem for half of Group 24, 46 percent of whom relied on graduate assistantships for their primary support (positions held at some time by 69 percent of the group). Over two-thirds indicated drawing significantly on their personal assets for support.

Among support services particularly needed by Group 24 were statistical consultants, colloquia, cultural events, recreational facilities, peer support groups, informal contact with other students, health insurance, tuition payment options, part-time student employment, and emergency short-term loans. Interestingly, long-term loans were not important to this group.

4.4.2. University of Minnesota

Figure F-4.121 shows the hierarchical formation of clusters for the University of Minnesota graduate students based on their similarity on 17 demographic variables as interpreted by the Ward's hierarchy method. Nine respondents (3.8 percent) were not included in the similarity matrix because they did not have measures on at least 14 of the 17 variables. The first relatively large increase in the fusion coefficient (i.e., error sum of squares for the sample as a whole) occurred when 13 clusters were reduced to 12; prior to that fusion, the largest coefficient was .058 (reducing from 14 to 13 clusters), while the coefficient to reduce from 13 to 12 groups was .102, an increase of 176 percent. Thus 13 groups were studied further.

The 17 variable similarity matrix was also analyzed by Wishart's DENSITY program. On the basis of the criteria used by this method, the optimal division of the UM sample was into 17 clusters. A chi-square comparison of the 17-cluster grouping of Ward's hierarchy method with that of the DENSITY method showed significant overlap between the two ($p < .001$). The symmetric uncertainty coefficient between the two distributions was 0.70, indicating that the groups derived by either method were likely to be meaningful.

Values of the defining demographic variables for each group are shown in Table 4.2 as well as the number in each group, its percentage of the sample, and the standard error of the proportion for the population. Group numbers are merely the lowest sequence number among the group's members; the labels are characterizations of the second order clusters. Chi-square analyses and one-way analyses of variances

of the untransformed group means and proportions of the variables used to define the clusters revealed differences among the groups with probable error of five percent or less on all of the 17 variables.

Three of the clusters of UM respondents were composed primarily of part-time students, nine of full-time students, and one equally divided. Seven groups were predominantly male, five female, and one nearly equal.

Chi-square analyses of nominal variables and analyses of variance of ordinal variables revealed differences beyond the five percent level of significance on 86 of 223 original variables and six of 12 derived variables in addition to the variables which were used to define the clusters. Table G-2 of Appendix G lists these variables and gives the values of the percents or means for those UM groups representing the extreme(s).

The groups are discussed below in the order in which they appeared in the second order cluster analysis, beginning with the most traditional groups.

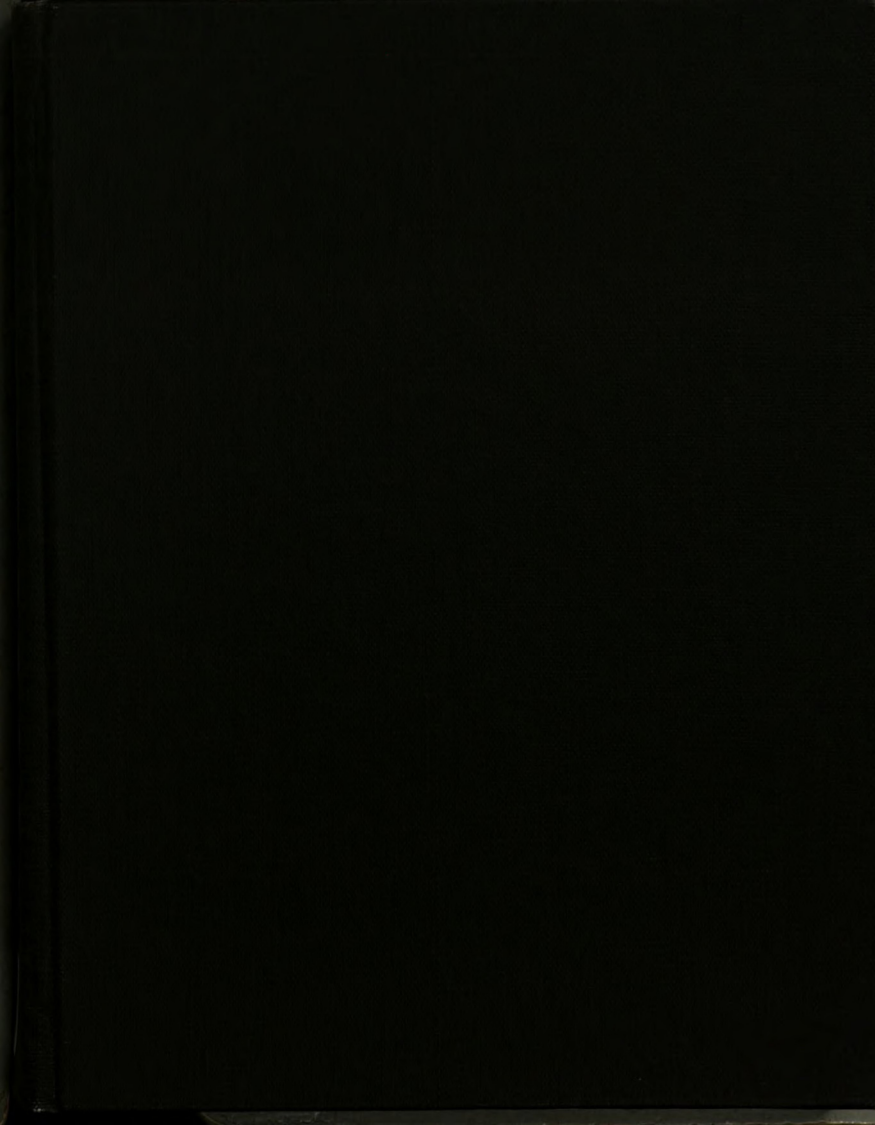
Group 11, one of four groups in the second order cluster of traditional women graduate students, comprised 5.5 percent of the UM sample and between 3.1 percent and 7.9 percent of the entire Spring 1982 Minnesota graduate student population. Group 11 members were young (average age was 24) with recent bachelor's degrees, single, childless, studying full-time while working part-time at UM, and planning to teach and/or conduct research in colleges or other non-profit institutions.

Table 4.2. University of Minnesota student clusters: percent or mean values of variables used to define clusters

<u>Personal characteristics</u>	<u>Educational characteristics</u>	<u>Employment characteristics</u>
GROUP 11: Traditional female graduate students. N=13 (5.5+2.4 percent)		
100.0% female	83.3% full-time	work 20.6 hrs./week
100.0% never married	Bach. 1979.2	current: 76.9% this inst.
100.0% Caucasian	stopped out 0.5 yrs.	future: 53.9% coll./univ.,
24.4 years old	commute 5.2 miles	30.8% non-prof.
100.0% no pre-kin.chil.	3.3 yrs. for degree	61.5% current <u>not</u> future set.
0 total children		30.8% each plan teach., tea.
		& res., 23.1% prof.serv.
		1.2 yrs. FT work exper.
GROUP 7: Traditional male graduate student. N=12 (5.1+2.4 percent)		
100.0% male	91.7% full-time	work 13.9 hrs./week
100.0% never married	Bach. 1977.6	current: 100.0% this inst.
75.0% for., 25.0% minor.	stopped out 0.9 yrs.	fut.: 50.5% col./u., 33.3% b/i
26.7 years old	commute 2.2 miles	54.5% current=fut. setting
100.0% no pre-kind.chil.	3.4 yrs. for degree	33.3% plan teach.+ res.,
0 total children		25.0% research
		0.7 yrs. FT work exper.
GROUP 12: Traditional male graduate students. N=35 (14.8+3.8 percent)		
100.0% male	88.2% full-time	work 17.1 hrs./week
100.0% never married	Bach. 1977.3	current: 67.6% this inst.
97.1% Caucasian	stopped out 1.1 years	future: 51.4% coll./univ.,
27.0 years old	commute 2.9 miles	28.6% bus./ind.
100.0% no pre-kin.chil.	3.5 yrs. for degree	58.8% curr. <u>not</u> fut. setting
0 total children		28.6% plan teach.& res.,
		22.9% res.,
		1.5 yrs. FT work exper.
GROUP 20: Traditional male graduate students. N=25 (10.5+3.3 percent)		
100.0% male	91.7% full-time	work 19.9 hrs./week
96.0% married	Bach. 1976.1	current: 72.2% this inst.
92.0% Caucasian	stopped out 0.8 yrs.	future: 45.8% coll./univ.,
28.0 years old	commute 6.2 miles	20.8% bus./ind.
100.0% no pre-kin.chil.	4.6 yrs. for degree	60.9% curr. <u>not</u> fut. set.
0 total children		32.0% plan res., 24.0% teach.
		& res., 28.0% prof. serv.
		1.1 yrs. FT work exper.
GROUP 8: Older male full-time workers with children. N=11 (4.6+2.2 percent)		
81.8% male	90.9% part-time	work 42.4 hrs./week
90.9% married	Bach. 1964.0	current: 27.3% K-12, 18.2%
100.0% Caucasian	stopped out 4.9 yrs.	each comm. coll., gov., b/i
40.5 years old	commute 10.1 miles	future: same as current
72.7% no pre-kin.chil.	8.8 yrs. for degree	100% curr.=future setting
2.0 total children		63.6% plan admin./mgmt.
		10.7 yrs. FT employ.
GROUP 1: Prospective business managers. N=15 (6.3+2.6 percent)		
80.0% male	80.0% part-time	work 41.1 hrs./week
73.3% never married	Bach. 1978.9	current: 80.0% bus./ind.
80.0% Caucasian	stopped out 0.9 yrs.	future: 80.0% bus./ind.
24.9 years old	commute 15.6 miles	100% current=future set.
100.0% no pre-kin.chil.	3.2 yrs. for degree	46.7% plan admin./mgmt.,
0.2 total children		20.0% each res., prof.serv.
		3.3 yrs. FT work exper.

Table 4.2. (continued)

<u>Personal characteristics</u>	<u>Educational characteristics</u>	<u>Employment characteristics</u>
GROUP 18: Prospective business managers. N=11 (4.6±2.2 percent)		
54.5% male	100.0% part-time	work 45.0 hrs./week
72.7% married	Bach. 1974.8	current: 100.0% bus./ind.
100.0% Caucasian	stopped out 3.8 years	future: 100.0% bus./ind.
31.2 years old	commute 13.2 miles	100.0% current=future set.
60.0% no pre-kin.chil.	4.4 yrs. for degree	54.5% plan admin./mgmt.,
0.8 total children		36.4% prof. serv.
		8.2 yrs. FT work exper.
GROUP 6: Men with pre-kindergarten children. N=22 (9.3±3.1 percent)		
100.0% male	76.2% full-time	work 31.5 hrs./week
86.4% married	Bach. 1974.0	current: 72.7% this inst.
72.7% Caucasian	stopped out 2.4 yrs.	future: 50.0% coll./univ.,
30.9 years old	commute 10.3 miles	27.3% bus./ind.
81.8% 1-2 pre-kin.chil.	5.3 yrs. for degree	68.2% curr. <u>not</u> fut. setting
1.6 total children		40.9% plan teach. & res.,
		27.3% res., 22.7% prof.serv.
		4.4 yrs. FT work exper.
GROUP 5: Re-entry women. N=13 (5.5±2.4 percent)		
100.0% female	50.0% part-time	work 9.3 hrs./week
86.6% married	Bach. 1964.6	curr: 36.4% each none, this u.
92.3% Caucasian	stopped out 4.4 years	future: 33.3% comm.coll.,
40.2 years old	commute 12.2 miles	16.7% each this u., bus/in.
84.6% no pre-kin.chil.	3.5 yrs. for degree	100.0% current <u>not</u> future set.
2.0 total children		23.1% each plan teach.,
		teach. & res., admin./mgmt.
		2.2 yrs. FT work exper.
GROUP 89: Non-Caucasian full-time students with full-time work experience. N=5 (2.1±1.5 percent)		
60.0% male	100.0% full-time	work 28.0 hrs./week
60.0% married	Bach. 1967.0	current: 40.0% this inst.,
60.0% for., 20.0% minor.	stopped out 5.0 yrs.	60.0% other 4-yr.
35.2 years old	commute 12.6 miles	future: 100.0% coll./univ.
100.0% no pre-kind.chil.	4.8 yrs. for degree	100.0% current=fut. setting
0.6 total children		60.0% plan teach. & res.,
		40.0% teach.
		8.0 yrs. FT work exper.
GROUP 2: Childless women with full-time work experience. N=28 (11.8±3.5 percent)		
92.9% female	75.0% full-time	work 18.1 hrs./week
78.6% marr., 21.4 prev.	Bach. 1973.7	current: 50.0% this inst.,
75.0% Cauc., 21.4% for.	stopped out 2.0 yrs.	21.4% none
31.8 years old	commute 13.2 miles	future: 50.0% bus./ind.,
95.7% no pre-kin.chil.	3.6 yrs. for degree	25.0% coll./u.
0.2 tot. children		85.9% curr. <u>not</u> fut. setting
		39.3% plan prof. serv.,
		21.4% res. & teach.
		3.9 yrs. FT work exper.
GROUP 14: Childless women with full-time work experience. N=19 (8.0±2.9 percent)		
89.5% female	87.5% full-time	work 16.8 hrs./week
94.7% never married	Bach. 1973.2	current: 47.4% this inst.,
89.5% Caucasian	stopped out 4.2 yrs.	15.8% bus./ind.
31.0 years old	commute 4.7 miles	future: 31.6% coll./univ.,
94.4% no pre-kin.chil.	3.2 yrs. for degree	15.8% each gov., self-emp.
0.1 total children		78.9% curr. <u>not</u> fut. setting
		31.6% each plan res.,
		prof.serv.
		4.9 yrs. FT work exper.
GROUP 15: Women aspiring to be professors. N=19 (8.0±2.9 percent)		
78.9% female	52.6% full-time	work 28.3 hrs./week
94.7% married	Bach. 1976.5	current: 42.1% this inst.,
94.7% Caucasian	stopped out 2.2 yrs.	21.0% non-prof.
29.7 years old	commute 16.1 miles	future: 57.9% coll./univ.,
52.6% 1-2 pre-kin.chil.	3.5 yrs. for degree	21.0% non-prof.
0.9 tot. children		89.5% current=future set.
		31.6% plan teach., 26.3%
		prof.serv., 21.0% tea. & res.
		4.1 yrs. FT work exper.



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No more than 15 percent of Group 11 members were majoring in any one discipline, but 69 percent were pursuing master's degrees. They were registered for a mean of 8.1 credits and felt that they were studying as if they were carrying 10.7 credits. Over 60 percent of the group held graduate assistantships, which were the most important source of support for 46 percent while other employment was primary for 31 percent. Thirty-eight percent received some support from student loans.

The scores of Group 11 on the three ETS program quality scales on which the groups differed were about in mid-range. On the individual items about which the groups differed, Group 11 agreed relatively strongly that UM graduate students do a lot of unassigned reading, but they tended to disagree that faculty members helped graduates find appropriate employment, and they gave comparatively low ratings to the quality of advice they had received about their programs and to the interaction between their departments and related disciplines. They believed that their departments' primary purpose was the preparation of scholars and researchers while their own was personal enrichment. Fifty-four percent of Group 11 planned careers in higher education, and they assigned importance to obtaining both research experience (mean of 1.2 with 1.0 the highest possible) and teaching experience (1.4).

Over half of the Group 11 students saw making professional contacts as an important reason for attending graduate school, while improving income potential was cited as a reason by less than half. Low self-confidence was mentioned as a barrier to attaining their goals by a high 79 percent of the students and low physical stamina by

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46 percent, although the worst personal problems for the group were conflicting job responsibilities (worst for 38 percent and mentioned by a total of 54 percent) and financing their education (31 percent, mentioned by 62 percent).

As expected from their dependence on long-term loans for support, availability of such loans was rated as quite an important support service by Group 11. They also attached relatively high importance (1.2, with 1.0 being the highest possible) to informal contact among graduate students and to colloquia or special lectures. Their low need for campus housing (2.9 with 3.0 the lowest possible) suggests that most of the Group 11 women lived off-campus, and their high need for public transportation (1.3) indicates they preferred this means of commuting between home and their classes and jobs at UM.

Group 7 was one of eight groups (three of them at Minnesota totaling 30 percent of the sample) in a second order cluster of traditional male graduate students. Group 7 comprised 5.1 percent of the UM sample and was one of two Minnesota groups with a majority of nonresident aliens. It was composed of single, childless, young (averaging 27 years old) men, three-quarters non-resident aliens and one-quarter minorities, planning careers in business or higher education.

Like the women of Group 11, Group 7 members had varied majors, with 42 percent in the social, biological, or physical sciences and 33 percent in engineering and computer science. They were about evenly divided between master's and doctoral programs which they had begun relatively recently. Their mean credit load of 7.0 was fairly typical of the groups of full-time students, but they estimated that they were

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Over 90 percent of Group 7 held graduate assistantships, the primary source of support for two-thirds, and this income had been supplemented by a fellowship, scholarship, or traineeship during the past year for 58 percent. Nonetheless, financing their education was cited as their worst personal problem by half the group members. Half the group reported paying lower tuition as a result of their employment.

The scores of Group 7 on the three distinguishing program evaluation scales were in mid-range as were most scores on individual items. They gave particularly high ratings, however, to the flexibility of their programs, their departments' interaction with other disciplines, and the help faculty members give to graduates seeking employment.

Preparing to become scholars and researchers was especially important to the members of Group 7 (mean of 3.5 with 4.0 being the maximum), and obtaining research experience was very important to all members of the group; inadequate laboratory or other specialized facilities posed a problem for one-third of the members. Financial gain was not a strong motive for most members of the group; improving their income potential was even somewhat important to a low 42 percent. Although they were full-time students living close to campus, 42 percent reported that the accessibility of their adviser was a problem, and they also tended to agree more than other groups that registering was difficult for them. Communicating with their instructors in English was a problem for one-third of these students.

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Of the 21 support services with significantly different ratings among the student clusters, 11 of them were especially important to Group 7. The only service with particularly low importance to this group was parking.

Group 12, the second UM group of traditional young men, was the largest group, 14.8 percent of the Minnesota sample and representing between 11.0 and 18.6 percent of that population. These men were similar to Group 11 women and Group 7 men: single full-time students working part-time at UM and pursuing academic careers. All the groups of traditional young men had slightly higher mean ages than the groups of traditional young women.

The Group 12 men had varied majors and were about evenly divided between master's and doctoral programs. They were carrying a mean of 6.0 credits, studying as though they had 9.3 credits. Like Group 11, over 60 percent were graduate assistants (the main source of financial support for 40 percent), and nearly 90 percent had been assistants sometime during their graduate study. Thirty-four percent reported benefiting from reduced tuition due to their employment. Only 20 percent of this group had income from employment other than an assistantship.

Group 12 rated their programs in mid-range on the evaluation scales and on most of the individual items; like Group 11, they gave a relatively low rating of 2.2 to the advice they had received about their programs. Primarily full-time students who lived an average of only 2.9 miles from campus, these men expressed little difficulty with the accessibility of their adviser, instructors, administrative offices, or registration. Evening courses or those scheduled to meet

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only once per week were of little importance to them. All single and childless, few members of Group 12 mentioned problems regarding time to study or job or family responsibilities. Financing their education was singled out as the worst personal problem by 29 percent of the group (mentioned by a total of 49 percent), and self-confidence was mentioned as somewhat of a barrier by 49 percent.

Opportunities for teaching and research experience were equally important (1.5 each) to this group aspiring to become college professors. They rated the importance of part-time student employment (i.e., assistantships) a high 1.3. Cultural events were also relatively important to them.

Group 20, the third UM group of traditional men, was like Groups 7 and 12 in most respects except that nearly all Group 20 members were married. Group 20 comprised 10.5 percent of the sample, 7.2 to 13.8 percent of the UM population.

Seventy-two percent of Group 20 members were seeking doctoral degrees in a variety of disciplines but with some concentration in agriculture and the physical sciences. They were carrying relatively few credits (mean of 4.1) but estimated that they were doing work equivalent to being registered for 12 credits.

Their evaluations of their programs fell near mid-range for the composite scales and most individual items, although they felt their programs were particularly flexible and that their peers were especially likely to do a lot of unassigned reading in their fields. Opportunities for research experience were very important to the group, and they apparently succeeded in obtaining them; a high 52

percent of the group had presented a scholarly paper at a professional meeting within the previous 12 months.

Over 60 percent of Group 20 held graduate assistantships, and 80 percent had been an assistant sometime during their graduate study, but the most frequent source of support and the most common primary support for members of this group came from their spouses' incomes. As with most other groups, financing their education was the most frequently mentioned worst personal problem.

Group 20 had no particularly strong needs for support services other than the part-time employment represented by their assistantships.

Group 8 was one of three groups comprising a second order cluster of older married men with children. Most of these men were studying part-time while working full time (the UM group being concentrated in the public sector) and planned to continue their careers in the same setting as their current employment, usually in administrative or management positions. Students like those in Group 8 comprised between 2.4 and 6.8 percent of the Spring 1982 UM graduate students.

Forty-six percent of Group 8 members were majoring in education and 27 percent in business, about evenly divided between master's and doctoral programs. They had been pursuing their degrees quite some time, the mean year of first enrollment being 1973, and carried the lightest loads both in actual number of credits carried (mean of 2.7) and effective credits (4.5).

The major goal of Group 8 was preparing for practice outside higher education (mean 3.2); while they felt their departments agreed with this objective (mean 3.0), they also attributed to their

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departments especially great emphasis on preparation for further study (mean 2.7). Over 90 percent expected their education to result in increased income, 64 percent by advancement in the present jobs. Making professional contacts was somewhat important to over half of the members of this group.

Group 8 was generally satisfied with the way in which their departments fostered pursuit of their educational goals, and they had an especially high mean on the scale of departmental evaluation of student performance. On individual items, they were pleased with the quality of the advice they had received about their programs, the interaction with related disciplines, teaching quality, faculty helpfulness, and evaluation of student competence and of their progress through the programs.

The principle barrier faced by Group 8 was finding time to study (mentioned by 82 percent and the worst problem for 56 percent), although nearly half received released time for study from their employers. Other problems were the conflicting responsibilities associated with their jobs (82 percent mentioned, 44 percent as their worst hindrance) and families (64 percent mentioned).

Evening courses and those meeting once per week were quite important to Group 8, as were registration options such as extended time periods or telephone registration. For the 21 support services on which the clusters differed, however, Group 8 had comparatively little need for 12 of them.

Group 1, representing 3.7 to 8.9 percent of 1982 UM graduate students, was one of five groups (two at Minnesota) consisting primarily of prospective business managers: men working full-time,

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generally in the private sector, and studying part-time. The mean age of this UM group (25) was younger than that of the other groups in the second order cluster, and a lower proportion was married, but like UM Groups 8 (above) and 18 (below), all planned to continue working in their present setting.

Over half the Group 1 members were majoring in business, another 27 percent in engineering, and nearly all sought master's degrees. They had begun their graduate study relatively recently. Over 90 percent had employment other than an assistantship, and employers paid all or part of the tuition of 80 percent.

The primary educational goal of Group 1 was preparation for practice outside higher education, a goal that they estimated to be equally important to their departments (both means 3.2). Improving their income potential and advancing in their present jobs were important to these students. Their mean ratings on the program evaluation scales were in mid-range, but they gave especially high ratings to their departments' interaction with other disciplines and the University's commitment to their programs.

Finding time to study was a problem for all members of Group 1, and job responsibilities conflicted with educational ones for 87 percent; 40 percent also mentioned physical stamina as a problem. Group 1 reported some difficulty using administrative offices and seeing their advisers and course instructors outside classes.

Evening courses and those scheduled to meet once weekly were important to Group 1, but they had no outstanding needs for support services provided by the University.

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Group 18, containing 4.6 percent of the sample and representing 2.4 to 6.8 percent of Minnesota students, was the second UM group of prospective business managers. Group 18 members were childless young men pursuing their degrees part-time while employed full-time, all in business or industry and all planning to remain in that setting for their future management positions. The men in this group were somewhat older than those of Group 1 (31 being the mean), and most were married. They expected to take much less time to complete their degrees than did the Group 8 men (4.4 years versus 8.8 years).

While their employment was the primary support source of 82 percent of Group 18, 27 percent were receiving GI benefits. Seventy-three percent were business majors, and 82 percent were in master's degree programs. They expressed comparatively little need for research or teaching experience. Employers contributed to the tuition of nearly three-quarters of the group, and over one-quarter also had released time for pursuing their studies.

All the members of Group 18 mentioned improving their income potential as one reason for attending graduate school, and 91 percent mentioned advancement in their present jobs; preparing for professional practice outside higher education was a particularly important personal goal of this group (mean 3.2).

These part-time, fully employed students were the least satisfied with their graduate studies of the Minnesota groups. They gave their programs the lowest ratings on all three scales on which the clusters differed: 2.1 (on a scale of 1=poor to 4=excellent) on faculty concern for students, 2.3 on teaching quality, and 2.3 on evaluation of student performance. Of the 20 individual program evaluation items

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on which the groups differed, Group 18 ratings were lowest on 15. Meeting with their advisers and course instructors was particularly difficult for them, and they also had trouble using the administrative offices due to their conflicting schedules.

Finding time to study was a problem for all members of Group 18, and job responsibilities presented conflicts for over 90 percent, family responsibilities for over 70 percent. Working on class projects with other students presented problems for 54 percent and was the most serious personal problem for 27 percent.

While evening and once weekly class schedules were very important to Group 18, they expressed particularly low needs for 11 of the 21 support services for which need differed significantly. Good parking facilities were important to them, however.

Group 6, 9.3 percent of the sample, was one of four groups in the second order cluster of married men with pre-kindergarten children. Group 6 members had a mean age of 31 years old; most were studying full-time and working part-time for UM and were planning to teach and/or conduct research in an academic setting.

Group 6 had some concentration in doctoral programs in agriculture and the physical sciences. Members were carrying a mean of only 2.8 credits and estimated their effective credits at about 6.9. They were particularly interested in preparing to become scholars and researchers, and over 40 percent felt that inadequate laboratory facilities were a barrier to achieving their educational goals. They had no extremely high or low ratings on either the composite program evaluation scales or individual items.

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Conflicting family responsibilities were mentioned as a problem by nearly three-quarters of Group 6, and they expressed a relatively strong need for on-campus child care service (mean of 2.1 with 2.0=somewhat important). Financing their education was most frequently their worst problem, and inadequate opportunities for their spouses was mentioned by over a third of the group. Graduate assistantships were the principal support for 36 percent of these students, but 27 percent relied primarily on other employment.

Group 5, representing between 3.1 and 7.9 percent of UM graduate students, was one of four groups in the cluster of re-entry women: older married women with children. Group 5 was perhaps the most nontraditional group of UM students sampled: women averaging 40 years old (the oldest UM group) who received their bachelor's degrees a mean of 18 years ago, most having two or three children in school (tied with Group 8 for the largest mean number of children), working part-time or not at all, commuting 12 miles to classes with the objective of teaching, conducting research, and/or administering in a community college or a university.

Thirty-one percent Group 5 were majoring in education. Split between master's and doctoral degree programs, they were enrolled for an average of 6.8 credits and estimated their mean effective load as 8.5 credits.

Although this was the most nontraditional group of Minnesota graduate students as measured by several of the demographic variables, the group had few extreme values on other variables. The members' reasons for attending graduate school and goals for study were similar to those of other groups, and their program ratings according to the

three (of eight) ETS composite scales on which the groups differed were in mid-range as were their scores on most of the 20 (of 74) individual program evaluation items on which the UM groups differed. Group 5 members gave especially high ratings, however, to the opportunities presented in their programs for working on individual projects and to faculty helpfulness.

Like several other groups, the most frequently cited (by 31 percent) worst personal problem for Group 5 was financing their education. Spouses' income was the most common source of support for these women, and 25 percent indicated that their primary support came from use of personal assets; none relied on student loans. Eighty-five percent mentioned conflicting family responsibilities as a problem.

The groups differed in their need for 21 of the 39 support services listed on the questionnaire, but the only support service for which Group 5 women expressed a particularly strong need was placement for graduates. They had distinctly low needs for specialized facilities for academic work, for cultural events, and for recreational facilities.

Group 89 was the smallest UM group with five respondents (2.1 percent of the sample and representing 0.6 to 3.6 percent of the population). It was one of two groups in a cluster characterized as non-Caucasian full-time students with several years of full-time employment experience. Like Group 7, Group 89 included both foreign and minority students, all studying full-time and employed by either UM or another institution of higher education. Group 89 members tended to be slightly older (mean age of 35) than the traditional

young men of Group 7, and most were married. All planned higher education careers. Each one had a different major, but 80 percent were pursuing doctorate degrees. Like Group 7, these students felt that they were studying very hard -- as though they were registered for over 13 credits with an actual mean load of 7.8 credits.

Preparation for becoming scholars or researchers was extremely important to Group 89 (mean of 3.8 with 4.0 the maximum possible), a goal they felt was strongly supported (mean = 3.4) by their departments, but inadequate laboratory facilities were cited as a barrier by 40 percent. Preparation for college teaching was also very important to these students (mean = 3.4). A high 60 percent had presented a scholarly paper at a professional meeting within the past year.

Sixty percent of Group 89 held graduate assistantships, 80 percent received tuition payment or reimbursement from their employers, and all had received additional support from a fellowship, scholarship, or traineeship during the past year; financing their education was not a frequently cited problem by this group. Forty percent reported also being given released time by their employers to pursue their graduate work.

Members of Group 89 were very satisfied with their graduate programs. They gave UM the highest scores on the composite scales of faculty concern for students and quality of graduate teaching, and they gave the highest ratings or strongest agreement on 17 of the 20 individual items on which the Minnesota groups differed. The main problems for this group were communicating in English and working with other students on class projects, each mentioned by 60 percent of the

group, and physical stamina, a problem for 40 percent.

Like Group 7, Group 89 had relatively strong needs for a variety of support services and facilities; nine of the 21 services about which need differed were quite important to Group 89. One or both of these two groups with nonresident alien majorities had particularly strong needs for all of the support services about which the groups differed except for informal contact with other students, long-term loans, placement services for graduates, parking, and child care.

Group 2, 11.8 percent of the sample, is one of four groups -- two from UM -- comprising a second order cluster of childless womenf with full-time work experience. The Group 2 women averaged 32 years of age and generally were married. The mean year for receipt of their bachelor's degrees was 1974. Most were full-time students, half employed part-time by UM. One-quarter planned careers in college settings, while half planned business careers providing professional services.

The women in this group had varied majors with some concentration in business and the health professions. They were about evenly divided between seeking master's and doctoral degrees. Their estimated effective credit load of 8.2 was relatively close to their actual credits, 6.8. Their reasons and goals for graduate study were mixed, and they had no extremely high or low scores on the program evaluation variables.

Graduate assistantships were the most common major support source for Group 2, but their spouses contributed to the support of over half, and over a third also relied on student loans. Financing their education was the worst personal problem for 30 percent of the group.

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Among the support services, Group 2 students expressed particularly strong need only for public transportation.

Group 14, the second UM group of childless Caucasian women, represented 8.0 ± 2.9 percent of the UM population. It was similar to Group 2 except that most of the Group 14 women had never been married, they had somewhat more full-time work experience (a mean of five years compared to four), and their career objectives were in academia, government, and self-employment rather than in business. Nearly one-third were majoring in education, about evenly distributed between master's and doctoral programs. They were carrying the heaviest credit loads among the groups with a mean of 9.4, and they estimated that their total academic work was equivalent to carrying 11.3 credits. Their mean starting date, 1980, was comparatively recent. Most members of Group 14 were full-time students, and 78 percent had held a graduate assistantship during the course of the enrollment. Over a third also depended on student loans for part of their financial support.

Preparing for practice other than scholarly research or college teaching was quite important to members of Group 14 (mean of 3.2); improving their income potential was important to 84 percent of them, and making professional contacts and new friends were also more important to this group than to most of the others.

The means on the program rating scales for Group 14 were in mid-range, and the only noteworthy individual item was their low rating of UM library holdings in their fields. Members of the group had no particularly high frequencies of any personal or institutional

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problems, and they had no especially strong needs for support services.

Group 15 represented between 5.1 and 10.9 percent of the UM graduate student population and was one of three groups in a cluster of women aspiring to academic careers. While over half of Group 15 was enrolled full-time and working less than full-time (42 percent working at UM), this group of women was also nontraditional in some respects. They averaged nearly 30 years old with bachelor's degrees awarded a mean of about six years previously; nearly all were married, and over half had children of pre-kindergarten age.

Over two-thirds of Group 15 were seeking master's degrees, most in education, letters, or the health professions. Sixty-eight percent had income from employment other than assistantships, and 58 percent were partially supported by their spouses. Financing their education and finding time to study were each the worst personal problem for 29 percent of the group (each mentioned by a total of 58 percent), but conflicting job responsibilities was mentioned by 63 percent and lack of sufficient opportunities for their spouses by 32 percent.

The scores of Group 15 on the program evaluation scales were about mid-range as were most individual item scores, but they gave particularly low ratings to two items: evaluation of student progress and the University's commitment to their programs.

Members of Group 15 had no especially strong needs for support services, and they assigned relatively little importance to computer facilities, laboratories and other specialized facilities, and food service.

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4.4.3. University of Tennessee

Figure F-4.122 of Appendix F shows the hierarchical formation of clusters for the University of Tennessee at Knoxville graduate student sample. Seven respondents were not included in the similarity matrix because they did not have measures on at least 14 of the 17 variables.

The first relatively large increase in the fusion coefficient occurred when eight clusters were reduced to seven; prior to that fusion, the largest coefficient was .092 (reducing from ten to nine clusters), while the coefficient to reduce from eight to seven groups was .178.

The 17 variable similarity matrix was also analyzed by the DENSITY program of the CLUSTAN package. On the basis of the criteria used by this program, the optimal division of UTK students was into nine clusters. A chi-square comparison of the nine-cluster grouping of the HIERARCHY method with that of the DENSITY method showed significant overlap between the two ($p < .001$). The symmetric uncertainty coefficient between the two distributions was 0.59, which may be roughly interpreted as indicating that 59 percent of the uncertainty in distributing the students by one of the methods is eliminated by knowing their distribution on the other.

Values of the defining demographic variables for each group are shown in Table 4.3 as well as the number in each group, the percent of the sample, and the standard error of the group proportion for the population. Group numbers are merely the lowest sequence number among the group's members; the names are those given the second order clusters containing the groups. Analyses of group values of the defining variables revealed differences among the groups with probable

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error of five percent or less on 15 of the 17 variables, the exceptions being ethnicity (all groups were composed primarily of Caucasians) and estimated time to complete their graduate programs.

Half the clusters of UTK respondents were composed primarily of part-time students and half full-time students; the eight groups were also divided equally between the predominance of men and women.

Chi-square analyses of nominal variables and analyses of variance of ordinal variables revealed differences among the hierarchical groups beyond the five percent level of significance on 65 of 223 original variables and six of 12 derived variables. Table G-3 of Appendix G lists the variables on which the clusters differed and gives the values of the percents or means for those groups representing the extreme(s).

The UTK groups are discussed below in the order of the second order clusters, beginning with the groups which appeared most traditional.

Group 5, one of four groups in the second order cluster of traditional women graduate students, comprised between 12.6 and 23.2 percent of UTK graduate students and might be considered the most traditional of the eight groups. Its members had the youngest average age (24.9 years), had the most recent bachelor's degrees (mean year received was 1979), and were most likely to have continued to graduate school straight from their undergraduate program (mean stopout time was less than a year) with little full-time work experience (mean 1.6 years). None of the group members had ever been married and none had children. The majority were currently employed by UTK, and 64 percent planned careers involving teaching and/or research, 44.4 percent in college or university settings.

Table 4.3. University of Tennessee--Knoxville student groups:
Proportions or mean values of variables used to
define groups*

<u>Personal characteristics</u>	<u>Educational characteristics</u>	<u>Employment characteristics</u>
GROUP 5: Traditional female graduate students. N=25 (17.9+5.3 percent)		
70.8% female*	88.0% full-time*	work 16.2 hrs./week*
100.0% never married*	Bach. 1979.0*	current: 60.9% this inst.*
80.0% Caucasian	stopped out 0.6 yrs.*	future: 44.4% coll./univ.*
24.9 years old*	commute 7.6 miles*	56.5% curr. not fut. setting*
100.0% no pre-kin.chil.*	2.5 yrs. for degree	32.0% plan teach & res.,
0 total children*		16.0% each teach., res.
		1.6 yrs. FT work exper.*
GROUP 2: Traditional male graduate students. N=18 (12.9+4.7 percent)		
100.0% male*	76.5% full-time*	work 29.2 hrs./week*
94.4% never married*	Bach. 1977.0*	current: 77.8% this inst.*
88.9% Caucasian	stopped out 1.2 yrs.*	future: 100.0% bus./industry*
26.9 years old*	commute 4.7 miles*	100.0% curr. not fut. setting*
100.0% no pre-kin.chil.*	4.4 yrs. for degree	33.3% plan research, 27.8%
0 total children*		ad./mgmt., 22.2% prof.serv.*
		2.8 yrs. FT work exper.*
GROUP 6: Traditional male graduate students. N=12 (8.6+3.9 percent)		
100.0% male*	90.0% full-time*	work 17.2 hrs./week*
75.0% marr., 25.0 prev.*	Bach. 1977.1*	current: 83.3% this inst.*
91.7% Caucasian	stopped out 1.4 yrs.*	future: 63.7% coll./univ.*
27.8 years old*	commute 3.2 miles*	54.5% curr. not fut. setting*
100.0% no pre-kind.chil.*	3.1 yrs. for degree	36.4% plan prof.serv.,
0 total children*		27.3% teach. & res.
		2.2 yrs. FT work exper.*
GROUP 17: Schoolteachers. N=13 (9.3+4.0 percent)		
100.0% female*	84.6% part-time*	work 43.1 hrs./week*
84.6% married*	Bach. 1972.5*	curr. & fut.: 69.2% K-12,
100.0% Caucasian*	stopped out 1.6 yrs.*	15.4% each gov., non-prof.*
31.5 years old*	commute 19.0 miles*	100.0% current=future set.*
100.0% no pre-kin.chil.*	3.6 yrs. for degree	61.5% plan teach.*
0.9 total children*		5.8 yrs. FT work exper.*
GROUP 3: Prospective business managers. N=16 (11.4+4.4 percent)		
81.3% male*	68.8% part-time*	work 34.6 hrs./week*
43.8% marr., 31.3% prev.*	Bach. 1977.0*	current: 75.0% bus./industry*
93.8% Caucasian	stopped out 1.6 years*	future: 50.0% bus./ind.,
29.3 years old*	commute 22.0 miles*	25.0% self-employed*
100.0% no pre-kin.chil.*	3.9 yrs. for degree	75.0% current=future setting*
0.1 total children*		37.5% plan adm./mgmt.*
		5.3 yrs. FT work exper.*

*Starred variables differed significantly among the groups with probability of 0.05 or less based on Chi-square or one-way analysis of variance tests.

Table 4.3. (continued)

<u>Personal characteristics</u>	<u>Educational characteristics</u>	<u>Employment characteristics</u>
GROUP 21: Men with pre-kindergarten children. N=15 (10.7+4.3 percent)		
100.0% male*	60.0% part-time*	work 29.7 hrs./week*
93.3% married*	Bach. 1972.1*	current: 53.3% this inst.*
80.0% Caucasian	stopped out 3.8 years*	future: 57.1% coll./univ.*
33.4 years old*	commute 17.5 miles*	64.3% curr.=fut. setting*
92.9% 1-2 pre-kin.chil.*	3.6 yrs. for degree	26.7% each plan teach., teach.
2.0 total children*		& res., admin./mgmt.*
		7.2 yrs. FT work exper.*
GROUP 1: Re-entry women. N=11 (7.9+3.8 percent)		
100.0% female*	88.9% part-time*	work 33.6 hrs./week*
100.0% married*	Bach. 1964.9*	current: 36.4% other coll.,
90.9% Caucasian	stopped out 2.0 yrs*	18.2% K-12*
39.3 years old*	commute 21.0 miles*	future: 90.0% coll./univ.*
63.6% no pre-kin.chil.*	4.6 yrs. for degree	50.0% current=future setting*
2.3 total children*		36.4% each plan teach.,
		admin./management*
		5.2 yrs. FT work exper.*
GROUP 9: Childless women with full-time work experience. N=30 (21.4+5.7 percent)		
100.0% female*	61.5% full-time*	work 20.0 hrs./week*
60.0% marr., 23.3% nev.*	Bach. 1973.8*	current: 46.4% this univ.,
79.3% Caucasian	stopped out 3.5 yrs.*	17.9 none*
32.4 years old*	commute 19.8 miles*	future: 42.3% coll./univ.
89.7% no pre-kin.chil.*	3.1 yrs. for degree	15.4% non-profit*
0.3 total children*		66.7% curr. not fut. setting*
		36.7% plan prof. serv.,
		30.0% teach.*
		5.9 yrs. FT work exper.*

Group 5 students had a variety of majors, with no more than 16 percent in any one discipline. These students reported the heaviest academic loads: means of 2.8 courses, 8.6 credits, and 11.0 effective credits. They had begun their graduate work relatively recently, their mean first enrollment having been in 1980.

The program evaluations of Group 5 were in about mid-range, both on the three composite scales on which the UTK groups differed significantly and on most of the individual ETS items. They did feel that, so far, they had learned a great deal from their programs. Members of the group tended to be good scholars; 62 percent had received a fellowship, traineeship, or scholarship within the past year and 32 percent had won some professional award or prize in that time. The institutional barrier most frequently cited by the group was meeting the residence requirements, a problem for 32 percent. However, attitudes of some instructors posed somewhat of a problem for 44 percent of this predominantly female group.

Forty-eight percent of these students had graduate assistantships, 40 percent other employment (though their mean hours of work per week was only 16), 40 percent currently had support from a student loan, and 40 percent received some support from parents. Despite this array of sources of support, financing their education was a problem for 64 percent and the worst personal problem of 38 percent of the group.

Group 5 had the most need for support services among the clusters, expressing strong needs for 11 of the 15 services regarding which the groups differed.

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Group 2, 12.9+4.7 percent of UTK graduate students, was one of eight groups (two from UTK) comprising the cluster of traditional young men. These Knoxville men were young (averaging 28 years old with bachelor's degrees received in 1977) and had never been married. Over three-quarters were studying full-time, and the same proportion were working for UTK part-time. All members of Group 2 planned careers in business or industry conducting research, managing, or rendering other professional services.

Group 2 was composed primarily of engineering, science, and business majors. The group averaged 7.5 credits and 9.9 effective credits. These men expressed the lowest level of satisfaction with their graduate programs of the eight groups. They compiled the lowest scores on all three ETS evaluation scales on which the groups differed, and they gave their departments the lowest ratings on 11 of the 12 individual items on which the groups were significantly different; they also expressed the least confidence that they would complete their programs. Attitudes of some of their instructors were mentioned as a problem by 56 percent of the group and as the most significant personal problem for 31 percent.

Two-thirds of Group 2 held graduate assistantships at the time they completed the questionnaire, and 72 percent had held an assistantship sometime during the course of their graduate program, but financing their education was not a problem for two-thirds of these single men.

Members of Group 2 did not report any outstanding personal problems or institutional barriers other than instructor attitudes which might have contributed to their dissatisfaction and relatively

low confidence about completing their programs. Their degree of need for most support services was about mid-range, although recreational facilities were comparatively important to them.

Group 6, another group of traditional young men, had about the same mean age as Group 2 (the 95 percent confidence interval for the mean age of the group population was 23 to 32). They were married or previously married but had no children living with them. Their average commute distance was only 3.2 miles. Nearly all were full-time students employed part-time by UTK. 1977 was the mean year for receipt of their bachelor's degrees, similar to Groups 2 and 3, but Group 6 members were the most recent graduate school enrollees with a mean starting date of 1980. About two-thirds of this group planned careers in a college or university setting, providing professional services, teaching, and/or conducting research.

Group 6 members were enrolled for relatively heavy loads, averaging 8.6 credits (9.3 effective credits). The dominant major was psychology. The most frequently cited main reason for Group 6 students pursuing graduate study was obtaining skills helpful in their field; developing skills to improve family and community effectiveness were also important to half the group.

Group members gave high marks to UTK's graduate programs. Their composite scores for overall satisfaction and teaching quality were tied for highest, and they gave especially high ratings to individual items regarding opportunities for individual projects, amount they had learned, faculty helpfulness to graduates seeking employment, and fairness of decisions on financial assistance; they particularly disagreed with the assertion that some faculty members exploit

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graduate students. The principle institutional problem mentioned by the group was the times, locations, or frequency of offering needed courses.

Over half of Group 6 members had held a fellowship, traineeship, or scholarship within the past 12 months, and 36 percent had won some sort of professional prize or award. Fifty-eight percent had graduate assistantship appointments; 64 percent had held one at some point of their study, and they gave a particularly high rating to the absence of unnecessary dirty work connected with their appointments.

Financing their education was the worst personal problem for 64 percent of Group 6, though 58 percent received some support from their spouses' incomes and 30 percent had student loans. One-quarter benefited from reduced tuition as a result of their employment (over 80 percent by UTK).

Support services especially important to Group 6 included part-time employment, health insurance, and a placement service for graduates.

Group 17, 8.8 percent of the sample, was one of four groups in the second order cluster of schoolteachers. It consisted of married women pursuing part-time study while working full-time, primarily in a K-12 system; these women were somewhat older (mean of 31.5 years old) with less recent bachelor's degrees (mean year of award was 1972) and more children (mean 0.9) than any of the preceeding groups. The majority of the Group 17 women were education majors, though 15 percent were in engineering and another 15 percent had "other" or undeclared majors. Eighty-five percent were part-time students, carrying a low load of 4.8 credits, 5.9 effective credits. They

expressed strong needs for evening courses, courses meeting only once a week, and off-campus courses.

All of the Group 17 women planned to remain employed in their current settings, and advancement in their present job was one reason for pursuing graduate study for 69 percent of the group; improving income potential was the most common primary reason, however, mentioned by 31 percent.

Group 17 tended to be satisfied with their graduate programs, giving the highest score among the groups to the composite scale on teaching quality and the highest ratings on individual items of administration of degree requirements and faculty interest in the welfare and development of graduate students.

No one in Group 17 had ever held a UTK graduate assistantship, and only eight percent had been awarded some form of fellowship or scholarship during the past year. Over 90 percent were employed (the mean hours worked per week for the group was over 40), and 69 percent also received support from their spouses. None had student loans.

The most severe personal problem for a third of Group 17 was finding time to study. Family responsibilities also posed at least somewhat of a conflict for 72 percent. Institutional barriers to successful completion of their programs were times, locations, or frequency of offering needed courses, mentioned by 77 percent of the group, and times when administrative offices were open, mentioned by 46 percent. They also agreed rather strongly with the statements that, due to scheduling problems, they had difficulty registering and meeting with course instructors outside of class. Among the support services, they expressed a strong need only for registration options.

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Group 3 members (representing 7.0 to 15.8 percent of UTK graduate students) were part of the five-group second order cluster of prospective business managers. The Tennessee group was predominantly male and had received their bachelor's degrees approximately five years earlier, 1977 being the mean. They averaged 29 years of age and were married or previously married, but few had children living with them. Three-quarters of these men currently worked full-time in business or industry; half the group also planned to work in that setting after graduation, generally in management roles, while 25 percent intended to become self-employed. Group 3 members commuted an average of 22 miles to classes. Nearly 70 percent reported being enrolled part-time rather than full-time, and this group reported being enrolled for a low 1.4 courses and 4.8 credits and as having the lightest effective credit load, 5.1.

Education was the most common major of Group 3, although business and engineering were also represented. The main educational objective of the group was obtaining skills helpful in their fields, and their evaluations of how well their departments were aiding their attainment of their objectives were in mid-range for the ETS composite scales and for most of the individual items; they did give a low rating to the evaluation of students' professional competence.

Nearly 90 percent of Group 3 had employment other than a graduate assistantship, and none were currently GAs. The four students who had been assistants in the past gave relatively low ratings to the quality of their experience on both variables on which the clusters differed: chance to practice professional skills and absence of unnecessary dirty work.

Members of Group 3 were not outstanding in either the strength or weakness of demand for support services. They had no personal problems of note, and their principal problems with the University were the times, locations, or frequency of offering courses they needed and the times when administrative offices were open.

Group 21, one of four groups in the second order cluster of married men with pre-school children, was the oldest group of men, but at 33 their average age was six years less than that of Group 1 (below), the oldest group of women. Group 21 members had received their bachelor's degrees a mean of 10 years previously, having stopped out of higher education an average of 3.8 years (the longest of any group). Most were married, and over 90 percent had one or two children of pre-kindergarten age. All the men were employed, averaging 29.7 hours work per week, and over half worked for UTK. The majority were planning academic careers involving teaching, research, and/or administration. This group represented between 6.4 and 15.0 percent of UTK graduate students.

Group 21 had a variety of majors with some concentration in education and social science. Sixty percent described themselves as part-time students; their average credit load of 6.7 and effective credit estimate of 9.5 were in mid-range for UTK graduate students. Their primary educational objective was preparing for college teaching, and obtaining teaching experience was more important to them than to any of the other groups. Advancement in their present job was important to 53 percent, and obtaining a degree was the main motivation for one-third.

The composite program evaluations and scores on most items were in mid-range for Group 21, but they gave a particularly low rating to faculty helpfulness in finding appropriate employment for program graduates, although 80 percent were currently employed in positions other than graduate assistantships.

Family responsibilities were a particularly frequent problem for members of Group 21, over 90 percent of whom had pre-kindergarten children. These men (at least half with working wives) expressed more need for University-provided child care service than any other UTK group. Over half mentioned financing their education as a problem despite their own employment, the contribution of spouse income to over half, and the complete absence of student loans reported by this group.

Group 21 had no especially strong needs for support services other than child care.

Group 1 was one of four groups in the second order cluster of re-entry women. Its members were perhaps the most nontraditional of the students sampled at UTK: the women averaged 39 years old (the oldest group mean), had received their bachelor's degrees a mean of 17 years ago, had two or three children (the largest mean number of children) in school, worked an average of 34 hours per week at another college or in a K-12 system, and commuted over 20 miles to classes to study part-time with the objective of teaching or administering in a college or university. They also constitute the smallest group, between 4.1 and 11.7 percent of the graduate student population, at the selected level of aggregation.

The dominant major of Group 1 was education. Nearly 90 percent described themselves as part-time students, the highest proportion among the UTK groups although their mean credit load, 5.7, and estimate of their effective credits, 6.6, were not the lowest of the groups. They had begun their graduate programs longer ago than the other groups, their mean starting year being 1978. UTK graduate programs were serving these women very satisfactorily: they gave their programs the highest ratings among the groups on two of the three ETS scales on which the Knoxville groups differed significantly, and they had the highest rankings on seven of the 13 differentiating individual items. It is noteworthy, therefore, that this group tended to disagree with the assertion that, "Decisions about financial assistance (fellowships, assistantships, etc.) are made fairly and equitably." This opinion may be related to the fact that particularly few students in Group 1 had held either a fellowship or a graduate assistantship.

The satisfaction of Group 1 is also interesting in view of the contrast between their primary motivation, advancement in their present jobs (in colleges and universities), and what they judge to be their departments' major goal, preparing students for practice outside higher education. Obtaining a degree was important to over one-third of the group, and developing skills useful in family or community settings was very important to a high 18 percent.

While 64 percent of Group 1 received some support from their spouses, employment other than a graduate assistantship was the primary source of income for 60 percent. Over a third said that they received progress-related raises from their employers. Although over

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half the group members were employed in K-12 or higher education, conflicting job responsibilities tied with negative attitudes of employers as the dominant personal problems of group members, each selected by 22 percent; conflicting family responsibilities were mentioned most often -- by 73 percent -- as somewhat of a hindrance. An unusually low proportion of Group 1, 36 percent, cited financing their education as a problem. Conflicting job responsibilities probably contributed to the problem of fulfilling UTK residence requirements mentioned by 36 percent, and scheduling conflicts had made it especially difficult for this group to use the University's administrative offices and for them to consult with their advisers or thesis chairpersons; a low proportion of this group, however, had experienced problems due to times, locations, or frequency of offering courses they needed.

Courses that met once per week and off-campus courses were quite important to Group 1. (They had taken the highest mean number of off-campus courses of the groups -- 8.6 -- but as the oldest students they had also taken the most on-campus courses, averaging over 30.) As practicing teachers, they attached little importance to additional teaching experience. They had no special needs for support services; on the contrary, of the 15 services among which the groups differed in need, Group 1 expressed distinctly low need for 13.

Group 9 -- all women and one of four groups in the second order cluster of childless women with full-time work experience -- represented the largest cluster of UTK students, 21.4 percent of the sample and between 15.7 and 27.1 percent of the population. Over 60 percent were studying full-time, and they generally worked part-time

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(mean of 20.0 hours per week), most frequently being employed by the University. Members of this group were more likely to be unemployed (the status of 18 percent) than members of any other group. Although averaging 32.4 years of age, only 60 percent were married; the mean number of children was 0.3. These women had stopped out of higher education longer than the other women's groups, an average of 3.5 years, and averaged nearly six years of full-time employment experience.

The most common major (of 27 percent) for Group 9 was public affairs and services, but education was also well represented (by 23 percent). The group was carrying a mean load of 8.5 credits and estimated their effective credits at 9.3. The main reason for pursuing graduate study for 34 percent of the group was preparing for a new job, and their opinions about the success of their programs in furthering their objectives were in mid-range on all the composite scales and on the individual items among which the groups differed. They were very confident that they would complete their programs (mean agreement of 3.9 with 4.0 the maximum).

The most common source of financial support for Group 9 members was their spouses, a factor for half the group and the primary support of 27 percent. About one-quarter had graduate assistantships, and 43 percent had income from other employment, the average hours worked per week by the group being 20.

Financing their education was a problem for 70 percent of Group 9, the main personal problem for 43 percent. Family responsibilities were a conflict for over half the group. The major barrier posed by the University was the times, locations, or frequency of needed

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courses. Placement of graduates was the single support service for which this group expressed particular need.

4.4.4 City University of New York

Figure F-4.123 of Appendix F shows the hierarchical formation of clusters for the City University of New York graduate students. Five respondents were not included in the similarity matrix because they did not have measures on at least 14 of the 17 variables on which the matrix was based. The first relatively large increase in the fusion coefficient occurred when ten clusters were reduced to nine; prior to that fusion, the largest increase in coefficient was .064 (reducing from twelve to eleven clusters), while the coefficient to reduce from ten to nine groups increased the sample's error sum of squares by .100.

The group size, its percent of the sample plus and minus the standard error of the proportion, and values of the defining demographic variables for each group are shown in Table 4.4. Group numbers are merely the lowest sequence number among the group's members, whereas the labels are those characterizing the second order clusters of which each group was part. Analyses of group values of the defining variables revealed differences among the groups with probable error of five percent or less on 10 of the 17 variables, including all of the personal characteristics and most of the employment characteristics but none of the educational characteristics. All the clusters of CUNY respondents were composed primarily of full-time students, but they varied from more to less "traditional" on other variables such as age, number of children, and number of hours worked per week. The groups are discussed below in

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order of their appearance in the second order clusters, from most to least traditional.

Chi-square tests or analyses of variance were performed on other demographic variables, program evaluation scales and items, personal and institutional problems, motives and goals, and support service needs to determine differences between the groups. Significant differences were found for 21 of 223 original variables and two of 12 derived variables. Table G-4 of Appendix G shows the extreme high and low values for each of these variables.

Group 7, which comprised 10.2 percent of the respondents and represented between 4.9 and 15.5 percent of the 1982 CUNY Graduate Center student population, might be considered the most traditional of the New York graduate student groups. It was one of four groups in the second order cluster of traditional women graduate students. Group 7 consisted primarily of young (mean age of 25 years, the only mean under 30) Caucasian women who had never been married and had no children, who currently worked part-time at CUNY, and who intended to be active in research or a combination of teaching and research at an educational institution or for a non-profit agency.

Two-thirds of the members of Group 7 had participated in a clinical, field work, or internship experience in the past 12 months; this may have been one factor in the high rating (3.4 of 4.0 maximum) they gave to the flexibility of their graduate programs. Financing their education was a problem for two-thirds of the group members.

Group 25, with CUNY Group 6 below, comprised a cluster of men aspiring to be professors. Group 25 was the largest group of CUNY men with 13.6 percent of the sample and had the lowest mean age, 30, of

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Table 4.4. City University of New York student groups: Proportion or mean values of variables used to define groups*

<u>Personal characteristics</u>	<u>Educational characteristics</u>	<u>Employment characteristics</u>
GROUP 7: Traditional female graduate students. N=9 (10.2+5.3 percent)		
77.8% female*	66.7% full-time	work 15.0 hrs./week*
100.0% never married*	Bach. 1979.2	current: 77.8% this univ.*
100.0% Caucasian*	stopped out 0.9 yrs.	future: 33% coll./univ.,
25.0 years old*	commute 9.1 miles	22.2% non-prof.ag.*
100.0% no pre-kind.chil.*	4.6 yrs. for degree	100.0% curr. not fut. setting*
100.0% no children*		55.6% plan teach.& res.
		0.3 yrs. FT work exper.*
GROUP 25: Men aspiring to be professors. N=12 (13.6+6.0 percent)		
91.7% male*	54.5% full-time	work 30.2 hrs./week*
100.0% never married*	Bach. 1973.9	curr.: 25.0% each this inst.,
83.3% Caucasian*	stopped out 0.9 yrs.	bus./ind.*
30.2 years old*	commute 16.2 miles	future: 58.3% coll./univ.
100.0% no pre-kind.chil.*	6.1 yrs. for degree	100.0% curr. not fut. setting*
100.0% no children*		33.3% plan each teach.,
		teach.& res.
		3.9 yrs. FT work exper.*
GROUP 6: Men aspiring to be professors. N=10 (11.4+5.6 percent)		
100.0% male*	70.0% full-time	work 12.6 hrs./week*
40% each prev., never married*	Bach. 1970.9	curr.: 25% each this inst.,
66.7% foreign*	stopped out 1.2 yrs.	bus./ind.*
32.8 years old*	commute 9.6 miles	future: 50.0% coll./univ.
100.0% no pre-kind.chil.*	5.7 yrs. for degree	100.0% curr. not fut. setting*
100.0% no children*		33.3% plan each res.,
		admin./mgmt.
		1.4 yrs. FT work exper.*
GROUP 8: Men with pre-kindergarten children. N=9 (10.2+5.3 percent)		
66.7% male*	66.7% full-time	work 26.9 hrs./week*
100.0% married*	Bach. 1974.7	current: 33.3% each this,
50.0% minority*	stopped out 3.2 yrs.	oth. inst.*
34.7 years old*	commute 28.8 miles	future: 88.9% coll./univ.
66.7% 1-2 pre-kind.chil.*	6.2 yrs. for degree	77.8% curr. not fut. setting*
1.6 total children*		66.7% plan teach.& res.
		7.8 yrs. FT work exper.*
GROUP 3: Industry researchers N=3 (3.4+3.2 percent)		
66.7% male*	66.7% full-time	work 32.3 hrs./week*
100.0% married*	Bach. 1973.0	current: 100.0% bus./industry*
100.0% Caucasian*	stopped out 1.3 years	future: 100.0% bus./industry
32.7 years old*	commute 16.7 miles	100.0% current=future setting*
100.0% 1-2 pre-kind.chil.*	10.5 yrs. for degree	66.7% plan research
2.0 total children*		4.7 yrs. FT work exper.*

*Starred variables differed significantly among the groups with probability of 0.05 or less based on Chi-square or one-way analysis of variance tests.

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Table 4.4 (continued)

<u>Personal characteristics</u>	<u>Educational characteristics</u>	<u>Employment characteristics</u>
GROUP 14: Re-entry women. N=9 (10.2+5.3 percent)		
100.0% female*	66.7% full-time	work 19.9 hrs./week*
88.9% married*	Bach. 1971.6	current: 44.4% this inst.,
100.0% Caucasian*	stopped out 0.4 yrs.	22.2% none*
34.6 years old*	commute 22.2 miles	future: 44.4% coll./univ.
55.6% no pre-kind.chil.*	6.0 yrs. for degree	100.0% curr. <u>not</u> fut. setting*
1.6 total children*		88.8% plan teach. &/or res.
		0.4 yrs. FT work exper.*
GROUP 11: Unemployed minority full-time students. N=5 (5.7+4.1 percent)		
60.0% male*	100.0% full-time	work 6.4 hrs./week*
60.0% married*	Bach. 1972.8	current: 60.0% unemployed*
100.0% minority*	stopped out 1.5 years	future: 50.0% bus./industry
32.8 years old*	commute 18.0 miles	100.0% curr. not fut. setting*
100.0% 1-2 pre-kind.chil.*	6.2 yrs. for degree	40.0% plan to teach
1.4 total children*		0.2 yrs. FT work exper.*
GROUP 2: Childless women with full-time work experience. N=12 (13.6+6.0 percent)		
91.7% female*	75.0% full-time	work 22.2 hrs./week*
100.0% married*	Bach. 1973.7	current: 33.3% this inst.*
100.0% Caucasian*	stopped out 2.4 yrs.	future: 75.0% coll./univ.
30.3 years old*	commute 12.7 miles	100.0% curr. not fut. setting*
100.0% no pre-kind.chil.*	6.3 yrs. for degree	33.3% plan teach. & res.
0.1 total children*		4.7 yrs. FT work exper.*
GROUP 4: Women aspiring to be professors. N=9 (10.2+5.3 percent)		
100.0% female*	66.7% full-time	work 29.7 hrs./week*
100.0% prev. married*	Bach. 1972.0	curr.: 33.3 each K-12,
87.5% Caucasian*	stopped out 1.1 yrs.	non-prof. agency*
39.1 years old*	commute 19.9 miles	future: 66.7% coll./univ.
100.0% no pre-kind.chil.*	9.8 yrs. for degree	77.8% curr. not fut. setting*
0.9 total children*		33.3% plan each teach.,
		teach. & res.
		5.0 yrs. FT work exper.*
GROUP 1: Women aspiring to be professors. N=10 (11.4+5.6 percent)		
70.0% female*	77.8% full-time	work 18.4 hrs./week*
60.0% never married*	Bach. 1972.1	current: 30.0% each this,
80.0% Caucasian*	stopped out 2.0 yrs.	oth.univ.*
32.6 years old*	commute 20.8 miles	future: 60.0% coll./univ.
100.0% no pre-kind.chil.*	6.8 yrs. for degree	100.0% current=future setting*
0.2 total children*		50.0% plan teach. & res.
		2.5 yrs. FT work exper.*

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the predominantly male clusters. Like Groups 7 (above) and 1 (below), its members were primarily Caucasian, had never been married, and had no children. The men of Group 25, however, were employed in a variety of settings, and their mean hours of work per week, 30, was double that of Group 7 and over 50 percent above that of Group 1. All those in Group 25 were planning future jobs in a setting different from their current one; 58 percent aspired to college or university positions teaching or combining teaching and research. Three-quarters of the group had participated in a clinical, field work, or internship experience to develop their professional skills. Getting approval for their dissertation topic or final draft had been a problem for a quarter of the group, and finances were a problem for half the members.

Group 6 (11.4 percent of the CUNY respondents), the second group of future male professors, was somewhat older than Group 25 (mean of 33 years old) but was similar regarding marital status (80 percent single) and lack of children. Similar proportions currently worked at CUNY and in business or industry (25 percent each). However, two-thirds of Group 6 were nonresident aliens, and although half plan to work in higher education, preparation for other practice was very important to them. Half the group had had problems with the University accepting previously earned credit, and 70 percent cited the general quality of instruction as a problem (with the group divided among six major disciplines). Finances were a problem for 70 percent.

Group 8, representing between 4.9 and 15.5 percent of the CUNY graduate students, was one of four groups in a second order cluster of

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men with pre-kindergarten children. Group 8 was two-thirds male, had a mean age of 35 years old, and all were married and had a mean of 1.6 children; two-thirds had pre-kindergarten children, and an emergency locator service was especially important to the group. Half of the members of this group identified themselves as minorities. Two-thirds were currently employed by CUNY or another college, but over half received at least some financial support from their spouses, and one-third cited lack of opportunities for their spouses as a hindrance to completing their graduate work. Financing their education was a problem for two-thirds. Nearly 90 percent planned future work in higher education, generally combining teaching and research; preparing for college teaching was a strong educational goal of this group. English language training was also more important to this group than to others.

Group 3 was the smallest of the CUNY groups with only three members and 3.4 percent of the sample, and it did not combine with any other groups at the selected cut-off point for the second order cluster analysis. All members of the group currently worked in business or industry (an average of 32 hours per week, the highest mean among the groups) and planned to remain in that setting after completing their degrees, two-thirds conducting research. The group consisted of married Caucasian men (67 percent) and women averaging 33 years old with one or two pre-kindergarten children. Evening courses were more important to this group than to the others, and library facilities were less important. Advancement in their present jobs was an important reason for graduate study for two-thirds of the group, but so was making new friends. Acceptance of previously earned

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credit, inadequate specialized facilities, and getting dissertation approval were each a problem with the institution for one-third of the group (i.e., one respondent); personal problems mentioned by one-third of the members included opportunities for their spouse and communicating with instructors or peers in English; English language training was more important to members of this group than to other clusters, as was child care service.

Group 14 was one of four groups in the second order cluster labeled re-entry women. The group, which constituted 10.2 percent of the CUNY respondents, appears to have been composed of homemakers pursuing their education after beginning their families. Most of the women were married Caucasians, averaging 35 years old, with one or two children and with one year or less of full-time work experience. Two-thirds of them were supported by their spouses. All planned to work in a different setting from their current one (including the 22 percent unemployed at the time of the survey), 44 percent in higher education and a third in business or industry. Their preferred future activity was research, either alone (22 percent) or in combination with teaching (44 percent); preparation for college teaching was an especially strong educational goal of this group. Developing a more independent life style was an important personal goal for over half the group.

Group 11, representing between 1.6 and 9.8 percent of CUNY graduate students, also remained unaggregated among the second order clusters. Group 11 consisted entirely of members of minority groups, and 60 percent of them were currently unemployed, while 40 percent received at least some income from a graduate assistantship; no one in

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the group had had more than one year of full-time employment experience. A majority of Group 11 people were married (60 percent) and male (60 percent), and their mean age -- 33 -- was the same as Groups 1, 3 and 6. Like Group 3, all members of Group 11 had young children living with them. Financing their education was somewhat of a problem for 80 percent of the group, but was not the main personal problem for any member. Developing a more independent life style was a goal of 60 percent of the group members. Barriers to completing their degrees included acceptance of previously earned credit, inadequate specialized facilities, and approval of their dissertation topic or final draft, each cited by 40 percent of the group.

Group 2, the largest group of women with 13.6 percent of the CUNY sample, was one of four groups in the cluster of childless women with full-time work experience. Group 2 was comprised almost entirely of Caucasian women whose mean age was 30 (the same as that of Group 25) and who were all married but had no pre-kindergarten children. One-quarter of these women were supported primarily by their spouses' incomes. All the women in this group planned to work after graduating in a setting different from the one in which they were currently employed, and 75 percent planned to work in a college or university teaching, conducting research, or both.

Developing a more independent life style was important to half of the members of Group 2. Among the ETS program evaluation items, they gave a particularly low rating to the evaluation of students' professional competence.

Group 4 women -- another 10.2 percent of the CUNY graduate student sample -- was one of three groups (two from CUNY) comprising a

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cluster of women aspiring to be professors. Members of Group 4 averaged 39 years old (the oldest group), and all group members had been previously married. They had no pre-kindergarten children living with them, but most had an older child at home. This group of graduate students was also less traditional than the preceding groups in that most members worked outside the University in primary or secondary education or in other non-profit agencies a mean of 30 hours per week. Like the women of the other clusters, the predominant desired future job setting was in higher education. All of the women in Group 4 cited financing their education as a least somewhat of a problem.

Group 1, representing between 5.8 and 17 percent of the students, was another of the groups of women planning academic careers. Like Group 4, it consisted primarily of Caucasian women. Members were like Group 6 with respect to their higher mean age (33), marital status (single), lack of children, and professorial career plans. The Group 1 women all worked part-time, 30 percent at CUNY and another 30 percent at another college or university, and all planned to remain employed in the same setting in which they worked currently.

Advancing in their present jobs was an important reason for graduate study for 40 percent of Group 1. Food facilities were more important to Group 1 than to other groups, and evaluation for credit for non-academic learning was somewhat important to this group in contrast to its low importance to the other groups.

4.4.5. Roosevelt University

Figure F-4.124 shows the hierarchical formation of clusters for Roosevelt University graduate students. The first relatively large

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increase in the fusion coefficient occurred when five clusters were reduced to four; prior to that fusion, the largest change in the fusion coefficient was .077 (reducing from ten clusters at coefficient .368 to nine clusters at .445), while the change in coefficient to reduce from five to four groups was .332 (from .573 to .905).

Values of the defining demographic variables for each group are shown in Table 4.5 as well as the label of the second order cluster of which it is a part, the number in each group, its percentage of the sample, and the standard error of the proportion for the population. (Group numbers are merely the lowest sequence number among the group's members.) Analyses of group values of the defining variables revealed differences among the groups with probable error of five percent or less on 10 of the 17 variables: all six of the personal characteristics, two of the educational characteristics, and two of the employment characteristics.

Chi-square tests or one way analyses of variance were performed on the variables of discipline, number of courses and credits, personal and institutional problems, needs for support services and facilities, program evaluation scales and items, professional activities, personal and departmental goals, sources of financial support, and types of employer aid received. The Roosevelt groups differed on only 28 of 223 original variables and three of 12 derived variables explored. Table G-5 of Appendix G lists the variables on which the clusters differed significantly and shows the values of the percents or means for those groups representing the extreme(s).

In comparison with the student clusters at the other four universities, all of Roosevelt's groups were relatively

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nontraditional. The majority of all Roosevelt groups were studying part-time, four of the five groups worked means of over 38 hours per week, and three of the five groups had an average age of over 30. Three of the groups were predominantly male, two nearly or entirely female. The five Roosevelt groups were distributed among four second order clusters, including a one-group cluster consisting of Roosevelt Group 5.

Group 1, which represented between 10.9 and 29.9 percent of the Roosevelt graduate students, was one of three groups in a second order cluster of older men with children and considerable full-time work experience. The Roosevelt group consisted primarily of married Caucasian men, most with children and half with pre-kindergarten children; with a mean age of 38, this was the oldest male group. These men worked full-time, 70 percent in business or industry, and studied part-time. Half of them were planning to change the setting of their employment after completing their programs, and preparing for a new job was one reason for 90 percent of them enrolling in graduate school, the primary reason for 60 percent; all members of the group were seeking to improve their income potential, while personal growth or satisfaction was important to a smaller proportion of this group than of any other.

Preparation to become scholars or researchers had little importance for this group or for their departments, and opportunities for research experience were not important to them.

Group 1 members had taken the fewest courses on the main campus, a mean of only 0.3, and the most "off-campus" (as defined by the respondents), the mean being 8.4. Of the ETS composite scales of

Table 4.5. Roosevelt University student groups:
Proportion or mean values of variables used to define groups.*

<u>Personal Characteristics</u>	<u>Educational Characteristics</u>	<u>Employment Characteristics</u>
GROUP 1: Older male full-time workers with children. N=10 (20.4±9.5 percent)		
90.0% male*	100.0% part-time	work 43.4 hrs./week*
100.0% married*	Bach. 1966.9*	current: 70.0% bus./industry
100.0% Caucasian*	stopped out 5.5 yrs.*	future: 50.0% bus./industry
38.3 years old*	commute 17.5 miles	50.0% current=future setting
50.0% no pre-kind.chil.*	3.4 yrs. for degree	50.0% plan admin./mgmt.
1.7 total children*		8.1 yrs. FT work exper.*
GROUP 3: Prospective business managers. N=12 (24.5±10.1 percent)		
100.0% male*	80.0% part-time	work 42.4 hrs./week*
58.3% married*	Bach. 1977.8*	current: 100.0% bus./industry
83.3% Caucasian*	stopped out 1.4 yrs.*	future: 81.8% bus./industry
26.1 years old*	commute 11.6 miles	81.8% current=future setting
90.9% no pre-kind.chil.*	3.2 yrs. for degree	75.0% plan admin./mgmt.
0.1 total children*		4.8 yrs. FT work exper.
GROUP 6: Single full-time workers. N=14 (28.6±14.9 percent)		
92.9% female*	83.3% part-time	work 38.5 hrs./week*
78.6% never married*	Bach. 1975.5*	current: mixed
71.4% Caucasian*	stopped out 2.3 yrs.*	future: 35.7% bus./industry
28.4 years old*	commute 18.9 miles	57.1% current=future setting
100.0% no pre-kind.chil.*	3.5 yrs. for degree	57.1% plan prof. serv.
0-0.2 total child.		5.9 yrs. FT work exper.
GROUP 10: Single full-time workers. N=7 (14.3±8.2 percent)		
71.4% male*	85.7% part-time	work 41.0 hrs./week*
100.0% prev. married*	Bach. 1976.2*	current: 57.1% bus./ind.
100.0% Caucasian*	stopped out 1.6 yrs.*	future: 57.1% bus./industry
35.0 years old*	commute 18.9 miles	57.1% curr. not fut. setting
100.0% no pre-kind.chil.*	3.5 yrs. for degree	57.1% plan admin./mgmt.
0.1 total children*		9.4 yrs. FT work exper.
GROUP 5: Women recent starters. N=6 (12.2±7.7 percent)		
100.0% female*	60.0% part-time	work 20.0 hrs./week*
50.0% each mar.,prev.mar.*	Bach. 1978.7*	current: mixed
100.0% minority*	100.0% never stopped out*	future: mixed
48.2 years old*	commute 9.7 miles	60.0% curr. not fut. setting
100.0% no pre-kind.chil.*	2.3 yrs. for degree	33.3% plan each teach., admin./mgmt.
2.0 total children*		2.7 yrs. FT work exper.

*Starred variables differed significantly among the groups with a probability of 0.05 or less based on Chi-squared or one-way analysis of variance tests.

program quality, only quality of teaching differed significantly among the groups, and Group 1 had the lowest mean, 2.3. (This group also had the lowest mean score on each of the seven other quality scales.) On individual items, Group 1 gave the lowest ratings to the quality of library holdings in their field, the relevance of degree requirements to future work, teaching methods, opportunities to pursue individual projects, and faculty awareness of new developments in their fields. They expressed only weak agreement with the assertion that faculty members are genuinely interested in graduate students and tended to disagree that faculty members helped them integrate past experience with new learning. They agreed with the statement that it has been hard for them to consult with their adviser.

Finding time to study, conflicting job responsibilities, and conflicting family responsibilities were each the worst personal problem for 30 percent of group members, with family responsibilities mentioned by 90 percent of the group (in contrast to being a problem for no more than 30 percent of any other group). Although the differences between Group 1 and the other groups were not statistically significant, these students also most frequently reported having a problem finding time to study, and 80 percent had conflicts with job responsibilities.

The Roosevelt groups differed significantly in their needs for five support services or facilities, and Group 1 had the lowest need for four of them: specialized facilities in the field, English language training, financial planning assistance, and public transportation.

Group 3, one of five groups in the cluster of prospective business managers, was the youngest of the Roosevelt groups with mean age of 26. Only 58 percent of these Caucasian men were married; all worked full-time in business and industry and most planned to remain in that setting in management roles. Twenty-four percent of the Roosevelt respondents were included in this group. Improving income potential was an important reason for graduate study for all group members, and the primary motivation

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for one-third, but personal growth or satisfaction was also important to 92 percent. Finding time to study and conflicting job responsibilities each were the worst problem for 27 percent of the group. Group 3 gave one of the lowest ratings to the facilities for classes and administration but had no extreme scores on other program evaluation items or ETS quality scales. Nor did they have any strong needs for support services.

Group 6 was one of two Roosevelt groups in a three-group second order cluster characterized as unmarried full-time workers. This group included over a quarter of the Roosevelt respondents (the largest groups) and was composed primarily of Caucasian women of mean age 28 who were planning careers delivering professional services, often in the same setting as their current employment; 36 percent indicated that preparing for a new job was a reason for pursuing graduate study while advancement in their present jobs was the primary motivation for 29 percent. The most frequently selected (by 43 percent) primary reason for graduate study was obtaining a degree, and 29 percent cited personal growth and satisfaction as most important. Over 60 percent of the group, whose members were distributed among seven disciplines, had participated in a clinical, field work, or internship during the past year. The main barrier to this group's attainment of their educational goals was financing, the worst personal problem for 43 percent.

Group 10, representing between 6.1 and 22.5 percent of 1982 Roosevelt graduate students, was the second Roosevelt group characterized as unmarried full-time workers. Like Group 1, Group 10 consisted predominantly of men over 30 with all members being previously married Caucasians. Fifty-seven percent currently worked in business and industry, and an equal percentage planned to be in that setting in the future, but 57 percent planned future work in a different setting than their present one. Improving their income potential was the primary reason for graduate study for 57 percent of the group, the highest proportion among the groups with that as their

primary motivation. A high 57 percent of group members had developed their professional skills via clinical, field work, or internship experiences during the previous year.

The group had a comparatively low rating of the professional promise of their fellow graduate students, and they gave low ratings to the quality of both the teaching facilities and the support staff. They agreed with the assertion that, due to their jobs, families, or commuting, it had been hard for them to consult with their advisers or thesis chairmen.

Group 10 had the lowest overall need for support services among the groups.

Group 5, the smallest Roosevelt group with 12 percent of the respondents, formed a unique second order cluster which may be described as recent starters. The group was composed of mature (mean age of 48, the oldest group) minority women, half of whom were married and half previously married, with children in school. These women had completed their bachelor's degrees recently (mean 1979), and none had stopped out during their enrollment in higher education. Only one-third of them worked full-time, and some had had no full-time work experience. Group 5 had taken the most courses (mean 14.5) on the "main" campus. They had the highest mean on the quality of teaching scale (3.3) and on each of the other seven ETS quality scales; they also had the highest means on all 10 individual program rating items on which the Roosevelt groups differed. These differences may reflect differences among majors since no members of Group 5 were in business; half were in education and one-third in public affairs and services. Preparing to be a scholar or researcher was of some importance to most members of this group; they felt this function was also of considerable importance to their departments.

Two-thirds of Group 5, the lowest proportion among the clusters, cited improving their income potential as one reason for graduate study, and a high 50 percent mentioned improving their family and/or community skills. Personal growth or

satisfaction was the primary reason for study for one-third of the group members. Perhaps because most did not work full-time, they had less trouble consulting with their advisers than members of other clusters and had less need for registering by mail, phone, or for extended hours. But lack of full-time employment may also be why half the group members mentioned a lack of opportunities to practice newly acquired skills as a personal problem, the worst problem for one-third of them.

In general, Group 5 expressed the most need for support services provided by the University, and they had the strongest needs among the clusters for public transportation, specialized facilities, English language training, and financial planning assistance, though only public transportation was very important to them. They also expressed even more need for research experience than Group 6 (which had a larger proportion of members preparing to be scholars or researchers).

4.4.6. Second order cluster analyses

The same two methods of cluster analysis (the HIERARCHY and DENSITY programs of the CLUSTAN package) that were applied to the original data were used to derive second order clusters across the five universities. Sixteen of the 17 variables which defined similarity among individual respondents were used to define similarity among the groups; expected time to complete program was eliminated.

Figure F-4.125 illustrates the progressive hierarchical fusion of the groups. The smallest increase in the error sum of squares, resulting from the fusion of the two closest of the 49 student groups at the five universities, was .064, and fusions of groups occurred with fairly close increases for 33 fusions thereafter. The difference

in the coefficients diverged somewhat reducing from 16 to 15 groups, increasing from .314 to .337 (a difference of .023) and even more going from 15 to 14 (at coefficient .367, a difference of .030) and 14 to 13 (0.394, .027 greater). Fifteen clusters were chosen for further study.

Table G-6 of Appendix G shows the percentages or means of each group for all 17 variables used to define the original groups and the 97 variables on which the groups differed at at least one university. Similarities among groups in the second order clusters are discussed below.

4.4.6.1. Cluster 1: Women aspiring to be professors.

The first second-order cluster consisted of Groups 1 and 4 from the City University of New York (CUNY) and University of Minnesota (UM) Group 15. All three groups were predominantly Caucasian (proportions of 80 to 95 percent) women (70 to 100 percent) with mean ages of 30 to 39, had stopped out an average of only one or two years, commuted 16 to 22 miles to classes, and worked means of 18 to 30 hours weekly. The mean course load of all three groups was relatively low: one course for five to six credits.

About 60 percent of each group planned careers in higher education teaching (10 to 33 percent) or combining teaching and research (21 to 50 percent). Regarding professional activity, the proportion who had presented a paper at a professional meeting within the last year was relatively homogeneous, between 16 and 25 percent; 60 to 78 percent in each group had prepared a major research proposal during that time, 30 to 47 percent had participated in a group project, and 33 to 53 percent had participated in a practicum.

Personal enrichment was a major goal of all three groups, having a mean rating of "considerably important" (3.0 to 3.1, with zero "not important" and 4.0 "extremely important") for all three, and simply obtaining their degree was mentioned as a reason for graduate study by 100 percent of all three groups. Lack of opportunities for their spouses was mentioned as a hindrance by 20 to 32 percent of each group.

Sixty-eight to 90 percent of each group had income from employment other than an assistantship, and relatively high proportions of 32 to 44 percent relied at least partially on student loans. Opportunities for teaching experience were important to all three groups (means of 1.4 to 1.9 with a possible range of 1.0 "very important" to 3.0 "not important"), and for research experience even more so (1.3 to 1.6). Both evening courses and those meeting once per week were at least somewhat important (means of 1.7 to 1.8 and 1.4 to 1.8) to most members of the three groups. Among the support services provided by the universities, placement service was important to all three groups (rated 1.0 to 1.6); part-time jobs were also important (rated 1.4 to 1.7) along with a student employment service needed to locate them (1.0 to 2.0). Long term loans were important to all (1.3 to 1.9), and emergency loans and financial planning assistance were needed more by these groups than by most other clusters (the former rated 1.3 to 2.3, the latter 1.6 to 2.3). The three groups in the cluster were similar in their rated need for health insurance (means of 1.7 to 2.3), registration options (1.8 to 2.0), an emergency locator service (2.0 to 2.3), informal contact with other students (1.9 to 2.3) -- for example, in lounge or study areas (1.8 to 2.1) --,

colloquia (2.0 to 2.3), computer facilities (2.1 to 2.6), and peer support groups (2.4 to 2.5).

4.4.6.2. Cluster 2: Childless women with full-time work experience.

The second cluster was comprised of CUNY Group 2, UM Groups 2 and 14, and University of Tennessee (UT) Group 9. These groups were also composed primarily of Caucasian (75 to 100 percent) women (90 to 100 percent) averaging over 30 years old (means of 30 to 32) with varying marital status but 90 to 100 percent having no pre-kindergarten children. Over 60 percent of each group (62 to 88 percent) were full-time students, and the mean year for receipt of their first bachelor's degrees was 1973 to 1974 for all four groups. Mean hours worked per week were 18 to 22, most often (33 to 50 percent) at their own university. Sizable fractions (25 to 75 percent) of all four groups planned careers in higher education.

Preparing to become scholars or researchers was of some importance to these groups (mean ratings of 2.4 to 3.1 with 4.0 being "extremely important"); preparing for college teaching was also of some, but lesser, importance (means of 2.0 to 2.6). Personal enrichment was considerably important (means of 2.8 to 3.6). In line with these goals, opportunities for research experience were somewhat important (1.2 to 1.9 with 1.0 "very important") as were opportunities for teaching experience (1.4 to 2.1). Preparing for a new job was important to the majority of all four groups (58 to 84 percent) while advancement in their present jobs was important to 25 percent or less in each group. Between 36 and 50 percent of each group mentioned developing a more independent life style as one reason for graduate study. One-quarter to 37 percent of the students in each group were

partially supported by student loans, and 33 to 44 percent had held a fellowship, scholarship, or traineeship during the past year.

Finding sufficient time to study was a problem for 50 to 60 percent of the members of the groups, and inadequate self-confidence was mentioned by high percentages of 23 to 50. Regarding their institutions, relatively uniform percentages of 26 to 33 percent cited general quality of instruction as a problem.

Placement services were important to all four groups (means of 1.4 to 1.6), as was part-time employment for students (means of 1.4 to 1.7) and a service to locate student jobs (1.7 to 2.1). Long-term loans were somewhat important (means 1.7 to 1.9) as were emergency short-term loans (means 1.9 to 2.1). The groups were also relatively homogeneous in their expressed needs for computer facilities and consultants (both 1.6 to 2.1), statistical consultants (2.1 to 2.3), laboratories and other specialized facilities (2.0 to 2.3), informal contact with peers (1.6 to 2.0), colloquia (1.8 to 2.3), public transportation (1.4 to 1.9), health insurance (1.6 to 2.3) and health care (1.7 to 2.0), registration options (1.6 to 2.0), tuition payment options (1.8 to 2.2), food facilities (1.9 to 2.0), lounge areas (1.9 to 2.1), and recreational facilities (2.1 to 2.4).

4.4.6.3. Cluster 3: Non-Caucasian full-time students with full-time work experience.

The third cluster consisted of MSU Group 24 and UM Group 89. Both groups were predominantly non-Caucasian (58 and 80 percent minority and nonresident alien) men and women of mean ages 33 and 35, averaging .6 children, 95 and 100 percent studying full-time, working an average of 24 and 28 hours per week (40 and 70 percent at their

institutions), and 62 and 100 percent planning careers in teaching and/or research in higher education.

The predominant major of both groups (23 and 32 percent) was education, with 69 and 80 percent of the groups' members pursuing doctoral degrees. Carrying average loads of 2.2 and 2.3 courses and 7.8 credits, both groups rated their effective credit loads as relatively heavy, 11 and 13. About 40 percent of each group had participated in a clinical, field work, or internship experience, and all members of both groups had pursued independently planned reading or practice in their fields within the past year.

Although graduate assistantships were a source of support for approximately 60 percent of both groups (and 69 and 80 percent had held GAs some time during their graduate study), 60 percent of each group mentioned advancement in their present jobs as a reason for pursuing graduate study, while preparing for a new job was cited by only 20 and 38 percent. Developing a more independent life style motivated 40 and 46 percent of the groups' members. Regarding their personal goals during graduate study, preparing to become scholars or researchers was most important to both groups (means of 3.1 and 3.8 with 4.0 being "extremely important") followed by preparation for college teaching (2.9 and 3.4) and personal enrichment (both 2.8). Correspondingly, opportunities for research experience (rated 1.2 and 1.5 with 1="very important and 3="not important") and teaching experience (1.4 and 1.5) were important to both groups.

The only problem common to both groups was instructor attitudes, mentioned by 62 and 80 percent. The most important support services for these groups were parking (1.3 and 1.4), part-time student

employment (1.2 and 1.4), and health insurance (1.2 and 1.5). Computer facilities (1.2 and 1.9), computer consultants (1.6 and 1.8), statistical consultants (both 1.6), colloquia (1.8 and 2.2), recreational facilities (1.8 and 2.0), informal contact with other students (1.6 and 1.8), short-term (both 1.8) and long-term (1.5 and 1.9) loans, tuition payment options (1.5 and 1.8, and financial planning assistance (2.2 and 2.3) were all somewhat important to both groups.

4.4.6.4. Cluster 4: Unemployed minority full-time students.

CUNY Group 11 alone comprised a cluster at the selected level of aggregation. This group was 100 percent minority, 60 percent male, and 60 percent married, all with pre-kindergarten children. All were full-time students pursuing doctoral degrees. Sixty percent were currently unemployed (but 60 percent cited "other employment" as a source of their current financial support); half sought careers in business or industry, though the group which averaged 33 years of age had a mean of only 0.2 years of full-time work experience; the other half sought higher education careers. Sixty percent mentioned developing a more independent life style as a reason for pursuing graduate study.

Financing their education was a problem for 80 percent of this group, 60 percent of whom relied on student loans for part of their income. Problems with the institution, each cited by 40 percent of the group (i.e., two members) included acceptance of previously earned credit, access to their advisers, inadequate specialized facilities in their fields (which were of relatively great importance to this group), and getting approval of their dissertation topics or final

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drafts. Opportunities for teaching experience were very important to the group. Placement service, which was very important to all group members, was the only support service strongly needed.

4.4.6.5. Cluster 5: Women recent starters.

Roosevelt Group 5, Roosevelt's most nontraditional group, also constituted a cluster by itself. This was a group of minority women averaging 48 years of age with a mean of 2.0 children, none of pre-kindergarten age. Sixty percent were part-time students, and they worked an average of 20 hours per week. These women had obtained their bachelor's degrees relatively recently, mean in 1979, and had not paused before beginning their master's programs, half of them in education. They carried relatively light mean loads of 1.3 courses, 4.0 credits, and 4.5 effective credits.

Group 5 rated high (3.4 to 3.7) the personal goals of preparing for practice other than scholarship or college teaching, preparing for further study, and personal enrichment. Among the specific reasons for pursuing graduate study, a high 50 percent mentioned developing family or community skills. These women had a relatively low level of professional activity as measured by the ETS items; none had presented a paper at a professional meeting, submitted a paper for journal publication, or participated in a cooperative research or creative project during the previous year. Among the problems encountered, only the lack of opportunities to use newly acquired skills was mentioned especially frequently -- by half of the group.

Although they were working only part-time, evening and once weekly classes were highly important to this group, and opportunities for research experience were also important. Support services needed

included placement, parking, public transportation, and an emergency locator service. This group also attached more importance to English language training than any other group.

4.4.6.6. Cluster 6: Re-entry women

The sixth cluster consisted of four groups from four different universities: CUNY Group 14, MSU Group 3, UM Group 5, and UT Group 1. All groups were totally female, primarily married (85 to 100 percent) Caucasians (83 to 100 percent) of mean ages 35 to 40 with means of 1.6 to 2.0 children. They received their bachelor's degrees means of 10 to 17 years previously. All four groups appear to be composed of homemakers who started their families before beginning their graduate education. The New York and Tennessee groups seemed to be the most nontraditional at their institutions. Teaching was the most frequently anticipated professional activity (by 11 to 38 percent), and education was the dominant major (of 31 to 82 percent) of the Michigan, Minnesota, and Tennessee groups.

The groups tended to agree that preparing for further study was an important goal of their current study (means ranging from 2.4 to 2.7 on a scale from zero to four), and personal enrichment was even more important (means of 2.7 to 3.2). Improving income potential was mentioned as a reason for study by 62 to 67 percent of groups' members, while making new friends was unimportant to all groups, cited by only zero to 11 percent. The most frequently mentioned current source of support for three groups was their spouses (31 to 67 percent), while only zero to 11 percent relied on student loans.

Conflicting family responsibilities were mentioned as a problem by over 70 percent of all groups (73 to 85 percent), and finding time

to study by over 60 percent (61 to 82 percent). Classes which meet once per week were important to all four groups (means of 1.4 to 1.8 with 1.0 being "very important and 2.0 "somewhat important"). The most needed support services included placement service (1.1 to 2.3), registration options (1.5 to 2.0), parking (1.3 to 2.3), tuition payment options (1.8 to 2.3), and informal contact with other students (1.5 to 2.3).

4.4.6.7. Cluster 7: Industrial researchers.

CUNY Group 3 was a separate cluster comprised of three married Caucasians with pre-school children. Their mean age was 33 and they expected to take a mean of over 10 years to complete their degrees (the longest of any group). All members of the group were currently working in business or industry and intended to continue working in that setting after completing their programs.

Preparation for practice other than scholarship or college teaching was the most important personal goal for this group, with obtaining a degree mentioned as a reason by all members. Opportunities for teaching experience were not important to members of the group, and they also attached less importance to library facilities than did most other groups. In general, their needs for university support services were quite low.

4.4.6.8. Cluster 8: Men with pre-kindergarten children.

The eighth cluster again combined four groups from four institutions: CUNY Group 8, MSU Group 17, UM Group 6, and UT Group 21. All four groups were comprised primarily of married (86 to 100 percent) men (67 to 100 percent) whose average age was between 30 and

35; they averaged one or two children with most (67 to 93 percent) having at least one child of pre-kindergarten age. They worked means of 29 to 35 hours, generally (33 to 73 percent) at the institution in which they were enrolled, and half or more (50 to 89 percent) planned careers in higher education conducting research (zero to 27 percent), teaching (zero to 27 percent), or both (26 to 67 percent); the majority of the Michigan, Minnesota, and New York groups were full-time students seeking doctoral degrees. Preparing to become scholars or researchers was rated considerably important by all groups (means of 3.0 to 3.3 on a scale of zero to four), and preparation for college teaching was considerably important to the CUNY, MSU, and UT groups (means of 2.8 to 3.3). Congruently, opportunities for research experience and teaching experience were important to the cluster, mean ratings of the importance of the former ranging from 1.2 to 1.6 (on a scale of 1=very important to 3=not important) and the latter from 1.1 to 1.9. Developing professional contacts was mentioned as a reason for graduate study by relatively high proportions of all groups (50 to 56 percent).

Over half of each of the four groups (54 to 76 percent) had held graduate assistantships during the course of study, although 50 percent or less of each group cited assistantships as a current source of income. The two dominant personal problems of the cluster were finances (mentioned by 53 to 70 percent) and conflicting family responsibilities (56 to 73 percent).

Evening classes, once per week schedules, and off-campus courses were all relatively unimportant to these groups. No support services were very important (i.e., had means of 1.5 or lower) to all groups,

but placement services rated 1.6 to 1.9 (somewhat to very important), part-time employment 1.1 to 2.0, student employment service 1.4 to 2.4, tuition payment options 1.3 to 2.4, and long-term loans 1.7 to 2.3. Cultural events and recreational facilities were uniformly somewhat important to the groups (both with the narrow range of 2.2 to 2.4). Also somewhat important to these groups, more so than to other clusters, were on-campus child care service (2.0 to 2.2) and an emergency locator service (1.6 to 2.2). Other services that were somewhat important included computer facilities (1.8 to 2.1) and, to a slightly lesser extent, computer and statistical consultants (respectively 2.0 to 2.3 and 1.9 to 2.4); colloquia also rated 1.9 to 2.4. Parking was rated 1.5 to 1.9, public transportation 1.7 to 2.3, health insurance 1.5 to 2.3, health care 1.8 to 2.3, registration options 1.5 to 2.4, and campus housing 2.1 to 2.4.

4.4.6.9. Cluster 9: Single full-time workers.

The ninth cluster consisted of three groups: MSU Group 9 and Roosevelt Groups 6 and 10, all composed primarily (75 to 86 percent) of part-time students who worked an average of 38 to 41 hours per week and had means of six to nine years of full-time employment experience. Current job settings varied among the groups, but the most frequently planned future setting (by 36 to 57 percent) was business or industry for all three. Although the majority sex varied, all groups were predominantly Caucasian (71 to 100 percent), the proportions married were low (zero to 21 percent), and the range of mean number of children was a low 0.1 to 0.3.

The strongest personal goal of members of the three groups was preparation for practice outside higher education (mean ratings of 3.3

to 3.6 with 4.0 "extremely important"). Opportunities for research experience were somewhat important to the groups, rated 2.3 to 2.5 (on a scale with 1.0 "very important", 3.0 "not important"), but teaching experience was not important (2.5 to 2.9). Obtaining a degree was mentioned as a reason for graduate study by 86 to 89 percent of the groups' members and improving income potential by 71 to 89 percent. The dominant personal problems of the cluster were financing their educations (mentioned by 50 to 67 percent), conflicting job responsibilities (56 to 71 percent), and conflicting family responsibilities (14 to 33 percent). No member of any group mentioned lack of opportunities for their spouse as a problem; only zero to 14 percent received any financial support from a spouse.

The main problem with their institutions for these groups was seeing their major professor or adviser. All three groups tended to agree with statements that conflicting schedules made it difficult for them to consult their advisers (2.8 to 3.1 with 3.0="agree with reservations"), meet with instructors (2.8 to 3.3), and register for classes (2.6 to 2.8). Meeting course requirements or prerequisites was also mentioned as a problem by relatively high proportions of 22 to 36 percent, and the general quality of instruction was mentioned by 21 to 43 percent. Evening and once weekly class meeting schedules were very important to all groups in the cluster (means of 1.0 to 1.1 and 1.3 to 1.4).

While the primary source of support for Cluster 9 was employment outside their institutions, mentioned by 56 to 79 percent, the reliance of these groups on personal assets was uniformly more heavy than among other clusters, ranging from 56 to 74 percent. Few cluster

members held graduate assistantships currently (zero to 11 percent) or had ever held one (zero to 12 percent). The level of professional activity reported by members of the three groups tended to be low: none had submitted a paper for publication, only zero to 12 percent had presented a paper at a meeting, zero to 25 percent had held a fellowship, and 8 to 25 percent had prepared a proposal during the past year. However, 78 to 100 percent had pursued independent reading or practice in their field.

Cluster 9 groups had no strong needs for support services other than libraries, and some needs were particularly low: computer facilities, colloquia, cultural events, recreational facilities, and food facilities. Part-time employment was also less important to these groups than to most others, as was the availability of emergency short-term loans. A placement service was somewhat important, however, rated 1.7 to 1.9 (with 1=very important), as were tuition payment options (1.4 to 2.0), parking (1.5 to 1.9), and registration options (1.0 to 1.8).

4.4.6.10. Cluster 10: Prospective business managers.

The tenth group was comprised of five groups from four universities: MSU Group 36, Roosevelt Group 3, UM Groups 1 and 18, and UT Group 3. All groups were predominantly Caucasian (80 to 100 percent) part-time (57 to 100 percent) students currently working in business or industry (75 to 100 percent) and planning to continue careers in that setting (50 to 100 percent) in administration or management (38 to 75 percent). Four of the groups were dominated by business majors (43 to 73 percent), and over 75 percent of the members of all groups sought master's degrees. Members of this cluster

carried relatively light loads: means of 1.0 to 1.4 courses, 3.5 to 5.7 credits, and 4.7 to 7.1 effective credits.

The primary personal goal of the groups' members was preparation for employment outside higher education, rated 2.8 to 3.4, with personal enrichment also of considerable importance to these groups (means of 2.7 to 3.3). Improving income potential was a motivating factor for the majority of all groups and all members of two groups. Two-thirds to 93 percent had income from employment outside their institutions, and problems due to conflicting job responsibilities were common to all groups (mentioned by 57 to 91 percent); problems with group projects also were more frequently mentioned by these groups (12 to 54 percent) than by other clusters. Financing their education was less of a problem for these students (mentioned by 18 to 44 percent) than for most others.

All five groups relied on evening courses (rated 1.0 to 1.6 in importance) meeting once per week (1.2 to 1.8), and using institutional resources was a problem: all groups tended to agree with statements regarding difficulty using administrative offices (2.8 to 3.4 with 4.0 being strong agreement), seeing their adviser or major professor (2.7 to 3.2), meeting with instructors (2.9 to 3.2), and registering (2.5 to 3.0). The only support services especially important to these groups were parking (1.2 to 1.5) and registration options (1.2 to 1.7); services such as peer support groups, part-time employment, emergency loans, and financial planning assistance were relatively unimportant to cluster members. Services which were rated somewhat important by all groups included computer facilities (1.7 to

2.3), placement service (1.7 to 2.2), tuition options (1.8 to 2.4), informal contacts (1.7 to 2.5), and lounge areas (2.1 to 2.4).

4.4.6.11. Cluster 11: Schoolteachers.

The eleventh cluster was comprised of three MSU groups -- 11, 18, and 41 -- and UT Group 17. All were predominantly Caucasian (89 to 100 percent) women (67 to 100 percent) with no pre-kindergarten children (84 to 100 percent) and were predominantly part-time (71 to 100 percent) education majors (50 to 57 percent) working means of 38 to 43 hours weekly, 64 to 92 percent in K-12 education, with 43 to 92 percent planning to remain teachers. The majorities of all groups (57 to 77 percent) were pursuing master's degrees. Their course and credit loads were relatively light: means of 0.9 to 1.7 courses, 3.1 to 4.9 credits, and 3.7 to 5.9 effective credits.

The most important personal goal for all groups was personal enrichment (mean ratings of 2.9 to 3.6), with preparation for practice outside higher education also relatively important (2.7 to 3.2). The specific reasons cited in common included obtaining a degree (mentioned by 79 to 100 percent) and improving their income potential (68 to 92 percent). As indicated above, 67 to 92 percent had income from employment outside their university, and the main personal barrier to achieving their educational goals for all four groups was conflicting job responsibilities, mentioned by 50 to 90 percent. Few members of any group (zero to seven percent) relied on student loans for financial support, and equally few currently held graduate assistantships; less than 10 percent of any group had held an assistantship at any time during their graduate study. All four groups rated off-campus evening classes meeting once a week as

important (1.0 to 1.3 and 1.3 to 1.8; 1.0="very important"), and most tended to agree (1.0="strongly disagree" to 4.0="strongly agree") that institutional scheduling of administrative offices (2.6 to 3.4), instructor office hours (2.5 to 3.3), and registration (2.5 to 3.2) posed difficulties for them.

The support services especially needed by this cluster were parking (1.2 to 2.1) and registration options (1.3 to 1.6). A placement service was somewhat important (1.9 to 2.4) as was informal contact with other students (2.2 to 2.3). Several services were needed less than by most other groups: computer facilities, colloquia, recreation facilities, part-time employment, emergency loans, and financial planning assistance.

4.4.6.12. Cluster 12: Older male full-time workers with children.

The twelfth cluster consisted of MSU Group 37, Roosevelt Group 1, and UM Group 8, all predominantly married (91 to 100 percent) Caucasian (94 to 100 percent) men (92 to 100 percent) averaging 36 to 41 years old with means of 1.5 to 2.0 children. All three groups were composed primarily of part-time students (79 to 100 percent) who worked means of 38 to 43 hours weekly and had averages of eight to eleven years of full-time work experience. The MSU and UM groups consisted primarily (46 and 53 percent) of education majors. All three groups had relatively low levels of professional activity (e.g. papers presented or submitted, independent reading, and fellowships held) compared to other groups at their institutions. Improving their income potential motivated graduate study for 82 to 100 percent of the members of the three groups, and advancing in their present jobs was an important reason for graduate work for 53 to 70 percent. Finding

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time to study, conflicting job responsibilities, and conflicting family responsibilities were all frequently mentioned problems (by 80 to 82 percent, 57 to 82 percent, and 64 to 90 percent respectively) for this cluster. Evening courses meeting once weekly were very important to these full-time workers (both rated 1.2 to 1.6), as were registration options (1.2 to 1.5). Parking (1.5 to 1.9), tuition payment options (1.9 to 2.5), placement services (2.0 to 2.5), an emergency locator service (2.3 to 2.4), and informal contact with other students (2.1 to 2.4) were all somewhat important; the groups expressed relatively low need for other support services.

4.4.6.13. Cluster 13: Men aspiring to be professors.

The thirteenth cluster united CUNY Groups 6 and 25, both groups of men (92 to 100 percent) averaging 30 and 33 years old with no children, with relatively brief average stop out times of about a year, and most (50 to 58 percent) planning future careers in higher education. The majors of both groups were varied, but like other CUNY students, nearly all (92 and 100 percent) sought doctoral degrees. They reported carrying relatively light course loads (0.6 and 1.5) but pursuing research so that their personal estimates of their effective credits were relatively high (7.0 and 8.2). The main personal goal of both groups was personal enrichment (rated 3.2 and 3.4 with 4.0 "extremely important"), and personal growth was mentioned as a reason for graduate study by 80 and 83 percent. Preparing to be both scholars or researchers and for other practice were also strong goals (all means between 2.8 and 3.3), and opportunities for both teaching experience and research experience were important to them (teaching rating 1.3 and 1.6, research 1.4 and 1.6, with 1.0 being "very

important"). Making new friends was mentioned relatively frequently by both groups: by 25 and 30 percent.

Half and two-thirds of the groups were supported by non-CUNY employment, and about the same proportions (50 and 58 percent) reported conflicting job responsibilities as a personal problem.

Cluster 13 rated libraries as very important (1.0 and 1.2), and their stated needs for computer facilities (1.8 and 1.9) and colloquia (2.0 and 2.2) were consistent with their academic goals. A placement service was quite important to them (1.5 and 1.7) as were part-time jobs (1.5 and 1.8) and a service to help locate them (1.7 and 1.9). Informal contacts with other students were also relatively important to these groups (both 1.8). Services which were somewhat important included computer and statistical consultants (the former 1.9 and 2.3, the latter 2.1 and 2.5), laboratories and specialized facilities (2.1 and 2.2), foreign languages (both 2.3, highest among the clusters), recreational facilities (2.1 and 2.3), long-term loans (1.7 and 2.1), tuition payment options (1.6 and 2.1), parking (2.1 and 2.3), public transportation (1.9 and 2.2), food facilities (2.0 and 2.4), lounge areas (1.9 and 2.0), health insurance (1.5 and 2.5), and registration options (2.2 and 2.3).

4.4.6.14. Cluster 14: Traditional male graduate students.

The fourteenth cluster was comprised of eight groups: three from Michigan State (Groups 1, 2, and 5), three from the University of Minnesota (Groups 7, 12, and 20), and two from the University of Tennessee (Groups 2 and 6). All groups were predominantly male (71 to 100 percent), with mean ages between 26 and 28, most with no children (no members of seven of the groups had any children) although dominant

marital status varied. Over 70 percent (71 to 92 percent) of all groups were full-time students. Sixty-eight to 100 percent of the groups' members were employed by their institutions, the mean hours worked varying from 14 to 29. One group consisted entirely of men planning careers in business or industry, another sought predominantly higher education careers, and the other six groups had substantial proportions planning careers in both settings; opportunities for research experience were important to all groups, however, the mean ratings on a three-point scale ranging from 1.0 to 1.8. Four groups had 15 to 25 percent agriculture majors and all had some engineering majors, the representation ranging from eight to 39 percent. Mean course loads varied from 1.3 to 2.7 and actual credits from 4.1 to 8.6, but all groups felt they carried relatively heavy effective credit loads, the mean estimates ranging from 9.3 to 13.1.

The level of professional activity during the previous year (on the variables used by ETS) also tended to be relatively high: all groups had members who had presented papers at professional meetings, the proportions ranging from 15 to 52 percent; members of seven groups had submitted professional papers for publication, the percentages ranging from 17 to 46; between 36 and 58 percent of groups' members had prepared a detailed research proposal; over half the members of all groups had participated in a group project; and 38 to 58 percent had held a fellowship. Over 60 percent of the members of all groups had held a graduate assistantship at some time during their graduate study, and this was a current source of support for 58 to 92 percent of groups' members (thus part-time employment uniformly was the most

strongly needed "support service" provided by the institutions, rated 1.1 to 1.4 among the groups).

The support service most important to Cluster 14 was a placement service, the mean ratings of which ranged from 1.4 to 1.8. Other needed services included computer facilities (rated 1.4 to 2.0 on the three-point scale) and consultants (1.6 to 2.2), laboratories and other specialized facilities (1.7 to 2.1), cultural events (1.8 to 2.3), recreational facilities (1.6 to 2.2), health care (1.2 to 2.1), health insurance (1.2 to 2.1), and informal contact with other students (1.5 to 1.8). Of some importance were colloquia (1.8 to 2.5), long-term loans (1.7 to 2.3), student employment service (1.5 to 2.2), tuition payment options (1.8 to 2.3), parking (1.7 to 2.4), food facilities (1.8 to 2.5), lounge areas (1.5 to 2.2), and registration options (1.8 to 2.2).

4.4.6.15. Cluster 15: Traditional female graduate students.

The last cluster united four groups from four different universities: CUNY Group 7, MSU Group 6, UM Group 11, and UT Group 5. All four were primarily Caucasian (78 to 100 percent) women (71 to 100 percent) studying full-time (67 to 88 percent) who had never married (96 to 100 percent) and had no children (100 percent) with mean ages between 24 and 25 years old, bachelor's degrees acquired about 1979, average stop out times of less than one year, and commute distances of less than 10 miles. Their mean hours of work weekly were 15 to 20, over 60 percent (61 to 78 percent) as employees of their institutions -- but as few as 41 and 48 percent as graduate assistants. Most planned future careers in higher education (24 to 54 percent) or with nonprofit agencies (eight to 31 percent). Each of the four groups was

the most traditional group of women at their institution. At Michigan State, the University of Tennessee, and the University of Minnesota relatively large proportions (69 to 76 percent) of the groups were pursuing master's degrees. All groups were carrying relatively high loads: means of 1.9 to 2.8 courses, 8.1 to 9.8 credits, and 10.7 to 12.3 effective credits. Their level of professional activity was relatively high; in particular, proportions ranging from 24 to 56 percent had prepared a detailed research proposal, 48 to 62 percent had participated in a group project, 38 to 89 percent had held a fellowship, and 38 to 67 percent had participated in a practicum during the previous year.

Personal enrichment was an important goal for these groups, with mean ratings of 3.1 to 3.6 on a four-point scale. Developing a more independent life style was also mentioned by relatively high percentages: 28 to 63. While lack of self-confidence was cited more frequently by these groups than by others (mentioned by 32 to 69 percent), the most frequently mentioned barrier to attaining their goals was financing their education, mentioned by 60 to 67 percent in each group. Group members relied for financial support on part-time jobs at their institutions (41 to 78 percent) or elsewhere (33 to 44 percent) supplemented to a relatively large extent by loans (held by 26 to 44 percent) and parental help (received by 23 to 67 percent).

Part-time employment at their universities was rated quite important by these groups (1.3 to 1.6) as were a student employment service (1.6 to 1.8) and both long-term loans (1.5 to 1.8) and short-term emergency loans (1.8 to 2.2). Placement service to assist graduates was also important (1.3 to 1.5). Support services which

were somewhat or very important to this cluster included laboratories or other specialized facilities (1.3 to 2.1), colloquia (1.6 to 2.3), cultural events (1.9 to 2.3), recreational facilities (1.7 to 2.2), public transportation (1.3 to 1.9), food facilities (1.7 to 2.0), health care (1.6 to 2.2) and insurance (all 1.8), lounge or study areas (1.7 to 2.0), and informal contact with other students (1.2 to 1.8). Others were registration options (1.6 to 2.2), tuition payment options (1.7 to 2.1), financial planning assistance (1.8 to 2.5), parking (1.6 to 2.4), an emergency locator service (2.0 to 2.5), computer facilities (2.0 to 2.2) and consultants (2.1 to 2.2), and statistical consultants (1.9 to 2.3).

4.5. Presentation of faculty data

4.5.1. Roosevelt University

Table E-6 of Appendix E gives the frequency distributions of the responses of the Roosevelt advisers to each item. These responses characterize the faculty adviser respondents and are not necessarily representative of the entire faculty.

4.5.1.1. Demographic characteristics

The responding Roosevelt advisers ranged in age from 29 to 65. Thirteen members of the sample (72 percent) were men, four (22 percent) women (Figure F-4.126). Sixteen (89 percent) were Caucasian, one was Asian American. The primary language of 16 was English, of one was neither English nor Spanish.

The Ph.D. was the highest earned degree of 15 respondents (83 percent), one adviser had a different doctorate, and two respondents had master's as their highest degrees (Figure F-4.127). The year of

receipt of their highest degree ranged from 1947 to 1982. Sample members had been employed full-time at Roosevelt from two to 35 years, and 44 percent also had experience as full-time employees at another institution of higher education.

While the advisers agreed that most students in their graduate programs were not "traditional" students, few had themselves been nontraditional students. The majority had been enrolled fairly continuously from beginning college to completing their graduate degrees, had never been employed full-time while attending college, had never been part-time graduate students, and had had employment as graduate students related to both their educational and employment goals. Most, however, had commuted as graduate students.

4.5.1.2. Professional characteristics

As shown in Figure F-4.128, Roosevelt faculty respondents were distributed fairly evenly among disciplines with one to three respondents in each of ten disciplines. Eleven advisers (61 percent) held the rank of professor, three (17 percent) were associate professors, and three others were assistant professors (Figure F-4.129). Only one reported having a part-time appointment; the others were full-time. Thirteen respondents (72 percent) had tenure.

While two-thirds of the responding advisers reportedly would prefer a fairly even distribution of their activity between teaching and research, most respondents reported spending 40 to 70 percent of their time on teaching or advising, 10 to 20 percent on research or other scholarly activities, and five to 20 percent on administration. Seven respondents (39 percent) reported a preference for teaching theoretical material rather than applications.

The majority of the advisers had published one or more articles or book chapters within the past five years but, as shown in Figure F-4.130, had not had other professional publications or products. Two-thirds had made at least one presentation at a professional meeting within the past two years. Less than half had any of the other types of professional service or awards mentioned by the ETS questions (Figure F-4.131).

The respondents were frequently involved in several of the types of activities about which they were questioned: advising (reported as done frequently by 94 percent of these graduate student advisers), teaching required graduate courses (done frequently by 89 percent), participating in departmental decisions (89 percent), and directing independent study (61 percent). The total number of courses taught Spring term ranged from one to seven (two to four being most common), and most advisers taught undergraduate as well as graduate courses.

4.5.1.3. Program characteristics

Most Roosevelt graduate students study part-time, and 72 percent of the advisers reported that their programs were designed for part-time study. Enrollment ranged from six to 250 master's students per program. All programs had significant numbers of courses meeting weekdays after 4:00 P.M., and 67 percent of the respondents reported that some graduate courses in their departments meet on weekends. Seventy-eight percent reported that most graduate classes meet once weekly in sessions of two to three hours duration. Responses to questions using the term "off-campus courses" were mixed, probably due to the absence of any explanation about whether that phrase was to be considered synonymous with courses taught at Roosevelt's satellite

campuses; however, those advisers who responded to the question did not feel that there were any major differences between courses taught "on-campus" and "off-campus."

4.5.1.4. Program evaluations

Items for computing four faculty program evaluation scales based on those constructed by Educational Testing Service were included in the questionnaire. As illustrated in Figure F-4.132, mean scores ranged from 3.35 for the compatibility of the working environment down to 2.74 for evaluation of students. All four means were in the "good" range, but the standard deviation for the student evaluation scale was more than double the others, indicating considerable variation in faculty advisers' estimates of the adequacy of this aspect of Roosevelt graduate programs.

Among individual items contributing to the work environment scale, 72 percent agreed strongly and the remaining 22 percent somewhat that their academic freedom is secure; 61 percent agreed strongly and 22 percent some that their personal views are compatible with department objectives; 56 percent agreed strongly and 22 percent somewhat that they were satisfied with the influence they have on departmental decisions; 39 percent agreed strongly and 39 percent agreed somewhat that theirs was a good department in which to work; and 28 percent disagreed strongly and 39 percent somewhat that their responsibilities create conflicting demands.

The mean score for the scale measuring student commitment or motivation was 3.28. On the items contributing to this scale, 39 percent agreed somewhat and 17 percent strongly that part-time master's students show enthusiasm for the field in informal

discussions and 44 percent agreed somewhat, 22 percent strongly, with the same statement about full-time master's students. Seventy-two percent agreed somewhat that both part-time and full-time master's students handle course assignments with care; 11 percent agreed strongly with that statement regarding part-time students and 17 percent strongly with respect to full-time master's students. Fifty-six percent agreed somewhat and 17 percent strongly that part-time master's students work on projects to completion despite setbacks, and 39 percent agreed somewhat and 33 percent strongly with the same characterization of full-time master's students.

The scholarly excellence of the Roosevelt programs received a mean score of 2.89. The scholarly or professional competence of the faculty was rated especially highly: excellent by 50 percent of the respondents and good by another 28 percent. The scholarly promise of program graduate students was rated excellent by 11 percent and good by 50 percent, and the intellectual environment of their departments was rated excellent by 17 percent and good by 44 percent of the faculty members in the sample.

Roosevelt programs received a mean score of 2.74 on the adequacy of evaluating graduate students. The administration of degree requirements was rated highly -- excellent by 56 percent and good by 28 percent of the respondents. Evaluation of student progress toward their degrees was rated excellent by 39 percent and good by another 39 percent. Course evaluation procedures were rated excellent by 22 percent and good by 61 percent; evaluation of students' professional competence was also rated good by 61 percent but excellent by only six percent. Only 39 percent of the respondents reported participating in

supervising master's dissertations, but of those seven individuals, three felt that the procedures for supervision were excellent and the other four felt they were good.

On other ETS items, 61 percent gave a rating of excellent and 28 percent good to the agreement between the degree requirements and the objectives of their programs; 50 percent rated good and 39 percent excellent the relevance of degree requirements to students' anticipated work. Sixty-seven percent agreed strongly that different scholarly points of view are encouraged at Roosevelt, 72 percent that faculty members are genuinely interested in the welfare and professional development of graduate students, 56 percent that their department has a humane environment characterized by mutual respect between faculty and students, 50 percent that faculty members prepare carefully for their graduate courses, and 33 percent that there is good communication between professors and graduate students. Fifty-six percent disagreed strongly that some professors unduly exploit their graduate students. Two-thirds believed that they use many examples in their teaching.

Over half the responding advisers agreed somewhat or strongly that their master's program was one of the best in the field. Regarding courses, 88 percent ranked as excellent both courses taught evenings or weekends and courses which meet once a week. There was general agreement (strong by 39 percent, some by 28 percent) that the quality of courses taught "off-campus" is as good as that "on-campus," although only 50 percent rated off-campus courses as excellent compared with 69 percent so rating on-campus courses.

4.5.1.5. Evaluation of part-time vs. full-time graduate students

Several questions asked faculty members to distinguish between the performance of part-time and full-time graduate students. When asked directly whether they could distinguish between the two types of students, 72 percent of the respondents said they could not. On a composite scale derived from the program assessment items, the mean rating of Roosevelt's full-time master's students was slightly higher than that of its part-time students (2.98 vs. 2.86), but the difference is too small to be considered meaningful. On individual items nearly all respondents agreed somewhat or strongly that both part-time and full-time master's students work hard in their programs. Only 11 percent tended to agree that part-time master's students do a lot of unassigned reading, but only 33 percent agreed somewhat with that statement regarding full-time master's students. Seventy-two percent agreed somewhat or strongly that part-time master's students support and help each other while 66 percent tended to agree with that characterization of full-time students. Nearly two-thirds of the respondents felt that full-time master's students show enthusiastic involvement with their field in informal situations, and 56 percent also agreed somewhat or strongly with that statement regarding part-time students. Over 80 percent tended to agree that both part-time and full-time master's students handle course assignments with care and responsibility; and 72 percent agreed somewhat or strongly that both part-time and full-time master's students continue work on projects until they are completed.

Similarly, on items asking for direct comparisons between part-time and full-time students, full-time were slightly better but

not enough different from neutral to be meaningful; the mean comparison scale score was 2.74, with 2.5 neutral and scores above that favoring full-time students, below part-time. Over 60 percent of the faculty respondents tended to disagree with the assertions that part-time graduate students are not as committed as full-time students, that part-time students are less likely to accept guidance from professors, and that part-time students earn lower grades than full-time graduate students. Seventy-eight percent disagreed somewhat or strongly with the statement that full-time graduate students are more concerned about educational quality than part-time students. Forty-four percent disagreed strongly, and another 28 percent somewhat, that course requirements must be lowered to accomodate part-time graduate students.

When asked specifically about adjustments made in their courses to accomodate part-time and/or older students, no more than three respondents reported any differences at all. Two-thirds of the responding advisers tended to agree that part-time graduate students contribute to course content. Over half tended to agree, however, that part-time graduate students do not learn as well as full-time students, that part-time students have a higher drop-out rate, and that part-time graduate students are primarily concerned with attaining professional credentials.

There was strong agreement by 56 percent of the responding faculty advisers that efforts should be made to accomodate part-time students. Eighty-eight percent agreed somewhat or strongly that adults should be encouraged to pursue graduate work on a part-time basis, 76 percent felt there was some truth to the assertion that

older graduate students have an advantage over younger ones, 45 percent felt that increased maturity should to some extent offset outdated prerequisites or lower grade point averages of adults, and half tended to agree that they enjoy teaching classes with older students more than those with primarily younger students. Although they tended to agree that those students who have stopped out of higher education often have forgotten some relevant material, 55 percent of these advisers tended to disagree with the assertion that these students do not do as well in their graduate work.

4.5.1.6. Department and student goals

Figure F-4.133 shows the mean ratings of the Roosevelt faculty advisers of the importance of five educational goals to the departments and to the graduate students. The responding advisers believed that all five goals were more important to the students than to the departments. The advisers felt that the most important objective of the departments was preparation for practice outside higher education, also estimated to be considerably important to the students, while preparation for further study was perceived to be even more important to the students. Because of the disparity in the distribution among disciplines of the faculty and student samples, no valid comparisons can be made of the perceptions of the two groups.

4.5.1.7. Perception of student problems with the institution

The institutional problem for students most frequently cited by the Roosevelt faculty respondents, illustrated in Figures F-4.134a and b, was the availability of library materials. Sixty-one percent of the respondents felt this was a problem for students, and 39 percent

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felt the situation should be improved. Times, locations, and/or frequency of offering needed courses was mentioned as a problem by 44 percent of the faculty respondents, but only six percent felt corrective measures should be taken. Twenty-two percent mentioned times administrative offices are open as a problem and felt this should be changed. Other problems mentioned by over 20 percent included acceptance of previously earned credit and adequacy of computer facilities, but only six and 11 percent felt changes were justified in these two areas.

4.5.1.8. Perceptions of student personal problems

Roosevelt faculty members seem quite aware of the types of problems faced by their students: financing, conflicting job and family responsibilities, finding time to study, and transportation (Figure F-4.135). Three other problems cited by this sample of faculty, however, were not seen as problems by the student sample: academic skills (seen as a problem by 56 percent of faculty respondents), communication in English (viewed as a problem by 39 percent of the advisers), and student self-confidence (mentioned by 22 percent of the sampled faculty).

4.5.1.9. Support services

There were considerable discrepancies between the importance attached to some support services by faculty and student respondents. Again, however, direct comparison would not be meaningful because the bases for sampling the two groups were so different. Faculty estimates of graduate students' needs for support services are illustrated in Figures F-4.136a through e and their evaluation of the

quality of the services provided is shown in Figures F-4.137a through e.

The faculty advisers questionned believed that library facilities are the most important support service provided by the University to its graduate students -- deemed very important by 89 percent of the respondents and given a quality rating of good by 44 percent. Regarding other academic support services, 61 percent felt English language training was very important, and the training available was rated good or excellent by 76 percent of those familiar with its quality. Thirty-nine percent believed opportunities for research experience were very important, but 33 percent of those familiar with the existing opportunities rated them poor (although 53 percent rated them good). Computer facilities were estimated to be very important to students by 33 percent of the sample and somewhat important by 28 percent, although consultants to assist students in computer use were believed to be very important by only 17 percent. The modal rating of both the computer facilities and consultants available was fair. Laboratories, studios, and other specialized facilities were felt to be very important by 22 percent and somewhat important by 33 percent of the respondents, and these facilities also had a modal rating of fair. Sixty-one percent felt that colloquia or special lectures were at least somewhat important to graduate students, and the quality of current presentations was rated poor by 36 percent and fair by another 29 percent of the advisers. Over half the sample believed that tutoring or other individual help was at least somewhat important to Roosevelt graduate students, and this service was rated fair to good. Registration options were recognized as very important to students by

50 percent of the sample, with those options available rated good by 56 percent and excellent by 31 percent of the sample.

Eighty-three percent felt that tuition payment options were very important, and 50 percent rated the available options as good, 25 percent as excellent. Other very important services related to student finances included loans: Long-term loans were believed to be very important by 72 percent of the faculty respondents, and the service providing them was evaluated as good by 67 percent; emergency short-term loans were felt to be very important by 39 percent, but 40 percent rated the available service as poor and another 40 percent as fair. Part-time employment was felt to be very important to graduate students by 56 percent of the faculty sample, but opportunities available were rated only poor or fair by 60 percent. Thirty-nine percent believed that an employment service to assist students in locating jobs was very important, but 63 percent rated the service available as only fair. One-third of the faculty respondents also believed that financial planning assistance was very important to graduate students, with evaluations of that service varying widely.

Regarding students' career development, 50 percent believed that career counseling was very important for Roosevelt graduate students, and 69 percent rated the counseling available as good or excellent. A placement service was considered very important by 67 percent, and 70 percent of those familiar with the service provided by Roosevelt rated it good.

Provision of parking facilities was judged to be very important to students by only 22 percent of the faculty respondents, and the facilities available were rated good or excellent by 58 percent.

Lounge and study areas were estimated to be somewhat or very important by 77 percent, and 50 percent rated the areas available as fair.

Two-thirds believed that University food facilities and health care each were somewhat or very important to graduate students; 64 percent rated the provisions for health care as good, while 50 percent rated food facilities as fair. Half the respondents felt that peer support groups were at least somewhat important to graduate students, and 88 percent of those familiar with existing groups rated them poor or fair. Informal contact between students, estimated to be somewhat or very important by 78 percent, also received low ratings -- poor or fair from 77 percent. Sixty-one percent felt that child care service was somewhat or very important, and all three respondents familiar with such service provided by the University rated it poor. Although not perceived as important to students by most advisers, the quality of the cultural events at Roosevelt was rated good or excellent by 78 percent.

4.5.2. City University of New York

Table E-7 of Appendix E gives the frequency distributions of the CUNY adviser responses to each item. Again, these responses should not be construed as characterizing the entire CUNY faculty; only the advisers ("Executive Officers") of the students in the student sample were questioned.

4.5.2.1. Demographic characteristics

The CUNY faculty respondents ranged in age from 39 to 65 with a mean of 52.3. Three-quarters were men, 20 percent women, with one blank (Figure F-4.138). All those responding to the question on

ethnicity were Caucasians, all giving English as their primary language.

The Ph.D. was the highest earned degree of 85 percent, another doctorate of 10 percent. These degrees had been received between 1950 and 1968. Sample members had been employed full-time at CUNY for nine to 35 years, with three respondents having had two to four years of part-time employment at CUNY previously. Sixty percent also had been employed full-time at another college or university.

The majority of the faculty respondents had been "traditional" graduate students: only 20 percent had ever been part-time graduate students, 30 percent had ever been employed full-time while attending college, and only 40 percent had experience commuting while in graduate school; 55 percent described themselves as having been enrolled fairly continuously from starting as freshmen to completing their highest degree.

4.5.2.2. Professional characteristics

As shown in Figure F-4.139, the CUNY faculty respondents were distributed fairly evenly with one to three respondents in each of 12 disciplines. All respondents were tenured full professors with full-time appointments.

Most respondents would prefer an approximately even distribution of their time between teaching and other scholarly activities, and most indicated approximately such a balance in the actual time distribution but with more time spent on administration -- as might be expected of Executive Officers. Thirty-five percent reported that they prefer teaching theoretical to applied material.

As shown in Figure F-4.140, 85 percent of these faculty members had published at least one article or book chapter during the past five years, 55 percent had authored a book, and 40 percent had had a monograph or review published. Over half had held office in a state or regional professional organization, been on a journal editorial board, refereed a journal article during the past two years, and held a grant from an outside source within the past 3 years (Figure F-4.141). Half had served on a national professional committee in the last three years, had received an award for outstanding teaching, and had received an award for outstanding scholarship.

The majority of the respondents reported being frequently involved in most phases of department activity (Figure F-4.142) except supervising field work or internships (which 40 percent said was not applicable) and arranging contacts with nonacademic professionals (done occasionally by 55 percent). The total number of courses taught Spring term ranged from none to three, one daytime on-campus graduate course being the most frequent load reported.

4.5.2.3. Program characteristics

Enrollment in those master's programs represented by responding faculty advisers ranged from 13 to 500 students and in doctoral programs from 47 to 132 students. Sixty-five percent of the advisers were from departments with no master's program, while one was from a department with no doctoral program. From two to 20 nondegree students were enrolled in seven departments.

The majority of the student sample respondents reported being doctoral students and studying full-time, and half the faculty advisers reported that most doctoral students in their program were

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enrolled full-time though only 20 percent of the total sample (40 percent of those reporting having master's programs) reported that most master's students were enrolled full-time. Five of eight master's programs, and 14 of 15 doctoral programs, were designed for full-time study.

According to the faculty advisers questioned, significant numbers of CUNY graduate courses met during the regular academic year weekdays both during the day and after 4:00 P.M. There were few summer classes. Most courses met once weekly for two to three hours per session.

The questionnaire included several items regarding "off-campus" courses without defining this term specifically for CUNY with its many branches. Most faculty respondents said, when the alternative was offered, that these questions were "not applicable" to their situation.

4.5.2.4. Program evaluations

Items for computing four faculty program evaluation scales based on those constructed by Educational Testing Service were included in the questionnaire. As illustrated in Figure F-4.143, on a scale from one (poor) to four (excellent), the mean scores ranged from 3.25 for evaluation of students to 3.61 for the work environment. The four scales had relatively narrow standard deviations of 0.33 to 0.43.

Among individual items constituting the work environment scale, 95 percent of the respondents agreed strongly that their academic freedom was secure, 75 percent agreed strongly that theirs was a good department in which to work, 70 percent agreed strongly that their personal views were compatible with department objectives, and 65

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percent agreed strongly that they were satisfied with their influence on departmental decisions.

On the scholarly excellence of the program (mean rating of 3.53), 85 percent rated the scholarly or professional competence of their colleagues as excellent; half rated their department's intellectual environment as good and half as excellent. Seventy percent rated as excellent their colleagues' awareness of new developments in their field.

Regarding student motivation and commitment, 55 percent agreed strongly that full-time doctoral students work hard in their programs with lower percentages in agreement for part-time doctoral students and part-time and full-time master's students; similarly, 60 percent agreed strongly that full-time doctoral students demonstrate enthusiastic involvement with their fields in informal discussions, and 55 percent agreed strongly that full-time doctoral students complete projects despite setbacks, with less strong agreement regarding the enthusiasm and persistence of the other three types of students.

On the student evaluation scale items, the modal rating of all the components was good: administration of degree requirements, course evaluation procedures, evaluation of progress toward the degree, evaluation of comprehensive and/or qualifying examinations, procedures for dissertation supervision, and evaluation of student professional competency.

Several other individual items received high ratings by CUNY the faculty members surveyed. Agreement between program requirements and objectives was rated excellent by 70 percent; relevance of

requirements to anticipated work was deemed excellent by 55 percent and relevance of courses in related fields was rated excellent by 65 percent; 55 percent termed excellent the variety of course offerings and the programs' flexibility; opportunities for students to pursue individual projects were rated excellent by 70 percent; opportunities for students to develop mentors or sponsors were seen as excellent by 60 percent; and half rated as excellent admissions procedures, the depth of program offerings, the overall quality of teaching, and the University's commitment to their programs. All of these questions had comparable items on the student questionnaire, and all were given lower ratings (generally good rather than excellent) by the student sample.

Regarding faculty-student relations, 90 percent agreed strongly that faculty members are genuinely interested in the welfare and professional development of graduate students, 70 percent agreed strongly that the department has a humane environment characterized by mutual respect between students and professors, 50 percent agreed strongly that there is good communication between faculty and graduate students, and 55 percent agreed strongly that professors have a realistic view of student responsibilities outside the classroom. Faculty agreement with these items was considerably stronger than that of the students, although the student sample also tended to agree.

On faculty-faculty relations, 80 percent agreed strongly that different scholarly points of view are encouraged, half agreed strongly that faculty members work together to achieve program goals, and 55 percent agreed strongly that the faculty is receptive to new ideas and new ways of doing things. Looking at their total program,

60 percent agreed strongly that theirs was one of the best doctoral programs in their field (though only one-third of those responding agreed strongly with this statement regarding their master's program), 95 percent agreed strongly that the program was intellectually stimulating, and 60 percent agreed strongly that faculty members prepare carefully for their graduate courses.

4.5.2.5. Evaluation of part-time vs. full-time graduate students

Several questions asked the faculty advisers about part-time and full-time graduate students. When asked whether they could distinguish between part-time and full-time graduate students, half the respondents replied yes and half no. There were six sets of assertions about part-time and full-time master's and doctoral students; the mean strength of agreement with these six items ranged from 3.0 (agree with reservations) for an estimate of the quality of part-time master's students to 3.54 (between agree strongly and agree with reservations) for full-time doctoral students, with considerable overlap between the four 95 percent confidence intervals. Especially strong agreement was registered with respect to full-time doctoral students working hard, supporting and helping each other, demonstrating enthusiastic involvement with their fields, and completing projects despite setbacks.

The 95 percent confidence interval for the average of the 11 items asking for opinions regarding part-time in relation to full-time students was 2.44 to 2.92, bracketing 2.5 -- the point of equivalence of part-time and full-time students. Only 20 percent agreed somewhat or strongly that course requirements must be lowered for part-time graduate students, and when asked about other specific changes made in

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courses to accomodate part-time and/or older students, none of the faculty respondents checked any of the suggested possible modifications.

Forty-five percent agreed strongly, and 30 percent somewhat, that efforts should be made to accomodate part-time students, and 35 percent agreed strongly, 45 percent somewhat, that adults should be encouraged to pursue graduate work on a part-time basis. Sixty percent agreed somewhat and 30 percent strongly that increased maturity should offset outdated prerequisites and/or lower undergraduate grade averages in considering admission of older persons to graduate work.

4.5.2.6 Perceptions of department and student goals

Faculty advisers rated the importance of the five listed goals to the departments and their students about equally, as illustrated in Figure F-4.144. The main goal of both was perceived to be the preparation of scholars or researchers, believed by 70 percent to be extremely important to both departments and students; among the student respondents, however, preparation for scholarship was extremely important to only 45 percent. Forty percent of the responding advisers believed preparation for college teaching was extremely important to both departments and students, and it was extremely important to 39 percent of the student sample members. The other goals were perceived to be less important to both the departments and students; only 20 percent of the adviser sample believed personal enrichment to be a very important goal of graduate students, whereas it was extremely important to 49 percent of the student respondents.

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4.5.2.7. Perceptions of student problems with the institution

The major student problem from the perspective of the sampled faculty advisers was the availability of library materials, viewed as a problem by 30 percent of the respondents and as one which should be changed by 20 percent (Figures F-4.145 a and b). This was also the institutional problem most frequently cited by the students -- by 51 percent of that sample -- and was selected as the worst problem by 16 percent. Twenty percent of the faculty respondents also felt that laboratory facilities were inadequate and should be improved. One-quarter of the adviser sample felt that the time limit for degree completion was a significant student problem (it was mentioned by 17 percent of the student respondents), but only one respondent felt that it should be changed; similarly, 20 percent of the faculty sample perceived meeting course requirements as a problem (mentioned by only four percent of the students surveyed), but no one recommended changing the requirements. Twenty percent of the faculty respondents felt that the times university services are available was problematic (as did 32 percent of the student respondents), with 15 percent recommending change, and 20 percent believed the availability of internships or practicums was a problem (as it was for 18 percent of the student sample) with 10 percent advocating change.

4.5.2.8. Perceptions of student personal problems

The views of the CUNY advisers sampled of students' personal problems coincided rather closely with the problems expressed by the student sample. Financing their education was the problem most frequently cited by both groups. Less than half as many advisers

cited any other personal problem (Figures F-4.146a and b), although 40 percent indicated finding time to study seemed to be a common problem (mentioned by 44 percent of the student sample) and 35 percent perceived problems arising from job responsibilities (mentioned by 49 percent of the students), family responsibilities (a problem for 39 percent of students surveyed), and transportation (cited by 24 percent of the students). One-quarter felt that self-confidence was a significant problem for students (as did 26 percent of the students), and 20 percent of the faculty respondents cited attitudes of family members of some students (mentioned by 17 percent of the student sample).

4.5.2.9. Support services

The perceptions of CUNY advisers of graduate student needs for support services are portrayed in Figures 4.147a through e, and their evaluation of the quality of those services provided with which they were familiar is shown in Figures F-4.148a through e. Consistent with their identification of finances as a major problem for students, the sample of faculty advisers felt that support services impacting finances were important to students. Ninety-five percent believed that part-time employment was very important to graduate students (as it was to 63 percent of the student respondents), 85 percent that long-term loans and 60 percent that short-term loans were very important (respectively checked by 45 percent and 33 percent of the student sample), 60 percent that a service to assist students in finding part-time employment was very important (as it was to 53 percent of student respondents), and 75 percent that help placing graduates was very important to graduate students (mentioned by 66

percent of the students). Opportunities for part-time employment at CUNY were rated only fair by 40 percent of the faculty advisers surveyed (and fair to good by the students). Of those faculty respondents familiar with loan services, 50 percent rated the provision of emergency short-term loans as good, eight percent as excellent; 47 percent rated CUNY's long-term loan service as good and 20 percent as excellent. These ratings agreed rather well with those of the student sample. Help for students seeking part-time employment was rated good by 45 percent (in contrast to 72 percent of the student sample rating such help fair or poor), and assistance in placing graduates was rated good by 56 percent and excellent by 25 percent of the faculty respondents (while 69 percent of the students rated placement service as poor or fair). Tuition payment options, viewed as very important by 45 percent, were rated good by 70 percent of the faculty respondents (and by 48 percent of the student sampled).

Among academic support services, the library was viewed as very important by 90 percent of the faculty respondents (as it was by 85 percent of the students); the quality of the library facilities was rated fair to good by the faculty and fair to poor by the student sample. Computer facilities, which were rated as good to excellent by the advisers (fair to good by the students), were viewed as very important by 50 percent of the faculty respondents (by 34 percent of the student sample), but computer consultants (who were rated as good by 40 percent of the faculty but fair or poor by 73 percent of the students) were believed to be very important by only 30 percent of the faculty (and only 28 percent of the student respondents). Opportunities for research experience were viewed as very important by

about 70 percent of both samples; the quality of these opportunities was rated excellent by 67 percent of the faculty sample but by only 19 percent of the student sample. Opportunities for teaching experience were believed to be very important to students by 65 percent of the advisers (and were so rated by 68 percent of the student sample), but the available opportunities were rated lower than excellent by two-thirds of the faculty respondents and by 85 percent of the student respondents. Colloquia or special lectures were felt to be very important by 40 percent of the adviser respondents and were most commonly rated as good by both faculty and student samples.

Important ancilliary services, in the opinion of the advisers questionned, included New York City's excellent (according to 56 percent of the advisers and 24 percent of the students sampled) public transportation (seen as very important by 80 percent of advisers and 43 percent of students); lounge and study areas (believed to be very important by 60 percent of these advisers but only 25 percent of the student sample) which were rated only fair or poor by 52 percent of the faculty and 64 percent of the student respondents; informal contact with other students (believed by 55 percent to be very important and so rated by 33 percent of the students), the opportunities for which were generally felt to be fair to good by both faculty and student samples; food facilities (very important according to 55 percent of the advisers and 28 percent of the students but rated only fair to good by 88 percent of the surveyed advisers and 62 percent of those students); career counseling (seen as very important by 45 percent of the responding advisers and 30 percent of the students and most often rated as good by the advisers, poor by the

students); and health insurance for students and/or their families (believed to be very important by 40 percent of the advisers and so rated by 37 percent of the student sample, but rated as poor by three of the four advisers familiar with the insurance available and by over one-third of the students).

Only 30 percent of the faculty sample felt that parking facilities were somewhat or very important to graduate students, while 47 percent of the students expressed some need for parking; those facilities available were rated poor by both faculty and student respondents. Half the advisers believed that child care service was somewhat or very important (which it was to 32 percent of the students questioned), and that service was also rated fair or poor by the few advisers (as well as by the students) familiar with it. Eighty percent of the advisers felt that campus housing was, or could be, somewhat important to students, but 80 percent of those advisers acquainted with available housing rated it poor (as did 60 percent of the responding students).

CHAPTER 5: SUMMARY AND CONCLUSIONS

5.1. Summary

This study was undertaken after a policy-recommending body -- the Council of Graduate Schools' (CGS) Task Force on the Part-time Graduate Student, with which the author was associated -- concluded that it could not develop policy recommendations regarding part-time graduate students without more information about these students and about their full-time counterparts. Furthermore, the Task Force suspected that few recommendations could be made for all part-time graduate students; it seemed more likely that there were several different types of "nontraditional" graduate students for whom different recommendations would be appropriate.

The Task Force wanted an enormous amount of information. Considerable demographic information was required if types of graduate students were to be distinguished on the bases not only of age and gender but on whether or not they were employed full-time, whether they were undertaking career switches, whether they had "stopped out" of higher education since starting their bachelor's degree programs, whether they were divorced or widowed, whether they had children no longer of pre-school age, and so on. Information was desired on what support services graduate students need, but in order to distinguish between "nice to have" and "demanded," information was also sought on the frequency with which existing services were used and their quality. Program quality is a central focus of CGS; thus it was natural for the Task Force to inquire about the validity of the stereotype that programs serving part-time students were of lower quality than those for full-time graduate students. Some doubted that

so much information could be obtained from one questionnaire. Information was also needed from faculty members, especially those teaching and/or advising in the same programs in which student subjects were enrolled.

Since any recommendations were to be made to the widely diverse member institutions of a national organization, a national study including subjects from the entire spectrum of institutions and discipline areas seemed necessary. Prior to undertaking such a study, however, extensive pilot work was necessary to (1) test the survey instruments, (2) test the administration procedures, (3) explore the potential benefits of a national study, (4) formulate hypotheses for the national study, and (5) demonstrate the group's capability to potential funding sources. In addition to the commitment to the topic which participation in the Task Force had engendered, administrators of five universities were motivated to assist in data collection for the pilot study by the promise of detailed reports on their schools' graduate students.

Four percent random samples of graduate students enrolled Spring Term of 1982 were selected at Roosevelt University, the City University of New York (CUNY), the University of Tennessee at Knoxville (UTK), the University of Minnesota (UM), and Michigan State University (MSU); in all 1,015 subjects were selected. Graduate student advisers at Roosevelt and CUNY also were selected. These students and faculty members each received an 11 page questionnaire exploring the topics discussed above. With follow-up consisting of a postcard, duplicate mailing, and telephone calls, nearly 80 percent of the combined student samples returned completed questionnaires;

response rates at individual institutions ranged from 62 to 86 percent. Furthermore, the students' item response rates were over 90 percent at all five universities. The return rates for the faculty, who did not have as extensive follow-up as the students, were 69 and 82 percent, also with high item response rates.

Frequency distributions were derived for all the variables for each institution's students and for the faculty members at two. Other analyses were performed on selected original and derived variables. Cluster analyses were performed on matrices of similarity indices derived from 17 demographic variables for each student sample to search for groups of different types of students; "second order" cluster analyses were done on a similarity matrix derived from the composite measures of the groups at each institution to explore the similarity among the groups across institutions. Chi-square analyses and one-way analyses of variance were used to explore differences between the groups for each university.

Considered together, the students from the five participating universities comprised a broad array with respect to demographic and educational characteristics. A combination of career-related and personal motives were important to students at all institutions; of special interest was the high value placed on personal growth and satisfaction by all types of students at all five universities. Financing their education was the most common personal problem, and times, locations, and/or frequency of offering needed courses was the most frequently cited barrier posed by the institutions. A library facility with a good collection of materials in their field readily

available was the most widely needed and used support service provided by universities.

Cluster analyses found different types of graduate students at each of the five institutions, and further analyses uncovered many differences between each set of groups. The second order cluster analyses led to the identification of 15 clusters composed of from one to seven groups from the individual institutions' analyses.

5.2. Support services and facilities needed by graduate students

What support services and facilities do graduate students need? Libraries, career planning and placement, long-term loans, parking, and part-time employment.

The most important support service or facility that universities provide their graduate students is a library. The need for access to library materials is true across types of students, types of programs, and majors at the five universities studied, and one can infer reasonably confidently that it is true of graduate students in general.

Widespread need was also expressed for some sort of assistance with career planning and placement. Further study is needed to ascertain the extent to which students seek assistance from their major professors, their departmental administration, or centrally. Other generally needed support services included parking, long-term loans, and part-time employment.

How well are these needs being met at the five universities studied? It varies by university and by need. Thirty percent of the respondents at Minnesota and at Michigan State rated the library facilities excellent, while nearly an equal proportion, 29 percent,

rated CUNY's library facilities poor. Availability of materials was a problem for one-third to half the student respondents at all five institutions, however. Both the CUNY and Roosevelt faculty samples recognized this problem.

Help with career planning and placement generally received more adverse than favorable ratings. "Poor" ratings of the institution's placement service occurred with twice or greater the frequency of "excellent" ratings at all institutions except Michigan State, and that ratio characterized career advice received by their departments at all five universities. When asked about their agreement with the statement, "Faculty members in the department help graduates find appropriate employment," the ratio of strongly agreed to strongly disagreed varied from even at Michigan State (12 percent each) to eight percent agreed, 29 percent disagreed at Roosevelt. It appears that career planning and placement can be improved. The faculty responses to these questions were interesting; Roosevelt faculty seem to perceive the situation similarly to their students, with few strong positive or negative evaluations. In contrast, the CUNY faculty advisers gave quite high ratings to the quality of these activities, strong positives outweighing strong negatives from 5:1 to 10:1, while the CUNY student sample tended to be most critical of career help among the five student samples.

Students at all five universities were dissatisfied with the parking facilities. Over half the samples at CUNY, UTK, and Minnesota rated their facilities as poor, as did over 30 percent at the other two schools.

Evaluations of the "quality" of long-term loans varied among the universities. Over 20 percent of the respondents at Roosevelt, Tennessee, and Minnesota rated the provision of long-term loans as excellent, while a greater proportion of MSU and CUNY students rated that service as poor than as excellent. Interpretation of this result is difficult, however, in view of the lack of information on the extent to which students were responding to the availability of funds, the accessibility of the offices which facilitate their disbursement, and the courtesy of the office staffs.

The ratings of part-time employment tended to be excellent at Michigan State, Minnesota, and Roosevelt. Student employment at UTK received slightly more ratings of excellent than of poor (17 percent versus 15 percent) while the reverse was true at CUNY (13 percent versus 18 percent). Again, interpretation is difficult without more information on the students' views of opportunities for employment versus the quality of their experience while employed.

The problems interpreting the results regarding these five most important support services also occurred for the other services important to individual universities and/or to particular groups of students. The results of the present study should be useful as indicators of where additional attention is needed but cannot serve as definitive diagnostics for any of the services except perhaps libraries -- where the presence of several questions enable some distinction between the quality of the physical facilities and the availability of needed materials. A section of a national study modeled after the support service sections of the present questionnaire could not serve as a model for a single-purpose needs

assessment instrument to be used by institutions to ascertain the support service needs of their students and evaluate the quality of the services provided with guidance about the types of improvements required.

What are the relationships between degree of need, quality, and frequency of use of support services and facilities? Ten support services appear correlated with expressed need based on replication of significant correlations at three or more of the five universities studied: Library facilities, public transportation, lounge and study areas, computer facilities, computer consultants, laboratories and other specialized facilities, recreational facilities, health care facilities, cultural events, and special lectures such as colloquia. The latter two -- cultural events and special lectures -- were also significantly correlated with quality, and the combination of need and quality was more highly correlated with use than was either alone. Could university administrators predict how much use a new (or improved) support service would get on the basis of the expressed need for it? Most of the variances (squared correlation coefficients) for the services above were less than 0.25; need and quality, singly or in combination, accounted for less than 25 percent of the reported variability in frequency of use. It seems likely that administrators would want more accurate prediction of probable use before adding or expanding services.

The correlation coefficients between need or quality and use of two other services, tutoring and child care, attained statistical significance at only one institution, but the correlations at others were so high that one suspects they would attain significance with a

slightly greater number of users reporting. These relationships would account for enough variation in use -- 40 to 80 percent -- to aid planning.

5.3. Types of graduate students

Are there distinct types of graduate students at each of the five universities as revealed by cluster analyses? Yes. Wishart's density method of cluster analysis separates points into "natural" clusters and selects an optimum number of groups for the population. From a matrix consisting of the mean similarity between each pair of subjects at a university on 17 demographic variables, the density analysis divided the Roosevelt student sample into three groups, CUNY into eight, UTK into nine, Minnesota into 17, and MSU into 13. Ward's hierarchical method was applied to the same matrices, and discontinuities in the vicinity of the number of groups recommended by the density analyses were judged to be present at five groups for Roosevelt, ten for CUNY, eight for Tennessee, 13 for UM, and 13 for Michigan State. The hierarchical groups were explored further because they tended to be of less extreme sizes.

Are there significant differences between types regarding their problems, needs for support services, and evaluations of graduate programs? Again, yes. Differences were found at all five institutions, as presented in Chapter 4. Predictably, the larger samples differed at the five percent level of significance on more variables. Of general interest are the differences which were replicated at different universities, which are presented below.

Do the types seem to be the same at each institution? Yes and no.

Second order cluster and density analyses were run on the matrix consisting of the similarity between the first order groups on the basis of their mean distances on 16 of the original 17 variables. The density analysis divided the 49 first-order groups into nine clusters; 15 distinct clusters emerged in the hierarchical analysis. Again, the hierarchical groups were subjected to further study.

The 15 second order clusters appeared to range from very traditional graduate students to very nontraditional ones. Three of these clusters were composed of single groups, two from CUNY and one from Roosevelt. Two groups from CUNY constituted another. The remaining ten clusters were composed of two to seven groups from two or more institutions. On the basis of the characteristics on which the clusters seem in strongest agreement, they may be described as:

1. Women aspiring to be professors (three groups)
2. Childless women with full-time work experience (four groups)
3. Non-Caucasian full-time students with full-time work experience (two groups)
4. Unemployed minority full-time students (a CUNY group)
5. Women recent starters (a Roosevelt group)
6. Re-entry women (four groups)
7. Industrial researchers (a CUNY group)
8. Men with pre-kindergarten children (four groups)
9. Single full-time workers (three groups)
10. Prospective business managers (five groups)
11. Schoolteachers (four groups)
12. Older male full-time workers with children (three groups)
13. Men aspiring to be professors (two CUNY groups)
14. Traditional male graduate students (eight groups)
15. Traditional female graduate students (four groups)

While designing this study the author constructed several hypothetical types of graduate students to illustrate possible outcomes of the cluster analysis for a grant proposal. Some of those types emerged in the present study.

The expected groups of single men and women traditional graduate students were found, but there do not appear to be one or more clusters

of comparable married graduate students. Expected clusters of K-12 teachers were found (Clusters 11 and 12); one unexpected finding was that the cluster of women planned to continue teaching while the cluster of men sought to move into administration. Two clusters were also found of "career promoters" (7 and 10), currently employed in business or industry and planning to remain there -- one cluster in management, the other conducting research.

But cohesive clusters of "career shifters" were not found; in particular, no institution had a group of men 40 to 45 years old who appeared to be attending graduate school as an element in a mid-life transition of the type described by Levinson (1978). Nor were there one or more clusters characterized by people undergoing two other types of transition, "previously married" and retired.

Clusters 2 and 6 might both be called "re-entry women", since they had mean stop-out times ranging from two to four years, but generally years out for both men and women was related to age. The interesting exception to this was the older women "recent starters" of Roosevelt Group 5, who had less time stopped-out than other groups despite their high mean age of 48.

Differences among these clusters regarding problems and needs for support services were considered from the perspective of consensus among groups from several universities on those variables on which institutional groups had shown significant differences (rather than from the perspective of statistical tests). Cross-university differences in programs were not considered because, while cluster analyses gave a basis for believing that there was some similarity of students across the

universities, there was no reason to think that the programs in which these students were enrolled were comparable.

The clusters appeared to differ in the extent to which financing, study time, conflicting job and family responsibilities, and instructor attitudes were problems.

Financing their educations was generally not a problem for the majority of groups of single part-time students working full-time: Clusters 3, 11, and 12. At least half of the members of at least half the groups in the other 12 clusters expressed financing problems.

Finding time to study was a problem for Clusters 2, 6, 9, 10, 11, and 12. Nine, 10, 11, and 12 were full-time workers, the majority of whom also cited conflicting job responsibilities as a problem -- as did Clusters 2 and 13 of part-time workers. Clusters 6 and 8 (men and women with pre-kindergarten children) and 12 (older men with children) cited conflicts from both job and family responsibilities.

Instructor attitudes were a problem for 60 and 80 percent of the two groups of Cluster 3 (non-Caucasian full-time students with work experience), not for any other multi-group cluster. None of the other clusters had such strong similarities in their problems with the institutions except that members of the groups in Cluster 9 (single commuting full-time workers) had more of a problem with access to their advisers than other groups.

Teaching experience was very important to Clusters 3, 8, 13, and 15; the first three clusters were dominated by prospective college teachers. Research experience was very important to Clusters 1, 3, 8, 13, 14, and 15, all clusters whose members aspired to careers in research or a combination of teaching and research in academic or industrial settings.

Both evening classes and those which meet once per week were very important to Clusters 9, 10, 11, and 12 -- to all the clusters dominated by full-time workers.

Library facilities were less important to Clusters 11 and 12 (both predominantly education majors) than to the other clusters.

No other support service was very important to most members of half or more groups in a multi-group cluster. Computer facilities were somewhat important to Clusters 2, 3, and 14, and computer consultants were somewhat important to 2 and 3. Laboratories or other specialized facilities were somewhat important to Clusters 14 and 15 (traditional graduate students) as were recreational facilities. Cluster 14 expressed stronger need than the other clusters for colloquia or other special lectures.

Informal contact with other students was particularly important to Clusters 3, 10, 13, 14, and 15 -- not only to the clusters with the youngest members or the most single members.

5.4. Educational quality

The quality of education experienced by students at each of the five universities is discussed in Chapter 4, as are differences among the groups at each. As with support service quality, the five universities which were studied are so diverse that generalizations across them are unlikely to be meaningful.

Are there differences in the scholarly quality versus the student-centeredness of graduate programs at these five universities?

No. Of the eight program quality scales derived by Educational Testing Service, three may be considered related to the scholarly rigor of a program -- scholarly excellence of the faculty, curriculum, and quality

of teaching -- and four to the program's student-centeredness: environment for learning, relevance of program, faculty concern for students, and evaluation of students. Overall satisfaction was the highest ranking scale at all five institutions. At Roosevelt both the highest (after overall satisfaction) and lowest scales related to student-centeredness, while at the City University of New York and at Tennessee-Knoxville the highest and lowest related to scholarly excellence. At both Michigan State and Minnesota a scholarly scale (faculty excellence) was highest, a student-centered one lowest (student evaluation).

Of those scales on which graduate student groups differed at the individual universities, the tendency was for all scales to be follow the same pattern rather than for some groups to rate their programs high on the student-centered scales, others on the scholarly excellence ones. Groups of part-time or nontraditional students did not tend to rate the quality of their programs lower than groups of traditional or full-time students.

The questions regarding differences between programs designed for part-time versus full-time study and between research and applied programs were not addressed. They required input from both students and faculty members; in addition to quality evaluations by the faculty, they needed to identify the program design. The two samples of faculty members were selected on the basis of the small size of the institutions due to cost considerations. Unfortunately, these were also the most homogeneous institutions: virtually all of the Roosevelt programs were "applied" programs designed for part-time study, while most CUNY programs were "research" programs designed for full-time study. Thus there was

not enough variability at either institution to make the desired comparisons.

5.5. Conducting a national study

The next step toward a national study should be a re-evaluation of its objectives in light of the results of the present study and recent trends in graduate student enrollment.

Numerous authors have elaborated on the need for colleges and universities to offer programs for part-time graduate study serving nontraditional students. The reasons are both pragmatic -- sustaining enrollment, and idealistic -- providing opportunities to segments of society previously lacking access to graduate education.

Some institutions have responded to this need. Columbia University, for example, restructured its graduate programs around part-time and master's degree students in 1977, eliciting front page coverage in the New York Times (January 5, 1977). But in a detailed survey of 1,500 department chairpersons, Solmon (1981) found little evidence that graduate programs were being revamped to serve other than traditional students seeking Ph.D.s. For instance, although 60 percent of his respondents rated as highly important their master's as a terminal degree, few were able to specify the purpose of a master's to students not seeking a doctorate. "Whatever outreach hopes or purposeful goals for terminal programs do exist, exist in the less prestigious or non-Ph.D.-granting institutions. There is no uprising of innovative leadership from the best departments regarding master's degree objectives" (p. 5).

A large-scale study targeted to identifying types of nontraditional graduate students and their needs may be premature if there is not a

significant number of graduate institutions interested in utilizing the resulting information. The current study indicates fairly convincingly that those types of nontraditional graduate students already enrolled at five universities need little special accomodation except access to courses, advisers, and libraries during the evening and, where good public transportation is not available, parking.

5.5.1. What modifications should be made to the survey instruments for administration nationally?

If it continues to seem valuable to secure the sorts of data collected in the present study from a national sample, a few modifications appear necessary; others may be desirable.

The overall return rate of the student questionnaires of nearly 80 percent with mean item completion rates of over 90 percent at each university indicates that the survey instrument and the procedures for administering it are good departure points for a larger study. The slightly lower rates for the faculty survey suggest a need for adjustments to attain rates comparable to those for students.

Both the student and faculty instruments departed from the recommendations of Dillman (1978) in their larger format (with larger size type) which necessitated mailing it in a 9 inch by 12 inch envelope rather than a business size envelope. One reason for that format was the complaint in early test versions of the questionnaire about the small type size. The return rates achieved are acceptable despite this modification.

5.5.1.1. Modications to the student questionnaire

Three types of items on the student questionnaire had completion rates of less than 90 percent at three or more universities. Response

rates for item Q (type of institution in which enrolled for the past 10 years, current year, and next two years) fell below 90 percent completion at four or five institutions for all except the current and immediately previous years. Related questions regarding field of study and whether enrollment was part-time or full-time consequently also had low response rates. These items should be revised into specific questions of interest such as: "After you first entered college as an undergraduate, did you ever 'stop out' for more than six months? If yes, during how many years were you not enrolled in college for six months or more?" "Do you consider yourself currently a part-time or a full-time student?" "As an undergraduate were you primarily a part-time or a full-time student?" "Is your bachelor's degree in the same field as that you are studying now? If yes, did you have a different major for part of your undergraduate work?" "Have you done graduate work in a field different from your present one?" "Do you plan to seek an additional degree after completing your present program? If yes, what degree? Will it be in the same field as your current studies? Do you plan to study on a part-time or full-time basis?"

Item AI, formatted similarly to item Q, requested information about occupational experience. It also had response rates of less than 90 percent at four or five universities for the least recent five years, and related items AJ and AK consequently suffered. Again, these items should be revised into specific questions such as: "Are you currently employed? If yes, are you employed full-time (35 or more hours per week) or part-time? Is the field of your employment the same as or different from your field of study?" "During how many years have you been employed full-time for six months or more?" "How many years have you been

employed part-time for six months or more (excluding the years reported previously)?" "How many years of employment experience do you have in the field you are studying?" "How many years of experience in one or more different fields?" "Is your current graduate study related to a switch you have made or plan to make in your career field? In the setting in which you work? In your principal work activities?"

Item V requested the year in which the subject received or planned to receive each of several degrees. Response rates were below 90 percent at four universities regarding second bachelor's and first professional degrees, and less than 90 percent at three universities completed the responses for second master's and doctorate degrees. These rates would be improved by accepting blanks as zeros -- as meaning that the respondent did not have that degree and did not intend to pursue it -- if the boxes for year of first bachelor's degree and one graduate degree were not blank. Alternatively, the format could be changed to ask more specifically, "Did you receive a bachelor's degree? If yes, in what year?" "Are you seeking, or do you plan to seek, a Ph.D. or other earned doctorate? If yes, in what year do you think you will complete it?"

Both the clarity and response rate of item AF would probably be improved by first asking, "Do you have children living at home? If yes, how many in total? How many in each age group?"

Eliminating some questions should be considered on the bases of objectives of the study, eliminating redundancy, and/or low selection rates on the present instrument (e.g., problems caused by attitudes of employers, family members, or fellow students). Questions regarding off-campus courses should be eliminated, since it does not appear to be possible to devise a definition of off-campus that would be applicable to

the wide variety of sites at which courses are offered by U.S. universities. The sections with ETS goals for graduate study (item K) and reasons for study (item AP) should be combined.

On the other hand, some expansions seem indicated. In item A (institutional hindrances), "times, locations, or frequency of offering needed courses" should be split into three separate alternatives. Space should be allotted for two open-ended questions regarding both institutional and personal barriers: "Is there another significant problem or barrier which the institution or your department has caused for you? If so, please describe it." "Is there another personal problem which has significantly hindered your progress through your graduate program? If so, please describe it."

If the section on support services is to be a model needs assessment instrument for separate use, the quality evaluation section needs to explore several dimensions of quality such as physical facilities, hours available, courtesy and expertise of the staff, as well as the basic quality of the product or service (library collection, computer programs, advice received, etc.).

The relatively high need and low satisfaction expressed with career planning and placement services suggest that more detailed questions be asked regarding what type of assistance students need and who should provide it.

5.5.1.2. Modifications to the faculty questionnaire

Most of the revisions suggested for the faculty questionnaire are similar to those suggested above for the student questionnaire. Questions regarding off-campus study need to be eliminated or, if retained, better defined. Accepting blanks as zeros if there were at

least one nonzero entry would improve the usable completion rates for items V (office hours), W (number of courses taught), AA (professional products), BB (presentations), HH (distribution of professional time), and II (years of experience). Changes in sections of the student questionnaire which have parallels in the faculty instrument should be reflected in the faculty version, including the open-ended questions in the first section regarding problems; this is desirable to increase respondent commitment as well as for obtaining the additional information.

5.5.2. What procedures should be followed in administering the survey nationally?

The procedures used in the present study serve as adequate models for the national study. Completely centralized administration seems necessary, however, to assure uniformity. Dillman (1978) secures response rates as high as or higher than those obtained in this study with centralized signatures, mailing, and follow-up. The increment in responses resulting from the telephone follow-up used in this study was comparable to that Dillman reports obtaining from certified mailings.

The lower response rates from Roosevelt and MSU off-campus students suggests that higher rates are obtained from currently enrolled students than from those questioned regarding a previous term. Part of that problem can be eliminated by administering the survey earlier in the academic year (i.e., early February). Students enrolled at institutions which cannot provide samples from current enrollment should be retained in the study, since they may be among the most interesting nontraditional students and/or programs, but probably should be analyzed separately as a sample from another population.

5.5.3. What are the hypotheses for a national study?

As stated above, some of the hypotheses for a national study should be formulated only after reviewing the objectives of the research.

The present study provides a good basis for formulating hypotheses about the needs of graduate students in general for support services and facilities. Sample hypotheses include: libraries are the support facility most needed and most frequently used by graduate students. Outside of central metropolitan areas, parking is the most needed and, where available, most frequently used and least satisfactory support facility. Graduate students are not satisfied with the amount and/or quality of the career advice received from their departments or the assistance in locating employment after graduation. One could argue that a national study seems unnecessary to draw these conclusions; that the congruence of results from five such diverse universities is sufficient evidence to move to seek remedies for the problems.

Specific hypotheses can also be generated regarding the relationships between need, quality, and use of several support services, but first practicing administrators need to answer affirmatively the question of whether the ability to predict 10 to 25 percent of the variation in use justifies the undertaking.

The groups and clusters found in this study form a basis for testing hypotheses about the variety of types of graduate students which would be expected to emerge from a nation-wide sample. Most cluster analysis techniques are not amenable to formal hypothesis testing, but interesting results might be obtained from adding "dummy points" to the data set obtained; these points would be the mean values of this study's clusters on the variables selected to define similarity, and perhaps other "ideal

points" representing types of graduate students expected but not found such as mid-life career shifters. One intriguing hypothesis would be that, if Wishart's density analysis were applied to the array of points, a high proportion of these "dummies" or "ideals" would be "dense points" of clusters (i.e., natural central points around which clusters formed). Chi-square analysis of more and less dense points versus dummy and real points could test the centrality of the "ideals."

Inasmuch as the ETS Program Quality Assessment scales are derived from studies of doctoral research programs and the groups in this study did not appear to have different patterns of evaluation on the a priori scales, it would be advisable to analyze the raw data for each cluster emerging from the national study (or to those from the present study) and derive new scales by principal component analysis. The null hypothesis would be that the scales in current use would be found for each group. This author would feel more confident of the utility of answers to the questions regarding differences between programs designed for part-time and full-time study and between research and applied programs if the scales used to evaluate the differences were demonstrated to be appropriate for the students enrolled in each type of program. Another question is whether items relating to faculty attitudes (e.g., "Faculty members are genuinely interested in the welfare and professional development of graduate students.") would correlate sufficiently highly with items relating to the frequency of faculty-student contact (e.g., "There are many opportunities for student-faculty interaction outside the classroom.") to combine into a scale measuring faculty concern for students for programs designed for part-time study.

5.6. Other implications for future research

5.6.1. Methodological implications

Dillman's (1978) methodology for conducting mail surveys works. Response rates of 60 to 85 percent can be obtained from well designed and executed surveys, at least when the subjects are members of a specially targeted group. Future studies which do not incorporate this technology or attempt to further improve on it and/or which fail to obtain the expected response rates should be suspect. Also, researchers can no longer justify seeking less than complete data from subjects on the grounds that questionnaires more than four pages long will reduce response rates.

Cluster analysis proved to be a useful technique for separating the five student samples in this study into meaningful groups based primarily on inter-subject differences on nominal variables. Since many of the procedures used had not previously been applied to similar data, additional work is necessary to determine:

- the relative contribution of the different variables used to define subject similarity;
- the cost and effectiveness of defining similarity by Anderberg's method (1973) versus other methods such as standard scores;
- the inter-observer reliability (and utility) of determining a stopping point for hierarchical clustering based on a density analysis versus graphic analysis or Mojena's Rule (Lorr, 1983); and
- the replicability of the clusters found in this study at other universities.

5.6.2. Recommendations for future substantive research

Several possibly productive lines of research are indicated by the results of the present study.

- How extensive is the population of people with bachelor's degrees who would like to pursue graduate degrees but are not now doing so? What are the barriers to their enrollment? For a geographical region of interest to any particular graduate school, would the addition or improvement of evening classes, weekend advising, child care service, etc. result in sufficiently increased enrollment to justify the increases?
- The problem area of "attitudes of some instructors" was selected by substantial numbers of respondents, but the statement of the problem is not clear enough to permit recommendations for improvement to be made. Further study would be especially interesting because of its frequency mention by nonresident alien students at more than one university in the current study.
- What are the determinants of frequency of use of various support services? The current study indicated that neither need nor quality, as measured, accounted for most of the reported variations in frequency of use. The measures may not be sufficiently refined, or other factors may play important roles.
- If there is a need for an instrument to measure the quality of several support services, an instrument should be developed that measures several dimensions of quality (to borrow a phrase from ETS's development of the program quality measures) such as accessibility, hours, physical amenities, staff attitudes and expertise, visibility, etc.

- The need for and/or dissatisfaction with several existing support services was sufficiently great in this study to indicate proceeding with the next step contemplated by the CGS Task Force on the Part-time Graduate Student: a search for 'model' services or facilities whose successful methods can be determined and disseminated to other institutions interested in improving their student support. Models should be sought for providing: readily available library materials, career planning and placement, access to part-time student jobs, emergency and long-term loans, health insurance, parking, computer consultants, registration options, tuition payment options, advice on the use of departmental resources and other information about the institution and the department, adviser access to students attending evening classes, tutoring, practicum opportunities, preparation for graduate assistants, and emergency locator services. Models for facile interdepartmental communication and for communicating with employers to encourage their support of student employees would also be useful.
- Finally, how can institutions be persuaded to take the most elementary steps toward serving nontraditional graduate students by providing opportunities to complete programs solely through evening work with course schedules that allow students to progress normally while minimizing time on campus?

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BIBLIOGRAPHY

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APPENDIX A

INSTRUCTIONS TO STUDY COORDINATORS AT EACH INSTITUTION

INSTRUCTIONS TO STUDY COORDINATORS AT EACH INSTITUTION

COUNCIL OF GRADUATE SCHOOLS
TASK FORCE ON THE PART-TIME GRADUATE STUDENTCheck List for Survey of Graduate Students and Faculty Advisers

Institution: _____

The object of this procedure is to obtain a random sample of graduate students at your institution in a manner that conforms to the sampling plan for the entire study. The graduate student body from which you sample should include all currently enrolled students of the types included in your institution's graduate student head count for the annual HEGIS report. Please keep notes on exactly how you select your sample and especially on any deviations from this ideal that are necessary for your school (for example, using the list of off-campus students from the previous, rather than the current, term).

For this pilot study, we are seeking a sample of four percent of the graduate students at each institution. This translates to one of every 25 students. The easiest method for generating such a sample is usually to work from some actual or theoretical list of all graduate students and select every 25th student beginning with a particular number, m, determined by random selection. The "list" may in fact be file cards, or the institution may have a computer program to do the selection without physically generating a complete list.

1. Generate, physically or theoretically, a list of all graduate students currently enrolled at your institution, including all types of students identified as "graduate students" in the annual HEGIS report to the National Center for Educational Statistics.
2. Starting with student number ____ on the "list", select that student and every 25th student thereafter. That is, for your particular institution, start with student number ____ and take thereafter numbers ____, ____, ____, etc.
3. Prepare a list of selected students with name, address, telephone number, discipline code, adviser (or code).
4. Note the faculty adviser for each selected student. Make a separate list of these, eliminating duplicates. In the case of students with no advisers, note the department from which the student is taking classes and select one graduate instructor or adviser from that department to pair with all students without advisers in that program or department.
5. Prepare two sets of mailing labels for both students and advisers if possible and desired.
6. Prepare a cover letter for students and one for advisers for the initial mailing. Each institution's cover letter should be personalized, but important features of each should be:
 - a. Date that the questionnaire will be actually mailed
 - b. Paragraph explaining the study and potential impact on peers
 - c. Emphasis on importance of that individual student's/faculty member's reply
 - d. Caveats required by Human Subjects Committees
 - e. Method for obtaining copy of the results
 - f. Thanks for assistance or participation
 - g. Personal signature
7. Clear questionnaires and cover letters with Human Subjects Committee if necessary.
8. When numbered questionnaires are received, note questionnaire number on student mailing. Fill in the HEGIS Discipline Code for that student on the cover of the questionnaire.

9. Code each faculty adviser questionnaire with individual number and HEGIS Discipline Code.
10. Keep a list with the adviser code number for each student to be sent to BO'K.
11. Prepare return envelopes (stamped or business reply).
12. Stuff mailing envelopes: Reply envelope, cover letter, questionnaire. Check for agreement between identification number on questionnaire and mailing label.
13. Mail survey.
14. Prepare follow-up postcards:
 - a. Date one week following original mailing
 - b. Add name and title
 - c. Personal signature
15. Mail follow-up postcards exactly one week after original mailing.
16. Receive returned questionnaires:
 - a. Check off on mailing list
 - b. Keep list of names and addresses of persons requesting results to send BO'K
17. Prepare cover letter for duplicate mailing (temporarily, this may have to be included in the material reviewed by the Human Subjects Committee). Elements should include (from Dillman's Mail & Telephone Surveys)
 - a. Date sent (exactly 3 weeks after original mailing), individual name & address
 - b. Tie to previous communication (3 weeks ago we sent. . .have not received reply. . .)
 - c. Purpose of study
 - d. Importance of that individual
 - e. Appreciation
 - f. Personal signature
18. Mail follow-up letter with duplicate survey and reply envelope to nonrespondents as of the previous day. Add new code number to mailing list and student-adviser match list. Send out three weeks after original mailing.
19. If possible, two weeks after duplicate mailing, telephone all nonrespondents confirming that they have received the mailings (send out another duplicate if necessary), requesting their reply, and ascertaining their reasons for not answering.
20. Four weeks after duplicate mailing and two weeks after telephone calls, conduct an in-depth follow-up on three to five nonrespondents. The purpose of these calls is to learn whether there are any significant differences between respondents and nonrespondents--can we generalize the results to all our graduate students?

More detailed information on conducting these telephone interviews will come soon.
21. Send to BO'K:
 - a. Replies--in batches at least once a week
 - b. Student-faculty adviser match codes
 - c. List for distribution of results
 - d. Notes from intensive nonrespondent follow-up

COUNCIL OF GRADUATE SCHOOLS
TASK FORCE ON THE PART-TIME GRADUATE STUDENT

INSTRUCTIONS FOR TELEPHONE FOLLOW-UPS

I. Follow-up for all nonrespondents 5 weeks after original mailing

A. Purposes

1. To confirm that each person was properly included in the sample--that each was a graduate student at the time of the other students in the sampling frame.
2. To confirm that mailings were received.
3. To find out why responses have not been received.
4. To elicit additional responses.

B. General procedures

1. These calls may be made by a secretary, assistant, or other staff member.
2. The first round can be made at any time convenient, but generally the highest rate of contact is achieved between about 5:45 and 8:00 PM. If the first round is made during regular business hours, try to schedule another round for the "No Answers" during the evening. Calls after 9:00 PM should be avoided, however, unless specifically requested by a subject who asks to be called back.
3. It will be very helpful in formulating the instructions to the larger group of coordinators for the national study if you keep track of when calls were attempted, how many subjects were reached, and after how many tries. Thus I am designing a call record for each round of calls, a draft of which is attached. At the next Task Force meeting I'll provide a summary of our experiences, and we can decide how persistent we want to urge the other coordinators to be with some knowledge of the probable payoff.
4. Please have callers keep notes on any questions or problems that arise, and how they are resolved, both for the completeness of the report of this study and the instructions to national coordinators.

II. Follow-up interviews with randomly selected nonrespondents

A. Purpose: To ascertain whether nonrespondents are different from respondents on some significant study variables--to estimate the certainty with which we can generalize our findings to all graduate students at our five universities rather than just to those students who tend to respond to questionnaires.

B. Method: Select a sample of nonrespondents. Telephone each, asking them to go through the questionnaire with you. Cooperation rates should be very high, especially if each Task Force member personally makes these calls.

1. Sample selection

- a. $6\frac{1}{2}$ to 7 weeks after the original mailing, determine the number of students who have not yet replied. Divide this number by five (5), and ignore any remainder (i.e., round downward). For example, if you have 38 nonrespondents, $38/5 = 7.6$ which is rounded to 7. Call this number (7) n.

- b. Pick a number between one and the rounded number. Continuing the example started above, between 1 and 7--say 3. Call that number i.
 - c. Beginning with nonrespondent numbered i on your list (the third student, in the example), include that student and every nth nonrespondent thereafter in your sample. In our example, begin with the third student and take every seventh nonrespondent thereafter, so that nonrespondents numbered 3, 10, 17, 24, 31, and 38 on the list are included. This procedure should result in each university picking five or six nonrespondents for interview follow-up.
 - d. Telephone the selected students. Information from the comprehensive set of calls can be used to verify that sampled students were correctly included in the study, their willingness to participate, the correct phone numbers, and when each can be contacted (or at least when they were available previously).
- 2. Telephone the selected students.
 - a. Information from the comprehensive set of calls can be used to verify that these nonrespondents were correctly included in the sample, that they do not refuse to participate in the study, the correctness of phone numbers, and the time when each was successfully contacted previously.
 - b. A questionnaire with draft modifications for telephone use is attached.
- 3. Send to BO'K--
 - a. Completed questionnaires (phone form)
 - b. Notes on selected nonrespondents whose questionnaires are not included--attempts made to reach them, refusals and, if obtained, reasons, etc.

SAMPLE FORMAT FOR COMPREHENSIVE TELEPHONE FOLLOW-UP

"Hello. This is (caller's name) from (office and institution) .

Is this the home of (nonresponding student's name) who was a graduate student here this spring?"

(IF WRONG NUMBER, apologize and start again.)

(IF CORRECT NAME, BUT NOT THE STUDENT, try to find out whether it is a different person of the same name or the person was not actually a student at the time in question.)

(IF DIFFERENT PERSON WITH SAME NAME, try to locate the correct number for the person sought, e.g. from phone company information, adviser, etc.)

(IF RIGHT PERSON BUT NOT A STUDENT AT THAT TIME, person probably shouldn't have been included in the sampling frame. Note on call record.)

"Is (Mr. or Ms., student's name) available?"

(IF NO, ask "When would be a good time to reach (him or her)?" and return the call then.)

"About two weeks ago we mailed you a copy of a questionnaire seeking your opinions on our graduate programs and support services. Did you receive it?"

(IF NO, say "I'm sorry. May I send you another copy today? Perhaps we don't have your correct address. Is it (address, including city and ZIP) ? I'll mail it right away. Thank you for your help.")

"So far we have not received your reply." (Opportunity for response that they mailed it yesterday, or will do so tomorrow, if offered. If not,)"Your opinion is very important to us. Is there any particular reason why you'd prefer not to participate in this study?"

(IF YES, note the reason. Emphasize that participation is voluntary, but also counter any false impressions such as that their opinion really wouldn't be influential, or they haven't been in the program long enough to know anything,

or they may suffer retribution. If refusal to participate is quite definite, and not based upon immediate time conflicts, thank them for their time and say goodbye. Treat the "response" the same as one which returned a blank questionnaire: cross their name off the future follow-up list with a note about the nature of the "response". A summary of reasons, distinguishing between those resulting in "blank return" elimination versus those open to additional follow-up, is needed for our report.)

Reiterate the importance of their reply, inasmuch as they are part of a very small group scientifically selected to represent all their peers. Verify that they have a copy of the questionnaire at hand; offer to send another if they may have misplaced the others. End by expressing your hope to hear from them soon.

APPENDIX B-1

APPROVAL LETTERS FROM THE UNIVERSITY COMMITTEE FOR RESEARCH
INVOLVING HUMAN SUBJECTS

APPENDIX B-1

APPROVAL LETTERS FROM THE UNIVERSITY COMMITTEE FOR RESEARCH
INVOLVING HUMAN SUBJECTS

MICHIGAN STATE UNIVERSITY

UNIVERSITY COMMITTEE ON RESEARCH INVOLVING
HUMAN SUBJECTS (UCRIHS)
238 ADMINISTRATION BUILDING
(517) 355-2186

EAST LANSING • MICHIGAN • 48824

March 2, 1982

Ms. Barbara O'Kelly
The Graduate School

Dear Ms. O'Kelly:

Subject: Proposal Entitled, "The Part-Time Graduate
Student in the United States"

The above referenced project was recently submitted for review
to the UCRIHS.

We are pleased to advise that the rights and welfare of the human
subjects appear to be adequately protected and the Committee,
therefore, approved this project at its meeting on March 1, 1982.
This approval is valid for one year. If you plan to continue this
project beyond one year, please make provisions for obtaining
appropriate UCRIHS approval prior to the anniversary date noted
above.

Any changes in procedures involving human subjects must be reviewed
by the UCRIHS prior to initiation of the change. UCRIHS must also
be notified promptly of any problems (unexpected side effects,
complaints, etc.) involving human subjects during the course of
the work.

Thank you for bringing this project to our attention. If we can
be of any future help, please do not hesitate to let us know.

Sincerely,



Henry E. Bredeck
Chairman, UCRIHS

HEB/jms

MICHIGAN STATE UNIVERSITY

UNIVERSITY COMMITTEE ON RESEARCH INVOLVING
HUMAN SUBJECTS (UCRIHS)
248 ADMINISTRATION BUILDING
(517) 355-2186

EAST LANSING • MICHIGAN • 48824

April 1, 1982

Mrs. Barbara A. O'Kelly
The Graduate School

Dear Mrs. O'Kelly:

Subject: Proposal Entitled, "The Part-Time Graduate
Student in the United States" - Faculty

I am pleased to advise that because of the nature of the proposed research, it was eligible for expedited review. This process has been completed, the rights and welfare of the human subjects appear to be adequately protected, and your project is therefore approved.

You are reminded that UCRIHS approval is valid for one calendar year. If you plan to continue this project beyond one year, please make provisions for obtaining appropriate UCRIHS approval prior to April 1, 1983.

Any changes in procedures involving human subjects must be reviewed by the UCRIHS prior to initiation of the change. UCRIHS must also be notified promptly of any problems (unexpected side effects, complaints, etc.) involving human subjects during the course of the work.

Thank you for bringing this project to our attention. If we can be of any future help, please do not hesitate to let us know.

Sincerely,



Henry E. Bredeck
Chairman, UCRIHS

HEB/jms

APPENDIX B-2

PERMISSION LETTERS FROM EDUCATIONAL TESTING SERVICE

APPENDIX B-2

PERMISSION LETTERS FROM EDUCATIONAL TESTING SERVICE

EDUCATIONAL TESTING SERVICE

PRINCETON, N.J. 08541

FORM 421-0000
OFFICE OF TESTING

June 10, 1982

MICHIGAN STATE
UNIVERSITY

JUN 15 1982

GRADUATE SCHOOL
OFFICE OF THE DEAN

Dr. Michael J. Pelczar, Jr., President
Council of Graduate Schools in the United States
One Dupont Circle, N.W., Suite 310
Washington, D. C. 20036

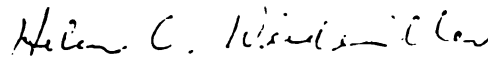
Dear Dr. Pelczar:

Enclosed are two copies of a royalty-free Licensing Agreement permitting the Council of Graduate Schools in the United States to adapt and use selected questionnaires from the Graduate Program Self-Assessment Service. My apologies for the delay in getting it to you. The Agreement is for a period of two years, and covers only the first two phases of the CGS Study. Phase III can be covered under a separate agreement when arrangements with FIPSE have been completed.

Copies have been sent to Dr. Minkel and Ms. O'Kelly, as requested.

If these arrangements are satisfactory, please sign both copies of the Agreement and return one copy to me for our records.

Sincerely,



Helen C. Weidenmiller
Rights and Permissions
Administrator

HCW/lis

Enclosures

cc: Mr. Park

Dr. C. W. Minkel
University of Tennessee at Knoxville

Ms. Barbara O'Kelly
Michigan State University ✓

EDUCATIONAL TESTING SERVICE



PRINCETON, N.J. 08541

000-021 0000
CABLE EDUCTESTSVC

June 29, 1982

Ms. Barbara Ann O'Kelly
Michigan State University
The Graduate School - Office of the Dean
East Lansing, Michigan 48824

Dear Ms. O'Kelly:

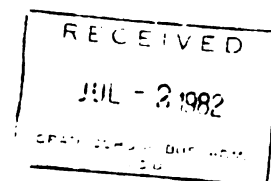
During our recent conversation you indicated that you wished to include the adapted survey instruments from the Graduate Program Self-Assessment Service in the Appendix of your doctoral dissertation. Educational Testing Service has no objection to your doing so, as long as the appropriate copyright notice, as indicated on the license, is reproduced on the copy so included.

Sincerely,

Helen C. Weidenmiller
Rights and Permissions
Administrator

HCW/lis

cc: Mr. Park



APPENDIX C-1

STUDENT QUESTIONNAIRE

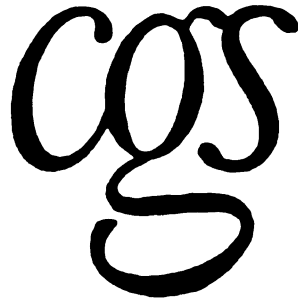
STUDENT QUESTIONNAIRE

Identification:

HEGIS Discipline Code:

What do graduate students need? Are they getting it?

THE GRADUATE STUDENT NEEDS, USE, AND SATISFACTION INVENTORY



Council of Graduate Schools in the United States
One Dupont Circle
Washington, D.C. 20036

Please use a pencil, circle each desired response, and erase completely when necessary.

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- A. Many people who enroll in graduate programs or courses encounter policies or procedures that hinder, rather than help, them. Some of the items below may have caused problems for you. *Please circle a 1 in the first column for each problem or hindrance you have experienced while pursuing your current studies--①.*

(1) PROBLEM OR HINDRANCE

(2) THE ONE WORST PROBLEM OR HINDRANCE

- ↓ ↓
- 1 2 Meeting course requirements or prerequisites
 - 1 2 Acceptance of previously earned credit
 - 1 2 Accessibility of your major professor or adviser
 - 1 2 Availability of library materials
 - 1 2 Adequacy of laboratory facilities
 - 1 2 Adequacy of computer facilities
 - 1 2 Adequacy of studios, practice rooms, or other specialized facilities
 - 1 2 General quality of instruction
 - 1 2 Availability of an internship or practicum
 - 1 2 Getting approval of dissertation or thesis topic or final draft
 - 1 2 Residence requirement
 - 1 2 Time limit for completing your degree
 - 1 2 Penalties for "stopping out" one or more terms
 - 1 2 Foreign language requirement
 - 1 2 Getting information about institutional policies, procedures, or services
 - 1 2 Getting information about department or program policies or procedures
 - 1 2 Times, locations, or frequency of offering needed courses
 - 1 2 Times when administrative offices are open (Dean, Records, etc.)
 - 1 2 Times when services are available (library, computer, cafeteria, etc.)

- B. Which of the items marked above has been the most significant problem? *Please circle a 2 in the second column for the single worst hindrance or problem among those you identified in the first column above.*

- C. Many graduate students have personal concerns or circumstances that hinder, rather than help them. Some areas below may have been problems for you. *Please circle a 1 in the first column for each type of problem you have experienced while enrolled in your current type of study at this school.*

(1) PROBLEM OR HINDRANCE

(2) THE ONE WORST PROBLEM OR HINDRANCE

- ↓ ↓
- 1 2 Financing your education
 - 1 2 Finding time to study
 - 1 2 Adequacy of place(s) to study
 - 1 2 Job responsibilities
 - 1 2 Employer attitudes
 - 1 2 Family responsibilities
 - 1 2 Attitudes of some family members
 - 1 2 Educational, employment, and/or social opportunities for spouse
 - 1 2 Community responsibilities
 - 1 2 Transportation
 - 1 2 Attitudes of some instructors
 - 1 2 Attitudes of some fellow students
 - 1 2 Academic skills like taking tests, writing papers, taking notes, studying
 - 1 2 Physical stamina
 - 1 2 Self-confidence
 - 1 2 Working with other students on class projects
 - 1 2 Opportunities to use newly learned or improved skills or knowledge
 - 1 2 Communicating with instructors and/or peers in English

- D. Which of the items marked above was your biggest hindrance or problem? *Please circle a 2 in the second column for the single worst problem of those marked ①.*

- E. Colleges and universities provide many services, facilities, and programs for their students. How important is it to you that this institution provide each of the following types of service at locations and/or times convenient for your use? Please respond to each of these questions on the basis of your own needs since you have begun the graduate program in which you are currently enrolled or started taking post-baccalaureate courses offered by this school. Please circle one of the three response categories for each item.

(V) VERY IMPORTANT

(I) SOMEWHAT IMPORTANT

(N) NOT IMPORTANT TO YOU

- V I N Opportunities for teaching experience
 V I N Opportunities for research experience
 V I N Courses taught evenings or weekends
 V I N Courses which meet once a week
 V I N Courses taught away from the main campus

 V I N Computer facilities
 V I N Computer consultants
 V I N Statistical or research design consultants
 V I N Library facilities
 V I N Laboratories, studios, practice rooms, or other specialized facilities
 V I N Tutoring or other individualized help
 V I N Training in foreign languages
 V I N English language training
 V I N Colloquia or special lectures
 V I N Evaluation and/or credit for nonacademic learning

 V I N Cultural events such as concerts and plays
 V I N Athletic events such as basketball and hockey games
 V I N Recreational facilities such as handball or tennis courts or a swimming pool
 V I N Peer support groups serving, for example, exam candidates, adult women, etc.
 V I N Informal contact with other students at this school

 V I N Part-time employment for students such as assistantships, Work-Study, etc.
 V I N Emergency short-term loans
 V I N Long-term loans such as Guaranteed Student Loans
 V I N Placement service for graduates of the institution
 V I N Employment service for students working while in school
 V I N Financial planning assistance
 V I N Tuition payment options such as deferred payment, credit cards, installments

 V I N Parking facilities
 V I N Public transportation (city or campus)
 V I N Personal counseling
 V I N Career counseling by department or centrally
 V I N Cafeteria, restaurant, or snack facilities
 V I N Lounge and study areas
 V I N Campus housing
 V I N Health care facilities
 V I N Health insurance for students and their families
 V I N Child care service
 V I N Service to locate you in case of family emergency
 V I N Registration options such as by mail, by telephone, or for extended times

- F. Are there other services which are very important to you? Please list them:
-

- G. Next we would like your opinion of the quality of those services which are provided by this college or university. Of the services listed below which you have used, would you rate each poor (P), fair (F), good (G), or excellent (E)? Please circle one response for each item.

(P) POOR

(F) FAIR

(G) GOOD

(E) EXCELLENT

(X) NOT OFFERED AT THIS INSTITUTION, OR DON'T KNOW IF OFFERED

(U) OFFERED HERE, BUT YOU HAVE NOT USED IT

P	F	G	E	X	U	Opportunities for teaching experience
P	F	G	E	X	U	Opportunities for research experience
P	F	G	E	X	U	Courses taught evenings or weekends
P	F	G	E	X	U	Courses which meet once a week
P	F	G	E	X	U	Courses taught away from the main campus
P	F	G	E	X	U	Courses taught on the main campus
P	F	G	E	X	U	Computer facilities
P	F	G	E	X	U	Computer consultants
P	F	G	E	X	U	Statistical or research design consultants
P	F	G	E	X	U	Library facilities
P	F	G	E	X	U	Laboratories, studios, practice rooms, or other specialized facilities
P	F	G	E	X	U	Tutoring or other individualized help
P	F	G	E	X	U	Training in foreign languages
P	F	G	E	X	U	English language training
P	F	G	E	X	U	Colloquia or special lectures
P	F	G	E	X	U	Evaluation for nonacademic learning
P	F	G	E	X	U	Cultural events such as concerts and plays
P	F	G	E	X	U	Athletic events such as basketball and hockey games
P	F	G	E	X	U	Recreational facilities such as handball or tennis courts or a pool
P	F	G	E	X	U	Peer support groups serving, for example, adult women or exam candidates
P	F	G	E	X	U	Informal contact with other students at this school
P	F	G	E	X	U	Part-time employment for students such as assistantships, Work-Study, etc.
P	F	G	E	X	U	Emergency short-term loans
P	F	G	E	X	U	Long-term loans such as Guaranteed Student Loans
P	F	G	E	X	U	Placement service for graduates of the institution
P	F	G	E	X	U	Employment service for students working while in school
P	F	G	E	X	U	Financial planning assistance
P	F	G	E	X	U	Tuition payment options such as deferred payment, credit cards, installments
P	F	G	E	X	U	Parking facilities
P	F	G	E	X	U	Public transportation (city or campus)
P	F	G	E	X	U	Personal counseling
P	F	G	E	X	U	Career counseling by department or centrally
P	F	G	E	X	U	Health care facilities
P	F	G	E	X	U	Health insurance for students and their families
P	F	G	E	X	U	Child care service
P	F	G	E	X	U	Service to locate you in case of family emergency
P	F	G	E	X	U	Registration options such as by mail, by phone, or for extended times
P	F	G	E	X	U	Cafeteria, restaurant, or snack facilities
P	F	G	E	X	U	Lounge and study areas
P	F	G	E	X	U	Campus housing
P	F	G	E	X	U	Protection of safety and security of students on and/or near campus

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H. We would also like to know how often you currently use those services which are provided by this institution. Please circle one response for each item.

(1) SEVERAL TIMES A WEEK

(2) SEVERAL TIMES A MONTH

(3) SEVERAL TIMES A TERM

(4) ABOUT ONCE A TERM

(5) ONCE OR TWICE A YEAR

(6) LESS THAN ONCE A YEAR

(X) NOT AVAILABLE OR NEVER USED

↓	1	2	3	4	5	6	X	Computer facilities
↓	1	2	3	4	5	6	X	Computer consultants
↓	1	2	3	4	5	6	X	Statistical or research design consultants
↓	1	2	3	4	5	6	X	Library facilities
↓	1	2	3	4	5	6	X	Laboratories, studios, practice rooms, or other special facilities
↓	1	2	3	4	5	6	X	Tutoring or other individualized help
↓	1	2	3	4	5	6	X	Colloquia or special lectures
↓	1	2	3	4	5	6	X	Cultural events such as concerts and plays
↓	1	2	3	4	5	6	X	Athletic events such as basketball and hockey games
↓	1	2	3	4	5	6	X	Recreational facilities such as handball or tennis courts or a pool
↓	1	2	3	4	5	6	X	Peer support groups serving, for example, exam candidates or adult women
↓	1	2	3	4	5	6	X	Parking facilities
↓	1	2	3	4	5	6	X	Public transportation (city or campus)
↓	1	2	3	4	5	6	X	Cafeteria, restaurant, or snack facilities
↓	1	2	3	4	5	6	X	Lounge and study areas
↓	1	2	3	4	5	6	X	Health care facilities
↓	1	2	3	4	5	6	X	Child care service

I. In what type of program are you currently enrolled? Circle one of the responses.

- 1 NON-DEGREE STUDY--Please SKIF to Question Q on Page 6.
- 2 MASTER'S (M.A., M.S., M.Ed., etc.)
- 3 CERTIFICATE (teaching, etc.)
- 4 INTERMEDIATE (Specialist, etc.)
- 5 FIRST PROFESSIONAL (M.D., LL.B., etc.)
- 6 DOCTORATE (Ph.D., Ed.D., etc.)
- 7 POSTDOCTORAL STUDY

Some graduate programs give primary attention to the preparation of scholars and researchers, some lean more toward the preparation of teachers, others emphasize the preparation of practicing professionals for applied and service positions (e.g., administrators, museum curators, clinicians, industrial chemists), while still others emphasize personal enrichment or preparation for more advanced study.

J. How much important do you think your department assigns to each of these different purposes or functions of your graduate program? Circle one per item.

Degree of importance

(0) NONE

(1) LITTLE

(2) SOME

(3) CONSIDERABLE

(4) EXTREME

↓	0	1	2	3	4	Preparing scholars/researchers
↓	0	1	2	3	4	Preparing college teachers
↓	0	1	2	3	4	Preparing other practitioners
↓	0	1	2	3	4	Preparing for further study
↓	0	1	2	3	4	For personal enrichment

K. Now please answer the same questions in terms of your personal goals. How much importance do you assign to each of these purposes or functions? Please circle one response per item.

Degree of importance

(0) NONE

(1) LITTLE

(2) SOME

(3) CONSIDERABLE

(4) EXTREME

↓	0	1	2	3	4	Preparing to be scholar/researcher
↓	0	1	2	3	4	Preparing to be college teacher
↓	0	1	2	3	4	Preparing for other practice
↓	0	1	2	3	4	Preparing for further study
↓	0	1	2	3	4	For personal enrichment

Continue in right-hand column

Most of the following questions are from the "Graduate Program Self-Assessment" questionnaires developed and copyrighted by the Educational Testing Service; these questions are reprinted here with the permission of ETS.

- L. Please rate each of the following aspects of your graduate department or program on the basis of your own experience with them. *Please circle one response per item.*

(P) POOR

(F) FAIR

(G) GOOD

(E) EXCELLENT

- P F G E Intellectual environment
P F G E Advice about the program
P F G E Career advice
P F G E Agreement between degree requirements and stated objectives of the program
P F G E Administration of degree requirements
P F G E Available library holdings in your field
P F G E Specialized facilities such as laboratories, studios, and equipment needed for teaching and creative work in your field
P F G E Interaction between the department and related disciplines at this school
P F G E Scholarly and professional competence of the program's faculty
P F G E The regularity of offering courses listed in the catalog
P F G E The scholarly and professional promise of graduate students in the program
P F G E Opportunities for student participation in decisions affecting graduate programs in the department
P F G E Relevance of degree requirements to your anticipated work in the field
P F G E Evaluation procedures used in graduate courses (e.g., grades, papers)
P F G E Teaching methods used in graduate courses (e.g., lectures, seminars, audiovisual aids)
P F G E Variety of graduate course and program offerings
P F G E Depth in subject matter of graduate course and program offerings
P F G E Flexibility of program to meet individual student needs
P F G E Accessibility of course instructors
P F G E Accessibility of faculty adviser or thesis director

P F G E Opportunities for students to pursue individual projects
P F G E Evaluation of student progress toward a degree
P F G E Faculty-student relationships
P F G E Admissions procedures
P F G E Overall quality of teaching at the graduate level in the program
P F G E Relevance of courses in related fields to program objectives
P F G E Evaluation of doctoral student comprehensive examinations and/or qualifying examinations (*doctoral students only*)
P F G E Departmental procedures for dissertation supervision and defense (*doctoral students in programs requiring dissertations only*)
P F G E Departmental procedures for master's thesis supervision and acceptance (*master's students in programs requiring thesis only*)
P F G E Opportunities to develop mentors or sponsors among program faculty
P F G E Evaluation of students' professional competency
P F G E University commitment to the program
P F G E Useful faculty criticism of your work
P F G E Faculty helpfulness in dealing with classwork
P F G E Faculty awareness of new developments in your field
P F G E Overall adequacy of financial resources for graduate students in the program
P F G E Space and other facilities for classes and administration
P F G E Number of support staff (including student assistants) for the program
P F G E Quality of support staff

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M. To what extent do you agree with the following statements about you, your graduate program of study, or your department? *Circle one response per item.*

(DS) DISAGREE STRONGLY

(D) DISAGREE WITH RESERVATIONS

(A) AGREE WITH RESERVATIONS

(AS) AGREE STRONGLY

DS	D	A	AS	Faculty members are genuinely interested in the welfare and professional development of graduate students.
DS	D	A	AS	Different scholarly points of view are encouraged.
DS	D	A	AS	Graduate students work hard to meet the demands of this program.
DS	D	A	AS	The department has a humane environment characterized by mutual respect between students and professors.
DS	D	A	AS	I have learned a great deal as a student in this program.
DS	D	A	AS	I would advise a friend with similar interests to enroll in this program.
DS	D	A	AS	Graduate students in this program pursue subjects by doing a lot of unassigned reading.
DS	D	A	AS	The program is intellectually stimulating.
DS	D	A	AS	Faculty members actively help graduates of this program find appropriate employment.
DS	D	A	AS	Faculty members prepare carefully for their graduate courses.
DS	D	A	AS	Graduate students tend to support and help each other meet the academic demands of the program.
DS	D	A	AS	If I were starting over, I would enroll in the program again.
DS	D	A	AS	The program is providing me with very good preparation for my later professional work.
DS	D	A	AS	Members of the faculty work together to achieve program goals.
DS	D	A	AS	I have been well advised on how to use the department's people and resources to aid my progress.
DS	D	A	AS	Faculty members have helped me integrate past experience with new learning.
DS	D	A	AS	Some professors in the program unduly exploit their student to advance their own research or careers.
DS	D	A	AS	The department is a collection of individuals; very little in the way of truly team or joint effort takes place.
DS	D	A	AS	Decisions about financial assistance (fellowships, assistantships, etc.) are made fairly and equitably.
DS	D	A	AS	The faculty is receptive to new ideas and ways of doing things.
DS	D	A	AS	There is good communication between faculty and graduate students regarding student needs, concerns, and suggestions.
DS	D	A	AS	There are many opportunities for interaction with my major professor outside the classroom.
DS	D	A	AS	There are many opportunities for interaction with other members of the program's faculty outside the classroom.
DS	D	A	AS	Most courses that count toward graduate degrees are open only to graduate students.
DS	D	A	AS	Graduate students in this program demonstrate enthusiastic involvement with the field during informal discussions.
DS	D	A	AS	Graduate students here handle course assignments with care and responsibility.
DS	D	A	AS	Graduate students here continue to work on projects until they are successfully completed, despite one or more setbacks.
DS	D	A	AS	I am sure that I will complete the degree on which I am now working.
DS	D	A	AS	Professors here have a realistic view of my responsibilities outside classes.
DS	D	A	AS	Instructors here use many examples in their teaching.
DS	D	A	AS	When I first started this program, faculty members and graduate students were very helpful sources of information about department policies and practices.
				Because of my job, family, or commuting, it has been hard for me to. . .
DS	D	A	AS	. . .use administrative offices (such as the department office, Dean's office, Registrar).
DS	D	A	AS	. . .schedule time to consult with my adviser or thesis chairman.
DS	D	A	AS	. . .meet with instructors outside of class.
DS	D	A	AS	. . .register for classes or research.

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N. Which of the following have you done within the last 12 months? *Circle one per item.*

(Y) YES

(N) NO

- Y N Attended one or more meetings of a scholarly or professional society
- Y N Been author or coauthor of a scholarly paper accepted for presentation at a meeting of a scholarly or professional society
- Y N Been author or coauthor of a scholarly paper submitted for publication in a scholarly or professional journal
- Y N Demonstrated artistic products or skills in a public exhibition or performance
- Y N Prepared a detailed proposal or plan for a thesis, dissertation, or other major research project
- Y N Carried out an independent research or creative project
- Y N Cooperated in a research or creative project with another student or a faculty member
- Y N Held a fellowship, traineeship, or scholarship
- Y N Developed professional skills through participation in a clinical, field work, or internship experience
- Y N Sought out occasions to talk with professionals in your field about graduate programs or career plans
- Y N Pursued independently planned reading or practice in your field beyond that assigned in courses
- Y N Conducted an independent activity for profit
- Y N Won a prize or award for some product or activity related to your field of study
- Y N Served on a departmental or university-wide committee
- Y N Participated in departmental planning activities (e.g., review of the curriculum, etc.)

O. Have you participated in a clinical, field work, or internship experience required by your graduate program? *Please circle Y or N.*

Y YES--Please evaluate this experience.
N NO--Please SKIP to Question P.

(P) POOR
(F) FAIR
(G) GOOD
(E) EXCELLENT

- P F G E Departmental training for carrying out your duties
- P F G E Contribution of experiences to your academic development
- P F G E Chance to practice professional skills
- P F G E Variety of assignments or experiences
- P F G E Supervision you received
- P F G E Office space and equipment available for your use

Continue in right-hand column.

P. Have you been a research or teaching assistant (or the equivalent) while enrolled in this program? *Please circle Y or N.*

Y YES--Please evaluate this experience.
N NO--Please SKIP to Question Q on the next page.

(P) POOR
(F) FAIR
(G) GOOD
(E) EXCELLENT

- P F G E Departmental training for carrying out your duties
- P F G E Contribution of experiences to your academic development
- P F G E Chance to practice professional skills
- P F G E Degree to which staff members treated you as a colleague
- P F G E Absence of unnecessary "dirty work" in your duties
- P F G E Office space and equipment available for your use
- P F G E Supervision you received

Finally, we need some background information for statistical purposes.

Educational experience

Q. For each school year listed below, were you enrolled (or do you plan to be enrolled) in postsecondary education, either with or without credit? Please circle one of the four responses in the first set of columns for each school year. If you were in more than one program, circle the response that best describes the study you feel was most important to you that year.

School Year	Q. Type of Institution				R. Type of Study		S. Field of Study	
	This Coll./ Univ.	Other 4-Year Coll./ Univ.	Other Post-secondary	Not Enrolled	Part-time	Full-time	Same Field	Different Field
After 1983	1	2	3	4	P	F	S	D
1982-83	1	2	3	4	P	F	S	D
1981-82	1	2	3	4	P	F	S	D
1980-81	1	2	3	4	P	F	S	D
1979-80	1	2	3	4	P	F	S	D
1978-79	1	2	3	4	P	F	S	D
1977-78	1	2	3	4	P	F	S	D
1976-77	1	2	3	4	P	F	S	D
1975-76	1	2	3	4	P	F	S	D
1974-75	1	2	3	4	P	F	S	D
1973-74	1	2	3	4	P	F	S	D
1972-73	1	2	3	4	P	F	S	D
Pre-1972	1	2	3	4	P	F	S	D

R. For each school year in which you were enrolled (or plan to be enrolled), did (or will) you consider yourself to be a part-time student or a full-time student? In the second set of columns please circle a P or F for the response that best describes your most important studies in each year that you were or plan to be enrolled.

S. For each school year in which you were enrolled (or plan to be enrolled) in postsecondary education, were you (or will you be) studying in the same field as your present studies or in a different field? In the third set of columns (T), please circle an S or D for the response that best describes the relation of your studies that year to your current program or classes.

T. Are most of the graduate students in your program or classes enrolled part-time or full-time? Please circle one number.

- 1 PART-TIME
- 2 FULL-TIME
- 3 DON'T KNOW

Continue with U at right

U. What overall grade point average have you received in your current program? Please circle one answer below that is closest to your approximate average.

- 1 A (3.75-4.0)
- 2 A- (3.25-3.74)
- 3 B (2.75-3.24)
- 4 B- (2.25-2.74)
- 5 C OR LOWER (below 2.25)
- 6 NO GRADES YET RECEIVED

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For the following items, please write a number in each box. Write "0" if appropriate; for example, if you are enrolled for six credits, write .

- V. Year in which you received or expect to receive each type of degree. Please fill in "00" for each degree neither held nor in your plans (to read 1900).

FIRST BACHELOR'S	SECOND BACHELOR'S	FIRST MASTER'S	SECOND MASTER'S	DOCTORATE (Ph.D., Ed.D., D.B.A., etc.)	FIRST PROFESSIONAL (M.D., J.D., D.D.S., etc.)
19	19	19	19	19	19

- W. How many courses and credits are you taking this term? Please write a number in each box.
- COURSES CREDITS
- X. What is the total number of courses you have taken, including those this term, at each location below while in your present program or status?
- ☐ MAIN CAMPUS
☐ OFF-CAMPUS CENTER
☐ AT WORK
☐ ELSEWHERE
- Y. Some graduate students do not enroll for credit hours commensurate with the amount of time they spend on their academic research. Does this describe your situation? Circle Y or N.
- Y YES
N NO
- Z. If "Yes", how many credit hours would best describe the amount of time and effort you are now devoting to your research plus courses?
- CREDIT HOURS
- AA. In what year did you first enroll in your current program or type of class at this institution?
- 19
- AB. Of which group do you consider yourself to be a member? Circle one response, please.
- 1 NON-RESIDENT ALIEN
 - 2 WHITE/CAUCASIAN, NON-HISPANIC
 - 3 BLACK/AFRO-AMERICAN, NON-HISPANIC
 - 4 CHICANO/MEXICAN AMERICAN
 - 5 OTHER HISPANIC/SPANISH AMERICAN
 - 6 AMERICAN INDIAN/ALASKAN NATIVE
 - 7 ASIAN AMERICAN/PACIFIC ISLANDER
- AC. How old are you?
- YEARS OLD
- AD. What is your sex? Circle M or F.
- F FEMALE
M MALE
- AE. What is your marital status? Please circle one response.
- M MARRIED
P PREVIOUSLY MARRIED OR SEPARATED
N NEVER MARRIED
- AF. How many children in each age group are currently living with you? Circle one response on each line.
- | | |
|------------|-----------------------------|
| 0 1 2 3 4+ | PRE-KINDERGARTEN CHILDREN |
| 0 1 2 3 4+ | ELEMENTARY OR MIDDLE SCHOOL |
| 0 1 2 3 4+ | IN HIGH SCHOOL |
| 0 1 2 3 4+ | IN COLLEGE |
| 0 1 2 3 4+ | OUT OF SCHOOL |
- AG. Which of the following are currently sources of your financial support? Please circle a 1 in the first column for each current source of support.
- (1) CURRENT SOURCE OF SUPPORT
(2) MOST IMPORTANT SUPPORT SOURCE
- ↓ ↓
- | | |
|-----|---------------------------------|
| 1 2 | Graduate assistantship |
| 1 2 | Fellowship or traineeship |
| 1 2 | Other employment |
| 1 2 | GI benefits |
| 1 2 | Student loan |
| 1 2 | Spouse's income |
| 1 2 | Parent or guardian |
| 1 2 | Personal assets (savings, etc.) |
- AH. Of the support sources designated above, which one is most important? Please circle a 2 in the second column for the one source of those first circled which currently contributes most to your financial support.

Continue in right-hand column

Occupational experience

AI. For each year below, were you employed or a volunteer? Please circle one of the four responses in the first set of columns for each year. If you had more than one type of activity, select the one that describes the activity most important to you that year.

Year	AI. Type of Activity				AJ. Field of Activity		AK. Basis of Activity	
	Employed	Volunteer	Retired	None of Preceding	Same	Different	Part-time	Full-time
1982	1	2	3	4	S	D	P	F
1981	1	2	3	4	S	D	P	F
1980	1	2	3	4	S	D	P	F
1979	1	2	3	4	S	D	P	F
1978	1	2	3	4	S	D	P	F
1977	1	2	3	4	S	D	P	F
1976	1	2	3	4	S	D	P	F
1975	1	2	3	4	S	D	P	F
1974	1	2	3	4	S	D	P	F
1973	1	2	3	4	S	D	P	F
Pre-1973	1	2	3	4	S	D	P	F

AJ. For each year in which you were employed or a volunteer, were you active in the same field which you are now studying or in a different field? In the second set of columns above, for each year in which you were an employee or volunteer, please circle S or D indicating the relationship between your activity that year and your present field of study.

AK. For each year in which you were employed or a volunteer, were you or are you active on a part-time basis or a full-time basis? In the third set of columns above, for each year in which you were an employee or volunteer, please circle a P or F indicating whether, on the average, you are or were active part-time (30 hours a week or less) or full-time (over 30 hours per week).

AL. In what setting are you currently employed? Please circle 1 in the first column for the best description of your employment.

AM. In what setting do you hope to find employment when you complete your graduate study? Please circle 2 in the second column above for your highest preference for a future job.

(1) CURRENT EMPLOYMENT

(2) PREFERRED FUTURE EMPLOYMENT

- 1 2 This institution (including graduate assistantships)
 1 2 Other 4-year college or university
 1 2 Community college
 1 2 Primary or secondary school system
 1 2 Local, state, or federal government
 1 2 Other nonprofit agency/institution
 1 2 Business or industry
 1 2 Self-employed or private practice
 1 2 Other
 1 2 None or retired

Continue in right-hand column

AN. How far do you usually travel between your home or job and your classes? Please write in three numbers.

MILES ONE WAY

AO. How many hours do you usually work per week for your current employer? Please write in "00" if not an employee or volunteer.

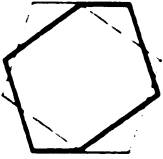
HOURS PER WEEK, AVERAGE

Please finish on back page.

APPENDIX C-2

COVER LETTERS, ORIGINAL MAILING

APPENDIX C-2
COVER LETTERS, ORIGINAL MAILING



The Graduate School and University Center
of the City University of New York

Office of the Dean of Graduate Studies
Graduate Center, 33 West 42 Street, New York, N.Y. 10036
212 790-4488

May 12, 1982

Dear Graduate Student:

You are one of a small, scientifically selected group of City University Graduate School students being asked to evaluate our current programs and to detail your needs. We realize that you are very busy at this time, and that you may feel inexperienced with all aspects of the University to offer a valid opinion; but such situations often highlight strengths and weaknesses in the system. Responses from you and every other member of the sample are necessary if the results are to truly represent the ideas of all our graduate students.

Complete confidentiality is assured. Your enclosed questionnaire has an identification number only so that we may remove your name from the mailing list when your return is received. Your name will never be placed on the form or in the data set, and only summary data will be reported either within or outside the University.

The results of this research will assist our decisions about graduate student services and programs at the GSUC. They will also be combined with results from four other universities to begin determining the characteristics, needs, and problems of graduate students across the country. Since the Council of Graduate Schools plans to enlarge the project next year to include a random sample of all United States graduate students, your reply will have nationwide impact.

I hope that you will complete the survey within the next day. Should you decline participation, we would appreciate your return of the questionnaire with a note explaining your decision. A copy of the results of this study (to be published next fall) may be obtained by writing "copy of results requested" and your name and address on the back of the return envelope (not on the questionnaire).

If you have any questions regarding this questionnaire, please write or call our office. Ms. Charlotte Flick at 790-4468 will be available to discuss it with you.

Thank you for your participation.

Sincerely,

Norma S. Rees
Dean of Graduate Studies

Roosevelt University
430 South Michigan Avenue, Chicago, Illinois 60605
Telephone 312/341-3540

Vice President for Student Services and
Dean of Students



June 24, 1982

Dear Graduate Student:

Over the past ten years there has been a significant change in the characteristics of the graduate student population as well as in graduate programs. No one knows how well existing academic and support programs are serving graduate students like you, or what other services you need. In order to make sound decisions, we must have good information on the important needs of our students.

You are one of a small, scientifically selected group of Roosevelt University graduate students being asked to evaluate our current programs and to detail their needs. We realize that you are very busy, and that you may feel you have not had enough experience with all aspects of the University to offer a valid opinion; nonetheless, your answers may help reveal strengths and weaknesses of our programs. Responses from you and every other member of the sample are necessary if the results are to truly represent the ideas of all our graduate students.

You may be assured of complete confidentiality. The questionnaire has an identification number so that we may check your name off of the mailing list when your return is received. Your name will never be placed on the form or in the data set. Only summary data will be reported either within or outside the University.

The results of this research will assist our decisions about graduate student services and programs at Roosevelt. They will also be combined with results from four other universities to begin determining the characteristics, needs, and problems of graduate students across the country. The Council of Graduate Schools plans to enlarge the project next year to include a random sample of all United States graduate students. Thus your reply will have nation-wide impact.

I hope that you will complete the survey within the next day or two. Should you decide not to participate, we would greatly appreciate your return of the questionnaire with a brief note explaining your decision. If you would like to receive a copy of the results of this study, please write "copy of results requested" and your name and address on the back of the return envelope (not on the questionnaire, please). The results will be published next fall.

If you have any questions regarding this survey, please write or call my office. I will be most happy to discuss the project with you.

Thank you for your assistance.

Sincerely,

Dominic Martia
Vice President for Student Services and
Dean of Students

DM/njm



THE UNIVERSITY OF TENNESSEE KNOXVILLE
KNOXVILLE 37996-0140

OFFICE OF THE VICE CHANCELLOR FOR
GRADUATE STUDIES AND RESEARCH

404 ANDERSON TOWER

May 13, 1982

TELEPHONE 574-1194

Dear Graduate Student:

We need your help in a major national research effort to determine the characteristics of U. S. graduate students, the types of programs and services that they need, and their satisfaction with programs and services. This project is sponsored by the Council of Graduate Schools, headquartered in Washington, D. C., and the University of Tennessee. The information that you provide will be analyzed along with responses from other graduate students to gain insights about the graduate programs at UT and will also be used in a nationwide study. Your input will have impact both here and nationally.

I would like for you to complete the enclosed questionnaire and return it to this office in the enclosed envelope. Although the form is rather long (it should take about 45 minutes for you to complete it), I think you will find it interesting to answer. All replies will be held in confidence and only summary data will be reported or used.

We hope that you will complete the Graduate Student Needs, Use, and Satisfaction Inventory as soon as you receive it. Of course, participation is voluntary and refusal to participate carries no prejudice or penalty. Thank you for your cooperation.

Sincerely,

Thomas H. Klindt

Thomas H. Klindt
Assistant Dean for
Graduate Studies

Office of the Dean


 UNIVERSITY OF MINNESOTA
 TWIN CITIES

 Graduate School
 Johnston Hall
 101 Pleasant Street S E
 Minneapolis, Minnesota 55455

May 17, 1982

Dear Graduate Student:

Over the past ten years there has been a significant change in the characteristics of the graduate student population as well as in graduate programs. We wish to determine how well existing academic and support programs are serving graduate students like you, or what other programs, services, and facilities you need. In order to make sound decisions, we must have accurate information on the important needs of our students.

You are one of a small, scientifically selected group of University of Minnesota graduate students being asked to evaluate our current programs and to detail their needs. We realize that you are very busy at this time, and that you may feel you have not had enough experience with all aspects of the University to offer a valid opinion; but these situations often highlight strengths and weaknesses in the system. Responses from you and every other member of the sample are necessary if the results are to represent the ideas of all our graduate students.

I assure you that your response will remain anonymous. The questionnaire has an identification number so that your name may be checked off the mailing list when your return is received. Your name will never be placed on the form or in the data set. Only summary data will be reported.

The results of this research will inform our decisions about graduate student services and programs at the University of Minnesota. They will also be combined with results from four other universities to begin determining the characteristics, needs, and problems of graduate students across the country. The Council of Graduate Schools plans to enlarge the project next year to include a random sample of all United States graduate students. Thus your reply will have nation-wide impact.

I hope that you will find it possible to complete the survey within the next day. Should you decide not to participate, I would greatly appreciate your return of the questionnaire with, if you would, a note explaining your decision. If you wish to receive a copy of the results of this study, please write "copy of results requested" and your name and address on the back of the return envelope (not on the questionnaire, please). The results will be published next fall.

If you have any questions regarding this survey, please write or call our office. Ms. Ruth Chovancek at 612/373-2005 will be most happy to discuss the project with you.

Thank you for your assistance.

Sincerely,

Warren E. Ibele

Warren E. Ibele
 Dean

MICHIGAN STATE UNIVERSITY

THE GRADUATE SCHOOL - OFFICE OF THE DEAN

EAST LANSING - MICHIGAN - 48824

May 11, 1982

Dear Graduate Student:

Over the past ten years there has been a significant change in the characteristics of the graduate student population as well as in graduate programs. No one knows how well existing academic and support programs are serving graduate students like you, or what other facilities you need. In order to make sound decisions, we must have good information on the important needs of our students.

You are one of a small, scientifically selected group of Michigan State University graduate students being asked to evaluate our current programs and to detail their needs. We realize that you are very busy at this time, and that you may feel you have not had enough experience with all aspects of the University to offer a valid opinion; but these situations often highlight strengths and weaknesses in the system. Responses from you and every other member of the sample are necessary if the results are to truly represent the ideas of all our graduate students.

You may be assured of complete confidentiality. The questionnaire has an identification number so that we may check your name off of the mailing list when your return is received. Your name will never be placed on the form or in the data set. Only summary data will be reported either within or outside the University.

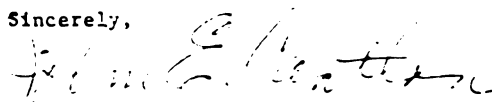
The results of this research will assist our decisions about graduate student services and programs at MSU. They will also be combined with results from four other universities to begin determining the characteristics, needs, and problems of graduate students across the country. The Council of Graduate Schools plans to enlarge the project next year to include a random sample of all United States graduate students. Thus your reply will have nation-wide impact.

I hope that you will complete the survey within the next day. Should you decide not to participate, we would greatly appreciate your return of the questionnaire with, if you would, a note explaining your decision. If you would like to receive a copy of the results of this study, please write "copy of results requested" and your name and address on the back of the return envelope (not on the questionnaire, please). The results will be published next fall.

If you have any questions regarding this survey, please write or call our office. Mrs. Barbara O'Kelly at (517) 355-0300 will be most happy to discuss the project with you.

Thank you for your assistance.

Sincerely,


John E. Cantlon
Vice President for Research and Graduate Studies
Dean of the Graduate School

MICHIGAN STATE UNIVERSITY

THE GRADUATE SCHOOL · OFFICE OF THE DEAN

EAST LANSING · MICHIGAN · 48824

June 9, 1982

Dear Graduate Student:

Over the past ten years there has been a significant change in the characteristics of the graduate student population as well as in graduate programs. No one knows how well existing academic and support programs are serving graduate students like you, or what other facilities you need. In order to make sound decisions, we must have good information on the important needs of our students.

You are one of a small, scientifically selected group of students who took off-campus graduate courses last term who are being asked to evaluate our current programs and to detail their needs. We realize that you may feel you have not had enough experience with all aspects of Michigan State University to offer a valid opinion; but we are particularly interested in the opinion of off-campus students regarding strengths and weaknesses in the system. Responses from you and every other member of the sample are necessary if the results are to truly represent the ideas of all students.

If you are not enrolled this term, please answer the questions regarding your "current" problems, needs, etc. according to your position while you were enrolled.

You may be assured of complete confidentiality. The questionnaire has an identification number so that we may check you name off of the mailing list when your return is received. Your name will never be placed on the form or in the data set. Only summary data will be reported either within or outside the University.

The results of this research will assist our decisions about graduate student services and programs at MSU. They will also be combined with results from four other universities to begin determining the characteristics, needs, and problems of graduate students across the country. The Council of Graduate Schools plans to enlarge the project next year to include a random sample of all United States graduate students. Thus your reply will have nation-wide impact.

I hope that you will complete the survey within the next day. Should you decide not to participate, we would greatly appreciate your return of the questionnaire with, if you would, a note explaining your decision. If you would like to receive a copy of the results of this study, please write "copy of results requested" and your name and address on the back of the return envelope (not on the questionnaire, please). The results will be published next fall.

If you have any questions regarding this survey, please write or call our office. Mrs. Barbara O'Kelly at (517) 355-0300 will be most happy to discuss the project with you.

Thank you for your assistance.

Sincerely,

John E. Cantlon
Vice President for Research and
Graduate Studies
Dean of the Graduate School

APPENDIX C-3

FOLLOW-UP POSTCARD

FOLLOW-UP POSTCARD

Information in italics to be filled in by each institution.

(Mailing date)

Last week a questionnaire seeking your opinions about our graduate programs and support services was mailed to you.

If you have already completed and returned it to us, please accept our sincere thanks. If not, please do so today.

Because only a small, but scientific, random sample of our students are being surveyed, it is extremely important that your responses be included in the study if the results are to accurately represent our graduate students.

In case you did not receive the questionnaire, or it has been misplaced, please phone my office right now, collect if you are out of town, and we will mail another one today.

Sincerely,

(Individual signature)

(Name)

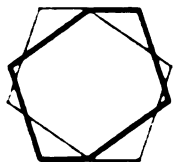
(Title)

(Telephone number)

APPENDIX C-4

COVER LETTERS, DUPLICATE MAILING

COVER LETTERS, DUPLICATE MAILING



The Graduate School and University Center
of the City University of New York

Office of the Dean of Graduate Studies
Graduate Center 33 West 42 Street New York N.Y. 10036
212 790-4488

June 7, 1982

Dear

Several weeks ago I sent you a questionnaire from The Council of Graduate Schools concerning changes in the characteristics of graduate students and graduate programs. We are cooperating with The Council of Graduate Schools in this research because we believe it is important to obtain an accurate understanding of the problems and needs of current graduate students at The Graduate School and University Center. Such information will help our university and others in making decisions about programs and support services.

The response from students has been excellent. However, since we have not yet heard from you concerning the questionnaire, I am enclosing another copy for your response. If any questions arise concerning the questionnaire, Ms. Charlotte Frick at 790-4468 will be available to discuss it with you.

Thank you for your participation.

Sincerely,

A handwritten signature in cursive script that reads "Norma S. Rees".

Norma S. Rees
Dean of Graduate Studies

MICHIGAN STATE UNIVERSITY

THE GRADUATE SCHOOL - OFFICE OF THE DEAN

EAST LANSING - MICHIGAN - 48824

June 30, 1982

About three weeks ago I wrote to you seeking your opinions regarding programs and supportive services for graduate students enrolled at Michigan State. As of today we have not received your completed or blank questionnaire.

Michigan State University is cooperating with the Council of Graduate Schools in the United States in this research project because we believe that we need to know more about what programs and services are important to our students and also that more information is essential about the needs and satisfaction of graduate students in general. Aspects of our own institution that are working well can serve as models for other similar universities, and once we become aware of our weaknesses we can seek models elsewhere that indicate ways we can improve.

I am writing to you again because of the significance each selected student has to the usefulness of this study. You were selected by a scientific random sampling procedure in which every MSU graduate student had an equal chance of being asked to participate. Since only one of every 25 students was chosen, if you will respond, you will be speaking for approximately 24 other students similar to yourself. Your reply is essential to having truly representative results from this study.

In the event that your questionnaire has been misplaced, I am enclosing a replacement. I hope that you will make time to fill it out and return it today. Should you decide not to participate, we would be grateful if you would return the blank questionnaire so that you will not be contacted further.

Your cooperation is greatly appreciated.

Sincerely,

John E. Cantlon
Vice President for Research and Graduate Studies
Dean of the Graduate School

Roosevelt University
430 South Michigan Avenue, Chicago, Illinois 60605
Telephone 312/341-3540

Vice President for Student Services and
Dean of Students



July 26, 1982

Dear Graduate Student

Sometime ago our office sent you the original copy of the enclosed questionnaire. A covering letter explained that this questionnaire had been sent to you as part of a survey of graduate students. This survey is being conducted by the Council of Graduate Schools, with the participation of several universities, including Roosevelt.

Because this questionnaire will be used in the pilot phase of the study, it is very important that we receive a high percentage of responses. Therefore, I am asking you to please take some time to complete the questionnaire and return it to us.

I realize this maybe an imposition, but the need for the information is great. Moreover, we believe that data from the survey will be of value in helping Roosevelt University—and all universities—improve their services to graduate students.

Thank you for your time and cooperation.

Sincerely,

Dominic Martia
Vice President for Student Services and
Dean of Students

DM/njm



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APPENDIX D-1

FACULTY QUESTIONNAIRE

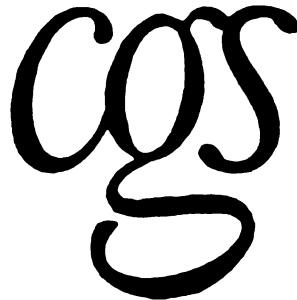
FACULTY QUESTIONNAIRE

Identification: F

HEGIS Discipline Code:

What do graduate students need? Are they getting it?

THE GRADUATE STUDENT NEEDS, USE, AND SATISFACTION INVENTORY



Council of Graduate Schools in the United States
One Dupont Circle
Washington, D.C. 20036

Please use a pencil, circle each desired response, and erase completely when necessary.

F1

- A. Many graduate students encounter policies or procedures that hinder, rather than help, them. Some of the items below may cause problems for graduate students in your programs. Please circle a 1 in the first column below for each item that you believe is a significant hindrance or problem for graduate students in your department--①.

(1) PROBLEM OR HINDRANCE

↓
(2) SHOULD BE CHANGED

- 1 2 Meeting course requirements or prerequisites
- 1 2 Acceptance of previously earned credit
- 1 2 Accessibility of your major professor or adviser
- 1 2 Availability of library materials
- 1 2 Adequacy of laboratory facilities
- 1 2 Adequacy of computer facilities
- 1 2 Adequacy of studios, practice rooms, or other specialized facilities
- 1 2 General quality of instruction
- 1 2 Availability of an internship or practicum
- 1 2 Getting approval of dissertation or thesis topic or final draft
- 1 2 Residence requirement
- 1 2 Time limit for completing your degree
- 1 2 Penalties for "stopping out" one or more terms
- 1 2 Foreign language requirement
- 1 2 Getting information about institutional policies, procedures, or services
- 1 2 Getting information about department or program policies or procedures
- 1 2 Times, locations, or frequency of offering needed courses
- 1 2 Times when administrative offices are open (Dean, Records, etc.)
- 1 2 Times when services are available (library, computer, cafeteria, etc.)

- B. Which of the policies or procedures cited above do you think should be changed to present fewer problems to your students? Please circle a 2 in the second column above for each item that you think should be changed.

- C. Many graduate students have personal concerns or circumstances that hinder, rather than help them. Some areas below may be problems for your graduate students. Please circle a 1 below for each area that you believe is a hindrance or problem for a significant number of graduate students in your program or department.

(1) SIGNIFICANT HINDRANCE OR PROBLEM



- 1 Financing your education
- 1 Finding time to study
- 1 Adequacy of place(s) to study
- 1 Job responsibilities
- 1 Employer attitudes
- 1 Family responsibilities
- 1 Attitudes of some family members
- 1 Educational, employment, and/or social opportunities for spouse
- 1 Community responsibilities
- 1 Transportation
- 1 Attitudes of some instructors
- 1 Attitudes of some fellow students
- 1 Academic skills like taking tests, writing papers, taking notes, studying
- 1 Physical stamina
- 1 Self-confidence
- 1 Working with other students on class projects
- 1 Opportunities to use newly learned or improved skills or knowledge
- 1 Communicating with instructors and/or peers in English

F2

- E. Colleges and universities provide many services, facilities, and programs for their students. How important do you think it is to your graduate students that this institution provide the following services, programs, or facilities, whether or not they are in fact currently available. Please respond on the basis of your knowledge of the needs of graduate students whom you advise or who are enrolled in your department's programs. Please circle one of the three response categories for each item.

(V) VERY IMPORTANT

↓ (I) SOMEWHAT IMPORTANT

↓ ↓ (N) NOT IMPORTANT TO YOU

- V I N Opportunities for teaching experience
 V I N Opportunities for research experience
 V I N Courses taught evenings or weekends
 V I N Courses which meet once a week
 V I N Courses taught away from the main campus

 V I N Computer facilities
 V I N Computer consultants
 V I N Statistical or research design consultants
 V I N Library facilities
 V I N Laboratories, studios, practice rooms, or other specialized facilities
 V I N Tutoring or other individualized help
 V I N Training in foreign languages
 V I N English language training
 V I N Colloquia or special lectures
 V I N Evaluation and/or credit for nonacademic learning

 V I N Cultural events such as concerts and plays
 V I N Athletic events such as basketball and hockey games
 V I N Recreational facilities such as handball or tennis courts or a swimming pool
 V I N Peer support groups serving, for example, exam candidates, adult women, etc.
 V I N Informal contact with other students at this school

 V I N Part-time employment for students such as assistantships, Work-Study, etc.
 V I N Emergency short-term loans
 V I N Long-term loans such as Guaranteed Student Loans
 V I N Placement service for graduates of the institution
 V I N Employment service for students working while in school
 V I N Financial planning assistance
 V I N Tuition payment options such as deferred payment, credit cards, installments

 V I N Parking facilities
 V I N Public transportation (city or campus)
 V I N Personal counseling
 V I N Career counseling by department or centrally
 V I N Cafeteria, restaurant, or snack facilities
 V I N Lounge and study areas
 V I N Campus housing
 V I N Health care facilities
 V I N Health insurance for students and their families
 V I N Child care service
 V I N Service to locate you in case of family emergency
 V I N Registration options such as by mail, by telephone, or for extended times

- F. Are there other services which you believe are very important to graduate students? Please list them:
-

G. Next we would like your opinion of the quality of those services which are provided by this college or university. Of the services listed below with which you are familiar, would you rate each poor (P), fair (F), good (G), or excellent (E)? Please circle one response for each item.

(P) POOR	(F) FAIR	(G) GOOD	(E) EXCELLENT	(X) NOT OFFERED AT THIS INSTITUTION, OR DON'T KNOW IF OFFERED	(U) OFFERED HERE, BUT NOT FAMILIAR WITH ITS QUALITY	
P	F	G	E	X	U	Opportunities for teaching experience
P	F	G	E	X	U	Opportunities for research experience
P	F	G	E	X	U	Courses taught evenings or weekends
P	F	G	E	X	U	Courses which meet once a week
P	F	G	E	X	U	Courses taught away from the main campus
P	F	G	E	X	U	Courses taught on the main campus
P	F	G	E	X	U	Computer facilities
P	F	G	E	X	U	Computer consultants
P	F	G	E	X	U	Statistical or research design consultants
P	F	G	E	X	U	Library facilities
P	F	G	E	X	U	Laboratories, studios, practice rooms, or other specialized facilities
P	F	G	E	X	U	Tutoring or other individualized help
P	F	G	E	X	U	Training in foreign languages
P	F	G	E	X	U	English language training
P	F	G	E	X	U	Colloquia or special lectures
P	F	G	E	X	U	Evaluation for nonacademic learning
P	F	G	E	X	U	Cultural events such as concerts and plays
P	F	G	E	X	U	Athletic events such as basketball and hockey games
P	F	G	E	X	U	Recreational facilities such as handball or tennis courts or a pool
P	F	G	E	X	U	Peer support groups serving, for example, adult women or exam candidates
P	F	G	E	X	U	Informal contact with other students at this school
P	F	G	E	X	U	Part-time employment for students such as assistantships, Work-Study, etc.
P	F	G	E	X	U	Emergency short-term loans
P	F	G	E	X	U	Long-term loans such as Guaranteed Student Loans
P	F	G	E	X	U	Placement service for graduates of the institution
P	F	G	E	X	U	Employment service for students working while in school
P	F	G	E	X	U	Financial planning assistance
P	F	G	E	X	U	Tuition payment options such as deferred payment, credit cards, installments
P	F	G	E	X	U	Parking facilities
P	F	G	E	X	U	Public transportation (city or campus)
P	F	G	E	X	U	Personal counseling
P	F	G	E	X	U	Career counseling by department or centrally
P	F	G	E	X	U	Health care facilities
P	F	G	E	X	U	Health insurance for students and their families
P	F	G	E	X	U	Child care service
P	F	G	E	X	U	Service to locate you in case of family emergency
P	F	G	E	X	U	Registration options such as by mail, by phone, or for extended times
P	F	G	E	X	U	Cafeteria, restaurant, or snack facilities
P	F	G	E	X	U	Lounge and study areas
P	F	G	E	X	U	Campus housing
P	F	G	E	X	U	Protection of safety and security of students on and/or near campus

F4

Most of the following questions are from the "Graduate Program Self-Assessment" questionnaires developed and copyrighted by the Educational Testing Service; these questions are reprinted here with the permission of ETS.

L. Please rate each of the following aspects of your department or graduate program(s). *Please circle one response per item.*

- (P) POOR
 (F) FAIR
 (G) GOOD
 (E) EXCELLENT

- P F G E Intellectual environment
 P F G E Advising about the program
 P F G E Career advising
 P F G E Agreement between degree requirements and stated objectives of the program
 P F G E Administration of degree requirements
 P F G E Available library holdings in your field
 P F G E Specialized facilities such as laboratories, studios, and equipment needed for teaching and creative work in your field
 P F G E Interaction between department and related disciplines at this school
 P F G E Scholarly and professional competence of the program's faculty
 P F G E Regularity of offering courses listed in the catalog
 P F G E Scholarly and professional promise of graduate students in the program
 P F G E Relevance of degree requirements to anticipated work in the field
 P F G E Opportunities for student participation in departmental decisions affecting them
 P F G E Evaluation procedures used in graduate courses (e.g., grades, papers)
 P F G E Teaching methods used in graduate courses (e.g., lectures, seminars, audiovisual aids)
 P F G E Variety of graduate course and program offerings
 P F G E Depth in subject matter of graduate course and program offerings
 P F G E Flexibility of program to meet individual student needs
 P F G E Accessibility of instructors to students
 P F G E Opportunities for students to pursue individual projects
 P F G E Evaluation of student progress toward a degree
 P F G E Faculty-student relationships
 P F G E Admissions procedures
 P F G E Overall quality of teaching at the graduate level in the program
 P F G E Relevance of required or recommended courses in related fields to program objectives
 P F G E *(If you teach doctoral students)* Evaluation of doctoral student comprehensive comprehensive examinations and/or qualifying examinations
 P F G E *(If you teach doctoral students)* Departmental procedures for dissertation supervision and defense
 P F G E *(If you teach master's students who are required to write a thesis)* Departmental procedures for master's thesis supervision and acceptance
 P F G E Opportunities for students to develop mentors or sponsors among program faculty
 P F G E Evaluation of students' professional competency
 P F G E University commitment to the program
 P F G E Usefulness of faculty criticism of student work
 P F G E Faculty helpfulness in dealing with classwork
 P F G E Faculty awareness of new developments in the field
 P F G E Overall adequacy of financial resources for graduate students in the program
 P F G E Space and other facilities for classes and administration
 P F G E Number of support staff (including student assistants) for the program
 P F G E Quality of support staff

F5

M. To what extent do you agree with the following statements about your department, its graduate programs, or its graduate students? *Circle one response per item.*

(DS) DISAGREE STRONGLY

(D) DISAGREE WITH RESERVATIONS

(A) AGREE WITH RESERVATIONS

(AS) AGREE STRONGLY

(NA) NOT APPLICABLE

DS	D	A	AS	NA	Faculty members are interested in the welfare and professional development of graduate students.
DS	D	A	AS	NA	Different scholarly points of view are encouraged.
DS	D	A	AS	NA	Part-time master's students work hard to meet the demands of their program.
DS	D	A	AS	NA	Full-time master's students work hard to meet the demands of their program.
DS	D	A	AS	NA	Part-time doctoral students work hard to meet the demands of their program.
DS	D	A	AS	NA	Full-time doctoral students work hard to meet the demands of their program.
DS	D	A	AS	NA	The department has a humane environment characterized by mutual respect and concern between students and professors.
DS	D	A	AS	NA	Part-time master's students tend to support and help each other meet the program's academic demands.
DS	D	A	AS	NA	Full-time master's students tend to support and help each other meet the program's academic demands.
DS	D	A	AS	NA	Part-time doctoral students tend to support and help each other meet the program's academic demands.
DS	D	A	AS	NA	Full-time doctoral students tend to support and help each other meet the program's academic demands.
DS	D	A	AS	NA	The program is (programs are) intellectually stimulating and exciting.
DS	D	A	AS	NA	The faculty actively helps program graduates find appropriate employment.
DS	D	A	AS	NA	Faculty members prepare carefully for their graduate courses.
DS	D	A	AS	NA	Part-time master's students in the program pursue subjects by doing a lot of unassigned reading.
DS	D	A	AS	NA	Full-time master's students in the program pursue subjects by doing a lot of unassigned reading.
DS	D	A	AS	NA	Part-time doctoral students in the program pursue subjects by doing a lot of unassigned reading.
DS	D	A	AS	NA	Full-time doctoral students in the program pursue subjects by doing a lot of unassigned reading.
DS	D	A	AS	NA	The quality of courses taught off-campus is as good as that of those taught on the main campus.
DS	D	A	AS	NA	Some professors in the department unduly exploit their students to advance their own research or careers.
DS	D	A	AS	NA	The department is a collection of individuals; very little in the way of truly team or joint effort takes place.
DS	D	A	AS	NA	This department's master's program is one of the best in the field.
DS	D	A	AS	NA	This department's doctoral program is one of the best in the field.
DS	D	A	AS	NA	Members of the faculty work together to achieve program goals.
DS	D	A	AS	NA	The faculty is receptive to new ideas and ways of doing things.
DS	D	A	AS	NA	There is good communication between faculty and graduate students regarding student needs, concerns, and suggestions.
DS	D	A	AS	NA	There are many opportunities for student-faculty interaction outside the classroom.
DS	D	A	AS	NA	My professional responsibilities in the department create conflicting demands that are a source of personal strain.
DS	D	A	AS	NA	My personal views about graduate education are compatible with the objectives and procedures of the department.
DS	D	A	AS	NA	Faculty in the department feel secure in their academic freedom to conduct courses and research.

M. (Continued)

(DS) DISAGREE STRONGLY

(D) DISAGREE WITH RESERVATIONS

(A) AGREE WITH RESERVATIONS

(AS) AGREE STRONGLY

(NA) NOT APPLICABLE

DS	D	A	AS	NA	Part-time master's students in this program demonstrate enthusiastic involvement with the field during informal discussions.
DS	D	A	AS	NA	Full-time master's students in this program demonstrate enthusiastic involvement with the field during informal discussions.
DS	D	A	AS	NA	Part-time doctoral students in this program demonstrate enthusiastic involvement with the field during informal discussions.
DS	D	A	AS	NA	Full-time doctoral students in this program demonstrate enthusiastic involvement with the field during informal discussions.
DS	D	A	AS	NA	The department tends to put more emphasis on training technically competent craftsmen than on training idea-oriented scholars.
DS	D	A	AS	NA	Part-time master's students here handle course assignments with care and responsibility.
DS	D	A	AS	NA	Full-time master's students here handle course assignments with care and responsibility.
DS	D	A	AS	NA	Part-time doctoral students here handle course assignments with care and responsibility.
DS	D	A	AS	NA	Full-time doctoral students here handle course assignments with care and responsibility.
DS	D	A	AS	NA	In general, I am satisfied with my opportunities to influence departmental policies and decisions.
DS	D	A	AS	NA	Part-time master's students here continue to work on projects until they are successfully completed despite one or more setbacks.
DS	D	A	AS	NA	Full-time master's students here continue to work on projects until they are successfully completed despite one or more setbacks.
DS	D	A	AS	NA	Part-time doctoral students here continue to work on projects until they are successfully completed despite one or more setbacks.
DS	D	A	AS	NA	Full-time doctoral students here continue to work on projects until they are successfully completed despite one or more setbacks.
DS	D	A	AS	NA	Professors in the department have a realistic view of students' responsibilities outside the program.
DS	D	A	AS	NA	I try to use many examples in my graduate teaching.
DS	D	A	AS	NA	Seniors majoring in this field here are superior to our incoming graduate students.
DS	D	A	AS	NA	Part-time graduate students in the program are not as committed to academic achievement as full-time students.
DS	D	A	AS	NA	Graduate classes which meet during the day are more lively than night classes because the students are less tired.
DS	D	A	AS	NA	Graduate classes which meet at night are more lively because some students are older and have more experience to relate to course material.
DS	D	A	AS	NA	Students who interrupt their graduate education to concentrate on work or family responsibilities do not do as well when they return to school as students who maintain continuous enrollment.
DS	D	A	AS	NA	When considering who to admit to graduate school, the increased maturity and motivation of older applicants should partially offset out-dated prerequisite courses and/or lower undergraduate grade point averages.
DS	D	A	AS	NA	This is a good department in which to work.
DS	D	A	AS	NA	Part-time graduate students are often distracted by their extracurricular responsibilities (family, work, etc.) and do not learn as well as full-time graduate students.
DS	D	A	AS	NA	Part-time graduate students are less likely than full-time students to accept professors' guidance or opinions.

F8

P. Do graduate courses you teach designed for part-time and/or older students differ from those you do or would design primarily for full-time students in any of the following ways? Please circle a 1 for each modification you make for part-time graduate students.

- 1 NOT APPLICABLE; DON'T HAVE BOTH TYPES
- 1 HAVE NOT TAUGHT BOTH TYPES HERE
- 1 FEWER TEXTBOOKS REQUIRED
- 1 FEWER OUTSIDE READINGS REQUIRED
- 1 FEWER OR SHORTER PAPERS REQUIRED
- 1 FEWER GUEST SPEAKERS SCHEDULED
- 1 MORE GUEST SPEAKERS SCHEDULED
- 1 FEWER OR SHORTER EXAMINATIONS
- 1 MORE CLASS PARTICIPATION EXPECTED
- 1 MORE PRACTICALLY ORIENTED
- 1 LESS MATERIAL COVERED PER TERM
- 1 OTHER (SPECIFY):

Q. Do graduate courses in your department taught off-campus differ from those you do or would teach on-campus in any of the following ways? Please circle a 1 for each modification you make for off-campus graduate courses.

- 1 NOT APPLICABLE; BOTH TYPES NOT OFFERED
- 1 NOT FAMILIAR WITH BOTH TYPES HERE
- 1 FEWER TEXTBOOKS REQUIRED
- 1 FEWER OUTSIDE READINGS REQUIRED
- 1 FEWER OR SHORTER PAPERS REQUIRED
- 1 FEWER GUEST SPEAKERS SCHEDULED
- 1 MORE GUEST SPEAKERS SCHEDULED
- 1 FEWER OR SHORTER EXAMINATIONS
- 1 MORE PRACTICALLY ORIENTED
- 1 MORE CLASS PARTICIPATION EXPECTED
- 1 LESS MATERIAL COVERED PER TERM
- 1 OTHER (SPECIFY):

R. Please circle one response on each line for the following items.

(FT) FULL-TIME

(PT) PART-TIME

(DK) DON'T KNOW

(NA) NOT APPLICABLE

- | | | | | |
|----|----|----|----|---|
| FT | PT | DK | NA | Status of most graduate students in your <u>master's</u> program(s) |
| FT | PT | DK | NA | Status of most graduate students in your <u>doctoral</u> program(s) |
| FT | PT | DK | NA | For what type of study was your <u>master's</u> program designed? |
| FT | PT | DK | NA | For what type of study was your <u>doctoral</u> program designed? |

Continue in right-hand column.

S. When do your department's graduate courses meet? Please circle a 1 for each response that applied to a significant number of courses.

- 1 WEEKDAYS BETWEEN 8 A.M. AND 4 P.M.
- 1 WEEKDAYS AFTER 4 P.M.
- 1 WEEKENDS
- 1 DAYTIME DURING SUMMER
- 1 EVENING DURING SUMMER
- 1 SUMMER WEEKENDS
- 1 OTHER (SPECIFY):

T. How long do most of your graduate classes meet? Please circle one number only for the most usual schedule.

- 1 1 TO 2 HOURS PER SESSION
- 2 2 TO 3 HOURS PER SESSION
- 3 HALF A DAY
- 4 ALL DAY
- 5 OTHER (SPECIFY):

U. How often do most of your graduate classes meet? Please circle only one.

- 1 2 OR 3 TIMES PER WEEK
- 2 ONCE PER WEEK
- 3 2 OR 3 WEEKENDS PER TERM
- 4 SEVERAL CONSECUTIVE INTENSE DAYS PER TERM
- 5 OTHER (SPECIFY):

V. How are your office hours distributed? If held by appointment, what is the usual number of hours per week spent in each category? Please write in a number in each box. Include leading zeros, e.g. 02

Number of
hours per week

- | | | |
|--------------------------|--------------------------|------------------------------------|
| ☐ | ☐ | WEEKDAYS BETWEEN 8 A.M. AND 4 P.M. |
| ☐ | ☐ | WEEKDAYS AFTER 4 P.M. |
| ☐ | ☐ | WEEKENDS |

W. How many classes are you teaching spring term in each of the following categories? Please write a number, including zeros, in each box.

- | | | |
|--------------------------|--------------------------|---|
| ☐ | ☐ | LOWER DIVISION UNDERGRADUATE CLASSES |
| ☐ | ☐ | UPPER DIVISION UNDERGRADUATE CLASSES |
| ☐ | ☐ | ON-CAMPUS DAYTIME GRADUATE CLASSES |
| ☐ | ☐ | ON-CAMPUS EVENING OR WEEKEND GRADUATE CLASSES |
| ☐ | ☐ | OFF-CAMPUS GRADUATE CLASSES |
| ☐ | ☐ | OTHER (SPECIFY): |

F9

The typical graduate student used to be a person who enters graduate school directly after receiving a baccalaureate degree and who studied full-time until completing a terminal graduate degree, supported by a combination of fellowships, graduate assistantships, loans, and/or parental assistance.

X. Do most graduate students in your program(s) fit into this "traditional" model?
Please circle one response.

- 1 DON'T KNOW
- 2 YES
- 3 NO

Y. If "No", what problems have you encountered in dealing with nontraditional graduate students?

Z. If "No", how has accomodating nontraditional graduate students affected the quality of your graduate programs?

Finally, we need some information about you for statistical purposes.

AA. How many professional publications or other products in each of the following areas have you had in the past five years? *Please write a number in each box.*

- ☐ ☐ PROFESSIONAL ARTICLES AND SINGLE CHAPTERS IN BOOKS
- ☐ ☐ AUTHORED OR EDITED BOOKS
- ☐ ☐ MONOGRAPHS, MANUALS, OR SCHOLARLY REVIEWS
- ☐ ☐ SPONSORED EXHIBIT OF ARTISTIC OR OTHER CREATIVE WORK
- ☐ ☐ PUBLIC PERFORMANCE OF ARTISTIC CREATION OR PRODUCTION

BB. How many times in the past two years have you presented some of your research results or other scholarly material? *Write a number in each box.*

- ☐ ☐ AT REGIONAL OR NATIONAL PROFESSIONAL MEETINGS
- ☐ ☐ AT SCHOLARLY COLLOQUIA OR AS A VISITING PROFESSOR ON ANOTHER CAMPUS

CC. What basis is your present academic appointment? *Circle one response.*

- 1 FULL-TIME (9, 10, or 12 months)
- 2 PART-TIME

Continue in right-hand column

DD. What is your present academic rank?
Please circle one response.

- 1 DO NOT HOLD RANK DESIGNATION
- 2 ADJUNCT FACULTY MEMBER
- 3 LECTURER OR INSTRUCTOR
- 4 ASSISTANT PROFESSOR
- 5 ASSOCIATE PROFESSOR
- 6 PROFESSOR

EE. If you had your choice, what would be your primary professional activity?
Circle only one item below representing your highest preference.

- 1 RESEARCH
- 2 RESEARCH & TEACHING ABOUT EQUALLY
- 3 TEACHING
- 4 ADMINISTRATION OR MANAGEMENT
- 5 OTHER PROFESSIONAL SERVICES
- 6 OTHER

FF. What is your highest earned degree?
Please circle only one response.

- 1 PH.D.
- 2 OTHER DOCTORATE (Ed.D., M.D., etc.)
- 3 MASTER'S OR EQUIVALENT
- 4 BACHELOR'S

GG. In what year did you receive your highest degree? *Write in two numbers.*

19 ☐ ☐

F10

HH. Approximately what percentage of your total professional time is spent in the following activities? Please write a number in each box.

- ☐ ☐ % TEACHING, ADVISING STUDENTS, COURSE PREPARATION, & RELATED ACTIVITIES
- ☐ ☐ % RESEARCH OR SCHOLARLY WORK SUCH AS COMPOSING OR WRITING
- ☐ ☐ % DEPARTMENT OR INSTITUTIONAL ADMINISTRATION
- ☐ ☐ % CONSULTING OR CONTRIBUTED COMMUNITY SERVICE
- ☐ ☐ % PRIVATE PRACTICE
- ☐ ☐ % OTHER EMPLOYMENT
- ☐ ☐ % OTHER PROFESSIONAL ACTIVITY

II. How many years of professional experience have you had in each of the following situations? Please write a number in each box.

- ☐ ☐ FULL-TIME EMPLOYMENT AT THIS INSTITUTION
- ☐ ☐ PART-TIME EMPLOYMENT AT THIS INSTITUTION
- ☐ ☐ FULL-TIME EMPLOYMENT ELSEWHERE IN HIGHER EDUCATION
- ☐ ☐ PART-TIME EMPLOYMENT ELSEWHERE IN HIGHER EDUCATION
- ☐ ☐ PART-TIME CONSULTANT WHILE A FACULTY MEMBER
- ☐ ☐ FULL-TIME EMPLOYMENT OUTSIDE HIGHER EDUCATION
- ☐ ☐ PART-TIME EMPLOYMENT OUTSIDE HIGHER EDUCATION
- ☐ ☐ OTHER (PLEASE EXPLAIN):

JJ. To what extent are you involved with the department? Circle one per item.

(N) NEVER

(O) OCCASSIONALLY

(F) FREQUENTLY

(NA) NOT APPLICABLE

- N O F NA Teach courses required by the graduate program(s)
- N O F NA Participate in policy and curriculum decisions
- N O F NA Direct independent studies, theses, or dissertations
- N O F NA Supervise field work or internships
- N O F NA Participate in composing or grading department exams
- N O F NA Serve as faculty adviser to students
- N O F NA Arrange student contacts with nonacademic professionals
- N O F NA Other

Continue in right-hand column.

KK. Please circle Y or N for each of the following items.

(Y) YES

(N) NO

- Y N Do you have tenure at this institution?
- Y N Were you ever a part-time graduate student?
- Y N Did you attend college for one or more terms while employed full-time as other than a graduate assistant?
- Y N Were you enrolled fairly continuously from beginning college to completing your highest earned degree?
- Y N Did you commute five or more miles between your home or job and classes for a portion of your graduate study?
- Y N Do you prefer teaching theoretical material rather than concentrating on its applications?
- Y N Can you distinguish the part-time from the full-time graduate students in your courses?

LL. How was your employment as a graduate student related to your educational goals? Please circle the number for the alternative that best describes the most significant period of employment while you were a graduate student.

- 1 RELATED TO MY EDUCATIONAL GOALS
- 2 RELATED TO MY EMPLOYMENT GOALS
- 3 RELATED TO BOTH EDUCATIONAL & JOB GOALS (perhaps, e.g., grad. assistantship)
- 4 RELATED TO NEITHER TYPE OF GOAL
- 5 NOT EMPLOYED WHILE IN GRADUATE SCHOOL

MM. How old are you?

☐ ☐ YEARS OLD

NN. What sex are you? Circle one.

- 1 MALE
- 2 FEMALE

OO. Of which group do you consider yourself to be a member? Circle only one.

- 1 NON-RESIDENT ALIEN
- 2 WHITE/CAUCASIAN, NON-HISPANIC
- 3 BLACK/AFRO-AMERICAN, NON-HISPANIC
- 4 CHICANO/MEXICAN AMERICAN
- 5 OTHER HISPANIC/SPANISH AMERICAN
- 6 AMERICAN INDIAN/ALASKAN NATIVE
- 7 ASIAN AMERICAN/PACIFIC ISLANDER

Please finish on the back.

F11

PP. Please indicate whether you have had experience in each of the following areas.

(Y) YES

(N) NO

↓ ↓

- Y N Have you served on a professional, government, or foundation review committee, site visit team, or national advisory council in the last three years?
- Y N Have you received an award or otherwise been recognized for outstanding teaching?
- Y N Have you received an award or otherwise been recognized for outstanding research or other scholarly or creative work?
- Y N Have you received an award or otherwise been recognized for outstanding professional practice?
- Y N Have you held office in or served on the board of a national professional association or organization?
- Y N Have you held office in or served on any committee of a state or regional professional organization?
- Y N Have you been the editor of a journal in your field or served as a member of a professional journal editorial board?
- Y N Have you refereed articles submitted to a professional journal in your field in the last two years?
- Y N Do you have an institutional or department grant to support your research or other scholarly or creative work this year?
- Y N Do you have a grant or contract with an agency outside the institution to support your research or other scholarly or creative work this year?
- Y N Have you had a grant or contract with an agency outside the institution to support your research or other scholarly or creative work in the last three years?

QQ. What is your primary language?
Please circle only one.

- 1 ENGLISH
2 SPANISH
3 OTHER

Continue at right.

RR. How many graduate students are enrolled in programs in your department?
Please write a number in each box.

MASTER'S STUDENTS
DOCTORAL STUDENTS
NON-DEGREE STUDENTS

Please accept our heartfelt thanks for your help. Would you please evaluate the questionnaire below?

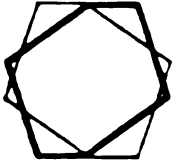
1. Were any questions hard to understand or answer? How could they be improved?
Please feel free to write comments near the particular questions.
2. What other questions should we ask in order to understand your personal situation and/or that of your department's graduate programs or students?
3. Other comments?

Again, our sincere thanks.

APPENDIX D-2

COVER LETTERS, ORIGINAL MAILING

COVER LETTERS, ORIGINAL MAILING



The Graduate School and University Center
of the City University of New York

Office of the Dean of Graduate Studies
Graduate Center, 33 West 42 Street, New York, N.Y. 10036
212 790-4486

May 25, 1982

A small group of GSUC graduate students have been selected by random sample to detail their needs and evaluate their programs. As the academic adviser or instructor of one or more of these selected students, we also need your views on your program and the university's support system. Your response is essential if the results are to truly represent the situation of all our graduate students.

You may be assured of complete confidentiality. The questionnaire has an identification number so that we may check your name off of the mailing list when your return is received. Your name will never be placed on the form or in the data set. Only summary data will be reported either within or outside the University.

The results of this research will assist our decisions about graduate student services and programs at the GSUC. They will also be combined with results from four other universities to begin determining the characteristics, needs, and problems of graduate students across the country. The Council of Graduate Schools plans to enlarge the project next year to include a random sample of all United States graduate students and their advisers or instructors. Thus your reply, especially the evaluation section at the end, will have nation-wide impact.

I hope that you will complete the survey within the next day or two. Should you decide not to participate, we would greatly appreciate your return of the questionnaire with, if you would, a note explaining your decision. If you would like to receive a copy of the results of this study, please write "copy of results requested" and your name and address on the back of the return envelope (not on the questionnaire, please). The results will be published next fall.

Thank you for your assistance.

Sincerely yours,

Norma S. Rees
Norma S. Rees
Dean of Graduate Studies

NSR:hwn
Enclosure

Roosevelt University
430 South Michigan Avenue, Chicago, Illinois 60605
Telephone 312/341-3540

Vice President for Student Services and
Dean of Students
May 27, 1982

Dear :

The past ten years have seen a significant changes in the characteristics of graduate students population as well as in graduate programs. No one knows how well existing academic and support programs are serving today's graduate students. Yet, in order to best serve graduate students, we must have good information on these topics.

In a survey sponsored by The Council of Graduate Schools, a small randomly selected group of Roosevelt graduate students is being asked to detail their needs and evaluate their programs. Because you are the academic adviser of one or more of these selected students, we also need your views on your department's graduate program and the university's services. Your response is essential if the results are to be fully usable in improving services for our graduate students.

You may be assured of complete confidentiality. The questionnaire has an identification number so that we may check your name off the mailing list we receive your return. Your name will never be placed on the form or in the data set. Only summary data will be reported either inside or outside the University.

The results of this research will assist us in improving graduate student services and programs at Roosevelt. They will also be combined with results from four other universities to begin determining the characteristics, needs, and problems of graduate students across the country. The Council of Graduate Schools plans to enlarge the project next year to include a random sample of all United States graduate students and their advisers or instructors. Thus your reply, especially the evaluation section at the end, will have nationwide impact.

I hope that you will complete the survey within the next day or two. Should you decide not to participate, we would greatly appreciate your returning the questionnaire with a brief note explaining your decision. If you would like to receive a copy of the results of this study, please write "copy of results requested" and your name and address on the back of the return envelope (not on the questionnaire, please). The results will be published next fall.

If you have any questions regarding this survey, please write or call me at 341-3540. I will be most happy to discuss the project with you.

Thank you for your assistance.

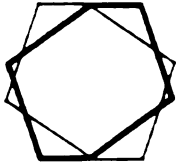
Sincerely,

Dominic Martia
Vice President for Student Services and
Dean of Students
DM/njm

APPENDIX D-3

FOLLOW-UP LETTER

FOLLOW-UP LETTER



The Graduate School and University Center
of the City University of New York

Office of the Dean of Graduate Studies
Graduate Center, 33 West 42 Street, New York, N.Y. 10036
212 790-4488

Last week a Council of Graduate Schools questionnaire seeking your opinions about our graduate programs and support services was mailed to you.

If you have already completed and returned it to us, please accept our sincere thanks. If not, please do so today. Because only a small random sample of our students and faculty are being surveyed, it is extremely important that your responses be included in the study if the results are to accurately represent our graduate students and faculty.

In case you did not receive the questionnaire, or it has been misplaced, please phone Ms. Charlotte Frick (Ext. 4468) and we will send another one today. Many thanks for your cooperation.

Sincerely,

Norma S. Rees
Dean of Graduate Studies

NSR:hwn

APPENDIX E-1

FREQUENCY DISTRIBUTIONS FOR
ROOSEVELT UNIVERSITY STUDENTS

WHAT DO GRADUATE STUDENTS NEED? ARE THEY GETTING IT?

INSTITUTION: Roosevelt University

SAMPLE SIZE: 87 NUMBER RETURNED: 54 RESPONSE RATE: 62.1%

HEGIS CODES

#	%	
0	-	01--Agriculture & Natural Resources
0	-	02--Architecture & Environmental Design
0	-	03--Area Studies
0	-	04--Biological Sciences
22	41.	05--Business & Management
0	-	06--Communications
0	-	07--Computer & Information Sciences
8	15.	08--Education
0	-	09--Engineering
1	2.	10--Fine & Applied Arts
1	2.	11--Foreign Languages
0	-	12--Health Professions
0	-	13--Home Economics
0	-	14--Law
0	-	15--Letters
0	-	16--Library Science
0	-	17--Mathematics
1	2.	19--Physical Sciences
8	15.	20--Psychology
3	6.	21--Public Affairs & Services
2	4.	22--Social Sciences
0	-	23--Theology
8	15.	49--Interdisciplinary Studies
0	-	98--Other, Undeclared

Roosevelt Univ. Frequency Distributions
Page 2

NO PROBLEM		PROBLEM		WORST PROBLEM		
#	%	#	%	#	%	
<u>Institutional Problems</u>						
41	76.	12	22.	1	2.	Meeting course requirements
43	80.	10	19.	6	11.	Acceptance of previously earned credit
33	61.	20	37.	6	11.	Accessibility of major prof./advisor
34	63.	19	35.	3	6.	Availability of library materials
51	94.	2	4.	0	-	Adequacy of laboratory facilities
45	83.	8	15.	1	2.	Adequacy of computer facilities
50	93.	3	6.	0	-	Adequacy of studios, specialized facil.
37	69.	16	30.	7	13.	General quality of instruction
49	91.	4	7.	0	-	Availability of internship/practicum
49	91.	4	7.	2	4.	Approval of dissert./thesis topic or final draft
51	94.	2	4.	0	-	Residence requirement
43	80.	10	19.	2	4.	Time limit for completing degree
47	87.	6	11.	4	7.	Penalties for "stopping out"
49	91.	4	7.	1	2.	Foreign language requirement
39	72.	14	26.	1	2.	Getting information about institution
36	67.	17	31.	0	-	Getting information about department
19	35.	34	63.	20	37.	Times, locations, frequency of courses
40	74.	13	24.	1	2.	Times administrative offices are open
41	76.	12	22.	2	4.	Times services are available
		1	2.	6	11.	<u>No response</u> (No problems; no one worst)
<u>Personal Problems</u>						
28	52.	25	46.	13	24.	Financing education
22	41.	31	57.	10	19.	Finding time to study
45	83.	8	15.	0	-	Adequacy of places to study
18	33.	35	65.	12	22.	Job responsibilities
46	85.	7	13.	0	-	Employer attitudes
35	65.	18	33.	4	7.	Family responsibilities
47	87.	6	11.	0	-	Attitudes of family members
50	93.	3	6.	0	-	Opportunities for spouse
50	93.	3	6.	0	-	Community responsibilities
40	74.	13	24.	2	4.	Transportation
35	65.	18	33.	2	4.	Attitudes of some instructors
48	89.	5	9.	0	-	Attitudes of some fellow students
44	81.	9	17.	0	-	Academic skills
46	85.	7	13.	1	2.	Physical stamina
46	85.	7	13.	1	2.	Self-confidence
42	78.	11	20.	3	6.	Working with other students on projects
45	83.	8	15.	2	4.	Opportunities to use skills or knowledge
49	91.	4	7.	0	-	Communicating in English
		1	2.	4	7.	<u>No response</u> (No problems; no one worst)

Roosevelt Univ. Frequency Distributions
Page 3

VERY IMPORTANT		SOMEWHAT IMPORTANT		NOT IMPORTANT		NO RESPONSE		
N	%	N	%	N	%	N	%	
<u>Importance of Institutional Services</u>								
9	17.	10	19.	34	63.	1	2.	Opportunities for teaching exper.
6	11.	18	33.	28	52.	2	4.	Opportunities for research exper.
47	87.	6	11.	1	2.	0	-	Courses taught evenings/weekends
37	69.	14	26.	2	4.	1	2.	Courses which meet once a week
28	52.	4	7.	20	37.	2	4.	Courses taught off-campus
4	7.	20	37.	29	54.	1	2.	Computer facilities
4	7.	17	31.	32	59.	1	2.	Computer consultants
5	9.	9	17.	39	72.	1	2.	Statistical consultants
25	46.	15	28.	12	22.	2	4.	Library facilities
6	11.	13	24.	34	63.	1	2.	Labs, studios, other special facil.
10	19.	15	28.	28	52.	1	2.	Tutoring, individualized help
3	6.	7	13.	43	80.	1	2.	Training in foreign languages
3	6.	4	7.	46	85.	1	2.	English language training
2	4.	15	28.	36	67.	1	2.	Colloquia, special lectures
4	7.	19	35.	30	56.	1	2.	Evaluation/credit for nonacademic learning
3	6.	15	28.	35	65.	1	2.	Cultural events
1	2.	9	17.	44	81.	0	-	Athletic events
3	6.	10	19.	40	74.	1	2.	Recreational facilities
1	2.	19	35.	33	61.	1	2.	Peer support groups
5	9.	27	50.	21	39.	1	2.	Informal contact with other students
13	24.	6	11.	34	63.	1	2.	Part-time employment
7	13.	13	24.	33	61.	1	2.	Emergency short-term loans
11	20.	11	20.	31	57.	1	2.	Long-term loans
24	44.	16	30.	13	24.	1	2.	Placement service for graduates
12	22.	11	20.	29	54.	2	4.	Employment service for students
11	20.	8	15.	34	63.	1	2.	Financial planning assistance
27	50.	20	37.	7	13.	0	-	Tuition payment options
31	57.	14	26.	8	15.	1	2.	Parking facilities
18	33.	14	26.	21	39.	1	2.	Public transportation
8	15.	19	35.	26	48.	1	2.	Personal counseling
12	22.	19	35.	22	41.	1	2.	Career counseling
8	15.	17	31.	28	52.	1	2.	Cafeteria, restaurant, snack facilities
10	19.	21	39.	22	41.	1	2.	Lounge and study areas
2	4.	3	6.	47	87.	2	4.	Campus housing
5	9.	11	20.	37	69.	1	2.	Health care facilities
6	11.	10	19.	37	69.	1	2.	Health insurance for students/families
4	7.	3	6.	46	85.	1	2.	Child care service
12	22.	12	22.	29	54.	1	2.	Emergency locator service
32	59.	17	31.	4	7.	1	2.	Registration options

Roosevelt Univ. Frequency Distributions
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POOR		FAIR		GOOD		EXCELLENT		NOT OFFER.		NOT USED		NO RESPONSE		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
<u>Quality of services</u>														
4	7.	3	6.	2	4.	2	4.	29	54.	13	24.	1	2.	2. Opportunities for teaching experience
5	9.	5	9.	6	11.	1	2.	19	35.	17	31.	1	2.	2. Opportunities for research experience
2	4.	3	6.	29	54.	17	31.	0	-	1	2.	2	4.	4. Courses taught evenings or weekends
3	6.	2	4.	29	54.	20	37.	0	-	0	-	0	-	0. Courses which meet once a week
2	4.	6	11.	18	33.	11	20.	0	-	16	30.	1	2.	2. Off-campus courses
0	-	4	7.	19	35.	16	30.	1	2.	13	24.	1	2.	2. Courses taught on the main campus
2	4.	8	15.	3	6.	2	4.	17	31.	21	39.	1	2.	2. Computer facilities
4	7.	5	9.	4	7.	1	2.	20	37.	19	35.	1	2.	2. Computer consultants
2	4.	3	6.	3	6.	1	2.	31	57.	14	26.	0	-	0. Statistical consultants
7	13.	12	22.	15	28.	7	13.	2	4.	11	20.	0	-	0. Library facilities
1	2.	3	6.	9	17.	0	-	17	31.	23	43.	1	2.	2. Labs, studios, specialized facilities
4	7.	2	4.	3	6.	3	6.	15	28.	26	48.	1	2.	2. Tutoring, individualized help
0	-	2	4.	2	4.	1	2.	21	39.	27	50.	1	2.	2. Training in foreign languages
0	-	0	-	4	7.	4	7.	20	37.	25	46.	1	2.	2. English language training
2	4.	1	2.	3	6.	1	2.	21	39.	24	44.	2	4.	4. Colloquia, special lectures
3	6.	0	-	2	4.	1	2.	25	46.	22	41.	1	2.	2. Evaluation for nonacademic learning
1	2.	1	2.	7	13.	2	4.	11	20.	31	57.	1	2.	2. Cultural events
1	2.	1	2.	1	2.	0	-	16	30.	34	63.	1	2.	2. Athletic events
4	7.	0	-	1	2.	0	-	26	48.	22	41.	1	2.	2. Recreational facilities
0	-	1	2.	2	4.	0	-	24	44.	26	48.	1	2.	2. Peer support groups
3	6.	8	15.	19	35.	5	9.	9	17.	10	19.	0	-	0. Informal contact with other students
1	2.	0	-	4	7.	3	6.	19	35.	25	46.	2	4.	4. Part-time employment for students
0	-	1	2.	2	4.	2	4.	25	46.	23	43.	1	2.	2. Emergency short-term loans
2	4.	0	-	6	11.	3	6.	15	28.	27	50.	1	2.	2. Long-term loans
4	7.	0	-	2	4.	2	4.	17	31.	26	48.	3	6.	6. Placement service for graduates
3	6.	0	-	2	4.	1	2.	23	43.	23	43.	2	4.	4. Employment service for students
2	4.	1	2.	0	-	2	4.	21	39.	27	50.	1	2.	2. Financial planning assistance
1	2.	6	11.	19	35.	14	26.	4	7.	8	15.	2	4.	4. Tuition payment options
13	24.	15	28.	6	15.	4	7.	6	11.	7	13.	1	2.	2. Parking facilities
1	2.	4	7.	17	31.	10	19.	10	19.	12	22.	0	-	0. Public transportation
2	4.	7	13.	9	17.	1	2.	13	24.	20	37.	2	4.	4. Personal counseling
2	4.	8	15.	7	13.	1	2.	15	28.	19	35.	2	4.	4. Career counseling
2	4.	2	4.	5	9.	1	2.	29	54.	15	28.	0	-	0. Health care facilities
2	4.	3	6.	3	6.	1	2.	26	48.	17	31.	2	4.	4. Health insurance for students, families
0	-	0	-	1	2.	0	-	34	63.	17	31.	2	4.	4. Child care service
1	2.	1	2.	1	2.	1	2.	31	57.	17	31.	2	4.	4. Emergency locator service
3	6.	14	26.	12	22.	12	22.	5	9.	7	13.	1	2.	2. Registration options
5	9.	14	26.	11	20.	3	6.	7	13.	12	22.	2	4.	4. Cafeteria, restaurant, snack facilities
5	9.	18	33.	11	20.	4	7.	6	11.	10	19.	0	-	0. Lounge and study areas
0	-	0	-	0	-	2	4.	22	41.	29	54.	1	2.	2. Campus housing
2	4.	10	19.	11	20.	2	4.	19	35.	10	19.	0	-	0. Protection of student safety, security

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QUALITY ASSESSMENTS OF THOSE RESPONDENTS WHO HAVE USED THE SERVICE

POOR		FAIR		GOOD		EXCELLENT		N		
#	%	#	%	#	%	#	%	#	%	
<u>Quality of services</u>										
4	36.	3	27.	2	18.	2	18.	11	20.	Opportunities for teaching experience
5	29.	5	29.	6	35.	1	6.	17	31.	Opportunities for research experience
2	4.	3	6.	29	57.	17	33.	51	94.	Courses taught evenings or weekends
3	6.	2	4.	29	54.	20	37.	54	100.	Courses which meet once a week
2	5.	6	16.	18	49.	11	30.	37	69.	Off-campus courses
0	-	4	10.	19	49.	16	41.	39	72.	Courses taught on the main campus
2	13.	8	53.	3	20.	2	13.	15	28.	Computer facilities
4	29.	5	36.	4	29.	1	7.	14	30.	Computer consultants
2	22.	3	33.	3	33.	1	11.	9	17.	Statistical consultants
7	17.	12	29.	15	37.	7	17.	41	76.	Library facilities
1	6.	3	23.	9	69.	0	-	13	24.	Labs, studios, specialized facilities
4	33.	2	17.	3	25.	3	25.	12	22.	Tutoring, individualized help
0	-	2	40.	2	20.	1	20.	5	10.	Training in foreign languages
0	-	0	-	4	50.	4	50.	8	15.	English language training
2	29.	1	14.	3	43.	1	14.	7	13.	Colloquia, special lectures
3	50.	0	-	2	33.	1	17.	6	11.	Evaluation for nonacademic learning
1	9.	1	9.	7	64.	2	18.	11	20.	Cultural events
1	33.	1	33.	1	33.	0	-	3	6.	Athletic events
4	80.	0	-	1	20.	0	-	5	9.	Recreational facilities
0	-	1	33.	2	67.	0	-	3	6.	Peer support groups
3	9.	8	23.	19	54.	5	14.	35	65.	Informal contact with other students
1	13.	0	-	4	50.	3	38.	8	15.	Part-time employment for students
0	-	1	20.	2	40.	2	40.	5	9.	Emergency short-term loans
2	18.	0	-	6	55.	3	27.	11	20.	Long-term loans
4	50.	0	-	2	25.	2	25.	8	15.	Placement service for graduates
3	50.	0	-	2	33.	1	17.	6	11.	Employment service for students
2	40.	1	20.	0	-	2	40.	5	9.	Financial planning assistance
1	2.	6	15.	19	48.	14	35.	40	74.	Tuition payment options
13	32.	15	38.	8	20.	4	10.	40	74.	Parking facilities
1	3.	4	13.	17	53.	10	31.	32	59.	Public transportation
2	11.	7	37.	9	47.	1	5.	19	35.	Personal counseling
2	11.	8	44.	7	39.	1	6.	18	33.	Career counseling
2	20.	2	20.	5	50.	1	10.	10	19.	Health care facilities
2	22.	3	33.	3	33.	1	11.	9	17.	Health insurance for students, families
0	-	0	-	1	100.	0	-	1	2.	Child care service
1	25.	1	25.	1	25.	1	25.	4	7.	Emergency locator service
3	7.	14	34.	12	29.	12	29.	41	76.	Registration options
5	15.	14	42.	11	33.	3	9.	33	61.	Cafeteria, restaurant, snack facilities
5	13.	18	47.	11	29.	4	11.	38	70.	Lounge and study areas
0	-	0	-	0	-	2	100.	2	4.	Campus housing
2	8.	10	40.	11	44.	2	8.	25	46.	Protection of student safety, security

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SEVERAL/ WEEK		SEVERAL/ MONTH		SEVERAL/ TERM		ONCE/ TERM		1-2/ YEAR		NOT 1/ YEAR		NOT AVAIL/ NEVER USED		NO RESPONSE		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
<u>Current Use of Services</u>																
0	-	1	2.	2	4.	2	4.	2	4.	5	9.	42	78.	0	-	Computer facilities
0	-	0	-	1	2.	2	4.	1	2.	3	6.	46	85.	1	2.	Computer consultants
0	-	1	2.	0	-	0	-	0	-	2	4.	51	94.	0	-	Statistical consultants
8	15.	7	13.	9	17.	9	17.	6	11.	2	4.	13	24.	0	-	Library facilities
3	6.	1	2.	2	4.	0	-	2	4.	2	4.	43	80.	1	2.	Labs, studios, special facilities
0	-	2	4.	0	-	0	-	2	4.	4	7.	45	83.	1	2.	Tutoring, individualized help
0	-	0	-	2	4.	0	-	2	4.	3	6.	46	85.	1	2.	Colloquia, special lectures
0	-	0	-	4	7.	0	-	3	6.	4	7.	42	78.	1	2.	Cultural events
0	-	0	-	0	-	2	4.	0	-	1	2.	50	93.	1	2.	Athletic events
0	-	0	-	2	4.	0	-	0	-	1	2.	50	93.	1	2.	Recreational facilities
0	-	0	-	1	2.	0	-	1	2.	0	-	51	94.	1	2.	Peer support groups
22	41.	12	22.	3	6.	1	2.	0	-	1	2.	15	28.	0	-	Parking facilities
12	22.	5	9.	2	4.	2	4.	2	4.	2	4.	29	54.	0	-	Public transportation
8	15.	10	19.	9	17.	3	6.	1	2.	0	-	23	43.	0	-	Cafeteria, restaurant, snacks
7	13.	12	22.	12	22.	3	6.	0	-	0	-	20	37.	0	-	Lounge and study areas
0	-	0	-	3	6.	2	4.	2	4.	1	2.	46	85.	0	-	Health care facilities
0	-	0	-	0	-	0	-	0	-	2	4.	52	96.	0	-	Child care service

FREQUENCY OF USE BY THOSE WHO HAVE USED SERVICE

SEVERAL/ WEEK		SEVERAL/ MONTH		SEVERAL/ TERM		ONCE/ TERM		1-2/ YEAR		NOT 1/ YEAR		NUMBER USING		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
<u>Current Use of Services</u>														
0	-	1	6.	2	17.	2	17.	2	17.	5	42.	12	22.	Computer facilities
0	-	0	-	1	14.	2	29.	1	14.	3	43.	7	13.	Computer consultants
0	-	1	33.	0	-	0	-	0	-	2	67.	3	6.	Statistical consultants
8	20.	7	17.	9	22.	9	22.	6	15.	2	5.	41	76.	Library facilities
3	30.	1	10.	2	20.	0	-	2	20.	2	20.	10	19.	Labs, studios, special facilities
0	-	2	25.	0	-	0	-	2	25.	4	50.	8	15.	Tutoring, individualized help
0	-	0	-	2	29.	0	-	2	29.	3	43.	7	13.	Colloquia, special lectures
0	-	0	-	4	36.	0	-	3	27.	4	36.	11	20.	Cultural events
0	-	0	-	0	-	2	67.	0	-	1	33.	3	6.	Athletic events
0	-	0	-	2	67.	0	-	0	-	1	33.	3	6.	Recreational facilities
0	-	0	-	1	50.	0	-	1	50.	0	-	2	4.	Peer support groups
22	56.	12	31.	3	8.	1	3.	0	-	1	3.	39	72.	Parking facilities
12	48.	5	20.	2	8.	2	8.	2	8.	2	8.	25	46.	Public transportation
8	26.	10	32.	9	29.	3	10.	1	3.	0	-	31	57.	Cafeteria, restaurant, snacks
7	21.	12	35.	12	35.	3	9.	0	-	0	-	34	63.	Lounge and study areas
0	-	0	-	3	38.	2	25.	2	25.	1	13.	8	15.	Health care facilities
0	-	0	-	0	-	0	-	0	-	2	100.	2	4.	Child care service

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Type of Program in Which Enrolled

NON-DEGREE		MASTER'S		CERTIFI- CATE		INTER- MEDIATE		FIRST PROF.		DOCTORATE		POST- DOC.		NO RESPONSE	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
2	4.	52	96.												

Most of the following questions evaluating graduate programs were from the "Graduate Program Self-Assessment" questionnaire developed and copyrighted by the Educational Testing Service; these questions were reprinted with the permission of ETS. Students not registered in a degree program did not complete these items.

Percentages through page 10 are based on 52 responses unless otherwise indicated.

Degree of Importance

NONE		LITTLE		SOME		CONSID.		EXTREME		NO RESP.			
#	%	#	%	#	%	#	%	#	%	#	%	#	%
12	23.	11	21.	12	23.	14	27.	1	2.	2	4.	<u>Importance to Department</u>	
16	31.	10	19.	15	29.	8	15.	1	2.	2	4.	Prep. scholars/researchers	
1	2.	0	-	11	21.	26	50.	13	25.	1	2.	Preparing college teachers	
5	10.	7	13.	20	38.	15	29.	4	8.	1	2.	Preparing other practitioners	
3	6.	11	21.	18	35.	15	29.	3	6.	2	4.	Preparing for further study	
												For personal enrichment	
19	37.	10	19.	7	13.	11	21.	3	6.	2	4.	<u>Importance to Student</u>	
23	44.	8	15.	8	15.	4	8.	7	13.	2	4.	Prep. to be schol./researcher	
2	4.	3	6.	2	4.	15	29.	29	56.	1	2.	Prep. to be college teacher	
4	8.	6	12.	7	13.	19	37.	15	29.	1	2.	Preparing for other practice	
2	4.	3	6.	9	17.	14	27.	22	42.	2	4.	Preparing for further study	
												For personal enrichment	

SCORES ON ETS SCALES (N = 52)

(From 1=Poor to 4=Excellent)

NO RESP./ NOT CALC.		1		2		3		4			
#	%	#	%	#	%	#	%	#	%	#	%
3	6.	0	-	1	2.	46	88.	2	4.	Environment for learning	
1	2.	0	-	11	21.	37	71.	3	6.	Scholarly excellence of faculty	
1	2.	1	2.	6	12.	31	60.	13	25.	Overall satisfaction	
0	-	0	-	17	33.	30	58.	5	10.	Relevance of program	
1	2.	0	-	26	50.	21	40.	4	8.	Faculty concern for students	
2	4.	1	2.	24	46.	24	46.	1	2.	Curriculum	
0	-	1	2.	21	40.	25	48.	5	10.	Quality of teaching	
4	8.	2	4.	22	42.	24	46.	0	-	Evaluation of students	

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Number of Respondents in Degree Programs: 52

QUESTIONS FROM ETS GRADUATE PROGRAM SELF-ASSESSMENT

POOR		FAIR		GOOD		EXCELLENT		NO RESP.		
#	%	#	%	#	%	#	%	#	%	
<u>Ratings of Department</u>										
3	6.	15	29.	30	58.	4	8.	0	-	Intellectual environment
9	17.	14	27.	26	50.	3	6.	0	-	Advice about the program
13	25.	21	40.	15	29.	2	4.	1	2.	Career advice
1	2.	15	29.	33	63.	3	6.	0	-	Agreement between requirements and program objectives
3	6.	14	27.	30	58.	4	8.	1	2.	Administration of degree requirements
13	25.	20	38.	14	27.	2	4.	3	6.	Available library holdings in field
13	25.	27	52.	4	8.	1	2.	7	13.	Specialized facilities for work in field
7	13.	22	42.	16	31.	1	2.	6	12.	Interaction between department and related disciplines
1	2.	20	38.	24	46.	6	12.	1	2.	Scholarly/prof. competence of faculty
5	10.	18	35.	25	48.	1	2.	3	6.	Regularity of offering courses
4	8.	21	40.	24	46.	0	-	3	6.	Scholarly/prof. promise of grad. students
20	38.	19	37.	8	15.	0	-	5	10.	Opportunities for student participation in department decisions
2	4.	14	27.	30	58.	5	10.	1	2.	Relevance of degree requirements to anticipated work
4	8.	17	33.	26	50.	5	10.	0	-	Evaluation procedure in graduate courses
4	8.	20	38.	23	44.	5	10.	0	-	Teaching methods in graduate courses
2	4.	20	38.	26	50.	3	6.	1	2.	Variety of course/program offerings
2	4.	15	29.	28	54.	5	10.	2	4.	Depth of program offerings
9	17.	17	33.	16	31.	8	15.	2	4.	Flexibility of program
4	8.	20	38.	18	35.	9	17.	1	2.	Accessibility of course instructors
9	17.	18	35.	17	33.	6	11.	2	4.	Accessibility of adviser/thesis director
3	6.	27	52.	16	31.	3	6.	3	6.	Opportunities to pursue individual projects
12	23.	18	35.	19	37.	0	-	3	6.	Evaluation of progress toward degree
0	-	23	44.	25	48.	4	8.	0	-	Faculty-student relationships
5	10.	16	31.	26	50.	5	10.	0	-	Admissions procedures
4	8.	18	35.	23	44.	7	13.	0	-	Overall quality of teaching
0	-	19	37.	27	52.	3	6.	3	6.	Relevance of courses in related fields
-	-	-	-	-	-	-	-	-	-	Evaluation of doctoral comps/quals
-	-	-	-	-	-	-	-	-	-	Procedures for supervising dissertation
2	11.	7	37.	9	47.	1	5.	-	-	Procedures for supervising master's theses
16	31.	15	29.	13	25.	1	2.	7	13.	Opportunities to develop mentors/sponsors
14	27.	16	31.	16	31.	2	4.	4	8.	Evaluation of students' prof. competence
1	2.	19	37.	23	44.	6	11.	3	6.	University commitment to program
4	8.	25	48.	17	33.	3	6.	3	6.	Useful faculty criticism of work
1	2.	16	31.	26	50.	5	10.	4	8.	Faculty helpfulness in dealing with classwork
2	4.	12	23.	29	56.	8	15.	1	2.	Faculty awareness of new developments in field
4	8.	23	44.	18	35.	0	-	7	13.	Adequacy of financial resources for grad. students
6	12.	26	50.	14	27.	2	4.	4	8.	Facilities for classes, administration
5	10.	26	50.	15	29.	1	2.	5	10.	Number of support staff for program
4	8.	25	48.	14	27.	2	4.	7	13.	Quality of support staff

Roosevelt Univ. Frequency Distributions
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Number of Respondents in Degree Programs: 52

DISAGREE STRONGLY		DISAGREE SOME		AGREE SOME		AGREE STRONGLY		NO RESPONSE		
#	%	#	%	#	%	#	%	#	%	
<u>Degree of Agreement</u>										
1	2.	9	17.	30	58.	11	21.	1	2.	Faculty members are genuinely interested in welfare, prof. develop of grad. students
0	-	13	25.	27	52.	11	21.	1	2.	Different scholarly points of view are encouraged
1	2.	8	15.	21	40.	20	38.	2	4.	Graduate students work hard in this program
0	-	6	11.	31	60.	14	27.	1	2.	Department has a humane environment, mutual respect between students and professors
1	2.	8	15.	25	48.	17	33.	1	2.	I have learned a great deal in this program
2	4.	9	17.	30	58.	9	17.	2	4.	I would advise a friend to enroll in this program
10	19.	21	40.	14	27.	4	8.	3	6.	Graduate students do a lot of unassigned reading
1	2.	10	19.	26	50.	14	27.	1	2.	Program is intellectually stimulating
15	29.	21	40.	6	12.	4	8.	6	12.	Faculty members help graduates find employment
4	8.	12	23.	29	56.	5	10.	2	4.	Faculty members prepare carefully for their graduate courses
2	4.	8	15.	34	65.	7	13.	1	2.	Graduate students support, help each other
3	6.	8	15.	31	60.	9	17.	1	2.	If starting over, I would enroll again
1	2.	11	21.	29	56.	10	19.	1	2.	Program is providing good preparation for later professional work
3	6.	9	17.	29	56.	4	8.	7	13.	Members of faculty work together to achieve program goals
16	31.	18	35.	13	25.	3	6.	2	4.	Well advised on use of department's people and resources
7	13.	15	29.	19	37.	7	13.	4	8.	Faculty members help integrate past experience with new learning
17	33.	21	40.	8	15.	1	2.	5	10.	Some professors unduly exploit their students
3	6.	17	33.	17	33.	10	19.	5	10.	Department is collection of individuals, very little team effort
2	4.	9	17.	25	48.	4	8.	12	23.	Decisions about financial assistance are fair, equitable
2	4.	9	17.	32	62.	2	4.	7	13.	Faculty is receptive to new ideas, ways of doing things
4	8.	16	31.	22	42.	7	13.	3	6.	Good communication between faculty and graduate students
12	23.	20	38.	13	25.	6	12.	1	2.	Many opportunities for interaction with major professor outside classroom
11	20.	28	54.	9	17.	2	4.	2	4.	Many opportunities for interaction with other faculty outside classroom
4	8.	10	19.	24	46.	11	21.	3	6.	Most courses that count toward grad. degree are open only to graduate students
1	2.	12	23.	30	58.	7	13.	2	4.	Grad. students demonstrate enthusiastic involvement with the field
2	4.	3	6.	34	65.	11	21.	2	4.	Graduate students handle course assignments with care, responsibility
1	2.	5	10.	31	60.	14	27.	1	2.	Graduate students continue projects until they are completed
0	-	2	4.	15	29.	33	63.	2	4.	I am sure I will complete the degree on which I am now working
6	12.	12	23.	22	42.	10	19.	2	4.	Professors have realistic view of my responsibilities outside classes
1	2.	8	15.	33	63.	8	12.	2	4.	Instructors use many examples in their teaching
4	8.	21	40.	18	35.	6	12.	3	6.	When I first started, faculty and grad. students were helpful sources of information
Because of job, family, or commuting, it has been hard to. .										
7	13.	8	15.	21	40.	15	29.	1	2.	. use administrative offices
7	13.	8	15.	23	44.	10	19.	4	8.	. schedule time to consult with adviser/thesis chairman
5	10.	6	12.	26	50.	13	25.	2	4.	. meet with instructors outside class
9	17.	14	27.	18	35.	10	19.	1	2.	. register for classes or research

Roosevelt Univ. Frequency Distributions
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Number of Respondents in Degree Programs: 52

YES		NO		NO RESP.						
#	%	#	%	#	%					
21	40.	29	56.	2	4.	Which have you done within last 12 months?				
0	-	49	94.	3	3.	4. Attended meeting(s) of scholarly or professional society				
1	2.	48	92.	3	6.	3. Been author/coauthor of scholarly paper accepted for presentation at prof. meeting				
8	15.	42	81.	2	4.	6. Been author/coauthor of paper submitted to journal				
11	21.	39	75.	2	4.	4. Publically demonstrated artistic products/skills				
19	36.	31	60.	2	4.	4. Prepared detailed proposal for major research project				
13	25.	37	71.	2	4.	4. Carried out independent research or creative project				
3	6.	47	90.	2	4.	4. Cooperated in research or creative project with student or faculty member				
20	38.	31	60.	1	2.	4. Held fellowship, traineeship, or scholarship				
29	56.	22	42.	1	2.	2. Participated in professional clinical, field work, or internship experience				
36	69.	13	25.	3	6.	2. Talked with professionals about graduate program or career plans				
13	25.	36	69.	3	6.	6. Pursued independently planned reading or practice in field				
4	8.	46	88.	2	4.	6. Conducted an independent activity for profit				
3	6.	46	88.	3	6.	4. Won prize or award for product or activity related to field				
2	4.	47	90.	3	6.	6. Served on department or university committee				
5	10.	44	84.	3	6.	6. Participated in departmental planning				
3	6.	46	88.	3	6.	6. Have you participated in a clinical, field work, or internship experience required by your graduate program?				
						6. Have you been a research or teaching assistant while in this program?				
POOR		FAIR		GOOD		EXCELLENT	NO RESP.			
#	%	#	%	#	%	#	%	#	%	
0	-	1	20.	2	40.	2	40.	0	-	Evaluation of practicum (N = 5)
0	-	0	-	2	40.	3	60.	0	-	Departmental training for duties
0	-	0	-	2	40.	3	60.	0	-	Contribution to academic development
0	-	1	20.	2	40.	1	20.	1	20.	Chance to practice professional skills
0	-	2	40.	1	20.	1	20.	1	20.	Variety of assignments/experiences
2	40.	1	20.	1	20.	0	-	1	20.	Supervision received
										Office space and equipment available
0	-	0	-	2	67.	1	33.	0	-	Evaluation of assistantship (N = 3)
0	-	0	-	1	33.	2	67.	0	-	Departmental training for duties
0	-	0	-	1	33.	2	67.	0	-	Contribution to academic development
0	-	0	-	1	33.	2	67.	0	-	Chance to practice professional skills
0	-	0	-	1	33.	2	67.	0	-	Degree to which staff treated you as a colleague
0	-	0	-	2	67.	1	33.	0	-	Absence of unnecessary dirty work
1	33.	1	33.	1	33.	0	-	0	-	Office space and equipment available
0	-	0	-	1	33.	2	67.	0	-	Supervision you received

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EDUCATIONAL EXPERIENCE

	<u>Type of Institution</u>								<u>Type of Study*</u>						<u>Field of Study*</u>							
	<u>THIS</u>		<u>OTHER</u>		<u>OTHER</u>		<u>NOT</u>		<u>NO</u>		<u>PART-TIME</u>		<u>FULL-TIME</u>		<u>NO RESP.</u>		<u>SAME</u>		<u>DIFFERENT</u>		<u>NO RESP.</u>	
	<u>INSTIT.</u>		<u>4-YEAR</u>		<u>POST-SEC.</u>		<u>ENROLLED</u>		<u>RESPONSE</u>		<u></u>		<u></u>		<u></u>		<u></u>		<u></u>		<u></u>	
	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
<u>Future</u>																						
After 1983	23	43.	0	-	4	7.	10	19.	17	31.	23	86.	2	7.	2	7.	23	85.	3	11.	1	4.
1982-83	38	70.	2	4.	0	-	4	7.	10	19.	33	83.	6	15.	1	2.	38	95.	1	2.	1	2.
<u>Current</u>																						
1981-82	43	80.	3	6.	0	-	2	4.	6	11.	37	80.	8	17.	1	2.	43	93.	2	4.	1	2.
<u>Past</u>																						
1980-81	30	56.	6	11.	4	7.	0	15.	6	11.	29	73.	10	25.	1	2.	33	83.	7	18.	0	-
1979-80	21	39.	9	17.	4	7.	12	22.	0	15.	24	71.	10	29.	0	-	25	74.	9	26.	0	-
1978-79	16	30.	0	15.	6	11.	13	24.	11	20.	20	67.	0	27.	2	6.	20	67.	0	27.	2	7.
1977-78	10	19.	11	20.	5	9.	15	28.	13	24.	16	62.	9	35.	1	3.	17	65.	0	31.	1	4.
1976-77	9	17.	12	22.	2	4.	17	31.	2	4.	10	43.	12	52.	1	5.	15	65.	7	30.	1	4.
1975-76	7	13.	13	24.	4	7.	14	26.	16	30.	0	33.	15	63.	1	4.	13	54.	10	42.	1	4.
1974-75	4	7.	15	28.	4	7.	13	24.	10	33.	9	39.	14	61.	0	-	15	65.	0	35.	0	-
1973-74	3	6.	16	30.	4	7.	14	26.	17	31.	6	26.	17	74.	0	-	12	52.	11	48.	0	-
1972-73	2	4.	15	28.	6	11.	14	26.	17	31.	10	43.	13	57.	0	-	12	52.	11	48.	0	-
Pre-1972	2	4.	20	37.	4	7.	1	2.	27	50.	4	15.	20	77.	2	8.	11	42.	14	54.	1	4.

* Of those enrolled in postsecondary education that year.

	<u>Institution Granting Previous Degrees</u>								<u>Type of Study</u>						<u>Field of Study</u>					
	<u>THIS</u>		<u>OTHER</u>		<u>NOT</u>		<u>NO RESP./</u>		<u>PART-TIME</u>		<u>FULL-TIME</u>		<u>NO RESP.</u>		<u>SAME</u>		<u>DIFFERENT</u>		<u>NO RESP.</u>	
	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
1st Bach	0	15.	20	37.	1	2.	25	47.	4	14.	25	86.	0	-	16	55.	13	45.	0	-
2nd Bach	1	2.	0	-	42	78.	11	20.	0	-	1	100.	0	-	1	100.	0	-	0	-
1st Mast	14	26.	1	2.	0	-	24	44.	0	-	6	40.	1	7.	12	80.	2	13.	1	7.
2nd Mast	0	-	0	-	42	78.	12	22.												
Doctorate	0	-	0	-	42	78.	12	22.												
1st Prof	0	-	0	-	44	81.	10	19.												

Number of Years "Stopped Out"

(Years "Not Enrolled" after first year of enrollment in a post-secondary institution)

	<u>#</u>	<u>%</u>
No resp.	3	6.
0	19	35.
1	5	9.
2	8	15.
3	2	4.
4	4	7.
5	7	13.
6	1	2.
7	1	2.
8	1	2.
9	3	6.
10+	0	-

Roosevelt Univ. Frequency Distributions
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Type of Enrollment of Most Students in Program

PART-TIME		FULL-TIME		DON'T KNOW		NO RESP.	
#	%	#	%	#	%	#	%
47	87.	3	6.	3	6.	1	2.

Grade Point Average in Current Program

A		A-		B		B-		C OR LOWER		NONE REC.		NO RESP.	
#	%	#	%	#	%	#	%	#	%	#	%	#	%
17	31.	20	37.	10	19.	4	7.	1	2.	1	2.	1	2.

Year in Which Degree Received or Expected

	FIRST BACH.		SECOND BACH.		FIRST MASTER'S		SECOND MASTER'S		DOCTORATE		FIRST PROF.	
	#	%	#	%	#	%	#	%	#	%	#	%
No response	6	11.	9	17.	5	9.	9	17.	9	17.	9	17.
Not rec./planned	1	2.	42	78.	0	-	42	78.	42	78.	44	81.
1951	1	2.										
1952	1	2.										
1966	1	2.										
1967	0	-										
1968	0	-										
1969	0	-										
1970	4	7.			1	2.						
1971	3	6.			0	-						
1972	2	4.	1	2.	0	-						
1973	1	2.	0	-	0	-						
1974	4	7.	0	-	0	-						
1975	6	11.	0	-	0	-						
1976	2	4.	0	-	1	2.						
1977	3	6.	0	-	0	-						
1978	7	13.	0	-	0	-						
1979	3	6.	1	2.	0	-						
1980	1	2.	0	-	1	2.						
1981	7	13.	0	-	1	2.						
1982	1	2.	0	-	12	22.						
1983			0	-	16	30.						
1984			1	2.	8	15.						
1985					8	15.	1	2.				
1986					1	2.	1	2.				
1987							1	2.				
1988									1	2.		
1989									0	-		
1990									1	2.	1	2.
1991									0	-		
1992									1	2.		

Roosevelt Univ. Frequency Distributions
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	LOAD THIS TERM						TOTAL COURSES TAKEN PER LOCATION							
	COURSES		CREDITS		EFFEC.CRED		ON CAMP.		OFF-CAMP.		AT WORK		ELSEWHERE	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
No response	2	4.	2	4.	3	6.	3	6.	4	7.	4	7.	4	7.
0	8	15.	9	17.	7	13.	20	37.	21	39.	48	89.	47	87.
1	30	56.	0	-	0	-	4	7.	3	6.	2	4.	1	2.
2	7	13.	1	2.	1	2.	4	7.	3	6.			1	2.
3	5	9.	27	50.	24	44.	3	6.	6	11.			0	-
4	2	4.	1	2.	1	2.	1	2.	0	-			0	-
5			0	-	2	4.	3	6.	0	-			0	-
6			7	13.	9	17.	1	2.	3	6.			1	2.
7			0	-	0	-	1	2.	2	4.				
8			0	-	0	-	0	-	3	6.				
9			5	9.	5	9.	0	-	2	4.				
10			0	-	1	2.	5	9.	0	-				
11			0	-	0	-	2	4.	2	4.				
12			2	4.	0	-	1	2.	2	4.				
13					0	-	0	-	0	-				
14					0	-	0	-	1	2.				
15					0	-	2	4.	0	-				
16					0	-	0	-	1	2.				
17					0	-	0	-	0	-				
18					0	-	0	-	0	-				
19					0	-	0	-	0	-				
20					0	-	1	2.	0	-				
21-25					0	-	2	4.	0	-				
26-30					0	-	0	-	1	2.				
31-35					1	2.	0	-						
36-40							0	-						
41-45							1	2.						

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<u>YEAR FIRST ENROLLED IN PROGRAM</u>		
	<u>#</u>	<u>%</u>
1974	1	2.
1975	1	2.
1976	4	7.
1977	2	4.
1978	3	6.
1979	7	13.
1980	8	15.
1981	16	30.
1982	8	15.
No response	4	7.

NO. YEARS EXPECTED
TO COMPLETE DEGREE

	<u>#</u>	<u>%</u>
No degree sought	2	4.
No response	6	11.
0	0	-
1	4	7.
2	9	17.
3	14	26.
4	9	17.
5	3	6.
6	4	7.
7	1	2.
8	0	-
9	2	4.

<u>AGE</u>		
	<u>#</u>	<u>%</u>
20	0	-
21	0	-
22	2	4.
23	0	-
24	2	4.
25	6	11.
26	2	4.
27	4	7.
28	4	7.
29	2	4.
30	3	6.
31	4	7.
32	0	-
33	2	4.
34	3	6.
35	1	2.
36	1	2.
37	3	6.
38	4	7.
39	0	-
40	0	-
41	2	4.
42	2	4.
43	0	-
44	0	-
45	0	-
46	0	-
47	0	-
48	0	-
49	1	2.
50	0	-
51	1	2.
52	0	-
53	1	2.
54	0	-
55	1	2.
71	1	2.
No response	2	4.

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Citizenship, Racial-Ethnic Identification

NON-RES.		CAUCASIAN		BLACK		CHICANO		OTHER HISPANIC		NATIVE AMERICAN		ASIAN AMERICAN		NO RESPONSE	
N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
4	7.	38	70.	7	13.	1	2.	2	4.	0	-	0	-	2	4.

Gender

FEMALE		MALE		NO RESP.	
N	%	N	%	N	%
22	41.	30	56.	2	4.

Marital Status

MARRIED		PREV. MAR.		NEV. MAR.		NO RESP.	
N	%	N	%	N	%	N	%
24	44.	10	19.	18	33.	2	4.

Number of Children at Home

0		1		2		3		4+		NO RESP.		
N	%	N	%	N	%	N	%	N	%	N	%	
42	78.	5	9.	1	2.	0	-	0	-	6	11.	Prekindergarten
40	74.	4	7.	5	9.	0	-	0	-	5	9.	Elementary/middle school
47	87.	1	2.	0	-	0	-	0	-	6	11.	High school
44	81.	2	4.	2	4.	0	-	0	-	6	11.	College
46	85.	1	2.	2	4.	0	-	0	-	5	9.	Out of school
33	61.	5	9.	5	9.	5	9.	0	-	6	11.	Total children

NO SUPPORT		SUPPORT SOURCE		PRIMARY SUPPORT	
N	%	N	%	N	%

Current sources of financial support

51	94.	1	2.	1	2.	Graduate assistantship
51	94.	1	2.	1	2.	Fellowship or traineeship
18	33.	34	63.	29	54.	Other employment
51	94.	1	2.	1	2.	GI benefits
44	81.	8	15.	4	7.	Student loan
44	81.	8	15.	3	6.	Spouse's income
48	89.	4	7.	1	2.	Parent or guardian
23	42.	29	54.	11	20.	Personal assets
		2	4.	3	6.	No response

Year	Type of Activity								Field of Activity								Basis of Activity							
	EMPLOYED		VOLUN.		RETIRED		NONE		NO RESP.		SAME		DIFFERENT		NO RESP.		PART-TIME		FULL-TIME		NO RESP.			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
1982	43	80.	0	-	2	4.	7	13.	2	4.	30	70.	12	28.	1	2.	3	7.	39	91.	1	2.		
1981	44	81.	1	2.	2	4.	4	7.	3	6.	28	63.	16	35.	1	2.	4	9.	40	89.	1	2.		
1980	42	78.	1	2.	1	2.	4	7.	6	11.	29	68.	13	30.	1	2.	4	9.	38	89.	1	2.		
1979	39	72.	2	4.	1	2.	7	13.	5	9.	29	71.	11	26.	1	2.	7	17.	33	82.	1	2.		
1978	41	76.	1	2.	1	2.	6	11.	5	9.	26	62.	15	36.	1	2.	6	14.	35	84.	1	2.		
1977	39	72.	1	2.	1	2.	7	13.	6	11.	25	63.	14	35.	1	2.	10	25.	29	73.	1	2.		
1976	34	63.	2	4.	1	2.	12	22.	5	9.	19	53.	16	44.	1	3.	9	25.	26	72.	1	3.		
1975	32	59.	2	4.	0	-	15	28.	5	9.	13	38.	20	59.	1	3.	9	26.	24	71.	1	3.		
1974	29	54.	2	4.	0	-	15	28.	8	15.	11	35.	19	61.	1	3.	10	32.	20	65.	1	3.		
1973	25	46.	1	2.	0	-	20	37.	8	15.	8	31.	17	65.	1	4.	7	27.	18	69.	1	4.		
Pre-1973	24	44.	1	2.	0	-	17	32.	12	22.	6	24.	18	72.	1	4.	7	28.	17	68.	1	4.		

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Employment Patterns

	YEARS EMPLOYED IN SAME FIELD						YEARS IN DIFFERENT FIELD						YEARS RETIRED	
	FULL-TIME			PART-TIME			FULL-TIME			PART-TIME			TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0	19	35.	44	81.	16	30.	24	44.	43	80.	19	35.	50	93.
1	0	-	4	7.	1	2.	3	6.	1	2.	2	4.	0	-
2	3	6.	1	2.	4	7.	7	13.	0	-	5	9.	1	2.
3	3	6.	2	4.	1	2.	4	7.	2	4.	5	9.	0	-
4	5	9.	0	-	5	9.	4	7.	2	4.	6	11.	0	-
5	6	11.	0	-	5	9.	4	7.	0	-	4	7.	0	-
6	3	6.	0	-	5	9.	0	-	2	4.	2	4.	0	-
7	4	7.	0	-	5	9.	3	6.	0	-	3	6.	1	2.
8	2	4.	0	-	2	4.	1	2.	1	2.	2	4.	0	-
9	2	4.	0	-	2	4.	1	2.	0	-	2	4.	0	-
10	1	2.	0	-	0	-	0	-	1	2.	1	2.	0	-
11	4	7.	1	2.	6	11.	1	2.	0	-	1	2.	0	-
No Resp.	2	4.	2	4.	2	4.	2	4.	2	4.	2	4.	2	4.

	TOTAL YEARS EMPLOYED						YEARS AS VOLUNTEER		YEARS NOT EMPLOYED	
	FULL-TIME			PART-TIME			TOTAL		TOTAL	
	#	%	#	%	#	%	#	%	#	%
0	6	11.	37	69.	3	6.	48	89.	32	59.
1	2	4.	4	7.	1	2.	1	2.	12	22.
2	3	6.	1	2.	5	9.	1	2.	2	4.
3	4	7.	3	6.	1	2.	0	-	2	4.
4	2	4.	1	2.	1	2.	0	-	1	2.
5	8	15.	0	-	5	9.	1	2.	0	-
6	1	2.	2	4.	4	7.	1	2.	2	4.
7	3	6.	1	2.	3	6.	0	-	0	-
8	5	9.	1	2.	4	7.	0	-	0	-
9	5	9.	0	-	5	9.	0	-	0	-
10	1	2.	0	-	4	7.	0	-	1	2.
11	11	20.	2	4.	16	30.	0	-	0	-
No Resp.	3	6.	2	4.	2	4.	2	4.	2	4.

CURRENT EMPLOYMENT		PREFERRED FUTURE EMPLOYMENT	
#	%	#	%

				Setting of Current, Preferred Future Employemt
2	4.	1	2.	This institution
0	-	3	6.	Other college or university
0	-	2	4.	Community college
5	9.	3	6.	Primary or secondary school system
4	7.	2	4.	Local, state, or federal government
5	9.	4	7.	Other nonprofit agency/institution
28	52.	25	46.	Business or industry
0	-	9	17.	Self-employed/private practice
1	2.	1	2.	Other
4	7.	0	-	None or retired
5	9.	4	7.	No response

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Miles One Way Between Home/Job and Classes			Average Number of Hours Worked Per Week					
#	%		#	%				
2	4.	No response	2	4.	No response	0	-	29
0	-	0	7	13.	0	1	2.	30
1	2.	1	0	-	1	0	-	31
1	2.	2	0	-	2	0	-	32
2	4.	3	0	-	3	0	-	33
2	4.	4	0	-	4	0	-	34
1	2.	5	0	-	5	2	4.	35
3	6.	6	0	-	6	0	-	36
1	2.	7	0	-	7	0	-	37
5	9.	8	0	-	8	0	-	38
3	6.	9	0	-	9	0	-	39
7	13.	10	0	-	10	16	30.	40
0	-	11	0	-	11	1	2.	41
4	7.	12	1	2.	12	0	-	42
0	-	13	0	-	13	0	-	43
1	2.	14	0	-	14	3	6.	44
5	9.	15	1	2.	15	4	7.	45
0	-	16	0	-	16	0	-	46
1	2.	17	0	-	17	1	2.	47
0	-	18	0	-	18	3	6.	48
0	-	19	0	-	19	0	-	49
1	2.	20	2	4.	20	4	7.	50
2	4.	21-25	0	-	21	1	2.	55
7	13.	26-30	0	-	22	1	2.	56
1	2.	31-35	0	-	23	1	2.	60
2	4.	36-40	0	-	24	1	2.	70
1	2.	41-45	1	2.	25	1	2.	72
1	2.	46-50	0	-	26			
0	-	51-55	0	-	27			
			0	-	28			

NOT A REASON IMPORTANT REASON THE MOST IMPORTANT

#	%	#	%	#	%	
8	15.	45	83.	7	13.	To obtain a degree
11	20.	42	78.	4	7.	To obtain skills helpful in field
37	69.	16	30.	3	6.	To develop skills for use in family/community
36	67.	17	31.	0	-	To obtain theoretical grounding
23	43.	30	56.	11	20.	To prepare for new/different job
19	35.	34	63.	9	17.	For advancement in present job
8	15.	45	83.	11	20.	To improve income potential
33	61.	20	37.	1	2.	To develop professional contacts
13	24.	40	74.	13	24.	For personal growth/satisfaction
44	81.	9	17.	0	-	To make new friends
21	39.	32	59.	3	6.	For intellectual stimulation
40	74.	13	24.	1	2.	To develop more independent life style
		1	2.	1	2.	No response

Reasons for Pursuing Graduate Education Now

Roosevelt Univ. Frequency Distributions
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Preferred Primary Activity Following Graduation

#	%	
0	-	Research
1	2.	Research & teaching about equally
7	13.	Teaching
25	46.	Administration or management
17	31.	Professional services
1	2.	Other
0	-	No employment desired
2	4.	Don't know/no preference
1	2.	No response

Types of Employer Aid Received

#	%	
26	48.	No aid/not employed
4	7.	Released time
2	4.	Reduced tuition
20	37.	Tuition reimbursement or payment
6	11.	Use of facilities/equipment
0	-	Internships
1	2.	Progress-related raises
1	2.	Clerical or research assistance
3	6.	No response

Relationship of Current Full-time Employment to Field of Study

	#	%
Employed full-time:	39	
Employed in same field:	28	72.
Employed in different field:	11	28.
No response	0	-

Relationship of Previous Full-time Employment to Field of Study

	#	%
Previously employed full-time:	46	
All employment in same field:	18	39.
Prev. employed in different field:	28	61.

Number of Years Unemployed After First Full-time Employment

#	%	
35	65.	No response
1	2.	0
3	6.	1
1	2.	2
1	2.	3
4	7.	4
0	-	5
1	2.	6
3	6.	7
2	4.	8
1	2.	9
2	4.	10+

APPENDIX E-2

FREQUENCY DISTRIBUTIONS FOR
CITY UNIVERSITY OF NEW YORK STUDENTS

WHAT DO GRADUATE STUDENTS NEED? ARE THEY GETTING IT?

INSTITUTION: City University of New York

SAMPLE SIZE: 108 NUMBER RETURNED: 93 RESPONSE RATE: 86.1%

HEGIS CODES

#	%	
0	-	01--Agriculture & Natural Resources
0	-	02--Architecture & Environmental Design
0	-	03--Area Studies
10	11.	04--Biological Sciences
4	4.	05--Business & Management
0	-	06--Communications
0	-	07--Computer & Information Sciences
4	4.	08--Education
4	4.	09--Engineering
9	10.	10--Fine & Applied Arts
5	5.	11--Foreign Languages
3	3.	12--Health Professions
0	-	13--Home Economics
0	-	14--Law
9	10.	15--Letters
0	-	16--Library Science
2	2.	17--Mathematics
8	9.	19--Physical Sciences
14	15.	20--Psychology
1	1.	21--Public Affairs & Services
19	20.	22--Social Sciences
0	-	23--Theology
1	1.	49--Interdisciplinary Studies
0	-	98--Other, Undeclared

City Univ. of New York Frequency Distributions
Page 2

NO PROBLEM		PROBLEM		WORST PROBLEM		
#	%	#	%	#	%	
<u>Institutional Problems</u>						
83	90.	4	4.	0	-	Meeting course requirements
70	76.	17	18.	2	2.	Acceptance of previously earned credit
67	72.	20	22.	11	12.	Accessibility of major prof./advisor
40	43.	47	51.	15	16.	Availability of library materials
75	81.	12	13.	3	3.	Adequacy of laboratory facilities
70	75.	17	18.	2	2.	Adequacy of computer facilities
78	84.	9	10.	1	1.	Adequacy of studios, specialized facil.
68	73.	19	20.	2	2.	General quality of instruction
70	75.	17	18.	3	3.	Availability of internship/practicum
78	84.	9	10.	5	5.	Approval of dissert./thesis topic or final draft
78	84.	9	10.	3	3.	Residence requirement
71	76.	16	17.	3	3.	Time limit for completing degree
78	84.	9	10.	0	-	Penalties for "stopping out"
69	74.	18	19.	7	8.	Foreign language requirement
67	72.	20	22.	2	2.	Getting information about institution
64	69.	23	25.	3	3.	Getting information about department
57	61.	30	32.	9	10.	Times, locations, frequency of courses
75	81.	12	13.	0	-	Times administrative offices are open
55	59.	32	34.	4	4.	Times services are available
		6	6.	21	23.	<u>No response</u> (No problems; no one worst)
<u>Personal Problems</u>						
39	42.	53	57.	23	25.	Financing education
51	55.	41	44.	12	13.	Finding time to study
73	78.	19	20.	3	3.	Adequacy of places to study
46	49.	46	49.	8	9.	Job responsibilities
81	87.	11	12.	0	-	Employer attitudes
56	60.	36	39.	9	10.	Family responsibilities
76	82.	16	17.	2	2.	Attitudes of family members
78	84.	14	15.	1	1.	Opportunities for spouse
84	90.	8	9.	0	-	Community responsibilities
70	75.	22	24.	2	2.	Transportation
65	70.	27	29.	7	8.	Attitudes of some instructors
86	92.	6	6.	1	1.	Attitudes of some fellow students
84	90.	8	9.	4	4.	Academic skills
80	86.	12	13.	2	2.	Physical stamina
68	73.	24	26.	6	6.	Self-confidence
88	95.	4	4.	0	-	Working with other students on projects
85	91.	7	8.	2	2.	Opportunities to use skills or knowledge
91	98.	1	1.	0	-	Communicating in English
		1	1.	11	12.	<u>No response</u> (No problems; no one worst)

City Univ. of New York Frequency Distributions
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VERY IMPORTANT		SOMEWHAT IMPORTANT		NOT IMPORTANT		NO RESPONSE		
N	%	N	%	N	%	N	%	
63	68.	16	17.	11	12.	3	3.	<u>Importance of Institutional Services</u>
64	69.	16	17.	9	10.	4	4.	Opportunities for teaching exper.
29	31.	19	20.	37	40.	8	9.	Opportunities for research exper.
38	41.	23	25.	27	29.	5	5.	Courses taught evenings/weekends
8	9.	10	11.	68	73.	7	8.	Courses which meet once a week
								Courses taught off-campus
32	34.	24	26.	30	32.	7	8.	Computer facilities
26	28.	25	27.	35	38.	7	8.	Computer consultants
18	19.	30	32.	38	41.	7	8.	Statistical consultants
79	85.	7	8.	1	1.	6	6.	Library facilities
32	34.	24	26.	30	32.	7	8.	Labs, studios, other special facil.
6	6.	25	27.	55	59.	7	8.	Tutoring, individualized help
15	16.	25	27.	46	49.	7	8.	Training in foreign languages
2	2.	4	4.	79	85.	8	9.	English language training
27	29.	38	41.	21	23.	7	8.	Colloquia, special lectures
9	10.	21	23.	55	59.	8	9.	Evaluation/credit for nonacademic learning
7	8.	33	35.	46	49.	7	8.	Cultural events
1	1.	8	9.	76	82.	8	9.	Athletic events
12	13.	27	29.	47	51.	7	8.	Recreational facilities
15	16.	28	30.	43	46.	7	8.	Peer support groups
31	33.	45	48.	11	12.	6	6.	Informal contact with other students
59	63.	19	20.	13	14.	2	2.	Part-time employment
31	33.	26	28.	31	33.	5	5.	Emergency short-term loans
42	45.	19	20.	26	28.	6	6.	Long-term loans
61	66.	15	16.	13	14.	4	4.	Placement service for graduates
49	53.	21	23.	17	18.	6	6.	Employment service for students
31	33.	19	20.	36	39.	7	8.	Financial planning assistance
42	45.	27	29.	20	22.	4	4.	Tuition payment options
20	22.	23	25.	44	47.	6	6.	Parking facilities
40	43.	27	29.	20	22.	6	6.	Public transportation
11	12.	28	30.	47	51.	7	8.	Personal counseling
28	30.	34	37.	25	27.	6	6.	Career counseling
26	28.	43	46.	19	20.	5	5.	Cafeteria, restaurant, snack facilities
23	25.	43	46.	20	22.	7	8.	Lounge and study areas
15	16.	12	13.	60	65.	6	6.	Campus housing
23	25.	22	24.	43	46.	5	5.	Health care facilities
34	37.	22	24.	31	33.	6	6.	Health insurance for students/families
14	15.	16	17.	58	62.	5	5.	Child care service
18	19.	34	37.	34	37.	7	8.	Emergency locator service
24	26.	35	38.	27	29.	7	8.	Registration options

City Univ. of New York Frequency Distributions
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POOR		FAIR		GOOD		EXCELLENT		NOT OFFER.		NOT USED		NO RESPONSE		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
<u>Quality of services</u>														
19	20.	22	24.	20	22.	9	10.	7	8.	15	16.	1	1.	1. Opportunities for teaching experience
7	8.	26	28.	24	26.	13	14.	8	9.	14	15.	1	1.	1. Opportunities for research experience
9	10.	11	12.	23	25.	12	13.	19	20.	15	16.	4	4.	4. Courses taught evenings or weekends
0	-	3	3.	30	32.	44	47.	10	11.	2	2.	4	4.	4. Courses which meet once a week
4	4.	4	4.	21	23.	9	10.	31	33.	19	20.	5	5.	5. Off-campus courses
1	1.	5	5.	36	39.	37	40.	8	9.	3	3.	3	3.	3. Courses taught on the main campus
5	5.	15	16.	20	22.	10	11.	8	9.	31	33.	4	4.	4. Computer facilities
13	14.	19	20.	11	12.	1	1.	12	13.	33	35.	4	4.	4. Computer consultants
8	9.	8	9.	8	9.	3	3.	33	35.	28	30.	5	5.	5. Statistical consultants
24	26.	30	32.	18	19.	11	12.	1	1.	5	5.	4	4.	4. Library facilities
12	13.	14	15.	15	16.	5	5.	17	18.	25	27.	5	5.	5. Labs, studios, specialized facilities
5	5.	9	10.	9	10.	0	-	37	40.	27	29.	6	6.	6. Tutoring, individualized help
6	6.	10	11.	11	12.	4	4.	20	22.	38	41.	4	4.	4. Training in foreign languages
2	2.	2	2.	4	4.	1	1.	35	38.	42	45.	7	8.	8. English language training
3	3.	14	15.	34	37.	16	17.	7	8.	13	14.	6	6.	6. Colloquia, special lectures
4	4.	7	8.	7	8.	1	1.	48	52.	19	20.	7	8.	8. Evaluation for nonacademic learning
8	9.	13	14.	14	15.	6	6.	19	20.	29	30.	4	4.	4. Cultural events
7	8.	3	3.	3	3.	0	-	45	48.	30	32.	5	5.	5. Athletic events
10	11.	3	3.	8	9.	0	-	42	45.	24	26.	6	6.	6. Recreational facilities
6	6.	4	4.	6	6.	0	-	46	49.	24	26.	7	8.	8. Peer support groups
12	13.	17	18.	36	39.	10	11.	7	8.	8	9.	3	3.	3. Informal contact with other students
11	12.	22	24.	21	23.	8	9.	8	9.	21	23.	2	2.	2. Part-time employment for students
4	4.	10	11.	15	16.	4	4.	24	26.	33	35.	3	3.	3. Emergency short-term loans
7	8.	6	6.	21	23.	5	5.	18	19.	32	34.	4	4.	4. Long-term loans
13	14.	7	8.	8	9.	1	1.	30	32.	31	33.	3	3.	3. Placement service for graduates
12	13.	12	13.	8	9.	1	1.	33	35.	23	25.	4	4.	4. Employment service for students
10	11.	5	5.	6	6.	1	1.	37	40.	29	31.	5	5.	5. Financial planning assistance
5	5.	13	14.	21	23.	5	5.	24	26.	22	24.	3	3.	3. Tuition payment options
13	14.	5	5.	4	4.	1	1.	47	51.	19	20.	4	4.	4. Parking facilities
5	5.	23	25.	27	29.	17	18.	11	12.	6	6.	4	4.	4. Public transportation
3	3.	7	8.	5	5.	3	3.	43	46.	26	28.	6	6.	6. Personal counseling
12	13.	10	11.	6	6.	2	2.	37	40.	21	23.	5	5.	5. Career counseling
12	13.	4	4.	1	1.	2	2.	48	52.	21	23.	5	5.	5. Health care facilities
13	14.	10	11.	8	9.	7	8.	17	18.	34	37.	4	4.	4. Health insurance for students, families
6	6.	1	1.	1	1.	0	-	59	63.	22	24.	4	4.	4. Child care service
6	6.	5	5.	6	6.	0	-	52	56.	18	19.	6	6.	6. Emergency locator service
1	1.	12	13.	30	32.	17	18.	21	23.	8	9.	4	4.	4. Registration options
21	23.	30	32.	22	24.	11	12.	2	2.	3	3.	4	4.	4. Cafeteria, restaurant, snack facilities
21	23.	27	29.	23	25.	4	4.	7	8.	8	9.	3	3.	3. Lounge and study areas
9	10.	2	2.	2	2.	2	2.	59	63.	15	16.	4	4.	4. Campus housing
13	14.	26	28.	27	29.	6	6.	11	12.	6	6.	4	4.	4. Protection of student safety, security

City Univ. of New York Frequency Distributions
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QUALITY ASSESSMENTS OF THOSE RESPONDENTS WHO HAVE USED THE SERVICE

POOR		FAIR		GOOD		EXCELLENT		N		
#	%	#	%	#	%	#	%	#	%	
<u>Quality of services</u>										
19	27.	22	31.	20	29.	9	13.	70	20.	Opportunities for teaching experience
7	10.	26	37.	24	34.	13	19.	70	20.	Opportunities for research experience
9	16.	11	20.	23	42.	12	22.	55	59.	Courses taught evenings or weekends
0	-	3	4.	30	39.	44	57.	77	83.	Courses which meet once a week
4	11.	4	11.	21	55.	9	24.	38	41.	Off-campus courses
1	1.	5	6.	36	46.	37	47.	79	85.	Courses taught on the main campus
5	10.	15	30.	20	40.	10	20.	50	54.	Computer facilities
13	30.	19	43.	11	25.	1	2.	44	47.	Computer consultants
8	30.	8	30.	8	30.	3	11.	27	29.	Statistical consultants
24	29.	30	36.	18	22.	11	13.	83	89.	Library facilities
12	26.	14	30.	15	33.	5	11.	46	49.	Labs, studios, specialized facilities
5	22.	9	39.	9	39.	0	-	23	25.	Tutoring, individualized help
6	19.	10	32.	11	35.	4	13.	31	33.	Training in foreign languages
2	22.	2	22.	4	44.	1	11.	9	10.	English language training
3	4.	14	21.	34	51.	16	24.	67	72.	Colloquia, special lectures
4	21.	7	37.	7	37.	1	5.	19	20.	Evaluation for nonacademic learning
8	20.	13	32.	14	34.	6	15.	41	44.	Cultural events
7	54.	3	23.	3	23.	0	-	13	14.	Athletic events
10	46.	3	14.	8	38.	0	-	21	23.	Recreational facilities
6	36.	4	25.	6	38.	0	-	16	17.	Peer support groups
12	16.	17	23.	36	48.	10	13.	75	81.	Informal contact with other students
11	18.	22	35.	21	34.	8	13.	62	67.	Part-time employment for students
4	12.	10	30.	15	45.	4	12.	33	35.	Emergency short-term loans
7	18.	6	15.	21	54.	5	13.	39	42.	Long-term loans
13	45.	7	24.	8	28.	1	3.	29	31.	Placement service for graduates
12	36.	12	36.	8	24.	1	3.	33	35.	Employment service for students
10	45.	5	23.	6	27.	1	5.	22	24.	Financial planning assistance
5	11.	13	30.	21	48.	5	11.	44	47.	Tuition payment options
13	57.	5	22.	4	17.	1	4.	23	25.	Parking facilities
5	7.	23	32.	27	38.	17	24.	72	77.	Public transportation
3	17.	7	39.	5	28.	3	17.	18	19.	Personal counseling
12	40.	10	33.	6	20.	2	7.	30	32.	Career counseling
12	63.	4	21.	1	5.	2	11.	19	20.	Health care facilities
13	34.	10	26.	8	21.	7	18.	38	41.	Health insurance for students, families
6	75.	1	13.	1	13.	0	-	8	9.	Child care service
6	35.	5	29.	6	35.	0	-	17	18.	Emergency locator service
1	2.	12	20.	30	50.	17	28.	60	65.	Registration options
21	25.	30	36.	22	26.	11	13.	84	90.	Cafeteria, restaurant, snack facilities
21	28.	27	36.	23	31.	4	5.	75	81.	Lounge and study areas
9	60.	2	13.	2	13.	2	13.	15	16.	Campus housing
13	18.	26	36.	27	38.	6	8.	72	77.	Protection of student safety, security

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SEVERAL/ WEEK		SEVERAL/ MONTH		SEVERAL/ TERM		ONCE/ TERM		1-2/ YEAR		NOT 1/ YEAR		NOT AVAILABLE/ NEVER USED		NO RESPONSE		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
12	13.	9	10.	10	11.	5	5.	1	1.	14	15.	39	42.	3	3.	Current Use of Services
1	1.	6	6.	11	12.	6	6.	4	4.	12	13.	50	54.	3	3.	Computer facilities
1	1.	0	-	4	4.	2	2.	5	5.	11	12.	65	70.	5	5.	Computer consultants
37	40.	25	27.	17	18.	6	6.	1	1.	2	2.	4	4.	1	1.	Statistical consultants
19	20.	5	5.	4	4.	3	3.	0	-	6	6.	53	57.	3	3.	Library facilities
0	-	4	4.	0	-	3	3.	1	1.	7	8.	75	81.	3	3.	Labs, studios, special facilities
1	1.	15	16.	20	22.	10	11.	16	17.	9	10.	19	20.	3	3.	Tutoring, individualized help
																Colloquia, special lectures
0	-	2	2.	5	5.	8	9.	7	8.	10	11.	57	61.	4	4.	Cultural events
0	-	0	-	0	-	0	-	4	4.	5	5.	81	87.	3	3.	Athletic events
1	1.	2	2.	1	1.	1	1.	2	2.	7	8.	76	82.	3	3.	Recreational facilities
0	-	3	3.	1	1.	5	5.	3	3.	3	3.	73	78.	5	5.	Peer support groups
9	10.	1	1.	1	1.	0	-	2	2.	3	3.	74	80.	3	3.	Parking facilities
53	57.	9	10.	5	5.	3	3.	3	3.	2	2.	15	16.	3	3.	Public transportation
39	42.	14	15.	17	18.	6	6.	2	2.	6	6.	7	8.	2	2.	Cafeteria, restaurant, snacks
20	22.	12	13.	19	20.	5	5.	2	2.	8	9.	24	26.	3	3.	Lounge and study areas
0	-	1	1.	2	2.	2	2.	1	1.	2	2.	81	87.	4	4.	Health care facilities
0	-	0	-	0	-	0	-	1	1.	2	2.	87	94.	3	3.	Child care service

FREQUENCY OF USE BY THOSE WHO HAVE USED SERVICE

SEVERAL/ WEEK		SEVERAL/ MONTH		SEVERAL/ TERM		ONCE/ TERM		1-2/ YEAR		NOT 1/ YEAR		NUMBER USING		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
12	24.	9	18.	10	20.	5	10.	1	2.	14	27.	51	55.	Current Use of Services
1	2.	6	15.	11	27.	6	15.	4	10.	12	30.	40	43.	Computer facilities
1	4.	0	-	4	17.	2	9.	5	22.	11	48.	23	25.	Computer consultants
37	42.	25	28.	17	19.	6	7.	1	1.	2	2.	88	95.	Statistical consultants
19	51.	5	14.	4	11.	3	8.	0	-	6	16.	37	40.	Library facilities
0	-	4	27.	0	-	3	20.	1	7.	7	47.	15	16.	Labs, studios, special facilities
1	1.	15	21.	20	28.	10	14.	16	23.	9	13.	71	76.	Tutoring, individualized help
														Colloquia, special lectures
0	-	2	6.	5	16.	8	25.	7	22.	10	31.	32	34.	Cultural events
0	-	0	-	0	-	0	-	4	44.	5	56.	9	10.	Athletic events
1	7.	2	14.	1	7.	1	7.	2	14.	7	50.	14	15.	Recreational facilities
0	-	3	20.	1	7.	5	33.	3	20.	3	20.	15	16.	Peer support groups
9	56.	1	6.	1	6.	0	-	2	13.	3	19.	16	17.	Parking facilities
53	71.	9	12.	5	7.	3	4.	3	4.	2	3.	75	81.	Public transportation
39	46.	14	17.	17	20.	6	7.	2	2.	6	7.	84	90.	Cafeteria, restaurant, snacks
20	30.	12	18.	19	29.	5	8.	2	3.	8	12.	66	71.	Lounge and study areas
0	-	1	13.	2	25.	2	25.	1	13.	2	25.	8	9.	Health care facilities
0	-	0	-	0	-	0	-	1	33.	2	67.	3	3.	Child care service

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Type of Program in Which Enrolled																			
NON-DEGREE				CERTIFI- CATE				INTER- MEDIATE				FIRST PROF.		DOCTORATE		POST- DOC.		NQ RESPONSE	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
0	-	4	4.	0	-	0	-	0	-	89	95.	0	-	0	-				

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Number of Respondents in Degree Programs: 93

QUESTIONS FROM ETS GRADUATE PROGRAM SELF-ASSESSMENT

POOR		FAIR		GOOD		EXCELLENT		NO RESP.		
#	%	#	%	#	%	#	%	#	%	
<u>Ratings of Department</u>										
6	6.	20	22.	40	43.	25	27.	2	2.	1. Intellectual environment
20	22.	23	25.	38	41.	9	10.	3	3.	3. Advice about the program
33	35.	35	38.	18	19.	3	3.	4	4.	4. Career advice
4	4.	27	29.	43	46.	13	14.	6	6.	6. Agreement between requirements and program objectives
7	8.	27	29.	38	41.	15	16.	6	6.	6. Administration of degree requirements
28	30.	30	32.	24	26.	6	6.	5	5.	5. Available library holdings in field
24	26.	30	32.	24	26.	5	5.	10	11.	11. Specialized facilities for work in field
26	28.	36	39.	21	23.	3	3.	7	8.	8. Interaction between department and related disciplines
0	-	17	18.	33	35.	40	43.	3	3.	3. Scholarly/prof. competence of faculty
9	10.	29	31.	39	42.	11	12.	5	5.	5. Regularity of offering courses
5	5.	25	27.	43	46.	14	15.	6	6.	6. Scholarly/prof. promise of grad. students
17	18.	37	40.	28	30.	5	5.	6	6.	6. Opportunities for student participation in department decisions
4	4.	24	26.	48	52.	13	14.	4	4.	4. Relevance of degree requirements to anticipated work
3	3.	23	25.	51	55.	12	13.	4	4.	4. Evaluation procedure in graduate courses
7	8.	24	26.	48	52.	12	13.	2	2.	2. Teaching methods in graduate courses
16	17.	36	39.	35	38.	5	5.	1	1.	1. Variety of course/program offerings
6	6.	27	29.	37	40.	21	23.	2	2.	2. Depth of program offerings
17	18.	26	28.	33	35.	12	13.	5	5.	5. Flexibility of program
8	9.	19	20.	46	49.	18	19.	2	2.	2. Accessibility of course instructors
8	9.	18	19.	32	34.	31	33.	4	4.	4. Accessibility of adviser/thesis director
10	11.	27	29.	30	32.	20	22.	6	6.	6. Opportunities to pursue individual projects
12	13.	30	32.	34	37.	9	10.	8	9.	9. Evaluation of progress toward degree
9	10.	25	27.	41	44.	16	17.	2	2.	2. Faculty-student relationships
3	3.	22	24.	55	59.	11	12.	2	2.	2. Admissions procedures
7	8.	18	19.	43	46.	24	26.	1	1.	1. Overall quality of teaching
5	5.	31	33.	41	44.	10	11.	6	6.	6. Relevance of courses in related fields
6	7.	25	30.	39	48.	12	15.	-	-	- Evaluation of doctoral comps/quals
5	7.	26	35.	34	46.	9	12.	-	-	- Procedures for supervising dissertation
1	8.	5	42.	5	42.	1	8.	-	-	- Procedures for supervising master's theses
12	13.	26	28.	32	34.	16	17.	7	8.	8. Opportunities to develop mentors/sponsors
10	11.	29	31.	39	42.	4	4.	11	12.	12. Evaluation of students' prof. competence
8	9.	28	30.	37	40.	10	11.	10	11.	11. University commitment to program
12	13.	27	29.	37	40.	13	14.	4	4.	4. Useful faculty criticism of work
5	5.	30	32.	38	41.	14	15.	6	6.	6. Faculty helpfulness in dealing with classwork
3	3.	20	22.	34	37.	32	34.	4	4.	4. Faculty awareness of new developments in field
37	40.	21	23.	29	31.	3	3.	3	3.	3. Adequacy of financial resources for grad. students
19	20.	24	26.	37	40.	8	9.	5	5.	5. Facilities for classes, administration
18	19.	34	37.	28	30.	5	5.	8	9.	9. Number of support staff for program
8	9.	28	30.	37	40.	8	9.	12	13.	13. Quality of support staff

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Number of Respondents in Degree Programs: 93

DISAGREE STRONGLY		DISAGREE SOME		AGREE SOME		AGREE STRONGLY		NO RESPONSE		
#	%	#	%	#	%	#	%	#	%	
<u>Degree of Agreement</u>										
2	2.	13	14.	49	53.	27	29.	2	2.	Faculty members are genuinely interested in welfare, prof. develop of grad. students
5	5.	16	17.	41	44.	25	27.	6	6.	Different scholarly points of view are encouraged
0	-	10	11.	36	39.	45	48.	2	2.	Graduate students work hard in this program
7	8.	12	13.	44	47.	27	29.	3	3.	Department has a humane environment, mutual respect between students and professors
1	1.	10	11.	29	31.	51	55.	2	2.	I have learned a great deal in this program
5	5.	16	17.	33	35.	37	40.	2	2.	I would advise a friend to enroll in this program
1	1.	23	25.	42	45.	24	26.	3	3.	Graduate students do a lot of unassigned reading
2	2.	14	15.	38	41.	38	41.	1	1.	Program is intellectually stimulating
14	15.	33	35.	33	35.	5	5.	8	9.	Faculty members help graduates find employment
6	6.	14	15.	47	51.	23	25.	3	3.	Faculty members prepare carefully for their graduate courses
6	6.	15	16.	47	51.	22	24.	3	3.	Graduate students support, help each other
15	16.	14	15.	27	29.	35	38.	2	2.	If starting over, I would enroll again
7	8.	25	27.	33	35.	25	27.	3	3.	Program is providing good preparation for later professional work
6	6.	24	26.	48	52.	9	10.	6	6.	Members of faculty work together to achieve program goals
16	17.	41	44.	25	27.	9	10.	2	2.	Well advised on use of department's people and resources
11	12.	36	39.	32	34.	9	10.	5	5.	Faculty members help integrate past experience with new learning
19	20.	29	31.	26	28.	11	12.	8	9.	Some professors unduly exploit their students
10	11.	30	32.	34	37.	14	15.	5	5.	Department is collection of individuals, very little team effort
10	11.	22	24.	45	48.	10	11.	6	6.	Decisions about financial assistance are fair, equitable
7	8.	27	29.	45	48.	9	10.	5	5.	Faculty is receptive to new ideas, ways of doing things
8	9.	28	30.	42	45.	11	12.	4	4.	Good communication between faculty and graduate students
12	13.	27	29.	29	31.	23	25.	2	2.	Many opportunities for interaction with major professor outside classroom
13	14.	35	38.	32	34.	10	11.	3	3.	Many opportunities for interaction with other faculty outside classroom
5	5.	19	20.	29	31.	35	38.	5	5.	Most courses that count toward grad. degree are open only to graduate students
0	-	17	18.	49	53.	23	25.	4	4.	Grad. students demonstrate enthusiastic involvement with the field
1	1.	12	13.	56	60.	21	23.	3	3.	Graduate students handle course assignments with care, responsibility
3	3.	14	15.	44	47.	28	30.	4	4.	Graduate students continue projects until they are completed
1	1.	2	2.	24	26.	65	70.	1	1.	I am sure I will complete the degree on which I am now working
11	12.	21	23.	34	37.	22	24.	5	5.	Professors have realistic view of my responsibilities outside classes
4	4.	16	17.	47	51.	23	25.	3	3.	Instructors use many examples in their teaching
13	14.	29	31.	34	37.	14	15.	3	3.	When I first started, faculty and grad. students were helpful sources of information
Because of job, family, or commuting, it has been hard to. .										
13	14.	32	34.	26	28.	18	19.	4	4.	. use administrative offices
22	24.	33	35.	25	27.	11	12.	2	2.	. schedule time to consult with adviser/thesis chairman
18	19.	32	34.	28	30.	12	13.	3	3.	. meet with instructors outside class
29	31.	32	34.	22	24.	8	9.	2	2.	. register for classes or research

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Number of Respondents in Degree Programs: 93

YES		NO		NO RESP.		
#	%	#	%	#	%	
<u>Which have you done within last 12 months?</u>						
61	66.	29	31.	3	3.	3. Attended meeting(s) of scholarly or professional society
22	24.	67	72.	4	4.	4. Been author/coauthor of scholarly paper accepted for presentation at prof. meeting
27	29.	63	68.	3	3.	3. Been author/coauthor of paper submitted to journal
10	11.	80	86.	3	3.	3. Publically demonstrated artistic products/skills
55	59.	37	40.	1	1.	1. Prepared detailed proposal for major research project
57	61.	35	38.	1	1.	1. Carried out independent research or creative project
32	34.	59	63.	2	2.	2. Cooperated in research or creative project with student or faculty member
43	46.	48	52.	2	2.	2. Held fellowship, traineeship, or scholarship
35	36.	54	58.	4	4.	4. Participated in professional clinical, field work, or internship experience
63	68.	27	29.	3	3.	3. Talked with professionals about graduate program or career plans
82	88.	9	10.	2	2.	2. Pursued independently planned reading or practice in field
19	20.	71	76.	3	3.	3. Conducted an independent activity for profit
2	2.	86	92.	5	5.	5. Won prize or award for product or activity related to field
14	15.	76	82.	3	3.	3. Served on department or university committee
7	8.	83	89.	3	3.	3. Participated in departmental planning
19	20.	69	74.	5	5.	5. Have you participated in a clinical, field work, or internship experience required by your graduate program?
50	54.	39	42.	4	4.	4. Have you been a research or teaching assistant while in this program?

POOR		FAIR		GOOD		EXCELLENT		NO RESP.		
#	%	#	%	#	%	#	%	#	%	
<u>Evaluation of practicum (N = 19)</u>										
5	21.	4	17.	5	21.	3	12.	7	29.	Departmental training for duties
3	12.	3	12.	5	21.	7	29.	6	25.	Contribution to academic development
2	8.	2	8.	5	21.	9	38.	6	25.	Chance to practice professional skills
1	4.	4	17.	5	21.	7	29.	7	29.	Variety of assignments/experiences
5	21.	5	21.	4	17.	4	17.	6	25.	Supervision received
4	17.	5	21.	4	17.	4	17.	7	29.	Office space and equipment available
<u>Evaluation of assistantship (N = 50)</u>										
17	31.	9	17.	16	30.	9	17.	3	5.	Departmental training for duties
4	7.	5	9.	18	33.	23	43.	4	7.	Contribution to academic development
4	7.	10	20.	19	35.	18	33.	3	5.	Chance to practice professional skills
6	11.	13	24.	19	35.	13	24.	3	5.	Degree to which staff treated you as a colleague
9	17.	15	28.	17	31.	10	19.	3	5.	Absence of unnecessary dirty work
7	13.	20	37.	14	26.	10	19.	3	5.	Office space and equipment available
10	19.	21	39.	10	19.	10	19.	3	5.	Supervision you received

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EDUCATIONAL EXPERIENCE

	<u>Type of Institution</u>										<u>Type of Study</u>						<u>Field of Study</u>					
	<u>THIS</u>		<u>OTHER</u>		<u>OTHER</u>		<u>NOT</u>		<u>NO</u>		<u>PART-TIME</u>		<u>FULL-TIME</u>		<u>NO RESP.</u>		<u>SAME</u>		<u>DIFFERENT</u>		<u>NO RESP.</u>	
	<u>INSTIT.</u>		<u>4-YEAR</u>		<u>POST-SEC.</u>		<u>ENROLLED</u>		<u>RESPONSE</u>		<u>NO RESP.</u>		<u>NO RESP.</u>		<u>NO RESP.</u>		<u>NO RESP.</u>		<u>NO RESP.</u>		<u>NO RESP.</u>	
	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>
<u>Future</u>																						
After 1983	49	53.	1	1.	2	2.	11	12.	30	32.	17	33.	35	67.	0	-	46	80.	5	10.	1	2.
1982-83	72	77.	1	1.	1	1.	3	3.	16	17.	22	30.	52	70.	0	-	68	92.	5	7.	1	1.
<u>Current</u>																						
1981-82	84	90.	0	-	1	1.	1	1.	7	8.	24	28.	59	69.	2	2.	77	91.	6	7.	2	2.
<u>Past</u>																						
1980-81	62	67.	13	14.	2	2.	8	9.	0	9.	25	32.	52	68.	0	-	66	86.	9	12.	2	2.
1979-80	56	60.	18	19.	3	3.	7	8.	9	10.	26	34.	51	66.	0	-	61	79.	15	19.	1	1.
1978-79	40	43.	29	31.	5	5.	0	9.	11	12.	18	24.	55	74.	1	1.	57	77.	16	22.	1	1.
1977-78	33	35.	29	31.	0	9.	11	12.	12	13.	14	20.	55	79.	1	1.	51	73.	17	24.	2	3.
1976-77	23	25.	29	31.	9	10.	10	19.	14	15.	0	13.	50	82.	3	5.	46	75.	14	23.	1	2.
1975-76	19	20.	35	38.	5	5.	10	19.	16	17.	0	14.	49	83.	2	3.	47	80.	11	19.	1	1.
1974-75	16	17.	31	33.	6	6.	19	20.	21	23.	0	15.	45	85.	0	-	30	72.	14	26.	1	2.
1973-74	10	11.	34	37.	5	5.	21	23.	23	25.	7	14.	43	86.	0	-	33	67.	16	33.	0	-
1972-73	0	9.	33	35.	6	6.	19	20.	27	29.	0	16.	42	84.	0	-	28	61.	18	39.	0	-
Pre-1972	6	6.	40	43.	6	6.	17	18.	24	26.	9	17.	44	83.	1	2.	27	54.	21	42.	2	4.

* Of those enrolled in postsecondary education that year.

	<u>Institution Granting Previous Degrees</u>								<u>Type of Study</u>						<u>Field of Study</u>					
	<u>THIS</u>		<u>OTHER</u>		<u>NOT</u>		<u>NO RESP./</u>		<u>PART-TIME</u>		<u>FULL-TIME</u>		<u>NOT APP.</u>		<u>SAME</u>		<u>DIFFERENT</u>		<u>NOT APP.</u>	
	<u>INSTIT.</u>		<u>4-YEAR</u>		<u>SOUGHT</u>		<u>CAN'T TELL</u>		<u>NO RESP.</u>		<u>NO RESP.</u>		<u>NO RESP.</u>		<u>NO RESP.</u>		<u>NO RESP.</u>		<u>NO RESP.</u>	
	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>	<u>0</u>	<u>%</u>
1st Bach	2	2.	47	51.	3	3.	41	44.	2	4.	40	96.	0	-	30	60.	20	40.	0	-
2nd Bach	0	-	1	1.	79	85.	13	14.	0	-	1	100.	0	-	1	100.	0	-	0	-
1st Mast	14	15.	16	17.	25	27.	30	41.	7	10.	31	82.	0	-	20	72.	11	20.	0	-
2nd Mast	6	6.	1	1.	67	72.	19	20.	3	33.	6	67.	0	-	5	56.	4	44.	0	-
Doctorate	5	5.	0	-	7	8.	81	87.	1	20.	4	80.	0	-	5	100.	0	-	0	-
1st Prof	0	-	0	-	73	78.	20	22.	-	-	-	-	-	-	-	-	-	-	-	-

Number of Years "Stopped Out"

(Years "Not Enrolled" after first year of enrollment in a post-secondary institution)

	<u>N</u>	<u>%</u>
No resp.	4	4.
0	41	44.
1	18	19.
2	7	8.
3	5	5.
4	6	6.
5	6	6.
6	3	3.
7	2	2.
8	0	-
9	0	-
10+	1	1.

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Type of Enrollment of Most Students in Program

PART-TIME		FULL-TIME		DON'T KNOW		NO RESP.	
#	%	#	%	#	%	#	%
17	18.	54	58.	21	23.	1	1.

Grade Point Average in Current Program

A		A-		B		B-		C OR LOWER		NONE REC.		NO RESP.	
#	%	#	%	#	%	#	%	#	%	#	%	#	%
34	37.	36	39.	12	13.	2	2.	0	-	7	8.	2	2.

Year in Which Degree Received or Expected

	FIRST BACH.		SECOND BACH.		FIRST MASTER'S		SECOND MASTER'S		DOCTORATE		FIRST PROF.	
	#	%	#	%	#	%	#	%	#	%	#	%
No response	7	8.	13	14.	11	12.	13	14.	10	11.	17	18.
Not rec./planned	3	3.	79	85.	25	27.	67	72.	7	8.	73	78.
1951	1	1.										
1952	0	-							1	1.		
1955	2	2.										
1960	2	2.			1	1.						
1961	1	1.			0	-						
1962	0	-			0	-						
1963	0	-			1	1.						
1964	0	-			0	-						
1965	2	2.			0	-						
1966	1	1.			2	2.						
1967	0	-			0	-						
1968	1	1.			1	1.						
1969	2	2.			0	-						
1970	6	6.			2	2.						
1971	2	2.			0	-						
1972	6	6.			1	1.						
1973	7	8.			2	2.	1	1.				
1974	9	10.			3	3.	0	-				
1975	7	8.			5	5.	0	-				
1976	7	8.			8	9.	1	1.				
1977	5	5.			5	5.	0	-				
1978	7	8.	1	1.	3	3.	1	1.				
1979	7	8.			4	4.	1	1.				
1980	5	5.			3	3.	1	1.				
1981	3	3.			7	8.	1	1.				
1982					6	6.	5	5.	6	6.		
1983					2	2.	0	-	26	28.		
1984					0	-	1	1.	17	18.	1	1.
1985					1	1.	1	1.	19	20.	1	1.
1986									3	3.	0	-
1987									2	2.	1	1.
1988									1	1.		
1989									1	1.		

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	LOAD THIS TERM						TOTAL COURSES TAKEN PER LOCATION							
	COURSES		CREDITS		EFFEC.CRED		ON CAMP.		OFF-CAMP.		AT WORK		ELSEWHERE	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
No response	1	1.	1	1.	11	12.	9	10.	11	12.	11	12.	11	12.
0	35	38.	21	23.	8	9.	6	6.	58	62.	80	86.	71	76.
1	17	18.	8	9.	4	4.	3	3.	4	4.			2	2.
2	19	20.	0	-	0	-	3	3.	6	6.			3	3.
3	10	11.	3	3.	2	2.	2	2.	1	1.			2	2.
4	9	10.	2	2.	1	1.	3	3.	3	3.				
5	1	1.	0	-	0	-	5	5.	1	1.				
6	1	1.	17	18.	9	10.	6	6.	0	-				
7			2	2.	0	-	0	-	1	1.				
8			3	3.	3	3.	4	4.	0	-			1	1.
9			4	4.	5	5.	1	1.	1	1.			1	1.
10			1	1.	2	2.	5	5.	1	1.				
11			0	-	0	-	0	-	0	-				
12			25	27.	35	38.	4	4.	3	3.			2	2.
13			2	2.	1	1.	1	1.	0	-				
14			0	-	1	1.	1	1.	0	-				
15			3	3.	5	5.	2	2.	1	1.	1	1.		
16			0	-	0	-	3	3.	0	-				
17			0	-	0	-	1	1.	0	-				
18			0	-	2	2.	3	3.	0	-				
19			0	-	0	-	0	-	0	-				
20			0	-	2	2.	5	5.	1	1.				
21-25			1	1.	2	2.	9	10.	0	-				
26-30							6	6.	1	1.				
31-35							2	2.						
36-40							0	-			1	1.		
41-45							1	1.						
46-50							2	2.						
51-55							1	1.						
56-60							0	-						
61-65							4	4.						
66-70							1	1.						

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<u>YEAR FIRST ENROLLED IN PROGRAM</u>		
	<u>#</u>	<u>%</u>
1970	1	1.
1971	4	4.
1972	4	4.
1973	2	2.
1974	4	4.
1975	4	4.
1976	3	3.
1977	11	12.
1978	11	12.
1979	14	15.
1980	12	13.
1981	18	19.
1982	3	3.
No response	2	2.

NO. YEARS EXPECTED
TO COMPLETE DEGREE

	<u>#</u>	<u>%</u>
No degree sought	0	-
No response	14	16.
0	0	-
1	0	-
2	1	1.
3	7	8.
4	11	12.
5	19	21.
6	11	12.
7	9	10.
8	3	3.
9	4	4.
10	3	3.
11	2	2.
12	4	4.
13	1	1.

<u>AGE</u>		
	<u>#</u>	<u>%</u>
20	0	-
21	0	-
22	1	1.
23	2	2.
24	6	6.
25	5	5.
26	4	4.
27	6	6.
28	1	1.
29	12	13.
30	4	4.
31	6	6.
32	9	10.
33	6	6.
34	4	4.
35	4	4.
36	2	2.
37	2	2.
38	0	-
39	2	2.
40	2	2.
41	2	2.
42	2	2.
43	3	3.
44	1	1.
45	1	1.
46	2	2.
47	0	-
48	0	-
49	0	-
50	0	-
51	0	-
52	1	1.
53	0	-
54	0	-
55	0	-
58	1	1.
No response	2	2.

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Citizenship, Racial-Ethnic Identification

NON-RES.		CAUCASIAN		BLACK		CHICANO		OTHER HISPANIC		NATIVE AMERICAN		ASIAN AMERICAN		NO RESPONSE	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
11	12.	63	68.	5	5.	0	-	4	4.	1	1.	4	4.	5	5.

Gender

FEMALE		MALE		NO RESP.	
#	%	#	%	#	%
52	56.	41	44.	0	-

Marital Status

MARRIED		PREV. MAR.		NEV. MAR.		NO RESP.	
#	%	#	%	#	%	#	%
45	48.	16	17.	32	34.	0	-

Number of Children at Home

0		1		2		3		4+		NO RESP.		
#	%	#	%	#	%	#	%	#	%	#	%	
63	68.	14	15.	6	6.	0	-	0	-	10	11.	Prekindergarten
72	77.	5	5.	8	9.	0	-	0	-	8	9.	Elementary/middle school
78	84.	4	4.	1	1.	0	-	0	-	10	11.	High school
79	85.	1	1.	0	-	0	-	0	-	13	14.	College
81	87.	2	2.	0	-	0	-	0	-	10	11.	Out of school
50	54.	16	17.	12	13.	1	1.	0	-	14	15.	Total children

NO SUPPORT		SUPPORT SOURCE		PRIMARY SUPPORT	
#	%	#	%	#	%

						<u>Current sources of financial support</u>
70	75.	22	24.	11	12.	Graduate assistantship
72	77.	20	22.	10	11.	Fellowship or traineeship
38	41.	54	58.	39	42.	Other employment
92	99.	0	-	0	-	GI benefits
65	70.	27	29.	5	5.	Student loan
68	73.	24	26.	14	15.	Spouse's income
78	84.	14	15.	5	5.	Parent or guardian
62	67.	30	32.	7	8.	Personal assets
		1	1.	5	5.	No response

Type of Activity

Field of Activity

Basis of Activity

Year	EMPLOYED		VOLUN.		RETIRED		NONE		NO RESP.		SAME		DIFFERENT		NO RESP.		PART-TIME		FULL-TIME		NO RESP.	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1982	66	71.	4	4.	0	-	16	17.	7	8.	49	70.	21	30.	0	-	40	57.	30	43.	0	-
1981	69	74.	1	1.	0	-	16	17.	7	8.	51	73.	19	27.	0	-	35	50.	35	50.	0	-
1980	74	80.	1	1.	0	-	11	12.	7	8.	44	59.	31	41.	0	-	41	55.	34	45.	0	-
1979	71	76.	2	2.	0	-	12	13.	8	9.	37	51.	35	49.	0	-	33	45.	40	55.	0	-
1978	64	69.	3	3.	0	-	17	18.	9	10.	38	50.	28	42.	0	-	33	49.	34	51.	0	-
1977	61	66.	2	2.	0	-	19	20.	11	12.	36	57.	27	43.	0	-	31	50.	31	50.	1	0.
1976	56	60.	2	2.	0	-	23	24.	12	13.	28	48.	30	52.	0	-	33	57.	24	41.	1	2.
1975	49	53.	7	8.	0	-	24	25.	13	14.	28	52.	26	48.	0	-	37	66.	18	32.	1	2.
1974	48	52.	5	5.	0	-	27	28.	13	14.	26	51.	25	49.	0	-	36	68.	16	38.	1	2.
1973	39	42.	5	5.	0	-	32	35.	17	18.	17	40.	25	60.	0	-	27	61.	14	32.	3	7.
Pre-1973	37	40.	6	6.	0	-	31	34.	19	20.	15	37.	25	61.	1	2.	22	51.	18	42.	3	7.

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Employment Patterns

	YEARS EMPLOYED IN SAME FIELD						YEARS IN DIFFERENT FIELD						YEARS RETIRED	
	FULL-TIME		PART-TIME		TOTAL		FULL-TIME		PART-TIME		TOTAL			
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0	59	63.	43	46.	27	29.	54	58.	53	57.	37	40.	90	97.
1	4	4.	9	10.	5	5.	11	12.	10	11.	6	6.		
2	3	3.	9	10.	8	9.	3	3.	6	6.	7	8.		
3	6	6.	4	4.	4	4.	4	4.	6	6.	9	10.		
4	3	3.	6	6.	6	6.	4	4.	3	3.	3	3.		
5	4	4.	6	6.	14	15.	4	4.	4	4.	3	3.		
6	4	4.	4	4.	6	6.	4	4.	2	2.	7	8.		
7	4	4.	4	4.	6	6.	1	1.	3	3.	4	4.		
8	0	-	1	1.	4	4.	2	2.	3	3.	5	5.		
9	0	-	1	1.	3	3.	0	-	0	-	3	3.		
10	0	-	0	-	1	1.	0	-	0	-	3	3.		
11	3	3.	3	3.	6	6.	3	3.	0	-	3	3.		
No Resp.	3	3.	3	3.	3	3.	3	3.	3	3.	3	3.	3	3.

	TOTAL YEARS EMPLOYED						YEARS AS VOLUNTEER		YEARS NOT EMPLOYED	
	FULL-TIME		PART-TIME		TOTAL					
	#	%	#	%	#	%	#	%	#	%
0	32	34.	28	30.	8	9.	76	82.	43	46.
1	10	11.	8	9.	1	1.	6	6.	9	10.
2	4	4.	5	5.	1	1.	1	1.	12	13.
3	7	8.	7	8.	3	3.	2	2.	5	5.
4	6	6.	9	10.	6	6.	2	2.	5	5.
5	7	8.	5	5.	9	10.	2	2.	7	8.
6	7	8.	7	8.	11	12.	1	1.	4	4.
7	8	9.	4	4.	11	12.	0	-	2	2.
8	1	1.	7	8.	9	10.	0	-	0	-
9	1	1.	5	5.	6	6.	0	-	2	2.
10	0	-	2	2.	11	12.	0	-	1	1.
11	6	6.	3	3.	14	15.	0	-	0	-
No Resp.	4	4.	3	3.	3	3.	3	3.	3	3.

CURRENT EMPLOYMENT		PREFERRED FUTURE EMPLOYMENT		
#	%	#	%	
29	31.	8	9.	<u>Setting of Current, Preferred Future Employment</u>
10	11.	46	49.	This institution
4	4.	3	3.	Other college or university
6	6.	1	1.	Community college
2	2.	3	3.	Primary or secondary school system
11	12.	7	8.	Local, state, or federal government
13	14.	12	13.	Other nonprofit agency/institution
2	2.	9	10.	Business or industry
4	4.	3	3.	Self-employed/private practice
9	10.	0	-	Other
3	3.	1	1.	None or retired
				No response

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Miles One Way Between Home/Job and Classes			Average Number of Hours Worked Per Week					
#	%		#	%		#	%	
2	2.	No response	1	1.	No response	0	-	29
6	7.	0	15	16.	0	5	5.	30
3	3.	1	0	-	1	0	-	31
8	9.	2	0	-	2	0	-	32
10	11.	3	2	2.	3	0	-	33
1	1.	4	1	1.	4	0	-	34
9	10.	5	1	1.	5	9	10.	35
3	3.	6	1	1.	6	0	-	36
0	-	7	2	2.	7	0	-	37
3	3.	8	6	6.	8	0	-	38
2	2.	9	1	1.	9	0	-	39
8	9.	10	3	3.	10	15	16.	40
0	-	11	0	-	11	0	-	41
2	2.	12	4	4.	12	1	1.	42
1	1.	13	0	-	13	1	1.	43
2	2.	14	2	2.	14	0	-	44
3	3.	15	6	6.	15	2	2.	45
1	1.	16	3	3.	16	0	-	46
0	-	17	0	-	17	0	-	47
1	1.	18	0	-	18	0	-	48
0	-	19	0	-	19	0	-	49
6	7.	20	2	2.	20	2	2.	50
5	5.	21-25	1	1.	21	1	1.	56
2	2.	26-30	1	1.	22	1	1.	65
2	2.	31-35	0	-	23			
3	3.	36-40	0	-	24			
1	1.	41-45	2	2.	25			
2	2.	46-50	0	-	26			
0	-	51-55	0	-	27			
2	2.	56-60	2	2.	28			
0	-	61-65						
2	2.	66-70						
1	1.	71-75						
1	1.	90						
1	1.	100+						

NOT A REASON		IMPORTANT REASON		THE MOST IMPORTANT		
#	%	#	%	#	%	
12	13.	81	87.	25	27.	<u>Reasons for Pursuing Graduate Education Now</u>
34	37.	59	63.	11	12.	To obtain a degree
71	76.	22	24.	5	5.	To obtain skills helpful in field
57	61.	36	39.	4	4.	To develop skills for use in family/community
56	60.	37	40.	15	16.	To obtain theoretical grounding
78	84.	15	16.	4	4.	To prepare for new/different job
44	47.	49	53.	4	4.	For advancement in present job
58	62.	35	38.	4	4.	To improve income potential
17	18.	76	82.	20	22.	To develop professional contacts
80	86.	13	14.	1	1.	For personal growth/satisfaction
25	27.	68	73.	10	11.	To make new friends
60	65.	33	35.	3	3.	For intellectual stimulation
		0	-	0	-	To develop more independent life style
						No response

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Preferred Primary Activity Following Graduation

#	%	
16	17.	Research
35	38.	Research & teaching about equally
15	16.	Teaching
9	10.	Administration or management
9	10.	Professional services
3	3.	Other
0	-	No employment desired
5	5.	Don't know/no preference
1	1.	No response

Types of Employer Aid Received

#	%	
46	49.	No aid/not employed
6	6.	Released time
6	6.	Reduced tuition
14	15.	Tuition reimbursement or payment
11	12.	Use of facilities/equipment
3	3.	Internships
3	3.	Progress-related raises
8	9.	Clerical or research assistance
9	10.	No response

Relationship of Current Full-time Employment to Field of Study

	#	%
Employed full-time:	30	
Employed in same field:	18	60.
Employed in different field:	12	40.
No response	0	0.

Relationship of Previous Full-time Employment to Field of Study

	#	%
Previously employed full-time:	59	
All employment in same field:	23	39.
Prev. employed in different field:	36	61.

Number of Years Unemployed After First Full-time Employment

#	%	
20	22.	No response/Never employed full-time
13	14.	0
11	12.	1
10	11.	2
11	12.	3
6	6.	4
8	9.	5
5	5.	6
5	5.	7
3	3.	8
1	1.	9
0	-	10+

APPENDIX E-3

FREQUENCY DISTRIBUTIONS FOR
UNIVERSITY OF TENNESSEE AT KNOXVILLE STUDENTS

WHAT DO GRADUATE STUDENTS NEED? ARE THEY GETTING IT?

INSTITUTION: University of Tennessee--Knoxville

SAMPLE SIZE: 211 NUMBER RETURNED: 147 RESPONSE RATE: 69.7%

HEGIS CODES

#	%	
7	5.	01--Agriculture & Natural Resources
1	1.	02--Architecture & Environmental Design
0	-	03--Area Studies
4	3.	04--Biological Sciences
8	5.	05--Business & Management
1	1.	06--Communications
4	3.	07--Computer & Information Sciences
37	25.	08--Education
16	11.	09--Engineering
5	3.	10--Fine & Applied Arts
2	1.	11--Foreign Languages
6	4.	12--Health Professions
5	3.	13--Home Economics
0	-	14--Law
1	1.	15--Letters
1	1.	16--Library Science
2	1.	17--Mathematics
6	4.	19--Physical Sciences
12	8.	20--Psychology
12	8.	21--Public Affairs & Services
13	9.	22--Social Sciences
0	-	23--Theology
0	-	49--Interdisciplinary Studies
4	3.	98--Other, Undeclared

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NO PROBLEM		PROBLEM		WORST PROBLEM		
N	%	N	%	N	%	
<u>Institutional Problems</u>						
123	84.	21	14.	4	3.	Meeting course requirements
132	90.	12	8.	1	1.	Acceptance of previously earned credit
118	80.	26	18.	7	5.	Accessibility of major prof./advisor
78	53.	66	45.	33	22.	Availability of library materials
129	88.	15	10.	2	1.	Adequacy of laboratory facilities
120	82.	24	16.	4	3.	Adequacy of computer facilities
133	90.	11	7.	3	2.	Adequacy of studios, specialized facil.
110	75.	34	23.	14	10.	General quality of instruction
127	86.	17	12.	1	1.	Availability of internship/practicum
134	91.	10	7.	2	1.	Approval of dissert./thesis topic or final draft
122	83.	22	15.	8	5.	Residence requirement
131	89.	13	9.	4	3.	Time limit for completing degree
134	91.	10	7.	1	1.	Penalties for "stopping out"
136	93.	8	5.	2	1.	Foreign language requirement
107	73.	37	25.	5	3.	Getting information about institution
106	72.	38	26.	6	4.	Getting information about department
61	41.	83	56.	33	22.	Times, locations, frequency of courses
118	80.	26	18.	0	-	Times administrative offices are open
116	79.	28	19.	5	3.	Times services are available
		3	2.	12	8.	No response (No problems; no one worst)
<u>Personal Problems</u>						
67	46.	76	52.	40	27.	Financing education
72	49.	71	48.	22	15.	Finding time to study
116	79.	27	18.	4	3.	Adequacy of places to study
63	43.	80	54.	15	10.	Job responsibilities
127	86.	16	11.	3	2.	Employer attitudes
81	55.	62	42.	11	7.	Family responsibilities
123	84.	20	14.	1	1.	Attitudes of family members
130	88.	13	9.	5	3.	Opportunities for spouse
127	86.	16	11.	0	-	Community responsibilities
112	76.	31	21.	1	1.	Transportation
99	67.	44	30.	11	7.	Attitudes of some instructors
120	82.	23	16.	3	2.	Attitudes of some fellow students
125	85.	18	12.	7	5.	Academic skills
124	84.	19	13.	3	2.	Physical stamina
108	73.	35	24.	6	4.	Self-confidence
119	81.	24	16.	2	1.	Working with other students on projects
122	83.	21	14.	2	1.	Opportunities to use skills or knowledge
135	92.	8	5.	1	1.	Communicating in English
		4	3.	12	8.	No response (No problems; no one worst)

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VERY IMPORTANT		SOMEWHAT IMPORTANT		NOT IMPORTANT		NO RESPONSE		
N	%	N	%	N	%	N	%	
<u>Importance of Institutional Services</u>								
47	32.	40	27.	57	39.	3	2.	Opportunities for teaching exper.
63	43.	49	33.	31	21.	4	3.	Opportunities for research exper.
59	40.	30	20.	56	38.	2	1.	Courses taught evenings/weekends
50	34.	39	27.	54	37.	4	3.	Courses which meet once a week
33	22.	16	11.	94	64.	4	3.	Courses taught off-campus
46	31.	52	35.	45	31.	4	3.	Computer facilities
34	23.	54	37.	55	37.	4	3.	Computer consultants
35	24.	46	31.	62	42.	4	3.	Statistical consultants
117	80.	23	16.	5	3.	2	1.	Library facilities
46	31.	42	29.	54	37.	5	3.	Labs, studios, other special facil.
7	5.	34	23.	102	69.	4	3.	Tutoring, individualized help
4	3.	27	18.	111	76.	5	3.	Training in foreign languages
6	4.	11	7.	125	85.	5	3.	English language training
17	12.	59	40.	66	45.	5	3.	Colloquia, special lectures
22	15.	41	26.	79	54.	5	3.	Evaluation/credit for nonacademic learning
27	18.	76	52.	42	29.	2	1.	Cultural events
11	7.	50	34.	82	56.	4	3.	Athletic events
39	27.	56	38.	48	33.	4	3.	Recreational facilities
13	9.	32	22.	95	65.	7	5.	Peer support groups
44	30.	64	44.	34	23.	5	3.	Informal contact with other students
82	56.	26	18.	36	24.	3	2.	Part-time employment
37	25.	33	22.	74	50.	3	2.	Emergency short-term loans
60	41.	19	13.	65	44.	3	2.	Long-term loans
78	53.	39	27.	27	18.	3	2.	Placement service for graduates
50	34.	34	23.	60	41.	3	2.	Employment service for students
30	20.	30	20.	83	56.	4	3.	Financial planning assistance
41	28.	39	27.	64	44.	3	2.	Tuition payment options
95	65.	34	23.	17	12.	1	1.	Parking facilities
37	25.	44	30.	62	42.	4	3.	Public transportation
17	12.	48	33.	78	53.	4	3.	Personal counseling
32	22.	63	43.	49	33.	3	2.	Career counseling
22	15.	80	54.	41	28.	4	3.	Cafeteria, restaurant, snack facilities
34	23.	63	43.	46	31.	4	3.	Lounge and study areas
32	22.	31	21.	79	54.	5	3.	Campus housing
41	28.	48	33.	55	37.	3	2.	Health care facilities
48	33.	24	16.	70	48.	5	3.	Health insurance for students/families
13	9.	17	12.	113	77.	4	3.	Child care service
41	28.	47	32.	54	37.	5	3.	Emergency locator service
65	44.	44	30.	37	25.	1	1.	Registration options

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POOR		FAIR		GOOD		EXCELLENT		NOT OFFER.		NOT USED		NO RESPONSE		Quality of services
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
8	5.	22	15.	28	19.	13	9.	22	15.	50	34.	4	3.	Opportunities for teaching experience
7	5.	21	14.	48	33.	20	14.	12	8.	35	24.	4	3.	Opportunities for research experience
8	5.	27	18.	50	34.	29	20.	7	5.	26	18.	0	-	Courses taught evenings or weekends
4	3.	28	19.	46	31.	37	25.	9	6.	21	14.	2	1.	Courses which meet once a week
6	4.	13	9.	19	13.	18	12.	25	17.	65	44.	1	1.	Off-campus courses
1	1.	17	12.	63	43.	48	33.	4	3.	9	6.	5	3.	Courses taught on the main campus
6	4.	21	14.	40	27.	18	12.	6	4.	52	35.	4	3.	Computer facilities
8	5.	22	15.	19	13.	9	6.	18	11.	69	47.	4	3.	Computer consultants
4	3.	14	10.	16	11.	9	6.	37	25.	62	42.	5	3.	Statistical consultants
28	19.	37	25.	45	31.	25	17.	0	-	9	6.	3	2.	Library facilities
11	7.	27	18.	33	22.	5	3.	8	5.	57	39.	6	4.	Labs, studios, specialized facilities
8	5.	5	3.	8	5.	3	2.	29	20.	88	60.	6	4.	Tutoring, individualized help
2	1.	9	6.	9	6.	2	1.	23	16.	96	65.	6	4.	Training in foreign languages
3	2.	4	3.	7	5.	3	2.	28	19.	97	66.	5	3.	English language training
5	3.	21	14.	39	27.	7	5.	14	10.	56	38.	5	3.	Colloquia, special lectures
10	7.	4	3.	6	4.	1	1.	62	42.	58	39.	6	4.	Evaluation for nonacademic learning
4	3.	22	15.	57	39.	29	20.	7	5.	25	17.	3	2.	Cultural events
2	1.	7	5.	50	34.	33	22.	6	4.	45	31.	4	3.	Athletic events
3	2.	7	5.	51	35.	37	25.	7	5.	38	26.	4	3.	Recreational facilities
4	3.	9	6.	9	6.	6	4.	46	31.	69	47.	4	3.	Peer support groups
5	3.	33	22.	54	37.	28	19.	6	4.	17	12.	4	3.	Informal contact with other students
13	9.	16	11.	41	28.	14	10.	7	5.	52	35.	4	3.	Part-time employment for students
10	7.	5	3.	6	4.	3	2.	40	27.	79	54.	4	3.	Emergency short-term loans
8	5.	12	8.	20	14.	11	7.	22	15.	70	48.	4	3.	Long-term loans
12	8.	19	13.	17	12.	4	3.	19	13.	72	49.	4	3.	Placement service for graduates
7	5.	18	12.	11	7.	3	2.	30	20.	74	50.	4	3.	Employment service for students
6	4.	5	3.	6	4.	0	-	51	35.	74	50.	5	3.	Financial planning assistance
15	10.	11	7.	13	9.	4	3.	38	26.	61	41.	5	3.	Tuition payment options
73	50.	43	29.	16	11.	3	2.	1	1.	10	7.	1	1.	Parking facilities
14	10.	28	19.	39	27.	6	4.	8	5.	48	33.	4	3.	Public transportation
8	5.	9	6.	24	16.	4	3.	26	18.	71	48.	5	3.	Personal counseling
15	10.	19	13.	25	17.	2	1.	24	16.	57	39.	5	3.	Career counseling
8	5.	25	17.	38	26.	15	10.	10	7.	47	32.	4	3.	Health care facilities
10	7.	14	10.	32	22.	4	3.	17	12.	65	44.	5	3.	Health insurance for students, families
5	3.	3	2.	2	1.	8	-	51	35.	82	56.	4	3.	Child care service
6	4.	3	2.	3	2.	2	1.	66	45.	62	42.	5	3.	Emergency locator service
14	10.	12	8.	20	14.	14	10.	49	33.	32	22.	6	4.	Registration options
6	4.	43	29.	69	47.	10	7.	1	1.	15	10.	3	2.	Cafeteria, restaurant, snack facilities
22	15.	40	27.	43	29.	5	3.	4	3.	28	19.	5	3.	Lounge and study areas
5	3.	22	15.	37	25.	7	5.	6	4.	66	45.	4	3.	Campus housing
17	12.	42	29.	53	36.	4	3.	2	1.	25	17.	4	3.	Protection of student safety, security

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QUALITY ASSESSMENTS OF THOSE RESPONDENTS WHO HAVE USED THE SERVICE

POOR		FAIR		GOOD		EXCELLENT		N		<u>Quality of services</u>
#	%	#	%	#	%	#	%	#	%	
8	11.	22	31.	28	39.	13	18.	71	48.	Opportunities for teaching experience
7	7.	21	22.	48	50.	20	21.	96	65.	Opportunities for research experience
8	7.	27	24.	50	44.	29	25.	114	78.	Courses taught evenings or weekends
4	3.	28	24.	46	40.	37	32.	115	78.	Courses which meet once a week
6	11.	13	23.	19	34.	18	32.	56	38.	Off-campus courses
1	1.	17	13.	63	49.	48	37.	129	88.	Courses taught on the main campus
6	7.	21	25.	40	47.	18	21.	85	58.	Computer facilities
8	14.	22	38.	19	33.	9	16.	58	39.	Computer consultants
4	9.	14	33.	16	37.	9	21.	43	29.	Statistical consultants
28	21.	37	27.	45	33.	25	19.	135	92.	Library facilities
11	14.	27	36.	33	43.	5	7.	76	52.	Labs, studios, specialized facilities
8	33.	5	21.	8	33.	3	13.	24	16.	Tutoring, individualized help
2	9.	9	41.	9	41.	2	9.	22	15.	Training in foreign languages
3	18.	4	24.	7	41.	3	18.	17	12.	English language training
5	7.	21	29.	39	54.	7	10.	72	49.	Colloquia, special lectures
10	48.	4	19.	6	29.	1	5.	21	14.	Evaluation for nonacademic learning
4	4.	22	20.	57	51.	29	26.	112	76.	Cultural events
2	2.	7	8.	50	54.	33	36.	92	63.	Athletic events
3	3.	7	7.	51	52.	37	38.	98	67.	Recreational facilities
4	14.	9	32.	9	32.	6	21.	28	19.	Peer support groups
5	4.	33	27.	54	45.	28	23.	120	82.	Informal contact with other students
13	15.	16	19.	41	49.	14	17.	84	57.	Part-time employment for students
10	42.	5	21.	6	25.	3	13.	24	16.	Emergency short-term loans
8	16.	12	24.	20	39.	11	22.	51	35.	Long-term loans
12	23.	19	37.	17	33.	4	8.	52	35.	Placement service for graduates
7	18.	18	46.	11	28.	3	8.	39	27.	Employment service for students
6	35.	5	29.	6	35.	0	-	17	12.	Financial planning assistance
15	35.	11	26.	13	30.	4	9.	43	29.	Tuition payment options
73	54.	43	32.	16	12.	3	2.	135	92.	Parking facilities
14	16.	28	32.	39	45.	6	7.	87	59.	Public transportation
8	18.	9	20.	24	53.	4	9.	45	31.	Personal counseling
15	25.	19	31.	25	41.	2	3.	61	41.	Career counseling
8	9.	25	29.	38	44.	15	17.	86	59.	Health care facilities
10	17.	14	23.	32	53.	4	7.	60	41.	Health insurance for students, families
5	50.	3	30.	2	20.	0	-	10	7.	Child care service
6	43.	3	21.	3	21.	2	14.	14	10.	Emergency locator service
14	23.	12	20.	20	33.	14	23.	60	41.	Registration options
6	5.	43	34.	69	54.	10	8.	128	87.	Cafeteria, restaurant, snack facilities
22	20.	40	36.	43	39.	5	5.	110	75.	Lounge and study areas
5	7.	22	31.	37	52.	7	10.	71	48.	Campus housing
17	15.	42	36.	53	46.	4	3.	116	79.	Protection of student safety, security

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SEVERAL/ WEEK		SEVERAL/ MONTH		SEVERAL/ TERM		ONCE/ TERM		1-2/ YEAR		NOT 1/ YEAR		NOT AVAILABLE/ NEVER USED		NO RESPONSE		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
<u>Current Use of Services</u>																
15	10.	17	12.	12	8.	9	6.	14	10.	22	15.	58	39.	0	-	Computer facilities
0	-	4	3.	9	6.	9	6.	12	8.	16	11.	95	65.	2	1.	Computer consultants
1	1.	0	-	3	2.	3	2.	9	6.	17	12.	114	78.	0	-	Statistical consultants
65	44.	38	26.	22	15.	7	5.	4	3.	1	1.	9	6.	1	1.	Library facilities
36	24.	10	7.	6	4.	6	4.	8	5.	9	6.	71	48.	1	1.	Labs, studios, special facilities
0	-	0	-	4	3.	3	2.	3	2.	12	8.	124	84.	1	1.	Tutoring, individualized help
1	1.	11	7.	15	10.	16	11.	23	16.	8	5.	72	49.	1	1.	Colloquia, special lectures
0	-	8	5.	23	16.	28	19.	36	24.	11	7.	39	27.	2	1.	Cultural events
0	-	9	6.	22	15.	18	12.	22	15.	13	9.	62	42.	1	1.	Athletic events
13	9.	14	10.	25	17.	11	7.	12	8.	9	6.	62	42.	1	1.	Recreational facilities
0	-	0	-	3	2.	1	1.	4	3.	8	5.	129	88.	2	1.	Peer support groups
96	65.	10	7.	9	6.	6	4.	3	2.	2	1.	21	14.	0	-	Parking facilities
16	11.	4	3.	14	10.	7	5.	10	7.	8	5.	86	59.	2	1.	Public transportation
48	33.	17	12.	36	24.	8	5.	9	6.	5	3.	24	16.	0	-	Cafeteria, restaurant, snacks
23	16.	18	12.	27	18.	7	5.	8	5.	10	7.	52	35.	2	1.	Lounge and study areas
0	-	1	1.	6	4.	23	16.	21	14.	23	16.	72	49.	1	1.	Health care facilities
1	1.	0	-	0	-	0	-	1	1.	2	1.	142	97.	1	1.	Child care service

FREQUENCY OF USE BY THOSE WHO HAVE USED SERVICE

SEVERAL/ WEEK		SEVERAL/ MONTH		SEVERAL/ TERM		ONCE/ TERM		1-2/ YEAR		NOT 1/ YEAR		NUMBER USING		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
<u>Current Use of Services</u>														
15	17.	17	19.	12	13.	9	10.	14	16.	22	25.	89	61.	Computer facilities
0	-	4	8.	9	18.	9	18.	12	24.	16	32.	50	34.	Computer consultants
1	3.	0	-	3	9.	3	9.	9	27.	17	52.	33	22.	Statistical consultants
65	47.	38	28.	22	16.	7	5.	4	3.	1	1.	137	93.	Library facilities
36	46.	10	13.	6	8.	6	8.	8	11.	9	12.	75	51.	Labs, studios, special facilities
0	-	0	-	4	18.	3	14.	3	14.	12	55.	22	15.	Tutoring, individualized help
1	1.	11	15.	15	20.	16	22.	23	31.	8	11.	74	50.	Colloquia, special lectures
0	-	8	8.	23	22.	28	26.	36	34.	11	10.	106	72.	Cultural events
0	-	9	11.	22	26.	18	21.	22	26.	13	15.	84	57.	Athletic events
13	15.	14	17.	25	30.	11	13.	12	14.	9	11.	84	57.	Recreational facilities
0	-	0	-	3	19.	1	6.	4	25.	8	50.	16	11.	Peer support groups
96	76.	10	8.	9	7.	6	5.	3	2.	2	2.	126	86.	Parking facilities
16	27.	4	7.	14	24.	7	12.	10	17.	8	14.	59	40.	Public transportation
48	39.	17	14.	36	29.	8	7.	9	7.	5	4.	123	84.	Cafeteria, restaurant, snacks
23	25.	18	19.	27	29.	7	8.	8	9.	10	11.	93	63.	Lounge and study areas
0	-	1	1.	6	8.	23	31.	21	28.	23	31.	74	50.	Health care facilities
1	25.	0	-	0	-	0	-	1	25.	2	50.	4	3.	Child care service

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Type of Program in Which Enrolled

NON-DEGREE		MASTER'S		CERTIFI- CATE		INTER- MEDIATE		FIRST PROF.		DOCTORATE		POST- DOC.		NO RESPONSE	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
5	3.	91	62.	1	1.	1	1.	0	-	48	33.	0	-	1	1.

Most of the following questions evaluating graduate programs were from the "Graduate Program Self-Assessment" questionnaire developed and copyrighted by the Educational Testing Service; these questions were reprinted with the permission of ETS. Students not registered in a degree program did not complete these items.

Percentages through page 10 are based on 142 responses unless otherwise indicated.

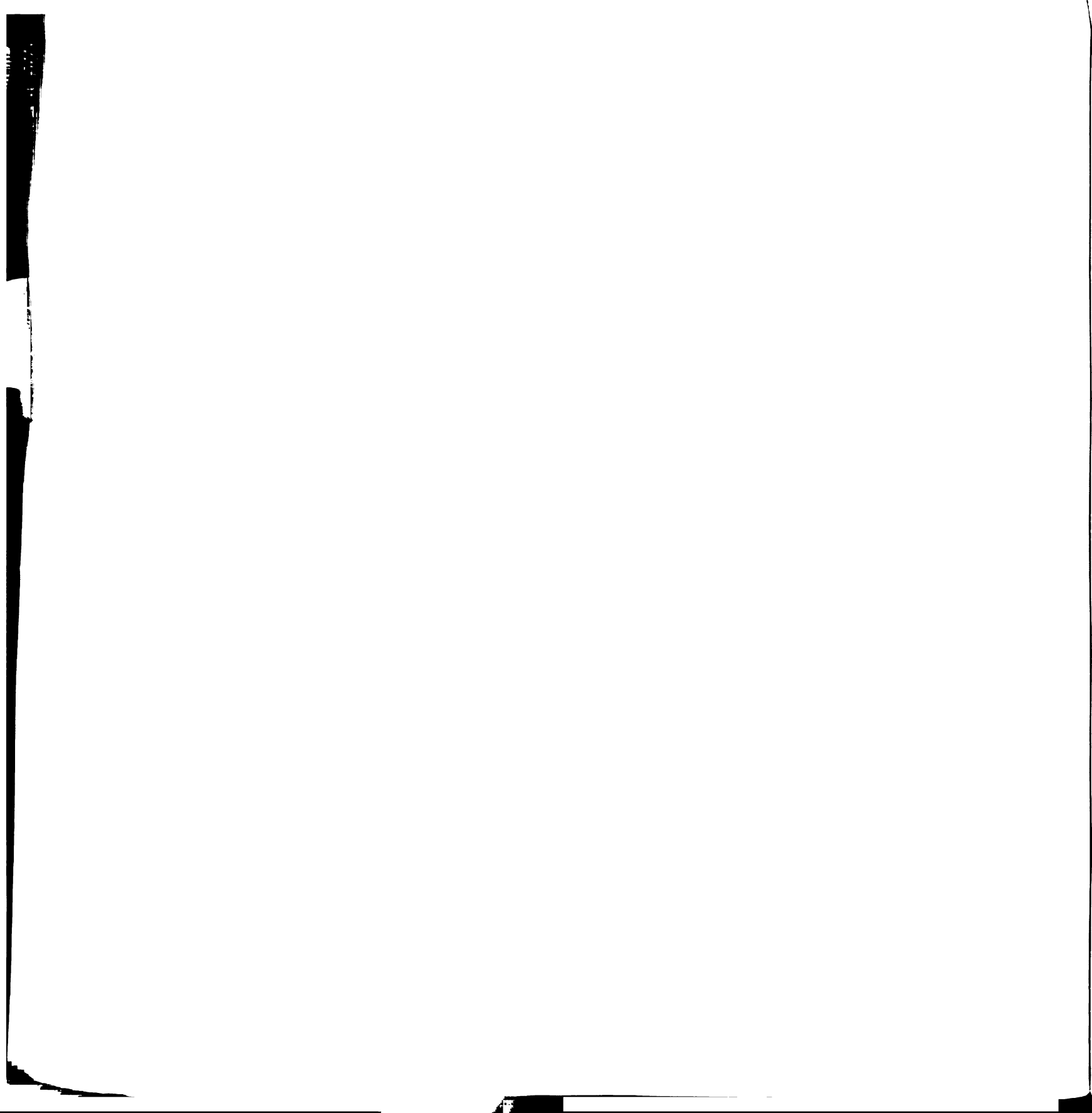
Degree of Importance

NONE		LITTLE		SOME		CONSID.		EXTREME		NO RESP.		
#	%	#	%	#	%	#	%	#	%	#	%	
8	6.	24	17.	32	23.	53	37.	22	15.	3	2.	<u>Importance to Department</u>
17	12.	33	23.	42	30.	37	26.	11	8.	2	1.	Prep. scholars/researchers
9	6.	12	8.	22	15.	63	44.	35	25.	1	1.	Preparing college teachers
8	6.	19	13.	53	37.	50	35.	9	6.	3	2.	Preparing other practitioners
19	13.	30	21.	40	28.	43	30.	8	6.	2	1.	Preparing for further study
												For personal enrichment
8	6.	25	18.	20	14.	39	27.	47	33.	3	2.	<u>Importance to Student</u>
32	23.	26	18.	23	16.	30	21.	27	19.	4	3.	Prep. to be schol./researcher
9	6.	14	10.	12	8.	39	27.	68	48.	0	-	Prep. to be college teacher
7	5.	20	14.	30	21.	55	39.	27	19.	3	2.	Preparing for other practice
2	1.	4	3.	23	16.	59	42.	52	37.	2	1.	Preparing for further study
												For personal enrichment

SCORES ON ETS SCALES (N = 142)

(From 1=Poor to 4=Excellent)

NO RESP./ NOT CALC.		1		2		3		4		
#	%	#	%	#	%	#	%	#	%	
2	1.	0	-	23	16.	111	78.	6	4.	Environment for learning
1	1.	5	4.	24	17.	79	56.	33	23.	Scholarly excellence of faculty
0	-	3	2.	17	12.	60	42.	62	44.	Overall satisfaction
1	1.	3	2.	42	30.	84	59.	12	8.	Relevance of program
3	2.	5	4.	35	25.	80	56.	19	13.	Faculty concern for students
1	1.	11	8.	52	37.	72	51.	6	4.	Curriculum
0	-	1	1.	39	27.	89	63.	13	9.	Quality of teaching
8	6.	4	3.	42	30.	78	55.	10	7.	Evaluation of students



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Number of Respondents in Degree Programs: 142

QUESTIONS FROM ETS GRADUATE PROGRAM SELF-ASSESSMENT

POOR		FAIR		GOOD		EXCELLENT		NO RESP.		
#	%	#	%	#	%	#	%	#	%	
<u>Ratings of Department</u>										
10	7.	33	23.	77	54.	21	15.	1	1.	1. Intellectual environment
15	11.	47	33.	62	44.	18	13.	0	-	Advice about the program
29	20.	53	37.	51	36.	7	5.	2	1.	Career advice
9	6.	39	27.	77	54.	17	12.	0	-	Agreement between requirements and program objectives
11	8.	38	27.	75	53.	15	11.	3	2.	Administration of degree requirements
16	11.	55	39.	54	38.	14	10.	3	2.	Available library holdings in field
17	13.	53	37.	47	33.	11	8.	12	8.	Specialized facilities for work in field
33	23.	47	33.	47	33.	10	7.	5	4.	Interaction between department and related disciplines
5	4.	31	22.	55	39.	51	36.	0	-	Scholarly/prof. competence of faculty
26	18.	54	38.	52	37.	10	7.	0	-	Regularity of offering courses
13	9.	36	27.	78	55.	11	8.	2	1.	Scholarly/prof. promise of grad. students
46	32.	44	31.	45	32.	3	2.	4	3.	Opportunities for student participation in department decisions
8	6.	40	28.	73	51.	20	14.	1	1.	Relevance of degree requirements to anticipated work
8	6.	42	30.	86	61.	6	4.	0	-	Evaluation procedure in graduate courses
9	6.	47	33.	70	49.	15	11.	1	1.	Teaching methods in graduate courses
19	13.	45	32.	63	44.	15	11.	0	-	Variety of course/program offerings
12	8.	44	31.	67	47.	16	11.	3	2.	Depth of program offerings
19	13.	48	34.	53	37.	20	14.	2	1.	Flexibility of program
3	2.	37	26.	67	47.	35	25.	0	-	Accessibility of course instructors
10	7.	30	21.	45	32.	56	39.	1	1.	Accessibility of adviser/thesis director
14	10.	35	25.	62	44.	28	20.	3	2.	Opportunities to pursue individual projects
17	12.	45	32.	62	44.	15	11.	3	2.	Evaluation of progress toward degree
13	9.	29	20.	61	43.	38	27.	1	1.	Faculty-student relationships
9	6.	39	27.	80	56.	14	10.	0	-	Admissions procedures
7	5.	42	30.	62	44.	29	20.	1	1.	Overall quality of teaching
9	6.	40	28.	72	51.	17	12.	4	3.	Relevance of courses in related fields
4	3.	16	11.	20	14.	10	7.	-	-	Evaluation of doctoral comps/quals
2	1.	14	10.	24	17.	8	6.	-	-	Procedures for supervising dissertation
4	3.	11	8.	31	22.	3	2.	-	-	Procedures for supervising master's theses
19	13.	52	37.	44	31.	15	11.	12	8.	Opportunities to develop mentors/sponsors
17	12.	50	35.	60	42.	8	6.	7	5.	Evaluation of students' prof. competence
17	12.	50	35.	58	41.	12	8.	5	4.	University commitment to program
17	12.	44	31.	64	45.	15	11.	2	1.	Useful faculty criticism of work
8	6.	32	23.	77	54.	25	18.	0	-	Faculty helpfulness in dealing with classwork
3	2.	31	22.	69	49.	36	25.	3	2.	Faculty awareness of new developments in field
34	24.	57	40.	35	25.	8	6.	8	6.	Adequacy of financial resources for grad. students
21	15.	60	42.	50	35.	9	6.	2	1.	Facilities for classes, administration
20	14.	59	42.	52	37.	4	3.	7	5.	Number of support staff for program
8	6.	50	35.	63	44.	12	8.	9	6.	Quality of support staff

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Number of Respondents in Degree Programs: 142

DISAGREE STRONGLY		DISAGREE SOME		AGREE SOME		AGREE STRONGLY		NO RESPONSE		
#	%	#	%	#	%	#	%	#	%	
<u>Degree of Agreement</u>										
5	4.	17	12.	66	46.	54	38.	0	-	Faculty members are genuinely interested in welfare, prof. develop of grad. students
8	6.	19	13.	82	58.	31	22.	2	1.	Different scholarly points of view are encouraged
4	3.	10	7.	70	49.	58	41.	0	-	Graduate students work hard in this program
13	9.	15	11.	62	44.	52	37.	0	-	Department has a humane environment, mutual respect between students and professors
4	3.	9	6.	57	40.	72	51.	0	-	I have learned a great deal in this program
12	8.	19	13.	57	40.	54	38.	0	-	I would advise a friend to enroll in this program
17	12.	51	36.	55	39.	18	13.	1	1.	Graduate students do a lot of unassigned reading
5	4.	22	15.	77	54.	38	27.	0	-	Program is intellectually stimulating
25	18.	50	35.	52	37.	7	5.	8	6.	Faculty members help graduates find employment
3	2.	32	23.	82	58.	23	16.	2	1.	Faculty members prepare carefully for their graduate courses
7	5.	17	12.	78	55.	39	27.	1	1.	Graduate students support, help each other
14	10.	25	18.	56	39.	47	33.	0	-	If starting over, I would enroll again
4	3.	18	13.	73	51.	46	32.	1	1.	Program is providing good preparation for later professional work
9	6.	28	20.	79	56.	23	16.	3	2.	Members of faculty work together to achieve program goals
21	15.	43	30.	58	41.	19	13.	1	1.	Well advised on use of department's people and resources
14	10.	40	28.	61	43.	26	18.	1	1.	Faculty members help integrate past experience with new learning
33	23.	60	42.	30	21.	17	12.	2	1.	Some professors unduly exploit their students
18	13.	63	44.	41	29.	15	11.	5	3.	Department is collection of individuals, very little team effort
12	8.	23	16.	81	57.	12	8.	14	10.	Decisions about financial assistance are fair, equitable
11	8.	36	25.	76	54.	14	10.	5	3.	Faculty is receptive to new ideas, ways of doing things
14	10.	32	23.	78	55.	15	11.	3	2.	Good communication between faculty and graduate students
16	11.	36	25.	48	34.	39	27.	3	2.	Many opportunities for interaction with major professor outside classroom
14	10.	49	35.	60	42.	14	10.	5	3.	Many opportunities for interaction with other faculty outside classroom
19	13.	47	33.	49	35.	23	16.	4	3.	Most courses that count toward grad. degree are open only to graduate students
7	5.	21	15.	86	61.	26	18.	2	1.	Grad. students demonstrate enthusiastic involvement with the field
2	1.	17	12.	90	63.	32	23.	1	1.	Graduate students handle course assignments with care, responsibility
1	1.	16	11.	85	60.	39	27.	1	1.	Graduate students continue projects until they are completed
3	2.	6	4.	31	22.	101	71.	1	1.	I am sure I will complete the degree on which I am now working
12	8.	23	16.	73	51.	30	21.	4	3.	Professors have realistic view of my responsibilities outside classes
3	2.	18	13.	81	57.	36	25.	4	3.	Instructors use many examples in their teaching
17	12.	32	23.	63	44.	27	19.	3	2.	When I first started, faculty and grad. students were helpful sources of information
Because of job, family, or commuting, it has been hard to .										
18	13.	63	44.	32	23.	27	19.	2	1.	. use administrative offices
25	18.	60	42.	36	25.	17	12.	4	3.	. schedule time to consult with adviser/thesis chairman
19	13.	61	43.	35	25.	23	16.	4	3.	. meet with instructors outside class
32	22.	59	42.	31	22.	16	11.	4	3.	. register for classes or research

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Number of Respondents in Degree Programs: 147

YES		NO		NO RESP.						
#	%	#	%	#	%					
<u>Which have you done within last 12 months?</u>										
93	65.	47	33.	2	1.	1. Attended meeting(s) of scholarly or professional society				
21	15.	117	82.	4	2.	2. Been author/coauthor of scholarly paper accepted for presentation at prof. meeting				
20	14.	120	85.	2	1.	1. Been author/coauthor of paper submitted to journal				
35	25.	105	74.	2	1.	1. Publically demonstrated artistic products/skills				
52	37.	88	62.	2	1.	1. Prepared detailed proposal for major research project				
82	58.	57	40.	3	2.	2. Carried out independent research or creative project				
65	46.	74	52.	3	2.	2. Cooperated in research or creative project with student or faculty member				
50	35.	91	64.	1	1.	1. Held fellowship, traineeship, or scholarship				
69	49.	72	51.	1	1.	1. Participated in professional clinical, field work, or internship experience				
113	79.	28	20.	1	1.	1. Talked with professionals about graduate program or career plans				
112	79.	28	20.	2	1.	1. Pursued independently planned reading or practice in field				
41	29.	98	69.	3	2.	2. Conducted an independent activity for profit				
19	13.	119	84.	4	3.	3. Won prize or award for product or activity related to field				
19	13.	120	85.	3	2.	2. Served on department or university committee				
23	16.	116	82.	3	2.	2. Participated in departmental planning				
44	31.	92	65.	6	4.	4. Have you participated in a clinical, field work, or internship experience required by your graduate program?				
59	42.	76	53.	7	5.	5. Have you been a research or teaching assistant while in this program?				
POOR		FAIR		GOOD		EXCELLENT		NO RESP.		
#	%	#	%	#	%	#	%	#	%	
<u>Evaluation of practicum (N = 44)</u>										
4	8.	14	28.	17	34.	8	16.	7	14.	Departmental training for duties
5	10.	7	14.	14	28.	17	34.	7	14.	Contribution to academic development
2	4.	11	22.	13	26.	17	34.	7	14.	Chance to practice professional skills
3	6.	12	24.	13	26.	15	30.	7	14.	Variety of assignments/experiences
7	14.	14	28.	13	26.	9	18.	7	14.	Supervision received
8	16.	10	20.	12	24.	13	26.	7	14.	Office space and equipment available
<u>Evaluation of assistantship (N = 59)</u>										
14	21.	19	29.	15	23.	7	11.	11	17.	Departmental training for duties
3	5.	12	18.	23	35.	18	27.	10	15.	Contribution to academic development
3	5.	17	26.	20	30.	16	24.	10	15.	Chance to practice professional skills
10	15.	14	21.	19	29.	13	20.	10	15.	Degree to which staff treated you as a colleague
9	14.	11	17.	22	33.	14	21.	10	15.	Absence of unnecessary dirty work
12	18.	13	20.	18	27.	13	20.	10	15.	Office space and equipment available
9	14.	20	30.	15	23.	12	18.	10	15.	Supervision you received

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EDUCATIONAL EXPERIENCE

	<u>Type of Institution</u>										<u>Type of Study</u>						<u>Field of Study</u>					
	<u>THIS</u>		<u>OTHER</u>		<u>OTHER</u>		<u>NOT</u>		<u>NO</u>		<u>PART-TIME</u>		<u>FULL-TIME</u>		<u>NO RESP.</u>		<u>SAME</u>		<u>DIFFERENT</u>		<u>NO RESP.</u>	
	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
<u>Future</u>																						
After 1983	42	29.	4	3.	7	5.	44	30.	50	34.	30	57.	22	42.	1	1.	47	89.	6	11.	0	-
1982-83	91	62.	1	1.	5	3.	22	15.	28	19.	45	44.	52	54.	0	-	91	94.	6	6.	0	-
<u>Current</u>																						
1981-82	131	89.	1	1.	3	2.	5	3.	7	5.	58	43.	76	56.	1	1.	128	95.	5	4.	2	1.
<u>Past</u>																						
1980-81	98	67.	11	7.	1	1.	24	18.	11	7.	47	43.	61	55.	2	2.	97	88.	10	9.	3	3.
1979-80	68	46.	30	20.	3	2.	28	19.	18	12.	38	38.	62	61.	1	1.	77	76.	21	21.	3	3.
1978-79	47	32.	40	27.	4	3.	37	25.	19	13.	25	28.	65	71.	1	1.	61	67.	28	31.	2	2.
1977-78	34	23.	43	29.	7	5.	42	29.	21	14.	20	24.	63	75.	1	1.	44	52.	37	44.	3	4.
1976-77	29	20.	46	31.	10	7.	33	23.	29	20.	21	25.	64	75.	0	-	37	44.	43	50.	5	6.
1975-76	23	16.	35	24.	14	10.	41	28.	34	23.	20	28.	51	71.	1	1.	34	47.	35	49.	3	4.
1974-75	21	14.	37	25.	10	7.	45	31.	34	23.	19	28.	40	71.	1	1.	26	38.	38	56.	4	6.
1973-74	19	13.	33	22.	13	9.	45	31.	37	25.	16	25.	48	74.	1	1.	26	48.	35	54.	4	6.
1972-73	14	10.	30	20.	7	5.	54	37.	42	29.	11	22.	39	76.	1	2.	22	43.	26	51.	3	6.
Pre-1972	10	7.	38	26.	8	5.	47	32.	47	32.	6	11.	46	82.	4	7.	23	41.	26	46.	7	13.

* Of those enrolled in postsecondary education that year.

	<u>Institution Granting Previous Degrees</u>								<u>Type of Study</u>						<u>Field of Study</u>					
	<u>THIS</u>		<u>OTHER</u>		<u>NOT</u>		<u>NO RESP./</u>		<u>PART-TIME</u>		<u>FULL-TIME</u>		<u>NO RESP.</u>		<u>SAME</u>		<u>DIFFERENT</u>		<u>NO RESP.</u>	
	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
1st Bach	27	18.	69	47.	2	1.	49	33.	7	7.	88	92.	1	1.	50	52.	44	46.	2	2.
2nd Bach	1	1.	2	1.	133	98.	11	7.	2	67.	1	33.	0	-	3	100.	0	-	0	-
1st Mast	57	39.	10	7.	18	12.	62	42.	27	39.	43	61.	0	-	57	84.	11	16.	0	-
2nd Mast	3	2.	1	1.	123	84.	20	14.	2	56.	2	50.	0	-	3	75.	1	25.	0	-
Doctorate	13	9.	0	-	69	47.	65	44.	5	38.	8	62.	0	-	13	100.	0	-	0	-
1st Prof	0	-	0	-	134	91.	13	9.	-	-	-	-	-	-	-	-	-	-	-	-

Number of Years "Stopped Out"

(Years "Not Enrolled" after first year of enrollment in a post-secondary institution)

	<u>#</u>	<u>%</u>
No resp.	2	1.
0	65	44.
1	24	16.
2	12	8.
3	4	3.
4	13	9.
5	6	4.
6	8	5.
7	7	5.
8	4	3.
9	1	1.
10+	1	1.

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Type of Enrollment of Most Students in Program

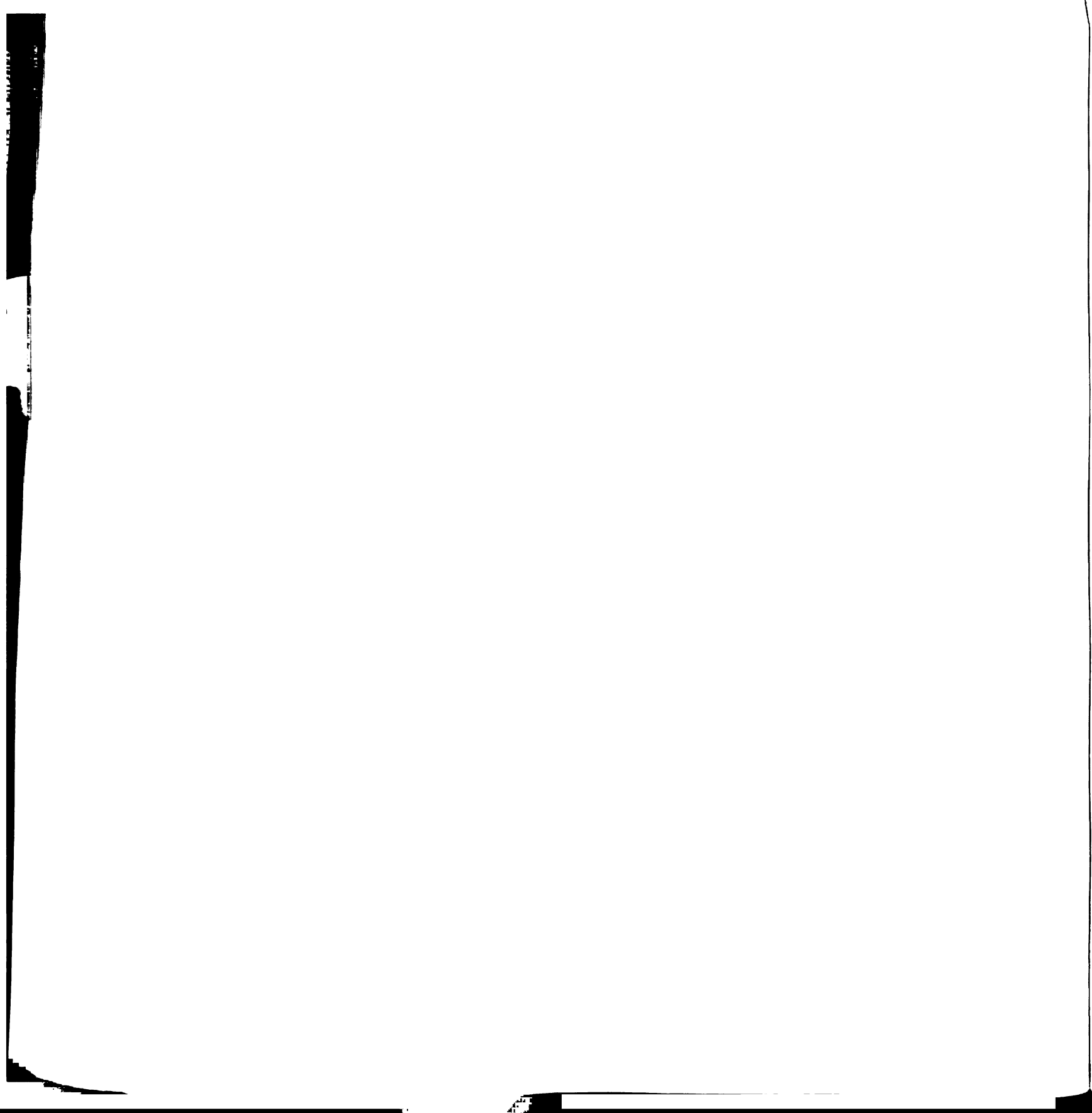
PART-TIME		FULL-TIME		DON'T KNOW		NO RESP.	
#	%	#	%	#	%	#	%
52	35.	69	47.	24	16.	2	1.

Grade Point Average in Current Program

A		A-		B		B-		C OR LOWER		NONE REC.		NO RESP.	
#	%	#	%	#	%	#	%	#	%	#	%	#	%
68	46.	52	35.	20	14.	0	-	1	1.	4	3.	2	1.

Year in Which Degree Received or Expected

	FIRST BACH.		SECOND BACH.		FIRST MASTER'S		SECOND MASTER'S		DOCTORATE		FIRST PROF.	
	#	%	#	%	#	%	#	%	#	%	#	%
No response	4	3.	7	5.	6	4.	12	8.	11	7.	13	9.
Not rec./planned	2	1.	133	90.	18	12.	123	84.	69	47.	133	90.
1957	2	1.										
1958	1	1.										
1959	0	-										
1960	1	1.			1	1.						
1961	2	1.			0	-						
1962	1	1.			0	-						
1963	2	1.			1	1.						
1964	4	3.			1	1.						
1965	3	2.			1	1.						
1966	3	2.			0	-						
1967	2	1.	1	1.	0	-						
1968	2	1.	0	-	1	1.						
1969	1	1.	0	-	1	1.						
1970	4	3.	0	-	1	1.						
1971	2	1.	0	-	2	1.						
1972	3	2.	0	-	3	2.						
1973	9	6.	0	-	3	2.						
1974	11	7.	0	-	0	-						
1975	8	5.	0	-	1	1.						
1976	9	6.	1	1.	4	3.	1	1.				
1977	13	9.	0	-	5	3.	0	-				
1978	8	5.	0	-	4	3.	0	-				
1979	12	8.	2	1.	3	2.	0	-				
1980	24	16.	0	-	6	4.	1	1.				
1981	14	10.	0	-	1	1.	0	-				
1982	1	1.	1	1.	48	33.	3	2.	13	9.		
1983	1	1.	1	1.	25	17.	3	2.	12	8.		
1984			0	-	5	3.	2	1.	12	8.		
1985			1	1.	5	3.	1	1.	15	10.		
1986					1	1.	0	-	5	3.	1	1.
1987							0	-	5	3.		
1988							0	-	1	1.		
1989							0	-	1	1.		
1990							1	1.	1	1.		
1995									1	1.		
1997									1	1.		



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	LOAD THIS TERM						TOTAL COURSES TAKEN PER LOCATION							
	COURSES		CREDITS		EFFEC.CRED		ON CAMP.		OFF-CAMP.		AT WORK		ELSEWHERE	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
No response	3	2.	1	1.	17	12.	8	5.	8	5.	9	6.	9	6.
0	9	6.	3	2.	2	1.	19	13.	105	71.	130	88.	127	86.
1	45	31.	0	-	0	-	1	1.	6	4.	2	1.	2	1.
2	39	27.	0	-	0	-	3	2.	1	1.	2	1.	1	1.
3	28	19.	42	28.	27	18.	1	1.	8	5.	2	1.	4	3.
4	13	9.	2	1.	0	-	4	3.	3	2.	0	-	0	-
5	7	5.	1	1.	0	-	2	1.	1	1.	0	-	0	-
6	2	1.	34	23.	30	20.	5	3.	0	-	0	-	1	1.
7	1	1.	2	1.	2	1.	1	1.	1	1.	0	-	0	-
8			0	-	0	-	4	3.	0	-	1	1.	0	-
9			28	19.	20	14.	8	5.	3	2.	1	1.	0	-
10			8	5.	6	4.	3	2.	2	1.			0	-
11			5	3.	4	3.	4	3.	1	1.			0	-
12			5	3.	10	7.	6	4.	1	1.			1	1.
13			6	4.	4	3.	6	4.	0	-			0	-
14			1	1.	2	1.	3	2.	0	-			0	-
15			8	5.	12	8.	7	5.	4	3.			0	-
16			1	1.	1	1.	6	4.	0	-			0	-
17			1	1.	1	1.	1	1.	0	-			0	-
18					2	1.	4	3.	1	1.			0	-
19					0	-	0	-	0	-			1	1.
20					4	3.	6	4.	0	-			1	1.
21-25					1	1.	9	6.	1	1.				
26-30					1	1.	10	6.	1	1.				
31-35					0	-	4	3.						
36-40					1	1.	3	2.						
41-45							0	-						
46-50							10	6.						
51-55							0	-						
56-60							2	1.						
61-65							0	-						
66-70							1	1.						
71-75							0	-						
76-80							2	1.						
81-85							1	1.						
86-90							1	1.						
91-95							0	-						
96-99							1	1.						

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YEAR FIRST ENROLLED IN PROGRAM

	<u>N</u>	<u>%</u>
1971	1	1.
1972	1	1.
1973	0	-
1974	3	2.
1975	2	1.
1976	3	2.
1977	8	5.
1978	10	7.
1979	24	16.
1980	38	26.
1981	43	29.
1982	12	8.
No response	2	1.

NO. YEARS EXPECTED
TO COMPLETE DEGREE

	<u>N</u>	<u>%</u>
No degree sought	7	5.
No response	11	8.
0	0	-
1	13	9.
2	37	25.
3	28	19.
4	21	14.
5	17	12.
6	5	3.
7	3	2.
8	2	1.
9	1	1.
10	1	1.

AGE

	<u>N</u>	<u>%</u>
20	0	-
21	0	-
22	5	3.
23	20	14.
24	8	5.
25	10	7.
26	7	5.
27	12	8.
28	8	5.
29	5	3.
30	10	7.
31	7	5.
32	9	6.
33	4	3.
34	5	3.
35	3	2.
36	4	3.
37	4	3.
38	3	2.
39	4	3.
40	3	2.
41	5	3.
42	2	1.
43	1	1.
44	0	-
45	3	2.
46	2	1.
47	0	-
48	0	-
49	0	-
50	0	-
51	0	-
52	1	1.
53	0	-
54	0	-
55	0	-
56	0	-
57	0	-
58	0	-
59	1	1.
No response	1	1.

AGE WHEN STARTED PROGRAM

	<u>N</u>	<u>%</u>
20	4	3.
21	13	9.
22	17	12.
23	13	9.
24	7	5.
25	5	3.
26	8	6.
27	7	5.
28	9	6.
29	7	5.
30	9	6.
31	6	4.
32	3	2.
33	7	5.
34	2	1.
35	4	3.
36	1	1.
37	4	3.
38	2	1.
39	4	3.
40	3	2.
41	1	1.
42	2	1.
43	2	1.
44	0	-
45	0	-
46	0	-
47	0	-
48	0	-
49	0	-
50	0	-
51	1	1.
52	0	-
53	0	-
54	0	-
55	1	1.
No response	5	3.

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Citizenship, Racial-Ethnic Identification

NON-RES.								OTHER		NATIVE		ASIAN		NO	
ALIEN	CAUCASIAN	BLACK	CHICANO	HISPANIC	AMERICAN	AMERICAN	RESPONSE								
# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %
10	7.	123	84.	7	5.	0	-	2	1.	1	1.	2	1.	2	1.

Gender

FEMALE		MALE		NO RESP.	
# %	# %	# %	# %	# %	# %
77	52.	68	46.	2	1.

Marital Status

MARRIED		PREV. MAR.		NEV. MAR.		NO RESP.	
# %	# %	# %	# %	# %	# %	# %	# %
76	52.	14	10.	56	38.	1	1.

Number of Children at Home

0		1		2		3		4+		NO RESP.		
# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	
120	82.	15	10.	5	3.	1	1.	0	-	6	4.	Prekindergarten
117	80.	10	7.	13	9.	1	1.	0	-	6	4.	Elementary/middle school
132	90.	7	5.	2	1.	0	-	0	-	6	4.	High school
135	92.	4	3.	0	-	0	-	0	-	8	5.	College
138	94.	1	1.	1	1.	0	-	0	-	7	5.	Out of school
96	65.	13	9.	21	14.	6	4.	3	2.	8	5.	Total children

NO SUPPORT		SUPPORT SOURCE		PRIMARY SUPPORT	
# %	# %	# %	# %	# %	# %

						<u>Current sources of financial support</u>
101	69.	45	31.	28	19.	Graduate assistantship
132	90.	14	10.	7	5.	Fellowship or traineeship
59	40.	87	59.	51	35.	Other employment
142	97.	4	3.	1	1.	GI benefits
115	78.	31	21.	12	8.	Student loan
95	65.	51	35.	25	17.	Spouse's income
124	84.	22	15.	7	5.	Parent or guardian
87	59.	59	40.	10	7.	Personal assets
		1	1.	8	5.	No response

Type of Activity

Field of Activity

Basis of Activity

Year	EMPLOYED		VOLUN.		RETIRED		NONE		NO RESP.		SAME		DIFFERENT		NO RESP.		PART-TIME		FULL-TIME		NO RESP.	
	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %	# %
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1982	117	88.	3	2.	0	-	14	10.	13	9.	93	77.	26	22.	1	1.	57	47.	62	52.	1	1.
1981	123	84.	2	1.	0	-	14	10.	8	5.	108	88.	24	19.	1	1.	51	41.	72	58.	2	1.
1980	122	83.	1	1.	0	-	16	11.	8	5.	93	76.	28	23.	2	1.	49	40.	72	58.	2	2.
1979	112	76.	3	2.	0	-	23	16.	9	6.	78	67.	34	32.	1	1.	46	40.	68	59.	1	1.
1978	186	72.	5	3.	0	-	25	17.	11	7.	65	59.	44	39.	2	2.	42	38.	67	60.	2	2.
1977	182	69.	4	3.	0	-	26	18.	15	10.	95	52.	58	47.	1	1.	35	33.	69	65.	2	2.
1976	98	61.	5	3.	0	-	34	24.	18	12.	46	48.	47	49.	2	2.	41	43.	54	57.	0	-
1975	77	52.	7	5.	0	-	43	29.	28	14.	37	44.	47	56.	0	-	34	48.	58	68.	0	-
1974	73	58.	4	3.	0	-	47	32.	23	16.	33	43.	43	56.	1	1.	27	35.	49	64.	1	1.
1973	59	48.	5	3.	0	-	35	37.	28	19.	26	41.	37	58.	1	1.	25	39.	38	59.	1	1.
Pre-1973	59	48.	3	2.	0	-	58	34.	35	24.	22	35.	48	65.	0	-	25	48.	37	68.	0	-

Univ. of Tennessee Frequency Distributions
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Employment Patterns

	YEARS EMPLOYED IN SAME FIELD						YEARS IN DIFFERENT FIELD						YEARS RETIRED	
	FULL-TIME		PART-TIME		TOTAL		FULL-TIME		PART-TIME		TOTAL			
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0	67	46.	77	52.	29	20.	86	59.	93	63.	60	41.	142	97.
1	6	4.	10	7.	7	5.	12	8.	10	7.	13	9.		
2	13	9.	14	10.	15	10.	9	6.	13	9.	12	8.		
3	9	6.	18	12.	21	14.	5	3.	6	4.	7	5.		
4	8	5.	10	7.	12	8.	7	5.	4	3.	11	7.		
5	10	7.	5	3.	9	6.	9	6.	5	3.	9	6.		
6	5	3.	3	2.	9	6.	3	2.	3	2.	4	3.		
7	2	1.	3	2.	9	6.	3	2.	4	3.	5	3.		
8	6	4.	0	-	5	3.	2	1.	1	1.	5	3.		
9	3	2.	1	1.	8	5.	2	1.	2	1.	2	1.		
10	6	4.	1	1.	8	5.	1	1.	1	1.	7	5.		
11	7	5.	0	-	10	7.	3	2.	0	-	7	5.		
No Resp.	5	3.	5	3.	5	3.	5	3.	5	3.	5	3.	5	3.

	TOTAL YEARS EMPLOYED						YEARS AS VOLUNTEER		YEARS NOT EMPLOYED	
	FULL-TIME		PART-TIME		TOTAL					
	#	%	#	%	#	%	#	%	#	%
0	30	20.	55	37.	6	4.	129	88.	90	61.
1	12	8.	12	8.	4	3.	4	3.	7	5.
2	14	10.	12	8.	9	6.	2	1.	17	12.
3	10	7.	12	8.	11	7.	3	2.	14	10.
4	11	7.	13	9.	5	3.	2	1.	3	2.
5	14	10.	10	7.	11	7.	1	1.	2	1.
6	11	7.	7	5.	9	6.	0	-	6	4.
7	4	3.	8	5.	14	10.	0	-	2	1.
8	6	4.	4	3.	11	7.	0	-	0	-
9	9	6.	4	3.	7	5.	1	1.	1	1.
10	7	5.	3	2.	15	10.	0	-	0	-
11	14	10.	2	1.	40	27.	0	-	0	-
No Resp.	5	3.	5	3.	5	3.	5	3.	5	3.

CURRENT EMPLOYMENT		PREFERRED FUTURE EMPLOYMENT		<u>Setting of Current, Preferred Future Employment</u>
#	%	#	%	
60	41.	6	4.	This institution
7	5.	42	29.	Other college or university
8	-	2	1.	Community college
17	12.	13	9.	Primary or secondary school system
11	7.	9	6.	Local, state, or federal government
11	7.	10	7.	Other nonprofit agency/institution
14	10.	36	24.	Business or industry
5	3.	14	10.	Self-employed/private practice
5	3.	3	2.	Other
8	5.	0	-	None or retired
9	6.	12	8.	No response

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Miles One Way Between Home/Job and Classes			Average Number of Hours Worked Per Week					
#	%		#	%		#	%	
3	2.	No response	4	3.	No response	0	-	29
8	5.	0	16	11.	0	9	- 6.	30
13	9.	1	0	-	1	0	-	31
11	8.	2	0	-	2	0	-	32
21	14.	3	1	1.	3	0	-	33
6	4.	4	0	-	4	0	-	34
13	9.	5	2	1.	5	3	2.	35
5	3.	6	2	1.	6	0	-	36
3	2.	7	0	-	7	1	1.	37
4	3.	8	1	1.	8	3	2.	38
1	1.	9	1	1.	9	0	-	39
8	5.	10	9	6.	10	37	25.	40
0	-	11	0	-	11	0	-	41
4	3.	12	2	1.	12	0	-	42
0	-	13	0	-	13	0	-	43
3	2.	14	1	1.	14	0	-	44
9	6.	15	6	4.	15	4	3.	45
1	1.	16	2	1.	16	1	1.	46
0	-	17	0	-	17	0	-	47
3	2.	18	0	-	18	0	-	48
0	-	19	0	-	19	0	-	49
2	1.	20	24	16.	20	9	6.	50
5	3.	21-25	0	-	21	2	1.	60
6	4.	26-30	0	-	22	1	1.	65
3	2.	31-35	0	-	23			
1	1.	36-40	3	2.	24			
1	1.	41-45	3	2.	25			
2	1.	46-50	0	-	26			
2	1.	51-55	0	-	27			
3	2.	56-60	0	-	28			
1	1.	61-65						
1	1.	66-70						
0	-	71-85						
3	2.	86-90						
1	1.	100+						

NOT A REASON		IMPORTANT REASON		THE MOST IMPORTANT	
#	%	#	%	#	%

<u>Reasons for Pursuing Graduate Education Now</u>						
21	14.	125	85.	25	17.	To obtain a degree
29	20.	117	80.	24	16.	To obtain skills helpful in field
102	69.	44	30.	6	4.	To develop skills for use in family/community
83	56.	63	43.	4	3.	To obtain theoretical grounding
70	48.	76	52.	29	20.	To prepare for new/different job
94	64.	52	35.	14	10.	For advancement in present job
38	26.	108	73.	23	16.	To improve income potential
90	61.	56	38.	1	1.	To develop professional contacts
32	22.	114	78.	22	15.	For personal growth/satisfaction
125	85.	21	14.	0	-	To make new friends
45	31.	101	69.	5	3.	For intellectual stimulation
93	63.	53	36.	6	4.	To develop more independent life style
	1	1.	1	1.		No response

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Preferred Primary Activity Following Graduation

<u>#</u>	<u>%</u>	
16	11.	Research
24	16.	Research & teaching about equally
31	21.	Teaching
31	21.	Administration or management
32	22.	Professional services
7	5.	Other
2	1.	No employment desired
1	1.	Don't know/no preference
3	2.	No response

Types of Employer Aid Received

<u>#</u>	<u>%</u>	
59	40.	No aid/not employed
10	7.	Released time
4	4.	Reduced tuition
48	33.	Tuition reimbursement or payment
28	19.	Use of facilities/equipment
3	2.	Internships
9	6.	Progress-related raises
16	11.	Clerical or research assistance
13	9.	No response

Relationship of Current Full-time Employment to Field of Study

	<u>#</u>	<u>%</u>
Employed full-time:	62	
Employed in same field:	48	77.
Employed in different field:	13	21.
No response	1	2.

Relationship of Previous Full-time Employment to Field of Study

	<u>#</u>	<u>%</u>
Previously employed full-time:	112	
All employment in same field:	56	50.
Prev. employed in different field:	56	50.

Number of Years Unemployed After First Full-time Employment

<u>#</u>	<u>%</u>	
55	37.	No response/Never employed full-time
10	7.	0
19	13.	1
22	15.	2
11	7.	3
5	3.	4
13	9.	5
4	3.	6
4	3.	7
1	1.	8
1	1.	9
2	1.	10+

MICHIGAN STATE UNIV. LIBRARIES



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THESIS

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RETURNING MATERIALS:
Place in book drop to
remove this checkout from
your record. FINES will
be charged if book is
returned after the date
stamped below.

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APPENDIX E-4

FREQUENCY DISTRIBUTIONS FOR
UNIVERSITY OF MINNESOTA STUDENTS

WHAT DO GRADUATE STUDENTS NEED? ARE THEY GETTING IT?

INSTITUTION: University of Minnesota

SAMPLE SIZE: 291 NUMBER RETURNED: 237 RESPONSE RATE: 81.4%

HEGIS CODES

#	%	
15	6.	01--Agriculture & Natural Resources
2	1.	02--Architecture & Environmental Design
2	1.	03--Area Studies
17	7.	04--Biological Sciences
40	17.	05--Business & Management
2	1.	06--Communications
7	3.	07--Computer & Information Sciences
31	13.	08--Education
21	9.	09--Engineering
11	5.	10--Fine & Applied Arts
4	2.	11--Foreign Languages
18	8.	12--Health Professions
3	1.	13--Home Economics
		14--Law
13	5.	15--Letters
2	1.	16--Library Science
5	2.	17--Mathematics
16	7.	19--Physical Sciences
5	2.	20--Psychology
7	3.	21--Public Affairs & Services
16	7.	22--Social Sciences
		23--Theology
		49--Interdisciplinary Studies
		98--Other, Undeclared

U. Minnesota Frequency Distributions
Page 2

NO PROBLEM		PROBLEM		WORST PROBLEM		
#	%	#	%	#	%	
193	81.	36	15.	12	5.	<u>Institutional Problems</u>
202	85.	27	11.	4	2.	Meeting course requirements
168	71.	61	26.	18	8.	Acceptance of previously earned credit
133	56.	96	41.	31	13.	Accessibility of major prof./advisor
192	81.	37	16.	3	1.	Availability of library materials
166	70.	63	27.	22	9.	Adequacy of laboratory facilities
210	89.	19	8.	3	1.	Adequacy of computer facilities
159	67.	70	30.	22	9.	Adequacy of studios, specialized facil.
197	83.	32	14.	11	5.	General quality of instruction
210	89.	19	8.	8	3.	Availability of internship/practicum
						Approval of dissert./thesis topic or final draft
204	86.	25	11.	5	2.	Residence requirement
208	88.	21	9.	6	3.	Time limit for completing degree
212	89.	17	7.	2	1.	Penalties for "stopping out"
217	92.	12	5.	4	2.	Foreign language requirement
157	66.	72	30.	15	6.	Getting information about institution
164	69.	65	27.	11	5.	Getting information about department
145	61.	84	35.	25	11.	Times, locations, frequency of courses
159	67.	70	30.	13	5.	Times administrative offices are open
168	71.	61	26.	7	3.	Times services are available
		8	3.	24	10.	<u>No response</u> (No problems; no one worst)
						<u>Personal Problems</u>
106	45.	120	51.	52	22.	Financing education
102	43.	124	52.	36	15.	Finding time to study
169	71.	57	24.	4	2.	Adequacy of places to study
123	52.	103	43.	29	12.	Job responsibilities
210	89.	16	7.	4	2.	Employer attitudes
138	58.	88	37.	10	4.	Family responsibilities
192	81.	34	14.	2	1.	Attitudes of family members
195	82.	31	13.	4	2.	Opportunities for spouse
200	84.	26	11.	0	0.	Community responsibilities
172	73.	54	23.	7	3.	Transportation
147	62.	79	33.	18	8.	Attitudes of some instructors
190	80.	36	15.	4	2.	Attitudes of some fellow students
187	79.	39	16.	12	5.	Academic skills
182	77.	44	19.	6	3.	Physical stamina
149	63.	77	32.	12	5.	Self-confidence
191	81.	35	15.	4	2.	Working with other students on projects
181	76.	45	19.	10	4.	Opportunities to use skills or knowledge
212	89.	14	6.	6	3.	Communicating in English
		11	5.	20	8.	<u>No response</u> (No problems; no one worst)

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92

U. Minn. Frequency Distributions
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VERY IMPORTANT		SOMEWHAT IMPORTANT		NOT IMPORTANT		NO RESPONSE		
#	%	#	%	#	%	#	%	
<u>Importance of Institutional Services</u>								
95	40.	66	28.	74	31.	2	1.	Opportunities for teaching exper.
152	64.	52	22.	30	13.	3	1.	Opportunities for research exper.
51	22.	44	19.	138	58.	4	2.	Courses taught evenings/weekends
67	28.	59	25.	106	45.	5	2.	Courses which meet once a week
8	3.	25	11.	199	84.	5	2.	Courses taught off-campus
99	42.	77	32.	58	24.	3	1.	Computer facilities
84	35.	76	32.	74	31.	3	1.	Computer consultants
58	24.	81	34.	93	39.	5	2.	Statistical consultants
187	79.	41	17.	7	3.	2	1.	Library facilities
72	30.	64	27.	98	41.	3	1.	Labs, studios, other special facil.
15	6.	58	24.	160	68.	4	2.	Tutoring, individualized help
18	8.	48	20.	168	71.	3	1.	Training in foreign languages
16	7.	17	7.	200	84.	4	2.	English language training
48	20.	109	46.	76	32.	4	2.	Colloquia, special lectures
29	12.	63	27.	141	59.	4	2.	Evaluation/credit for nonacademic learning
45	19.	107	45.	82	35.	3	1.	Cultural events
13	5.	69	29.	152	64.	3	1.	Athletic events
46	19.	84	35.	104	44.	3	1.	Recreational facilities
21	9.	64	27.	148	62.	4	2.	Peer support groups
83	35.	103	43.	46	19.	5	2.	Informal contact with other students
146	62.	28	12.	60	25.	3	1.	Part-time employment
55	23.	71	30.	106	45.	5	2.	Emergency short-term loans
96	41.	44	19.	92	39.	5	2.	Long-term loans
124	52.	65	27.	44	19.	4	2.	Placement service for graduates
72	30.	75	32.	86	36.	4	2.	Employment service for students
37	16.	41	17.	154	65.	5	2.	Financial planning assistance
65	27.	79	33.	88	37.	5	2.	Tuition payment options
112	47.	68	29.	53	22.	4	2.	Parking facilities
107	45.	69	29.	57	24.	4	2.	Public transportation
29	12.	78	33.	125	53.	5	2.	Personal counseling
71	30.	87	37.	74	31.	5	2.	Career counseling
58	24.	98	41.	77	32.	4	2.	Cafeteria, restaurant, snack facilities
71	30.	87	37.	76	32.	3	1.	Lounge and study areas
35	15.	32	14.	167	70.	3	1.	Campus housing
79	33.	69	29.	85	36.	4	2.	Health care facilities
85	36.	60	25.	89	38.	3	1.	Health insurance for students/families
21	9.	24	10.	189	80.	3	1.	Child care service
40	17.	77	32.	118	50.	2	1.	Emergency locator service
93	39.	86	36.	55	23.	3	1.	Registration options

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16

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POOR		FAIR		GOOD		EXCELLENT		NOT OFFER.		NOT USED		NO RESPONSE		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
<u>Quality of services</u>														
18	8.	34	14.	48	20.	43	18.	20	8.	78	30.	4	2.	2. Opportunities for teaching experience
13	5.	29	12.	63	27.	57	24.	14	6.	56	24.	5	2.	2. Opportunities for research experience
12	5.	21	9.	55	23.	28	12.	23	10.	90	38.	8	3.	3. Courses taught evenings or weekends
8	3.	34	14.	79	33.	47	20.	20	8.	43	18.	6	3.	3. Courses which meet once a week
1	0.	12	5.	15	6.	8	3.	61	26.	131	55.	9	4.	4. Off-campus courses
1	0.	18	8.	115	49.	80	34.	2	1.	14	6.	7	3.	3. Courses taught on the main campus
10	4.	39	16.	71	30.	33	14.	3	1.	78	33.	3	1.	1. Computer facilities
23	10.	41	17.	48	20.	11	5.	16	7.	94	40.	4	2.	2. Computer consultants
7	3.	22	9.	41	17.	8	3.	48	20.	104	44.	7	3.	3. Statistical consultants
18	8.	50	21.	91	38.	68	29.	2	1.	6	3.	2	1.	1. Library facilities
13	5.	43	18.	47	20.	18	8.	16	7.	96	41.	4	2.	2. Labs, studios, specialized facilities
8	3.	18	8.	20	8.	1	0.	49	21.	133	56.	8	3.	3. Tutoring, individualized help
4	2.	10	4.	25	11.	3	1.	29	12.	158	67.	8	3.	3. Training in foreign languages
2	1.	5	2.	8	3.	2	1.	38	16.	172	73.	10	4.	4. English language training
4	2.	30	13.	75	32.	43	18.	22	9.	56	24.	7	3.	3. Colloquia, special lectures
15	6.	14	6.	10	4.	2	1.	101	43.	85	36.	10	4.	4. Evaluation for nonacademic learning
3	1.	17	7.	79	33.	62	26.	7	3.	63	27.	6	3.	3. Cultural events
1	0.	12	5.	54	23.	48	20.	4	2.	111	47.	7	3.	3. Athletic events
14	6.	32	14.	64	27.	22	9.	3	1.	95	40.	7	3.	3. Recreational facilities
5	2.	15	6.	11	5.	3	1.	61	26.	133	56.	9	4.	4. Peer support groups
20	8.	50	21.	97	41.	22	9.	10	4.	31	13.	7	3.	3. Informal contact with other students
18	8.	42	18.	57	24.	33	14.	13	5.	68	29.	6	3.	3. Part-time employment for students
11	5.	5	2.	6	3.	3	1.	88	37.	115	49.	9	4.	4. Emergency short-term loans
2	1.	17	7.	38	16.	18	8.	33	14.	121	51.	7	3.	3. Long-term loans
17	7.	23	10.	27	11.	7	3.	47	20.	112	47.	4	2.	2. Placement service for graduates
9	4.	18	8.	24	10.	6	3.	49	21.	123	52.	8	3.	3. Employment service for students
8	3.	11	5.	2	1.			94	40.	113	48.	9	4.	4. Financial planning assistance
13	5.	15	6.	26	11.	7	3.	96	41.	72	30.	8	3.	3. Tuition payment options
104	44.	63	27.	27	11.	7	3.	4	2.	27	11.	5	2.	2. Parking facilities
10	4.	49	21.	93	39.	47	20.	2	1.	32	14.	4	2.	2. Public transportation
6	3.	14	6.	28	12.	6	3.	42	18.	131	55.	10	4.	4. Personal counseling
30	13.	28	12.	26	11.	6	3.	49	21.	89	38.	9	4.	4. Career counseling
6	3.	26	11.	78	33.	45	19.	8	3.	71	30.	3	1.	1. Health care facilities
14	6.	29	12.	63	27.	25	11.	13	5.	86	36.	7	3.	3. Health insurance for students, families
4	2.	4	2.	3	1.	1	0.	65	27.	152	64.	8	3.	3. Child care service
12	5.	2	1.	3	1.	4	2.	130	55.	79	33.	7	3.	3. Emergency locator service
24	10.	27	11.	44	19.	17	7.	70	30.	50	21.	5	2.	2. Registration options
16	7.	56	24.	115	49.	23	10.	2	1.	28	8.	5	2.	2. Cafeteria, restaurant, snack facilities
24	10.	65	27.	98	41.	13	5.	3	1.	32	14.	2	1.	1. Lounge and study areas
16	7.	22	9.	22	9.	9	4.	15	6.	148	62.	5	2.	2. Campus housing
16	7.	61	26.	68	29.	11	5.	15	6.	68	25.	6	3.	3. Protection of student safety, security

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QUALITY ASSESSMENTS OF THOSE RESPONDENTS WHO HAVE USED THE SERVICE

POOR		FAIR		GOOD		EXCELLENT		N		
#	%	#	%	#	%	#	%	#	%	
<u>Quality of services</u>										
18	13.	34	24.	48	34.	43	30.	143	60.	Opportunities for teaching experience
13	8.	29	18.	63	39.	57	35.	162	68.	Opportunities for research experience
12	10.	21	18.	55	47.	28	24.	116	49.	Courses taught evenings or weekends
8	5.	34	20.	79	47.	47	28.	168	71.	Courses which meet once a week
1	3.	12	33.	15	42.	8	22.	36	15.	Off-campus courses
1	0.	18	8.	115	54.	80	37.	214	90.	Courses taught on the main campus
10	7.	39	25.	71	46.	33	22.	153	65.	Computer facilities
23	19.	41	33.	48	39.	11	9.	123	52.	Computer consultants
7	9.	22	28.	41	53.	8	10.	78	33.	Statistical consultants
18	8.	50	22.	91	40.	68	30.	227	96.	Library facilities
13	11.	43	36.	47	39.	18	15.	121	51.	Labs, studios, specialized facilities
8	17.	18	38.	20	43.	1	2.	47	20.	Tutoring, individualized help
4	10.	10	24.	25	60.	3	7.	42	18.	Training in foreign languages
2	12.	5	29.	8	47.	2	12.	17	7.	English language training
4	3.	30	20.	75	49.	43	28.	152	64.	Colloquia, special lectures
15	37.	14	34.	10	24.	2	5.	41	17.	Evaluation for nonacademic learning
3	2.	17	11.	79	49.	62	39.	161	68.	Cultural events
1	1.	12	10.	54	47.	48	42.	115	49.	Athletic events
14	11.	32	24.	64	48.	22	17.	132	56.	Recreational facilities
5	15.	15	44.	11	32.	3	9.	34	14.	Peer support groups
26	11.	50	26.	97	51.	22	12.	189	80.	Informal contact with other students
18	12.	42	28.	57	38.	33	22.	150	63.	Part-time employment for students
11	44.	5	20.	6	24.	3	12.	25	11.	Emergency short-term loans
2	3.	17	23.	38	51.	16	24.	75	32.	Long-term loans
17	23.	23	31.	27	36.	7	9.	74	31.	Placement service for graduates
9	16.	18	32.	24	42.	6	11.	57	24.	Employment service for students
8	38.	11	52.	2	10.	0	-	21	9.	Financial planning assistance
13	21.	15	25.	26	43.	7	11.	61	26.	Tuition payment options
104	52.	63	31.	27	13.	7	3.	201	85.	Parking facilities
10	5.	49	25.	93	47.	47	24.	199	84.	Public transportation
6	11.	14	26.	28	52.	6	11.	54	23.	Personal counseling
30	32.	28	31.	26	29.	6	7.	90	38.	Career counseling
6	4.	26	17.	78	50.	45	29.	155	65.	Health care facilities
14	11.	29	22.	63	48.	25	19.	131	55.	Health insurance for students, families
4	33.	4	33.	3	25.	1	8.	12	5.	Child care service
12	57.	2	10.	3	14.	4	19.	21	9.	Emergency locator service
24	21.	27	24.	44	39.	17	15.	112	47.	Registration options
16	8.	56	27.	115	55.	23	11.	210	89.	Cafeteria, restaurant, snack facilities
24	12.	65	32.	98	49.	13	7.	200	84.	Lounge and study areas
16	23.	22	32.	22	32.	9	13.	69	29.	Campus housing
16	10.	61	39.	68	44.	11	7.	156	66.	Protection of student safety, security

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SEVERAL/ WEEK		SEVERAL/ MONTH		SEVERAL/ TERM		ONCE/ TERM		1-2/ YEAR		NOT 1/ YEAR		NOT AVAIL/ NEVER USED		NO RESPONSE		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
44	19.	24	10.	42	18.	13	5.	21	9.	13	5.	77	32.	3	1.	<u>Current Use of Services</u>
11	5.	12	5.	25	11.	19	8.	29	12.	24	10.	114	48.	3	1.	Computer facilities
2	1.	3	1.	12	5.	17	7.	16	7.	23	10.	161	68.	3	1.	Computer consultants
118	50.	61	26.	29	12.	13	5.	6	3.	0	0.	7	3.	3	1.	Statistical consultants
62	26.	12	5.	13	5.	11	5.	12	5.	10	4.	113	48.	4	2.	Library facilities
1	0.	7	3.	5	2.	10	4.	12	5.	5	2.	192	81.	5	2.	Labs, studios, special facilities
9	4.	38	16.	40	17.	38	16.	31	13.	5	2.	71	30.	5	2.	Tutoring, individualized help
																Colloquia, special lectures
2	1.	14	6.	46	19.	38	16.	39	16.	15	6.	76	32.	7	3.	Cultural events
0	0.	11	5.	23	10.	26	11.	26	11.	17	7.	129	54.	5	2.	Athletic events
19	8.	10	0.	33	14.	0	3.	17	7.	13	5.	125	53.	4	2.	Recreational facilities
0	0.	1	0.	4	2.	2	1.	6	3.	9	4.	210	89.	5	2.	Peer support groups
98	41.	41	17.	30	13.	15	6.	0	3.	1	0.	40	17.	4	2.	Parking facilities
92	39.	41	17.	26	11.	10	4.	6	3.	8	3.	50	21.	4	2.	Public transportation
112	47.	52	22.	28	12.	22	9.	5	2.	0	0.	15	6.	3	1.	Cafeteria, restaurant, snacks
68	29.	49	21.	33	14.	19	8.	18	8.	4	2.	41	17.	5	2.	Lounge and study areas
3	1.	3	1.	22	9.	43	18.	49	21.	21	9.	93	39.	3	1.	Health care facilities
1	0.	0	0.	1	0.	0	0.	1	0.	5	2.	225	95.	4	2.	Child care service

FREQUENCY OF USE BY THOSE WHO HAVE USED SERVICE

SEVERAL/ WEEK		SEVERAL/ MONTH		SEVERAL/ TERM		ONCE/ TERM		1-2/ YEAR		NOT 1/ YEAR		NUMBER USING		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
44	28.	24	15.	42	27.	13	8.	21	13.	13	8.	157	67.	<u>Current Use of Services</u>
11	9.	12	10.	25	21.	19	16.	29	24.	24	20.	120	51.	Computer facilities
2	3.	3	4.	12	16.	17	23.	16	22.	23	32.	73	31.	Computer consultants
118	52.	61	27.	29	13.	13	6.	6	3.	0	0.	227	96.	Statistical consultants
62	52.	12	10.	13	11.	11	9.	12	10.	10	8.	120	50.	Library facilities
1	2.	7	18.	5	13.	10	25.	12	30.	5	13.	40	17.	Labs, studios, special facilities
9	6.	38	24.	40	25.	38	24.	31	19.	5	3.	161	68.	Tutoring, individualized help
														Colloquia, special lectures
2	1.	14	9.	46	30.	38	25.	39	25.	15	10.	154	65.	Cultural events
0	0.	11	11.	23	22.	26	25.	26	25.	17	17.	103	44.	Athletic events
19	18.	10	17.	33	31.	0	7.	17	16.	13	12.	108	45.	Recreational facilities
0	0.	1	5.	4	18.	2	9.	6	27.	9	41.	22	9.	Peer support groups
98	51.	41	21.	30	16.	15	8.	0	4.	1	1.	193	81.	Parking facilities
92	50.	41	22.	26	14.	10	5.	6	3.	8	4.	183	77.	Public transportation
112	51.	52	24.	28	13.	22	10.	5	2.	0	0.	219	93.	Cafeteria, restaurant, snacks
68	36.	49	26.	33	17.	19	10.	18	9.	4	2.	191	81.	Lounge and study areas
3	2.	3	2.	22	16.	43	30.	49	35.	21	15.	141	60.	Health care facilities
1	13.	0	0.	1	13.	0	0.	1	13.	5	63.	0	3.	Child care service

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Type of Program in Which Enrolled

NON-DEGREE		MASTER'S		CERTIFI- CATE		INTER- MEDIATE		FIRST PROF.		DOCTORATE		POST- DOC.		NO RESPONSE	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1	0.	116	49.	2	1.	1	0.	1	0.	112	47.	2	1.	2	1.

Most of the following questions evaluating graduate programs were from the "Graduate Program Self-Assessment" questionnaire developed and copyrighted by the Educational Testing Service; these questions were reprinted with the permission of ETS. Students not registered in a degree program did not complete these items.

Percentages through page 10 are based on 237 (1 Non-Degree counted as No Response) responses unless otherwise indicated.

Degree of Importance

NONE		LITTLE		SOME		CONSID.		EXTREME		NO RESP.	
#	%	#	%	#	%	#	%	#	%	#	%

<u>Importance to Department</u>											
5	2.	18	8.	44	19.	97	41.	69	29.	4	2.
21	9.	57	24.	79	33.	64	27.	11	5.	5	2.
31	13.	33	14.	61	26.	63	27.	41	17.	8	3.
14	6.	36	15.	76	32.	82	35.	24	10.	5	2.
44	19.	56	24.	78	33.	46	19.	6	3.	7	3.
<u>Importance to Student</u>											
18	8.	24	10.	42	18.	81	34.	68	29.	4	2.
48	20.	40	17.	42	18.	59	25.	43	18.	5	2.
19	8.	20	8.	43	18.	80	34.	69	29.	6	3.
15	6.	34	14.	63	27.	78	33.	43	18.	4	2.
9	4.	15	6.	34	14.	90	38.	85	36.	4	2.

SCORES ON ETS SCALES (N = 237)

(From 1=Poor to 4=Excellent)

NO RESP./ NOT CALC.		1		2		3		4		
#	%	#	%	#	%	#	%	#	%	
4	2.	0	0.	29	12.	196	83.	8	3.	Environment for learning
3	1.	1	0.	29	12.	128	54.	76	32.	Scholarly excellence of faculty
3	1.	3	1.	31	13.	100	42.	100	42.	Overall satisfaction
4	2.	4	2.	47	20.	159	67.	23	10.	Relevance of program
4	2.	9	4.	84	36.	113	48.	27	11.	Faculty concern for students
5	2.	4	2.	73	31.	141	60.	14	6.	Curriculum
4	2.	2	1.	65	28.	151	64.	15	6.	Quality of teaching
7	3.	5	2.	76	32.	140	59.	8	3.	Evaluation of students

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Number of Respondents in Degree Programs: 237

QUESTIONS FROM ETS GRADUATE PROGRAM SELF-ASSESSMENT

POOR		FAIR		GOOD		EXCELLENT		NO RESP.		
#	%	#	%	#	%	#	%	#	%	
<u>Ratings of Department</u>										
6	3.	43	18.	126	53.	59	25.	3		1. Intellectual environment
29	12.	91	38.	94	40.	20	8.	3		1. Advice about the program
61	26.	96	41.	64	27.	13	5.	3		1. Career advice
14	6.	49	21.	146	62.	25	11.	3		1. Agreement between requirements and program objectives
12	5.	59	25.	142	60.	20	8.	4		2. Administration of degree requirements
27	11.	47	20.	117	49.	42	18.	4		2. Available library holdings in field
24	10.	95	40.	85	36.	19	8.	14		6. Specialized facilities for work in field
37	16.	86	36.	89	38.	21	9.	4		2. Interaction between department and related disciplines
11	5.	40	17.	107	45.	76	32.	3		1. Scholarly/prof. competence of faculty
13	5.	76	32.	118	50.	26	11.	4		2. Regularity of offering courses
8	3.	43	18.	134	57.	42	18.	10		4. Scholarly/prof. promise of grad. students
56	24.	95	40.	65	27.	14	6.	7		3. Opportunities for student participation in department decisions
12	5.	56	24.	125	53.	39	16.	5		2. Relevance of degree requirements to anticipated work
12	5.	54	23.	148	62.	17	7.	6		3. Evaluation procedure in graduate courses
10	4.	75	32.	129	54.	18	8.	5		2. Teaching methods in graduate courses
13	5.	62	26.	119	50.	38	16.	5		2. Variety of course/program offerings
7	3.	51	22.	137	58.	37	16.	5		2. Depth of program offerings
30	13.	77	32.	94	40.	30	13.	6		3. Flexibility of program
17	7.	55	23.	111	47.	47	20.	7		3. Accessibility of course instructors
22	9.	53	22.	87	37.	69	29.	6		3. Accessibility of adviser/thesis director
17	7.	48	20.	111	47.	55	23.	6		3. Opportunities to pursue individual projects
20	8.	99	42.	100	42.	12	5.	6		3. Evaluation of progress toward degree
19	8.	60	25.	116	49.	36	15.	6		3. Faculty-student relationships
18	8.	59	25.	139	59.	14	6.	7		3. Admissions procedures
8	3.	64	27.	124	52.	35	15.	6		3. Overall quality of teaching
5	2.	48	20.	141	59.	30	13.	13		5. Relevance of courses in related fields
7	3.	29	12.	64	27.	10	4.	-		- Evaluation of doctoral comps/quals
6	3.	20	8.	70	29.	6	3.	-		- Procedures for supervising dissertation
4	2.	28	12.	50	21.	8	3.	-		- Procedures for supervising master's theses
40	17.	93	39.	76	32.	15	6.	13		5. Opportunities to develop mentors/sponsors
37	16.	91	38.	96	41.	5	2.	8		3. Evaluation of students' prof. competence
22	9.	79	33.	105	44.	25	11.	6		3. University commitment to program
19	8.	81	34.	110	46.	20	8.	7		3. Useful faculty criticism of work
21	9.	58	24.	125	53.	26	11.	7		3. Faculty helpfulness in dealing with classwork
8	3.	33	14.	113	48.	77	32.	6		3. Faculty awareness of new developments in field
46	19.	88	37.	76	32.	14	6.	13		5. Adequacy of financial resources for grad. students
36	15.	82	35.	91	38.	21	9.	7		3. Facilities for classes, administration
27	11.	83	35.	109	46.	11	5.	7		3. Number of support staff for program
14	6.	55	23.	124	52.	34	14.	10		4. Quality of support staff

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Number of Respondents in Degree Programs: 237

DISAGREE STRONGLY		DISAGREE SOME		AGREE SOME		AGREE STRONGLY		NO RESPONSE		
#	%	#	%	#	%	#	%	#	%	
<u>Degree of Agreement</u>										
14	6.	29	12.	124	52.	66	28.	4	2.	Faculty members are genuinely interested in welfare, prof. develop of grad. students
9	4.	39	16.	140	59.	45	19.	4	2.	Different scholarly points of view are encouraged
3	1.	11	5.	108	46.	110	46.	5	2.	Graduate students work hard in this program
18	8.	29	12.	114	48.	73	31.	3	1.	Department has a humane environment, mutual respect between students and professors
3	1.	23	10.	85	36.	123	52.	3	1.	I have learned a great deal in this program
21	9.	34	14.	91	38.	86	36.	5	2.	I would advise a friend to enroll in this program
16	7.	80	34.	87	37.	50	21.	4	2.	Graduate students do a lot of unassigned reading
5	2.	29	12.	115	49.	85	36.	3	1.	Program is intellectually stimulating
40	17.	80	34.	75	32.	30	13.	12	5.	Faculty members help graduates find employment
18	8.	50	21.	122	51.	44	19.	3	1.	Faculty members prepare carefully for their graduate courses
11	5.	25	11.	115	49.	81	34.	5	2.	Graduate students support, help each other
18	8.	34	14.	106	45.	76	32.	3	1.	If starting over, I would enroll again
9	4.	30	13.	113	48.	81	34.	4	2.	Program is providing good preparation for later professional work
22	9.	64	27.	126	53.	21	9.	4	2.	Members of faculty work together to achieve program goals
40	17.	89	38.	79	33.	25	11.	4	2.	Well advised on use of department's people and resources
27	11.	82	35.	94	40.	27	11.	7	3.	Faculty members help integrate past experience with new learning
47	20.	91	38.	54	23.	39	16.	6	3.	Some professors unduly exploit their students
27	11.	99	42.	72	30.	34	14.	5	2.	Department is collection of individuals, very little team effort
10	4.	45	19.	134	57.	31	13.	17	7.	Decisions about financial assistance are fair, equitable
10	4.	56	24.	139	59.	27	11.	5	2.	Faculty is receptive to new ideas, ways of doing things
19	8.	79	33.	110	46.	25	11.	4	2.	Good communication between faculty and graduate students
37	16.	63	27.	76	32.	55	23.	6	3.	Many opportunities for interaction with major professor outside classroom
34	14.	88	37.	76	32.	35	15.	4	2.	Many opportunities for interaction with other faculty outside classroom
28	12.	89	38.	85	36.	28	12.	7	3.	Most courses that count toward grad. degree are open only to graduate students
5	2.	38	16.	126	53.	64	27.	4	2.	Grad. students demonstrate enthusiastic involvement with the field
2	1.	15	6.	135	57.	81	34.	4	2.	Graduate students handle course assignments with care, responsibility
0	0.	24	10.	126	53.	83	35.	4	2.	Graduate students continue projects until they are completed
3	1.	13	5.	55	23.	163	69.	3	1.	I am sure I will complete the degree on which I am now working
34	14.	48	20.	111	47.	34	14.	10	4.	Professors have realistic view of my responsibilities outside classes
7	3.	46	19.	129	54.	50	21.	5	2.	Instructors use many examples in their teaching
22	9.	65	27.	107	45.	35	15.	8	3.	When I first started, faculty and grad. students were helpful sources of information
Because of job, family, or commuting, it has been hard to. .										
39	16.	87	37.	65	27.	39	16.	7	3.	. use administrative offices
66	28.	93	39.	51	22.	28	12.	5	2.	. schedule time to consult with adviser/thesis chairman
46	19.	92	39.	62	26.	32	14.	5	2.	. meet with instructors outside class
58	24.	98	41.	50	21.	25	11.	6	3.	. register for classes or research

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Number of Respondents in Degree Programs: 237

YES		NO		NO RESP.		
#	%	#	%	#	%	
<u>Which have you done within last 12 months?</u>						
133	56.	101	43.	3	1.	Attended meeting(s) of scholarly or professional society
57	24.	177	75.	3	1.	Been author/coauthor of scholarly paper accepted for presentation at prof. meeting
60	25.	174	73.	3	1.	Been author/coauthor of paper submitted to journal
47	20.	187	79.	3	1.	Publically demonstrated artistic products/skills
126	53.	108	46.	3	1.	Prepared detailed proposal for major research project
150	63.	85	36.	2	1.	Carried out independent research or creative project
123	52.	111	47.	3	1.	Cooperated in research or creative project with student or faculty member
86	36.	148	62.	3	1.	Held fellowship, traineeship, or scholarship
82	35.	152	64.	3	1.	Participated in professional clinical, field work, or internship experience
178	75.	57	24.	2	1.	Talked with professionals about graduate program or career plans
189	80.	46	19.	2	1.	Pursued independently planned reading or practice in field
53	22.	182	77.	2	1.	Conducted an independent activity for profit
29	12.	204	86.	4	2.	Won prize or award for product or activity related to field
42	18.	192	81.	3	1.	Served on department or university committee
37	16.	197	83.	3	1.	Participated in departmental planning
50	21.	172	73.	15	6.	Have you participated in a clinical, field work, or internship experience required by your graduate program?
133	56.	96	41.	8	3.	Have you been a research or teaching assistant while in this program?

POOR		FAIR		GOOD		EXCELLENT		NO RESP.		
#	%	#	%	#	%	#	%	#	%	
<u>Evaluation of practicum (N = 50)</u>										
5	10.	15	30.	23	46.	6	12.	1	2.	Departmental training for duties
3	6.	5	10.	21	42.	20	40.	1	2.	Contribution to academic development
3	6.	5	10.	16	32.	25	50.	1	2.	Chance to practice professional skills
3	6.	11	22.	16	32.	18	36.	2	4.	Variety of assignments/experiences
6	12.	10	20.	15	30.	17	34.	2	4.	Supervision received
6	12.	15	30.	14	28.	13	26.	2	4.	Office space and equipment available
<u>Evaluation of assistantship (N = 133)</u>										
25	19.	54	41.	40	30.	13	10.	1	1.	Departmental training for duties
9	7.	17	13.	58	44.	48	36.	1	1.	Contribution to academic development
10	8.	21	16.	59	45.	42	32.	1	1.	Chance to practice professional skills
11	8.	31	23.	56	42.	34	26.	1	1.	Degree to which staff treated you as a colleague
17	13.	35	27.	61	47.	18	14.	2	1.	Absence of unnecessary dirty work
12	9.	40	30.	58	44.	22	17.	1	1.	Office space and equipment available
14	11.	45	34.	56	42.	17	13.	1	1.	Supervision you received

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EDUCATIONAL EXPERIENCE

	<u>Type of Institution</u>								<u>Type of Study*</u>								<u>Field of Study*</u>													
	<u>THIS</u>		<u>OTHER</u>		<u>OTHER</u>		<u>NOT</u>		<u>NO</u>		<u>PART-TIME</u>				<u>FULL-TIME</u>				<u>NO RESP.</u>		<u>SAME</u>				<u>DIFFERENT</u>				<u>NO RESP.</u>	
	<u>INSTIT.</u>		<u>4-YEAR</u>		<u>POST-SEC.</u>		<u>ENROLLED</u>		<u>RESPONSE</u>		<u>#</u>		<u>%</u>		<u>#</u>		<u>%</u>		<u>#</u>		<u>%</u>		<u>#</u>		<u>%</u>		<u>#</u>		<u>%</u>	
	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
<u>Future</u>																														
After 1983	95	40.	10	4.	9	4.	60	29.	55	23.	47	41.	65	57.	2	2.	101	89.	12	10.	1	1.								
1982-83	172	73.	6	3.	1	0.	25	11.	33	14.	67	37.	109	61.	3	2.	171	96.	5	3.	3	1.								
<u>Current</u>																														
1981-82	221	93.	2	1.	0	0.	4	2.	10	4.	72	32.	147	66.	4	2.	213	96.	5	2.	5	2.								
<u>Past</u>																														
1980-81	173	73.	17	7.	2	1.	26	11.	19	8.	65	34.	126	66.	1	0.	171	89.	19	10.	2	1.								
1979-80	119	50.	46	19.	2	1.	43	18.	27	11.	49	29.	117	70.	1	1.	130	83.	28	17.	1	0.								
1978-79	80	37.	67	28.	5	2.	49	21.	28	12.	41	26.	116	72.	3	2.	122	76.	35	22.	3	2.								
1977-78	50	24.	85	36.	0	3.	55	23.	31	13.	28	18.	120	80.	3	2.	103	68.	40	32.	0	-								
1976-77	51	22.	87	37.	11	5.	53	23.	35	15.	24	16.	121	81.	4	3.	99	66.	47	32.	3	2.								
1975-76	41	17.	74	31.	10	4.	66	28.	46	19.	17	14.	104	83.	4	3.	79	43.	43	34.	3	3.								
1974-75	32	14.	66	28.	11	5.	76	32.	52	22.	17	16.	88	81.	4	3.	66	40.	40	37.	3	3.								
1973-74	26	11.	65	27.	11	5.	80	34.	55	23.	14	14.	86	84.	2	2.	58	57.	41	40.	3	3.								
1972-73	21	9.	49	21.	10	4.	92	39.	65	27.	11	14.	67	84.	2	2.	38	48.	39	49.	3	3.								
Pre-1972	27	11.	67	28.	12	5.	64	27.	124	53.	11	11.	86	83.	7	6.	40	38.	56	54.	8	8.								

* Of those enrolled in postsecondary education that year.

	<u>Institution Granting Previous Degrees</u>								<u>Type of Study</u>						<u>Field of Study</u>					
	<u>THIS</u>		<u>OTHER</u>		<u>NOT</u>		<u>NO RESP./</u>		<u>PART-TIME</u>		<u>FULL-TIME</u>		<u>NOT APP.</u>		<u>SAME</u>		<u>DIFFERENT</u>		<u>NOT APP.</u>	
	<u>INSTIT.</u>	<u>4-YEAR</u>	<u>NOT</u>	<u>NOT</u>	<u>CAN'T</u>	<u>TELL</u>														
	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
1st Bach	36	15.	113	48.	4	2.	84	35.	12	5.	138	58.	87	37.	92	39.	56	24.	89	38.
2nd Bach	2	1.	7	3.	197	83.	31	13.	1	0.	9	4.	227	96.	0	3.	2	1.	227	96.
1st Mast	82	35.	28	12.	26	11.	101	43.	22	9.	96	41.	119	50.	101	43.	17	7.	119	50.
2nd Mast	0	3.	2	1.	194	82.	33	14.	1	0.	9	4.	227	96.	9	4.	0	-	228	96.
Doctorate	24	10.	0	-	82	35.	131	55.	7	3.	17	7.	213	90.	24	10.	1	0.	212	89.
1st Prof	2	1.	4	2.	196	83.	35	15.	2	1.	5	2.	230	97.	2	1.	5	2.	230	97.

Number of Years "Stopped Out"

(Years "Not Enrolled" after first year of enrollment in a post-secondary institution)

	<u>#</u>	<u>%</u>
No resp.	6	3.
0	92	39.
1	26	11.
2	25	11.
3	25	11.
4	21	9.
5	12	5.
6	13	5.
7	8	3.
8	7	3.
9	2	1.
10+	0	-

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Type of Enrollment of Most Students in Program

PART-TIME FULL-TIME DON'T KNOW NO RESP.

#	%	#	%	#	%	#	%
54	23.	130	55.	51	22.	2	1.

Grade Point Average in Current Program

A A- B B- C OR LOWER NONE REC. NO RESP.

#	%	#	%	#	%	#	%	#	%	#	%	#	%
98	41.	93	39.	37	16.	3	1.	1	0.	2	1.		

Year in Which Degree Received or Expected

	FIRST BACH.		SECOND BACH.		FIRST MASTER'S		SECOND MASTER'S		DOCTORATE		FIRST PROF.	
	#	%	#	%	#	%	#	%	#	%	#	%
No response	9	4.	26	11.	11	5.	24	10.	23	10.	27	11.
Not rec./planned	4	2.	197	83.	26	11.	194	82.	82	35.	196	83.
1952	1	0.	0	-	0	-	0	-	0	-	0	-
1954	1	0.	0	-	0	-	0	-	0	-	0	-
1959	3	1.	0	-	0	-	0	-	0	-	0	-
1960	2	1.	0	-	0	-	0	-	0	-	0	-
1961	3	1.	0	-	0	-	0	-	0	-	0	-
1962	2	1.	0	-	2	1.	0	-	0	-	0	-
1963	2	1.	0	-	0	-	0	-	0	-	0	-
1964	2	1.	0	-	0	-	0	-	0	-	0	-
1965	4	2.	0	-	0	-	0	-	0	-	0	-
1966	2	1.	0	-	1	0.	0	-	1	0.	0	-
1967	4	2.	0	-	1	0.	0	-	0	-	0	-
1968	6	3.	0	-	0	-	0	-	0	-	0	-
1969	2	1.	1	0.	1	0.	0	-	0	-	0	-
1970	6	3.	0	-	4	2.	0	-	0	-	0	-
1971	10	4.	0	-	3	1.	1	0.	0	-	0	-
1972	11	5.	1	0.	2	1.	0	-	0	-	0	-
1973	9	4.	2	1.	3	1.	0	-	0	-	0	-
1974	17	7.	0	-	3	1.	0	-	0	-	1	0.
1975	11	5.	2	1.	5	2.	1	0.	0	-	0	-
1976	20	8.	0	-	7	3.	0	-	1	0.	2	1.
1977	26	11.	1	0.	8	3.	0	-	0	-	2	1.
1978	21	9.	2	1.	10	4.	1	0.	0	-	0	-
1979	14	6.	2	1.	14	6.	0	-	1	0.	0	-
1980	29	12.	1	0.	9	4.	1	0.	0	-	2	1.
1981	16	7.	2	1.	11	5.	1	0.	0	-	0	-
1982	0	-	0	-	56	24.	6	3.	24	10.	0	-
1983	0	-	0	-	37	16.	4	2.	39	16.	0	-
1984	0	-	0	-	15	6.	2	1.	22	9.	0	-
1985	0	-	0	-	7	3.	2	1.	26	11.	1	0.
1986	0	-	0	-	1	0.	0	-	9	4.	1	0.
1987	0	-	0	-	0	-	0	-	4	2.	4	2.
1988	0	-	0	-	0	-	0	-	1	0.	1	0.
1989	0	-	0	-	0	-	0	-	1	0.	0	-
1990	0	-	0	-	0	-	0	-	2	1.	0	-
1991	0	-	0	-	0	-	0	-	0	-	0	-
1992	0	-	0	-	0	-	0	-	1	0.	0	-

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	LOAD THIS TERM						TOTAL COURSES TAKEN PER LOCATION							
	COURSES		CREDITS		EFFEC.CRED		ON CAMP.		OFF-CAMP.		AT WORK		ELSEWHERE	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
No response	5	2.	5	2.	22	9.	11	5.	11	5.	11	5.	11	5.
0	62	26.	57	24.	26	11.	3	1.	217	92.	219	92.	215	91.
1	62	26.	13	5.	6	3.	1	0.	3	1.	3	1.	2	1.
2	46	19.	8	3.	2	1.	4	2.	1	0.	0	-	2	1.
3	41	17.	13	5.	8	3.	6	3.	1	0.	1	0.	3	1.
4	17	7.	29	12.	23	10.	5	2.	2	1.	0	-	0	-
5	1	0.	6	3.	3	1.	6	3.	1	0.	1	0.	1	0.
6	2	1.	9	4.	5	2.	8	3.	0	-	0	-	2	1.
7	0	-	4	2.	5	2.	6	3.	0	-	0	-	0	-
8	0	-	25	11.	22	9.	8	3.	0	-	0	-	0	-
9	0	-	15	6.	9	4.	12	5.	0	-	0	-	1	0.
10	0	-	9	4.	14	6.	13	5.	1	0.	0	-	0	-
11	0	-	3	1.	1	0.	1	0.	0	-	0	-	0	-
12	0	-	22	9.	33	14.	16	7.	0	-	0	-	0	-
13	1	0.	6	3.	5	2.	9	4.	0	-	1	0.	0	-
14	0	-	5	2.	4	2.	7	3.	0	-	0	-	0	-
15	0	-	3	1.	8	3.	8	3.	0	-	0	-	0	-
16	0	-	2	1.	11	5.	6	3.	0	-	1	0.	0	-
17	0	-	1	0.	1	0.	5	2.	0	-	0	-	0	-
18	0	-	1	0.	6	3.	11	5.	0	-	0	-	0	-
19	0	-	0	-	0	-	4	2.	0	-	0	-	0	-
20	0	-	0	-	11	5.	7	3.	0	-	0	-	0	-
21-25	0	-	0	-	4	2.	20	9.	0	-	0	-	0	-
26-30	0	-	0	-	2	1.	17	7.	0	-	0	-	0	-
31-35	0	-	0	-	0	-	10	4.	0	-	0	-	0	-
36-40	0	-	0	-	2	1.	6	3.	0	-	0	-	0	-
41-45	0	-	0	-	0	-	3	1.	0	-	0	-	0	-
46-50	0	-	1	0.	1	0.	6	3.	0	-	0	-	0	-
51-55	0	-	0	-	0	-	3	1.	0	-	0	-	0	-
56-60	0	-	0	-	1	0.	3	1.	0	-	0	-	0	-
61-65	0	-	0	-	0	-	2	1.	0	-	0	-	0	-
66-70	0	-	0	-	0	-	5	2.	0	-	0	-	0	-
71-75	0	-	0	-	0	-	2	1.	0	-	0	-	0	-
76-80	0	-	0	-	1	0.	2	1.	0	-	0	-	0	-
81-85	0	-	0	-	0	-	0	-	0	-	0	-	0	-
86-90	0	-	0	-	1	0.	0	-	0	-	0	-	0	-
91-95	0	-	0	-	0	-	0	-	0	-	0	-	0	-
96-99	0	-	0	-	0	-	1	0.	0	-	0	-	0	-

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YEAR FIRST ENROLLED IN PROGRAM

	#	%
1970	1	0.
1971	2	1.
1972	4	2.
1973	2	1.
1974	2	1.
1975	7	3.
1976	9	4.
1977	12	5.
1978	23	10.
1979	28	12.
1980	61	26.
1981	73	31.
1982	10	4.
No response	1	0.

NO. YEARS EXPECTED
TO COMPLETE DEGREE

	#	%
No degree sought	4	2.
No response	21	9.
0	0	-
1	20	8.
2	45	19.
3	45	19.
4	32	14.
5	29	12.
6	13	5.
7	8	3.
8	6	3.
9	5	2.
10	3	1.
11	1	0.
12	1	0.
13	0	-

AGE

	#	%
20	0	-
21	0	-
22	6	3.
23	14	6.
24	19	8.
25	17	7.
26	23	10.
27	21	9.
28	15	6.
29	15	6.
30	15	6.
31	18	8.
32	14	6.
33	8	3.
34	8	3.
35	9	4.
36	3	1.
37	5	2.
38	2	1.
39	4	2.
40	3	1.
41	1	0.
42	2	1.
43	2	1.
44	3	1.
45	0	-
46	1	0.
47	3	1.
48	2	1.
49	0	-
50	1	0.
51	0	-
52	0	-
53	1	0.
54	0	-
55	0	-
56	0	-
57	0	-
58	0	-
59	0	-
60	0	-
61	0	-
62	0	-
63	0	-
64	1	0.
No response	1	0.

AGE WHEN STARTED PROGRAM

	#	%
20	2	1.
21	10	4.
22	34	14.
23	13	6.
24	29	12.
25	24	10.
26	26	11.
27	13	6.
28	16	7.
29	10	4.
30	11	5.
31	6	3.
32	4	2.
33	3	1.
34	12	5.
35	2	1.
36	2	1.
37	5	2.
38	3	1.
39	1	0.
40	2	1.
41	0	-
42	2	1.
43	0	-
44	1	0.
45	1	0.
46	0	-
47	1	0.
48	0	-
49	0	-
50	0	-
51	0	-
52	1	0.
53	0	-
54	0	-
55	0	-
56	0	-
57	0	-
58	0	-
59	0	-
60	0	-
61	0	-
62	1	0.
63	0	-
64	0	-
No response	2	1.

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Citizenship, Racial-Ethnic Identification

NON-RES.		CAUCASIAN		BLACK		CHICANO		OTHER HISPANIC		NATIVE AMERICAN		ASIAN AMERICAN		NO RESPONSE	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
27	11.	194	82.	3	1.	0	-	4	2.	0	-	8	3.	1	0.

Gender

FEMALE		MALE		NO RESP.	
#	%	#	%	#	%
98	41.	138	58.	1	0.

Marital Status

MARRIED		PREV. MAR.		NEV. MAR.		NO RESP.	
#	%	#	%	#	%	#	%
120	51.	17	7.	99	42.	1	0.

Number of Children at Home

0		1		2		3		4+		NO RESP.		
#	%	#	%	#	%	#	%	#	%	#	%	
173	73.	24	10.	14	6.	1	0.	0	-	25	11.	Prekindergarten
183	77.	15	6.	9	4.	2	1.	0	-	28	12.	Elementary/middle school
200	84.	9	4.	0	-	1	0.	0	-	27	11.	High school
202	85.	7	3.	0	-	1	0.	0	-	27	11.	College
207	87.	3	1.	1	0.	0	-	0	-	26	11.	Out of school
148	62.	22	9.	28	12.	9	4.	1	0.	29	12.	Total children

NO SUPPORT		SUPPORT SOURCE		PRIMARY SUPPORT	
#	%	#	%	#	%

Current sources of financial support

136	57.	100	42.	57	24.	Graduate assistantship
191	81.	45	19.	30	13.	Fellowship or traineeship
134	57.	102	43.	68	29.	Other employment
232	98.	4	2.	1	0.	GI benefits
187	79.	49	21.	20	8.	Student loan
164	69.	72	30.	34	14.	Spouse's income
209	88.	27	11.	7	3.	Parent or guardian
126	53.	110	47.	18	8.	Personal assets
		1	0.			No response

Type of Activity

EMPLOYED		VOLUN.		RETIRED		NONE		NO RESP.		SAME		DIFFERENT		NO RESP.		PART-TIME		FULL-TIME		NO RESP.	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%

Year	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1982	174	73.	7	3.	1	0.	35	15.	20	8.	150	83.	26	14.	5	3.	109	60.	66	37.	6	3.
1981	187	79.	6	3.	1	0.	26	11.	17	7.	155	80.	34	18.	4	2.	107	55.	83	43.	3	2.
1980	194	82.	7	3.	0	-	23	10.	13	5.	152	76.	49	24.	0	-	102	51.	97	48.	2	1.
1979	185	78.	10	4.	0	-	24	10.	21	9.	146	75.	49	25.	0	-	94	48.	98	50.	3	2.
1978	172	73.	11	5.	0	-	37	15.	17	7.	128	70.	54	30.	1	0.	93	51.	87	47.	3	2.
1977	160	68.	9	4.	0	-	45	19.	23	10.	107	63.	61	34.	1	1.	80	47.	85	51.	4	2.
1976	138	58.	12	5.	1	0.	56	24.	30	13.	80	53.	68	45.	2	2.	74	49.	74	49.	2	2.
1975	133	56.	13	5.	1	0.	56	24.	34	14.	70	48.	74	51.	2	1.	74	51.	70	48.	2	1.
1974	113	48.	13	5.	0	-	72	30.	39	16.	48	30.	76	48.	2	2.	67	53.	58	46.	1	1.
1973	94	40.	17	7.	0	-	80	34.	46	19.	41	37.	69	62.	1	1.	57	51.	53	48.	1	1.
Pre-1973	90	38.	10	4.	0	-	87	37.	50	21.	33	33.	67	67.	0	-	47	47.	53	53.	0	-

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Employment Patterns

	YEARS EMPLOYED IN SAME FIELD						YEARS IN DIFFERENT FIELD						YEARS RETIRED	
	FULL-TIME			PART-TIME			FULL-TIME			PART-TIME			TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0	117	49.	109	46.	42	18.	166	70.	145	61.	109	46.	229	97.
1	15	6.	21	9.	15	6.	16	7.	19	8.	22	9.	0	-
2	13	5.	20	8.	19	8.	11	5.	10	4.	8	3.	2	1.
3	13	5.	17	7.	19	8.	9	4.	14	6.	22	9.	0	-
4	12	5.	13	5.	17	7.	11	5.	10	4.	11	5.	0	-
5	16	7.	21	9.	30	13.	9	4.	15	6.	20	8.	0	-
6	11	5.	16	7.	24	10.	1	0.	8	3.	14	6.	0	-
7	9	4.	2	1.	13	5.	1	0.	7	3.	8	3.	0	-
8	9	4.	6	3.	15	6.	3	1.	1	0.	3	1.	0	-
9	2	1.	4	2.	9	4.	1	0.	1	0.	6	3.	0	-
10	3	1.	1	0.	10	4.	2	1.	1	0.	3	1.	0	-
11	11	5.	1	0.	18	8.	1	0.	0	-	5	2.	0	-
No Resp.	6	3.	6	3.	6	3.	6	3.	6	3.	6	3.	6	3.

	TOTAL YEARS EMPLOYED						YEARS AS VOLUNTEER		YEARS NOT EMPLOYED	
	FULL-TIME			PART-TIME			TOTAL		TOTAL	
	#	%	#	%	#	%	#	%	#	%
0	75	32.	70	30.	13	5.	193	81.	135	57.
1	17	7.	20	8.	7	3.	10	4.	22	9.
2	20	8.	18	8.	9	4.	10	4.	24	10.
3	15	6.	19	8.	18	8.	7	3.	20	8.
4	21	9.	12	5.	11	5.	5	2.	10	4.
5	20	8.	26	11.	23	10.	1	0.	6	3.
6	15	6.	23	10.	20	8.	3	1.	4	2.
7	12	5.	9	4.	12	5.	1	0.	5	2.
8	11	5.	9	4.	18	8.	1	0.	2	1.
9	4	2.	14	6.	25	11.	0	-	1	0.
10	6	3.	7	3.	23	10.	0	-	1	0.
11	14	6.	4	2.	52	22.	0	-	1	0.
No Resp.	7	3.	6	3.	6	3.	6	3.	6	3.

CURRENT EMPLOYMENT		PREFERRED FUTURE EMPLOYMENT		
#	%	#	%	
116	49.	12	5.	<u>Setting of Current, Preferred Future Employment</u>
6	3.	77	32.	This institution
2	1.	6	3.	Other college or university
9	4.	7	3.	Community college
9	4.	15	6.	Primary or secondary school system
13	5.	19	8.	Local, state, or federal government
34	14.	71	30.	Other nonprofit agency/institution
9	4.	21	9.	Business or industry
6	3.	4	2.	Self-employed/private practice
22	9.	0	-	Other
11	5.	5	2.	None or retired
				No response

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Miles One Way Between Home/Job and Classes Average Number of Hours Worked-Per Week

#	%		#	%		#	%	
4	2.	No response	4	2.	No response	0	-	29
8	3.	0	39	16.	0	9	4.	30
33	14.	1	1	0.	1	1	0.	31
25	11.	2	1	0.	2	1	0.	32
18	8.	3	0	-	3	0	-	33
10	4.	4	0	-	4	1	0.	34
22	9.	5	5	2.	5	0	-	35
7	3.	6	1	0.	6	1	0.	36
10	4.	7	0	-	7	1	0.	37
7	3.	8	1	0.	8	0	-	38
2	1.	9	0	-	9	0	-	39
33	14.	10	21	9.	10	32	14.	40
0	-	11	1	0.	11	0	-	41
7	3.	12	4	2.	12	4	2.	42
1	0.	13	1	0.	13	0	-	43
0	-	14	0	-	14	3	1.	44
18	8.	15	7	3.	15	12	5.	45
1	0.	16	5	2.	16	2	1.	46
2	1.	17	1	0.	17	0	-	47
6	3.	18	0	-	18	0	-	48
1	0.	19	1	0.	19	0	-	49
5	2.	20	45	19.	20	14	6.	50
8	3.	21-25	0	-	21	1	0.	55
2	1.	26-30	1	0.	22	3	1.	60
1	0.	31-35	1	0.	23	1	0.	99
3	1.	36-40	3	1.	24			
0	-	41-45	7	3.	25			
0	-	46-50	0	-	26			
1	0.	55	0	-	27			
2	1.	90	1	0.	28			

NOT A	IMPORTANT	THE MOST			
REASON	REASON	IMPORTANT			
#	%	#	%	#	%

#	%	#	%	#	%	
22	9.	214	90.	42	18.	<u>Reasons for Pursuing Graduate Education Now</u>
43	18.	193	81.	37	16.	To obtain a degree
190	80.	46	19.	8	3.	To obtain skills helpful in field
126	53.	110	46.	15	6.	To develop skills for use in family/community
109	46.	127	54.	45	19.	To obtain theoretical grounding
159	67.	77	32.	18	8.	To prepare for new/different job
88	37.	148	62.	22	9.	For advancement in present job
150	63.	86	36.	2	1.	To improve income potential
42	18.	194	82.	41	17.	To develop professional contacts
190	80.	46	19.	3	1.	For personal growth/satisfaction
53	22.	183	77.	11	5.	To make new friends
162	68.	74	31.	7	3.	For intellectual stimulation
		1	0.			To develop more independent life style
						No response

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Preferred Primary Activity Following Graduation

#	%	
43	18.	Research
56	24.	Research & teaching about equally
30	13.	Teaching
44	19.	Administration or management
54	23.	Professional services
3	1.	Other
0	-	No employment desired
6	3.	Don't know/no preference
1	0.	No response

Types of Employer Aid Received

#	%	
94	40.	No aid/not employed
24	10.	Released time
39	16.	Reduced tuition
55	23.	Tuition reimbursement or payment
60	25.	Use of facilities/equipment
4	2.	Internships
10	4.	Progress-related raises
28	12.	Clerical or research assistance
16	7.	No response

Relationship of Current Full-time Employment to Field of Study

	#	%
Currently employed full-time:	66	
Employed in same field:	61	92.
Employed in different field:	5	8.
No response	0	-

Relationship of Previous Full-time Employment to Field of Study

	#	%
Previously employed full-time:	156	
All employment in same field:	91	58.
Prev. employed in different field:	65	42.

Number of Years Unemployed After First Full-time Employment

#	%	
61	26.	No response/Never employed full-time
34	14.	0
35	15.	1
37	16.	2
19	8.	3
11	5.	4
13	5.	5
10	4.	6
8	3.	7
6	3.	8
3	1.	9

APPENDIX E-5

FREQUENCY DISTRIBUTIONS FOR
MICHIGAN STATE UNIVERSITY STUDENTS

WHAT DO GRADUATE STUDENTS NEED? ARE THEY GETTING IT?

INSTITUTION: Michigan State University

SAMPLE SIZE: 318 NUMBER RETURNED: 265 RESPONSE RATE: 83.3

HEGIS CODES

#	%	
29	11.	01--Agriculture & Natural Resources
3	1.	02--Architecture & Environmental Design
0	-	03--Area Studies
13	5.	04--Biological Sciences
23	9.	05--Business & Management
6	2.	06--Communications
5	2.	07--Computer & Information Sciences
78	29.	08--Education
16	6.	09--Engineering
2	1.	10--Fine & Applied Arts
2	1.	11--Foreign Languages
4	2.	12--Health Professions
2	1.	13--Home Economics
0	-	14--Law
7	3.	15--Letters
0	-	16--Library Science
5	2.	17--Mathematics
16	6.	19--Physical Sciences
3	1.	20--Psychology
6	2.	21--Public Affairs & Services
10	4.	22--Social Sciences
0	-	23--Theology
8	3.	49--Interdisciplinary Studies
27	10.	98--Other, Undeclared

Michigan State Univ. Frequency Distributions
Page 2

NO PROBLEM		PROBLEM		WORST PROBLEM		
#	%	#	%	#	%	
<u>Institutional Problems</u>						
203	77.	47	18.	13	5.	Meeting course requirements
220	83.	30	11.	6	2.	Acceptance of previously earned credit
190	72.	60	23.	18	7.	Accessibility of major prof./advisor
162	61.	88	33.	19	7.	Availability of library materials
225	85.	25	9.	8	3.	Adequacy of laboratory facilities
213	80.	37	14.	6	2.	Adequacy of computer facilities
242	91.	8	3.	0	-	Adequacy of studios, specialized facil.
173	65.	77	29.	20	8.	General quality of instruction
214	81.	36	14.	12	5.	Availability of internship/practicum
233	86.	17	6.	6	2.	Approval of dissert./thesis topic or final draft
222	84.	28	11.	6	2.	Residence requirement
212	80.	38	14.	10	4.	Time limit for completing degree
224	85.	26	10.	6	2.	Penalties for "stopping out"
237	89.	13	5.	4	2.	Foreign language requirement
188	71.	62	23.	15	6.	Getting information about institution
180	68.	70	26.	13	5.	Getting information about department
122	46.	128	46.	58	22.	Times, locations, frequency of courses
201	76.	49	18.	7	3.	Times administrative offices are open
208	78.	42	16.	7	3.	Times services are available
		15	6.	41	15.	<u>No response</u> (No problems; no one worst)
<u>Personal Problems</u>						
116	44.	142	54.	73	28.	Financing education
126	48.	132	50.	36	14.	Finding time to study
211	80.	47	18.	3	1.	Adequacy of places to study
133	50.	125	47.	32	12.	Job responsibilities
235	89.	23	9.	4	2.	Employer attitudes
149	56.	109	41.	21	8.	Family responsibilities
233	88.	25	9.	4	2.	Attitudes of family members
226	85.	32	12.	8	3.	Opportunities for spouse
240	91.	18	7.	0	-	Community responsibilities
211	80.	47	18.	10	4.	Transportation
180	68.	78	29.	17	6.	Attitudes of some instructors
214	81.	44	17.	8	3.	Attitudes of some fellow students
215	81.	43	16.	11	4.	Academic skills
226	85.	32	12.	4	2.	Physical stamina
194	73.	64	24.	13	5.	Self-confidence
221	83.	37	14.	3	1.	Working with other students on projects
225	85.	33	12.	5	2.	Opportunities to use skills or knowledge
238	90.	20	8.	6	2.	Communicating in English
		7	3.	21	8.	<u>No response</u> (No problems; no one worst)

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VERY IMPORTANT		SOMEWHAT IMPORTANT		NOT IMPORTANT		NO RESPONSE		
#	%	#	%	#	%	#	%	
<u>Importance of Institutional Services</u>								
86	33.	43	24.	109	41.	5	2.	Opportunities for teaching exper.
117	44.	71	27.	71	27.	6	2.	Opportunities for research exper.
114	43.	43	16.	103	39.	5	2.	Courses taught evenings/weekends
88	33.	44	24.	107	40.	6	2.	Courses which meet once a week
74	28.	18	7.	166	63.	7	3.	Courses taught off-campus
49	26.	84	32.	104	39.	8	3.	Computer facilities
62	23.	79	30.	117	44.	7	3.	Computer consultants
61	23.	66	25.	129	49.	9	3.	Statistical consultants
180	68.	70	26.	10	4.	5	2.	Library facilities
68	26.	52	20.	137	52.	8	3.	Labs, studios, other special facil.
19	7.	58	22.	183	69.	5	2.	Tutoring, individualized help
14	5.	33	12.	211	80.	7	3.	Training in foreign languages
13	5.	26	10.	220	83.	6	2.	English language training
36	14.	114	43.	108	41.	7	3.	Colloquia, special lectures
28	11.	74	28.	154	58.	9	3.	Evaluation/credit for nonacademic learning
59	22.	109	41.	91	34.	6	2.	Cultural events
25	9.	76	29.	157	59.	7	3.	Athletic events
64	24.	82	31.	113	43.	6	2.	Recreational facilities
22	8.	78	29.	155	58.	10	4.	Peer support groups
71	27.	123	46.	65	25.	6	2.	Informal contact with other students
126	48.	46	17.	89	34.	4	2.	Part-time employment
57	22.	76	29.	126	48.	6	2.	Emergency short-term loans
97	37.	59	22.	104	39.	5	2.	Long-term loans
125	47.	73	28.	60	23.	7	3.	Placement service for graduates
69	26.	69	26.	120	45.	7	3.	Employment service for students
30	11.	68	26.	159	60.	8	3.	Financial planning assistance
101	38.	72	27.	86	32.	6	2.	Tuition payment options
136	51.	71	27.	54	20.	4	2.	Parking facilities
58	22.	77	29.	123	46.	7	3.	Public transportation
27	10.	82	31.	149	56.	7	3.	Personal counseling
69	26.	113	43.	78	29.	5	2.	Career counseling
29	11.	111	42.	118	45.	7	3.	Cafeteria, restaurant, snack facilities
55	21.	86	32.	117	44.	7	3.	Lounge and study areas
49	18.	37	14.	172	65.	7	3.	Campus housing
61	23.	72	27.	125	47.	7	3.	Health care facilities
70	26.	50	19.	139	52.	6	2.	Health insurance for students/families
31	12.	26	10.	201	76.	7	3.	Child care service
51	19.	83	31.	123	46.	8	3.	Emergency locator service
120	45.	70	26.	67	25.	8	3.	Registration options

Michigan State Univ. Frequency Distributions
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POOR		FAIR		GOOD		EXCELLENT		NOT OFFER.		NOT USED		NO RESPONSE		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
<u>Quality of services</u>														
10	4.	28	11.	51	19.	37	14.	42	16.	88	33.	9	3.	3. Opportunities for teaching experience
5	2.	29	11.	57	22.	59	22.	30	11.	78	29.	7	3.	3. Opportunities for research experience
21	8.	44	17.	80	30.	38	15.	15	6.	40	23.	6	2.	2. Courses taught evenings or weekends
16	6.	37	14.	90	34.	42	16.	23	9.	50	19.	7	3.	3. Courses which meet once a week
16	6.	19	7.	28	11.	26	10.	54	20.	113	43.	9	3.	3. Off-campus courses
2	1.	19	7.	131	49.	65	25.	11	4.	28	11.	9	3.	3. Courses taught on the main campus
7	3.	33	12.	54	20.	30	11.	32	12.	101	38.	8	3.	3. Computer facilities
17	6.	26	10.	34	13.	19	7.	47	18.	113	43.	9	3.	3. Computer consultants
9	3.	11	4.	24	9.	18	7.	76	29.	117	44.	10	4.	4. Statistical consultants
16	6.	45	16.	98	37.	67	25.	14	5.	22	8.	5	2.	2. Library facilities
3	1.	25	9.	61	23.	27	10.	34	13.	104	39.	11	4.	4. Labs, studios, specialized facilities
14	5.	13	5.	7	3.	10	4.	61	23.	147	55.	13	5.	5. Tutoring, individualized help
4	2.	11	4.	10	4.	6	2.	49	18.	172	65.	13	5.	5. Training in foreign languages
5	2.	4	2.	6	2.	3	1.	48	18.	184	69.	15	6.	6. English language training
5	2.	23	9.	77	29.	19	7.	44	17.	85	32.	12	5.	5. Colloquia, special lectures
13	5.	9	3.	11	4.	3	1.	122	46.	94	35.	13	5.	5. Evaluation for nonacademic learning
5	2.	14	5.	88	33.	63	24.	24	9.	62	23.	9	3.	3. Cultural events
1	0.	13	5.	74	28.	58	22.	24	9.	86	32.	9	3.	3. Athletic events
1	0.	20	8.	76	29.	54	20.	26	10.	76	29.	12	5.	5. Recreational facilities
10	4.	20	8.	17	6.	3	1.	77	29.	125	47.	13	5.	5. Peer support groups
20	8.	44	17.	78	29.	46	17.	29	11.	37	14.	11	4.	4. Informal contact with other students
23	9.	30	11.	49	18.	37	14.	42	16.	74	28.	10	4.	4. Part-time employment for students
10	4.	19	7.	18	7.	16	6.	73	28.	116	44.	13	5.	5. Emergency short-term loans
24	9.	14	5.	33	12.	16	6.	53	20.	115	43.	10	4.	4. Long-term loans
16	6.	23	9.	33	12.	18	7.	49	18.	114	43.	12	5.	5. Placement service for graduates
16	6.	11	4.	24	9.	6	2.	72	27.	124	47.	12	5.	5. Employment service for students
20	8.	5	2.	4	2.	1	0.	104	39.	117	44.	14	5.	5. Financial planning assistance
18	7.	30	11.	41	15.	30	11.	61	23.	73	28.	12	5.	5. Tuition payment options
67	25.	76	29.	61	23.	19	7.	10	4.	22	8.	10	4.	4. Parking facilities
9	3.	45	17.	57	22.	31	12.	26	10.	84	32.	13	5.	5. Public transportation
14	5.	16	6.	26	10.	8	3.	52	20.	137	52.	12	5.	5. Personal counseling
18	7.	42	16.	34	13.	15	6.	61	23.	83	31.	12	5.	5. Career counseling
21	8.	50	19.	59	22.	6	2.	32	12.	86	32.	11	4.	4. Health care facilities
18	7.	30	11.	37	14.	7	3.	55	21.	106	40.	12	5.	5. Health insurance for students, families
9	3.	9	3.	4	2.	2	1.	93	35.	134	51.	14	5.	5. Child care service
8	3.	8	3.	9	3.	1	0.	123	46.	102	38.	14	5.	5. Emergency locator service
39	15.	20	8.	24	9.	19	7.	104	39.	46	17.	13	5.	5. Registration options
20	8.	51	19.	104	39.	25	9.	21	8.	30	11.	14	5.	5. Cafeteria, restaurant, snack facilities
20	8.	48	18.	92	35.	21	8.	19	7.	50	19.	15	6.	6. Lounge and study areas
12	5.	20	11.	56	21.	21	8.	32	12.	102	38.	14	5.	5. Campus housing
21	8.	63	24.	81	31.	17	6.	29	11.	41	15.	13	5.	5. Protection of student safety, security

Michigan State Univ. Frequency Distributions
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QUALITY ASSESSMENTS OF THOSE RESPONDENTS WHO HAVE USED THE SERVICE

POOR		FAIR		GOOD		EXCELLENT		N		
#	%	#	%	#	%	#	%	#	%	
<u>Quality of services</u>										
10	8.	28	22.	51	40.	37	29.	126	48.	Opportunities for teaching experience
5	3.	29	19.	57	38.	59	39.	150	57.	Opportunities for research experience
21	11.	44	24.	80	43.	39	21.	184	69.	Courses taught evenings or weekends
16	9.	37	20.	90	49.	42	23.	185	70.	Courses which meet once a week
16	10.	19	21.	28	31.	26	29.	89	34.	Off-campus courses
2	1.	19	9.	131	60.	65	30.	217	82.	Courses taught on the main campus
7	6.	33	27.	54	44.	30	24.	124	47.	Computer facilities
17	18.	26	27.	34	35.	19	20.	96	36.	Computer consultants
9	15.	11	18.	24	39.	18	29.	62	23.	Statistical consultants
16	7.	43	19.	98	44.	67	30.	224	85.	Library facilities
3	3.	25	22.	61	53.	27	23.	116	44.	Labs, studios, specialized facilities
14	32.	13	30.	7	16.	10	23.	44	17.	Tutoring, individualized help
4	13.	11	35.	10	32.	6	19.	31	12.	Training in foreign languages
5	28.	4	22.	6	33.	3	17.	18	7.	English language training
5	4.	23	19.	77	62.	19	15.	124	47.	Colloquia, special lectures
13	36.	9	25.	11	31.	3	8.	36	14.	Evaluation for nonacademic learning
5	3.	14	8.	88	52.	63	37.	170	64.	Cultural events
1	1.	13	9.	74	51.	58	40.	146	55.	Athletic events
1	1.	20	13.	76	50.	54	36.	151	57.	Recreational facilities
10	20.	20	40.	17	34.	3	6.	50	19.	Peer support groups
20	11.	44	23.	78	41.	26	24.	188	71.	Informal contact with other students
23	17.	30	22.	49	35.	37	27.	139	52.	Part-time employment for students
10	16.	19	30.	18	29.	16	25.	63	24.	Emergency short-term loans
24	28.	14	16.	33	36.	16	18.	87	33.	Long-term loans
16	18.	23	26.	33	37.	18	20.	90	34.	Placement service for graduates
16	28.	11	19.	24	42.	6	11.	57	22.	Employment service for students
20	67.	5	17.	4	13.	1	3.	38	11.	Financial planning assistance
18	15.	30	25.	41	34.	30	25.	119	45.	Tuition payment options
67	30.	76	34.	61	27.	19	9.	223	84.	Parking facilities
9	6.	45	32.	57	40.	31	22.	142	54.	Public transportation
14	22.	16	25.	26	41.	8	13.	64	24.	Personal counseling
18	17.	42	39.	34	31.	15	14.	109	41.	Career counseling
21	15.	50	37.	59	43.	6	4.	136	51.	Health care facilities
18	20.	30	33.	37	40.	7	8.	92	35.	Health insurance for students, families
9	38.	9	38.	4	17.	2	8.	24	9.	Child care service
8	31.	8	31.	9	35.	1	4.	26	10.	Emergency locator service
39	38.	28	20.	24	24.	19	19.	102	38.	Registration options
20	18.	51	25.	104	52.	25	13.	200	75.	Cafeteria, restaurant, snack facilities
20	11.	48	27.	92	51.	21	12.	181	68.	Lounge and study areas
12	18.	28	24.	56	48.	21	18.	117	44.	Campus housing
21	12.	63	35.	81	45.	17	9.	182	69.	Protection of student safety, security

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SEVERAL/ WEEK	SEVERAL/ MONTH	SEVERAL/ TERM	ONCE/ TERM	1-2/ YEAR	NOT 1/ YEAR	NOT AVAIL/ NEVER USED	NO RESPONSE									
# %	# %	# %	# %	# %	# %	# %	# %									
21	8.	17	6.	30	11.	18	7.	18	7.	21	8.	133	50.	7	3.	<u>Current Use of Services</u>
3	1.	3	1.	20	8.	17	6.	17	6.	16	6.	182	69.	7	3.	Computer facilities
0	-	2	1.	13	5.	12	5.	7	3.	14	5.	209	79.	8	3.	Computer consultants
86	32.	66	25.	42	16.	17	6.	10	4.	7	3.	34	13.	3	1.	Statistical consultants
48	18.	12	5.	15	6.	15	6.	11	4.	11	4.	144	54.	9	3.	Library facilities
5	2.	2	1.	4	2.	3	1.	6	2.	9	3.	225	85.	11	4.	Labs, studios, special facilities
6	2.	19	7.	28	11.	30	11.	30	11.	12	5.	130	49.	10	4.	Tutoring, individualized help
																Colloquia, special lectures
1	0.	9	3.	43	16.	54	20.	45	17.	13	5.	93	35.	7	3.	Cultural events
1	0.	7	3.	39	15.	37	14.	33	12.	19	7.	120	45.	9	3.	Athletic events
21	8.	29	11.	28	11.	22	8.	20	8.	17	6.	120	45.	8	3.	Recreational facilities
2	1.	1	0.	7	3.	7	3.	7	3.	10	4.	220	83.	11	4.	Peer support groups
145	55.	35	13.	19	7.	4	2.	3	1.	3	1.	47	18.	9	3.	Parking facilities
34	13.	16	6.	16	6.	18	7.	17	6.	8	3.	147	55.	9	3.	Public transportation
62	23.	48	18.	39	15.	25	9.	20	8.	5	2.	57	22.	9	3.	Cafeteria, restaurant, snacks
42	16.	33	12.	34	13.	25	9.	21	8.	9	3.	91	34.	10	4.	Lounge and study areas
2	1.	1	0.	13	5.	28	11.	42	16.	28	11.	143	54.	8	3.	Health care facilities
3	1.	1	0.	0	-	2	1.	1	0.	3	1.	246	93.	9	3.	Child care service

FREQUENCY OF USE BY THOSE WHO HAVE USED SERVICE

SEVERAL/ WEEK	SEVERAL/ MONTH	SEVERAL/ TERM	ONCE/ TERM	1-2/ YEAR	NOT 1/ YEAR	NUMBER USING								
# %	# %	# %	# %	# %	# %	# %								
21	17.	17	14.	30	24.	18	14.	21	17.	125	47.	<u>Current Use of Services</u>		
3	4.	3	4.	20	26.	17	22.	17	22.	16	21.	76	29.	Computer facilities
0	-	2	4.	13	27.	12	25.	7	15.	14	29.	48	18.	Computer consultants
86	38.	66	29.	42	18.	17	7.	10	4.	7	3.	228	86.	Statistical consultants
48	43.	12	11.	15	13.	15	13.	11	10.	11	10.	112	42.	Library facilities
5	17.	2	7.	4	14.	3	10.	6	21.	9	31.	29	11.	Labs, studios, special facilities
6	5.	19	15.	28	22.	30	24.	30	24.	12	10.	125	47.	Tutoring, individualized help
														Colloquia, special lectures
1	1.	9	5.	43	26.	54	33.	45	27.	13	8.	145	62.	Cultural events
1	1.	7	5.	39	29.	37	27.	33	24.	19	14.	136	51.	Athletic events
21	15.	29	21.	28	20.	22	16.	20	15.	17	12.	137	52.	Recreational facilities
2	6.	1	3.	7	21.	7	21.	7	21.	10	29.	34	13.	Peer support groups
145	49.	35	17.	19	9.	4	2.	3	1.	3	1.	209	79.	Parking facilities
34	31.	16	15.	16	15.	18	17.	17	16.	8	7.	109	41.	Public transportation
62	31.	48	24.	39	20.	25	13.	20	10.	5	3.	199	75.	Cafeteria, restaurant, snacks
42	26.	33	20.	34	21.	25	15.	21	13.	9	5.	144	62.	Lounge and study areas
2	2.	1	1.	13	11.	28	25.	42	37.	28	25.	114	43.	Health care facilities
3	30.	1	10.	0	-	2	20.	1	10.	3	30.	10	4.	Child care service

Michigan State Univ. Frequency Distributions
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Type of Program in Which Enrolled

NON-DEGREE		MASTER'S		CERTIFI- CATE		INTER- MEDIATE		FIRST PROF.		DOCTORATE		POST- DOC.		NO RESPONSE	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
24	9.	146	55.	8	3.	3	1.	0	-	80	30.	0	-	4	2.

Most of the following questions evaluating graduate programs were from the "Graduate Program Self-Assessment" questionnaire developed and copyrighted by the Educational Testing Service; these questions were reprinted with the permission of ETS. Students not registered in a degree program did not complete these items.

Percentages through page 10 are based on 241 responses unless otherwise indicated.

Degree of Importance

NONE		LITTLE		SOME		CONSID.		EXTREME		NO RESP.	
#	%	#	%	#	%	#	%	#	%	#	%

5	2.	26	11.	49	20.	93	39.	57	24.	11	5.	<u>Importance to Department</u>	
21	9.	51	21.	66	27.	68	28.	22	9.	13	5.	Prep. scholars/researchers	
16	7.	29	12.	68	28.	74	31.	39	16.	15	6.	Preparing college teachers	
8	3.	29	12.	89	37.	81	34.	24	10.	10	4.	Preparing other practitioners	
27	11.	48	20.	74	31.	60	25.	20	8.	12	5.	Preparing for further study	
												For personal enrichment	

19	8.	35	15.	46	19.	70	29.	64	27.	7	3.	<u>Importance to Student</u>	
50	21.	38	16.	46	19.	52	22.	46	19.	9	4.	Prep. to be schol./researcher	
15	6.	21	9.	41	17.	74	31.	81	34.	9	4.	Prep. to be college teacher	
17	7.	29	12.	73	30.	83	34.	32	13.	7	3.	Preparing for other practice	
4	2.	11	5.	35	15.	110	46.	74	31.	7	3.	Preparing for further study	
												For personal enrichment	

SCORES ON ETS SCALES (N = 241)

(From 1=Poor to 4=Excellent)

NO RESP./ NOT CALC.		1		2		3		4		
#	%	#	%	#	%	#	%	#	%	
12	5.	0	-	24	10.	190	79.	15	6.	Environment for learning
12	5.	1	0.	17	7.	153	63.	58	24.	Scholarly excellence of faculty
11	5.	2	1.	21	9.	102	42.	105	44.	Overall satisfaction
12	5.	3	1.	53	22.	151	63.	22	9.	Relevance of program
11	5.	3	1.	69	29.	132	55.	26	11.	Faculty concern for students
8	3.	4	2.	77	32.	137	57.	15	6.	Curriculum
9	4.	0	-	52	22.	167	69.	13	5.	Quality of teaching
21	9.	2	1.	79	33.	130	54.	9	4.	Evaluation of students

Michigan State Univ. Frequency Distributions
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Number of Respondents in Degree Programs: 241

QUESTIONS FROM ETS GRADUATE PROGRAM SELF-ASSESSMENT

POOR		FAIR		GOOD		EXCELLENT		NO RESP.		
#	%	#	%	#	%	#	%	#	%	
<u>Ratings of Department</u>										
6	3.	46	19.	119	49.	65	27.	5	2.	Intellectual environment
22	9.	86	36.	98	41.	29	12.	6	2.	Advice about the program
39	16.	103	43.	68	28.	20	8.	11	5.	Career advice
11	5.	65	27.	126	52.	27	11.	12	5.	Agreement between requirements and program objectives
14	6.	62	26.	128	53.	23	10.	14	6.	Administration of degree requirements
23	10.	64	27.	95	39.	46	19.	13	5.	Available library holdings in field
32	13.	85	35.	82	34.	23	10.	19	8.	Specialized facilities for work in field
32	13.	104	43.	70	29.	16	7.	19	8.	Interaction between department and related disciplines
4	2.	49	20.	114	47.	63	26.	11	5.	Scholarly/prof. competence of faculty
22	9.	70	29.	113	47.	24	10.	12	5.	Regularity of offering courses
4	2.	58	24.	134	56.	26	11.	19	8.	Scholarly/prof. promise of grad. students
46	19.	103	43.	61	25.	11	5.	20	8.	Opportunities for student participation in department decisions
14	6.	52	22.	117	49.	45	19.	13	5.	Relevance of degree requirements to anticipated work
10	4.	63	26.	140	58.	19	8.	9	4.	Evaluation procedure in graduate courses
12	5.	64	27.	138	57.	18	7.	9	4.	Teaching methods in graduate courses
22	9.	72	30.	108	45.	30	12.	9	4.	Variety of course/program offerings
12	5.	54	22.	135	56.	32	13.	8	3.	Depth of program offerings
29	12.	72	30.	91	38.	41	17.	8	3.	Flexibility of program
16	7.	56	23.	104	43.	54	22.	11	5.	Accessibility of course instructors
21	9.	54	22.	89	37.	65	27.	12	5.	Accessibility of adviser/thesis director
11	5.	49	20.	107	44.	58	24.	16	7.	Opportunities to pursue individual projects
21	9.	80	33.	103	43.	23	10.	14	6.	Evaluation of progress toward degree
17	7.	44	18.	131	54.	39	16.	10	4.	Faculty-student relationships
13	5.	63	26.	134	56.	18	7.	13	5.	Admissions procedures
8	3.	53	22.	137	57.	33	14.	10	4.	Overall quality of teaching
6	2.	46	19.	144	60.	26	11.	19	8.	Relevance of courses in related fields
10	13.	24	31.	38	49.	6	8.	-	-	Evaluation of doctoral comps/quals
5	7.	11	15.	50	70.	5	7.	-	-	Procedures for supervising dissertation
1	2.	26	41.	33	52.	4	6.	-	-	Procedures for supervising master's theses
37	15.	79	33.	78	32.	17	7.	30	12.	Opportunities to develop mentors/sponsors
19	8.	101	42.	89	37.	13	5.	19	8.	Evaluation of students' prof. competence
20	8.	64	27.	119	49.	16	7.	22	9.	University commitment to program
21	9.	75	31.	115	48.	16	7.	14	6.	Useful faculty criticism of work
15	6.	53	22.	132	55.	29	12.	12	5.	Faculty helpfulness in dealing with classwork
4	2.	39	16.	129	54.	57	24.	12	5.	Faculty awareness of new developments in field
49	20.	85	35.	63	26.	11	5.	33	14.	Adequacy of financial resources for grad. students
19	8.	68	28.	114	47.	22	9.	18	7.	Facilities for classes, administration
34	14.	75	31.	83	34.	20	8.	29	12.	Number of support staff for program
13	5.	59	24.	110	46.	27	11.	32	13.	Quality of support staff

Michigan State Univ. Frequency Distributions
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Number of Respondents in Degree Programs: 241

DISAGREE STRONGLY		DISAGREE SOME		AGREE SOME		AGREE STRONGLY		NO RESPONSE		
#	%	#	%	#	%	#	%	#	%	
<u>Degree of Agreement</u>										
3	1.	25	10.	124	51.	78	32.	11	5.	Faculty members are genuinely interested in welfare, prof. develop of grad. students
5	2.	31	13.	139	58.	54	22.	12	5.	Different scholarly points of view are encouraged
2	1.	19	8.	93	39.	118	49.	9	4.	Graduate students work hard in this program
6	2.	29	12.	125	52.	70	29.	11	5.	Department has a humane environment, mutual respect between students and professors
3	1.	13	5.	94	39.	120	50.	11	5.	I have learned a great deal in this program
10	4.	26	11.	105	44.	89	37.	11	5.	I would advise a friend to enroll in this program
20	8.	83	34.	81	34.	46	19.	11	5.	Graduate students do a lot of unassigned reading
2	1.	20	8.	120	50.	86	36.	13	5.	Program is intellectually stimulating
29	12.	72	30.	78	32.	28	12.	34	14.	Faculty members help graduates find employment
3	1.	50	21.	129	54.	45	19.	14	6.	Faculty members prepare carefully for their graduate courses
9	4.	42	17.	106	44.	71	29.	13	5.	Graduate students support, help each other
12	5.	29	12.	101	42.	89	37.	10	4.	If starting over, I would enroll again
4	2.	23	10.	119	49.	83	34.	12	5.	Program is providing good preparation for later professional work
4	2.	62	26.	115	48.	39	16.	21	9.	Members of faculty work together to achieve program goals
34	14.	95	39.	78	32.	22	9.	12	5.	Well advised on use of department's people and resources
16	7.	77	32.	105	44.	30	12.	13	5.	Faculty members help integrate past experience with new learning
50	21.	93	39.	60	25.	22	9.	16	7.	Some professors unduly exploit their students
27	11.	109	45.	70	29.	19	8.	16	7.	Department is collection of individuals, very little team effort
22	9.	49	20.	108	45.	20	8.	42	17.	Decisions about financial assistance are fair, equitable
7	3.	49	20.	143	59.	23	10.	19	8.	Faculty is receptive to new ideas, ways of doing things
14	6.	57	24.	122	51.	31	13.	17	7.	Good communication between faculty and graduate students
29	12.	75	31.	66	27.	56	23.	15	6.	Many opportunities for interaction with major professor outside classroom
23	10.	93	39.	87	36.	24	10.	14	6.	Many opportunities for interaction with other faculty outside classroom
28	12.	76	32.	78	32.	35	15.	24	10.	Most courses that count toward grad. degree are open only to graduate students
6	2.	34	14.	140	58.	49	20.	12	5.	Grad. students demonstrate enthusiastic involvement with the field
2	1.	16	7.	144	60.	62	26.	17	7.	Graduate students handle course assignments with care, responsibility
1	0.	6	2.	138	57.	79	33.	17	7.	Graduate students continue projects until they are completed
0	-	18	4.	52	22.	178	71.	9	4.	I am sure I will complete the degree on which I am now working
19	8.	51	21.	112	46.	45	19.	14	6.	Professors have realistic view of my responsibilities outside classes
3	1.	28	12.	125	52.	70	29.	15	6.	Instructors use many examples in their teaching
17	7.	61	25.	106	44.	43	18.	14	6.	When I first started, faculty and grad. students were helpful sources of information
Because of job, family, or commuting, it has been hard to.										
44	18.	83	34.	51	21.	40	20.	15	6.	. use administrative offices
54	22.	98	37.	43	18.	41	17.	13	5.	. schedule time to consult with adviser/thesis chairman
41	17.	88	37.	51	21.	40	20.	13	5.	. meet with instructors outside class
54	22.	87	36.	50	21.	36	15.	14	6.	. register for classes or research

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Number of Respondents in Degree Programs: 241

YES		NO		NO RESP.		
#	%	#	%	#	%	
<u>Which have you done within last 12 months?</u>						
134	56.	98	17.	9	4.	4. Attended meeting(s) of scholarly or professional society
41	17.	188	78.	12	5.	5. Been author/coauthor of scholarly paper accepted for presentation at prof. meeting
39	16.	191	79.	11	5.	5. Been author/coauthor of paper submitted to journal
50	21.	181	75.	10	4.	4. Publically demonstrated artistic products/skills
81	34.	148	61.	12	5.	5. Prepared detailed proposal for major research project
135	56.	96	40.	10	4.	4. Carried out independent research or creative project
107	44.	124	51.	10	4.	4. Cooperated in research or creative project with student or faculty member
73	30.	157	65.	11	5.	5. Held fellowship, traineeship, or scholarship
82	34.	150	62.	9	4.	4. Participated in professional clinical, field work, or internship experience
173	72.	60	25.	8	3.	3. Talked with professionals about graduate program or career plans
188	78.	45	19.	8	3.	3. Pursued independently planned reading or practice in field
55	23.	176	73.	10	4.	4. Conducted an independent activity for profit
19	8.	211	87.	11	5.	5. Won prize or award for product or activity related to field
36	15.	195	81.	10	4.	4. Served on department or university committee
46	19.	187	78.	8	3.	3. Participated in departmental planning
43	18.	179	74.	19	8.	8. Have you participated in a clinical, field work, or internship experience required by your graduate program?
105	43.	122	51.	14	6.	6. Have you been a research or teaching assistant while in this program?

POOR		FAIR		GOOD		EXCELLENT		NO RESP.		
#	%	#	%	#	%	#	%	#	%	
<u>Evaluation of practicum (N = 43)</u>										
4	9.	11	26.	19	44.	7	16.	2	5.	5. Departmental training for duties
0	-	8	19.	14	33.	20	46.	1	2.	2. Contribution to academic development
2	5.	4	9.	14	33.	22	51.	1	2.	2. Chance to practice professional skills
3	7.	4	9.	19	44.	15	35.	2	5.	5. Variety of assignments/experiences
3	7.	11	26.	18	42.	9	21.	2	5.	5. Supervision received
6	14.	11	26.	15	35.	10	23.	1	2.	2. Office space and equipment available
<u>Evaluation of assistantship (N = 105)</u>										
24	23.	34	32.	35	33.	9	9.	3	3.	3. Departmental training for duties
1	1.	15	14.	41	39.	45	43.	3	3.	3. Contribution to academic development
5	5.	16	15.	35	33.	46	44.	3	3.	3. Chance to practice professional skills
12	11.	18	17.	45	43.	27	26.	3	3.	3. Degree to which staff treated you as a colleague
13	12.	25	24.	50	48.	14	13.	3	3.	3. Absence of unnecessary dirty work
5	5.	24	23.	48	46.	25	24.	3	3.	3. Office space and equipment available
16	15.	23	22.	42	40.	21	20.	3	3.	3. Supervision you received

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EDUCATIONAL EXPERIENCE

	Type of Institution								Type of Study						Field of Study							
	THIS		OTHER		OTHER		NOT		NO		Type of Study		Field of Study		SAME		DIFFERENT		NO RESP.			
	INSTIT.		4-YEAR		POST-SEC.		ENROLLED		RESPONSE		PART-TIME		FULL-TIME		NO RESP.		SAME		DIFFERENT		NO RESP.	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Future																						
After 1983	101	34.	13	5.	8	3.	65	25.	70	29.	63	52.	51	42.	8	6.	106	87.	13	11.	3	2.
1982-83	107	71.	8	3.	2	1.	24	9.	44	17.	95	48.	92	47.	10	5.	103	93.	11	6.	3	1.
Current																						
1981-82	238	98.	3	1.	1	0.	9	3.	14	5.	102	42.	131	54.	9	4.	223	92.	9	4.	10	4.
Past																						
1980-81	165	42.	25	9.	9	3.	37	14.	29	11.	85	43.	104	52.	10	5.	168	84.	25	13.	6	3.
1979-80	124	47.	41	15.	10	4.	55	20.	35	13.	70	44.	94	54.	3	2.	123	70.	47	27.	5	3.
1978-79	76	29.	65	25.	10	4.	68	26.	46	17.	49	32.	99	66.	3	2.	96	64.	53	35.	2	1.
1977-78	61	23.	82	31.	11	4.	63	24.	40	18.	40	31.	100	65.	6	4.	93	68.	57	37.	4	3.
1976-77	43	16.	75	28.	13	5.	73	28.	61	23.	39	30.	85	65.	7	5.	82	63.	44	34.	5	3.
1975-76	34	13.	66	25.	21	8.	70	26.	74	28.	35	29.	83	69.	3	2.	68	56.	48	40.	5	4.
1974-75	35	13.	60	23.	14	5.	70	30.	70	29.	27	25.	79	72.	3	3.	61	56.	42	38.	6	6.
1973-74	35	13.	59	22.	11	4.	74	29.	84	32.	29	28.	74	70.	2	2.	50	48.	48	46.	7	6.
1972-73	27	10.	48	18.	10	4.	90	34.	90	34.	19	22.	63	74.	3	4.	36	42.	46	54.	3	4.
Pre-1972	24	9.	66	25.	16	6.	6	2.	150	42.	10	17.	80	77.	6	6.	40	38.	56	54.	8	8.

* Of those enrolled in postsecondary education that year.

	<u>Institution Granting Previous Degrees</u>								<u>Type of Study</u>						<u>Field of Study</u>					
	<u>THIS</u>		<u>OTHER</u>		<u>NOT</u>		<u>NO RESP./</u>		<u>PART-TIME</u>		<u>FULL-TIME</u>		<u>NOT APP.</u>		<u>SAME</u>		<u>DIFFERENT</u>		<u>NOT APP.</u>	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1st Bach	54	28.	97	37.	2	1.	112	42.	10	7.	141	93.	0	-	87	58.	64	42.	0	-
2nd Bach	2	1.	5	2.	215	81.	43	16.	4	58.	4	58.	0	-	7	88.	1	12.	0	-
1st Mast	76	29.	27	10.	24	9.	130	52.	42	39.	67	61.	0	-	83	77.	25	23.	0	-
2nd Mast	12	5.	1	0.	199	75.	53	20.	4	29.	10	71.	0	-	11	79.	3	21.	0	-
Doctorate	13	5.	0	-	125	47.	127	48.	2	15.	11	85.	0	-	13	100.	0	-	0	-
1st Prof	0	-	0	-	220	83.	45	17.	-	-	-	-	-	-	-	-	-	-	-	-

Number of Years "Stopped Out"

(Years "Not Enrolled" after first year of enrollment in a post-secondary institution)

	#	%
No resp.	8	3.
0	95	36.
1	37	14.
2	24	9.
3	20	8.
4	26	10.
5	21	8.
6	12	5.
7	12	5.
8	4	2.
9	3	1.
10+	3	1.

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Type of Enrollment of Most Students in Program

PART-TIME FULL-TIME DON'T KNOW NO RESP.

#	%	#	%	#	%	#	%
87	33.	121	46.	51	19.	6	2.

Grade Point Average in Current Program

A A- B B- C OR LOWER NONE REC. NO RESP.

#	%	#	%	#	%	#	%	#	%	#	%	#	%
121	46.	109	41.	18	7.	3	1.	0	-	9	3.	5	2.

Year in Which Degree Received or Expected

	FIRST BACH.		SECOND BACH.		FIRST MASTER'S		SECOND MASTER'S		DOCTORATE		FIRST PROF.	
	#	%	#	%	#	%	#	%	#	%	#	%
No response	16	6.	38	14.	18	7.						
Not rec./planned	2	1.	215	81.	24	9.	33	12.	36	14.	41	15.
1937	1	0.			0	-	199	75.	125	47.	220	83.
1939	0	-			1	0.						
1945	1	0.			0	-						
1947	1	0.			0	-						
1954	2	1.			1	0.						
1956	2	1.			0	-						
1959	3	1.			0	-						
1960	2	1.			0	-						
1961	2	1.			0	-						
1962	2	1.			1	0.						
1963	3	1.			0	-						
1964	2	1.			0	-						
1965	3	1.			2	1.						
1966	5	2.			0	-						
1967	3	1.	1	0.	0	-						
1968	4	2.	1	0.	0	-						
1969	5	2.	0	-	1	0.						
1970	9	3.	0	-	1	0.	1	0.				
1971	7	3.	0	-	3	1.	0	-				
1972	13	5.	0	-	4	2.	0	-				
1973	12	5.	0	-	3	1.	0	-				
1974	18	7.	0	-	8	3.	0	-			1	0.
1975	20	8.	0	-	4	2.	0	-			0	-
1976	15	6.	0	-	8	3.	0	-			0	-
1977	21	8.	1	0.	6	2.	1	0.	1	0.	0	-
1978	20	8.	0	-	13	5.	1	0.	0	-	0	-
1979	27	10.	1	0.	7	3.	0	-	0	-	0	-
1980	17	6.	3	1.	11	4.	2	1.	0	-	0	-
1981	26	10.	2	1.	9	3.	4	2.	0	-	1	0.
1982	1	0.	2	1.	46	17.	7	3.	13	5.	0	-
1983			0	-	58	22.	8	3.	31	12.	0	-
1984			1	0.	17	6.	2	1.	26	10.	0	-
1985					11	4.	3	1.	12	5.	0	-
1986					3	1.	0	-	8	3.	0	-
1987					2	1.	2	1.	4	2.	1	1.
1988					2	1.	1	0.	2	1.	0	-
1989					0	-	0	-	0	-	0	-
1990					0	-	0	-	3	1.	0	-
1993					0	-	1	0.	1	0.	0	-
1995					0	-			2	1.	1	0.
1999					1	0.			1	0.		

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	LOAD THIS TERM						TOTAL COURSES TAKEN PER LOCATION							
	COURSES		CREDITS		EFFEC. CRED		ON CAMP.		OFF-CAMP.		AT WORK		ELSEWHERE	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
No response	7	3.	6	2.	22	8.	13	5.	16	6.	16	6.	16	6.
0	35	13.	18	7.	17	6.	44	17.	188	71.	239	90.	216	82.
1	79	30.	1	0.	1	0.	3	1.	7	3.	5	2.	7	3.
2	76	29.	1	0.	1	0.	5	2.	8	3.	0	-	2	1.
3	49	18.	54	20.	35	13.	10	4.	8	3.	0	-	4	2.
4	17	6.	13	5.	11	4.	10	4.	3	1.	3	1.	2	1.
5	2	1.	3	1.	5	2.	5	2.	1	0.	1	0.	4	2.
6			65	25.	44	17.	10	4.	4	2.	1	0.	4	2.
7			9	3.	6	2.	11	4.	2	1.			1	0.
8			27	10.	19	7.	7	3.	2	1.			3	1.
9			20	8.	18	7.	11	4.	5	2.			1	0.
10			7	3.	9	3.	8	3.	1	0.			0	-
11			8	3.	9	3.	4	2.	1	0.			0	-
12			24	9.	29	11.	14	5.	4	2.			2	1.
13			4	2.	4	2.	6	2.	1	0.			0	-
14			4	2.	5	2.	5	2.	0	-			0	-
15			0	-	5	2.	16	6.	4	2.			0	-
16			1	0.	5	2.	5	2.	0	-			0	-
17					3	1.	3	1.	0	-			0	-
18					2	1.	7	3.	3	1.			0	-
19					0	-	4	2.	0	-			0	-
20					8	3.	9	3.	0	-			0	-
21-25					1	0.	14	5.	2	1.			0	-
26-30					1	0.	13	5.	0	-			0	-
31-35					1	0.	7	3.	1	0.			0	-
36-40					1	0.	6	2.	2	1.			0	-
41-45					0	-	3	1.	0	-			2	1.
46-50					1	0.	3	1.	0	-			0	-
51-55					0	-	4	2.	1	0.			0	-
56-60					1	0.	0	-	1	0.			0	-
61-65					0	-	1	0.					1	0.
66-70					0	-	0	-						
71-75					0	-	1	0.						
76-80					0	-	0	-						
81-85					0	-	1	0.						
86-90					1	0.	1	0.						
91-95							1	0.						

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<u>YEAR FIRST ENROLLED IN PROGRAM</u>			<u>AGE</u>		
	<u>#</u>	<u>%</u>		<u>#</u>	<u>%</u>
1957	1	0.	20	1	0.
1960	1	0.	21	2	1.
1965	1	0.	22	7	3.
1971	1	0.	23	14	5.
1972	1	0.	24	14	5.
1973	1	0.	25	22	8.
1974	2	1.	26	21	8.
1975	0	-	27	13	5.
1976	5	2.	28	20	8.
1977	13	5.	29	22	8.
1978	18	7.	30	16	6.
1979	43	16.	31	9	3.
1980	54	20.	32	15	6.
1981	82	31.	33	11	4.
1982	33	12.	34	13	5.
No response	9	3.	35	4	2.
			36	6	2.
			37	7	3.
			38	7	3.
			39	2	1.
			40	4	2.
			41	1	0.
			42	6	2.
			43	2	1.
			44	2	1.
			45	4	2.
			46	0	-
			47	1	0.
			48	0	-
			49	1	0.
			50	2	1.
			51	0	-
			52	1	0.
			53	0	-
			54	0	-
			55	1	0.
			56	1	0.
			57	0	-
			58	0	-
			59	0	-
			60	2	1.
			61	0	-
			62	0	-
			63	0	-
			64	0	-
			65	0	-
			66	1	0.
			No response	10	4.

<u>NO. YEARS EXPECTED TO COMPLETE DEGREE</u>		
	<u>#</u>	<u>%</u>
No degree sought	35	13.
No response	19	7.
0	1	0.
1	19	7.
2	72	27.
3	35	13.
4	42	16.
5	22	8.
6	10	4.
7	2	1.
8	2	1.
9	1	0.
10	1	0.
11	0	-
12	0	-
13	2	1.
17+	2	1.

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Citizenship, Racial-Ethnic Identification

NON-RES.		CAUCASIAN		BLACK		CHICANO		OTHER HISPANIC		NATIVE AMERICAN		ASIAN AMERICAN		NO RESPONSE	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
25	9.	202	76.	15	6.	2	1.	4	2.	0	-	3	1.	14	5.

Gender

FEMALE		MALE		NO RESP.	
#	%	#	%	#	%
121	46.	137	52.	7	3.

Marital Status

MARRIED		PREV. MAR.		NEV. MAR.		NO RESP.	
#	%	#	%	#	%	#	%
142	54.	17	6.	96	36.	10	4.

Number of Children at Home

0		1		2		3		4+		NO RESP.		
#	%	#	%	#	%	#	%	#	%	#	%	
181	68.	38	14.	11	4.	2	1.	0	-	33	12.	Prekindergarten
183	69.	30	11.	15	6.	3	1.	0	-	34	13.	Elementary/middle school
204	77.	19	7.	3	1.	1	0.	0	-	38	14.	High school
214	81.	5	2.	3	1.	0	-	0	-	43	16.	College
217	82.	4	2.	0	-	1	0.	0	-	43	16.	Out of school
134	51.	37	14.	32	12.	9	3.	7	3.	46	17.	Total children

NO SUPPORT		SUPPORT SOURCE		PRIMARY SUPPORT	
#	%	#	%	#	%

Current sources of financial support

167	63.	91	34.	64	24.	Graduate assistantship
231	87.	27	10.	15	6.	Fellowship or traineeship
142	54.	116	44.	79	30.	Other employment
254	96.	4	2.	2	1.	GI benefits
213	80.	45	17.	12	5.	Student loan
188	71.	70	26.	30	11.	Spouse's income
220	83.	38	14.	12	5.	Parent or guardian
138	52.	120	45.	38	14.	Personal assets
		7	3.	0	-	No response

Type of Activity

Field of Activity

Basis of Activity

YEAR	EMPLOYED		VOLUN.		RETIRED		NONE		NO RESP.		SAME		DIFFERENT		NO RESP.		PART-TIME		FULL-TIME		NO RESP.	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1982	197	74.	4	2.	0	-	37	14.	27	10.	162	60.	37	19.	2	1.	93	47.	107	53.	1	0.
1981	213	80.	4	2.	1	0.	25	9.	22	8.	175	66.	40	19.	2	1.	92	43.	124	57.	1	0.
1980	217	82.	6	2.	1	0.	24	9.	17	6.	167	75.	51	23.	5	2.	86	39.	136	61.	1	0.
1979	217	82.	6	2.	1	0.	23	9.	18	7.	156	78.	65	29.	2	1.	81	36.	139	63.	3	1.
1978	204	77.	0	0.	1	0.	35	13.	17	6.	130	65.	72	34.	2	1.	78	37.	129	61.	5	2.
1977	193	73.	10	4.	1	0.	37	14.	24	9.	111	55.	80	39.	12	6.	80	39.	115	57.	8	4.
1976	166	63.	15	6.	1	0.	40	18.	35	13.	96	53.	78	43.	7	4.	77	42.	99	55.	5	3.
1975	146	55.	10	4.	0	-	40	26.	41	15.	74	47.	79	51.	3	2.	60	39.	94	60.	2	1.
1974	120	46.	9	3.	0	-	00	30.	40	18.	67	49.	68	49.	2	2.	51	37.	85	62.	1	1.
1973	109	41.	9	3.	0	-	09	34.	50	22.	51	43.	64	54.	3	3.	49	42.	66	56.	3	2.
Pre-1973	102	38.	9	3.	0	-	07	33.	67	25.	40	43.	61	55.	2	2.	40	43.	62	56.	1	1.

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Employment Patterns

	YEARS EMPLOYED IN SAME FIELD						YEARS IN DIFFERENT FIELD						YEARS RETIRED	
	FULL-TIME		PART-TIME		TOTAL		FULL-TIME		PART-TIME		TOTAL		RETIRE	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0	113	43.	146	55.	46	17.	165	62.	167	63.	111	42.	254	96.
1	17	6.	25	9.	18	7.	24	9.	20	8.	24	9.	1	0.
2	10	4.	17	6.	22	8.	15	6.	19	7.	21	8.	0	-
3	13	5.	20	8.	22	8.	13	5.	13	5.	20	8.	0	-
4	19	7.	14	5.	22	8.	11	4.	12	5.	17	6.	0	-
5	19	7.	16	6.	30	11.	13	5.	7	3.	18	7.	1	0.
6	16	6.	6	2.	20	8.	3	1.	5	2.	11	4.	0	-
7	8	3.	6	2.	18	7.	3	1.	4	2.	11	4.	0	-
8	9	3.	2	1.	8	3.	2	1.	4	2.	4	2.	0	-
9	10	4.	0	-	14	5.	1	0.	3	1.	8	3.	0	-
10	6	2.	0	-	8	3.	2	1.	1	0.	4	2.	0	-
11	16	6.	4	2.	28	11.	4	2.	1	0.	7	3.	0	-
No Resp.	9	3.	9	3.	9	3.	9	3.	9	3.	9	3.	9	3.

	TOTAL YEARS EMPLOYED						YEARS AS VOLUNTEER				YEARS NOT EMPLOYED	
	FULL-TIME		PART-TIME		TOTAL		VOLUNTEER		EMPLOYED		NOT EMPLOYED	
	#	%	#	%	#	%	#	%	#	%	#	%
0	63	24.	108	41.	12	5.	223	84.	157	59.		
1	20	8.	19	7.	5	2.	11	4.	25	9.		
2	16	6.	18	7.	7	3.	6	2.	26	10.		
3	14	5.	21	8.	10	4.	8	3.	19	7.		
4	25	9.	19	7.	23	9.	4	2.	14	5.		
5	25	9.	17	6.	25	9.	2	1.	7	3.		
6	16	6.	13	5.	24	9.	1	0.	3	1.		
7	9	3.	12	5.	26	10.	0	-	1	0.		
8	9	3.	10	4.	17	6.	0	-	1	0.		
9	17	6.	9	3.	26	10.	1	0.	3	1.		
10	7	3.	1	0.	15	6.	0	-	0	-		
11	30	11.	9	3.	66	25.	0	-	0	-		
No Resp.	14	6.	9	3.	9	3.	9	3.	9	3.		

CURRENT EMPLOYMENT		PREFERRED FUTURE EMPLOYMENT	
#	%	#	%

				<u>Setting of Current, Preferred Future Employment</u>
111	42.	6	2.	This institution
6	2.	66	25.	Other college or university
3	1.	5	2.	Community college
59	22.	50	19.	Primary or secondary school system
16	6.	15	6.	Local, state, or federal government
10	4.	21	8.	Other nonprofit agency/institution
10	4.	63	24.	Business or industry
4	2.	15	6.	Self-employed/private practice
4	2.	6	2.	Other
27	10.	3	1.	None or retired
15	6.	15	6.	No response

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Miles One Way Between Home/Job and Classes			Average Number of Hours Worked Per Week		
#	%		#	%	
11	4.	No response	11	4.	No response
11	4.	0	39	15.	0
41	16.	1	0	-	1
38	14.	2	0	-	2
26	10.	3	1	0.	3
9	3.	4	1	0.	4
18	7.	5	2	1.	5
15	6.	6	1	0.	6
6	2.	7	0	-	7
5	2.	8	2	1.	8
1	0.	9	1	0.	9
14	5.	10	10	4.	10
1	0.	11	0	-	11
1	0.	12	5	2.	12
3	1.	13	0	-	13
1	0.	14	0	-	14
10	4.	15	5	2.	15
0	-	16	1	0.	16
1	0.	17	0	-	17
2	1.	18	1	0.	18
0	-	19	0	-	19
12	5.	20	33	12.	20
7	3.	21-25	1	0.	21
4	2.	26-30	2	1.	22
4	2.	31-35	1	0.	23
2	1.	36-40	2	1.	24
1	0.	41-45	9	3.	25
3	1.	46-50	0	-	26
1	0.	51-55	0	-	27
2	1.	56-60	0	-	28
3	1.	61-65			
3	1.	66-70			
5	2.	71-75			
1	0.	76-80			
0	-	81-85			
1	0.	86-90			
2	1.	91+			

NOT A REASON	IMPORTANT REASON	THE MOST IMPORTANT
#	%	#

#	%	#	%	#	%	Reasons for Pursuing Graduate Education Now
40	15.	218	82.	35	13.	To obtain a degree
31	12.	227	86.	53	20.	To obtain skills helpful in field
188	71.	70	26.	7	3.	To develop skills for use in family/community
160	60.	98	37.	12	5.	To obtain theoretical grounding
126	48.	132	50.	50	19.	To prepare for new/different job
172	65.	86	32.	14	5.	For advancement in present job
75	28.	183	69.	30	11.	To improve income potential
162	61.	96	36.	1	0.	To develop professional contacts
48	18.	210	79.	39	15.	For personal growth/satisfaction
210	79.	48	18.	1	0.	To make new friends
66	25.	192	72.	11	4.	For intellectual stimulation
169	64.	89	34.	7	3.	To develop more independent life style
		7	3.	0	-	No response

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Preferred Primary Activity Following Graduation

#	%
28	11. Research
43	16. Research & teaching about equally
63	24. Teaching
63	24. Administration or management
47	18. Professional services
5	2. Other
4	2. No employment desired
5	2. Don't know/no preference
7	3. No response

Types of Employer Aid Received

#	%
101	38. No aid/not employed
26	10. Released time
35	13. Reduced tuition
48	18. Tuition reimbursement or payment
56	21. Use of facilities/equipment
7	3. Internships
22	8. Progress-related raises
28	11. Clerical or research assistance
30	11. No response

Relationship of Current Full-time Employment to Field of Study

	#	%
Employed full-time:	107	
Employed in same field:	88	82.
Employed in different field:	18	17.
No response	1	1.

Relationship of Previous Full-time Employment to Field of Study

	#	%
Previously employed full-time:	191	
All employment in same field:	100	38.
Prev. employed in different field:	91	34.

Number of Years Unemployed After First Full-time Employment

#	%
110	42. No response
21	8. 0
32	12. 1
33	12. 2
15	6. 3
12	5. 4
13	5. 5
11	4. 6
8	3. 7
4	2. 8
3	1. 9
3	1. 10+

APPENDIX E-6

FREQUENCY DISTRIBUTIONS FOR
ROOSEVELT UNIVERSITY FACULTY

WHAT DO GRADUATE STUDENTS NEED? ARE THEY GETTING IT?

FACULTY RESPONSES

INSTITUTION: Roosevelt University

SAMPLE SIZE: 22 NUMBER RETURNED: 18 RESPONSE RATE: 81.8%

HEGIS CODES

#	%	
		01--Agriculture & Natural Resources
		02--Architecture & Environmental Design
		03--Area Studies
2	11.	04--Biological Sciences
2	11.	05--Business & Management
		06--Communications
1	6.	07--Computer & Information Sciences
2	11.	08--Education
		09--Engineering
		10--Fine & Applied Arts
		11--Foreign Languages
		12--Health Professions
		13--Home Economics
		14--Law
3	17.	15--Letters
		16--Library Science
1	6.	17--Mathematics
		19--Physical Sciences
1	6.	20--Psychology
1	6.	21--Public Affairs & Services
3	17.	22--Social Sciences
		23--Theology
2	11.	49--Interdisciplinary Studies
		98--Other, Undeclared

Roosevelt University Faculty Frequency Distributions
Page 2

NO PROBLEM		PROBLEM		SHOULD BE CHANGED		
#	%	#	%	#	%	
15	83.	3	17.	1	6.	<u>Institutional Problems</u>
14	78.	4	22.	1	6.	Meeting course requirements
16	89.	2	11.			Acceptance of previously earned credit
7	39.	11	61.	7	39.	Accessibility of major prof./advisor
16	89.	2	11.	1	6.	Availability of library materials
14	78.	4	22.	2	11.	Adequacy of laboratory facilities
16	89.	2	11.			Adequacy of computer facilities
16	89.	2	11.			Adequacy of studios, specialized facil.
15	83.	3	17.	2	11.	General quality of instruction
18	100.					Availability of internship/practicum
						Approval of dissert./thesis topic or final draft
18	100.					Residence requirement
17	94.	1	6.			Time limit for completing degree
18	100.					Penalties for "stopping out"
18	100.					Foreign language requirement
17	94.	1	6.	1	6.	Getting information about institution
17	94.	1	6.	1	6.	Getting information about department
10	56.	8	44.	1	6.	Times, locations, frequency of courses
14	78.	4	22.	4	22.	Times administrative offices are open
15	83.	3	17.	3	17.	Times services are available
		0	0.			<u>No response</u> (No problems cited)

NO PROBLEM		PROBLEM		
#	%	#	%	
				<u>Personal Problems</u>
1	6.	16	89.	Financing education
8	44.	9	50.	Finding time to study
16	89.	1	6.	Adequacy of places to study
5	28.	12	67.	Job responsibilities
16	89.	1	6.	Employer attitudes
11	61.	6	33.	Family responsibilities
15	83.	2	11.	Attitudes of family members
16	89.	1	6.	Opportunities for spouse
16	89.	1	6.	Community responsibilities
11	61.	6	33.	Transportation
14	78.	3	17.	Attitudes of some instructors
17	94.			Attitudes of some fellow students
7	39.	10	56.	Academic skills
16	89.	1	6.	Physical stamina
13	72.	4	22.	Self-confidence
14	78.	3	17.	Working with other students on projects
15	83.	2	11.	Opportunities to use skills or knowledge
10	56.	7	39.	Communicating in English
		1	6.	<u>No response</u> (No problems cited)

Roosevelt University Faculty Frequency Distributions
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VERY IMPORTANT		SOMEWHAT IMPORTANT		NOT IMPORTANT		NO RESPONSE		
#	%	#	%	#	%	#	%	
<u>Importance of Institutional Services</u>								
2	11.	8	44.	6	33.	2	11.	Opportunities for teaching exper.
7	39.	7	39.	2	11.	2	11.	Opportunities for research exper.
13	72.	2	11.	1	6.	2	11.	Courses taught evenings/weekends
11	61.	2	11.	1	6.	4	22.	Courses which meet once a week
5	28.	5	28.	4	22.	4	22.	Courses taught off-campus
6	33.	5	28.	6	33.	1	6.	Computer facilities
3	17.	6	33.	8	44.	1	6.	Computer consultants
3	17.	3	17.	9	50.	3	17.	Statistical consultants
16	89.	1	6.	1	6.			Library facilities
4	22.	6	33.	6	33.	2	11.	Labs, studios, other special facil.
2	11.	9	50.	4	22.	3	17.	Tutoring, individualized help
1	6.	4	22.	9	50.	4	22.	Training in foreign languages
11	61.	3	17.	4	22.			English language training
2	11.	9	50.	5	28.	2	11.	Colloquia, special lectures
1	6.	4	22.	11	61.	2	11.	Evaluation/credit for nonacademic learning
1	6.	3	17.	12	67.	2	11.	Cultural events
				15	83.	3	17.	Athletic events
		3	17.	13	72.	2	11.	Recreational facilities
1	6.	8	44.	6	33.	3	17.	Peer support groups
4	22.	10	56.	2	11.	2	11.	Informal contact with other students
10	56.	5	28.	2	11.	1	6.	Part-time employment
7	39.	7	39.	2	11.	2	11.	Emergency short-term loans
13	72.	4	22.			1	6.	Long-term loans
12	67.	5	28.			1	6.	Placement service for graduates
7	39.	7	39.	2	11.	2	11.	Employment service for students
6	33.	8	44.	1	6.	3	17.	Financial planning assistance
15	83.	2	11.			1	6.	Tuition payment options
4	22.	8	44.	5	28.	1	6.	Parking facilities
9	50.	3	17.	3	17.	3	17.	Public transportation
3	17.	12	67.	1	6.	2	11.	Personal counseling
9	50.	6	33.			3	17.	Career counseling
4	22.	8	44.	4	22.	2	11.	Cafeteria, restaurant, snack facilities
6	33.	8	44.	2	11.	2	11.	Lounge and study areas
1	6.	6	33.	9	50.	2	11.	Campus housing
4	22.	8	44.	4	22.	2	11.	Health care facilities
2	11.	10	56.	4	22.	2	11.	Health insurance for students/families
2	11.	9	50.	5	28.	2	11.	Child care service
2	11.	8	44.	5	28.	3	17.	Emergency locator service
9	50.	6	33.	1	6.	2	11.	Registration options

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POOR		FAIR		GOOD		EXCELLENT		NOT OFFER.		NOT FAMIL.		NO RESP.		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
<u>Quality of services</u>														
1	6.	3	17.	3	17.	1	6.	7	39.	2	11.	1	6.	Opportunities for teaching experience
5	28.	2	11.	8	44.			1	6.	2	11.			Opportunities for research experience
		2	11.			15	83.	1	6.					Courses taught evenings or weekends
		1	6.	1	6.	14	78.	1	6.	1	6.			Courses which meet once a week
		4	22.	3	17.	7	39.	1	6.	2	11.	1	6.	Off-campus courses
				5	28.	11	61.	1	6.			1	6.	Courses taught on the main campus
1	6.	7	39.	5	28.					4	22.	1	6.	Computer facilities
2	11.	5	28.	3	17.			4	22.	3	17.	1	6.	Computer consultants
3	17.	1	6.	3	17.	1	6.	5	28.	4	22.	1	6.	Statistical consultants
4	22.	5	28.	8	44.	1	6.							Library facilities
2	11.	4	22.	3	17.					7	39.	2	11.	Labs, studios, specialized facilities
3	17.	4	22.	4	22.	1	6.	1	6.	3	17.	2	11.	Tutoring, individualized help
1	6.	3	17.	6	33.	2	11.			4	22.	2	11.	Training in foreign languages
		4	22.	7	39.	6	33.					1	6.	English language training
5	28.	4	22.	4	22.	1	6.	2	11.			2	11.	Colloquia, special lectures
2	11.			4	22.			3	17.	7	39.	2	11.	Evaluation for nonacademic learning
		4	22.	7	39.	7	39.							Cultural events
3	17.	7	39.	3	17.					3	17.	2	11.	Athletic events
6	33.	5	28.					3	17.	2	11.	2	11.	Recreational facilities
4	22.	4	22.	1	6.			3	17.	4	22.	2	11.	Peer support groups
4	22.	6	33.	3	17.			1	6.	2	11.	2	11.	Informal contact with other students
3	17.	6	33.	5	28.	1	6.			2	11.	1	6.	Part-time employment for students
2	11.	2	11.	1	6.			2	11.	9	50.	2	11.	Emergency short-term loans
		3	17.	6	33.			1	6.	5	28.	3	17.	Long-term loans
		3	17.	7	39.			1	6.	4	22.	3	17.	Placement service for graduates
1	6.	5	28.	1	6.	1	6.	3	17.	5	28.	2	11.	Employment service for students
1	6.	1	6.	2	11.	1	6.	7	39.	4	22.	2	11.	Financial planning assistance
1	6.	2	11.	6	33.	3	17.	1	6.	4	22.	1	6.	Tuition payment options
3	17.	2	11.	4	22.	3	17.	3	17.	1	6.	2	11.	Parking facilities
				7	39.	9	50.	1	6.			1	6.	Public transportation
		2	11.	7	39.	2	11.	2	11.	3	17.	2	11.	Personal counseling
2	11.	2	11.	5	28.	4	22.	1	6.	2	11.	2	11.	Career counseling
		5	28.	9	50.			1	6.	1	6.	2	11.	Health care facilities
		3	17.	4	22.			3	17.	5	28.	3	17.	Health insurance for students, families
3	17.							12	67.	1	6.	2	11.	Child care service
2	11.	2	11.	2	11.	1	6.	6	33.	3	17.	2	11.	Emergency locator service
		2	11.	9	50.	5	28.					2	11.	Registration options
1	6.	8	44.	6	33.	1	6.					2	11.	Cafeteria, restaurant, snack facilities
2	11.	8	44.	5	28.	1	6.					2	11.	Lounge and study areas
		7	39.	5	28.					4	22.	2	11.	Campus housing
1	6.	4	22.	9	50.			1	6.	1	6.	2	11.	Protection of student safety, security

Roosevelt University Faculty Frequency Distributions
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QUALITY ASSESSMENTS OF THOSE RESPONDENTS WHO WERE FAMILIAR WITH THE SERVICE

POOR		FAIR		GOOD		EXCELLENT		N		Quality of services
#	%	#	%	#	%	#	%	#	%	
1	13.	3	38.	3	38.	1	13.	8	44.	Opportunities for teaching experience
5	33.	2	13.	8	53.			15	83.	Opportunities for research experience
		2	12.			15	88.	17	94.	Courses taught evenings or weekends
		1	6.	1	6.	14	88.	16	89.	Courses which meet once a week
		4	29.	3	21.	7	50.	14	78.	Off-campus courses
				5	31.	11	69.	16	89.	Courses taught on the main campus
1	8.	7	54.	5	38.			13	72.	Computer facilities
2	20.	5	50.	3	30.			10	56.	Computer consultants
3	38.	1	13.	3	28.	1	13.	8	44.	Statistical consultants
4	22.	5	28.	8	44.	1	6.	18	100.	Library facilities
2	22.	4	44.	3	33.			9	50.	Labs, studios, specialized facilities
3	25.	4	33.	4	33.	1	8.	12	67.	Tutoring, individualized help
1	8.	3	25.	6	50.	2	17.	12	67.	Training in foreign languages
		4	24.	7	41.	6	35.	17	94.	English language training
5	36.	4	29.	4	29.	1	7.	14	78.	Colloquia, special lectures
2	33.			4	67.			6	33.	Evaluation for nonacademic learning
		4	22.	7	39.	7	39.	18	100.	Cultural events
3	23.	7	54.	3	23.			13	72.	Athletic events
6	55.	5	45.					11	61.	Recreational facilities
4	44.	4	44.	1	11.			9	50.	Peer support groups
4	31.	6	46.	3	23.			13	72.	Informal contact with other students
3	20.	6	40.	5	33.	1	7.	15	83.	Part-time employment for students
2	40.	2	40.	1	20.			5	28.	Emergency short-term loans
		3	33.	6	67.			9	50.	Long-term loans
		3	30.	7	70.			10	56.	Placement service for graduates
1	13.	5	63.	1	13.	1	13.	8	44.	Employment service for students
1	20.	1	20.	2	40.	1	20.	5	28.	Financial planning assistance
1	8.	2	17.	6	50.	3	25.	12	67.	Tuition payment options
3	25.	2	17.	4	33.	3	25.	12	67.	Parking facilities
				7	44.	9	56.	16	89.	Public transportation
		2	18.	7	64.	2	18.	11	61.	Personal counseling
2	15.	2	15.	5	38.	4	31.	13	72.	Career counseling
		5	36.	9	64.			14	78.	Health care facilities
		3	43.	4	57.			7	39.	Health insurance for students, families
3	100.							3	17.	Child care service
2	29.	2	29.	2	29.	1	14.	7	39.	Emergency locator service
		2	13.	9	56.	5	31.	16	89.	Registration options
1	6.	8	58.	6	38.	1	6.	16	89.	Cafeteria, restaurant, snack facilities
2	13.	8	50.	5	31.	1	6.	16	89.	Lounge and study areas
		7	58.	5	42.			12	67.	Campus housing
1	7.	4	29.	9	64.			14	78.	Protection of student safety, security

Roosevelt University Faculty Frequency Distributions
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QUESTIONS FROM ETS GRADUATE PROGRAM SELF-ASSESSMENT

POOR		FAIR		GOOD		EXCELLENT		NO RESP.		
#	%	#	%	#	%	#	%	#	%	
<u>Ratings of Department</u>										
3	17.	2	11.	8	44.	3	17.	2	11.	Intellectual environment
				11	61.	6	33.	1	6.	Advice about the program
		7	39.	7	39.	1	6.	3	17.	Career advice
				5	28.	11	61.	2	11.	Agreement between requirements and program objectives
		1	6.	5	28.	10	56.	2	11.	Administration of degree requirements
1	6.	6	44.	6	33.			3	17.	Available library holdings in field
3	17.	6	33.	4	22.			5	28.	Specialized facilities for work in field
3	17.	6	33.	5	28.	1	6.	3	17.	Interaction between department and related disciplines
1	6.	2	11.	5	28.	9	50.	1	6.	Scholarly/prof. competence of faculty
		3	17.	9	50.	5	28.	1	6.	Regularity of offering courses
1	6.	5	28.	9	50.	2	11.	1	6.	Scholarly/prof. promise of grad. students
		1	6.	9	50.	7	39.	1	6.	Relevance of degree requirements to anticipated work
5	28.	5	28.	6	33.	1	6.	1	6.	Opportunities for student participation in department decisions
		2	11.	11	61.	4	22.	1	6.	Evaluation procedure in graduate courses
1	6.	1	6.	7	39.	7	39.	2	11.	Teaching methods in graduate courses
3	17.	3	17.	5	28.	6	33.	1	6.	Variety of course/program offerings
		3	17.	6	33.	7	39.	2	11.	Depth of program offerings
2	11.	1	6.	6	33.	7	39.	2	11.	Flexibility of program
		1	6.	12	67.	3	17.	2	11.	Accessibility of course instructors
		2	11.	9	50.	4	22.	3	17.	Opportunities to pursue individual projects
		1	6.	7	39.	7	39.	3	17.	Evaluation of progress toward degree
				12	67.	4	22.	2	11.	Faculty-student relationships
1	6.			10	56.	5	28.	2	11.	Admissions procedures
		1	6.	9	50.	5	28.	3	17.	Overall quality of teaching
		2	11.	7	39.	6	33.	3	17.	Relevance of courses in related fields
								18	100.	Evaluation of doctoral comps/quals
								18	100.	Procedures for supervising dissertation
				5	28.	3	17.	10	56.	Procedures for supervising master's theses
		2	11.	7	39.	5	28.	4	22.	Opportunities to develop mentors/sponsors
		3	17.	11	61.	1	6.	3	17.	Evaluation of students' prof. competence
		4	22.	9	50.	2	11.	3	17.	University commitment to program
		1	6.	9	50.	3	17.	5	28.	Useful faculty criticism of work
				9	50.	5	28.	4	22.	Faculty helpfulness in dealing with classwork
		1	6.	7	39.	6	33.	4	22.	Faculty awareness of new developments in field
3	17.	7	39.	5	28.			3	17.	Adequacy of financial resources for grad. students
		5	28.	9	50.			4	22.	Facilities for classes, administration
3	17.	8	44.	2	11.	1	6.	4	22.	Number of support staff for program
1	6.	5	28.	6	33.	2	11.	4	22.	Quality of support staff

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DISAGREE STRONGLY		DISAGREE SOME		AGREE SOME		AGREE STRONGLY		NOT APPLIC.		
#	%	#	%	#	%	#	%	#	%	
				3	17.	13	72.			<u>Degree of Agreement</u>
				4	22.	12	67.			Faculty members are genuinely interested in welfare, prof. develop of grad. students
		1	6.	5	28.	11	61.			Different scholarly points of view are encouraged
		1	6.	5	28.	10	56.			Part-time master's students work hard in this program
								8	44.	Full-time master's students work hard in this program
								9	50.	Part-time doctoral students work hard in this program
		2	11.	4	22.	10	56.			Full-time doctoral students work hard in this program
										Department has a humane environment, mutual respect between students and professors
2	11.	2	11.	11	61.	2	11.			Part-time master's students support, help each other
2	11.	2	11.	8	44.	4	22.			Full-time master's students support, help each other
								10	56.	Part-time doctoral students support, help each other
				8	44.	9	50.	10	56.	Full-time doctoral students support, help each other
2	11.	4	22.	7	39.	1	6.			Program is intellectually stimulating
		3	17.	4	22.	9	50.	2	11.	Faculty members help graduates find employment
2	11.	12	67.	2	11.					Faculty members prepare carefully for their graduate courses
2	11.	8	44.	6	33.					Part-time master's students do a lot of unassigned reading
								10	56.	Full-time master's students do a lot of unassigned reading
								10	56.	Part-time doctoral students do a lot of unassigned reading
		1	6.	5	28.	7	39.	4	22.	Full-time doctoral students do a lot of unassigned reading
10	56.	3	17.	2	11.	1	6.			Off-campus quality good as on-campus
4	22.	4	22.	4	22.	4	22.	1	6.	Some professors unduly exploit their students
										Department is collection of individuals, very little team effort
2	11.	4	22.	8	44.	2	11.			Master's program one of the best in field
		3	17.	8	44.	5	28.	8	44.	Doctoral program one of the best in field
		1	6.	11	61.	5	28.	1	6.	Faculty works together to achieve program goals
		4	22.	7	39.	6	33.			Faculty is receptive to new ideas, ways of doing things
1	6.	10	56.	3	17.	2	11.			Good communication between faculty and graduate students
										Many opportunities for student-faculty interaction outside classroom
5	28.	7	39.	2	11.	2	11.			Responsibilities create conflicting demands
1	6.	1	6.	4	22.	11	61.			Personal views are compatible with department objectives
				4	22.	13	72.			Academic freedom is secure

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DISAGREE STRONGLY		DISAGREE SOME		AGREE SOME		AGREE STRONGLY		NOT APPLIC.		°
#	%	#	%	#	%	#	%	#	%	
<u>Degree of Agreement</u>										
1	6.	4	22.	7	39.	3	17.	2	11.	Part-time master's students demonstrate enthusiastic involvement with the field during informal discussions
1	6.	2	11.	8	44.	4	22.	1	6.	Full-time master's students demonstrate enthusiastic involvement
								11	61.	Part-time doctoral students demonstrate enthusiastic involvement
								11	61.	Full-time doctoral students demonstrate enthusiastic involvement
2	11.	4	22.	7	39.	2	11.	1	6.	Department emphasizes training craftsmen, not scholars
1	6.			13	72.	2	11.			Part-time master's students handle course assignments with care, responsibility
1	6.			13	72.	3	17.			Full-time master's students handle course assignments with care
				1	6.			11	61.	Part-time doctoral students handle course assignments with care
		3	17.	4	22.	10	56.	11	61.	Full-time doctoral students handle course assignments with care
1	6.	1	6.	10	56.	3	17.	1	6.	Satisfied with influence on decisions
1	6.	1	6.	7	39.	6	33.	1	6.	Part-time master's students continue projects until they are completed
								1	6.	Full-time master's students complete projects
								11	61.	Part-time doctoral students complete projects
				10	56.	6	33.	11	61.	Full-time doctoral students complete projects
										Professors have realistic view of student responsibilities outside classes
				2	11.	12	67.	2	11.	I use many examples in my teaching
2	11.	9	50.	2	11.			2	11.	Seniors are superior to incoming grad. students
5	28.	6	33.	2	11.	2	11.	1	6.	Part-time graduate students not as committed as full-time student
3	17.	5	28.	3	17.	2	11.	3	17.	Day classes are more lively — students less tired
		9	50.	2	11.	2	11.	3	17.	Night classes more lively — students more experienced
2	11.	8	44.	3	17.	2	11.			Students who have stopped out do not do as well
2	11.	3	17.	5	28.	3	17.	2	11.	Increased maturity should offset outdated prereq., lower GPAs
1	6.			7	39.	7	39.	1	6.	Good department in which to work
3	17.	3	17.	8	44.	2	11.			Part-time grad. students do not learn as well
4	22.	7	39.	2	11.	2	11.			Part-time students less likely to accept guidance
1	6.	3	17.	10	56.	4	22.			Older graduate students have an advantage
2	11.	3	17.	10	56.	2	11.			Part-time grad. students contribute to course content
1	6.	5	28.	7	39.	3	17.	2	11.	Part-time grad. students have higher drop-out rate
1	6.	5	28.	8	44.	3	17.			Students that have stopped out have forgotten relevant material
				8	44.	8	44.	1	6.	Adults should be encouraged to pursue graduate work on part-time basis
				5	28.	10	56.	1	6.	Efforts should be made to accommodate part-time students
1	6.	4	22.	4	22.	5	28.	2	11.	Enjoy teaching classes with older students more
6	33.	7	39.	3	17.			1	6.	Part-time graduate students earn lower grades
5	28.	9	50.	1	6.			1	6.	Full-time grad. students are more concerned about educational quality
8	44.	5	28.	3	17.					Course requirements must be lowered for part-time grad. students
		6	33.	7	39.	4	22.			Part-time grad. students are primarily concerned with credential

°Percent not responding is the difference between sum of percentages given and 100.

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Degree of Importance

NONE		LITTLE		SOME		CONSID.		EXTREME		NO RESP.	
#	%	#	%	#	%	#	%	#	%	#	%
		8	44.	6	33.	4	22.				
2	11.	6	33.	4	22.	5	28.			1	6.
1	6.	2	11.	2	11.	5	28.	7	39.	1	6.
		2	11.	5	28.	9	50.	2	11.		
		3	17.	6	33.	8	44.	1	6.		
		2	11.	8	44.	7	39.	1	6.		
1	6.	3	17.	8	44.	6	33.				
1	6.	1	6.	2	11.	7	39.	7	39.		
				2	11.	11	61.	5	28.		
				4	22.	11	61.	3	17.		

Importance to Department

Prep. scholars/researchers
Preparing college teachers
Preparing other practitioners
Preparing for further study
For personal enrichment

Importance to Student

Prep. to be schol./researcher
Prep. to be college teacher
Preparing for other practice
Preparing for further study
For personal enrichment

SCORES ON ETS AND OTHER SCALES
(From 1=Poor to 4=Excellent)

MEAN	S.D.	95% CONF. INT.		N	
		BETWEEN	AND		
3.53	0.38	3.36	3.71	20	Scholarly excellence of faculty
3.25	0.43	3.05	3.46	20	Evaluation of students
3.26	0.44	3.05	3.47	20	Student commitment/motivation
3.61	0.33	3.45	3.77	20	Environment for working
3.00	0.78	2.40	3.59	19	Quality of part-time master's students
3.15	0.59	2.70	3.60	9	Quality of full-time master's students
3.21	0.50	2.96	3.46	16	Quality of part-time doctoral students
3.54	0.31	3.40	3.69	18	Quality of full-time doctoral students
2.68	0.52	2.44	2.92	18	Quality of part-time grad. students compared with full-time

DIFFERENT

#	%	
12	60.	<u>Differences made in courses for part-time and/or older students</u>
0	-	Not applicable
0	-	Have not taught both types
0	-	Fewer textbooks required
0	-	Fewer outside readings required
0	-	Fewer/shorter papers
0	-	Fewer guest speakers
0	-	More guest speakers
0	-	Fewer/shorter exams
0	-	More class participation expected
0	-	More practically oriented
0	-	Less material covered per term
1	5.	Other

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DIFFERENT

#	%	
<u>Differences made in off-campus courses</u>		
6	33.	Not applicable
2	11.	Not familiar with both types
0	-	Fewer textbooks required
0	-	Fewer outside readings required
0	-	Fewer/shorter papers
1	6.	Fewer guest speakers
0	-	More guest speakers
0	-	Fewer/shorter exams
1	6.	More practically oriented
0	-	More class participation expected
0	-	Less material covered per term
2	11.	Other

FULL-TIME		PART-TIME		DON'T KNOW		NOT APPLIC.		NO RESP.		
#	%	#	%	#	%	#	%	#	%	
1	6.	15	83.	2	11.					Status of most master's students
						14	78.	4	22.	Status of most doctoral students
3	17.	13	72.			1	6.	1	6.	Type of study for which master's program was designed
		1	6.			14	78.	3	17.	Type of study for which doctoral program was designed

TIMES SIGNIFICANT NUMBERS OF GRADUATE COURSES MEET

#	%	
8	44.	Weekdays 8 A.M. to 4 P.M.
16	100.	Weekdays after 4 P.M.
12	67.	Weekends
2	11.	Daytime during summer
10	56.	Evening during summer
4	22.	Summer weekends
0	-	Other

LENGTH OF MOST GRADUATE CLASS SESSIONS

1-2 HRS./		2-3 HRS./		HALF A							
SESSION	SESSION	SESSION	SESSION	DAY	ALL DAY	OTHER	NO RESP.				
#	%	#	%	#	#	#	#	#	%	#	%
4	22.	14	78.								

FREQUENCY MOST GRADUATE CLASSES MEET

2-3/		ONCE/		2-3WEEK-		SEVERAL					
WEEK	WEEK	WEEK	WEEK	ENDS/TERM	DAYS/TERM	OTHER	NO RESP.				
#	%	#	%	#	#	#	#	#	%	#	%
4	22.	14	78.								

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WEEKDAYS 8 AM-4 PM		WEEKDAYS AFTER 4		WEEKENDS		Number of Office Hours per Week
#	%	#	%	#	%	
1	6.	2	11.	14	78.	0
1	6.	2	11.	1	6.	1
2	11.	5	28.	2	11.	2
4	22.	1	6.			3
2	11.	2	11.			4
		2	11.			5
1	6.					6
1	6.					7
2	11.	2	11.			8
1	6.	1	6.			10
1	6.					15
1	6.					30
1	6.	1	6.	1	6.	No response

LOWER DIV.		UPPER DIV.		ON-CAMP. DAY GRAD.		ON-CAMP. EVE. GRAD.		OFF-CAMP. GRAD.		OTHER		TOTAL		Number of Classes Spring Term
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
5	28.	8	44.	12	67.	7	39.	17	94.	18	100.			0
11	61.	7	39.	4	22.	8	44.					3	17.	1
2	11.	2	11.	2	11.	3	17.	1	6.			5	28.	2
		1	6.									3	17.	3
												4	22.	4
												1	6.	5
												1	6.	7

Professional Publications or Products

ARTICLES/ CHAPTERS		BOOKS		MONOGR./ REVIEWS		SPONSORED EXHIBITS		PERFOR- MANCES		Number in past five years
#	%	#	%	#	%	#	%	#	%	
4	22.	15	83.	10	56.	17	94.	17	94.	0
2	11.	1	6.	1	6.					1
4	22.			4	22.					2
2	11.	1	6.							3
3	17.									4
1	6.									5
1	6.			1	6.					6
										7
				1	6.					10
1	6.	1	6.	1	6.	1	6.	1	6.	No response

PROFESS. MEETINGS		COLLOQ./ VIS.PROF.		Number of Presentations in Past Two Years
#	%	#	%	

6	33.	11	61.	0
3	17.	4	22.	1
4	22.	2	11.	2
1	6.			3
1	6.			5
1	6.			7
1	6.			10
1	6.	1	6.	No response

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Highest earned degree:

PH.D.		OTHER DOC.		MASTER'S		BACH.	
#	%	#	%	#	%	#	%
15	83.	1	6.	2	11.		

Year highest degree received:

#	%		#	%	
1	6.	1947	2	11.	1964
2	11.	1950	1	6.	1967
1	6.	1953	1	6.	1968
1	6.	1958	1	6.	1976
1	6.	1961	1	6.	1978
1	6.	1962	2	11.	1981
1	6.	1963	1	6.	1982
			1	6.	No response

AT THIS INSTITUTION		OTHER HIGHER ED.		CONSULT.		OUTSIDE HIGHER ED.		OTHER	
FULL-TIME PART-TIME		FULL-TIME PART-TIME		PART-TIME		FULL-TIME PART-TIME			
#	%	#	%	#	%	#	%	#	%
		10 56.	9 50.	11 61.	14 78.	12 67.	16 89.	17 94.	0
		4 22.	2 11.				1 6.		1
2 11.		1 6.	2 11.	1 6.		2 11.			2
1 6.		1 6.	1 6.	2 11.					3
		1 6.							4
3 17.									5
				1 6.	1 6.	1 6.			6
			1 6.	1 6.		1 6.			7
1 6.				1 6.					8
1 6.									9
			1 6.						11
1 6.									12
1 6.									13
1 6.						1 6.			15
2 11.									16
			1 6.						18
2 11.					1 6.				20
1 6.									21
					1 6.				25
1 6.									35
1 6.	1 6.	1 6.	1 6.	1 6.	1 6.	1 6.	1 6.	1 6.	No response

Extent of involvement with the department:

NEVER		OCCAS.		FREQUENT.		NOT APP.		NO RESP.	
#	%	#	%	#	%	#	%	#	%
		1 6.	16 89.	1 6.					Teach required grad. courses
		2 11.	16 89.						Participate in decisions
1 6.		4 22.	11 61.	2 11.					Direct independent study
4 22.		3 17.		9 50.	2 11.				Supervise field work/internships
3 17.		1 6.	7 39.	6 33.	1 6.				Compose/grade dept. exams
			17 94.	1 6.					Serve as faculty adviser
4 22.	10 56.	2 11.	1 6.	1 6.	1 6.				Arr. contacts with nonac. professionals
		1 6.	4 22.	3 17.	10 56.				Other

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YES		NO		NO RESP.		
#	%	#	%	#	%	
13	72.	5	28.			Do you have tenure?
8	44.	10	56.			Were you ever a part-time grad. student?
6	33.	12	67.			Were you ever employed full-time while in college?
13	72.	5	28.			Were you enrolled fairly continuously?
13	72.	5	28.			Did you commute while a grad. student?
7	39.	9	50.	2	11.	Do you prefer teaching theoretical material?
4	22.	13	72.	1	6.	Can you distinguish part-time grad. students?

How was your employment as a graduate student related to your educational goals?

RELAT.TO ED.GOALS		RELAT.TO EMP.GOALS		RELAT.TO BOTH		RELAT.TO NEITHER		NOT EMPLOY.		NO RESPONSE	
#	%	#	%	#	%	#	%	#	%	#	%
4	22.	1	6.	10	56.	1	6.	2	11.		

#	%	AGE	#	%	AGE
1	6.	29	1	6.	50
1	6.	32	1	6.	58
1	6.	34	1	6.	61
1	6.	35	2	11.	62
1	6.	41	1	6.	63
1	6.	43	1	6.	64
1	6.	44	1	6.	65
1	6.	45	1	6.	No response
1	6.	49			

Mean Age: 49.6

Gender:

MALE		FEMALE		NO RESP.	
#	%	#	%	#	%
13	72.	4	22.	1	6.

Ethnicity:

NON-RES. ALIEN		WHITE		BLACK		CHICANO		OTHER HISPANIC		NATIVE AMER.		ASIAN AMER.		NO RESP.	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
		16	89.									1	6.	1	6.

Primary language:

ENGLISH		SPANISH		OTHER		NO RESP.	
#	%	#	%	#	%	#	%
16	89.			1	6.	1	6.

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YES		NO		NO RESP.		
#	%	#	%	#	%	
4	22.	13	72.	1	6.	Have you served on a nat. comm. in last 3 years?
5	28.	12	67.	1	6.	Have you received a teaching award?
7	39.	10	56.	1	6.	Have you received an award for scholarship?
5	28.	12	67.	1	6.	Have you received an award for prof. practice?
5	28.	12	67.	1	6.	Have you held office in nat. association?
7	39.	10	56.	1	6.	Have you been officer/comm. member of state/regional org.?
3	17.	14	78.	1	6.	Have you been on journal editorial board?
4	22.	13	72.	1	6.	Have you referred journal articles in last two years?
1	6.	16	89.	1	6.	Did you have instit. research grant this year?
1	6.	16	89.	1	6.	Did you have outside grant this year?
5	28.	12	67.	1	6.	Have you had outside grant in last 3 years?

Number of students enrolled in programs

MASTER'S STUDENTS:

#	%	#	%	
1	6.	6	1	6. 32
1	6.	9	1	6. 40
2	11.	15	3	17. 50
2	11.	20	1	6. 60
1	6.	30	1	6. 130
1	6.	31	1	6. 250
2	11.	No response		

Mean number master's students per program: 47.5

DOCTORAL STUDENTS:

#	%	
17	94.	0
1	6.	No response

NON-DEGREE STUDENTS:

#	%	
14	78.	0
1	6.	6
1	6.	10
2	11.	No response

APPENDIX E-7

FREQUENCY DISTRIBUTIONS FOR
CITY UNIVERSITY OF NEW YORK FACULTY

WHAT DO GRADUATE STUDENTS NEED? ARE THEY GETTING IT?

FACULTY RESPONSES

INSTITUTION: City University of New York

SAMPLE SIZE: 29 NUMBER RETURNED: 20 RESPONSE RATE: 69.0

HEGIS CODES

#	%	
		01--Agriculture & Natural Resources
		02--Architecture & Environmental Design
		03--Area Studies
3	15.	04--Biological Sciences
1	5.	05--Business & Management
		06--Communications
		07--Computer & Information Sciences
		08--Education
1	5.	09--Engineering
2	10.	10--Fine & Applied Arts
2	10.	11--Foreign Languages
1	5.	12--Health Professions
		13--Home Economics
		14--Law
3	15.	15--Letters
		16--Library Science
1	5.	17--Mathematics
1	5.	19--Physical Sciences
		20--Psychology
1	5.	21--Public Affairs & Services
3	15.	22--Social Sciences
		23--Theology
1	5.	49--Interdisciplinary Studies
		98--Other, Undeclared

City University of New York Faculty Frequency Distributions
Page 2

NO PROBLEM		PROBLEM		SHOULD BE CHANGED		
#	%	#	%	#	%	
<u>Institutional Problems</u>						
14	70.	4	20.			Meeting course requirements
16	80.	2	10.			Acceptance of previously earned credit
15	75.	3	15.	1	5.	Accessibility of major prof./advisor
12	60.	6	30.	4	20.	Availability of library materials
14	70.	4	20.	4	20.	Adequacy of laboratory facilities
16	80.	2	10.	1	5.	Adequacy of computer facilities
18	90.					Adequacy of studios, specialized facil.
18	90.					General quality of instruction
14	70.	4	20.	2	10.	Availability of internship/practicum
18	90.					Approval of dissert./thesis topic or final draft
16	80.	2	10.			Residence requirement
13	65.	5	25.	1	5.	Time limit for completing degree
17	85.	1	5.			Penalties for "stopping out"
15	65.	3	15.			Foreign language requirement
16	80.	2	10.	2	10.	Getting information about institution
17	75.	1	5.	1	5.	Getting information about department
15	75.	3	15.	2	10.	Times, locations, frequency of courses
17	85.	1	5.			Times administrative offices are open
14	70.	4	20.	3	15.	Times services are available
		2	10.			<u>No response</u> (No problems; no one worst)
<u>Personal Problems</u>						
		19	95.			Financing education
11	55.	8	40.			Finding time to study
16	80.	3	15.			Adequacy of places to study
12	60.	7	35.			Job responsibilities
17	85.	2	10.			Employer attitudes
12	60.	7	35.			Family responsibilities
15	75.	4	20.			Attitudes of family members
16	80.	3	15.			Opportunities for spouse
19	95.					Community responsibilities
12	60.	7	35.			Transportation
15	75.	4	20.			Attitudes of some instructors
19	95.					Attitudes of some fellow students
16	80.	3	15.			Academic skills
19	95.					Physical stamina
14	70.	5	25.			Self-confidence
19	95.					Working with other students on projects
18	90.	1	5.			Opportunities to use skills or knowledge
16	80.	3	15.			Communicating in English
		1	5.			<u>No response</u> (No problems; no one worst)

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VERY IMPORTANT		SOMEWHAT IMPORTANT		NOT IMPORTANT		NO RESPONSE		
#	%	#	%	#	%	#	%	
<u>Importance of Institutional Services</u>								
13	65.	6	30.	1	5.			Opportunities for teaching exper.
14	70.	3	15.	2	10.	1	5.	Opportunities for research exper.
7	35.	7	35.	5	25.	1	5.	Courses taught evenings/weekends
9	45.	5	25.	4	20.	2	10.	Courses which meet once a week
1	5.	3	15.	12	60.	4	20.	Courses taught off-campus
10	50.	3	15.	5	25.	2	10.	Computer facilities
6	30.	4	20.	8	40.	2	10.	Computer consultants
3	15.	3	15.	10	50.	4	20.	Statistical consultants
18	90.	1	5.	1	5.			Library facilities
5	25.	2	10.	10	50.	3	15.	Labs, studios, other special facil.
		5	25.	14	70.	1	5.	Tutoring, individualized help
6	30.	6	30.	6	30.	2	10.	Training in foreign languages
5	25.	7	35.	8	40.			English language training
8	40.	8	40.	3	15.	1	5.	Colloquia, special lectures
		3	15.	15	75.	2	10.	Evaluation/credit for nonacademic learning
2	10.	5	25.	11	55.	2	10.	Cultural events
				18	90.	2	10.	Athletic events
		2	10.	15	75.	3	15.	Recreational facilities
1	5.	7	35.	11	55.	1	5.	Peer support groups
11	55.	7	35.	2	10.			Informal contact with other students
19	95.	1	5.					Part-time employment
12	60.	7	35.	1	5.			Emergency short-term loans
17	85.	2	10.			1	5.	Long-term loans
15	75.	4	20.	1	5.			Placement service for graduates
12	60.	6	30.	1	5.	1	5.	Employment service for students
7	35.	5	25.	7	35.	1	5.	Financial planning assistance
9	45.	7	35.	3	15.	1	5.	Tuition payment options
3	15.	3	15.	13	65.	1	5.	Parking facilities
16	80.	2	10.	1	5.	1	5.	Public transportation
4	20.	7	35.	7	35.	2	10.	Personal counseling
9	45.	7	35.	3	15.	1	5.	Career counseling
11	55.	4	20.	5	25.			Cafeteria, restaurant, snack facilities
12	60.	7	35.	1	5.			Lounge and study areas
7	35.	9	45.	3	15.	1	5.	Campus housing
6	30.	8	40.	4	20.	2	10.	Health care facilities
9	45.	7	35.	3	15.	1	5.	Health insurance for students/families
4	20.	6	30.	9	45.	1	5.	Child care service
6	30.	5	25.	8	40.	1	15.	Emergency locator service
6	30.	8	40.	5	25.	1	5.	Registration options

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POOR		FAIR		GOOD		EXCELLENT		NOT OFFER.		NOT FAMIL.		NO RESP.		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
<u>Quality of services</u>														
1	5.	7	35.	4	20.	6	30.			1	5.	1	5.	Opportunities for teaching experience
		4	20.	2	10.	12	60.			1	5.	1	5.	Opportunities for research experience
3	15.	1	5.	7	35.	4	20.	3	15.			2	10.	Courses taught evenings or weekends
				4	20.	13	65.	2	10.			1	5.	Courses which meet once a week
		1	5.	2	10.	4	20.	10	50.			3	15.	Off-campus courses
				2	10.	16	80.	2	10.					Courses taught on the main campus
		2	10.	6	30.	6	30.			4	20.	2	10.	Computer facilities
1	5.	3	15.	4	20.	2	10.			8	40.	2	10.	Computer consultants
1	5.	1	5.	3	15.	1	5.	6	30.	6	30.	2	10.	Statistical consultants
1	5.	7	35.	7	35.	4	20.					1	5.	Library facilities
		3	15.	3	15.	1	5.	4	20.	6	30.	3	15.	Labs, studios, specialized facilities
		1	5.	3	15.	2	10.	11	55.	2	10.	1	5.	Tutoring, individualized help
		1	5.	5	25.	8	40.	2	10.	3	15.	1	5.	Training in foreign languages
		2	10.	3	15.	2	10.	9	45.	2	10.	2	10.	English language training
		5	25.	8	40.	5	25.	1	5.			1	5.	Colloquia, special lectures
				1	5.	1	5.	13	65.	2	10.	3	15.	Evaluation for nonacademic learning
		2	10.	7	35.	5	25.	2	10.	3	15.	1	5.	Cultural events
1	5.	1	5.	1	5.			13	65.	1	5.	3	15.	Athletic events
1	5.	1	5.					14	70.	1	5.	3	15.	Recreational facilities
1	5.	2	10.	1	5.	1	5.	9	45.	4	20.	2	10.	Peer support groups
1	5.	6	30.	7	35.	4	20.	1	5.			1	5.	Informal contact with other students
1	5.	8	40.	7	35.	4	20.							Part-time employment for students
3	15.	2	10.	6	30.	1	5.	3	15.	4	20.	1	5.	Emergency short-term loans
1	5.	4	20.	7	35.	3	15.	2	10.	2	10.	1	5.	Long-term loans
1	5.	2	10.	9	45.	4	20.			2	10.	2	10.	Placement service for graduates
2	10.	2	10.	5	25.	2	10.	7	35.	1	5.	1	5.	Employment service for students
1	5.	2	10.	4	20.	1	5.	8	40.	3	15.	1	5.	Financial planning assistance
1	5.	2	10.	7	35.			7	35.	2	10.	1	5.	Tuition payment options
4	20.			1	5.			13	65.			2	10.	Parking facilities
1	5.	4	20.	3	15.	10	50.	1	5.			1	5.	Public transportation
		2	10.	1	5.	2	10.	9	45.	4	20.	2	10.	Personal counseling
1	5.	4	20.	8	40.	5	25.	1	5.			1	5.	Career counseling
1	5.	2	10.	1	5.			12	60.	3	15.	1	5.	Health care facilities
3	15.			1	5.			9	45.	6	30.	1	5.	Health insurance for students, families
2	10.	1	5.					13	65.	3	15.	1	5.	Child care service
		2	10.	2	10.			12	60.	2	10.	2	10.	Emergency locator service
		3	15.	6	30.	6	30.	2	10.	2	10.	1	5.	Registration options
1	5.	8	40.	8	40.	1	5.					2	10.	Cafeteria, restaurant, snack facilities
5	25.	5	25.	7	35.	2	10.	1	5.					Lounge and study areas
4	20.	1	5.					13	65.	1	5.	1	5.	Campus housing
1	5.	4	20.	10	50.	1	5.	1	5.	2	10.	1	5.	Protection of student safety, security

City University of New York Faculty Frequency Distributions
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QUALITY ASSESSMENTS OF THOSE RESPONDENTS WHO WERE FAMILIAR WITH THE SERVICE

POOR		FAIR		GOOD		EXCELLENT		N		
#	%	#	%	#	%	#	%	#	%	
<u>Quality of services</u>										
1	6.	7	39.	4	22.	6	33.	18	90.	Opportunities for teaching experience
		4	22.	2	11.	12	67.	18	90.	Opportunities for research experience
3	20.	1	7.	7	47.	4	27.	15	75.	Courses taught evenings or weekends
				4	24.	13	76.	17	85.	Courses which meet once a week
		1	14.	2	29.	4	57.	7	35.	Off-campus courses
				2	11.	16	89.	18	90.	Courses taught on the main campus
		2	14.	6	43.	6	43.	14	70.	Computer facilities
1	10.	3	30.	4	40.	2	20.	10	50.	Computer consultants
1	17.	1	17.	3	50.	1	17.	6	30.	Statistical consultants
1	5.	7	37.	7	37.	4	21.	19	95.	Library facilities
		3	43.	3	43.	1	14.	7	35.	Labs, studios, specialized facilities
		1	17.	3	50.	2	33.	6	30.	Tutoring, individualized help
		1	7.	5	36.	8	57.	14	70.	Training in foreign languages
		2	29.	3	43.	2	29.	7	35.	English language training
		5	28.	8	44.	5	28.	18	90.	Colloquia, special lectures
				1	50.	1	50.	2	10.	Evaluation for nonacademic learning
		2	14.	7	50.	5	36.	14	70.	Cultural events
1	33.	1	33.	1	33.			3	15.	Athletic events
1	50.	1	50.					2	10.	Recreational facilities
1	20.	2	40.	1	20.	1	20.	5	25.	Peer support groups
1	6.	6	33.	7	39.	4	22.	18	90.	Informal contact with other students
1	5.	8	40.	7	35.	4	20.	20	100.	Part-time employment for students
3	25.	2	17.	6	50.	1	8.	12	60.	Emergency short-term loans
1	7.	4	27.	7	47.	3	20.	15	75.	Long-term loans
1	6.	2	13.	9	56.	4	25.	16	80.	Placement service for graduates
2	18.	2	18.	5	45.	2	18.	11	55.	Employment service for students
1	13.	2	25.	4	50.	1	13.	8	40.	Financial planning assistance
1	10.	2	20.	7	70.			10	50.	Tuition payment options
4	80.			1	20.			5	20.	Parking facilities
1	6.	4	22.	3	17.	10	56.	18	90.	Public transportation
		2	40.	1	20.	2	40.	5	25.	Personal counseling
1	6.	4	22.	8	44.	5	28.	18	90.	Career counseling
1	25.	2	50.	1	25.			4	20.	Health care facilities
3	75.			1	25.			4	20.	Health insurance for students, families
2	67.	1	33.					3	15.	Child care service
		2	50.	2	50.			4	20.	Emergency locator service
		3	20.	6	40.	6	40.	15	75.	Registration options
1	6.	8	44.	8	44.	1	6.	18	90.	Cafeteria, restaurant, snack facilities
5	26.	5	26.	7	37.	2	11.	19	95.	Lounge and study areas
4	80.	1	20.					5	25.	Campus housing
1	6.	4	25.	10	62.	1	6.	16	80.	Protection of student safety, security

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QUESTIONS FROM ETS GRADUATE PROGRAM SELF-ASSESSMENT

POOR		FAIR		GOOD		EXCELLENT		NO RESP.		
#	%	#	%	#	%	#	%	#	%	
<u>Ratings of Department</u>										
				10	50.	10	50.	0	-	Intellectual environment
		1	5.	10	50.	9	45.	0	-	Advice about the program
1	5.	7	35.	7	35.	5	25.	0	-	Career advice
				6	30.	14	70.	0	-	Agreement between requirements and program objectives
				12	60.	8	40.	0	-	Administration of degree requirements
2	10.	9	45.	6	30.	2	10.	1	5.	Available library holdings in field
2	10.	6	30.	7	35.	3	15.	2	10.	Specialized facilities for work in field
		4	20.	10	50.	5	25.	1	5.	Interaction between department and related disciplines
				3	15.	17	85.	0	-	Scholarly/prof. competence of faculty
		2	10.	10	50.	7	35.	1	5.	Regularity of offering courses
		2	10.	11	55.	7	35.	0	-	Scholarly/prof. promise of grad. students
		2	10.	6	30.	11	55.	1	5.	Relevance of degree requirements to anticipated work
		6	30.	3	15.	9	45.	2	10.	Opportunities for student participation in department decisions
		3	15.	10	50.	7	35.	0	-	Evaluation procedure in graduate courses
				10	50.	9	45.	1	5.	Teaching methods in graduate courses
		3	15.	5	25.	11	55.	1	5.	Variety of course/program offerings
		1	5.	8	40.	10	50.	1	5.	Depth of program offerings
				8	40.	11	55.	1	5.	Flexibility of program
1	5.	1	5.	8	40.	9	45.	1	5.	Accessibility of course instructors
		1	5.	4	20.	14	70.	1	5.	Opportunities to pursue individual projects
		2	10.	12	60.	5	25.	1	5.	Evaluation of progress toward degree
		3	15.	8	40.	9	45.	0	-	Faculty-student relationships
		1	5.	8	40.	10	50.	1	5.	Admissions procedures
				9	45.	10	50.	1	5.	Overall quality of teaching
				6	30.	13	65.	1	5.	Relevance of courses in related fields
		1	5.	11	55.	7	35.	1	5.	Evaluation of doctoral comps/quals
		1	5.	10	50.	8	40.	1	5.	Procedures for supervising dissertation
				6	30.	3	15.	11	55.	Procedures for supervising master's theses
				7	35.	12	60.	1	5.	Opportunities to develop mentors/sponsors
		1	5.	13	65.	5	25.	1	5.	Evaluation of students' prof. competence
		2	10.	8	40.	10	50.	0	-	University commitment to program
		2	10.	10	50.	7	35.	1	5.	Useful faculty criticism of work
		2	10.	10	50.	7	35.	1	5.	Faculty helpfulness in dealing with classwork
				5	25.	14	70.	1	5.	Faculty awareness of new developments in field
3	15.	13	65.	2	10.	1	5.	1	5.	Adequacy of financial resources for grad. students
1	5.	6	30.	9	45.	3	15.	1	5.	Facilities for classes, administration
6	30.	10	50.	3	15.	1	5.	0	-	Number of support staff for program
3	15.	4	20.	7	35.	5	25.	1	5.	Quality of support staff

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DISAGREE STRONGLY		DISAGREE SOME		AGREE SOME		AGREE STRONGLY		NOT APPLIC.		
#	%	#	%	#	%	#	%	#	%	
				2	10.	18	90.			<u>Degree of Agreement</u>
				4	20.	16	80.			Faculty members are genuinely interested in welfare, prof. develop of grad. students
1	5.			5	25.	4	20.	6	30.	Different scholarly points of view are encouraged
				6	30.	4	20.	6	30.	Part-time master's students work hard in this program
		2	10.	7	35.	6	30.	3	15.	Full-time master's students work hard in this program
				7	35.	11	55.	2	10.	Part-time doctoral students work hard in this program
				5	25.	14	70.			Full-time doctoral students work hard in this program
										Department has a humane environment, mutual respect between students and professors
1	5.	2	10.	4	20.	2	10.	8	40.	Part-time master's students support, help each other
		3	15.	4	20.	3	15.	8	40.	Full-time master's students support, help each other
		5	25.	5	25.	6	30.	3	15.	Part-time doctoral students support, help each other
				4	20.	14	70.	2	10.	Full-time doctoral students support, help each other
				1	5.	19	95.			Program is intellectually stimulating
1	5.			7	35.	10	50.	1	5.	Faculty members help graduates find employment
				7	35.	12	60.			Faculty members prepare carefully for their graduate courses
2	10.	2	10.	4	20.	1	5.	8	40.	Part-time master's students do a lot of unassigned reading
2	10.	2	10.	4	20.	1	5.	8	40.	Full-time master's students do a lot of unassigned reading
2	10.	4	20.	5	25.	2	10.	5	25.	Part-time doctoral students do a lot of unassigned reading
1	5.			11	55.	4	20.	3	15.	Full-time doctoral students do a lot of unassigned reading
1	5.	2	10.	4	20.	3	15.	9	45.	Off-campus quality good as on-campus
13	65.	5	25.	1	5.					Some professors unduly exploit their students
5	25.	9	45.	5	25.	1	5.			Department is collection of individuals, very little team effort
		1	5.	5	25.	4	20.	8	40.	Master's program one of the best in field
		1	5.	5	25.	12	60.	2	10.	Doctoral program one of the best in field
				10	50.	10	50.			Faculty works together to achieve program goals
				9	45.	11	55.			Faculty is receptive to new ideas, ways of doing things
				10	50.	10	50.			Good communication between faculty and graduate students
3	15.	3	15.	9	45.	5	25.			Many opportunities for student-faculty interaction outside classroom
6	30.	7	35.	5	25.	1	5.			Responsibilities create conflicting demands
		6	30.			14	70.			Personal views are compatible with department objectives
				1	5.	19	95.			Academic freedom is secure

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DISAGREE STRONGLY	DISAGREE SOME	AGREE SOME	AGREE STRONGLY	NOT APPLIC.	
# %	# %	# %	# %	# %	# % *
	3 15.	1 5.	5 25.	9 45.	<u>Degree of Agreement</u>
	2 10.	2 10.	5 25.	3 40.	Part-time master's students demonstrate enthusiastic involvement with the field during informal discussions
	1 5.	6 30.	9 45.	3 15.	Full-time master's students demonstrate enthusiastic involvement
		6 30.	12 60.	2 10.	Part-time doctoral students demonstrate enthusiastic involvement
10 50.	8 40.	2 10.			Full-time doctoral students demonstrate enthusiastic involvement
	2 10.	5 25.	2 10.	8 40.	Department emphasizes training craftsmen, not scholars
					Part-time master's students handle course assignments with care, responsibility
	1 5.	6 30.	2 10.	8 40.	Full-time master's students handle course assignments with care
	1 5.	10 50.	5 25.	3 15.	Part-time doctoral students handle course assignments with care
		11 55.	7 35.	2 10.	Full-time doctoral students handle course assignments with care
			7 35.	13 65.	Satisfied with influence on decisions
	1 5.	4 20.	3 15.	9 45.	Part-time master's students continue projects until they are completed
		4 20.	4 20.	9 45.	Full-time master's students complete projects
	1 5.	8 40.	7 35.	3 15.	Part-time doctoral students complete projects
		7 35.	11 55.	2 10.	Full-time doctoral students complete projects
	1 5.	8 40.	11 55.		Professors have realistic view of student responsibilities outside classes
	1 5.	6 30.	11 55.	1 5.	I use many examples in my teaching
4 20.	9 45.	2 10.		5 25.	Seniors are superior to incoming grad. students
4 20.	7 35.	6 30.	1 5.	1 5.	Part-time graduate students not as committed as full-time student
5 25.	5 25.	3 15.	1 5.	5 25.	Day classes are more lively -- students less tired
4 20.	8 40.	3 15.	1 5.	3 15.	Night classes more lively -- students more experienced
5 25.	6 30.	6 30.	2 10.	1 5.	Students who have stopped out do not do as well
	2 10.	12 60.	6 30.		Increased maturity should offset outdated prereq., lower GPAs
		5 25.	15 75.		Good department in which to work
2 10.	6 30.	8 40.	2 10.	1 5.	Part-time grad. students do not learn as well
6 30.	10 50.		1 5.	2 10.	Part-time students less likely to accept guidance
1 5.	10 50.	8 40.	1 5.		Older graduate students have an advantage
1 5.	12 60.	2 10.	2 10.	2 10.	Part-time grad. students contribute to course content
1 5.	6 30.	9 45.	1 5.	2 10.	Part-time grad. students have higher drop-out rate
1 5.	6 30.	11 55.	2 10.		Students that have stopped out have forgotten relevant material
4 20.		9 45.	5 25.	2 10.	Adults should be encouraged to pursue graduate work on part-time basis
3 15.	1 5.	6 30.	9 45.	1 5.	Efforts should be made to accomodate part-time students
1 5.	13 65.	3 15.	2 10.	1 5.	Enjoy teaching classes with older students more
4 20.	9 45.	5 25.		1 5.	Part-time graduate students earn lower grades
5 25.	6 30.	5 25.	2 10.	1 5.	Full-time grad. students are more concerned about educational quality
7 35.	7 35.	2 10.	2 10.	1 5.	Course requirements must be lowered for part-time grad. students
4 20.	9 45.	3 15.	2 10.	1 5.	Part-time grad. students are primarily concerned with credentials

*Percent not responding is the difference between sum of percentages given and 100.

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Degree of Importance											
NONE		LITTLE		SOME		CONSID.		EXTREME			NO RESP.
#	%	#	%	#	%	#	%	#	%		
				1	5.	5	25.	14	70.	<u>Importance to Department</u>	
				6	30.	6	30.	8	40.	Prep. scholars/researchers	
5	25.	3	15.	4	20.	5	25.	3	15.	Preparing college teachers	
4	20.	1	5.	3	15.	7	35.	5	25.	Preparing other practitioners	
4	20.	4	20.	3	15.	4	20.	5	25.	Preparing for further study	
										For personal enrichment	
						6	30.	14	70.	<u>Importance to Student</u>	
				4	20.	8	40.	8	40.	Prep. to be schol./researcher	
5	25.	1	5.	3	15.	6	30.	5	25.	Prep. to be college teacher	
4	20.	2	10.			9	45.	5	25.	Preparing for other practice	
5	25.	2	10.	1	5.	8	40.	4	20.	Preparing for further study	
										For personal enrichment	

SCORES ON ETS AND OTHER SCALES

(From 1=Poor to 4=Excellent)

MEAN	S.D.	95% CONF. INT.		N	
		BETWEEN	AND		
3.53	0.38	3.36	3.71	20	Scholarly excellence of faculty
3.25	0.43	3.05	3.46	20	Evaluation of students
3.26	0.44	3.05	3.47	20	Student commitment/motivation
3.61	0.33	3.45	3.77	20	Environment for working
3.00	0.78	2.40	3.59	19	Quality of part-time master's students
3.15	0.59	2.70	3.60	9	Quality of full-time master's students
3.21	0.50	2.96	3.46	16	Quality of part-time doctoral students
3.54	0.31	3.40	3.69	18	Quality of full-time doctoral students
2.68	0.52	2.44	2.92	18	Quality of part-time grad. students compared with full-time

DIFFERENT

#	%	
12	60.	Differences made in courses for part-time and/or older students
0	-	Not applicable
0	-	Have not taught both types
0	-	Fewer textbooks required
0	-	Fewer outside readings required
0	-	Fewer/shorter papers
0	-	Fewer guest speakers
0	-	More guest speakers
0	-	Fewer/shorter exams
0	-	More class participation expected
0	-	More practically oriented
0	-	Less material covered per term
1	5.	Other

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DIFFERENT

#	%	
15	75.	Differences made in off-campus courses
0	-	Not applicable
0	-	Not familiar with both types
0	-	Fewer textbooks required
0	-	Fewer outside readings required
0	-	Fewer/shorter papers
0	-	Fewer guest speakers
0	-	More guest speakers
0	-	Fewer/shorter exams
0	-	More practically oriented
0	-	More class participation expected
0	-	Less material covered per term
1	5.	Other

FULL-TIME		PART-TIME		DON'T KNOW		NOT APPLIC.		NO RESP.		
#	%	#	%	#	%	#	%	#	%	
4	20.	6	30.			7	35.	3	15.	Status of most master's students
10	50.	6	30.			2	10.	2	10.	Status of most doctoral students
5	25.	3	15.			6	30.	6	30.	Type of study for which master's program was designed
14	70.	1	5.			2	10.	3	15.	Type of study for which doctoral program was designed

TIMES SIGNIFICANT NUMBERS OF GRADUATE COURSES MEET

#	%	
12	60.	Weekdays 8 A.M. to 4 P.M.
16	80.	Weekdays after 4 P.M.
0	-	Weekends
1	5.	Daytime during summer
0	-	Evening during summer
0	-	Summer weekends
1	5.	Other

LENGTH OF MOST GRADUATE CLASS SESSIONS

1-2 HRS/		2-3 HRS/		HALF A		DAY		ALL DAY		OTHER		NO RESP.	
SESSION		SESSION		SESSION		SESSION		SESSION		SESSION		SESSION	
#	%	#	%	#	%	#	%	#	%	#	%	#	%
6	30.	14	70.										

FREQUENCY MOST GRADUATE CLASSES MEET

2-3/		ONCE/		2-3WEEK-		SEVERAL		OTHER		NO RESP.	
WEEK		WEEK		ENDS/TERM		DAYS/TERM					
#	%	#	%	#	%	#	%	#	%	#	%
3	15.	17	85.								

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WEEKDAYS		WEEKDAYS		WEEKENDS		
8 AM-4 PM		AFTER 4				
#	%	#	%	#	%	Number of Office Hours per Week
3	15.	4	20.	19	95.	0
1	5.	1	5.			1
1	5.	2	10.			2
1	5.					3
1	5.	3	15.			4
2	10.	3	15.			5
		3	15.			6
						7
		1	5.			9
3	15.	1	5.			10
						15
2	10.					20
1	5.					21
1	5.					24
1	5.					30
1	5.					40
2	10.	2	10.	1	5.	No response

LOWER DIV.		UPPER DIV.		ON-CAMP. DAY GRAD.		ON-CAMP. EVE. GRAD.		OFF-CAMP. GRAD.		OTHER		TOTAL		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
18	90.	15	75.	7	35.	15	75.	19	95.	19	95.	1	5.	Number of Classes Spring Term
		4	20.	11	55.	4	20.					14	70.	0
1	5.			1	5.							3	15.	1
												1	5.	2
1	5.	1	5.	1	5.	1	5.	1	5.	1	5.	1	5.	3
														No response

Professional Publications or Products

ARTICLES/CHAPTERS		BOOKS		MONOGR./REVIEWS		SPONSORED EXHIBITS		PERFORMANCES		
#	%	#	%	#	%	#	%	#	%	
1	5.	7	35.	10	50.	16	80.	16	80.	Number in past five years
2	10.	6	30.	1	5.	1	5.	1	5.	0
2	10.	3	15.	2	10.	1	5.			1
3	15.			1	5.					2
1	5.			2	10.					3
2	10.			1	5.					4
1	5.									5
1	5.	1	5.							6
1	5.			1	5.					7
2	10.	1	5.							8
										11
1	5.									12
								1	5.	15
1	5.									18
1	5.									50
2	10.	2	10.	2	10.	2	10.	2	10.	No response

Are most graduate students in your program "traditional" students?

DON'T KNOW		YES		NO		NO RESP.	
#	%	#	%	#	%	#	%
		8	40.	10	50.	2	10.

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PROFESS.	COLLOQ./
MEETINGS	VIS.PROF.
N	N
%	%

Number of Presentations in Past Two Years

4	20.	7	35.	0
2	10.	2	10.	1
5	25.	2	10.	2
1	5.	1	5.	3
3	15.	2	10.	4
		3	15.	5
1	5.	1	5.	6
1	5.			7
1	5.			8
1	5.			12
		1	5.	15
1	5.	1	5.	No response

Basis of academic appointment:

FULL-TIME		PART-TIME		NO RESP.	
#	%	#	%	#	%
19	95.			1	5.

Academic rank:

NONE		ADJUNCT		LECTURER/ INSTR.		ASSIST. PROF.		ASSOC. PROF.		PROF.		NO RESP.	
N	%	N	%	N	%	N	%	N	%	N	%	N	%
										19	95.	1	5.

Preferred primary professional activity:

RES. & TEACHING						OTHER						NO RESP.	
RESEARCH		TEACHING		TEACHING		ADMIN.		PROF. SERV.		OTHER			
N	%	N	%	N	%	N	%	N	%	N	%	N	%
1	5.	13	65.	2	10.	3	15.					1	5.

Percent of total professional time per activity:

[illegible]

No response

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Highest earned degree:

PH.D.		OTHER DOC.		MASTER'S		BACH.		NO RESP.	
#	%	#	%	#	%	#	%	#	%
17	85.	2	10.					1	5.

Year highest degree received:

#	%		#	%	
1	5.	1950	2	10.	1962
1	5.	1951	1	5.	1963
2	10.	1953	2	10.	1964
1	5.	1954	1	5.	1965
1	5.	1955	1	5.	1966
1	5.	1956	1	5.	1968
1	5.	1957	1	5.	No response
2	10.	1958			
1	5.	1960			

AT THIS INSTITUTION				OTHER HIGHER ED.				CONSULT.		OUTSIDE HIGHER ED.				OTHER		Years of experience
FULL-TIME		PART-TIME		FULL-TIME		PART-TIME		PART-TIME		FULL-TIME		PART-TIME		FULL-TIME		
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
		16	80.	7	35.	10	50.	13	65.	12	60.	18	90.	19	95.	
				1	5.	2	10.			1	5.					
		1	5.	3	15.	3	15.			1	5.					
		1	5.	2	10.					1	5.					
		1	5.			2	10.	1	5.	2	10.	1	5.			
						1	5.									
				2	10.			1	5.	1	5.					
				1	5.											
1	5.															
								2	10.							
2	10.			1	5.											
3	15.															
1	5.			2	10.											
2	10.									1	5.					
1	5.							1	5.							
2	10.															
1	5.															
								1	5.							
1	5.															
1	5.															
1	5.															
1	5.															
						1	5.									
1	5.															
1	5.															
1	5.															
1	5.															
1	5.	1	5.	1	5.	1	5.	1	5.	1	5.	1	5.	1	5.	
															No response	

Extent of involvement with the department:

NEVER		OCCAS.		FREQUENT.		NOT APP.		NO RESP.		
#	%	#	%	#	%	#	%	#	%	
		4	20.	15	75.			1	5.	Teach required grad. courses
				19	95.			1	5.	Participate in decisions
1	5.	1	5.	17	85.			1	5.	Direct independent study
4	20.	3	15.	4	20.	8	40.	1	5.	Supervise field work/internships
		2	10.	17	85.			1	5.	Compose/grade dept. exams
				19	95.			1	5.	Serve as faculty adviser
2	10.	11	55.	4	20.	2	10.	1	5.	Arr. contacts with nonac. professionals
1	5.			2	10.	2	10.	15	75.	Other

City University of New York Faculty Frequency Distributions
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YES		NO		NO RESP.		
#	%	#	%	#	%	
19	95.			1	5.	Do you have tenure?
4	20.	15	75.	1	5.	Were you ever a part-time grad. student?
6	30.	13	65.	1	5.	Were you ever employed full-time while in college?
11	55.	8	40.	1	5.	Were you enrolled fairly continuously?
8	40.	11	55.	1	5.	Did you commute while a grad. student?
7	35.	12	60.	1	5.	Do you prefer teaching theoretical material?
9	45.	9	45.	2	10.	Can you distinguish part-time grad. students?

How was your employment as a graduate student related to your educational goals?

RELAT.TO ED.GOALS		RELAT.TO EMP.GOALS		RELAT.TO BOTH		RELAT.TO NEITHER		NOT EMPLOY.		NO RESPONSE	
#	%	#	%	#	%	#	%	#	%	#	%
3	15.			11	55.	2	10.	2	10.	2	10.

#	%	AGE	#	%	AGE
1	5.	39	2	10.	53
1	5.	43	1	5.	54
1	5.	47	1	5.	56
2	10.	48	1	5.	58
1	5.	50	1	5.	59
3	15.	51	1	5.	63
2	10.	52	1	5.	65
1	5.	No response			

Mean Age: 52.3

Gender:

MALE		FEMALE		NO RESP.	
#	%	#	%	#	%
15	75.	4	20.	1	5.

Ethnicity:

NON-RES. ALIEN		WHITE		BLACK		CHICANO		OTHER HISPANIC		NATIVE AMER.		ASIAN AMER.		NO RESP.	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
		18	90.											2	10.

Primary language:

ENGLISH		SPANISH		OTHER		NO RESP.	
#	%	#	%	#	%	#	%
18	90.					2	10.

City University of New York Faculty Frequency Distributions

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YES		NO		NO RESP.		
#	%	#	%	#	%	
10	50.	9	45.	1	5.	Have you served on a nat. comm. in last 3 years?
10	50.	9	45.	1	5.	Have you received a teaching award?
10	50.	8	40.	2	10.	Have you received an award for scholarship?
6	30.	13	65.	1	5.	Have you received an award for prof. practice?
9	45.	10	50.	1	5.	Have you held office in nat. association?
11	55.	8	40.	1	5.	Have you been officer/comm. member of state/regional org.?
11	55.	8	40.	1	5.	Have you been on journal editorial board?
15	75.	4	20.	1	5.	Have you referred journal articles in last two years?
7	35.	11	55.	2	10.	Did you have instit. research grant this year?
8	40.	10	50.	2	10.	Did you have outside grant this year?
13	65.	6	30.	1	5.	Have you had outside grant in last 3 years?

Number of students enrolled in programs

MASTER'S STUDENTS:

#	%	
13	65.	0
1	5.	13
1	5.	15
1	5.	34
1	5.	40
1	5.	60
1	5.	500
1	5.	No response

DOCTORAL STUDENTS:

#	%		#	%	
1	5.	0	1	5.	90
1	5.	47	1	5.	109
1	5.	55	1	5.	110
1	5.	59	1	5.	115
2	10.	60	3	15.	120
1	5.	74	1	5.	132
2	10.	75	1	5.	No response
1	5.	78			
1	5.	80			

NON-DEGREE STUDENTS:

#	%	
12	60.	0
2	10.	2
3	15.	3
2	10.	20
1	5.	No response

APPENDIX F

FIGURES

Figure F-2.1 Percent of graduate students enrolled part-time, 1971 through 1984

Source: CGS-GRE Annual Surveys

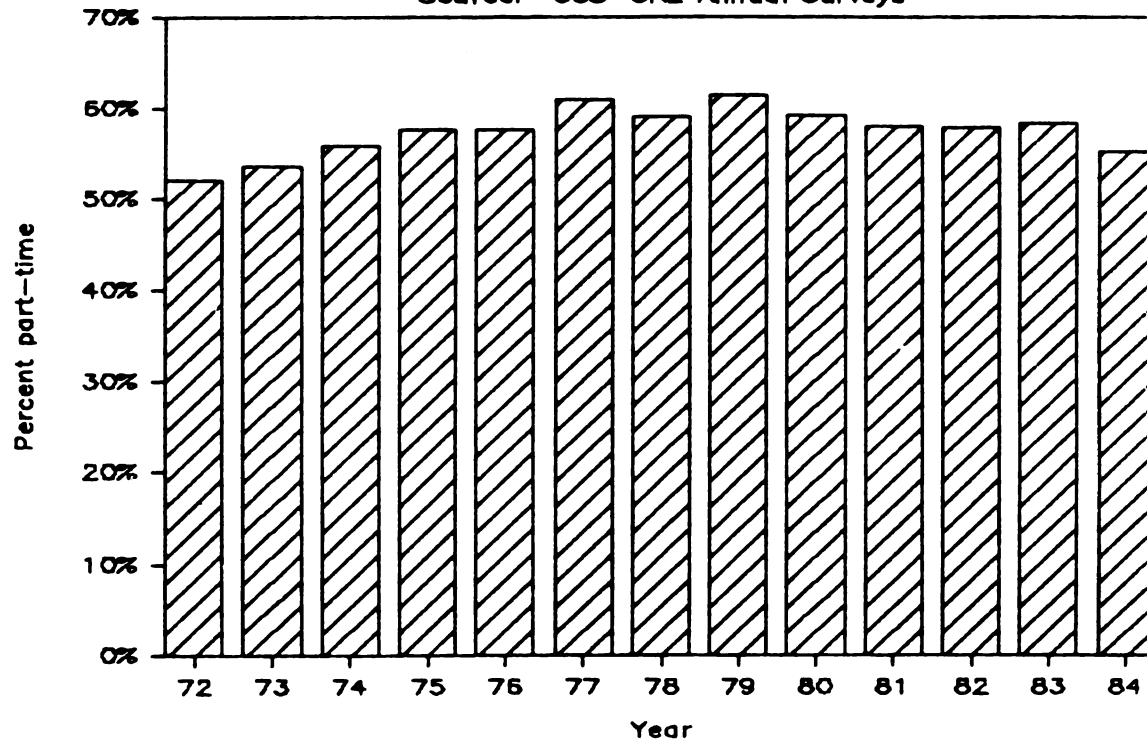


Figure F-4.1 Gender distribution, Roosevelt University student sample



Figure F-4.2 Ethnic distribution, Roosevelt University student sample

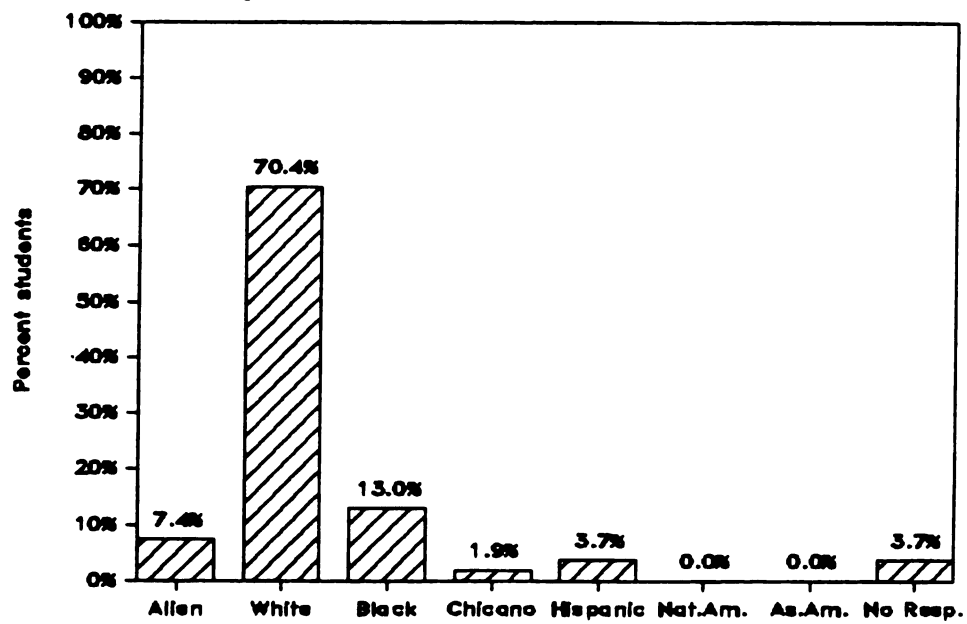


Figure F-4.3 Marital status distribution, Roosevelt University student sample

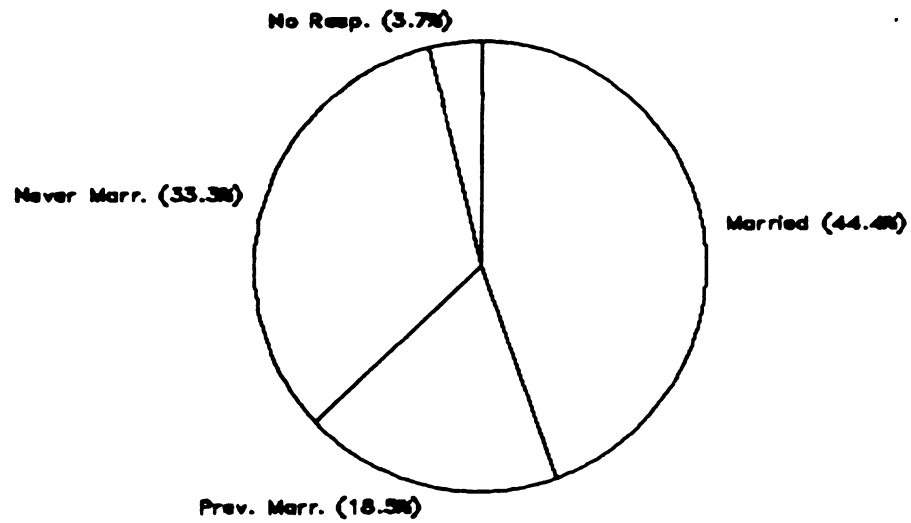


Figure F-4.4 Distribution of number of children, Roosevelt University student sample

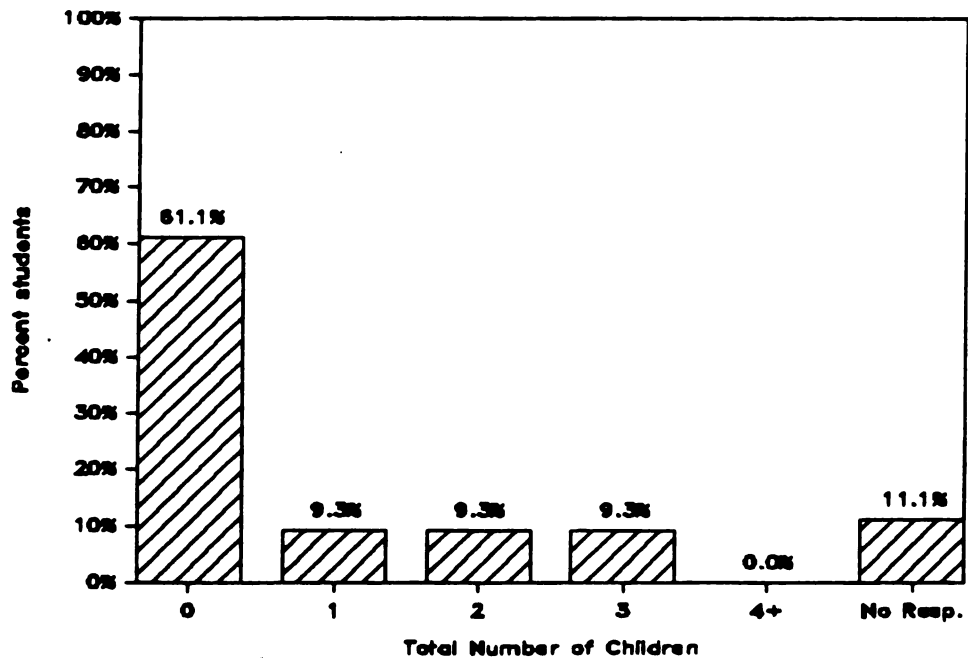


Figure F-4.5 Distribution among majors, Roosevelt University student sample

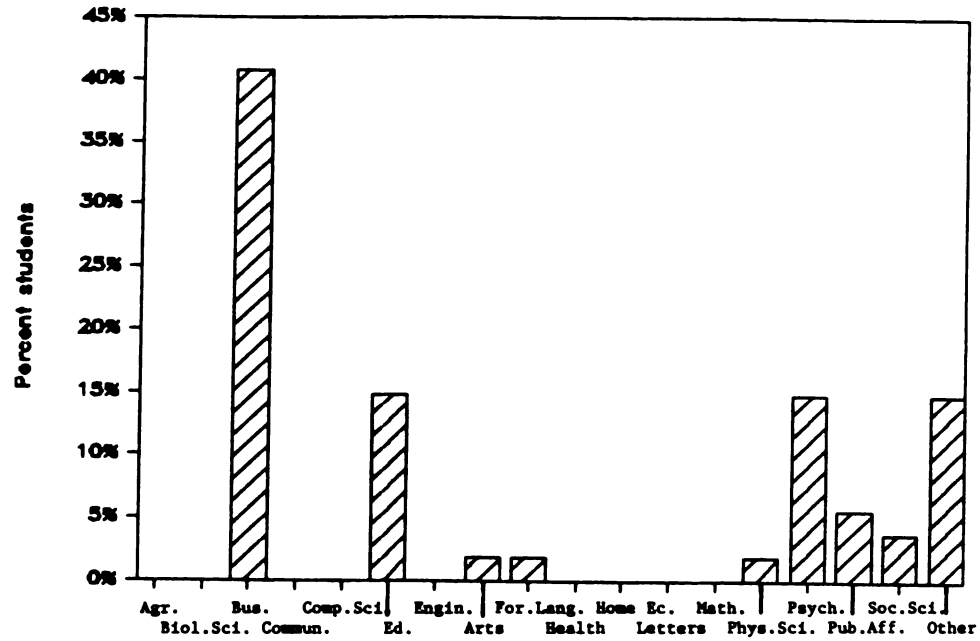


Figure F-4.6 Part-time versus full-time enrollment, Roosevelt University student sample

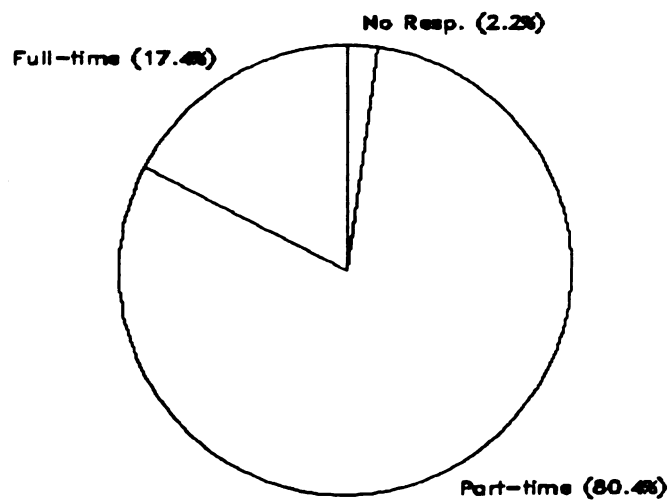


Figure F-4.7 Distribution of number of courses being taken, Roosevelt University student sample

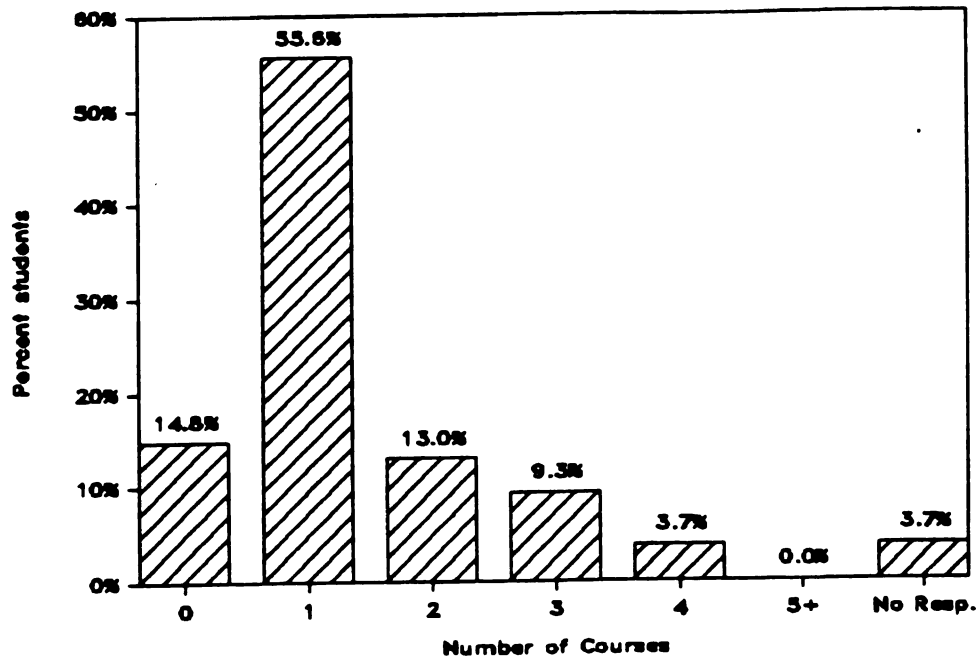


Figure F-4.8 Distribution of years stopped out, Roosevelt University student sample

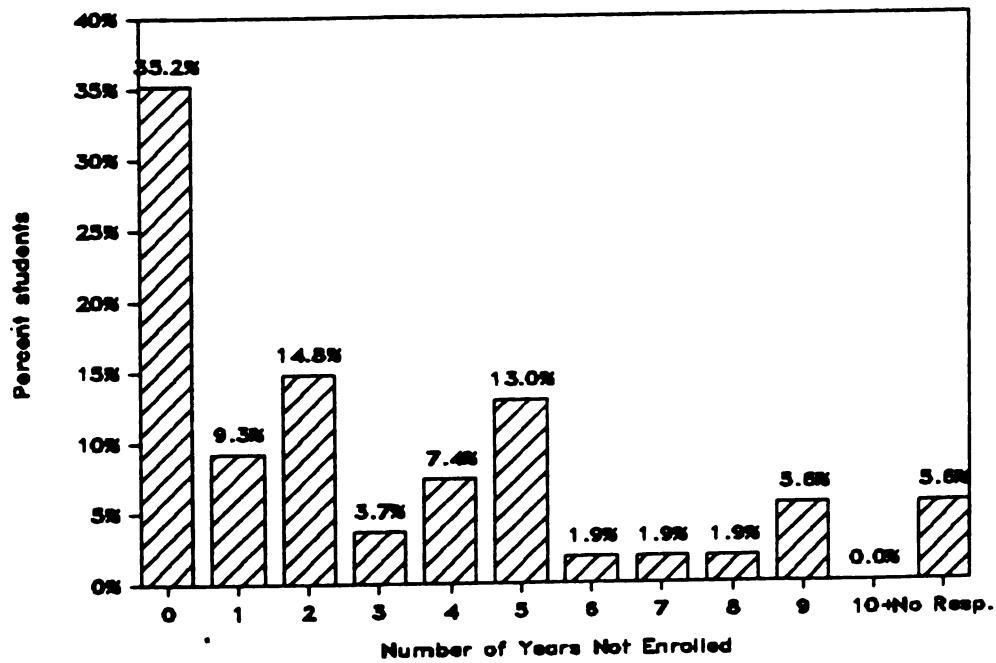
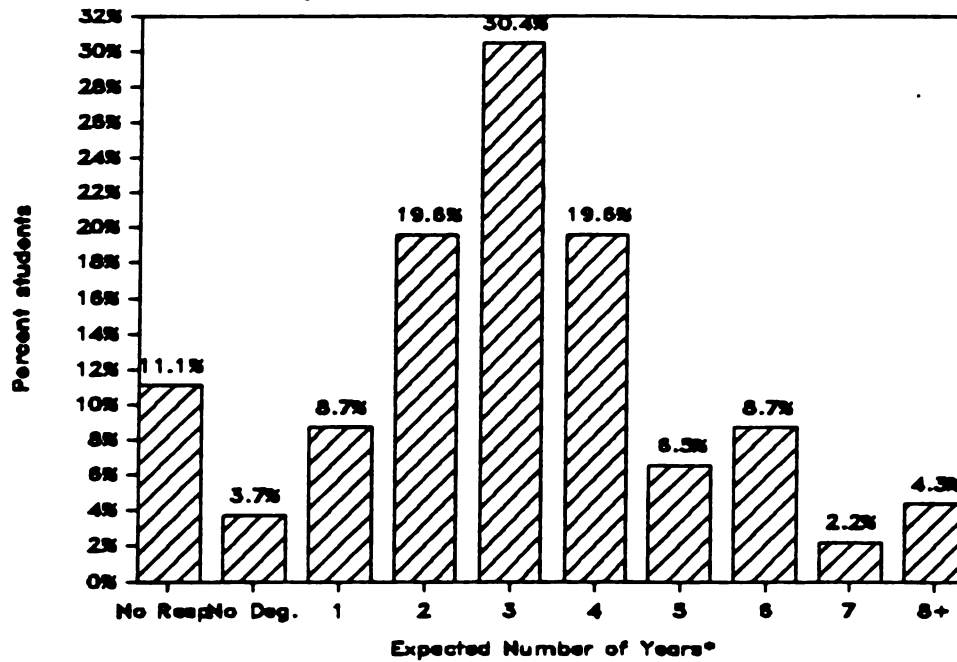


Figure F-4.9 Distribution of number of years expected to complete program, Roosevelt University student sample



*No Response and No Degree Sought percentages are of total respondents.
Year percentages are of those seeking degrees.

Figure F-4.10 Distribution of part-time versus full-time employment, Roosevelt University student sample

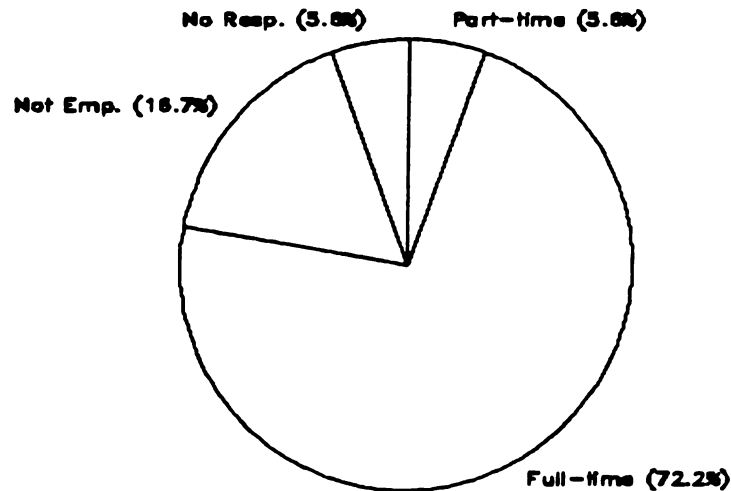


Figure F-4.11 Distribution of sources of financial support, Roosevelt University student sample

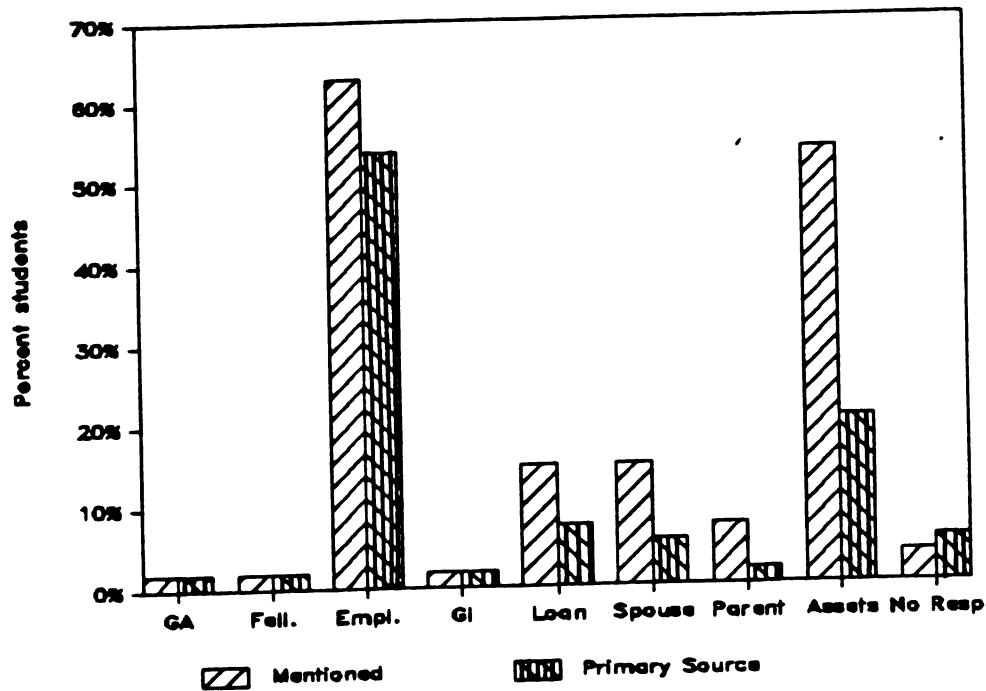


Figure F-4.12 Distribution of years of full-time employment, Roosevelt University student sample

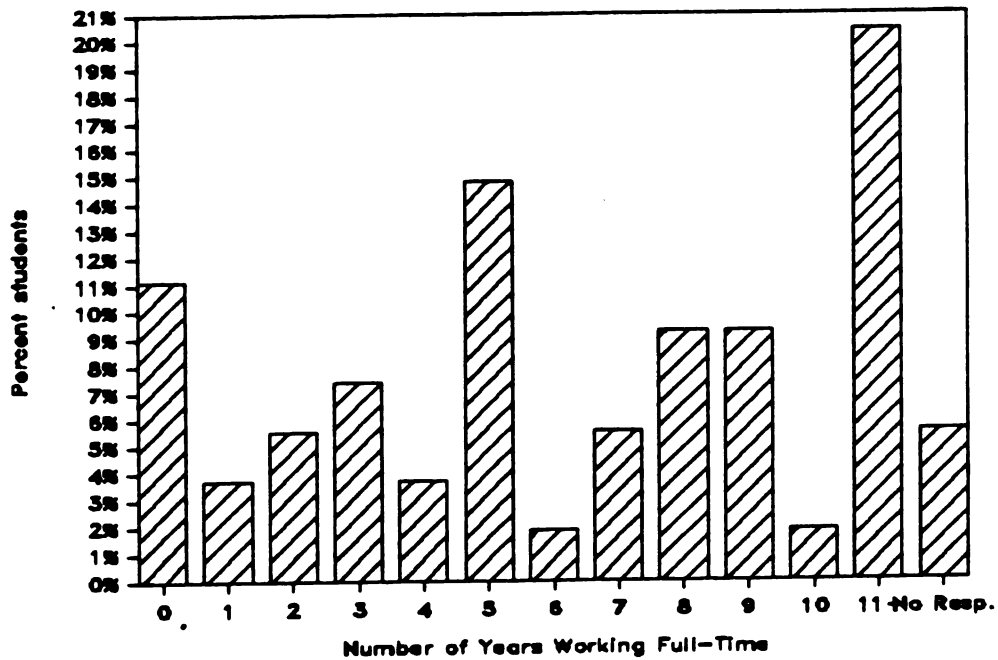


Figure F-4.13 Distribution among current and future employment settings, Roosevelt University student sample

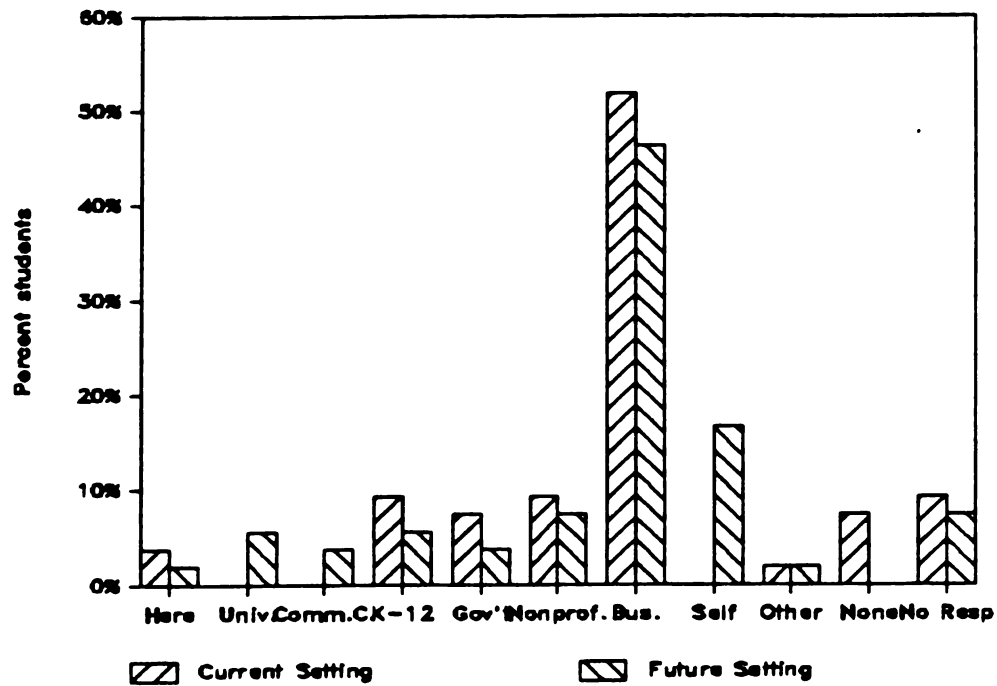


Figure F-4.14 Distribution among preferred future employment activities, Roosevelt University student sample

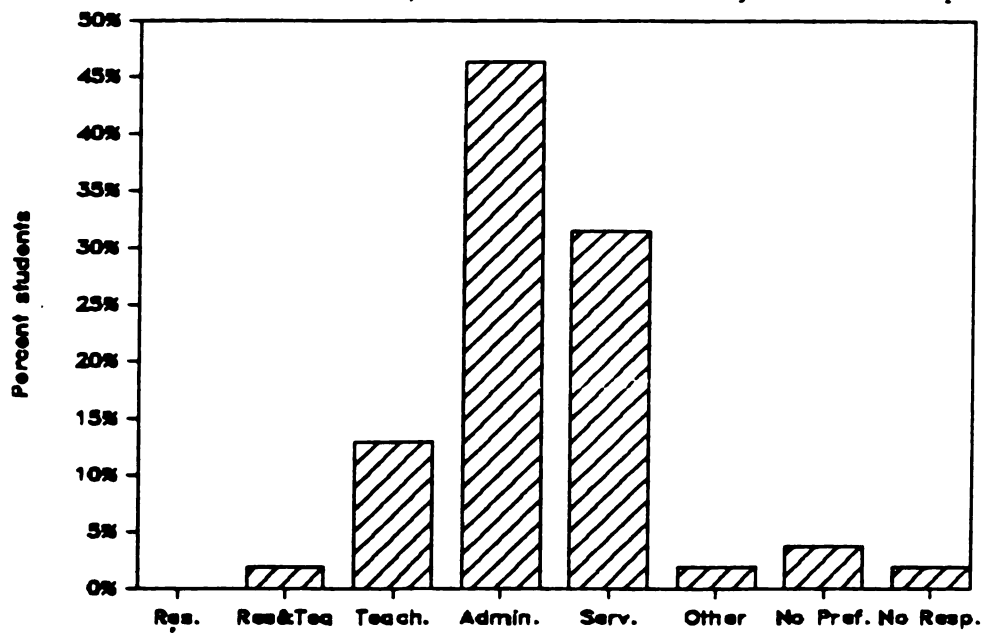


Figure F-4.15 Distribution of reasons mentioned for pursuing graduate study at this time, Roosevelt University student sample

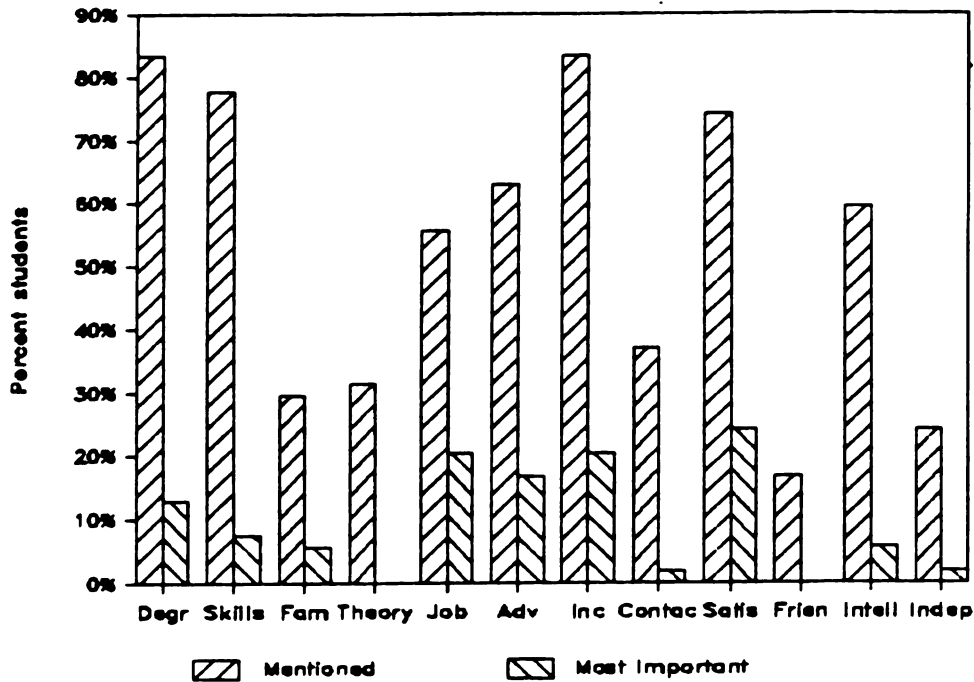


Figure F-4.16 Importance of personal goals and perceived importance to departments. Means of respondents enrolled in degree programs, Roosevelt University student sample

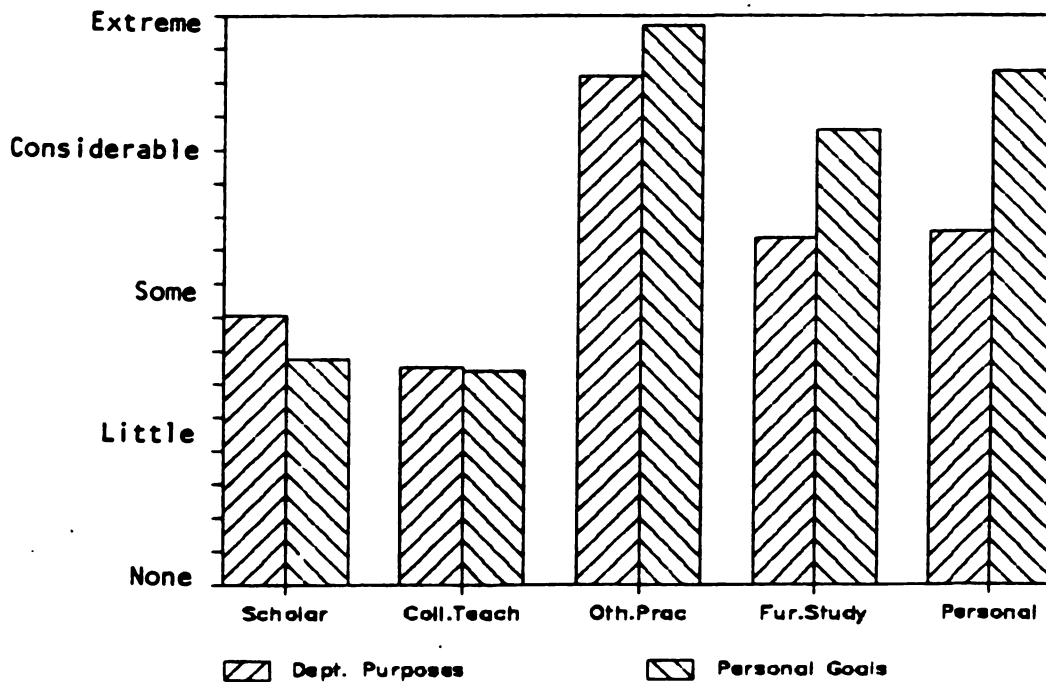


Figure F-4.17a Distribution of personal problems mentioned,
Roosevelt University student sample

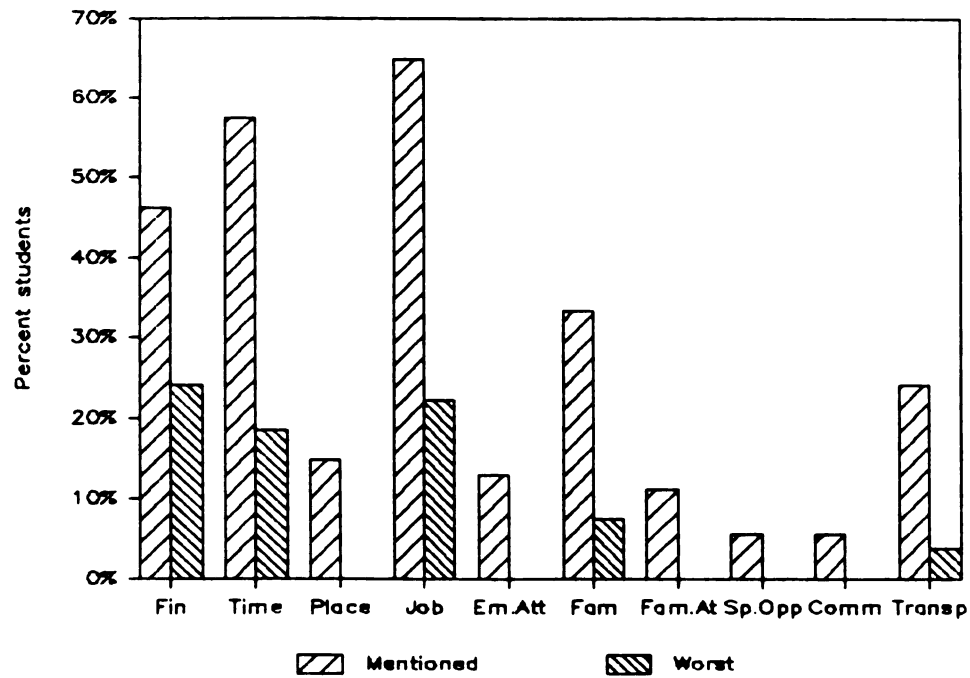


Figure F-4.17b Distribution of personal problems mentioned
(continued), Roosevelt University student sample

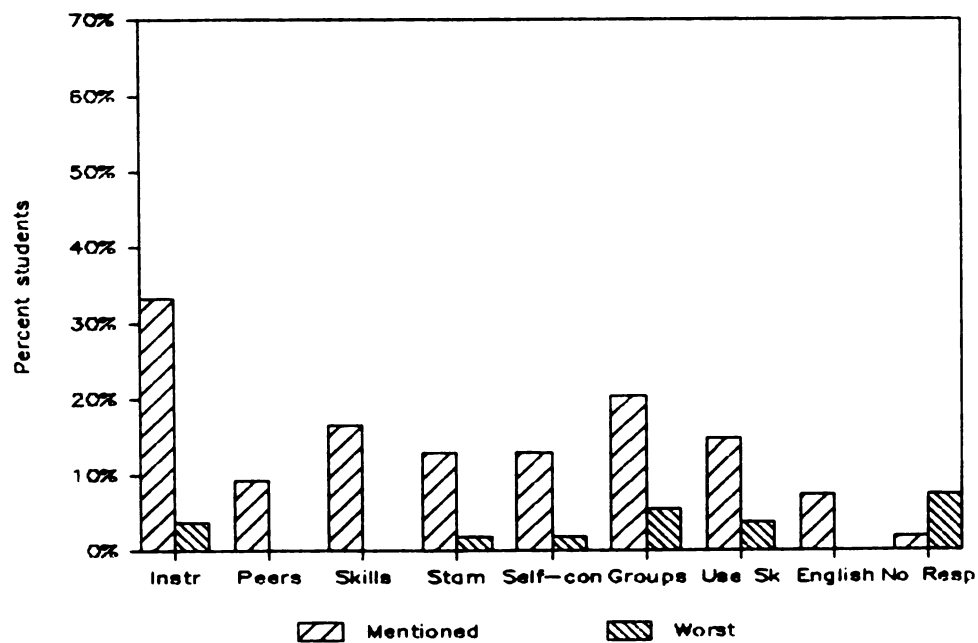


Figure F-4.18a Distribution of institutional barriers mentioned, Roosevelt University student sample

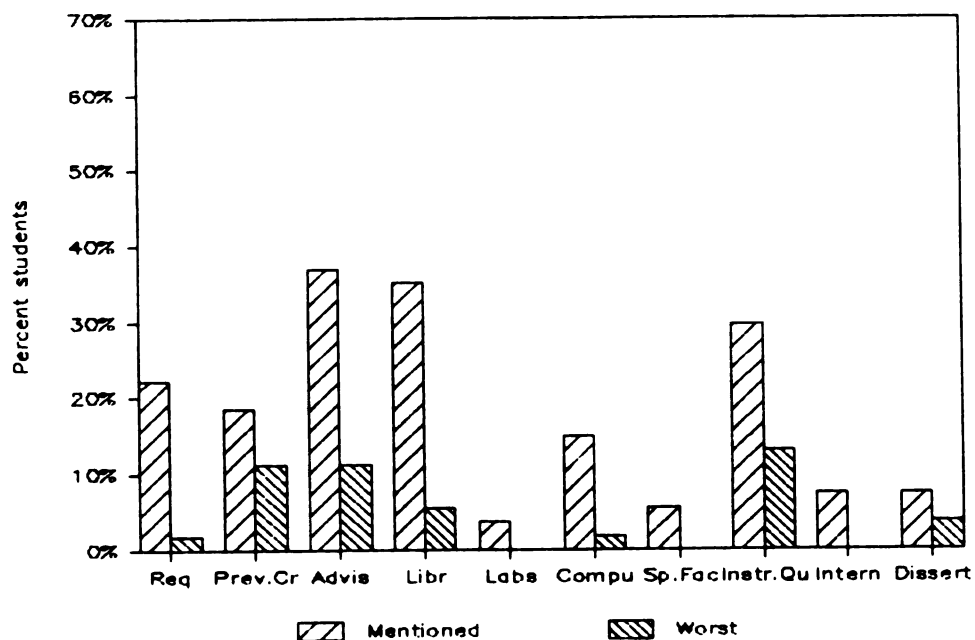


Figure F-4.18b Distribution of institutional barriers mentioned (continued), Roosevelt University student sample

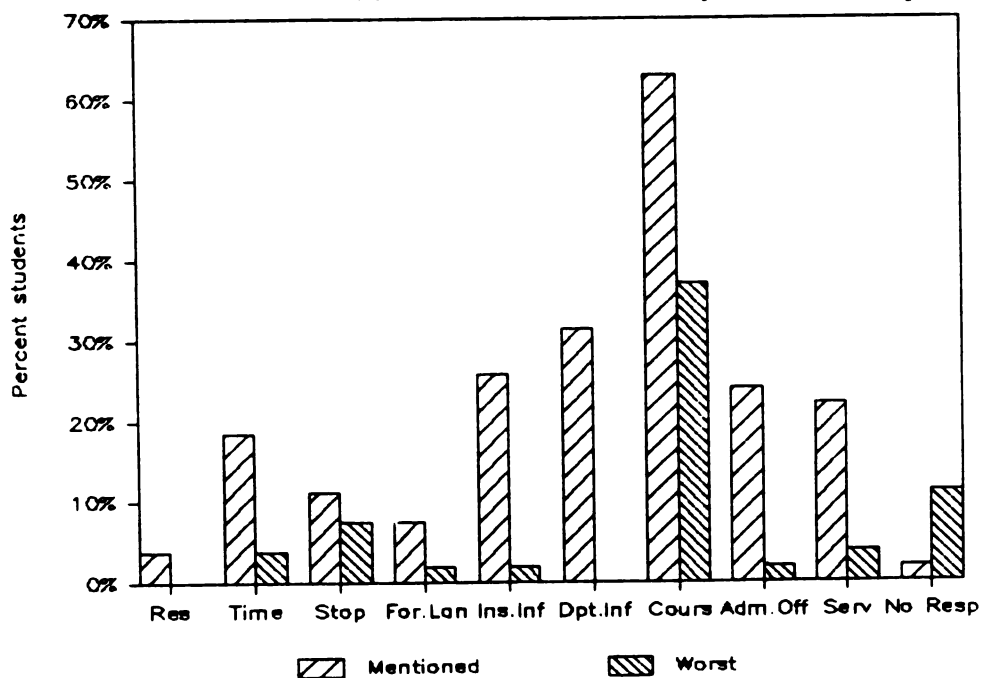


Figure F-4.19 Scores on program evaluation scales. Means of respondents enrolled in degree programs, Roosevelt University student sample

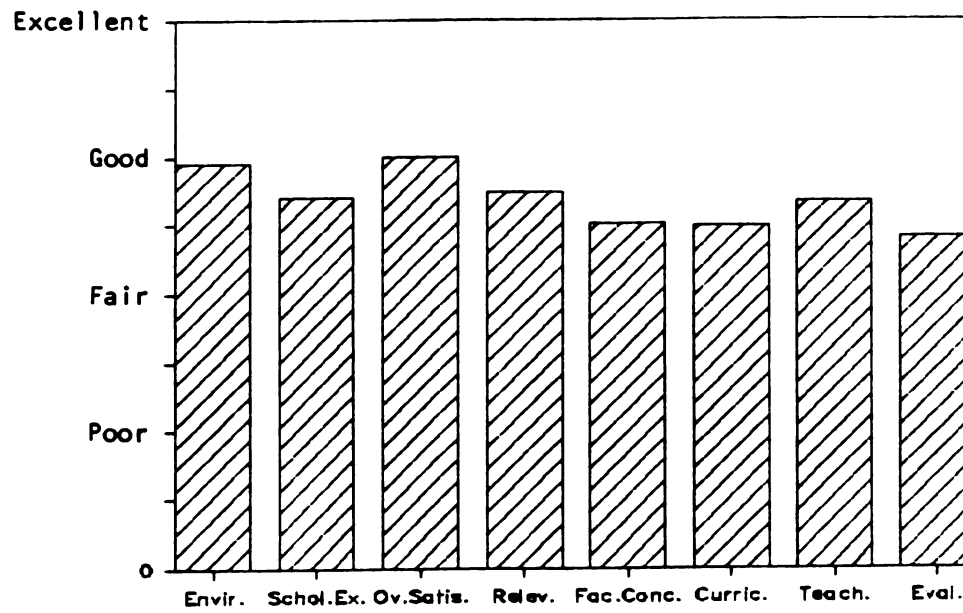


Figure F-4.20a Distribution of professional activities of respondents enrolled in degree programs, Roosevelt University student sample

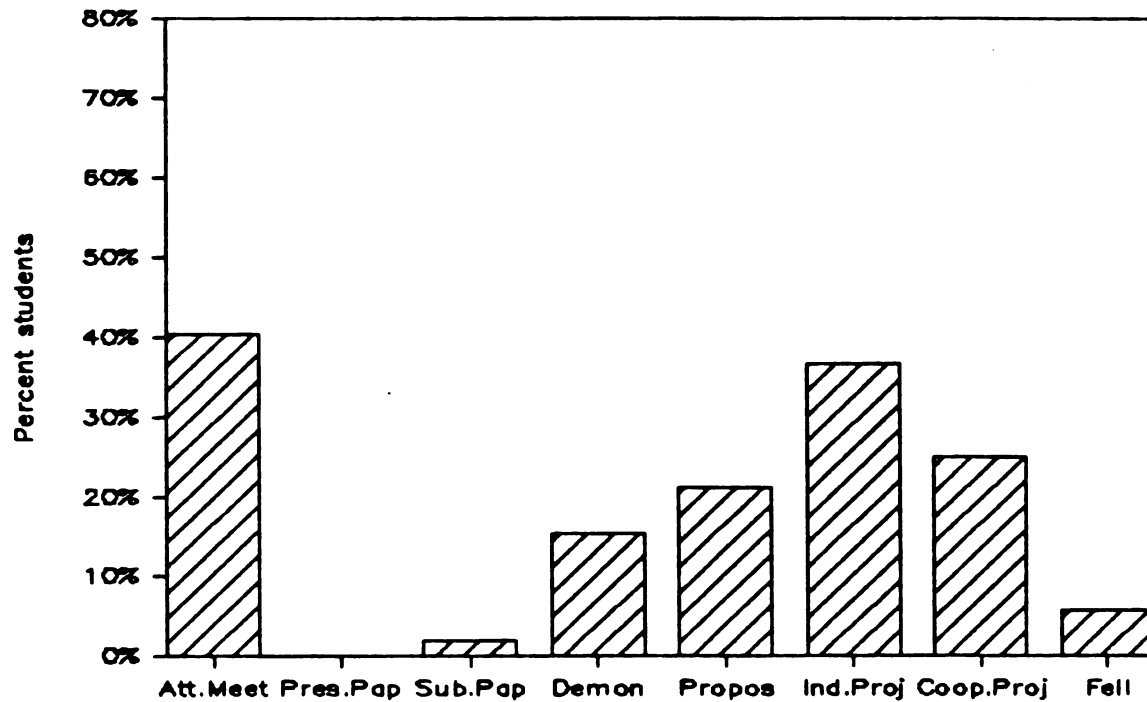


Figure F-4.20b Distribution of professional activities of respondents enrolled in degree programs (continued), Roosevelt University student sample

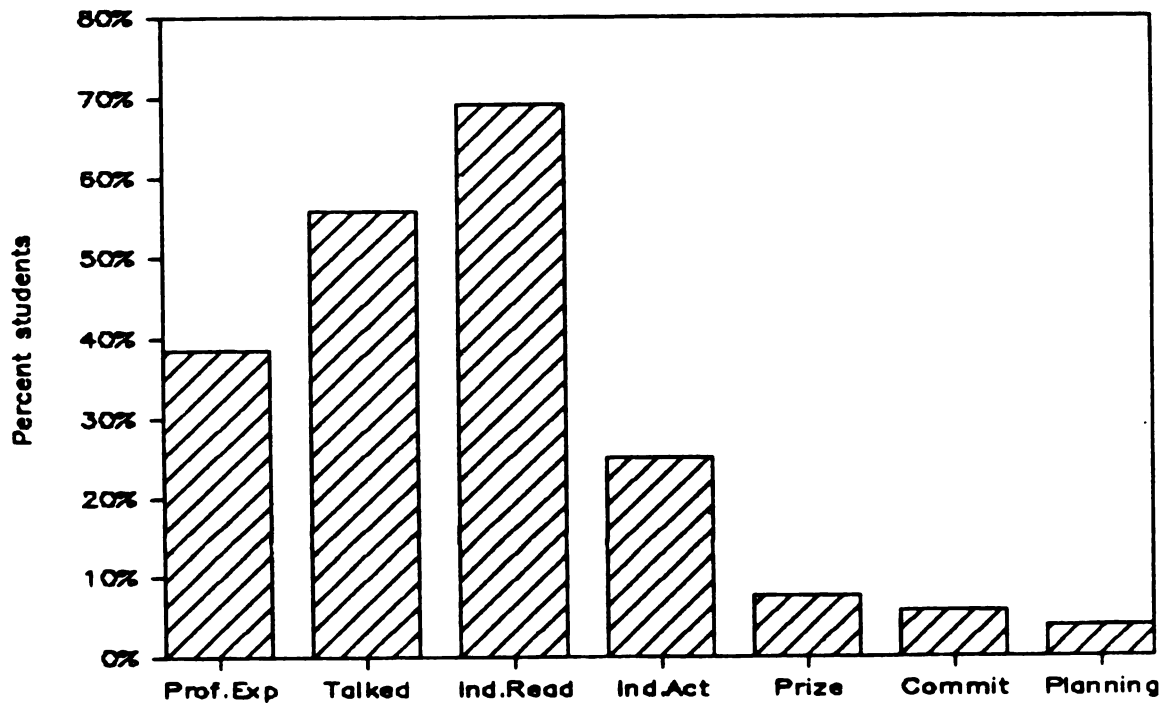


Figure F-4.21a Degree of need for support services and facilities. Mean of all respondents, Roosevelt University student sample

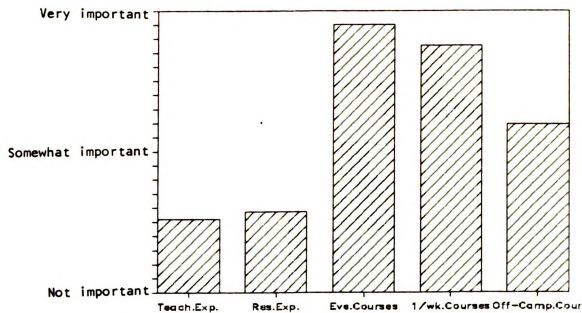


Figure F-4.22a Quality of support services and facilities provided. Mean of respondents who reported having used the service or facility, Roosevelt University student sample

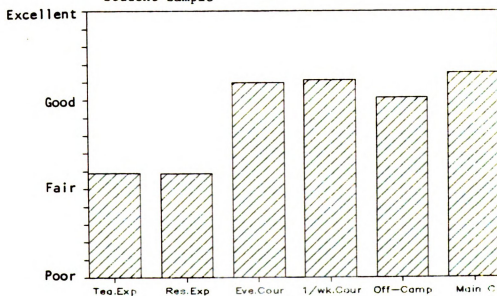


Figure F-4.21b Degree of need for support services and facilities (continued). Mean of all respondents, Roosevelt University student sample

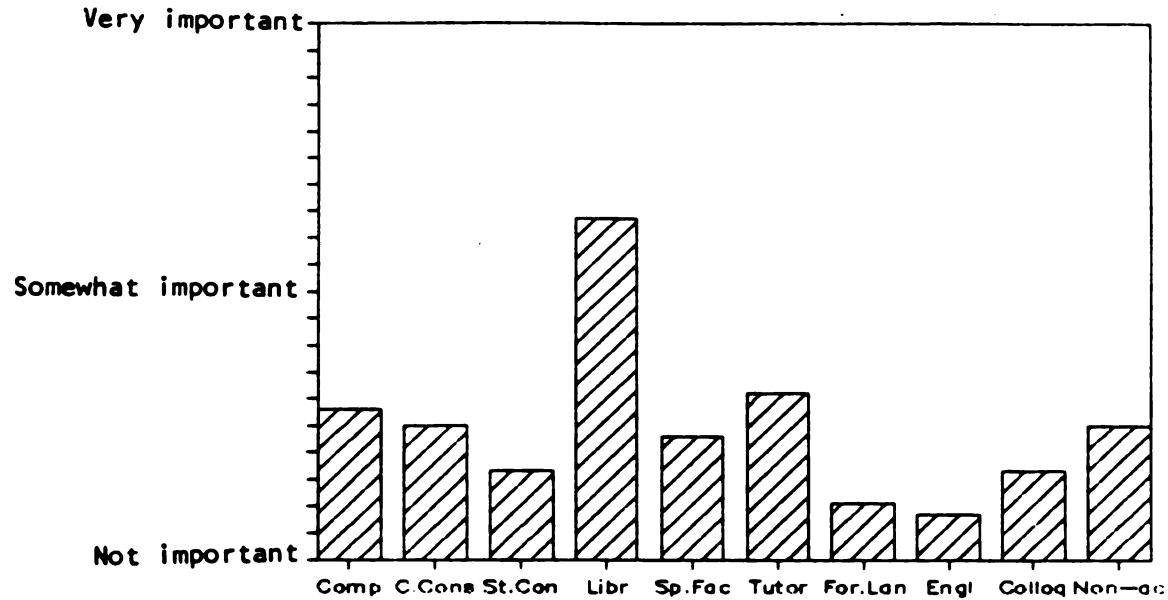


Figure F-4.22b Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, Roosevelt University student sample

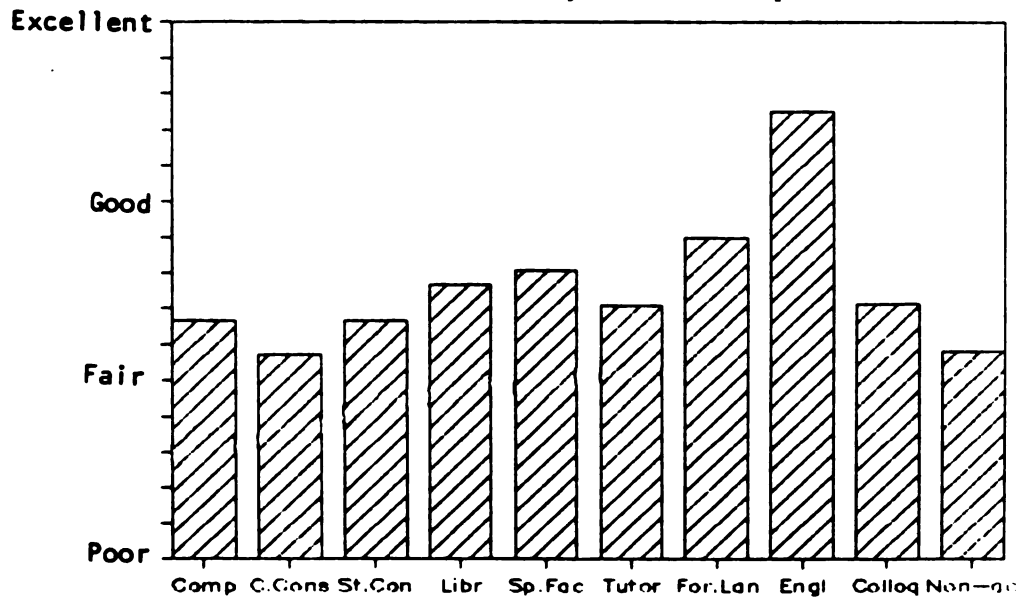


Figure F-4.21c Degree of need for support services and facilities (continued). Mean of all respondents, Roosevelt University student sample

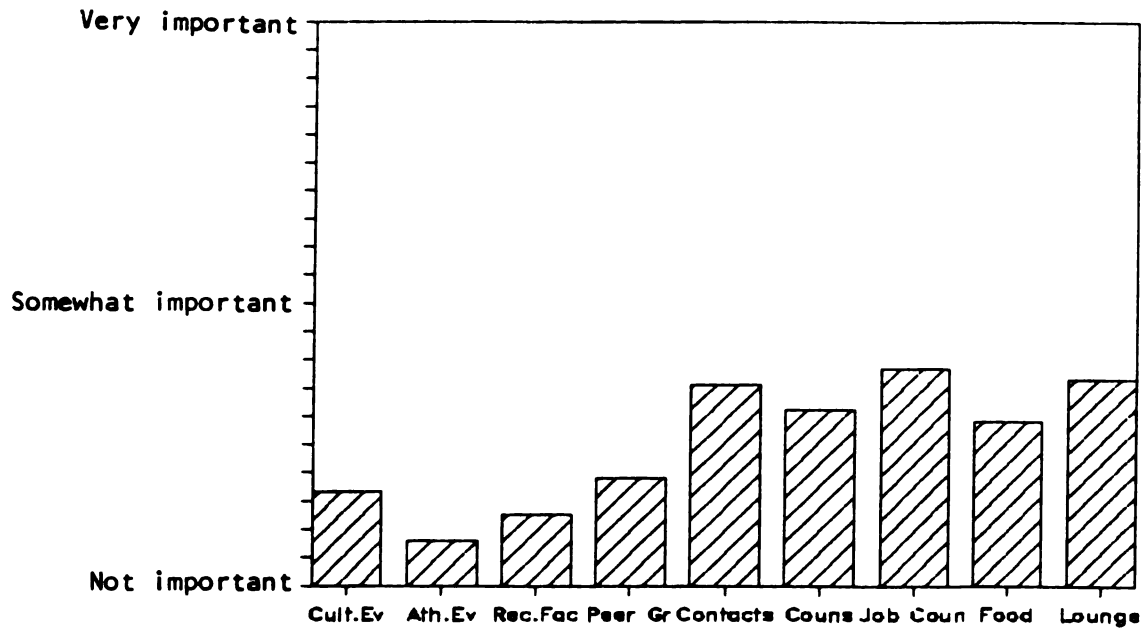


Figure F-4.22c Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, Roosevelt University student sample



Figure F-4.21d Degree of need for support services and facilities (continued). Mean of all respondents, Roosevelt University student sample

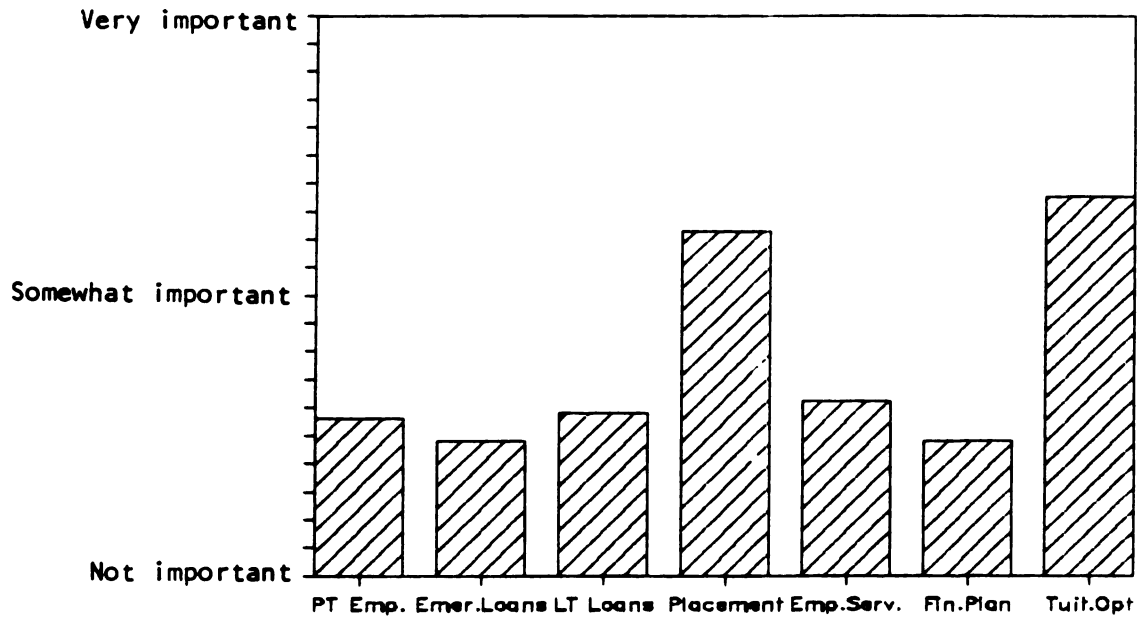


Figure F-4.22d Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, Roosevelt University student sample

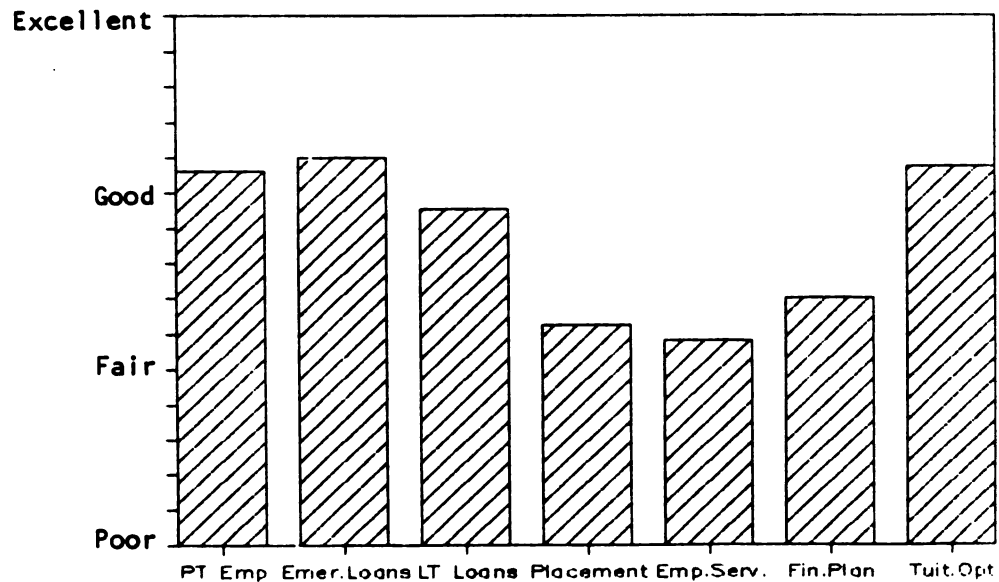


Figure F-4.21e Degree of need for support services and facilities (continued). Mean of all respondents, Roosevelt University student sample

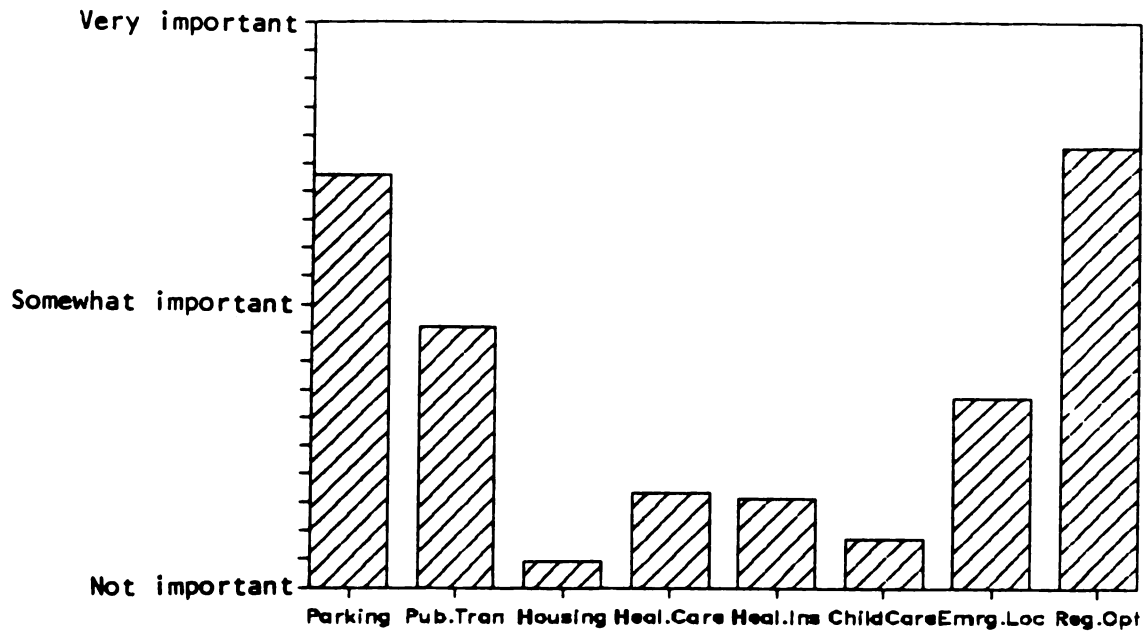


Figure F-4.22e Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, Roosevelt University student sample

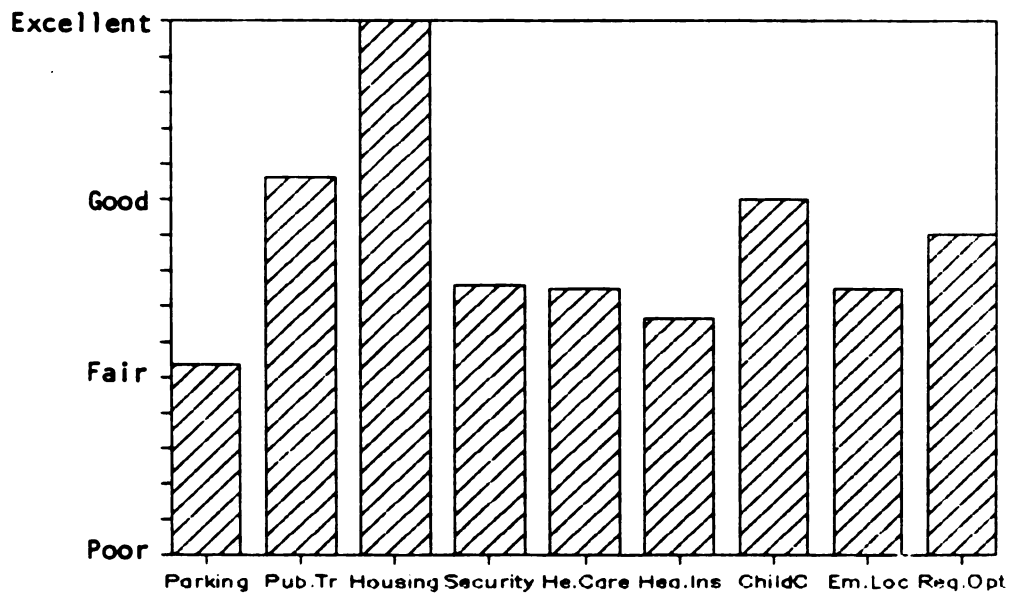


Figure F-4.23a Frequency of use of support services and facilities provided. Mean of respondents who reported having used the service or facility, Roosevelt University student sample

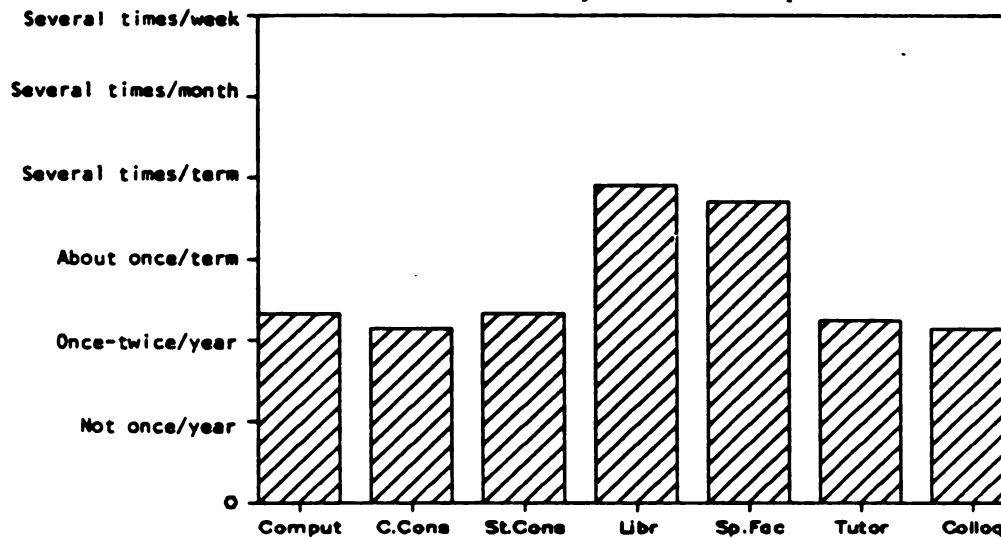


Figure F-4.23b Frequency of use of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, Roosevelt University student sample

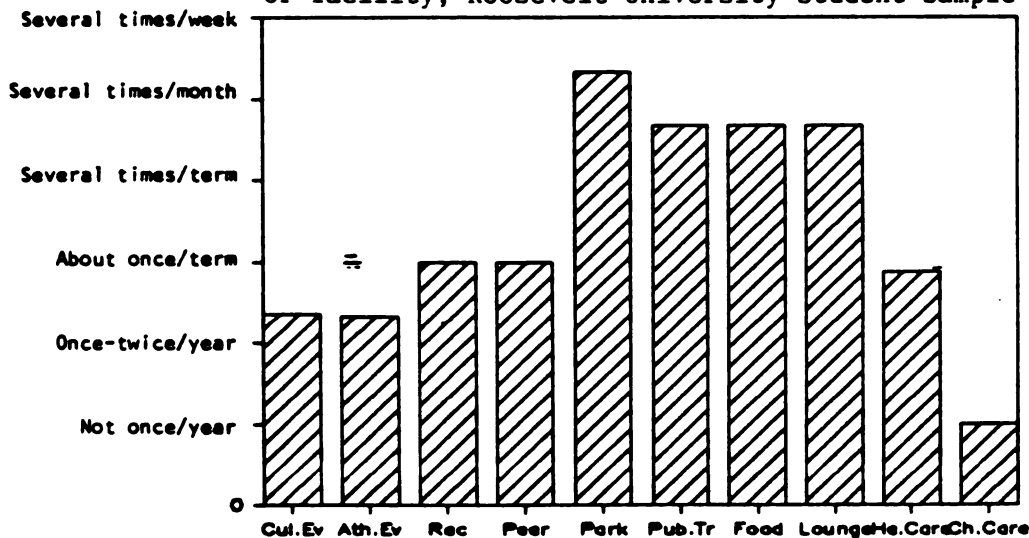


Figure F-4.24 Gender distribution, City University of New York student sample

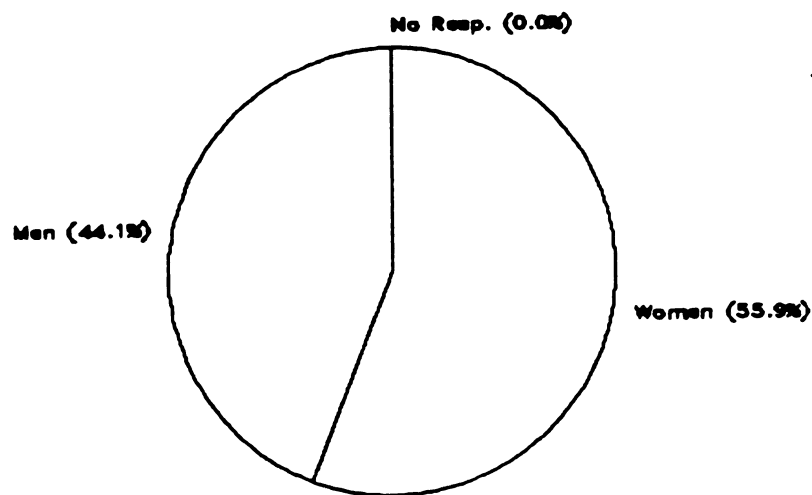


Figure F-4.25 Ethnic distribution, City University of New York student sample

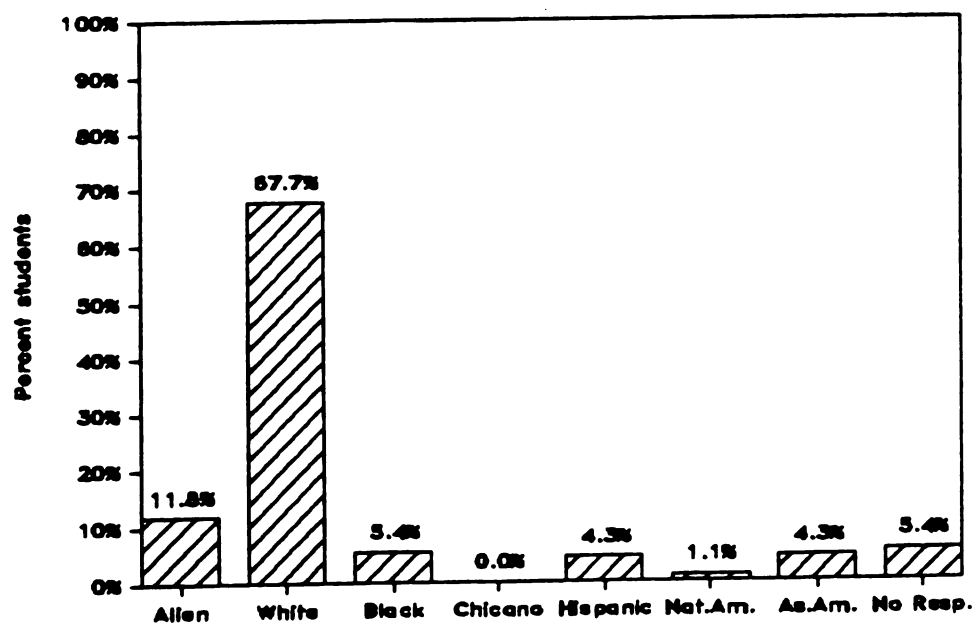


Figure F-4.26 Marital status distribution, City University of New York student sample

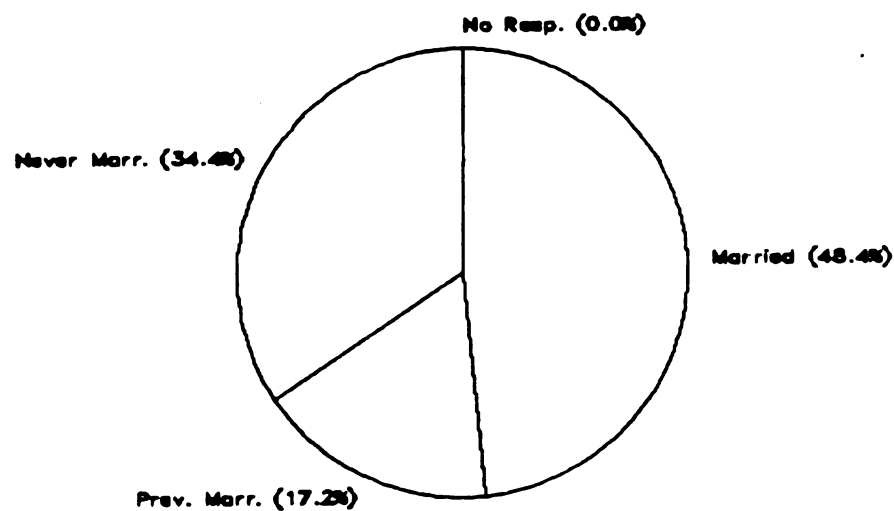


Figure F-4.27 Distribution of number of children, City University of New York student sample

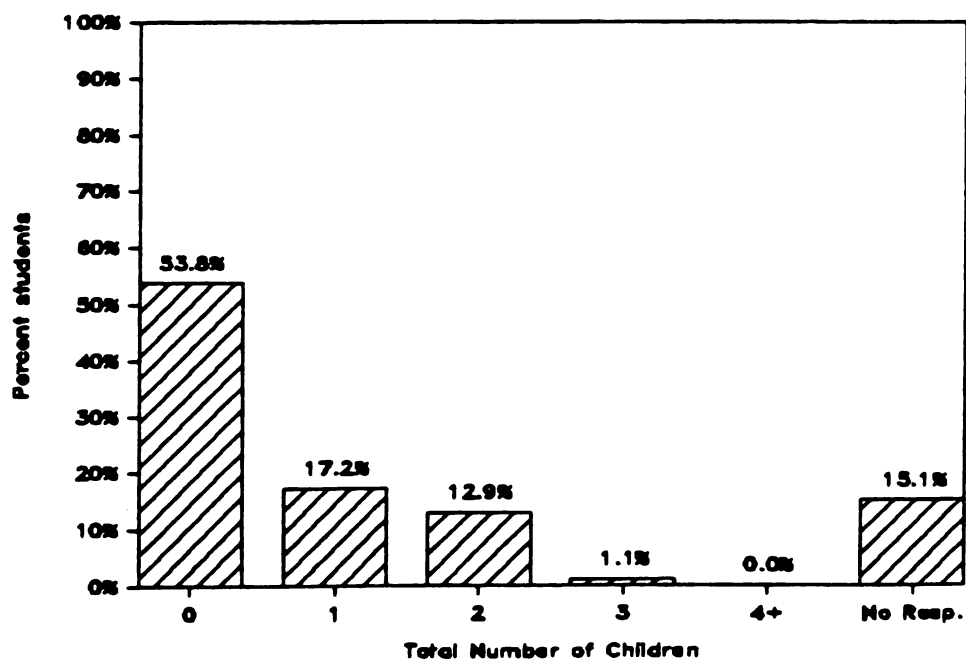


Figure F-4.28 Distribution among majors, City University of New York student sample

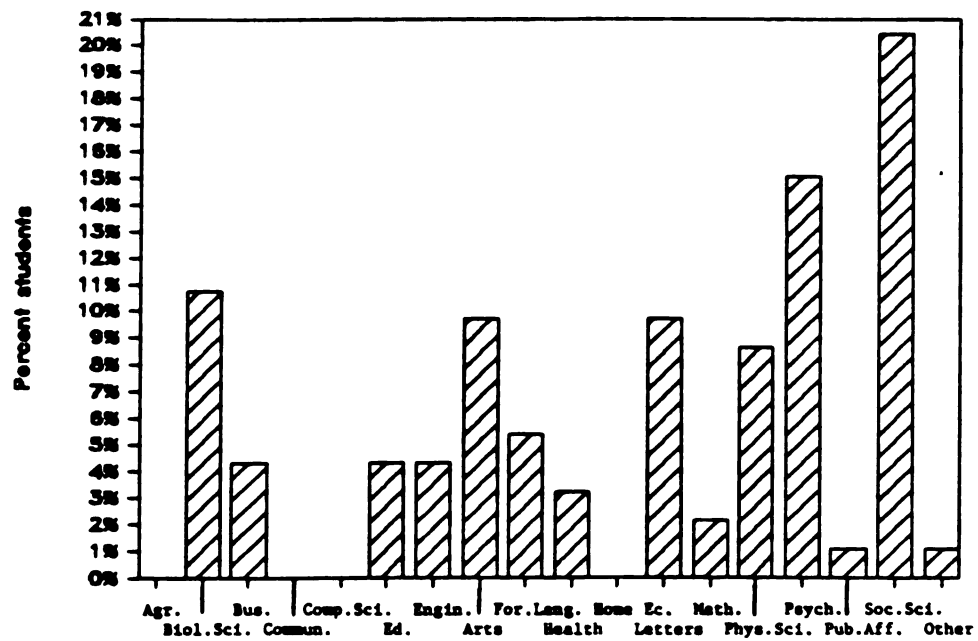


Figure F-4.29 Part-time versus full-time enrollment, City University of New York student sample

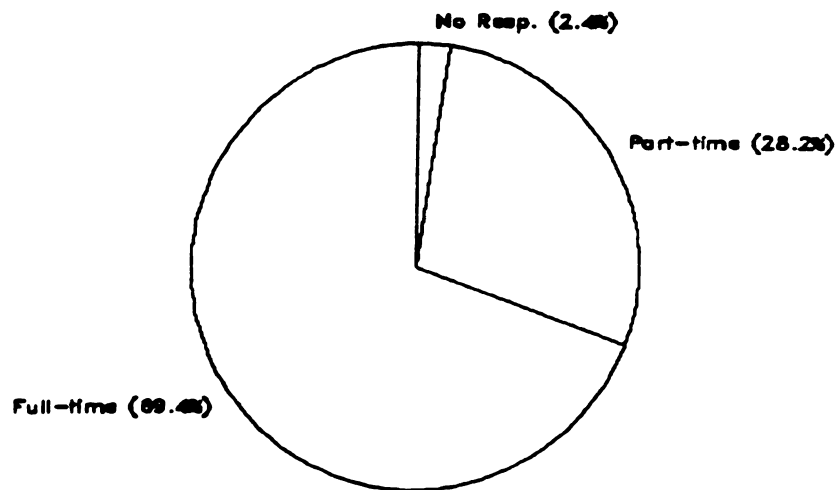


Figure F-4.30 Distribution of number of courses being taken, City University of New York student sample

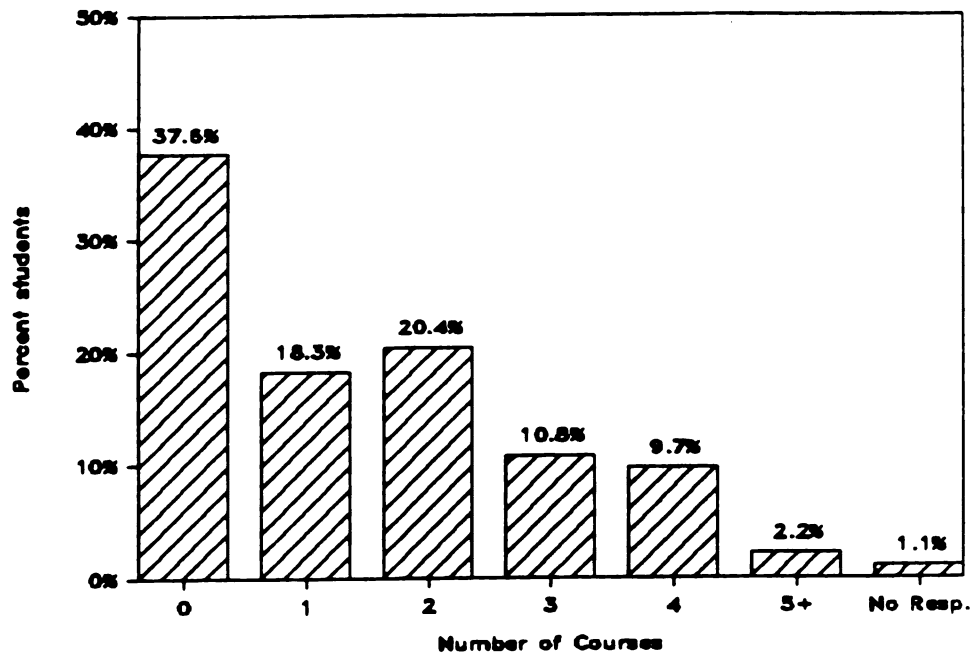


Figure F-4.31 Distribution of years stopped out, City University of New York student sample

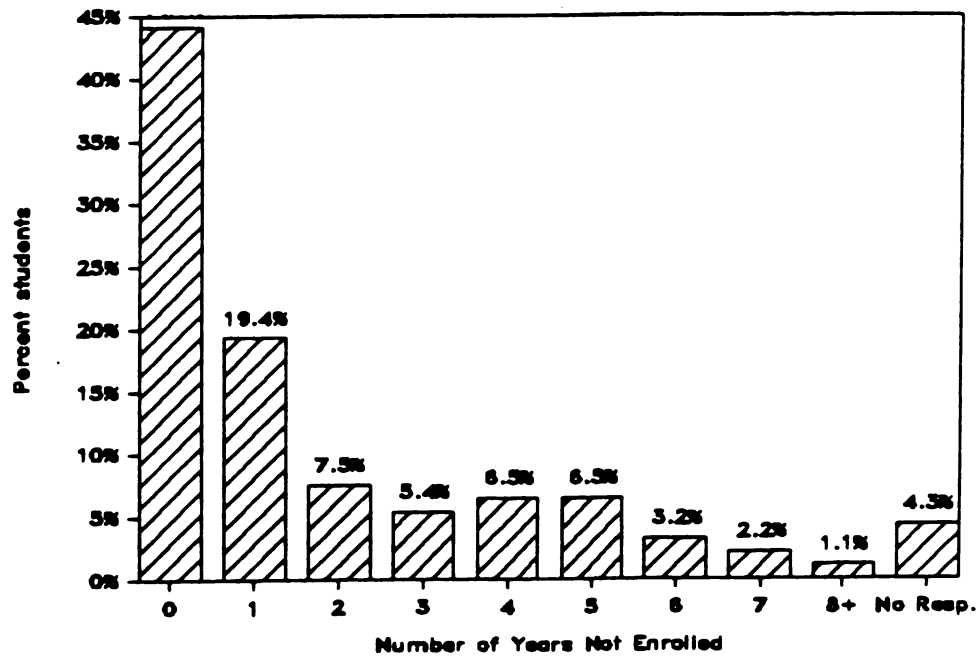
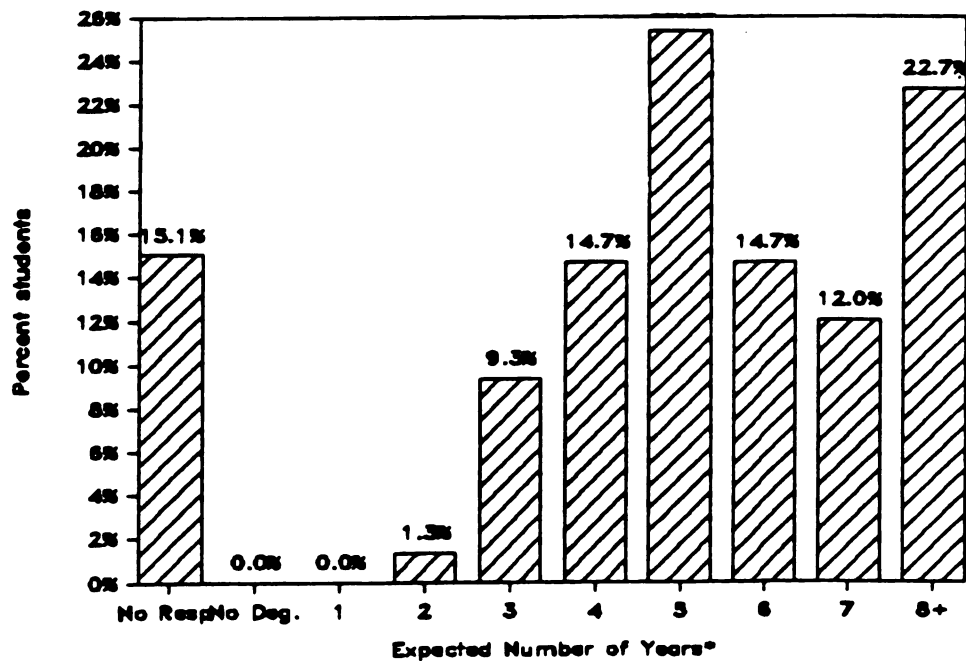


Figure F-4.32 Distribution of number of years expected to complete program, City University of New York student sample



*No Response and No Degree Sought percentages are of total respondents.
Year percentages are of those seeking degrees.

Figure F-4.33 Distribution of part-time versus full-time employment, City University of New York student sample

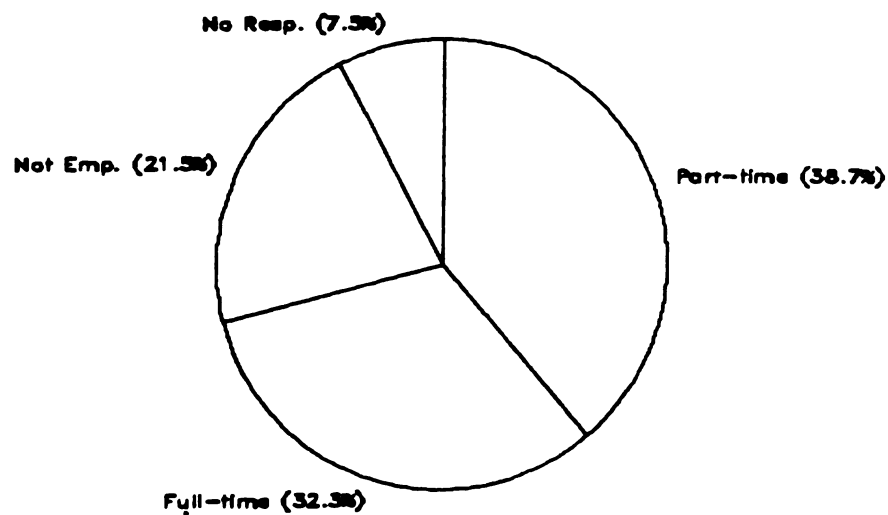


Figure F-4.34 Distribution among current and future employment settings, City University of New York student sample

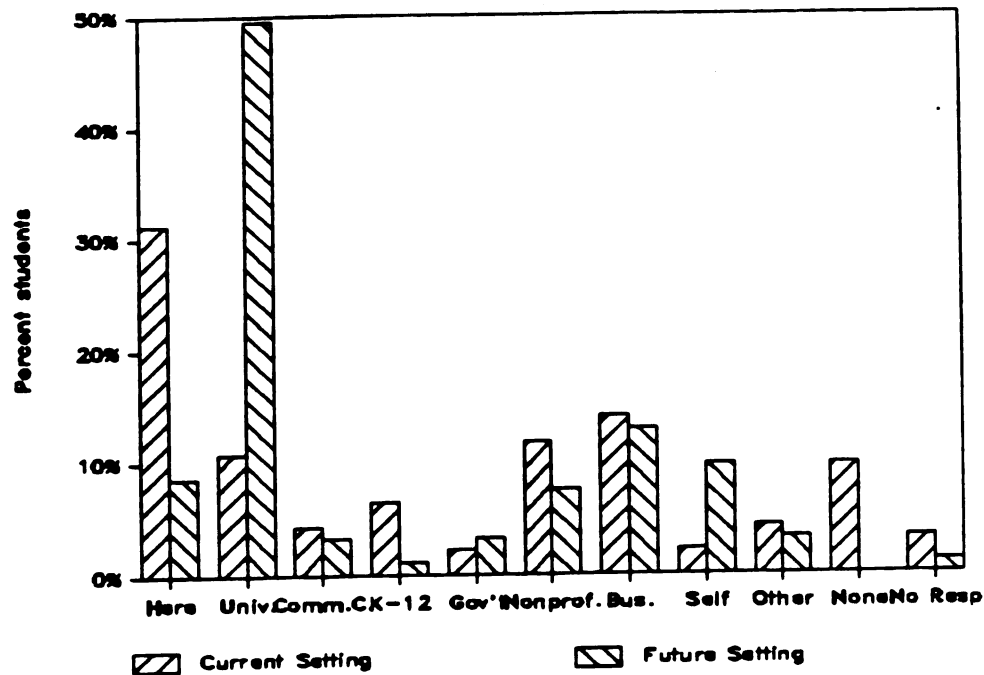


Figure F-4.35 Distribution of sources of financial support, City University of New York student sample

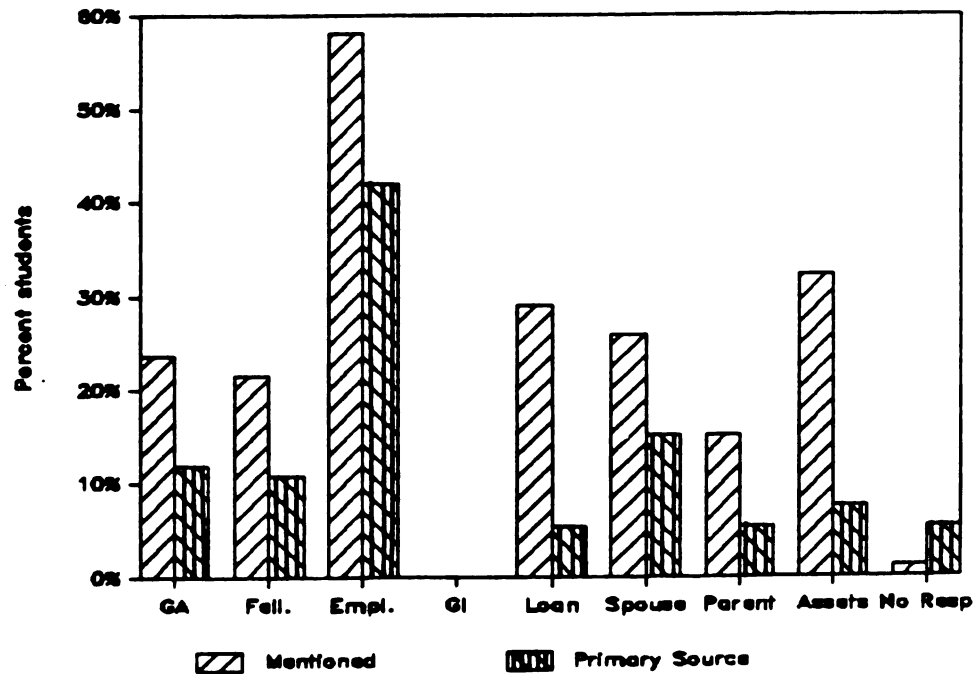


Figure F-4.36 Distribution of years of full-time employment, City University of New York student sample

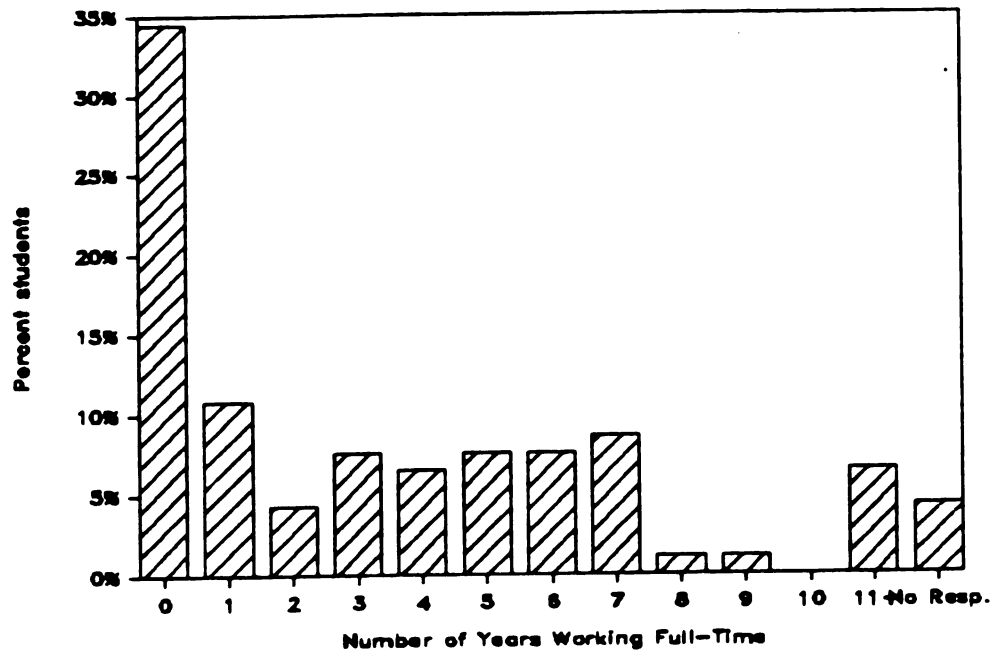


Figure F-4.37 Distribution among preferred future employment activities, City University of New York student sample

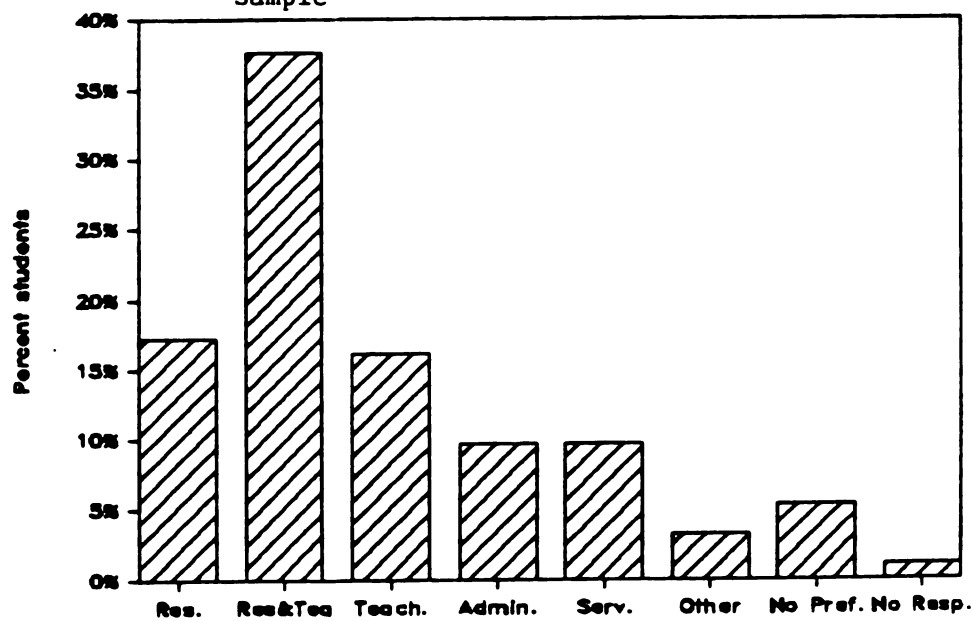


Figure F-4.38 Distribution of reasons mentioned for pursuing graduate study at this time, City University of New York student sample

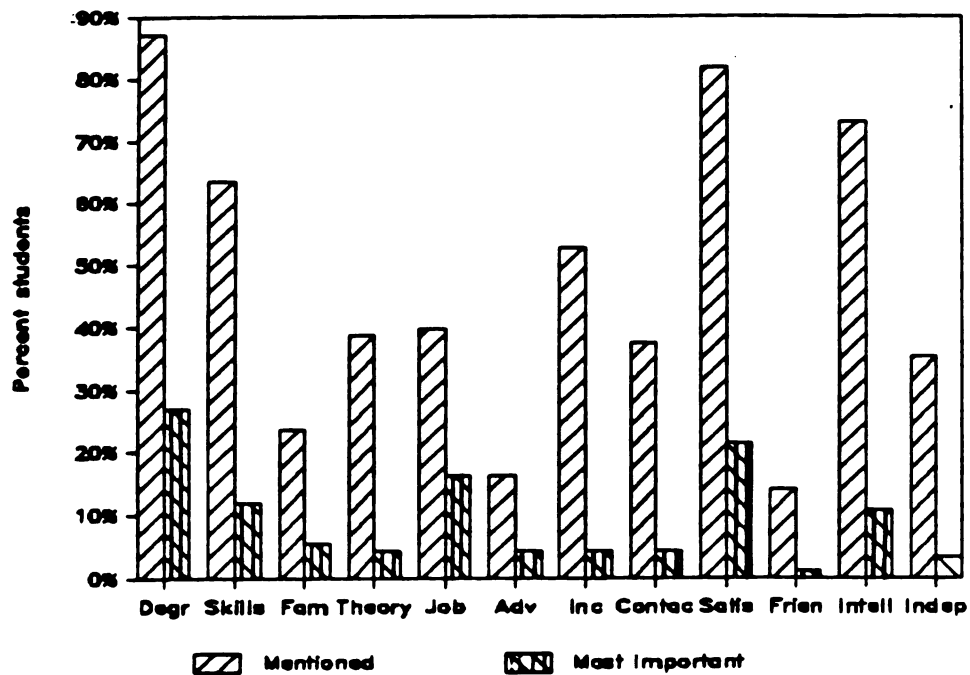


Figure F-4.39 Importance of personal goals and perceived importance to departments. Means of respondents enrolled in degree programs, City University of New York student sample

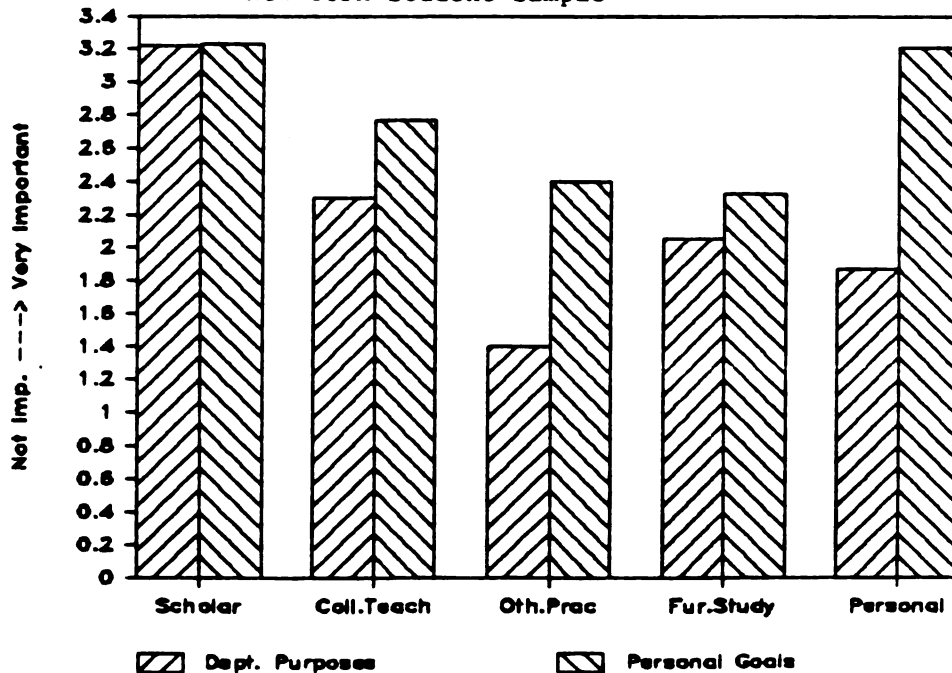


Figure F-4.40a Distribution of personal problems mentioned, City University of New York student sample

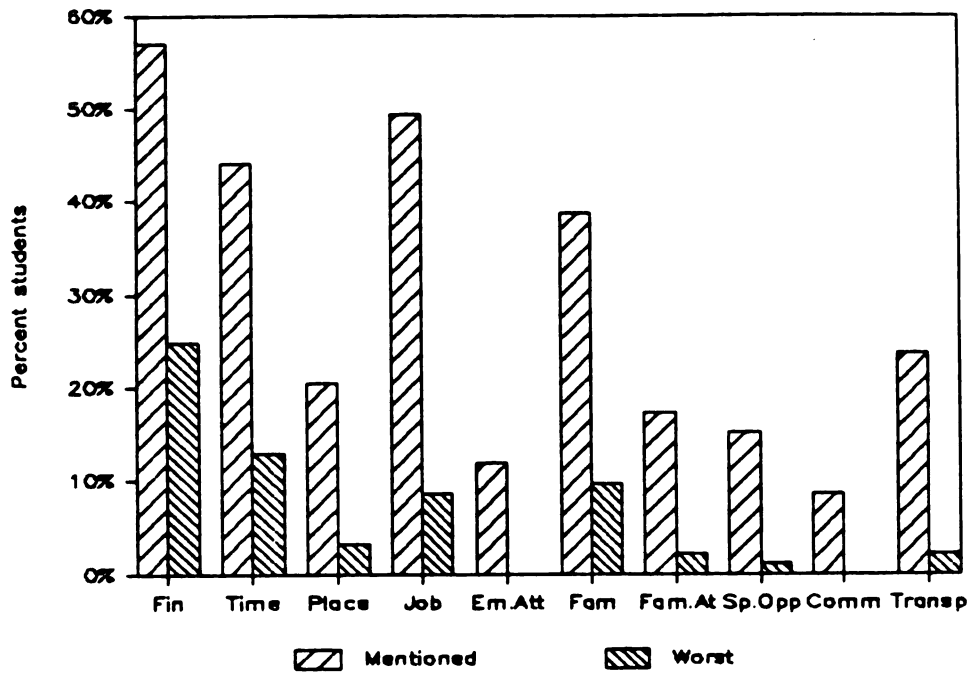


Figure F-4.40b Distribution of personal problems mentioned (continued), City University of New York student sample

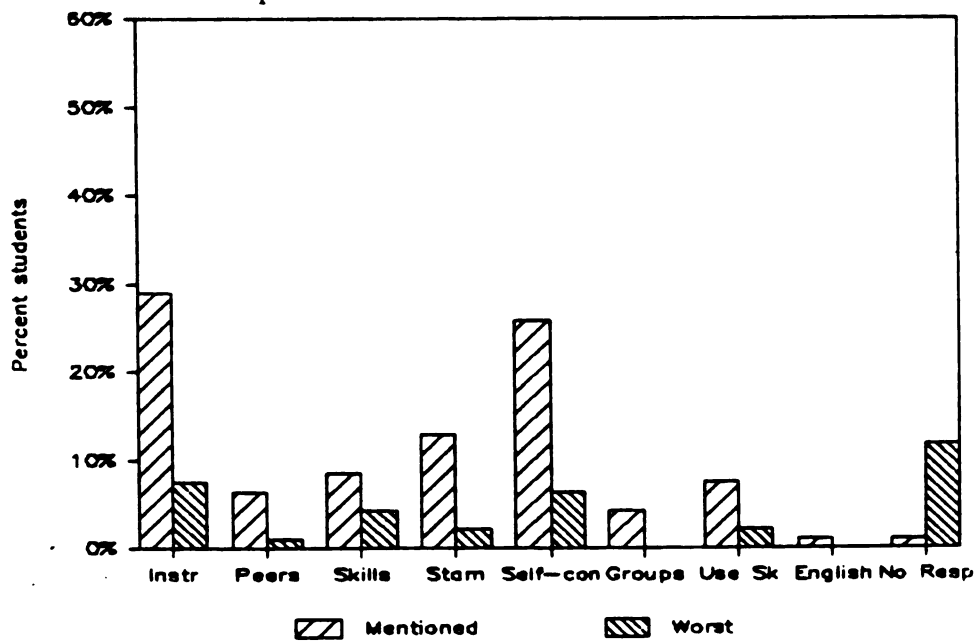


Figure F-4.41a Distribution of institutional barriers mentioned,
City University of New York student sample

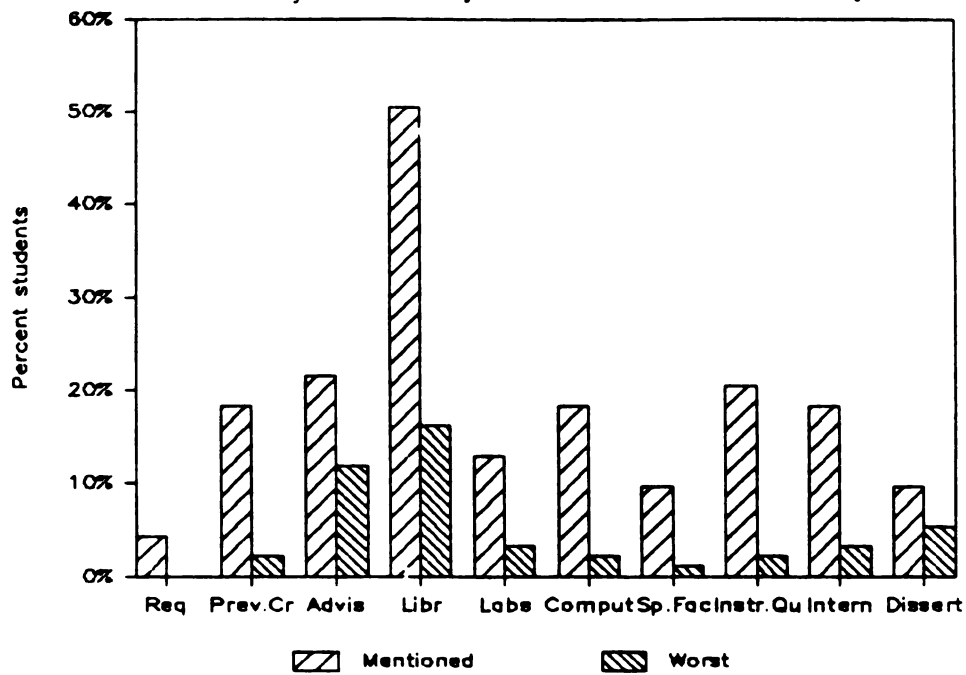


Figure F-4.41b Distribution of institutional barriers mentioned
(continued), City University of New York student
sample

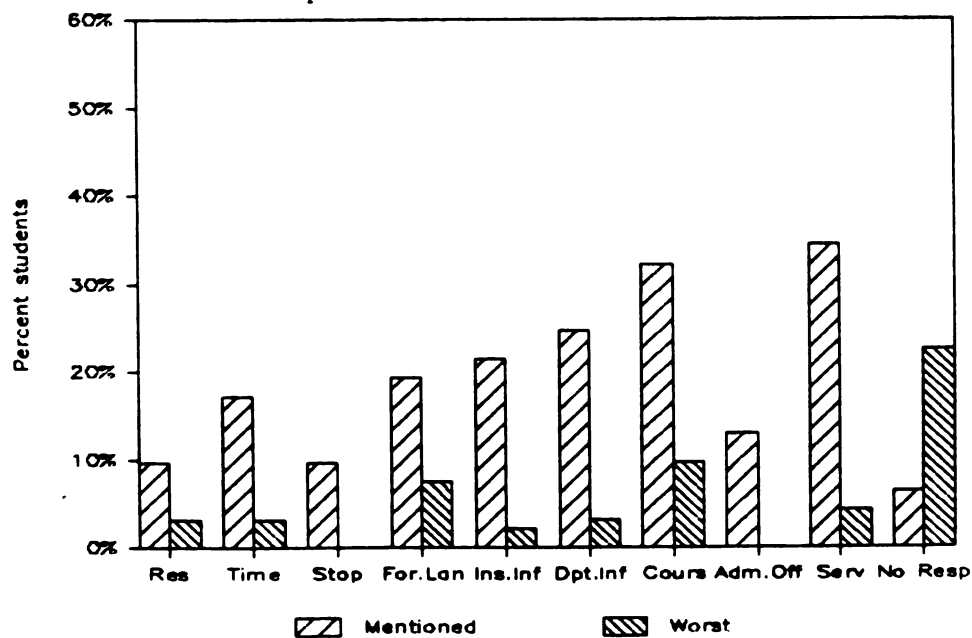


Figure F-4.42 Scores on program evaluation scales. Means of respondents enrolled in degree programs, City University of New York student sample

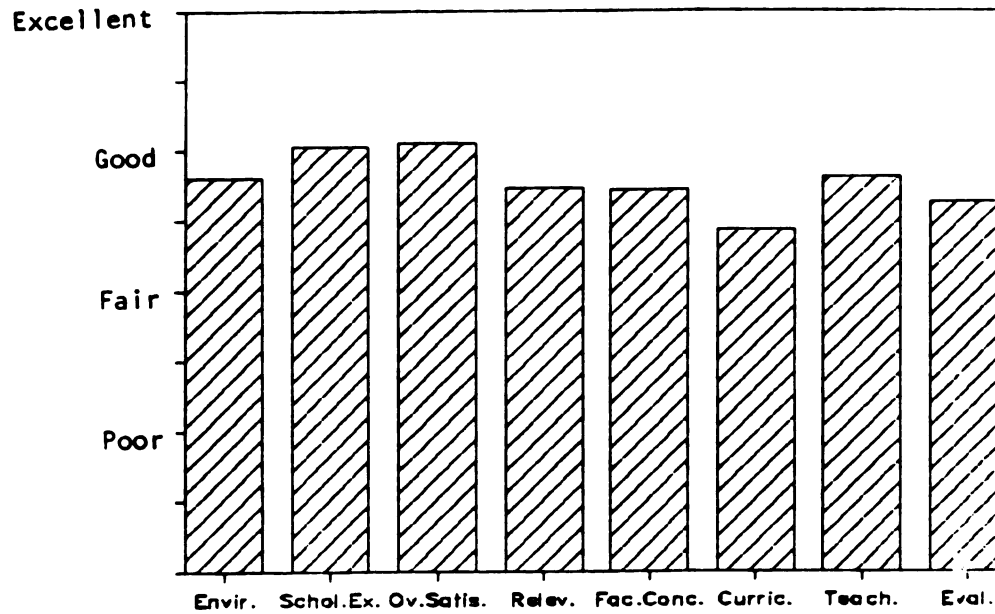


Figure F-4.43a Distribution of professional activities of respondents enrolled in degree programs, City University of New York student sample

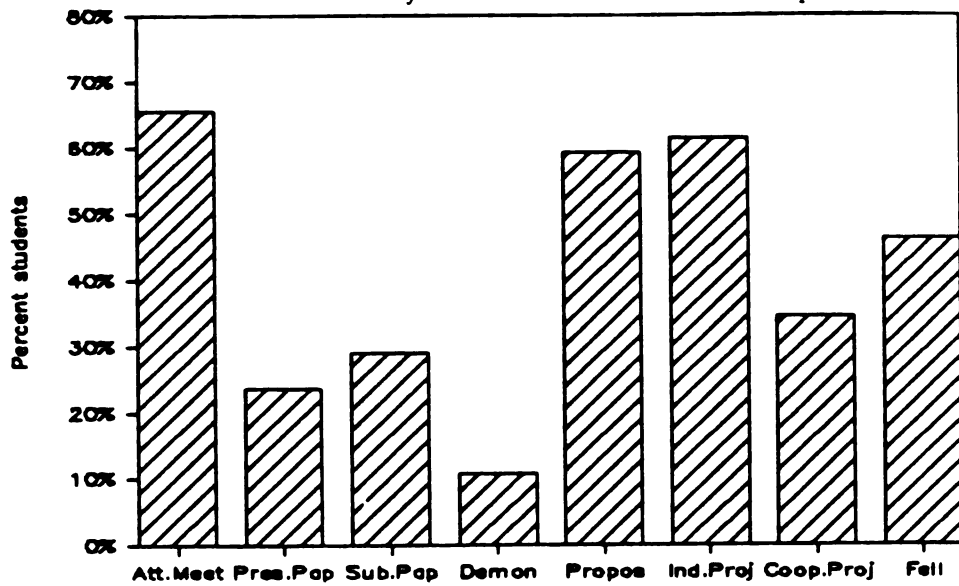


Figure F-4.43b Distribution of professional activities of respondents enrolled in degree programs (continued), City University of New York student sample

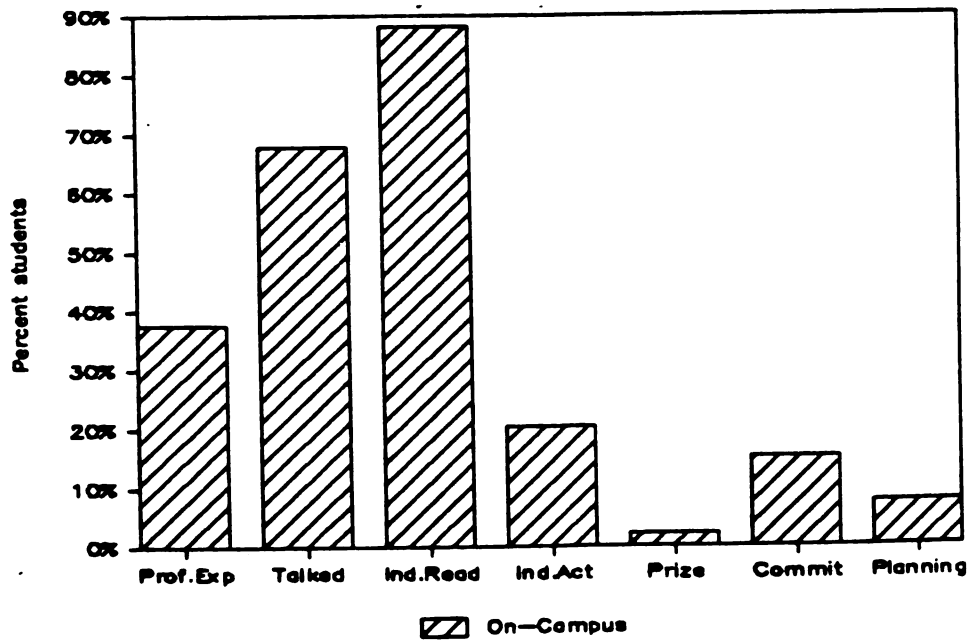


Figure F-4.44a Degree of need for support services and facilities. Mean of all respondents, City University of New York student sample

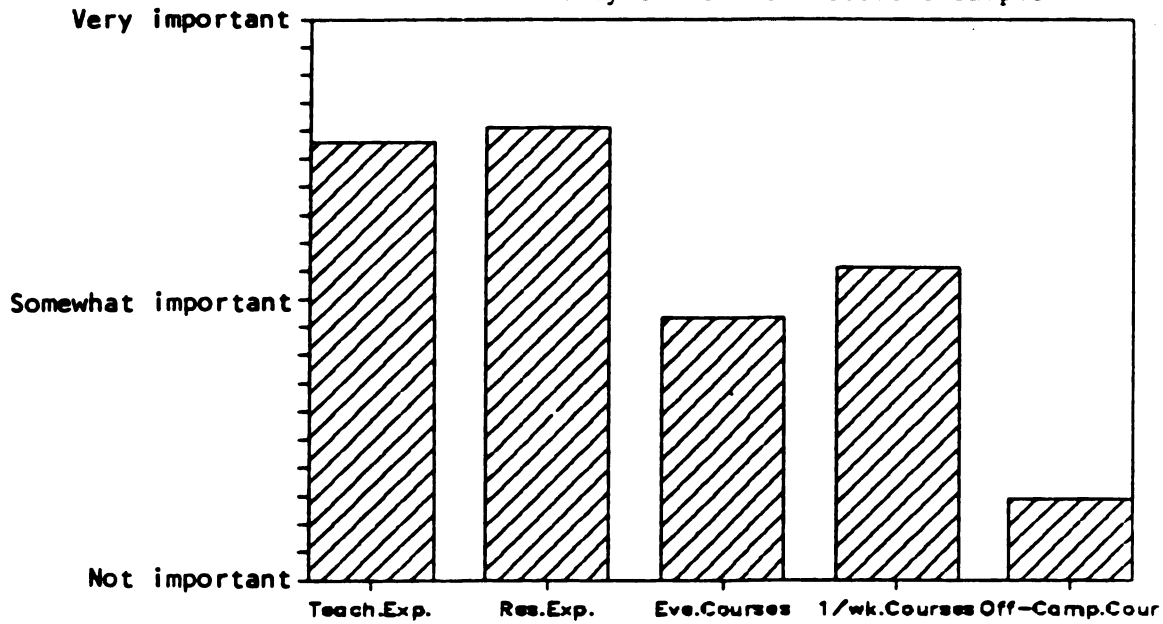


Figure F-4.45a Quality of support services and facilities provided. Mean of respondents who reported having used the service or facility, City University of New York student sample

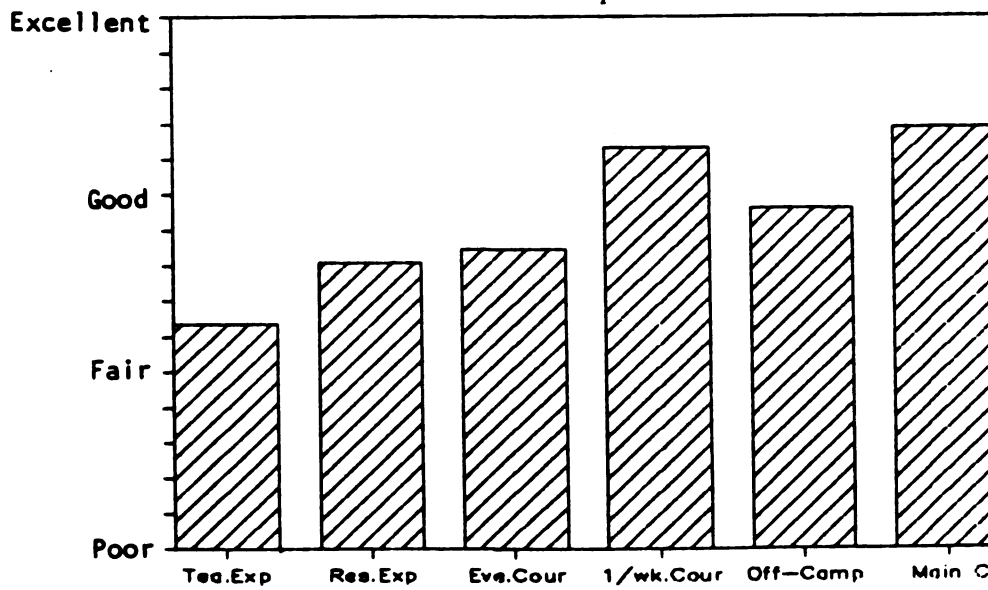


Figure F-4.44b Degree of need for support services and facilities (continued). Mean of all respondents, City University of New York student sample

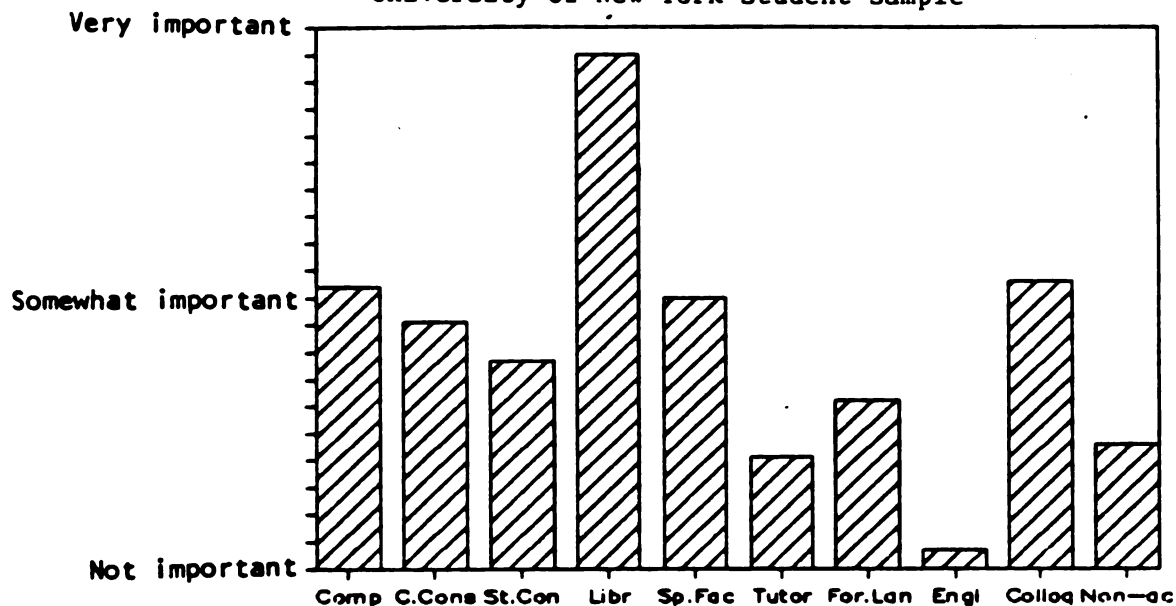


Figure F-4.45b Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, City University of New York student sample

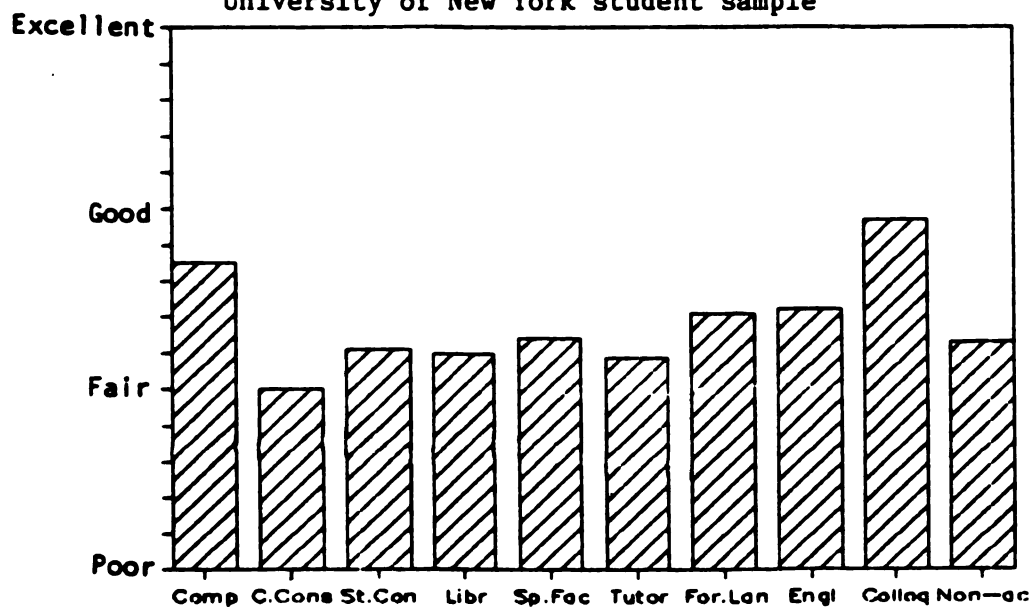


Figure F-4.44c Degree of need for support services and facilities (continued). Mean of all respondents, City University of New York student sample

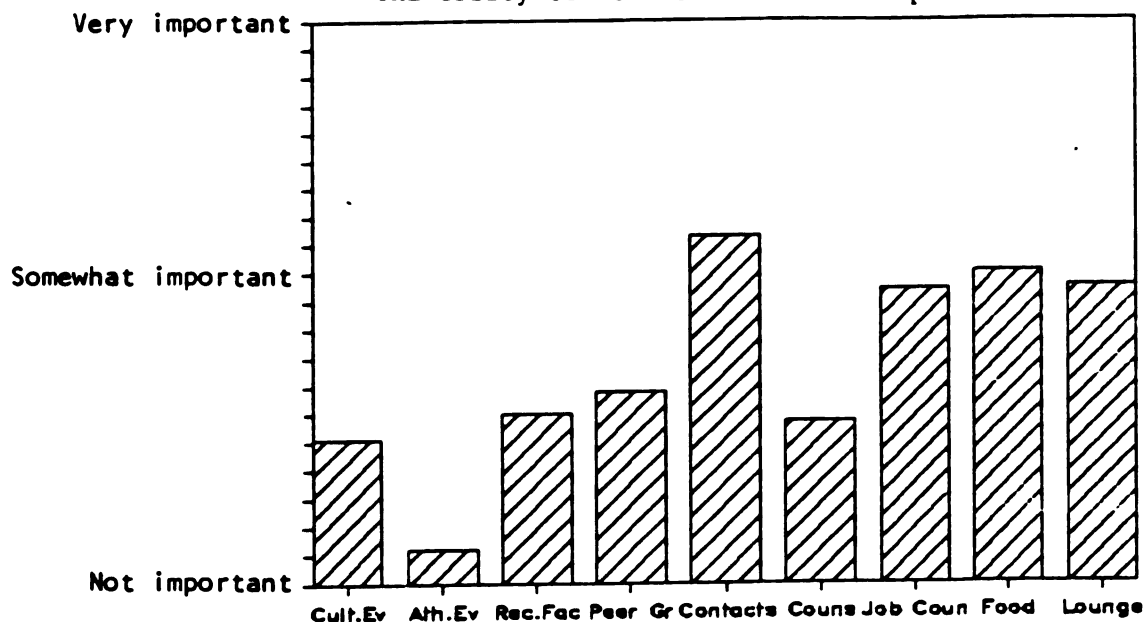


Figure F-4.45c Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, City University of New York student sample

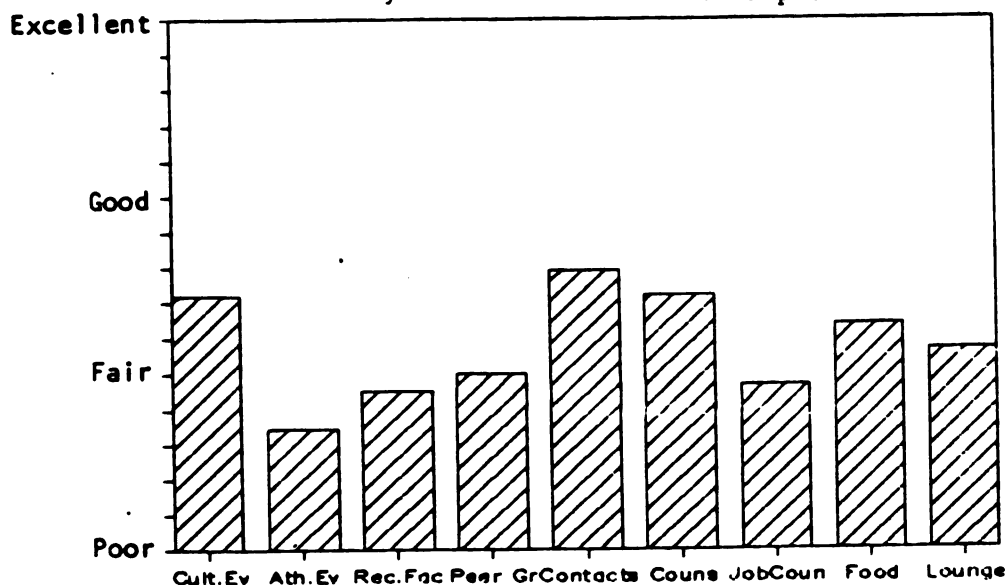


Figure F-4.44d Degree of need for support services and facilities (continued). Mean of all respondents, City University of New York student sample



Figure F-4.45d Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, City University of New York student sample

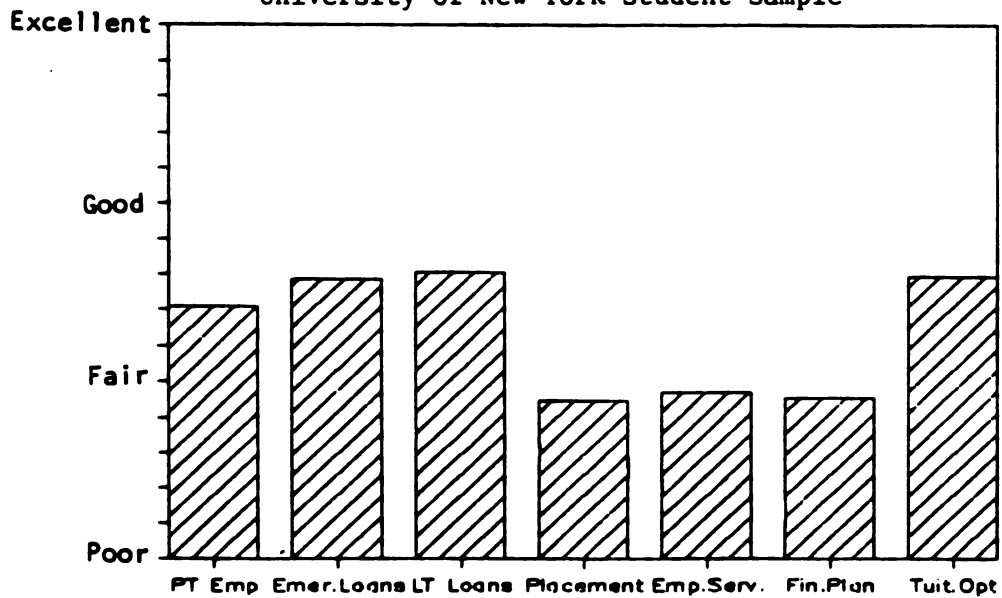


Figure F-4.44e Degree of need for support services and facilities (continued). Mean of all respondents, City University of New York student sample

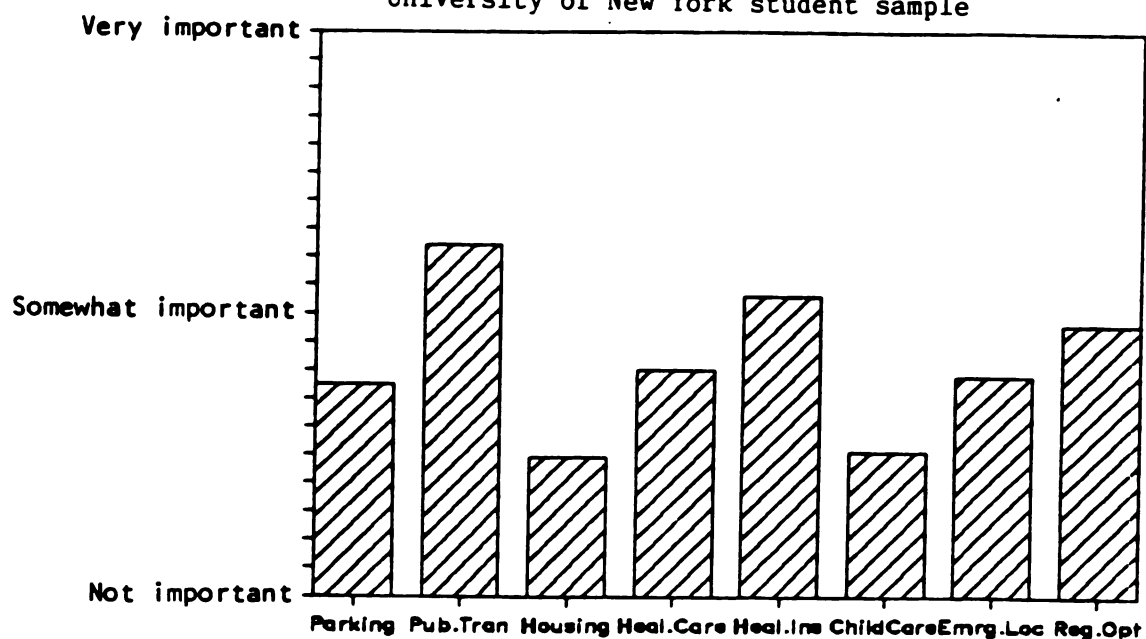


Figure F-4.45e Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, City University of New York student sample

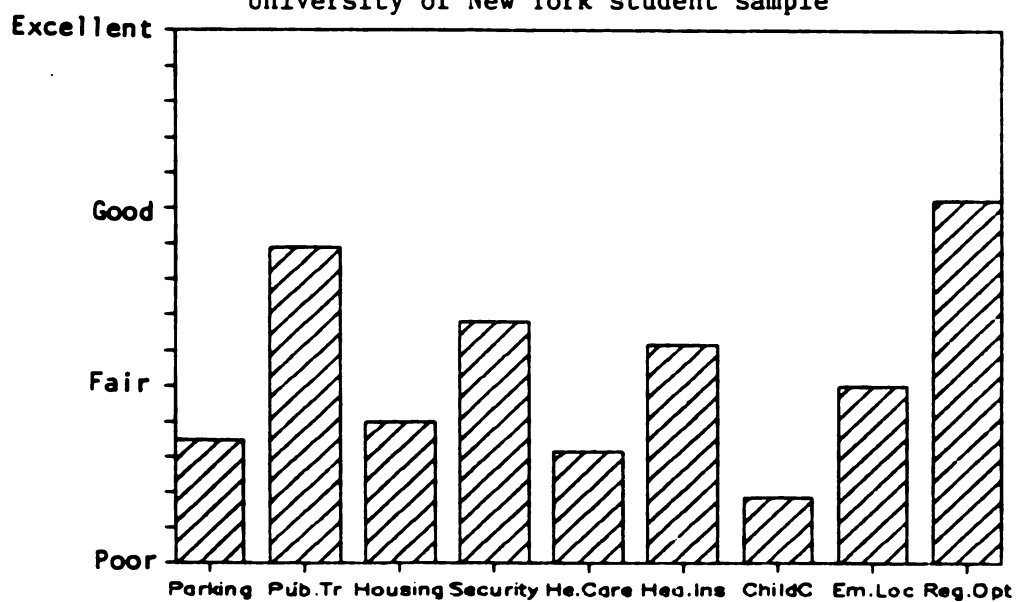


Figure F-4.46a Frequency of use of support services and facilities provided. Mean of respondents who reported having used the service or facility, City University of New York student sample

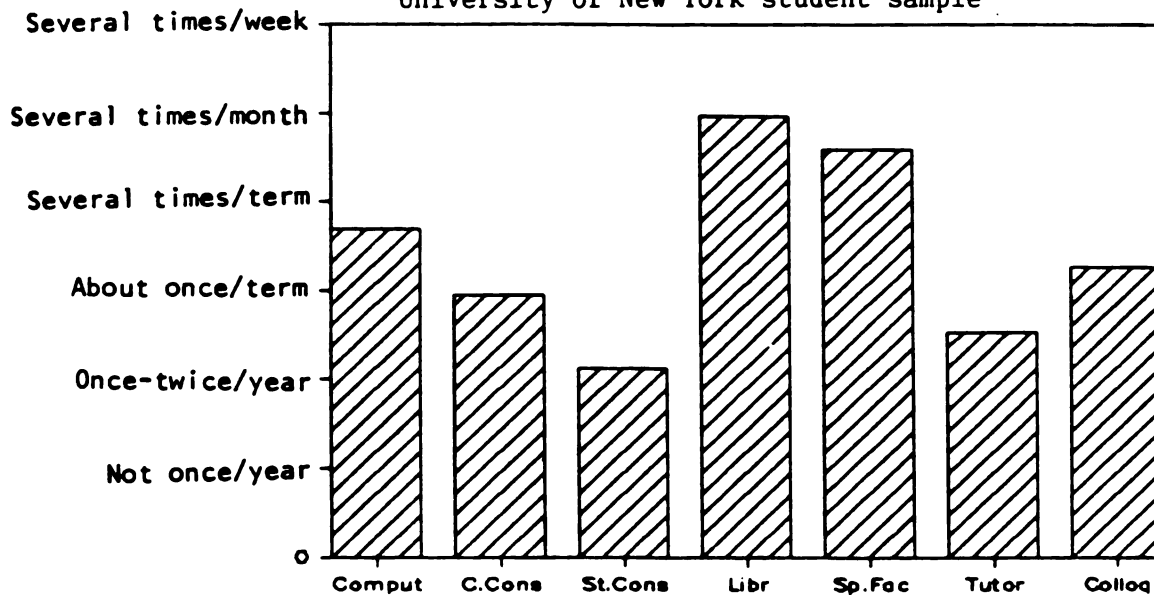


Figure F-4.46b Frequency of use of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, City University of New York student sample

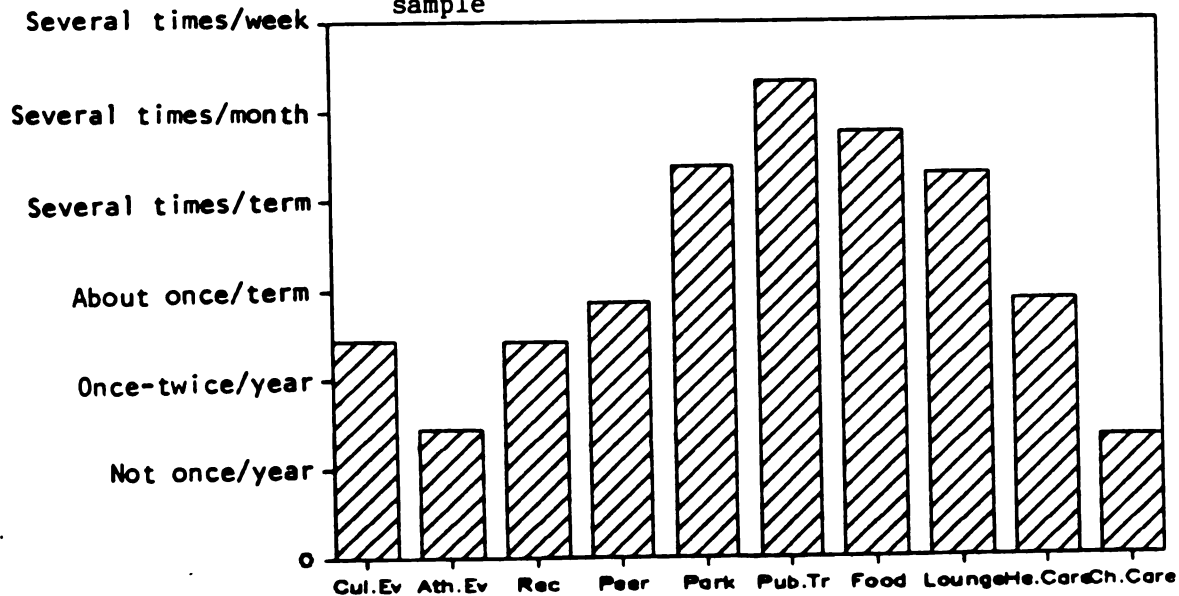


Figure F-4.47 Gender distribution, Michigan State University student sample

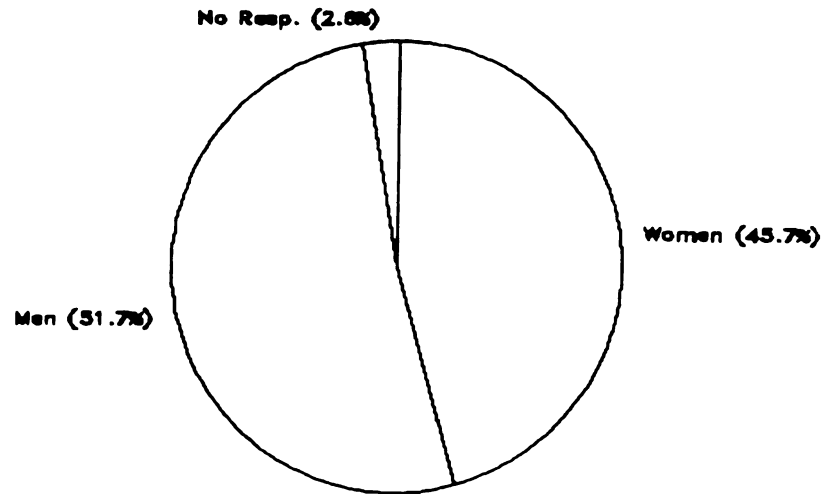


Figure F-4.48 Ethnic distribution, Michigan State University student sample

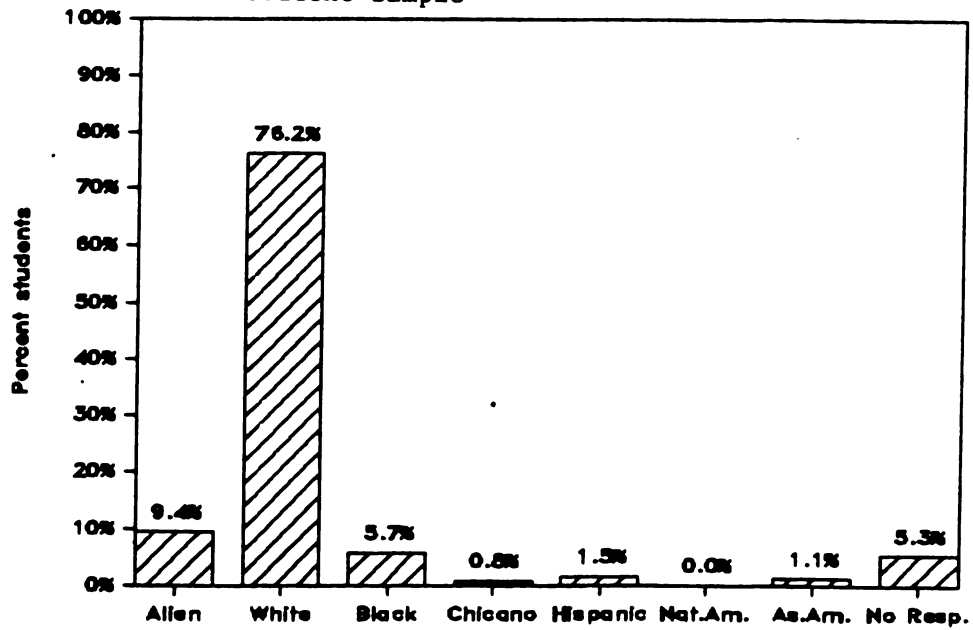


Figure F-4.49 Marital status distribution, Michigan State University student sample

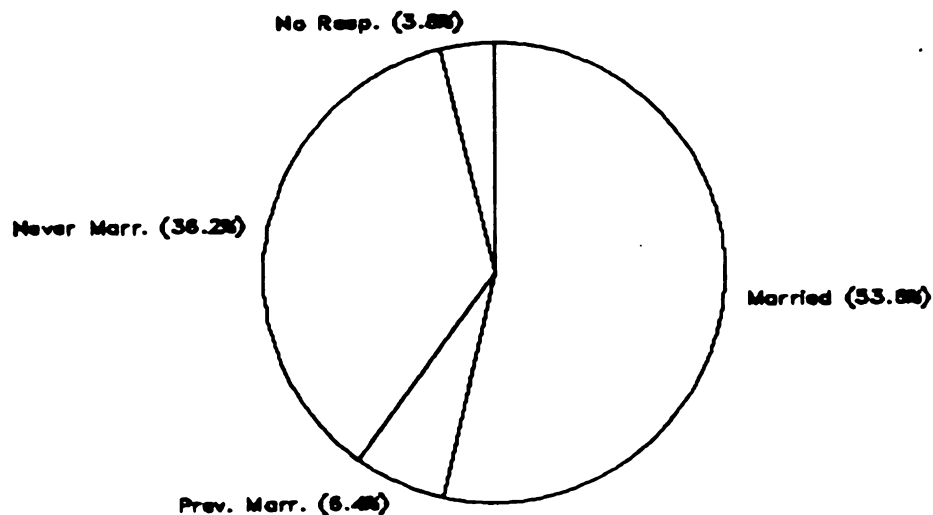


Figure F-4.50 Distribution of number of children, Michigan State University student sample

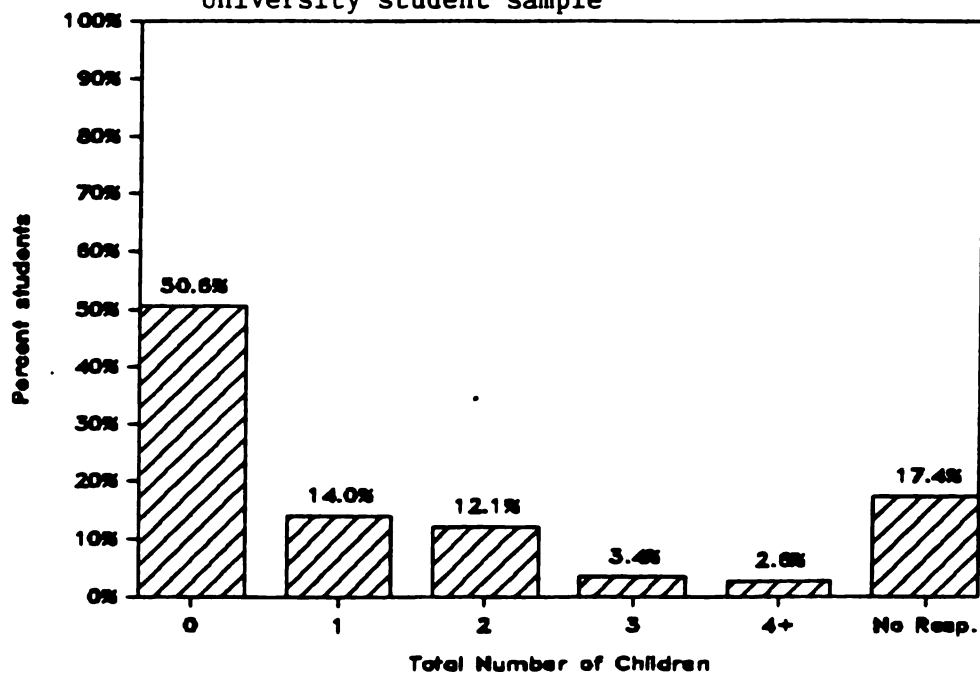


Figure F-4.51 Distribution among types of programs, Michigan State University student sample

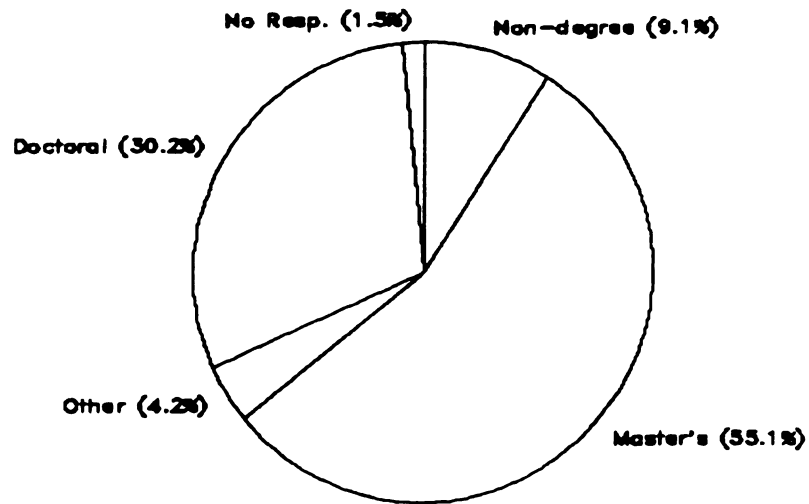


Figure F-4.52 Distribution among majors, Michigan State University student sample

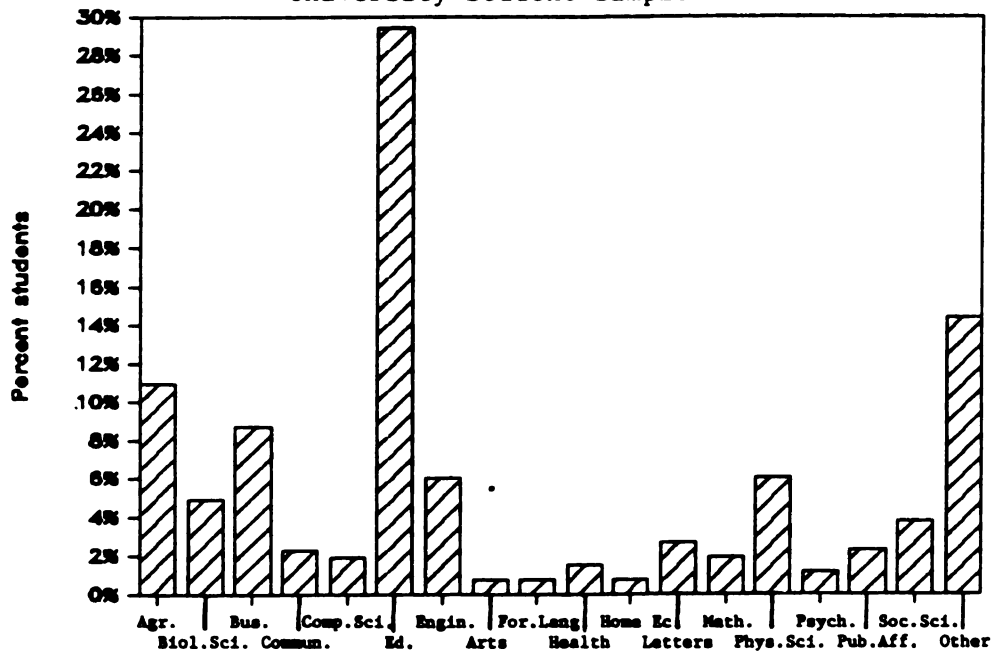


Figure F-4.53 Part-time versus full-time enrollment, Michigan State University student sample

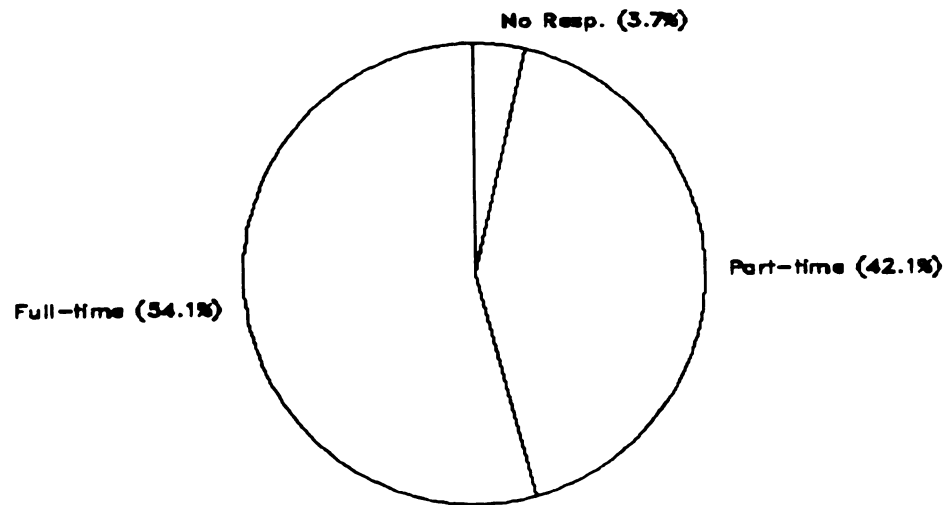


Figure F-4.54 Distribution of number of courses being taken, Michigan State University student sample

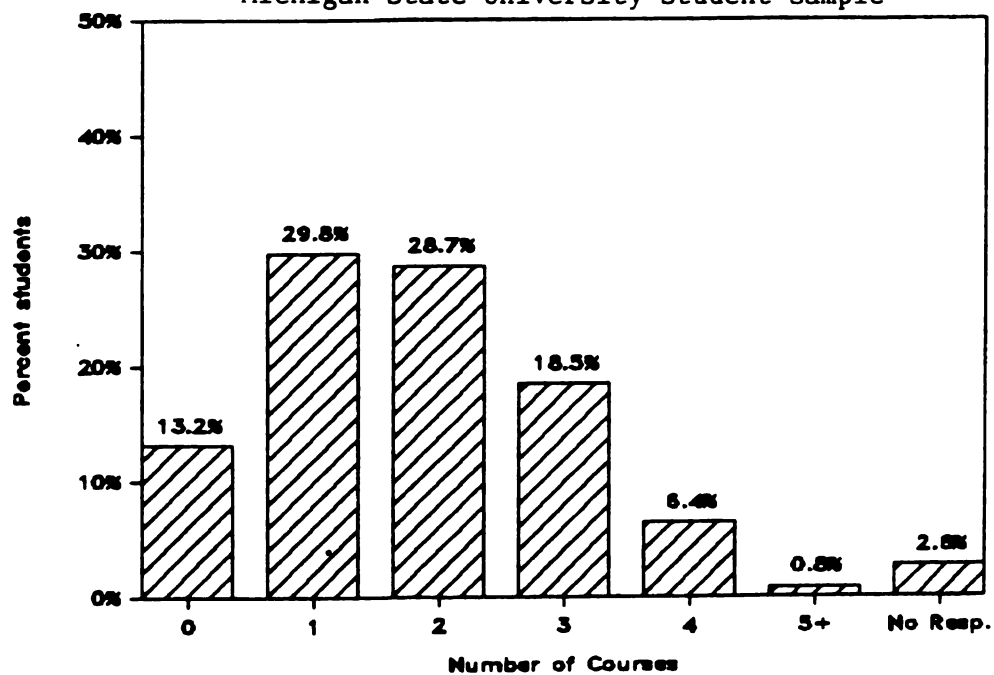


Figure F-4.55 Distribution of years stopped out, Michigan State University student sample

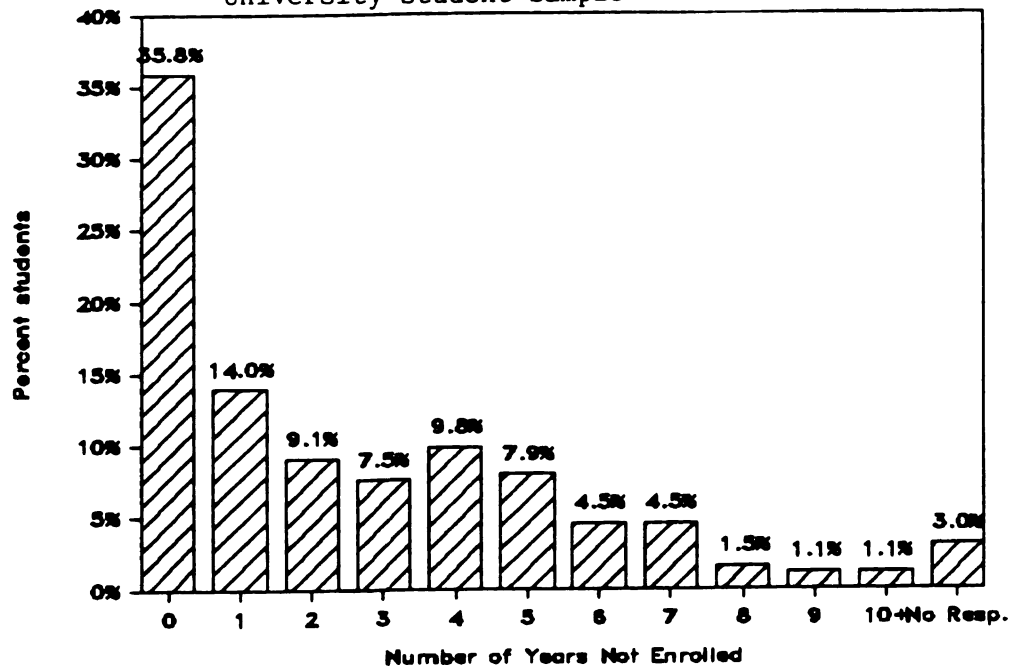
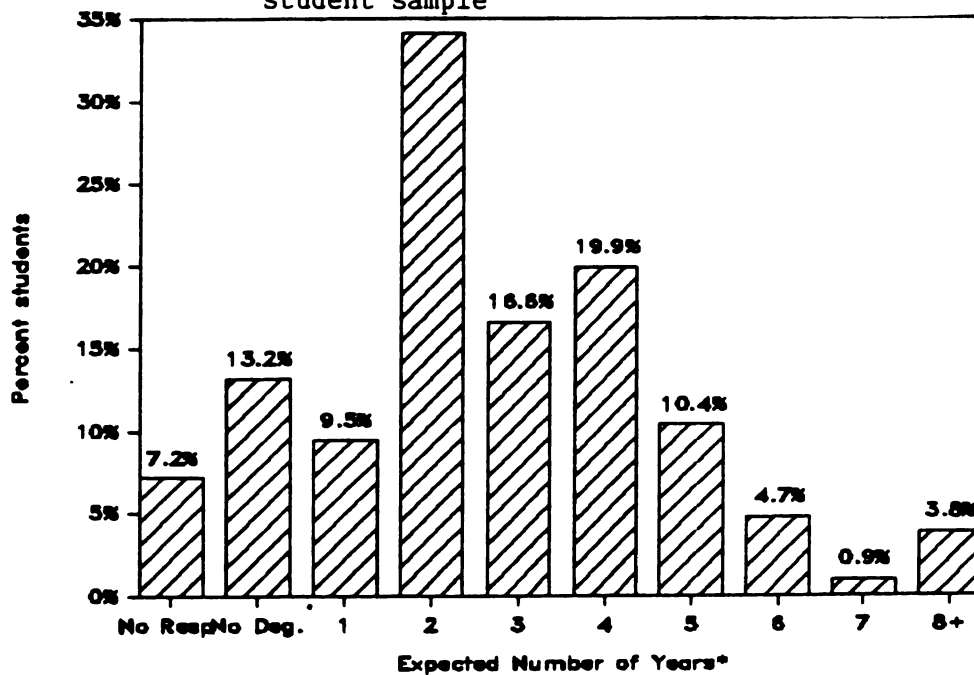


Figure F-4.56 Distribution of number of years expected to complete program, Michigan State University student sample



*No Response and No Degree Sought percentages are of total respondents.
Year percentages are of those seeking degrees.

Figure F-4.57 Distribution of part-time versus full-time employment, Michigan State University student sample

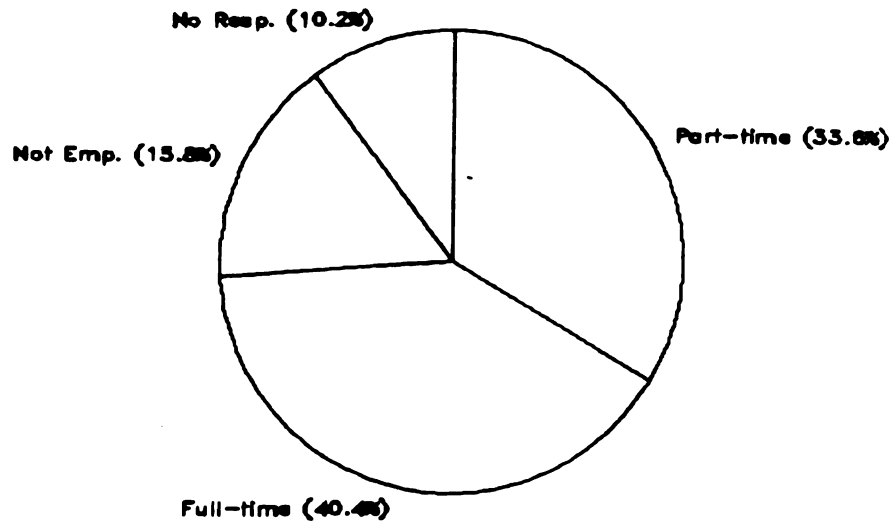


Figure F-4.58 Distribution among current and future employment settings, Michigan State University student sample

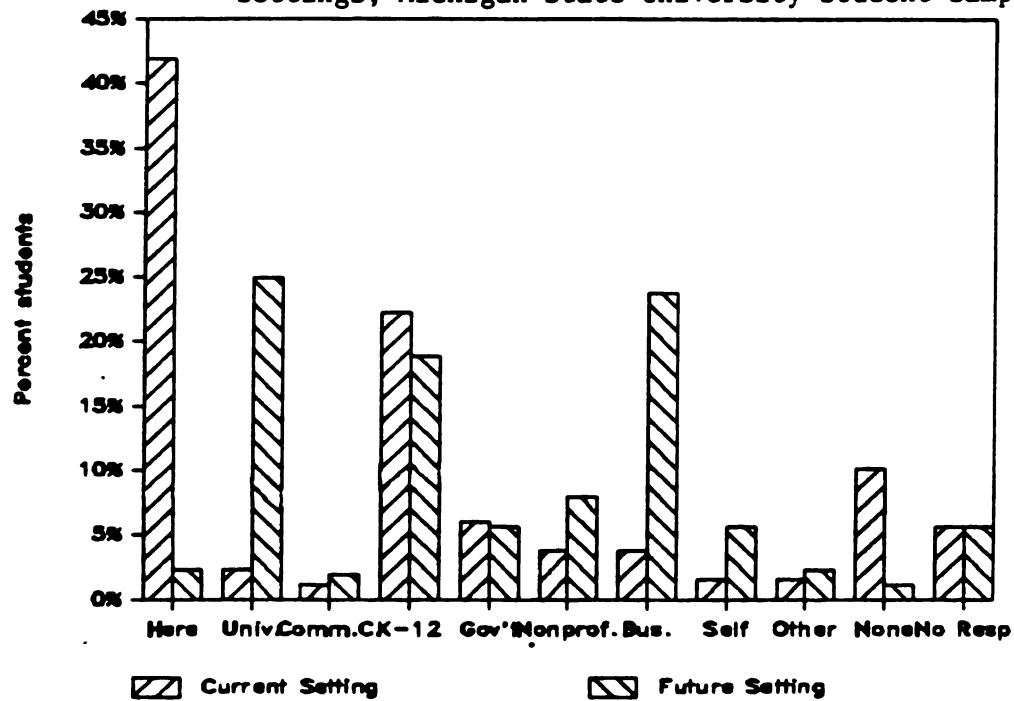


Figure F-4.59 Distribution of sources of financial support,
Michigan State University student sample

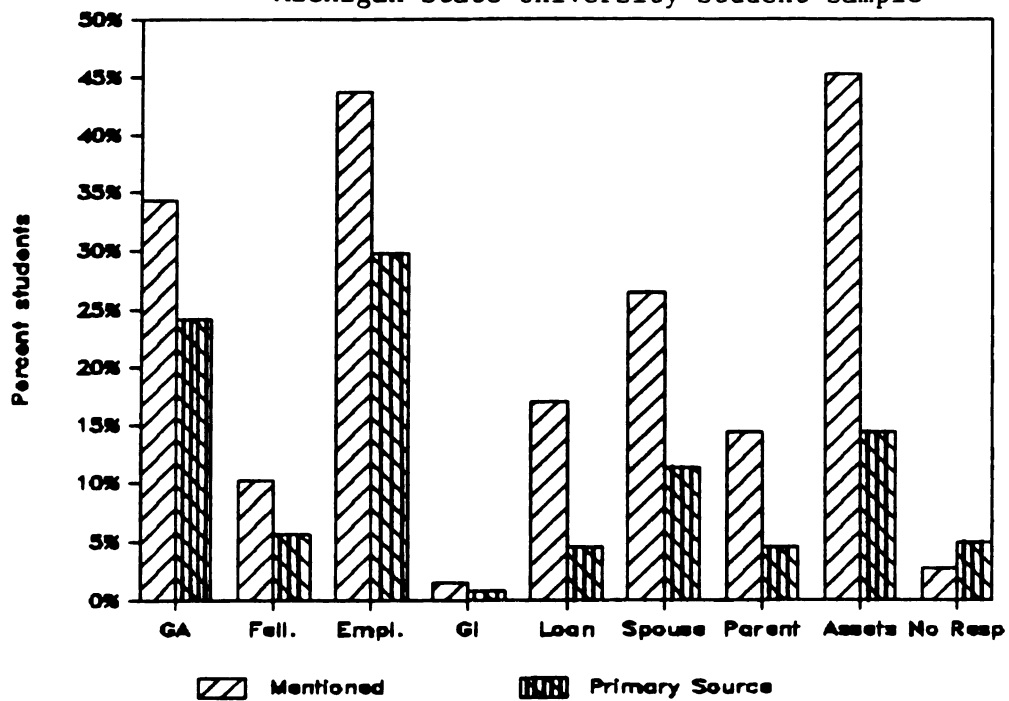


Figure F-4.60 Distribution of years of full-time employment,
Michigan State University student sample

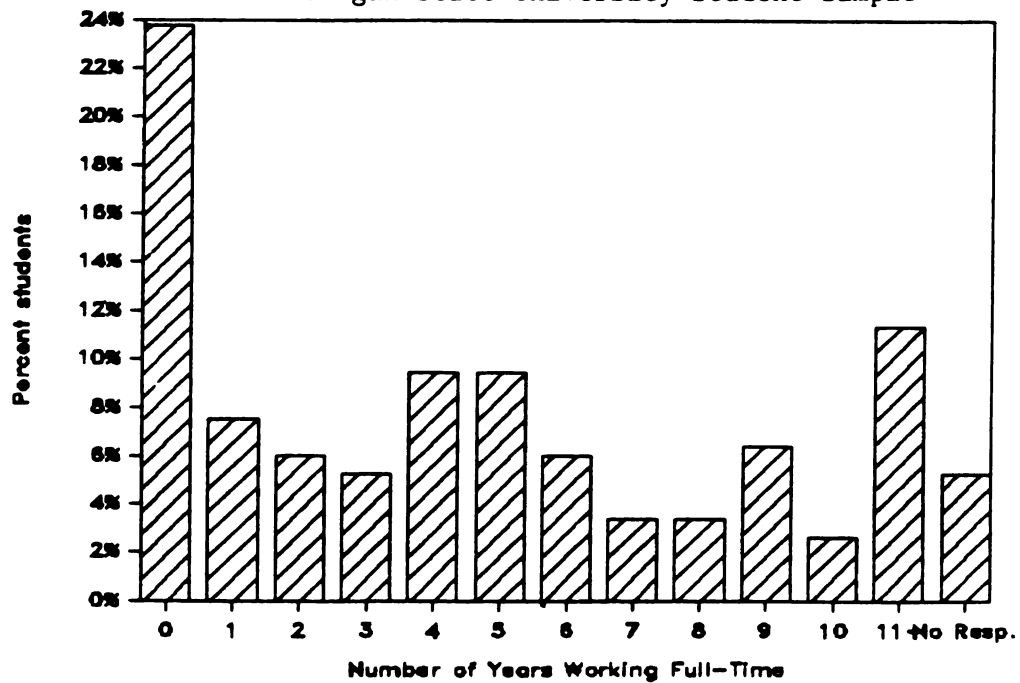


Figure F-4.61 Distribution among preferred future employment activities, Michigan State University student sample

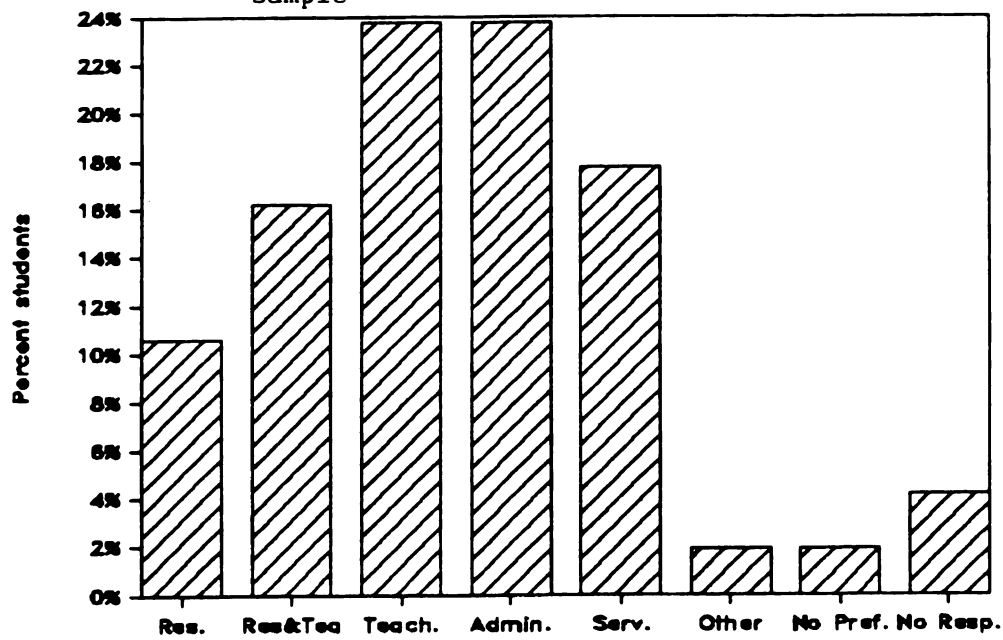


Figure F-4.62 Distribution of reasons mentioned for pursuing graduate study at this time, Michigan State University student sample

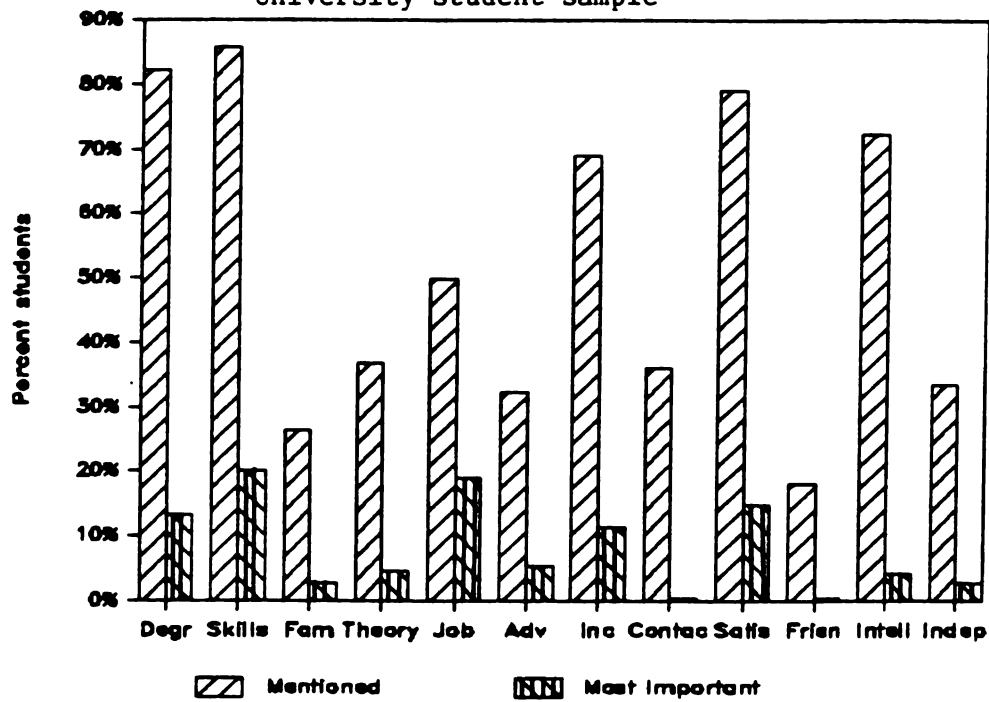


Figure F-4.63 Importance of personal goals and perceived importance to departments. Means of respondents enrolled in degree programs, Michigan State University student sample

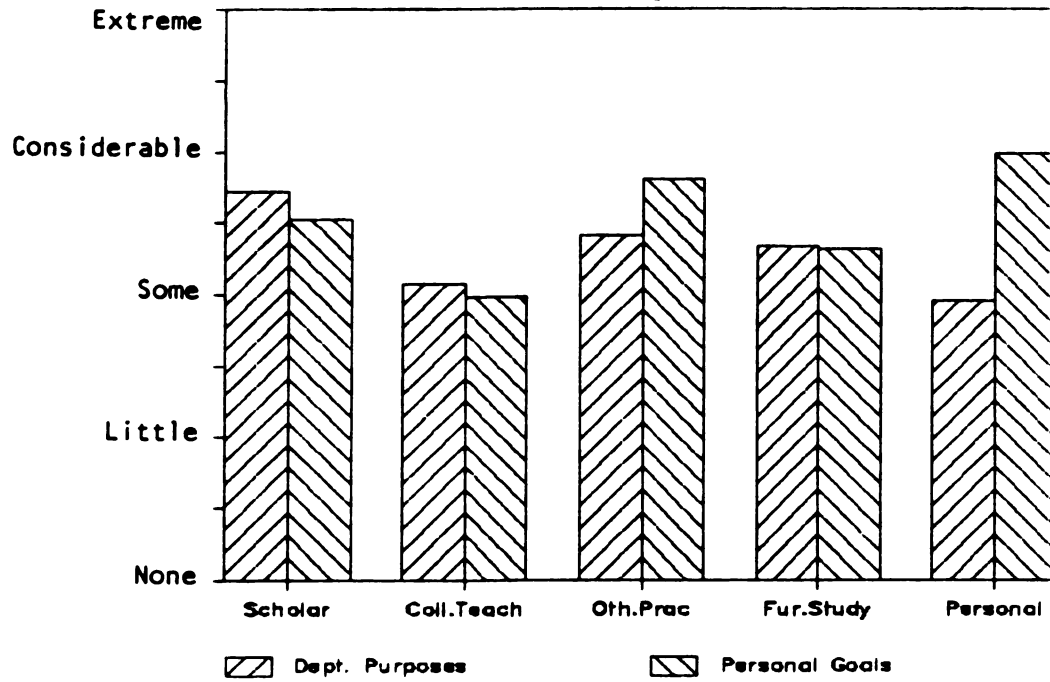


Figure F-4.64a Distribution of personal problems mentioned,
Michigan State University student sample

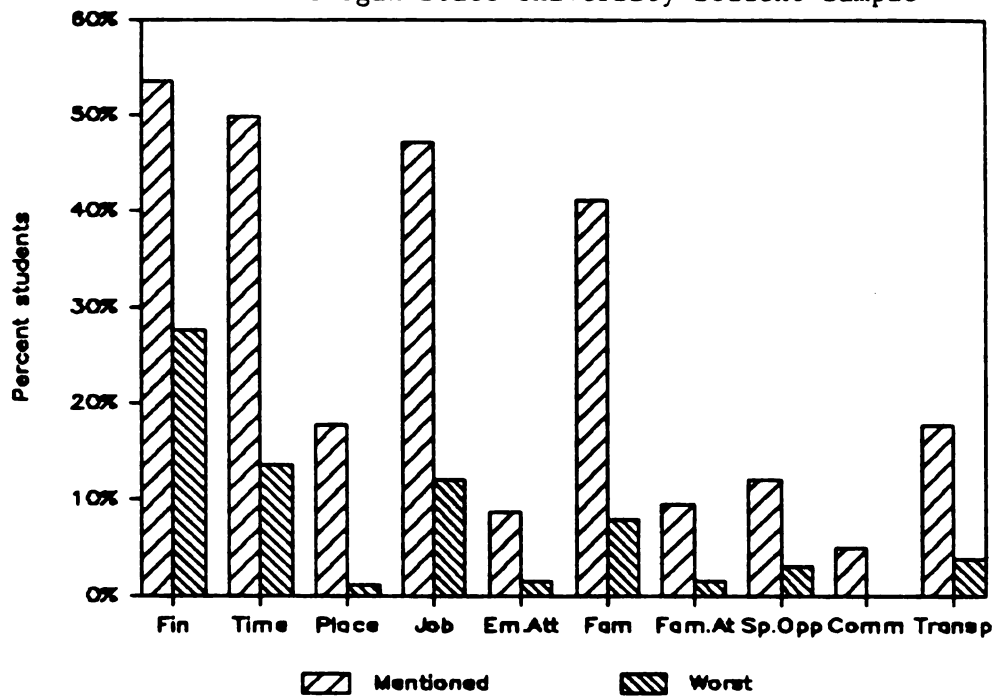


Figure F-4.64b Distribution of personal problems mentioned
(continued), Michigan State University student
sample

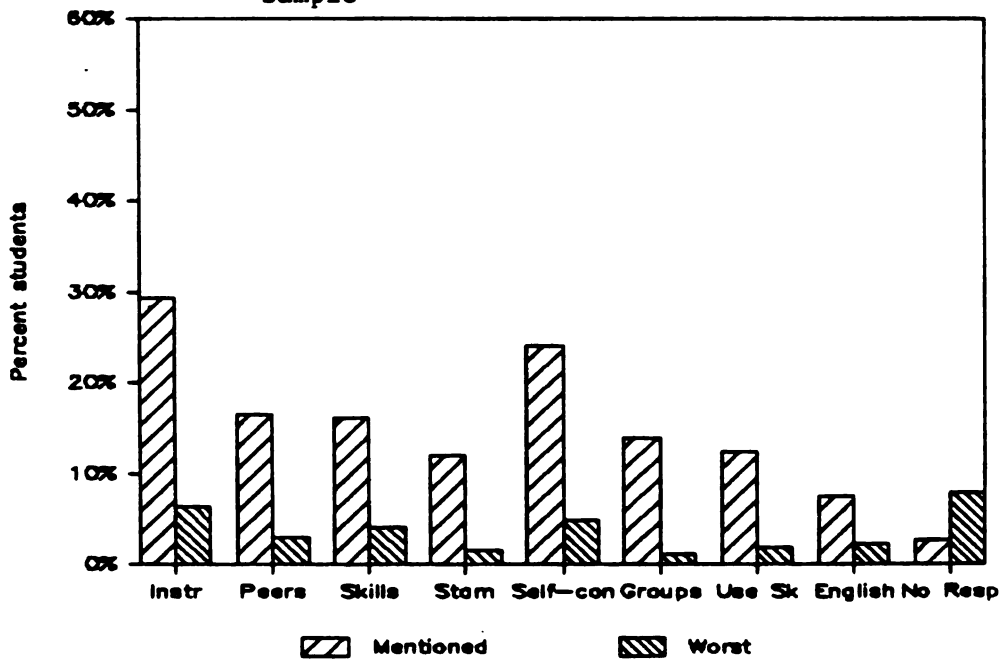


Figure F-4.65a Distribution of institutional barriers mentioned,
Michigan State University student sample

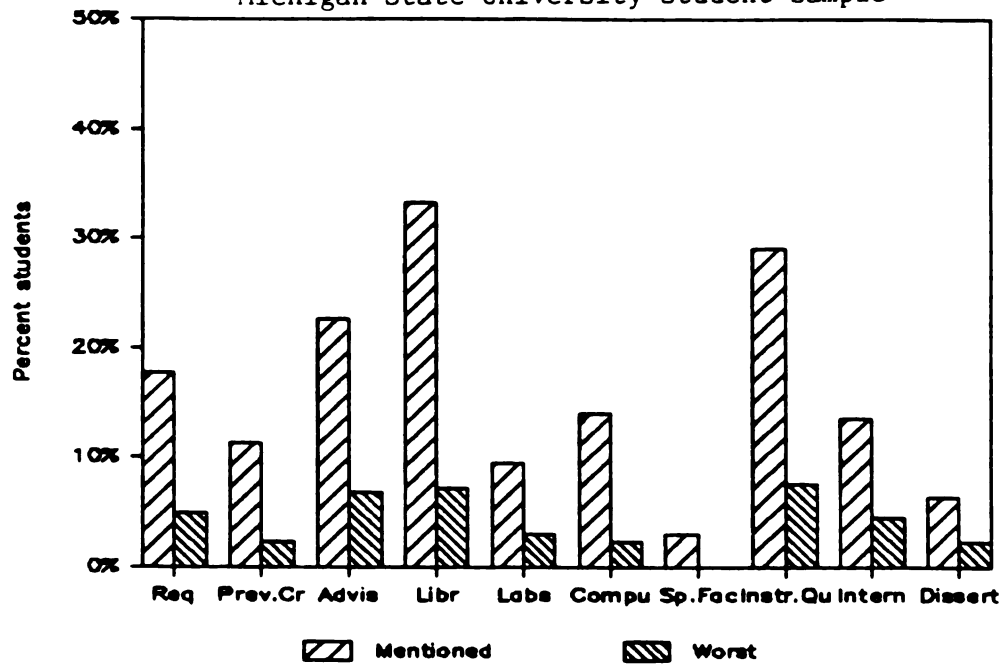


Figure F-4.65b Distribution of institutional barriers mentioned
(continued), Michigan State University student
sample

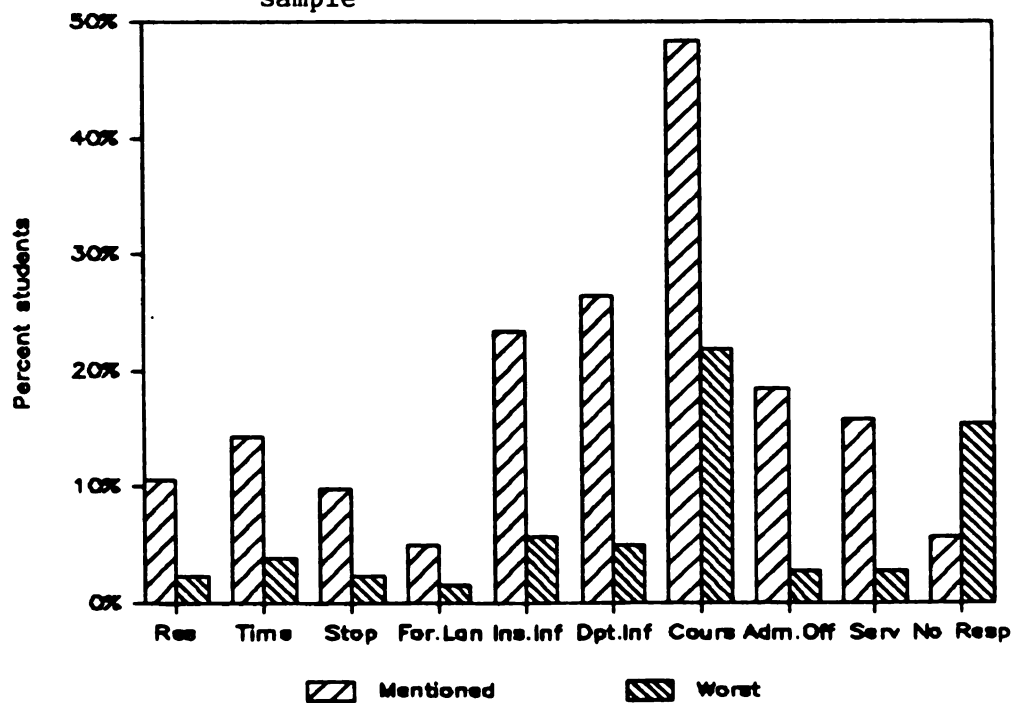


Figure F-4.66 Scores on program evaluation scales. Means of respondents enrolled in degree programs, Michigan State University student sample

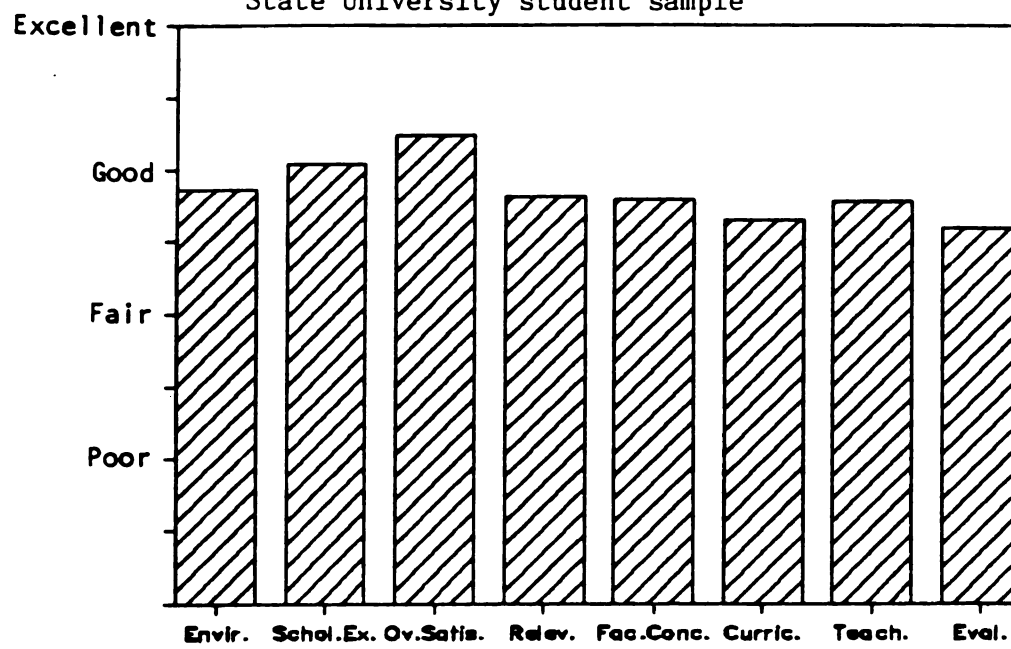


Figure F-4.67a Distribution of professional activities of respondents enrolled in degree programs, Michigan State University student sample

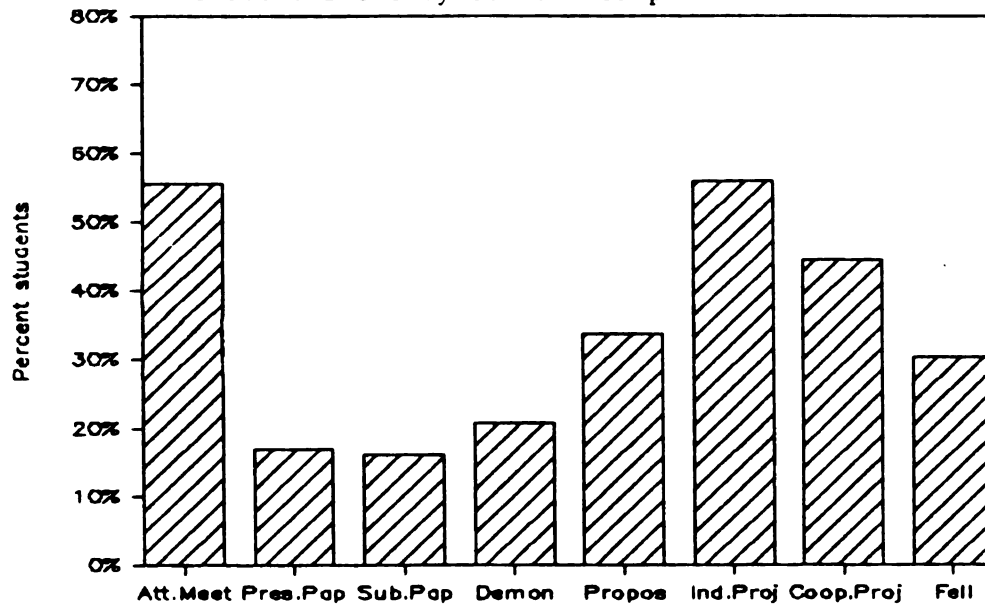


Figure F-4.67b Distribution of professional activities of respondents enrolled in degree programs (continued), Michigan State University student sample

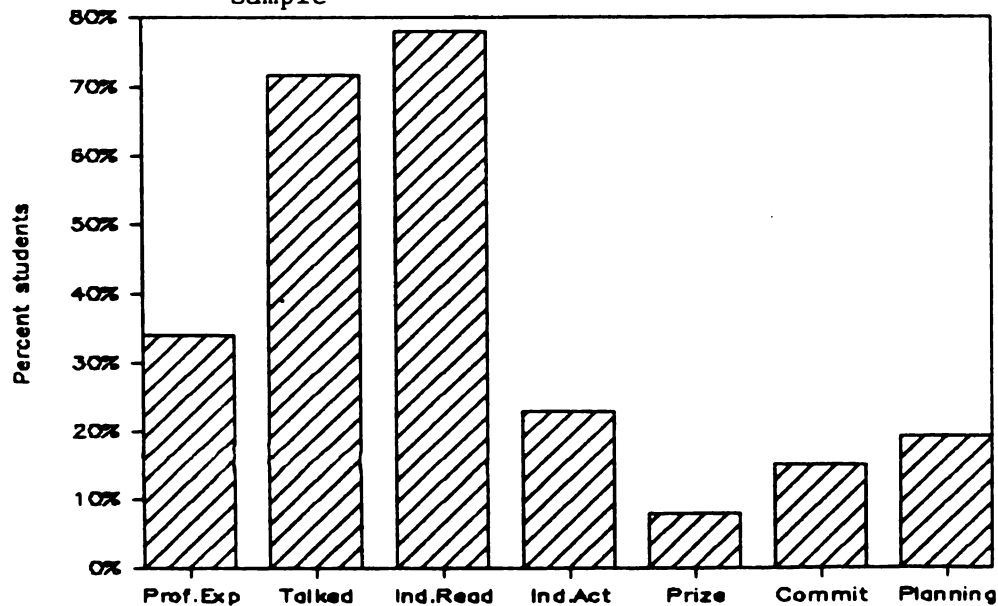


Figure F-4.68a Degree of need for support services and facilities. Mean of all respondents, Michigan State University student sample

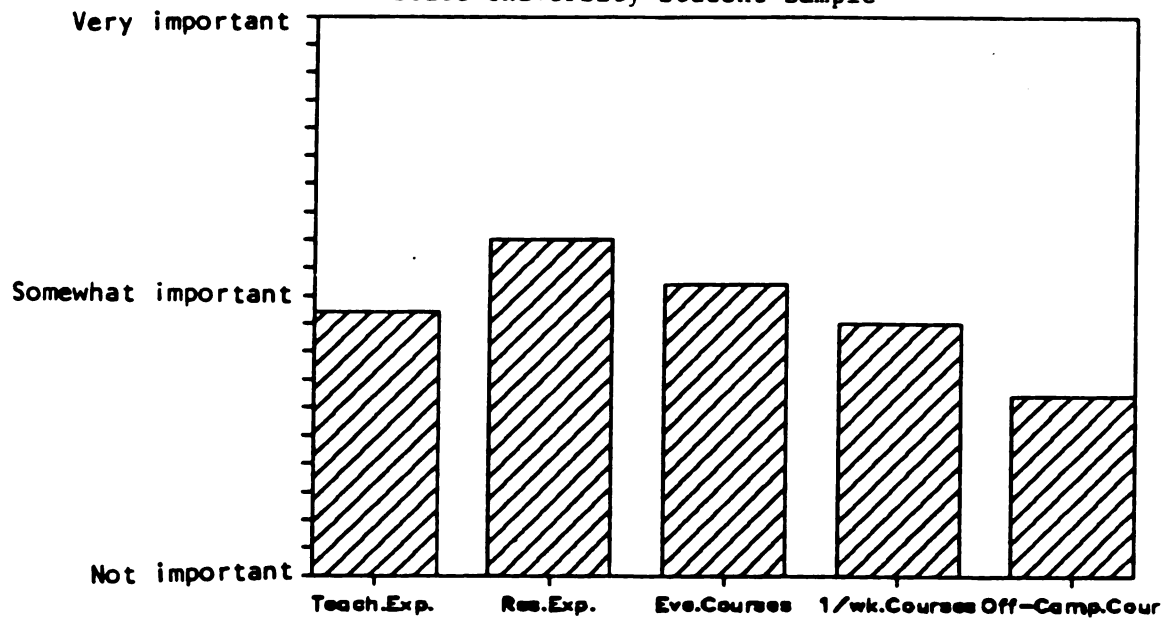


Figure F-4.69a Quality of support services and facilities provided. Mean of respondents who reported having used the service or facility, Michigan State University student sample

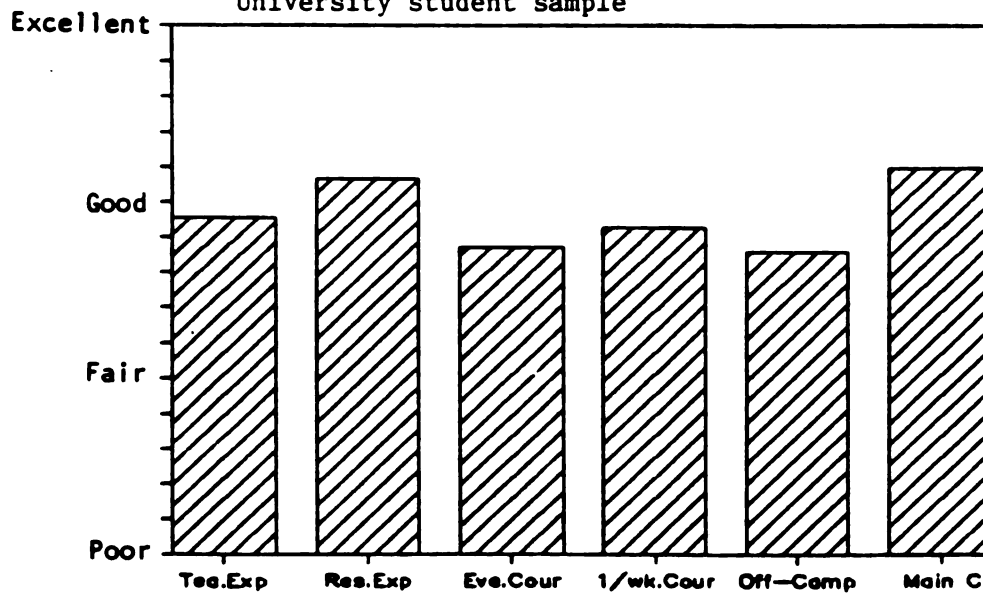


Figure F-4.68b Degree of need for support services and facilities (continued). Mean of all respondents, Michigan State University student sample

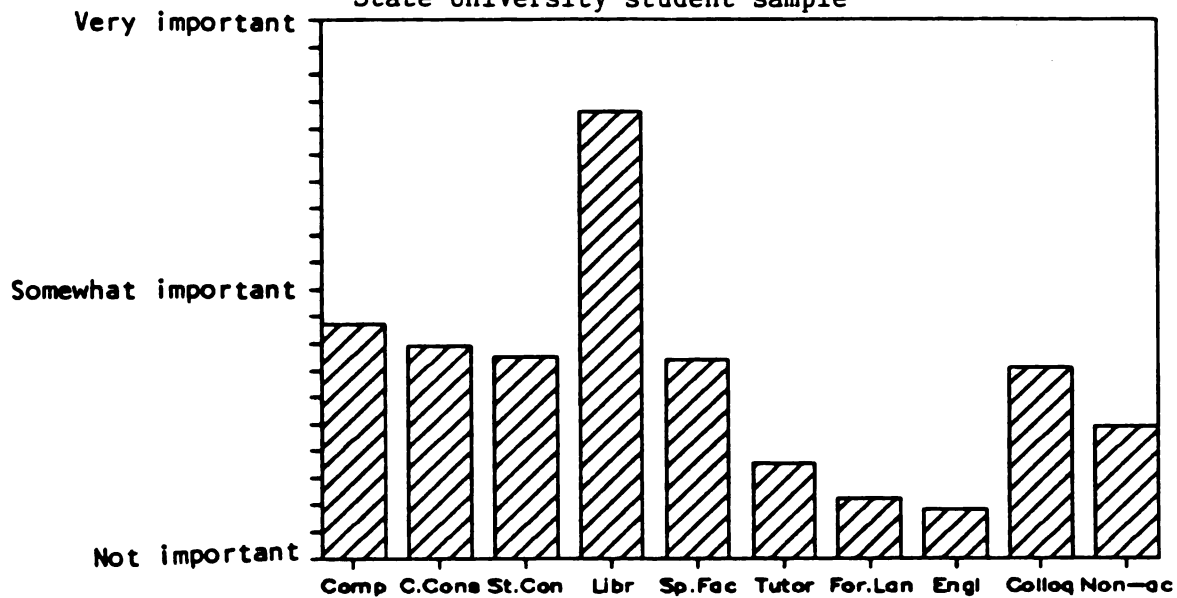


Figure F-4.69b Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, Michigan State University student sample

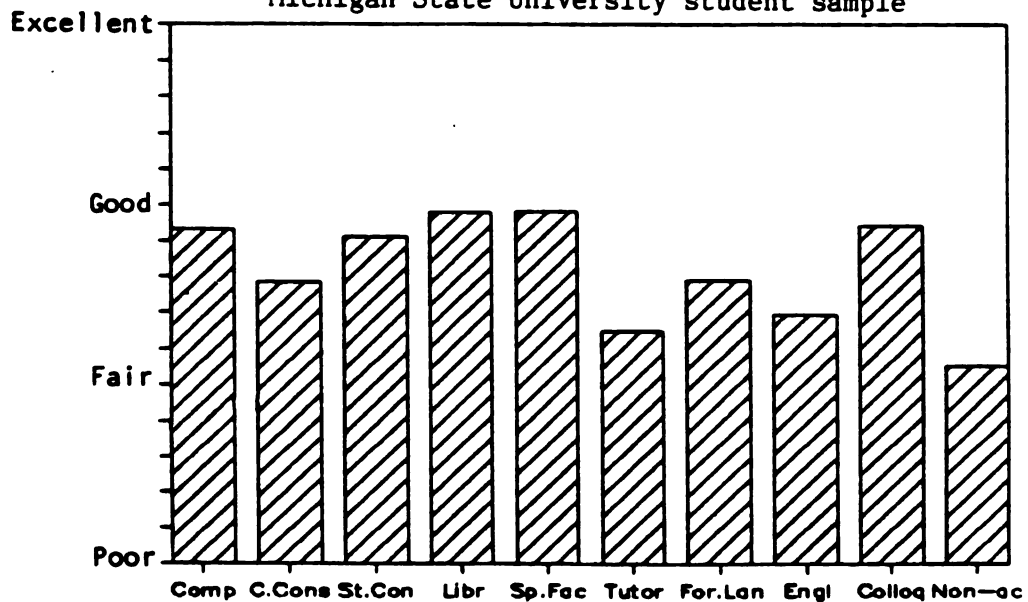


Figure F-4.68c Degree of need for support services and facilities (continued). Mean of all respondents, Michigan State University student sample

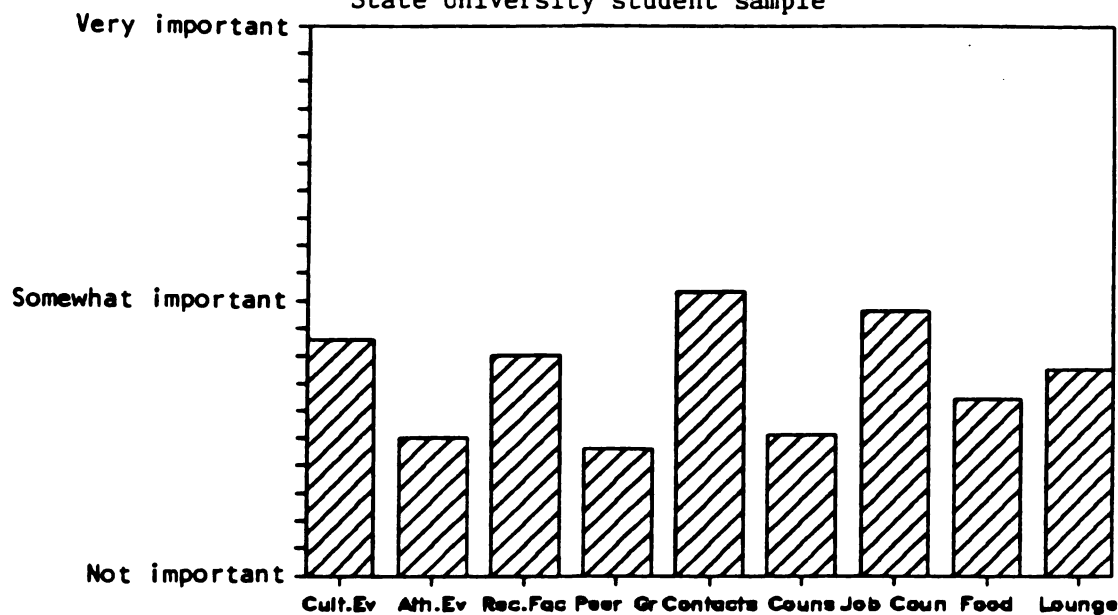


Figure F-4.69c Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, Michigan State University student sample

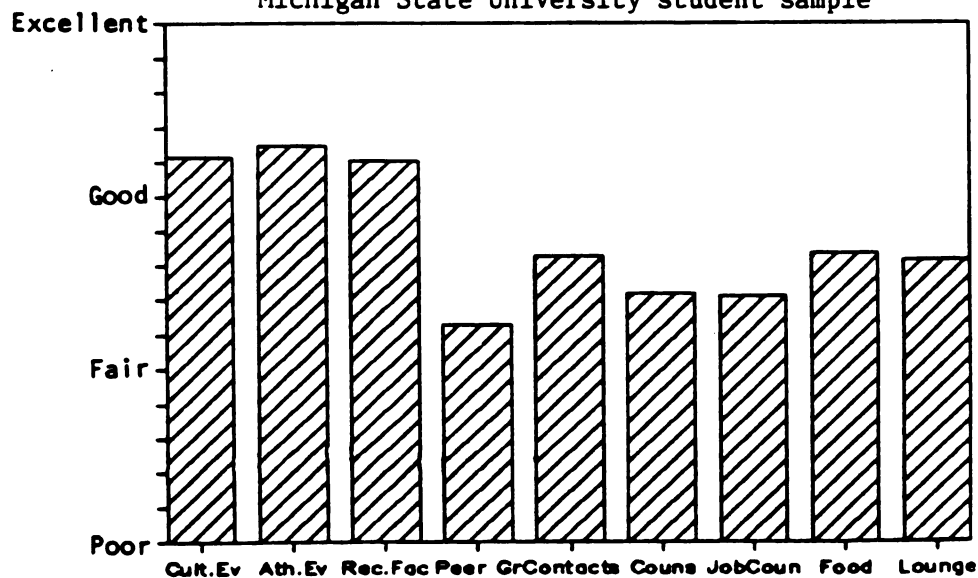


Figure F-4.68d Degree of need for support services and facilities (continued). Mean of all respondents, Michigan State University student sample

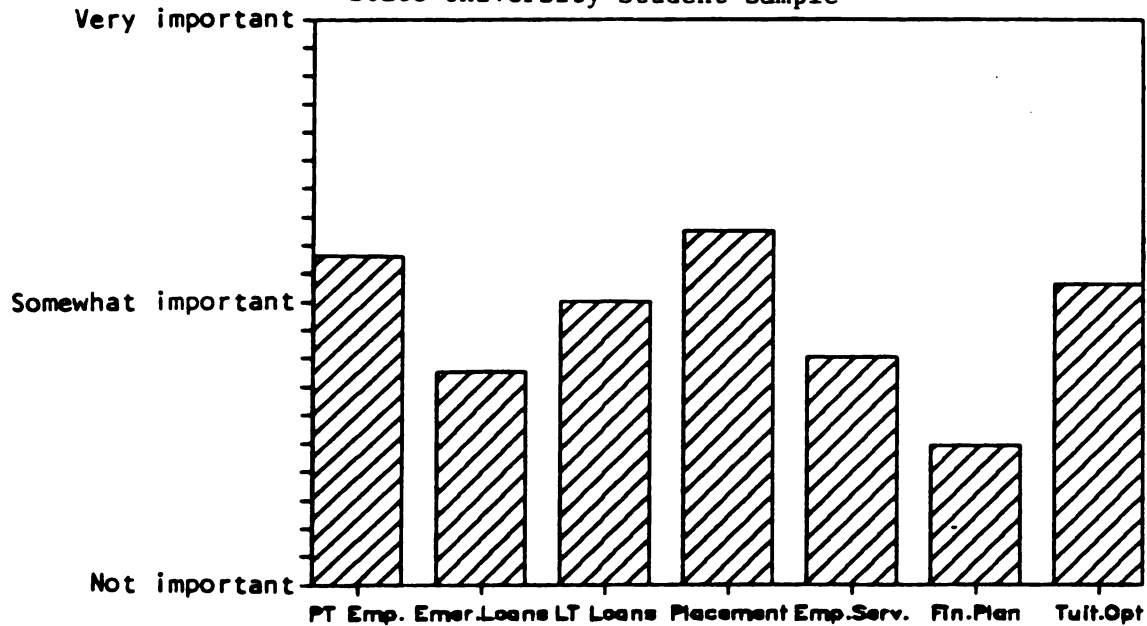


Figure F-4.69d Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, Michigan State University student sample

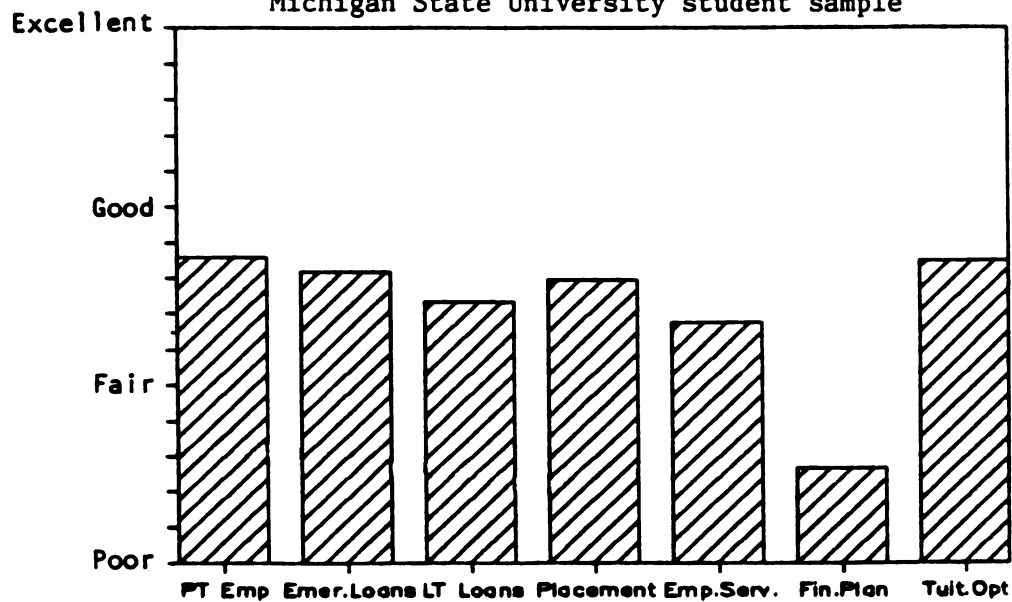


Figure F-4.68e Degree of need for support services and facilities (continued). Mean of all respondents, Michigan State University student sample

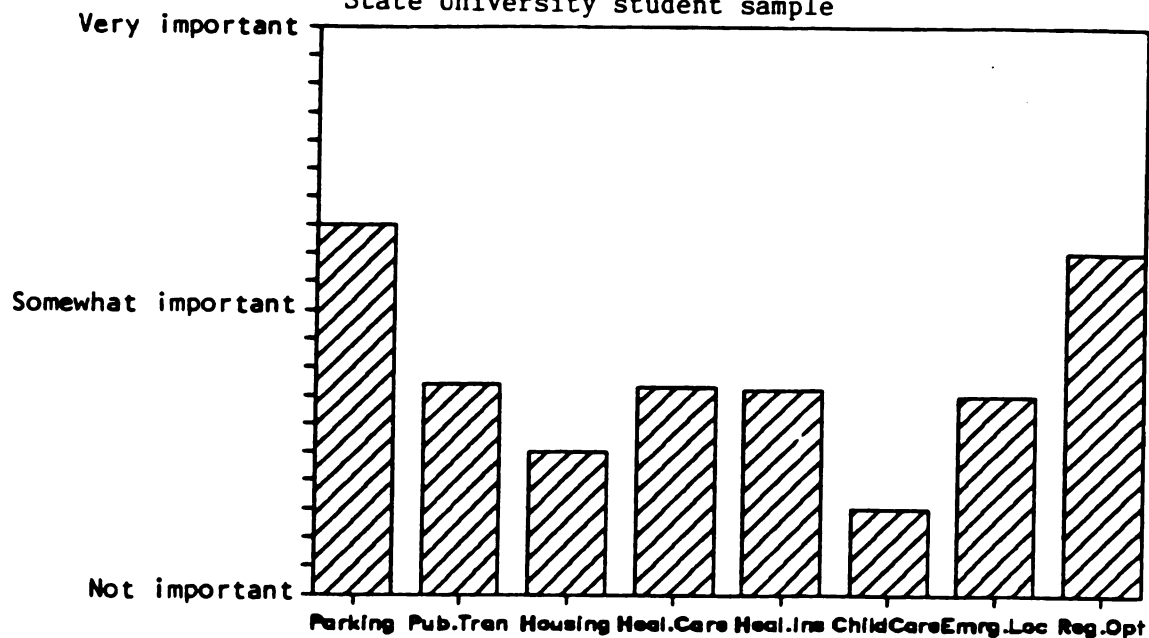


Figure F-4.69e Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, Michigan State University student sample

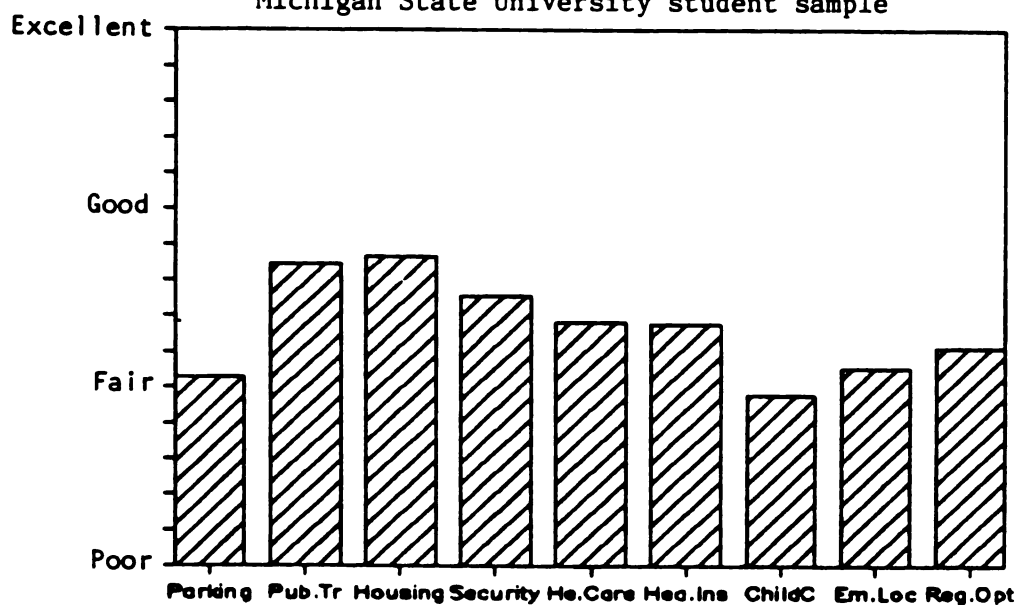


Figure F-4.70a Frequency of use of support services and facilities provided. Mean of respondents who reported having used the service or facility, Michigan State University student sample

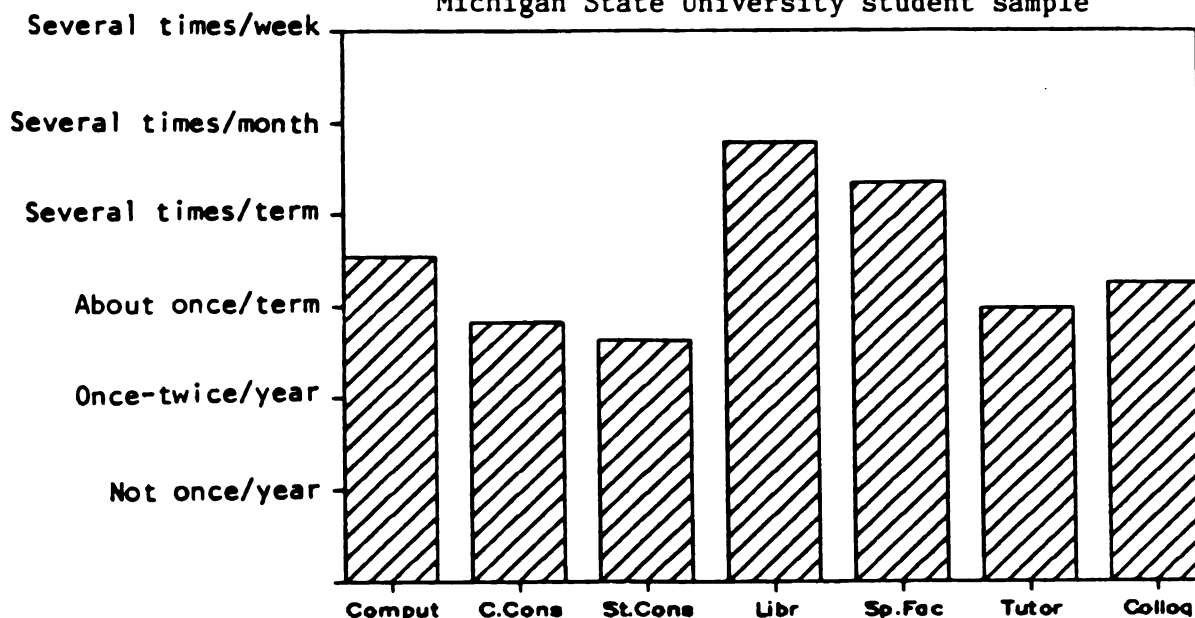


Figure F-4.70b Frequency of use of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, Michigan State University student sample

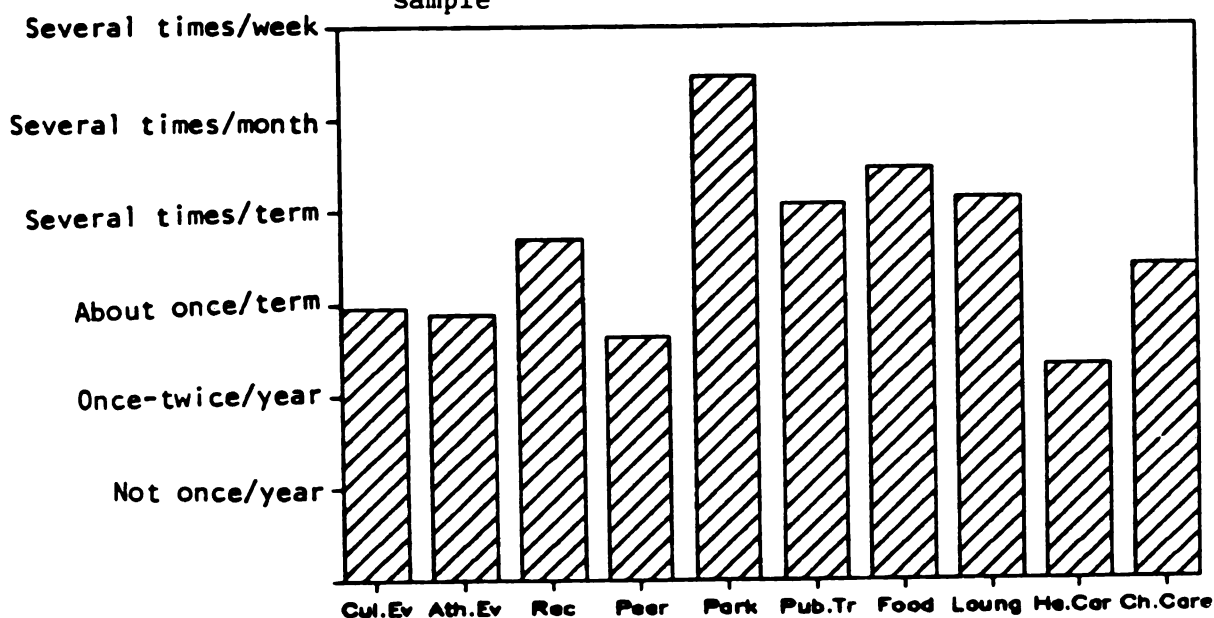


Figure F-4.71 Gender distribution, University of Minnesota student sample

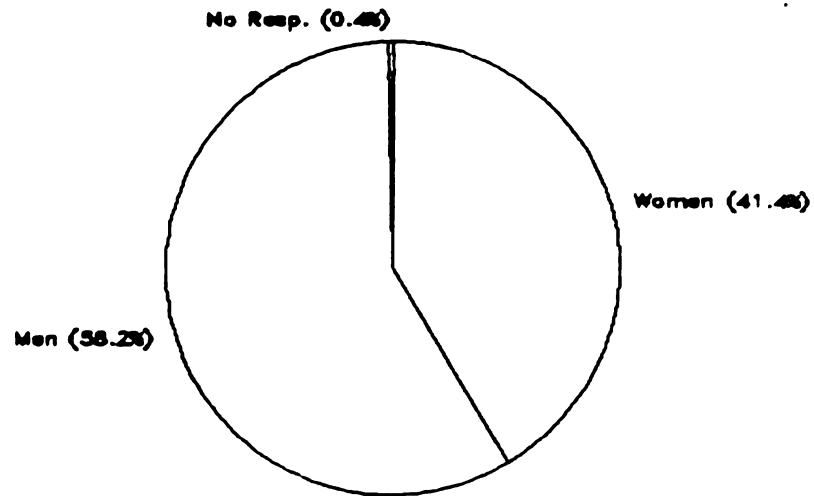


Figure F-4.72 Ethnic distribution, University of Minnesota student sample

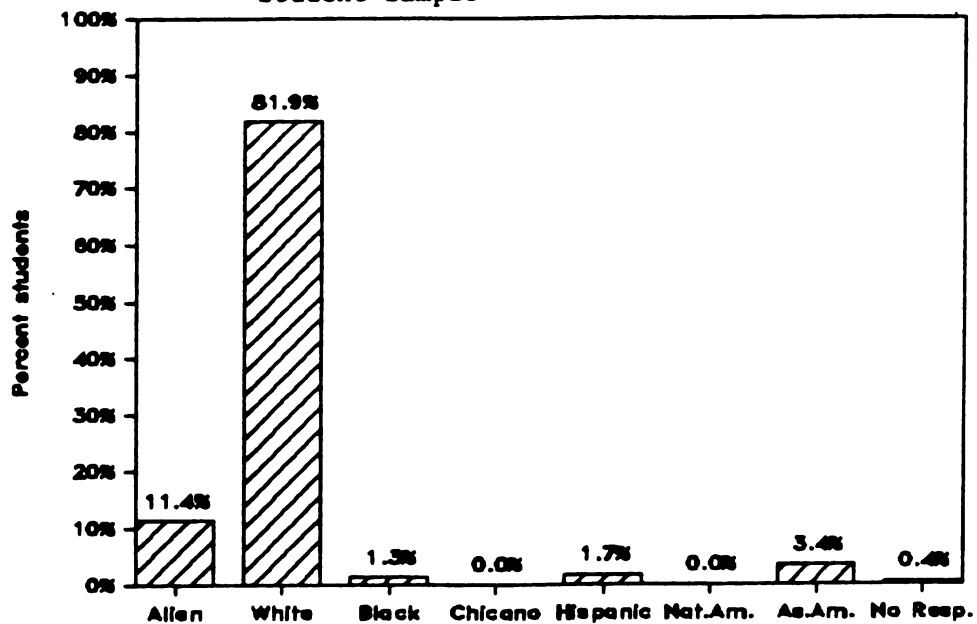


Figure F-4.73 Marital status distribution, University of Minnesota student sample

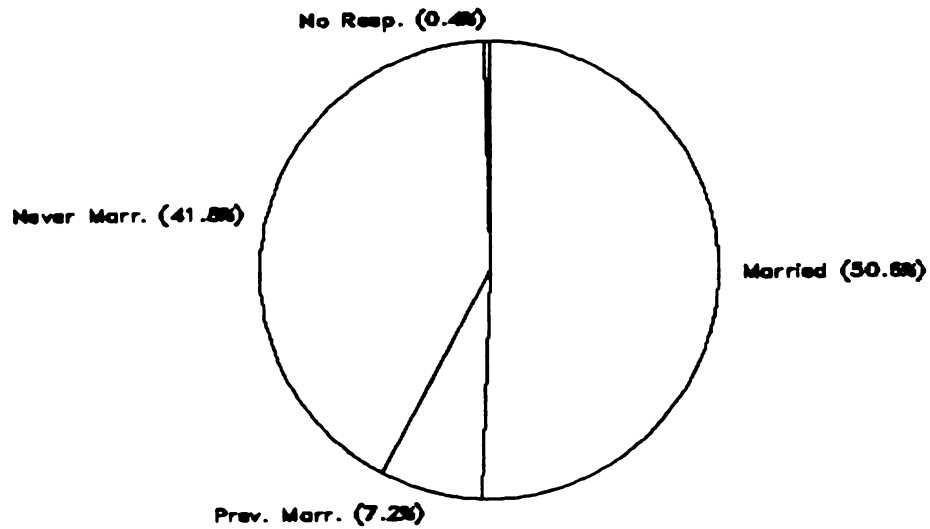


Figure F-4.74 Distribution of number of children, University of Minnesota student sample

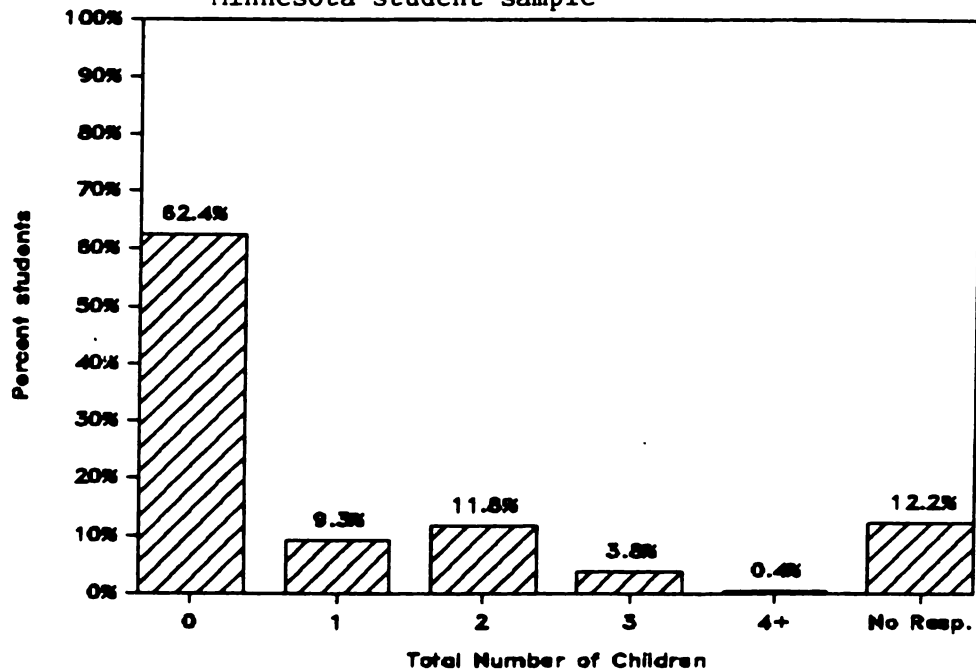


Figure F-4.75 Distribution among types of programs, University of Minnesota student sample

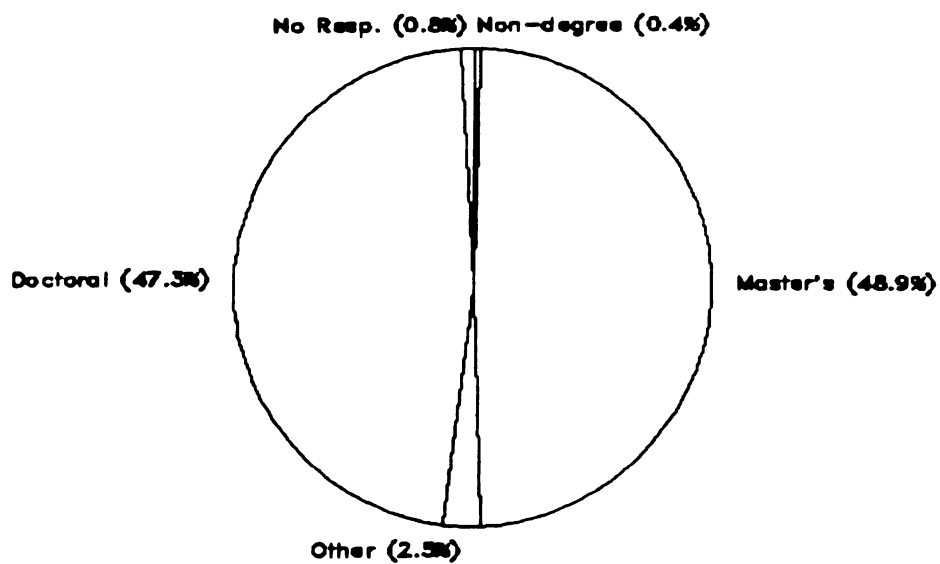


Figure F-4.76 Part-time versus full-time enrollment, University of Minnesota student sample

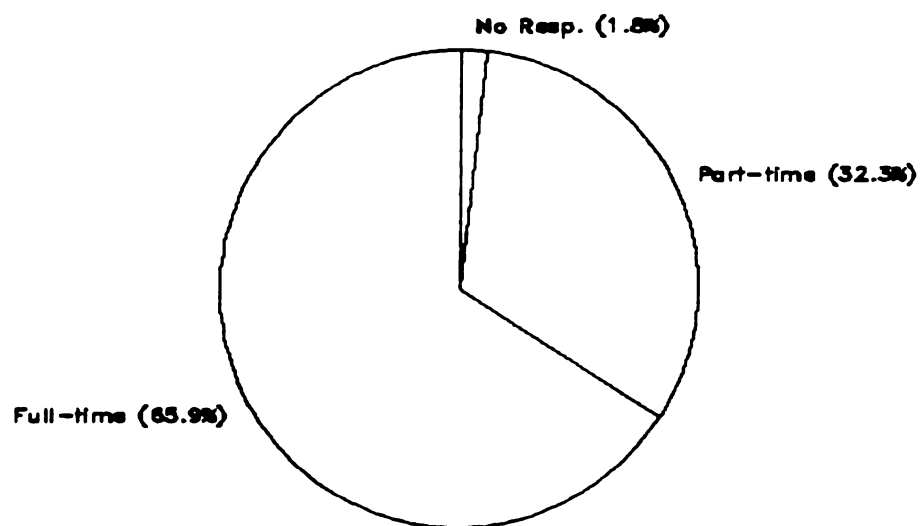


Figure F-4.77 Distribution among majors, University of Minnesota student sample

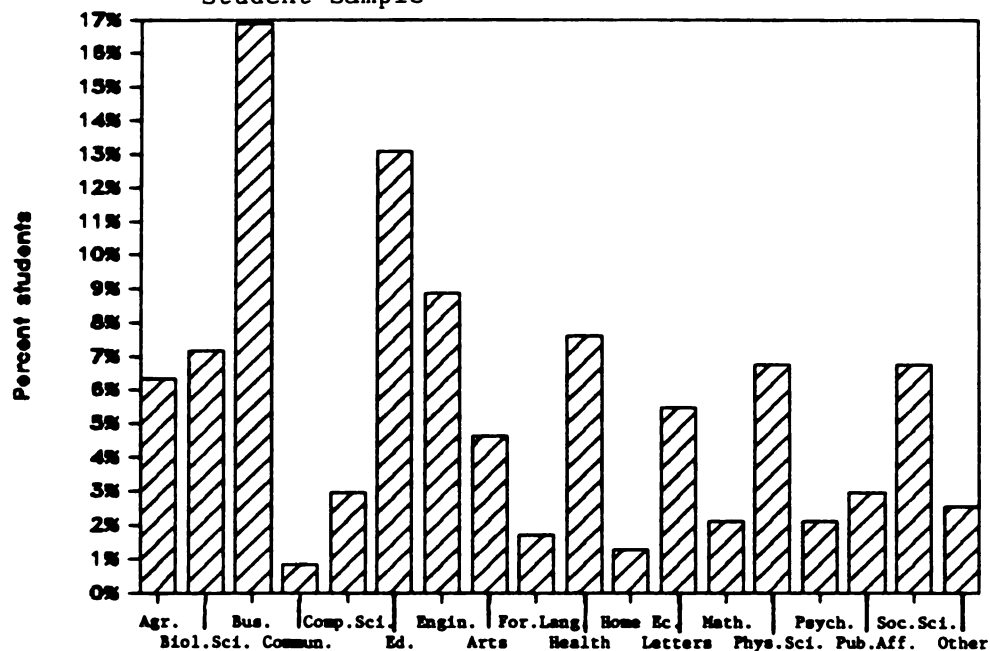


Figure F-4.78 Distribution of number of courses being taken, University of Minnesota student sample

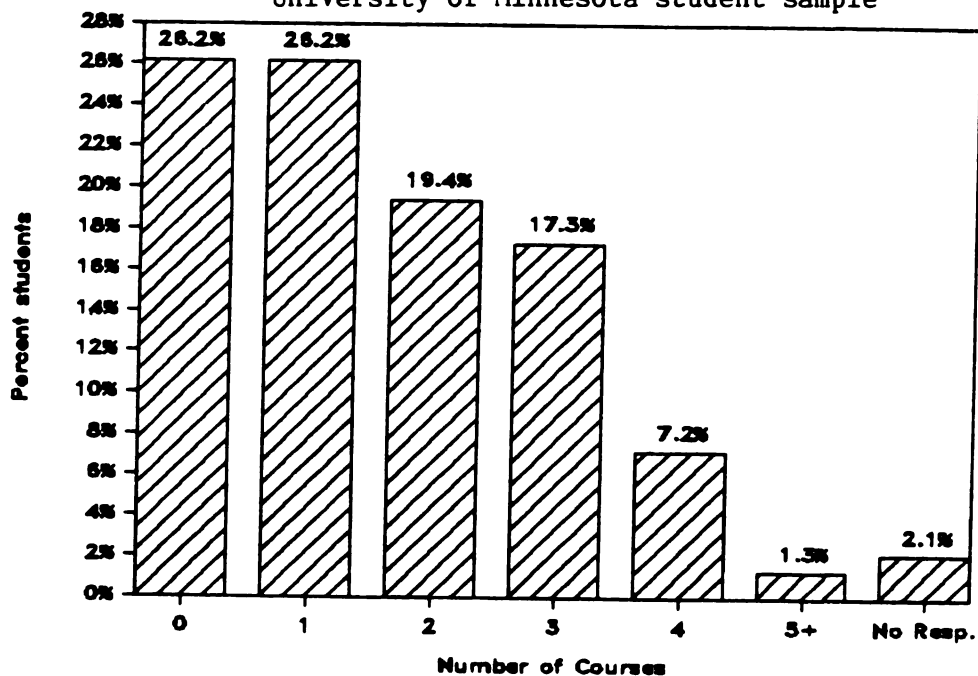


Figure F-4.79 Distribution of years stopped out, University of Minnesota student sample

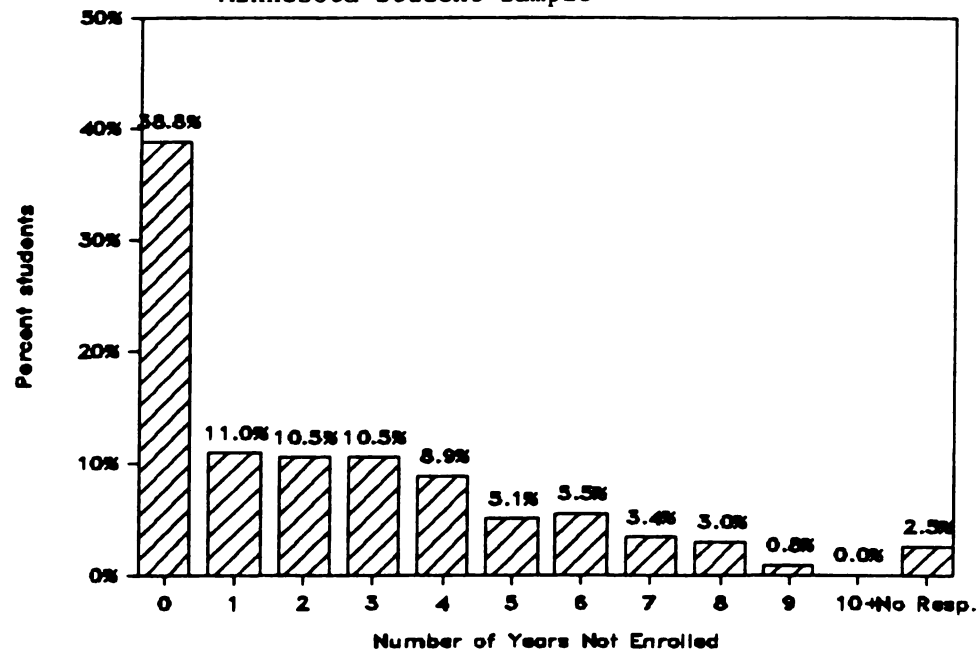
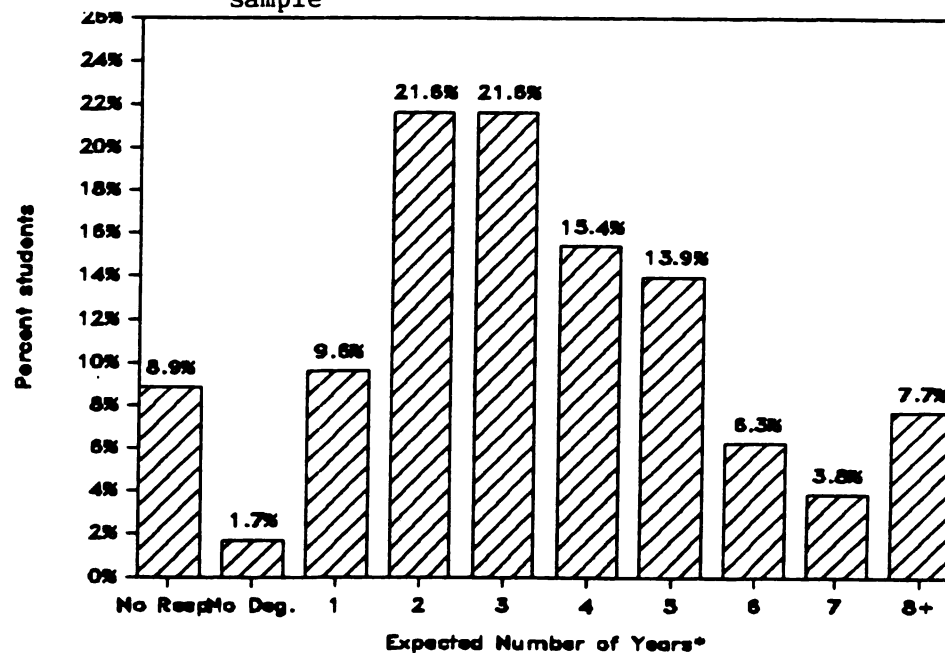


Figure F-4.80 Distribution of number of years expected to complete program, University of Minnesota student sample



*No Response and No Degree Sought percentages are of total respondents.
Year percentages are of those seeking degrees.

Figure F-4.81 Distribution of part-time versus full-time employment, University of Minnesota student sample

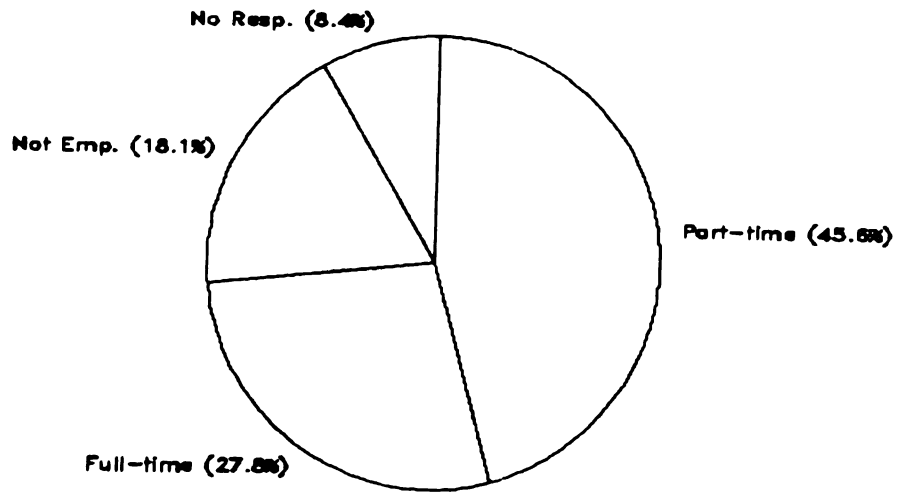


Figure F-4.82 Distribution among current and future employment settings, University of Minnesota student sample

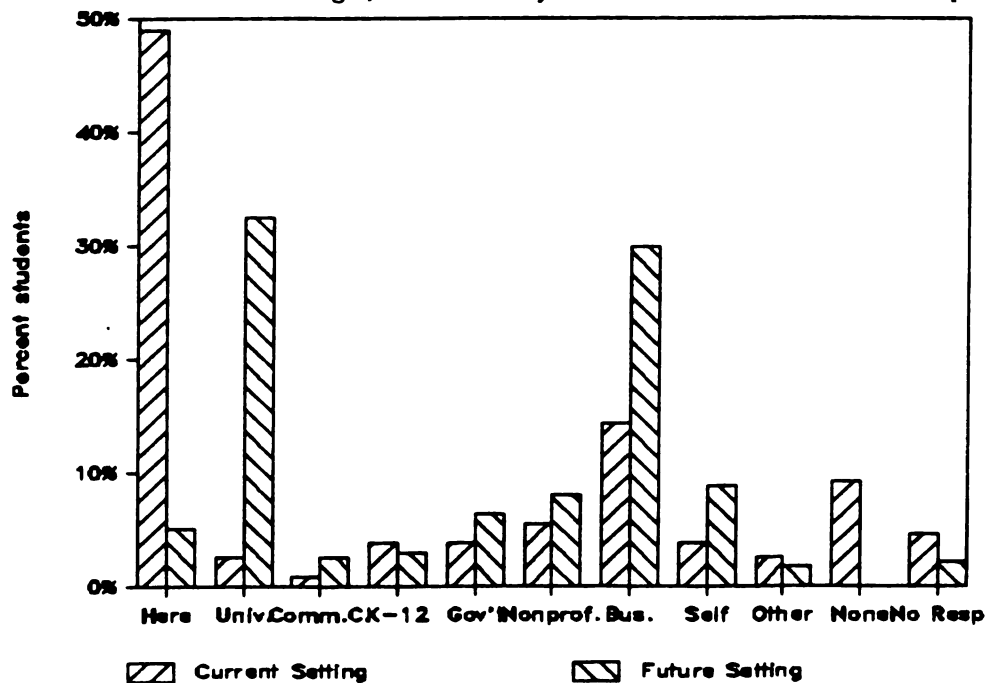


Figure F-4.83 Distribution of sources of financial support,
University of Minnesota student sample

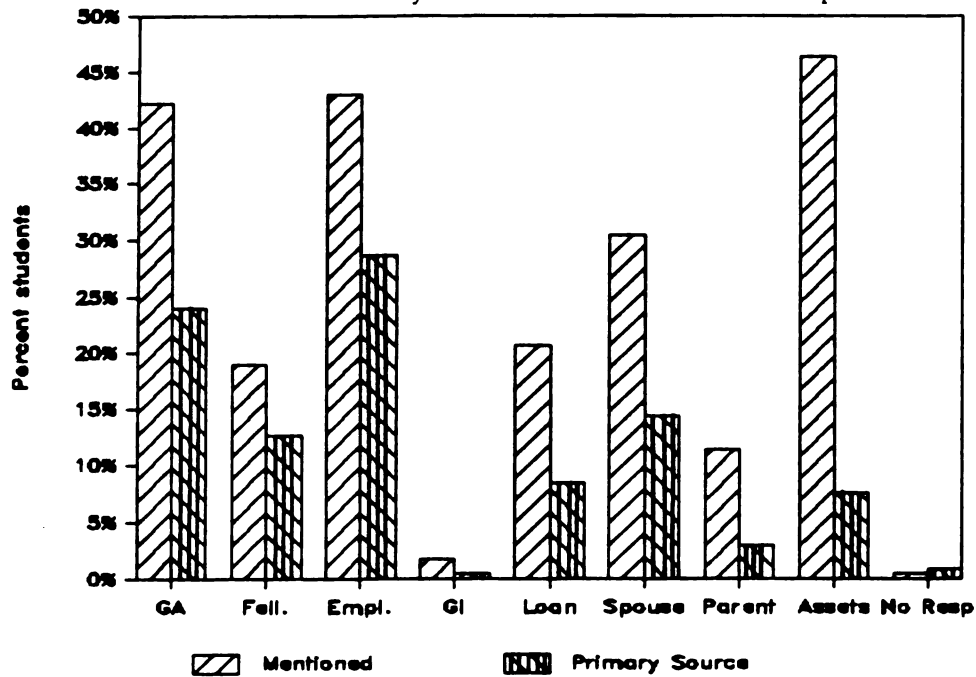


Figure F-4.84 Distribution of years of full-time employment,
University of Minnesota student sample

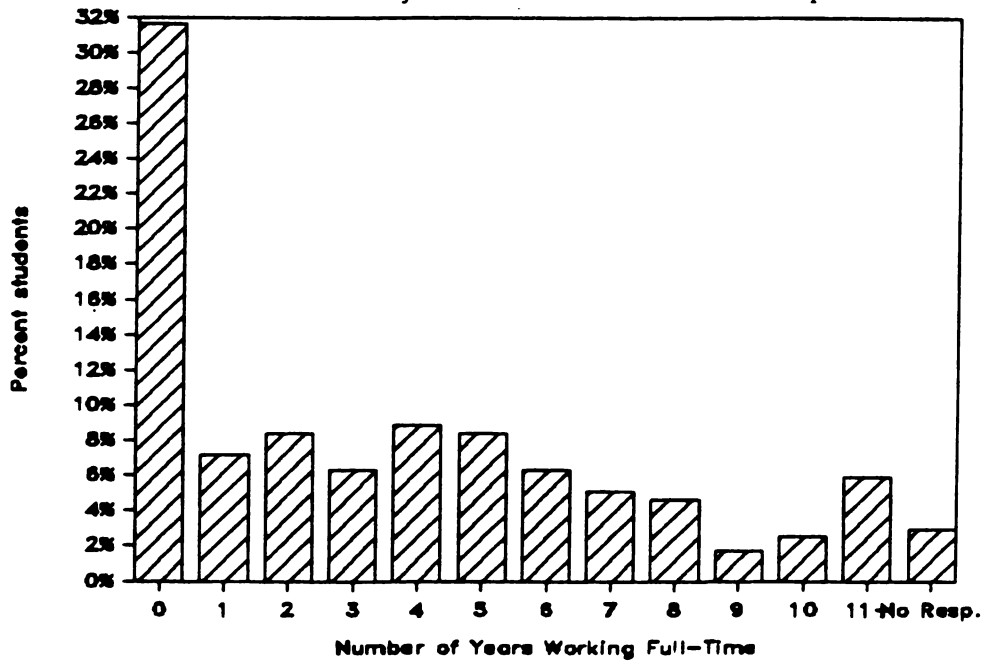


Figure F-4.85 Distribution among preferred future employment activities, University of Minnesota student sample

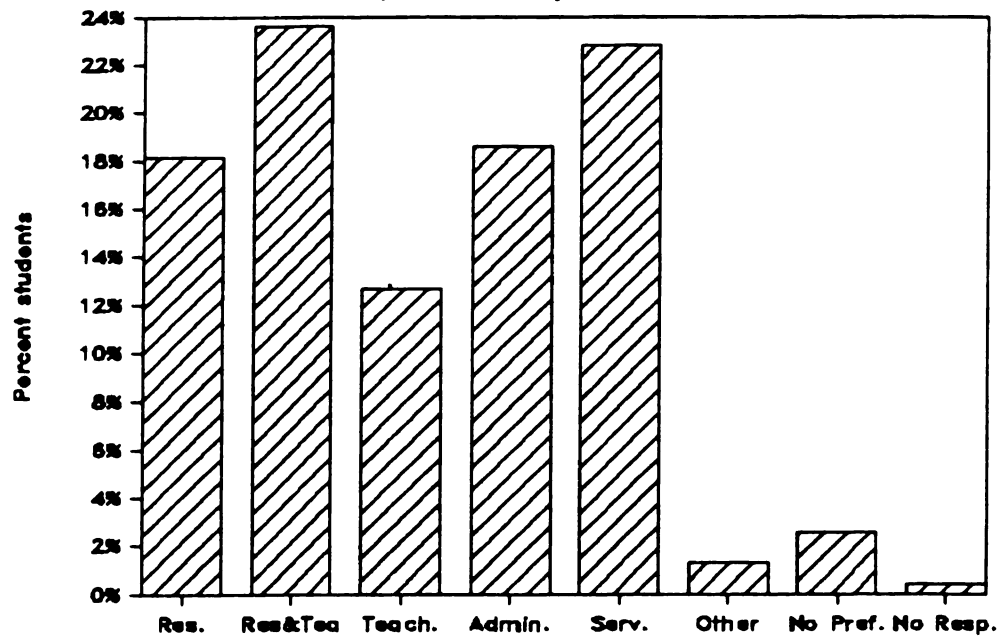


Figure F-4.86 Distribution of reasons mentioned for pursuing graduate study at this time, University of Minnesota student sample

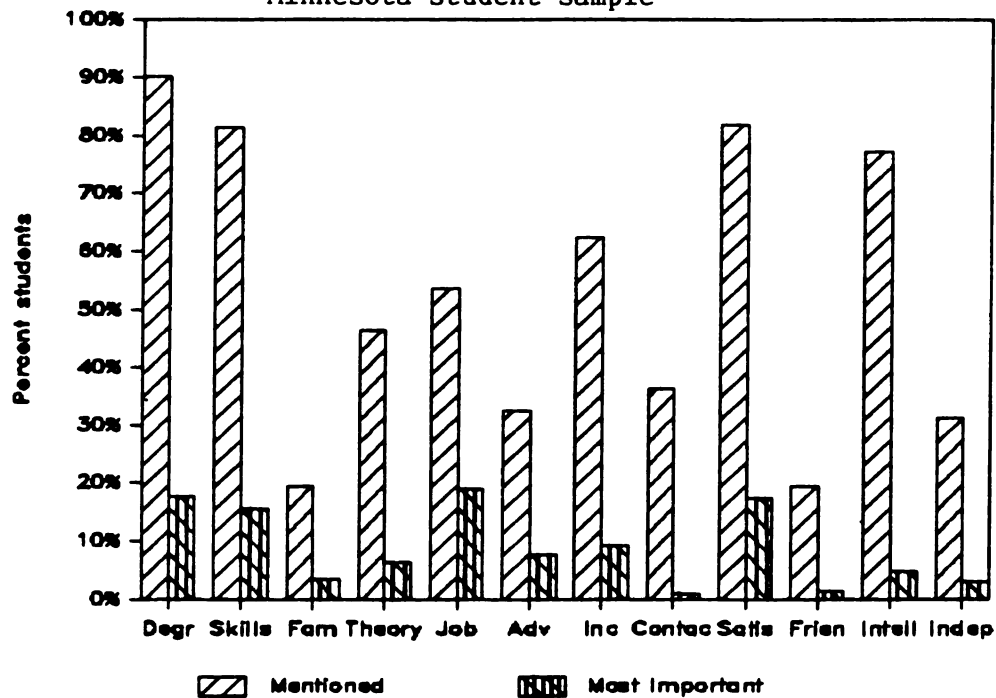


Figure F-4.87 Importance of personal goals and perceived importance to departments. Means of respondents enrolled in degree programs, University of Minnesota student sample

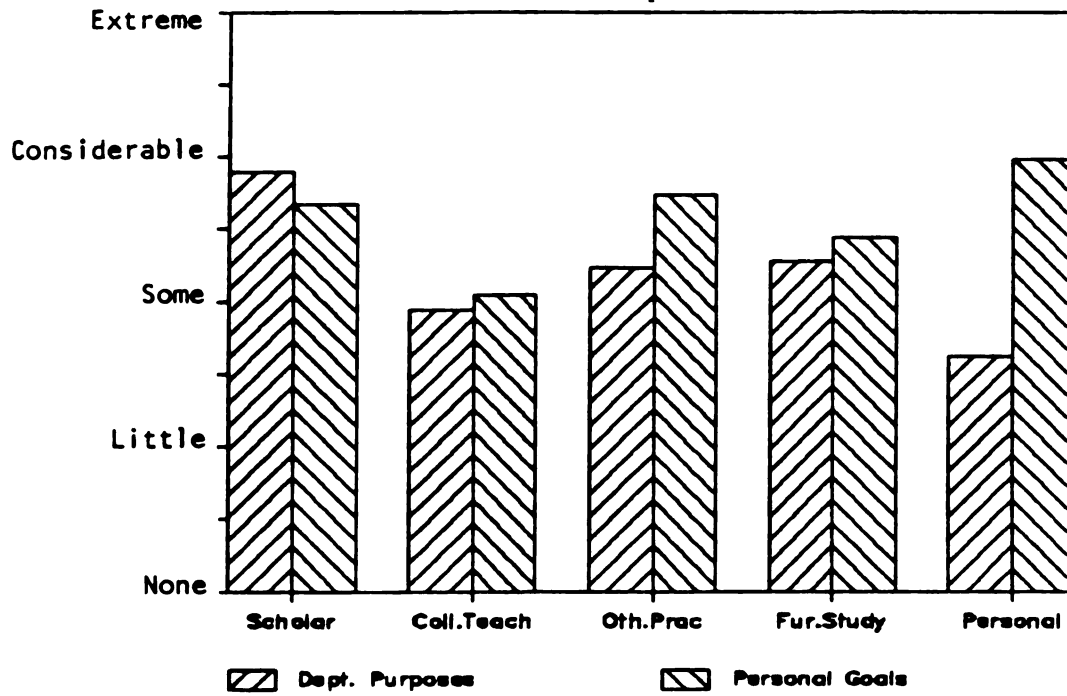


Figure F-4.88a Distribution of personal problems mentioned,
University of Minnesota student sample

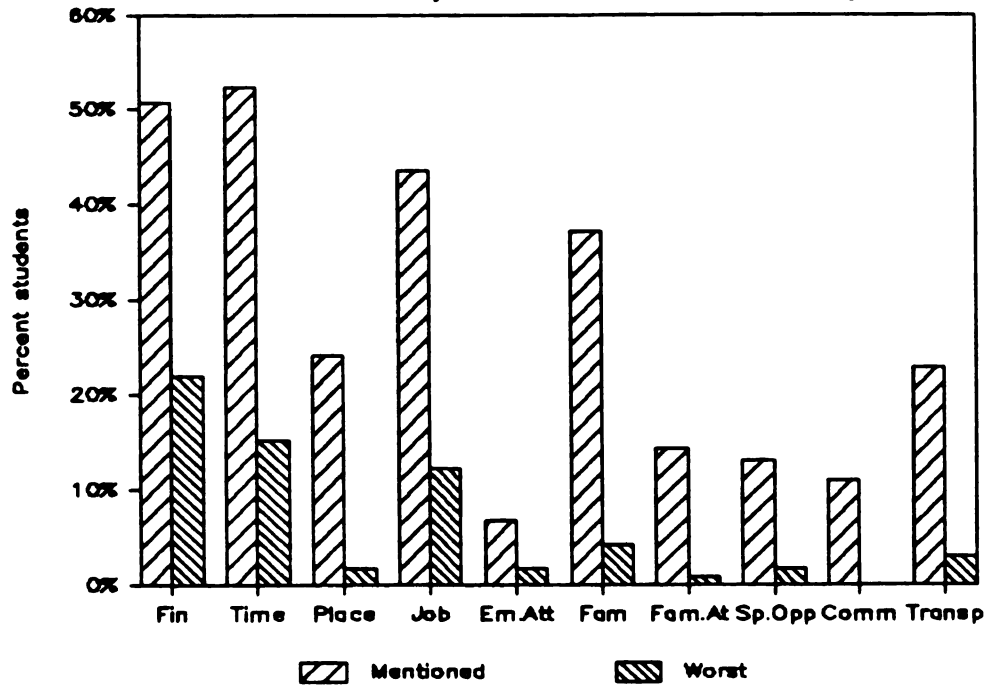


Figure F-4.88b Distribution of personal problems mentioned
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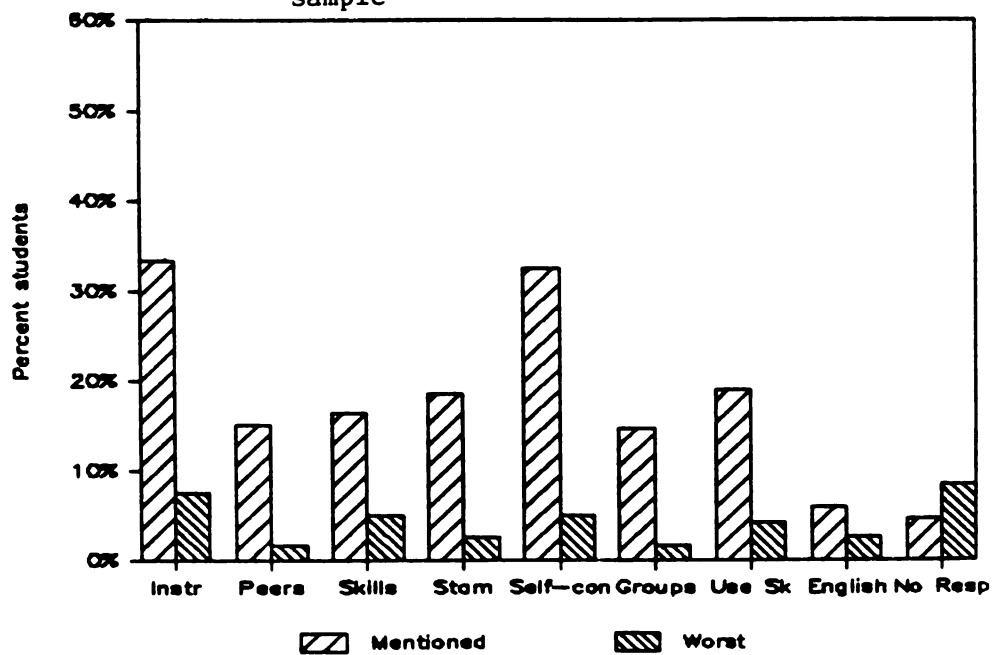


Figure F-4.89a Distribution of institutional barriers mentioned,
University of Minnesota student sample

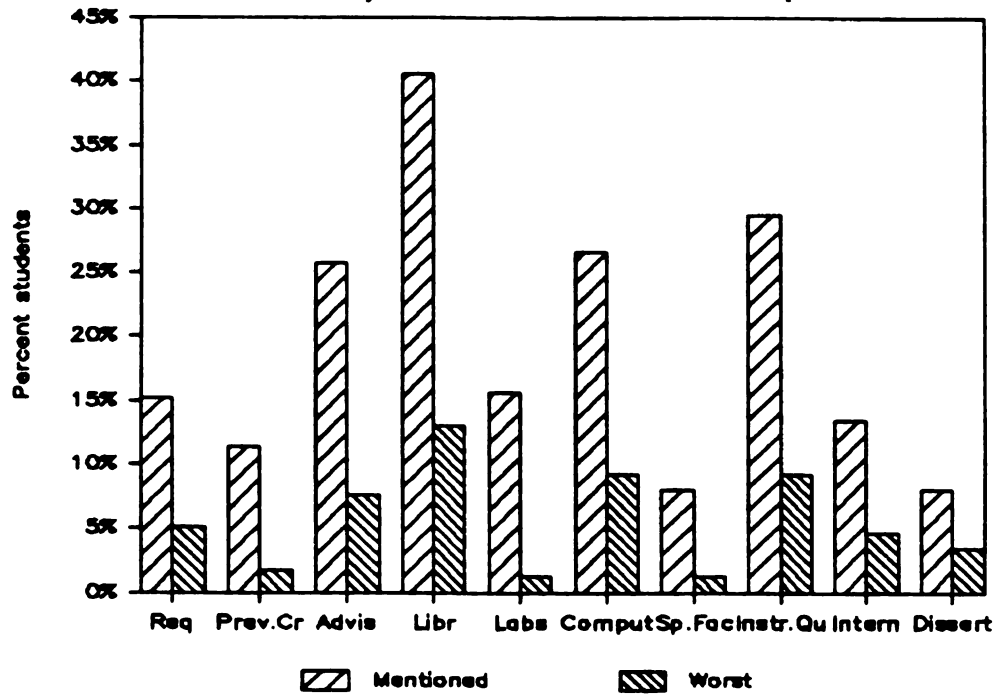


Figure F-4.89b Distribution of institutional barriers mentioned
(continued), University of Minnesota student
sample

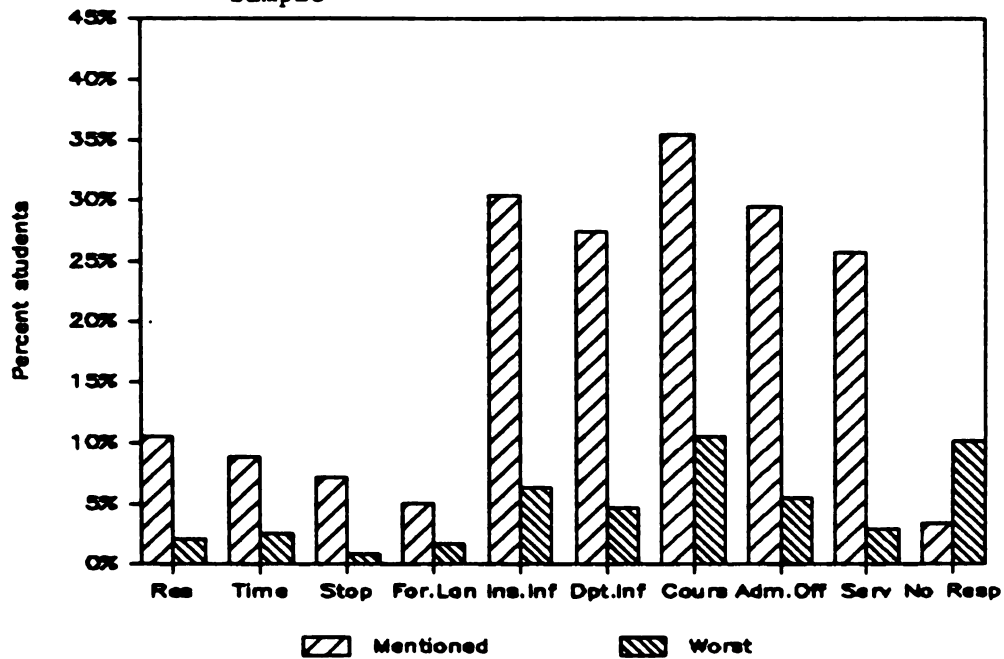


Figure F-4.90 Scores on program evaluation scales. Means of respondents enrolled in degree programs, University of Minnesota student sample

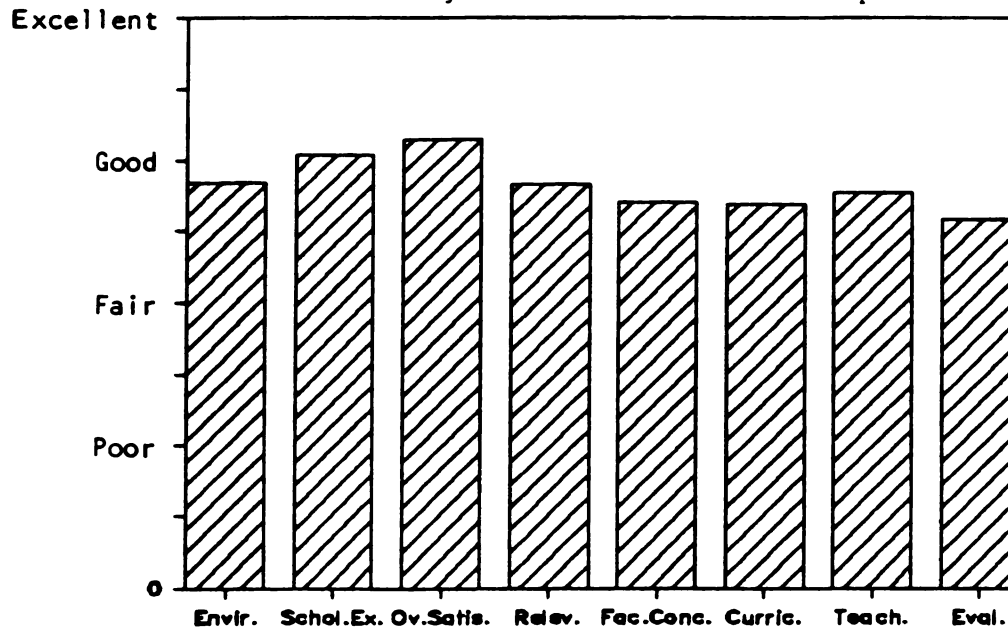


Figure F-4.91a Distribution of professional activities of respondents enrolled in degree programs, University of Minnesota student sample

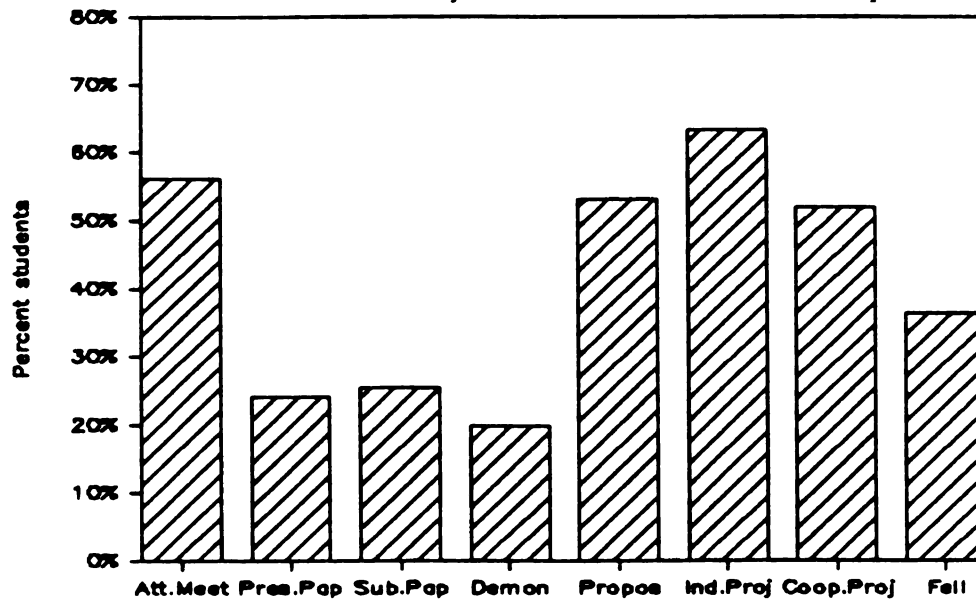


Figure F-4.91b Distribution of professional activities of respondents enrolled in degree programs (continued), University of Minnesota student sample

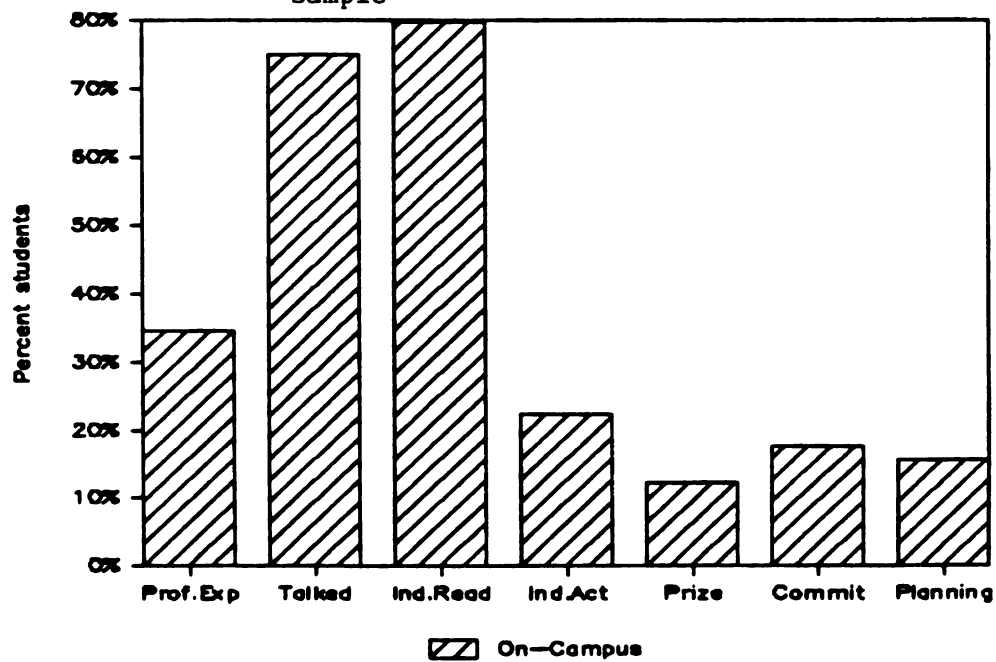


Figure F-4.92a Degree of need for support services and facilities. Mean of all respondents, University of Minnesota student sample

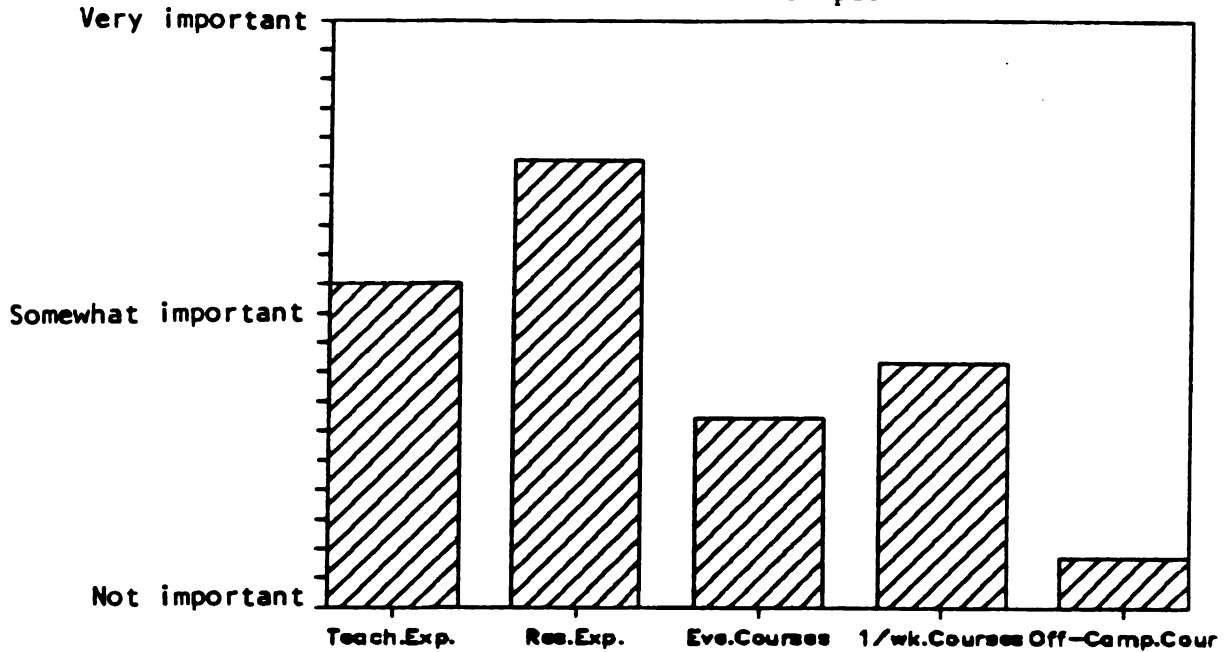


Figure F-4.93a Quality of support services and facilities provided. Mean of respondents who reported having used the service or facility, University of Minnesota student sample

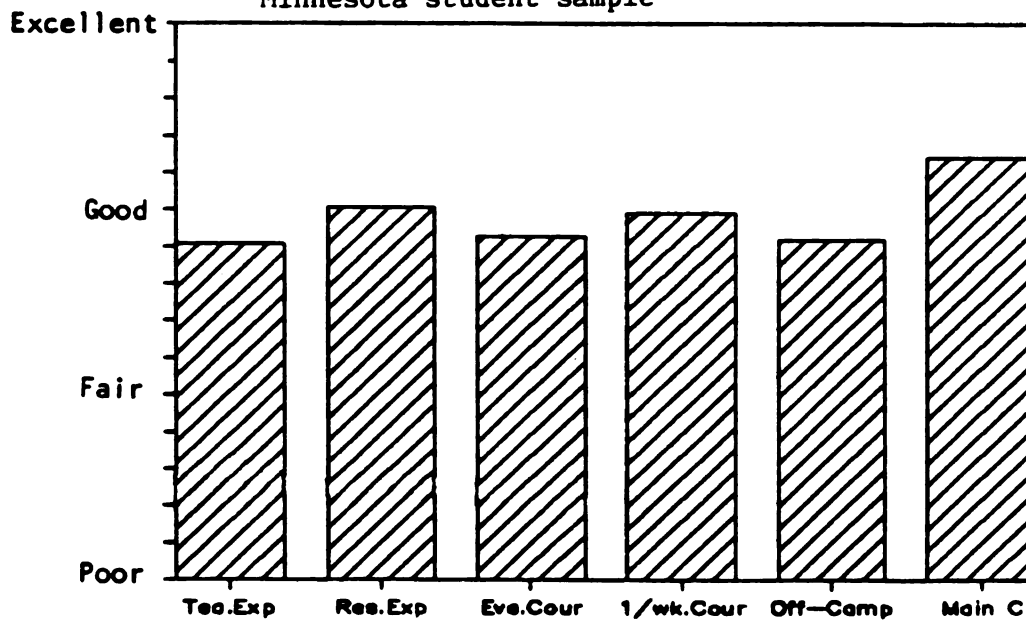


Figure F-4.92b Degree of need for support services and facilities (continued). Mean of all respondents, University of Minnesota student sample

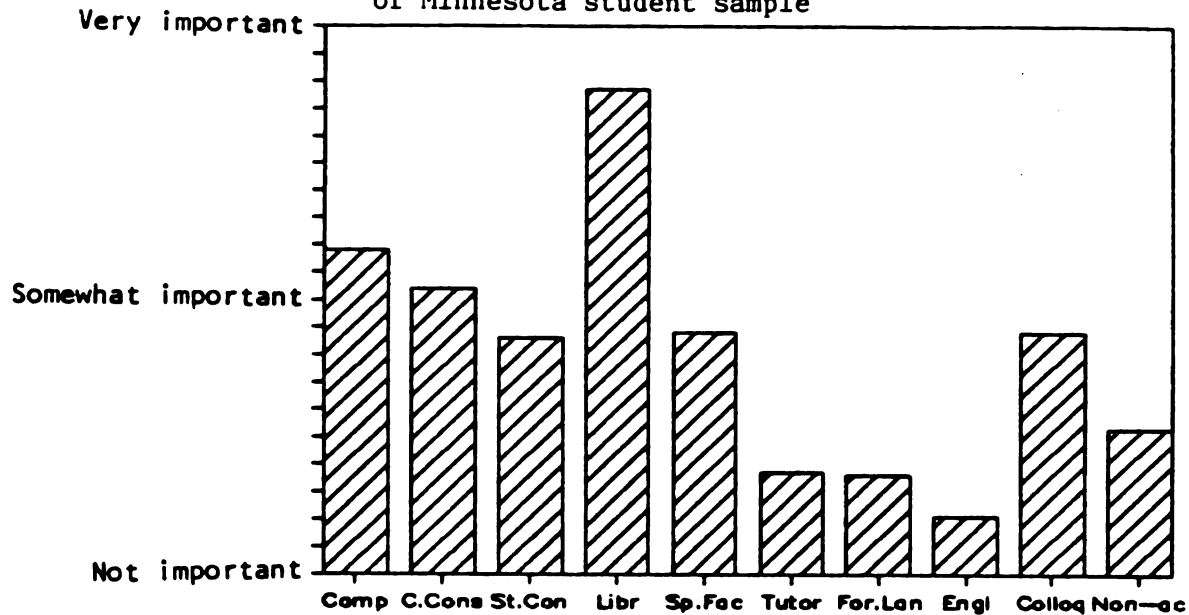


Figure F-4.93b Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, University of Minnesota student sample

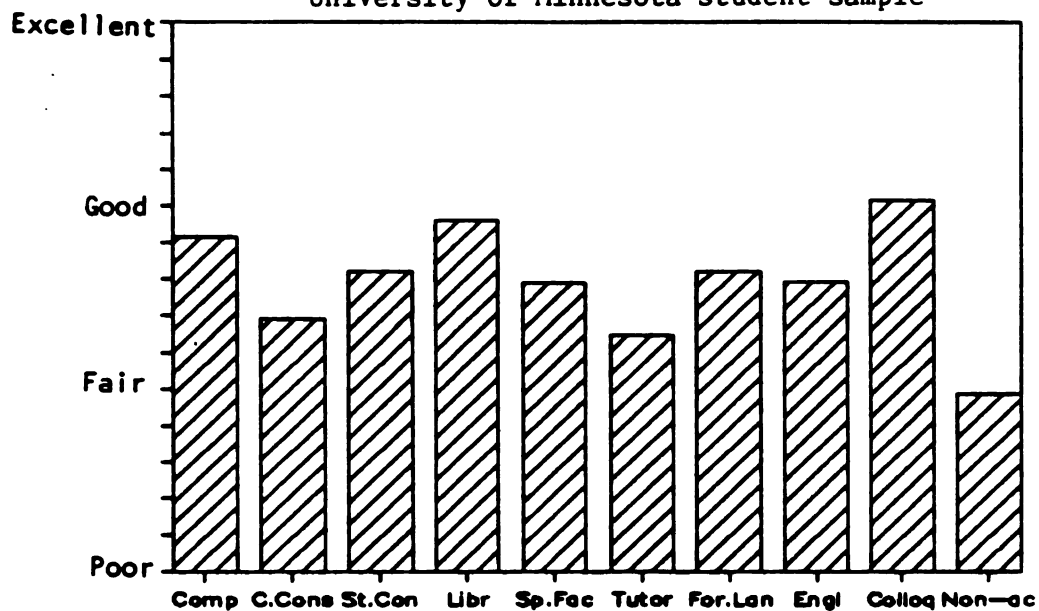


Figure F-4.92c Degree of need for support services and facilities (continued). Mean of all respondents, University of Minnesota student sample

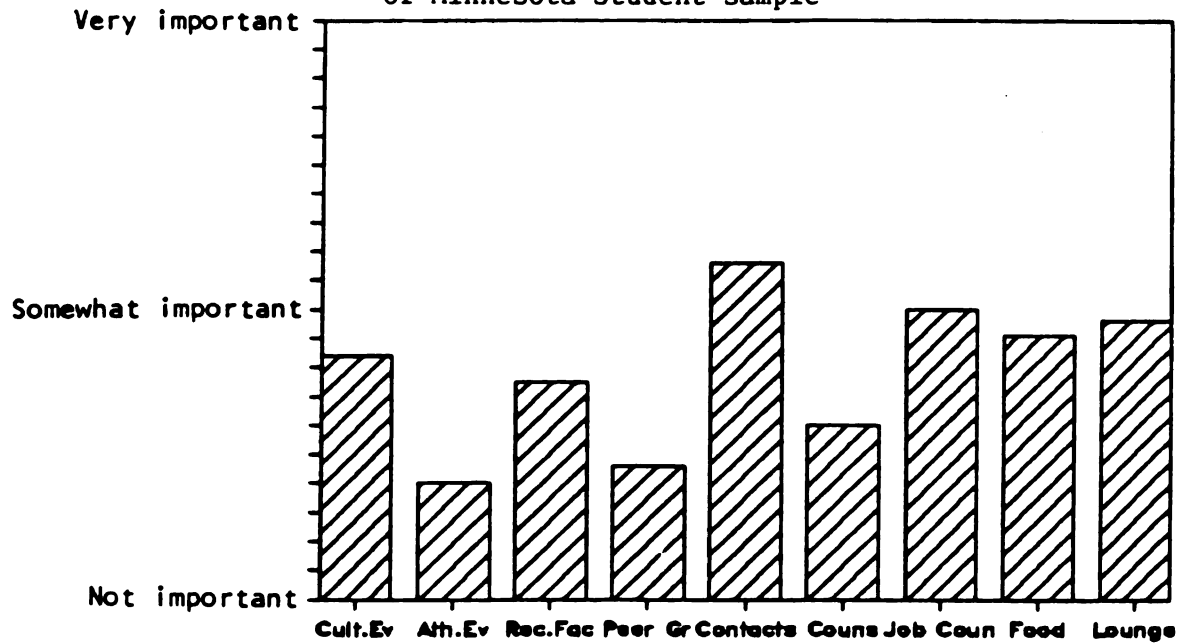


Figure F-4.93c Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, University of Minnesota student sample



Figure F-4.92d Degree of need for support services and facilities (continued). Mean of all respondents, University of Minnesota student sample

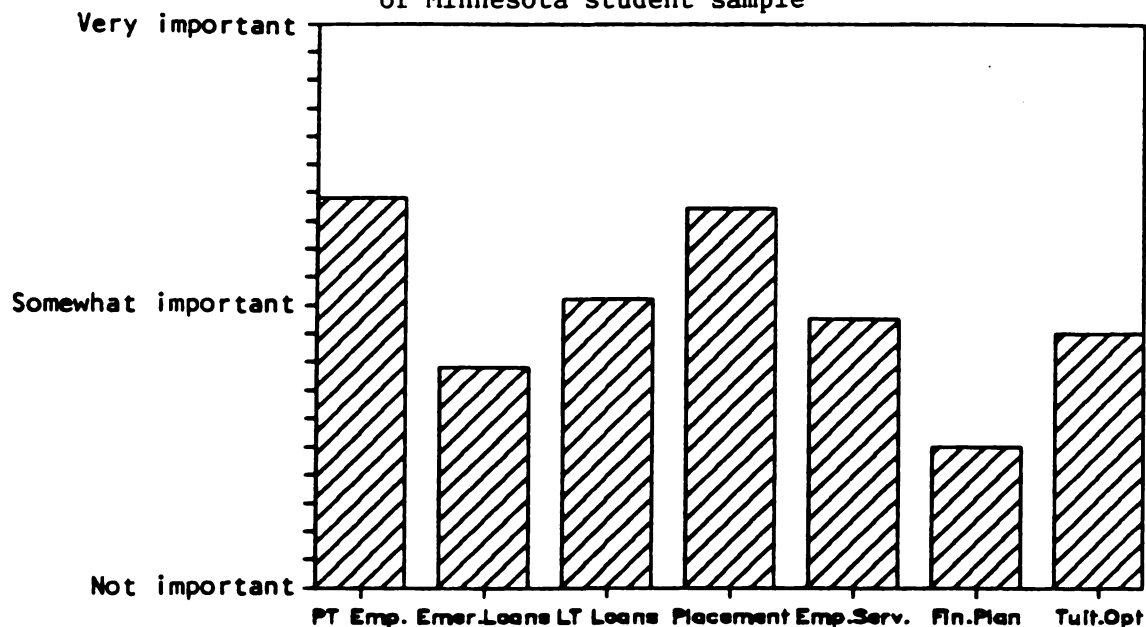


Figure F-4.93d Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, University of Minnesota student sample

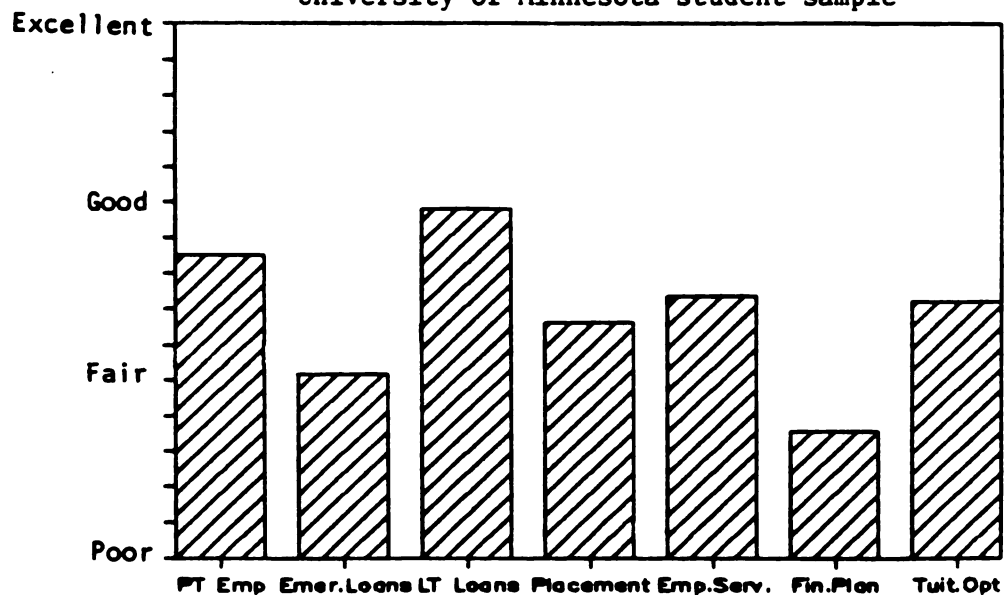


Figure F-4.92e Degree of need for support services and facilities (continued). Mean of all respondents, University of Minnesota student sample

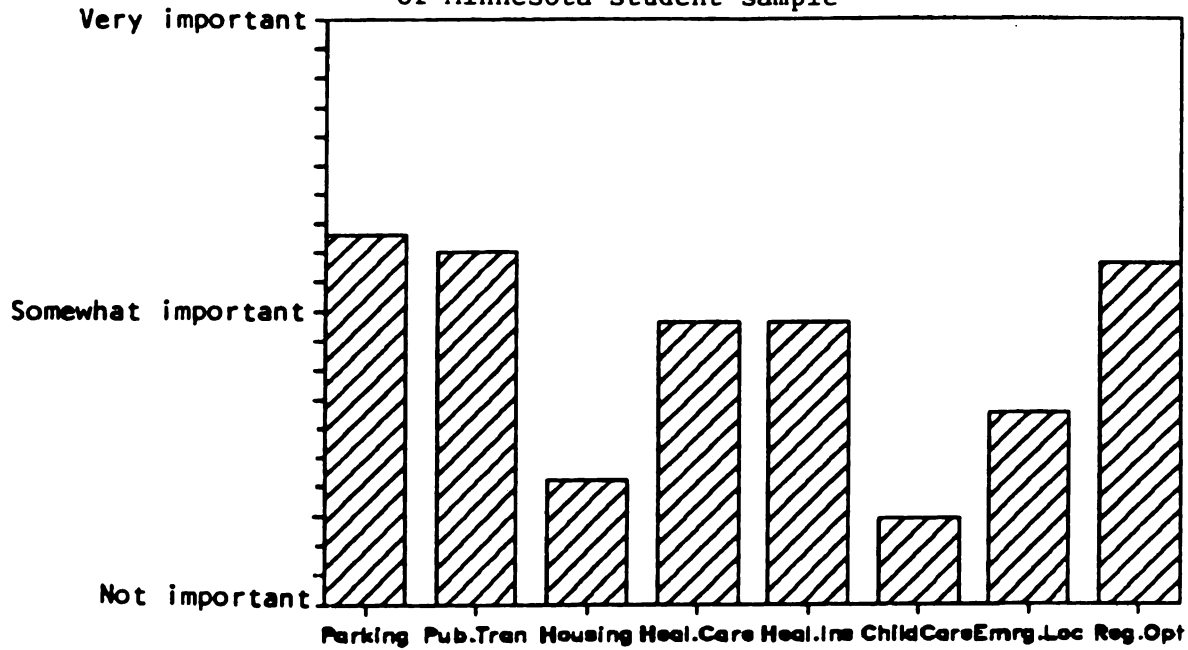


Figure F-4.93e Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, University of Minnesota student sample

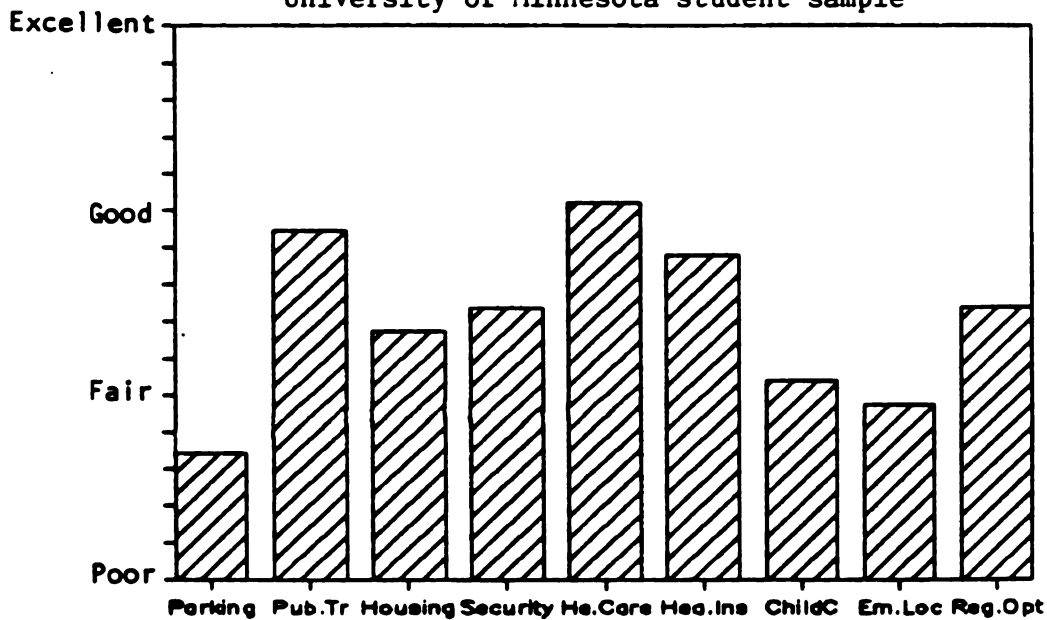


Figure F-4.94a Frequency of use of support services and facilities provided. Mean of respondents who reported having used the service or facility, University of Minnesota student sample

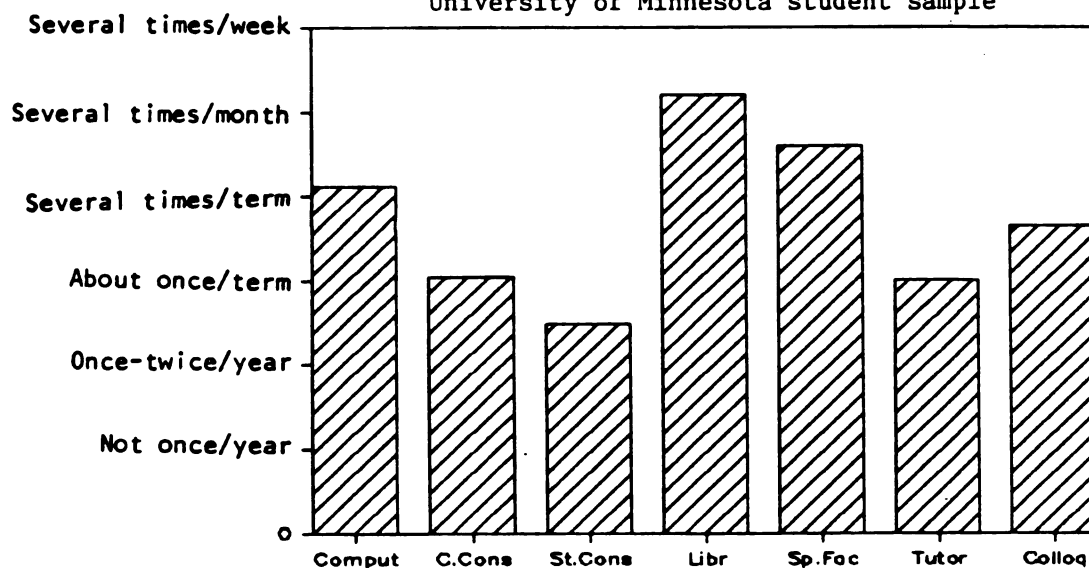


Figure F-4.94b Frequency of use of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, University of Minnesota student sample

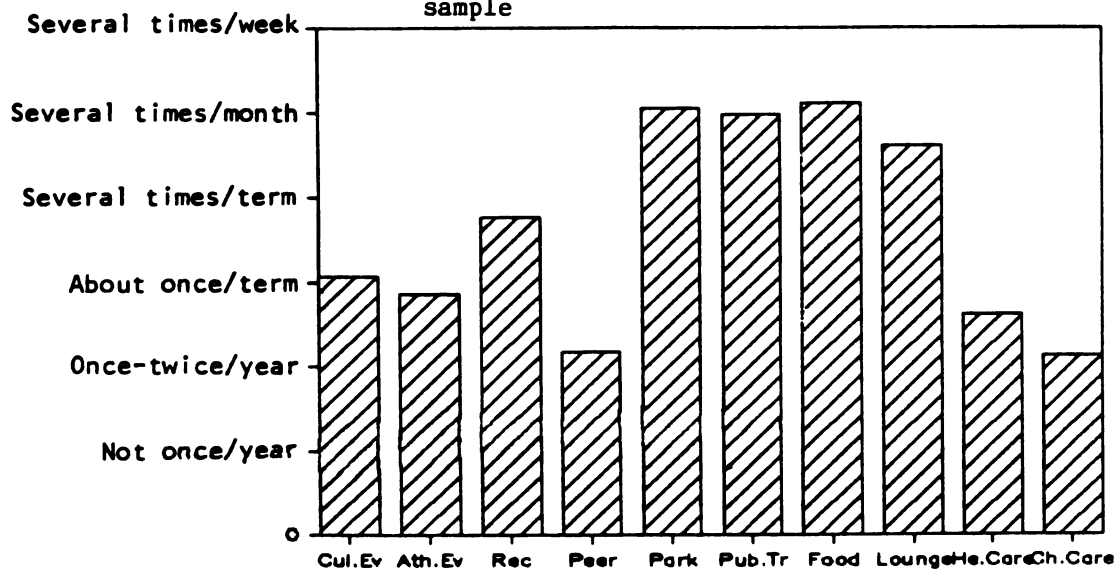


Figure F-4.95 Gender distribution, University of Tennessee at Knoxville student sample

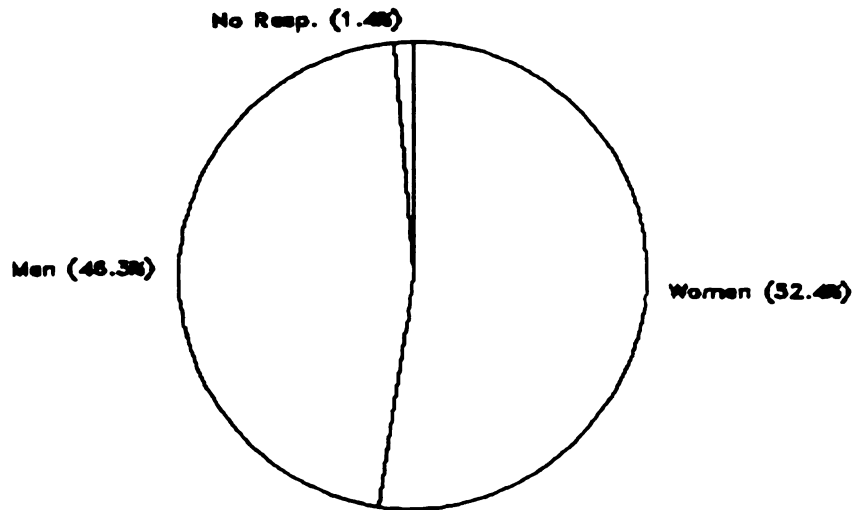


Figure F-4.96 Ethnic distribution, University of Tennessee at Knoxville student sample

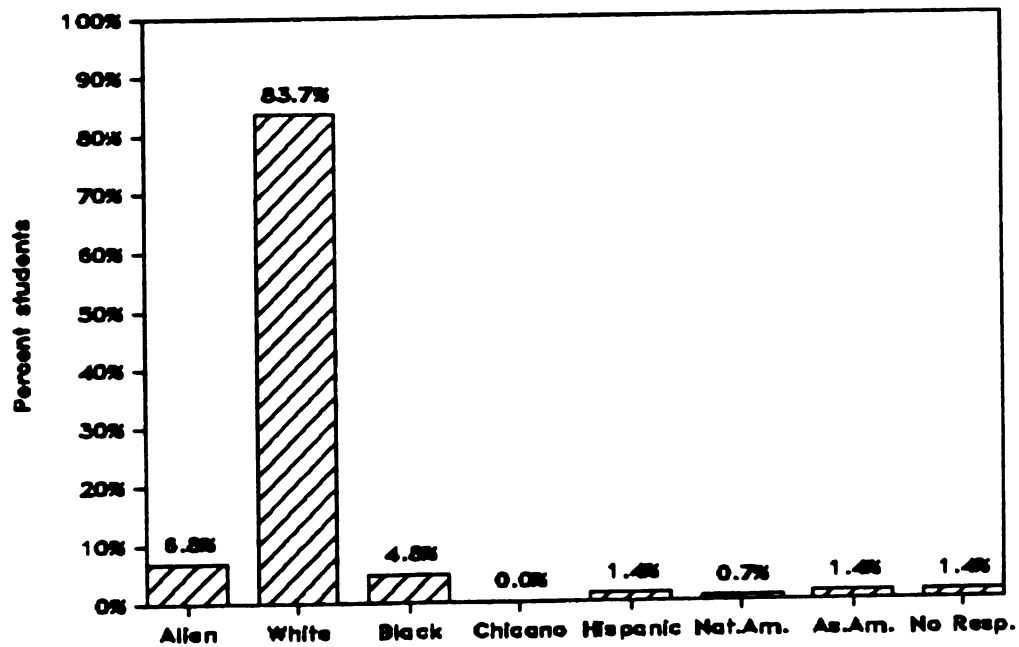


Figure F-4.97 Marital status distribution, University of Tennessee at Knoxville student sample

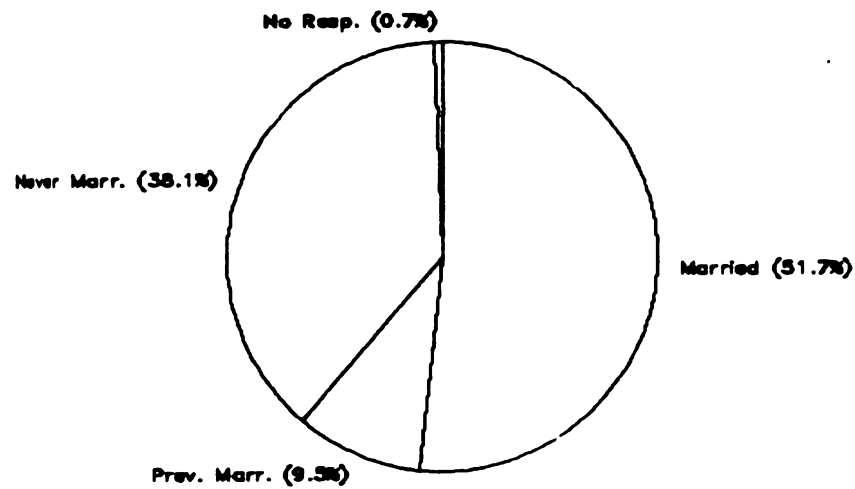


Figure F-4.98 Distribution of number of children, University of Tennessee at Knoxville student sample

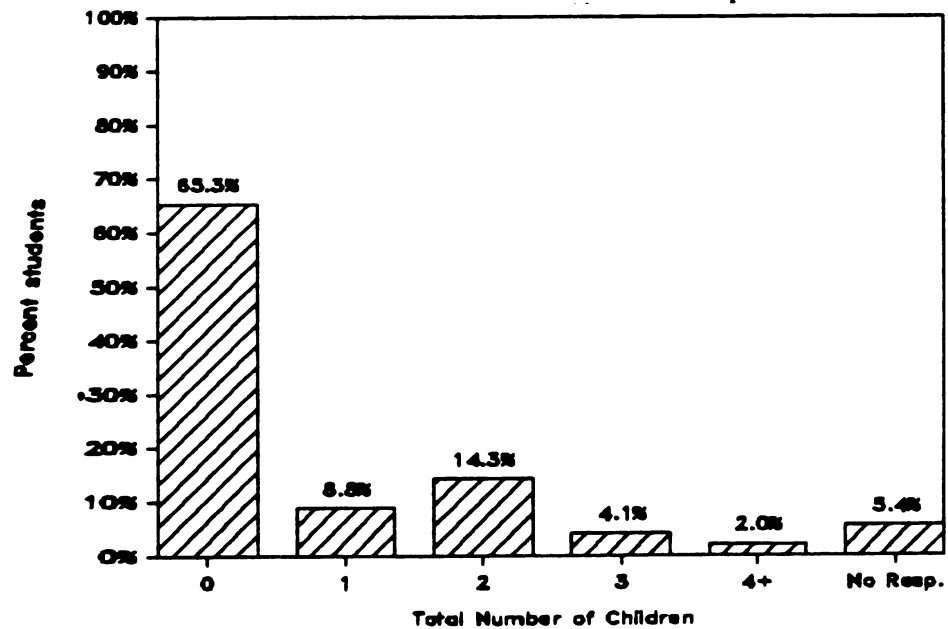


Figure F-4.99 Distribution among types of programs, University of Tennessee at Knoxville student sample

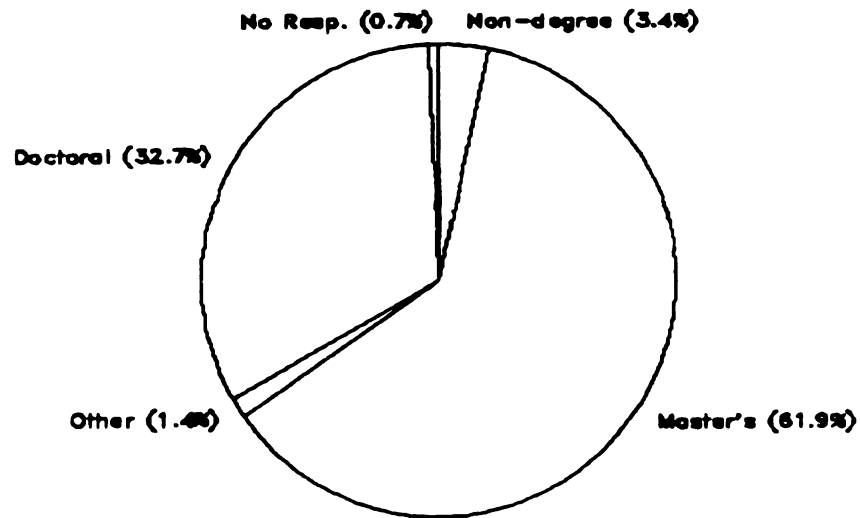


Figure F-4.100 Distribution among majors, University of Tennessee at Knoxville student sample

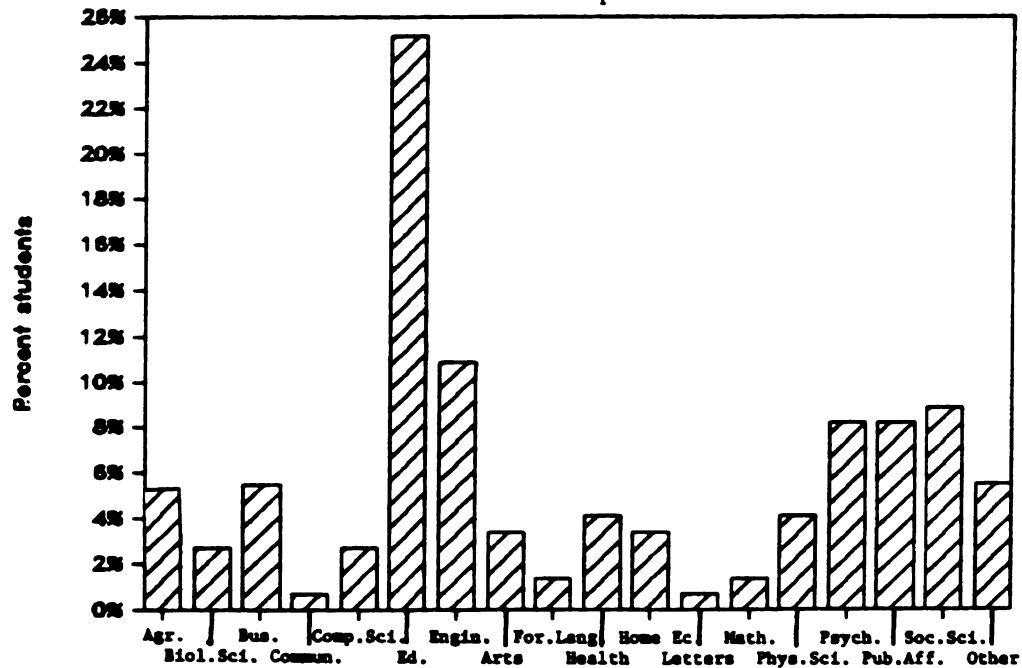


Figure F-4.101 Part-time versus full-time enrollment, University of Tennessee at Knoxville student sample

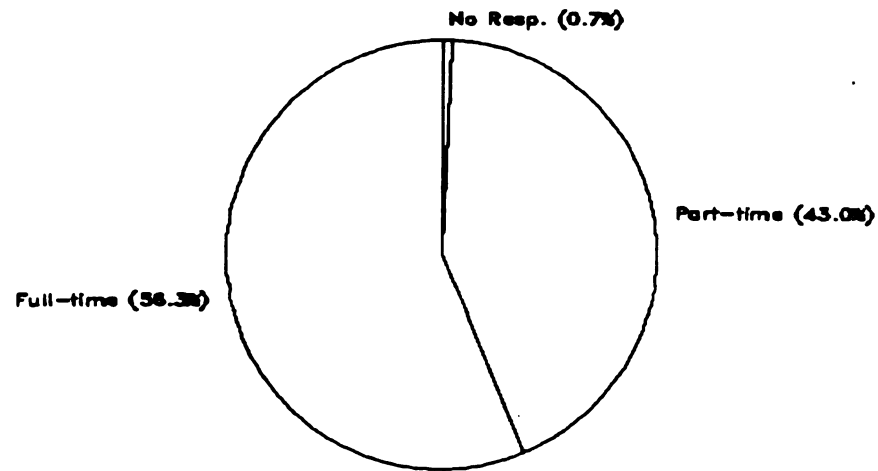


Figure F-4.102 Distribution of number of courses being taken, University of Tennessee at Knoxville student sample

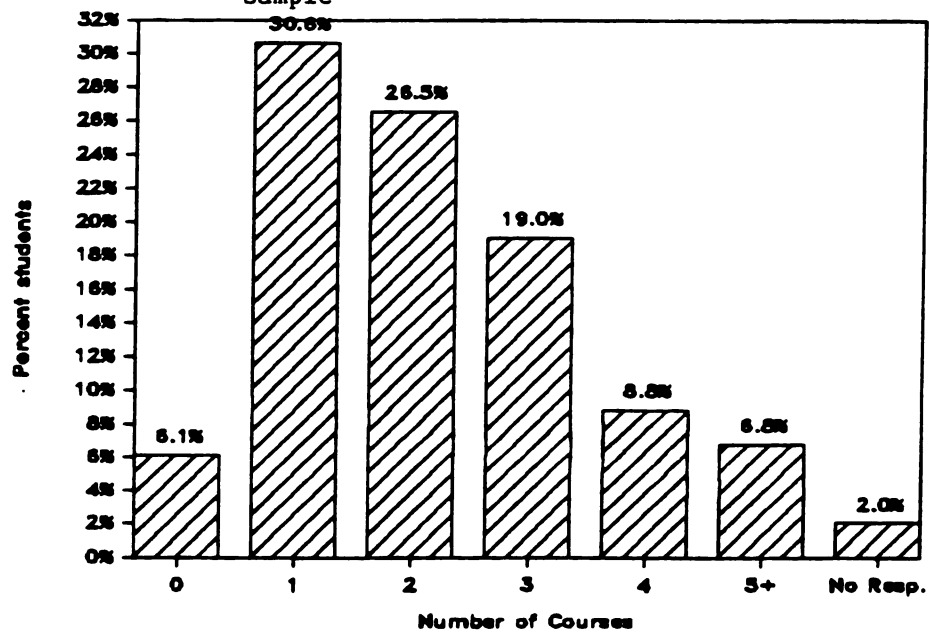


Figure F-4.103 Distribution of years stopped out, University of Tennessee at Knoxville student sample

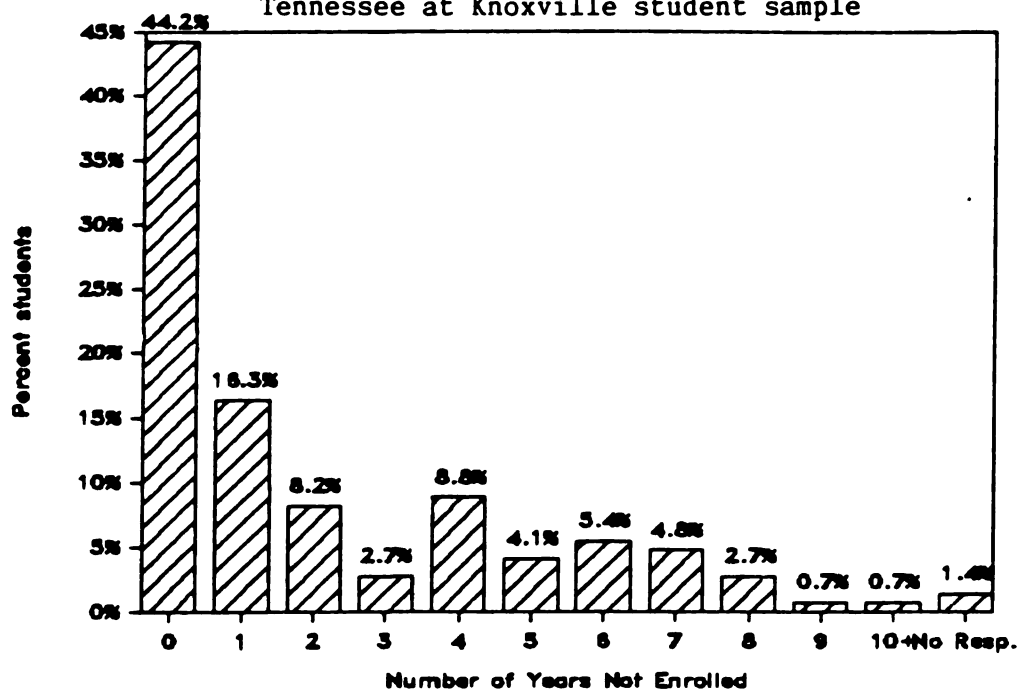
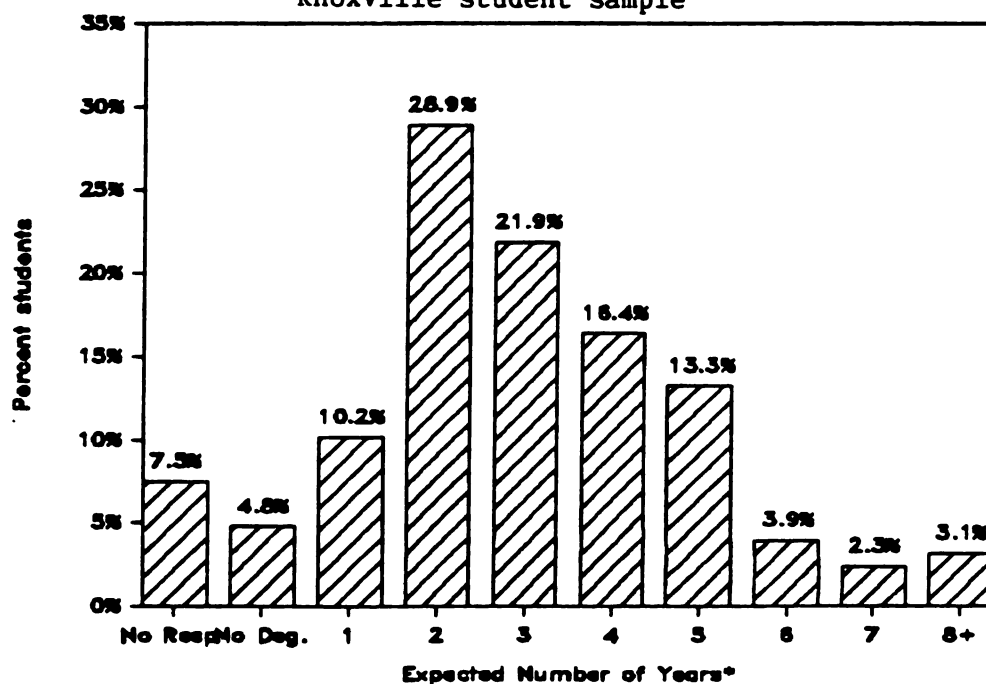


Figure F-4.104 Distribution of number of years expected to complete program, University of Tennessee at Knoxville student sample



*No Response and No Degree Sought percentages are of total respondents.
Year percentages are of those seeking degrees.

Figure F-4.105 Distribution of part-time versus full-time employment, University of Tennessee at Knoxville student sample

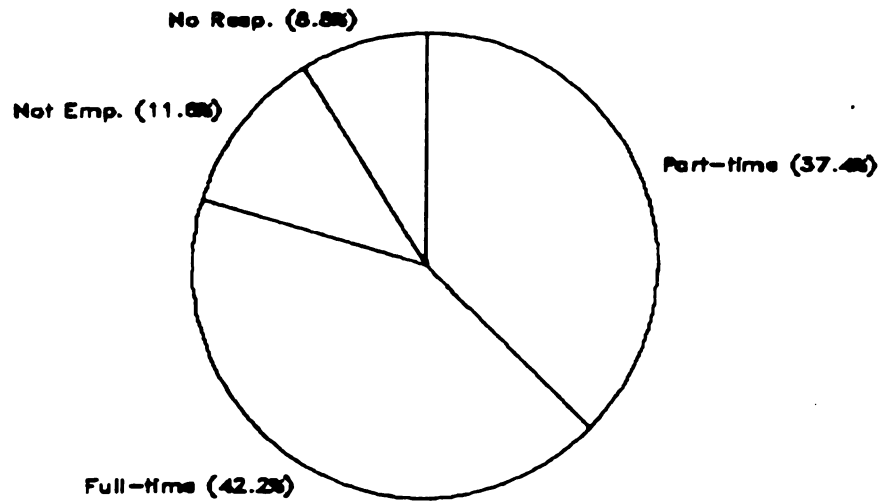


Figure F-4.106 Distribution among current and future employment settings, University of Tennessee at Knoxville student sample

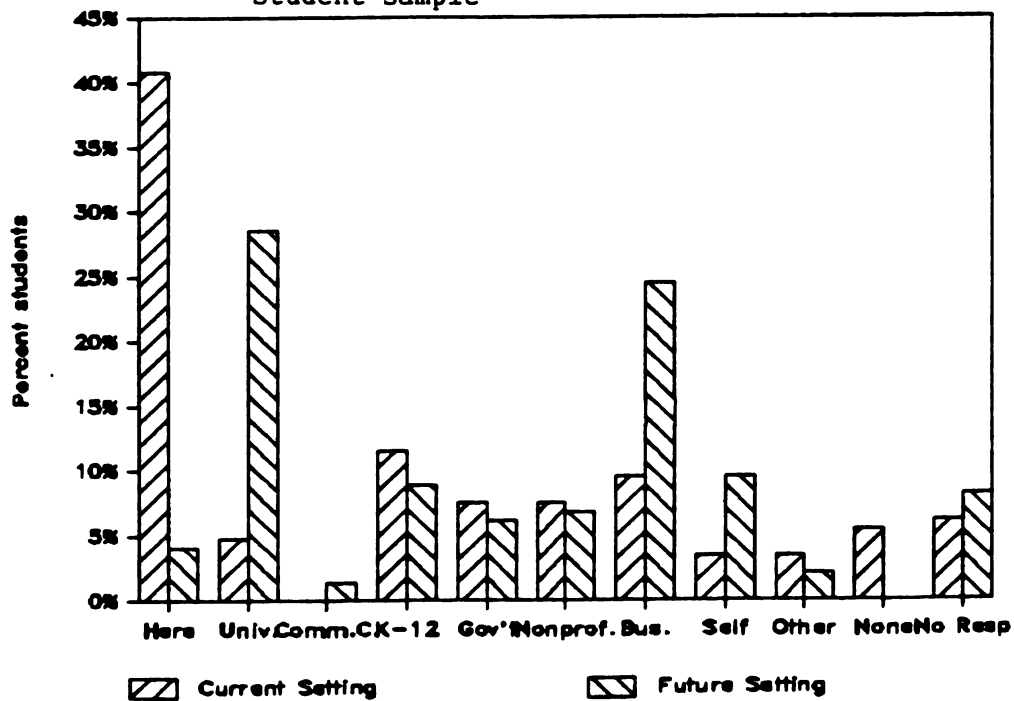


Figure F-4.107 Distribution of sources of financial support,
University of Tennessee at Knoxville student
sample

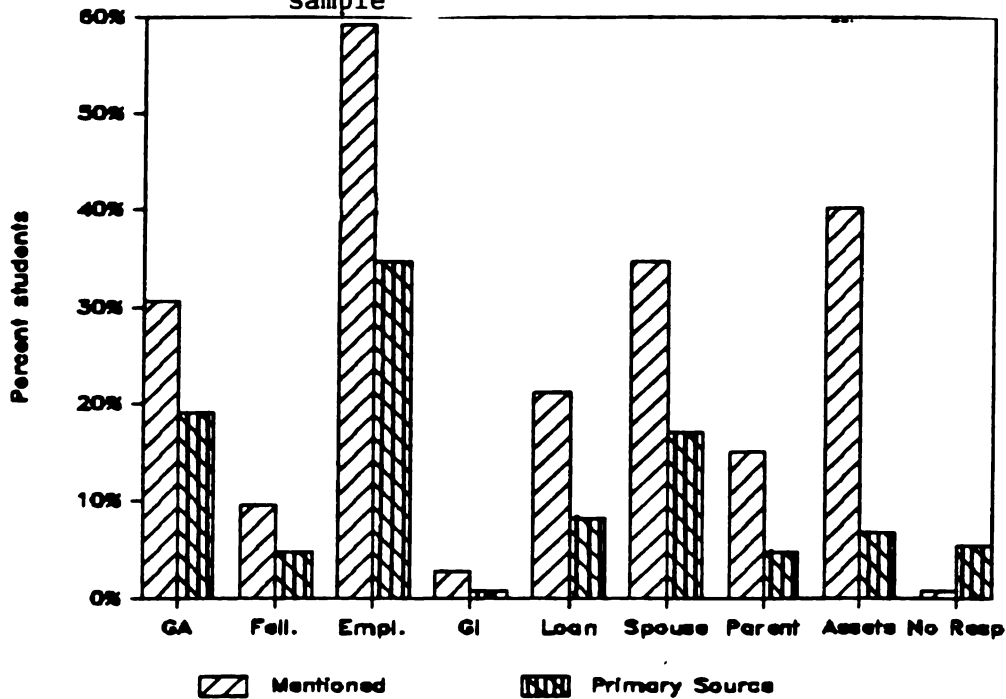


Figure F-4.108 Distribution of years of full-time employment,
University of Tennessee at Knoxville student
sample

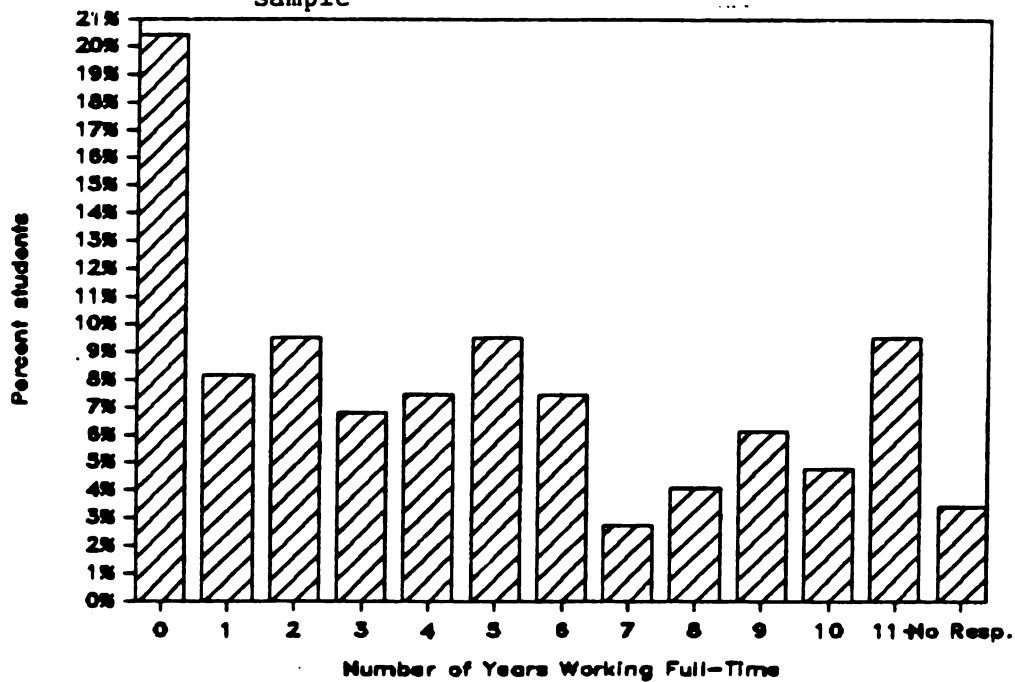


Figure F-4.109 Distribution among preferred future employment activities, University of Tennessee at Knoxville student sample

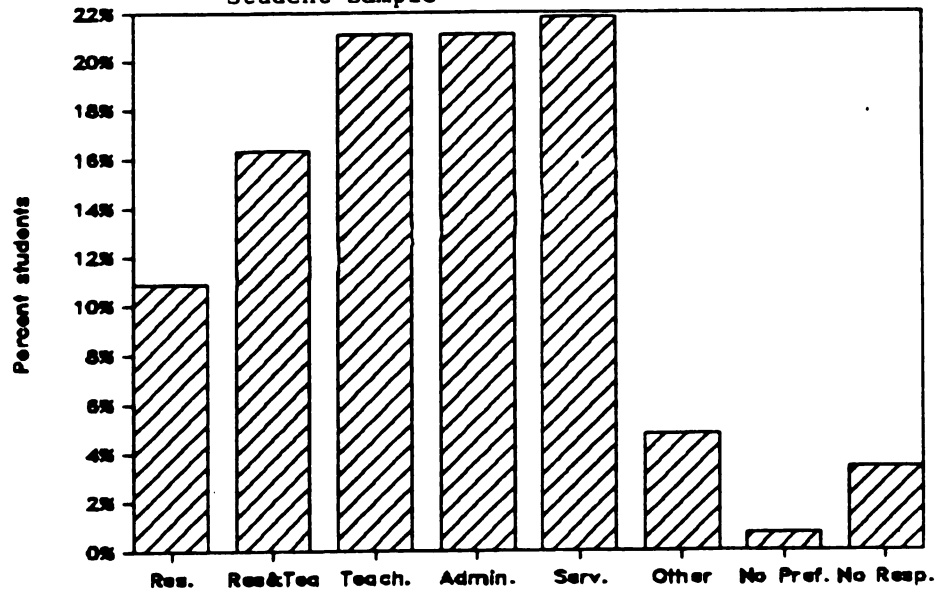


Figure F-4.110 Distribution of reasons mentioned for pursuing graduate study at this time, University of Tennessee at Knoxville student sample

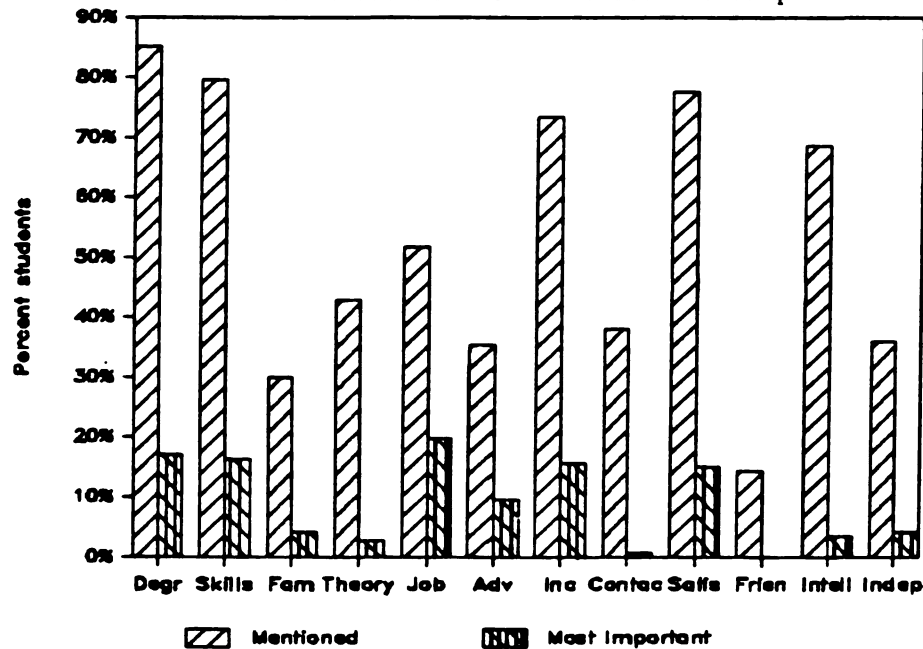


Figure F-4.111 Importance of personal goals and perceived importance to departments. Means of respondents enrolled in degree programs, University of Tennessee at Knoxville student sample

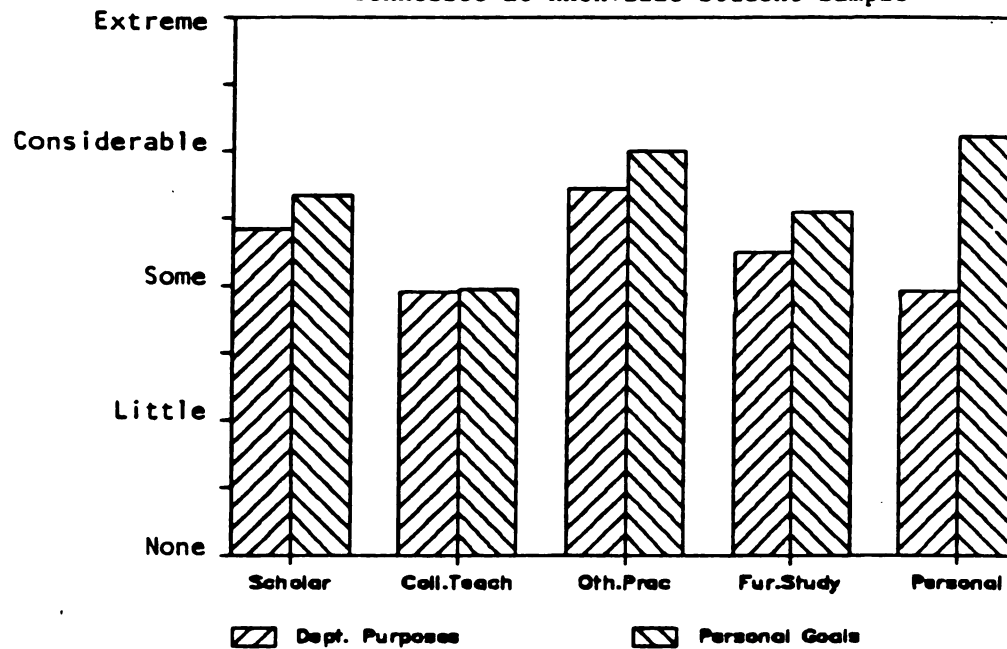


Figure F-4.112a Distribution of personal problems mentioned,
University of Tennessee at Knoxville student
sample

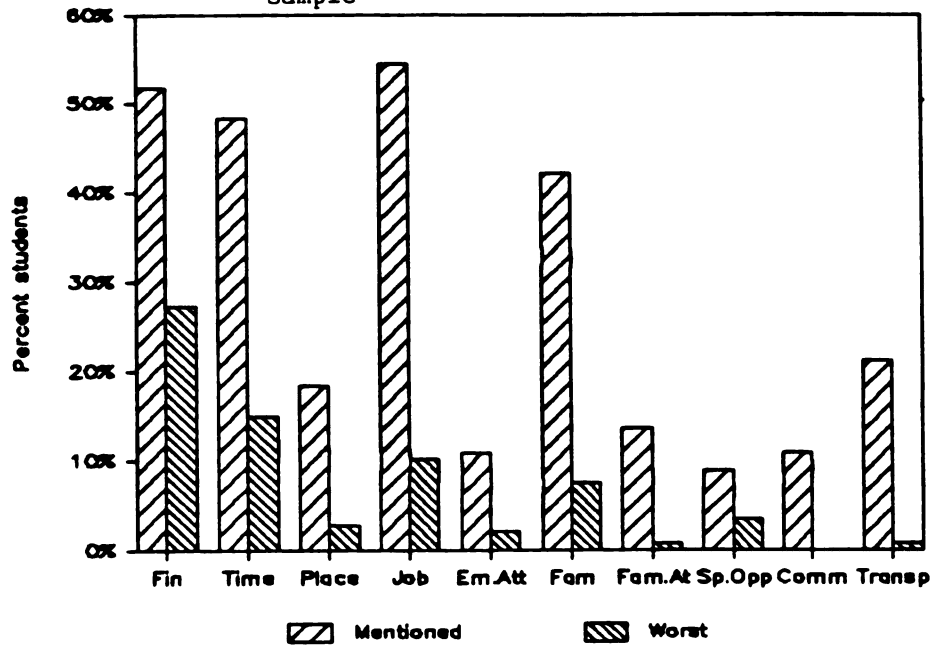


Figure F-4.112b Distribution of personal problems mentioned
(continued), University of Tennessee at Knoxville
student sample

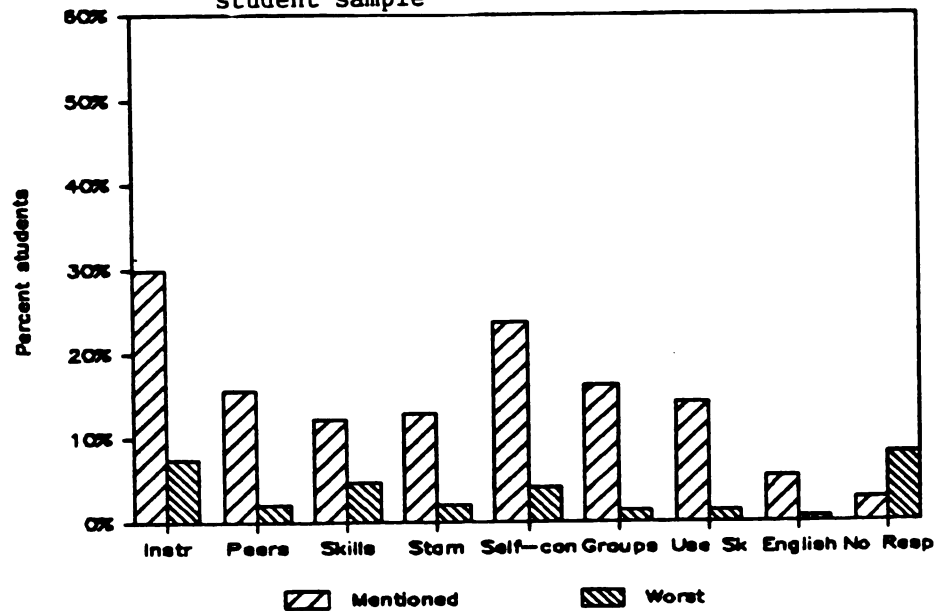


Figure F-4.113a Distribution of institutional barriers mentioned,
University of Tennessee at Knoxville student
sample

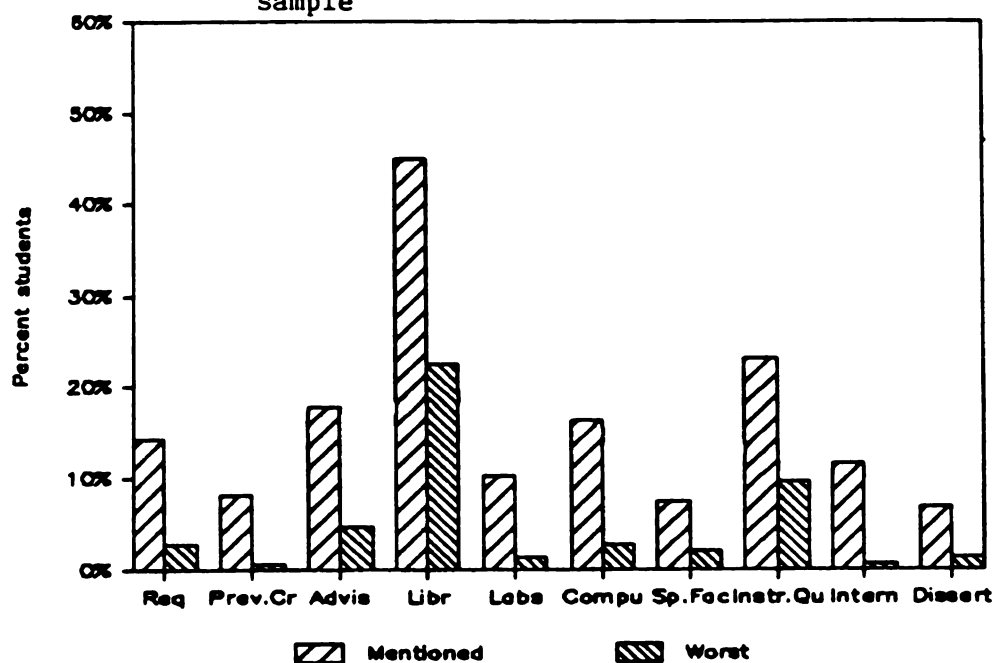


Figure F-4.113b Distribution of institutional barriers mentioned
(continued), University of Tennessee at Knoxville
student sample

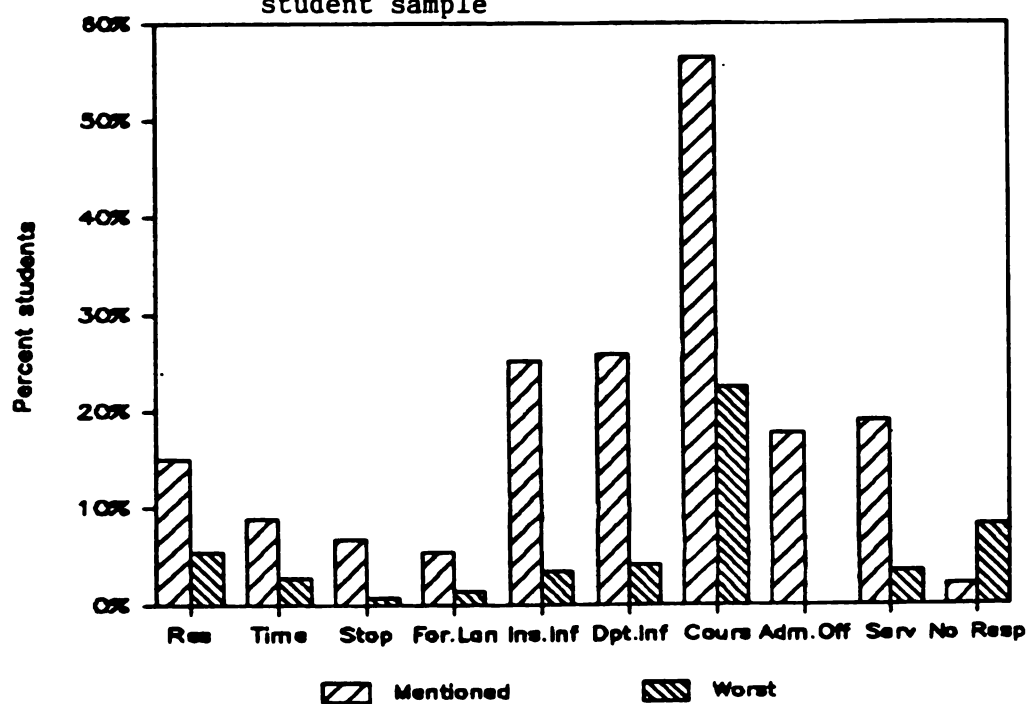


Figure F-4.114 Scores on program evaluation scales. Means of respondents enrolled in degree programs, University of Tennessee at Knoxville student sample

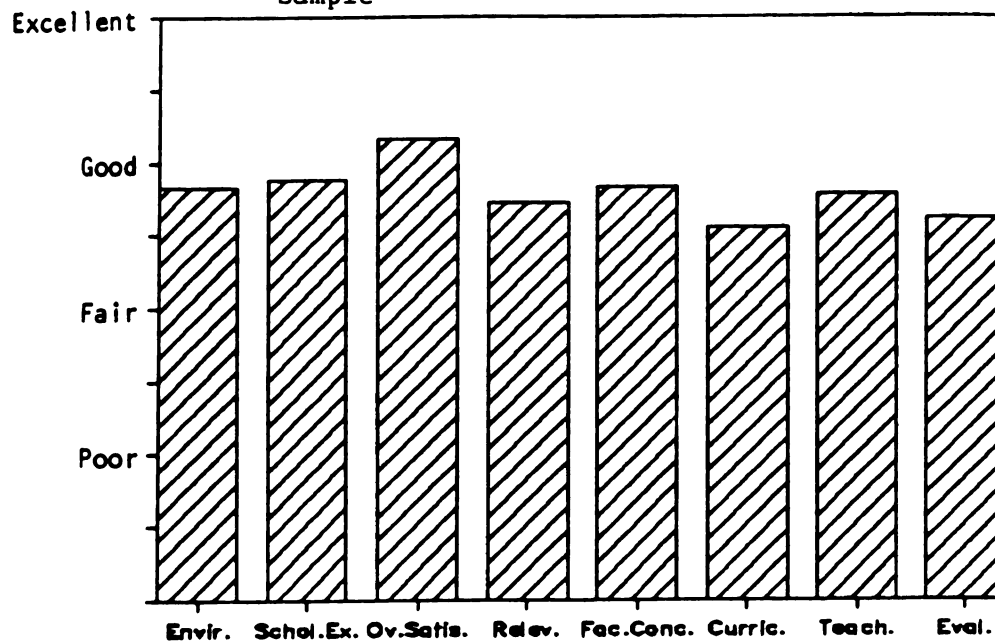


Figure F-4.115a Distribution of professional activities of respondents enrolled in degree programs, University of Tennessee at Knoxville student sample

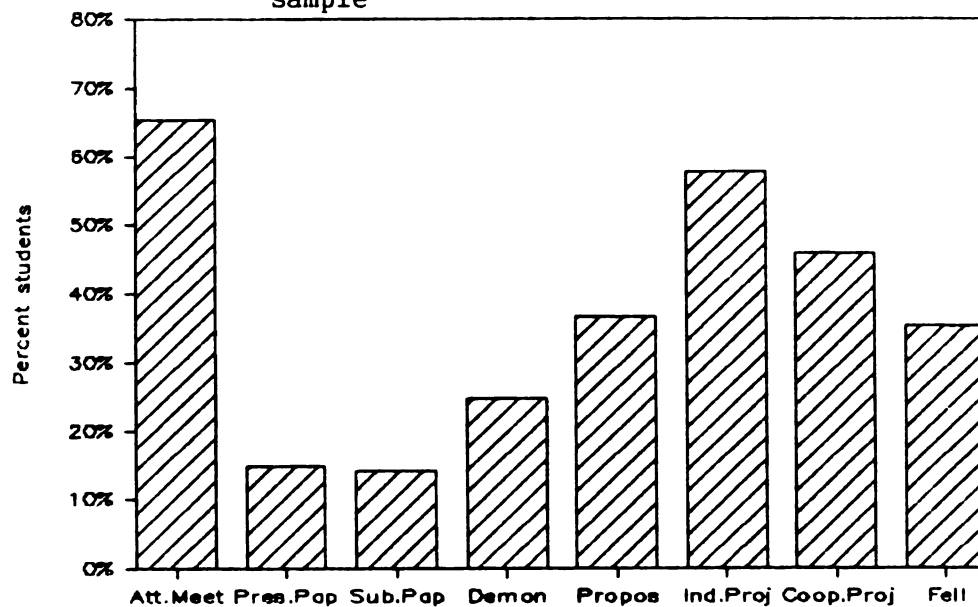


Figure F-4.115b Distribution of professional activities of respondents enrolled in degree programs (continued), University of Tennessee at Knoxville student sample

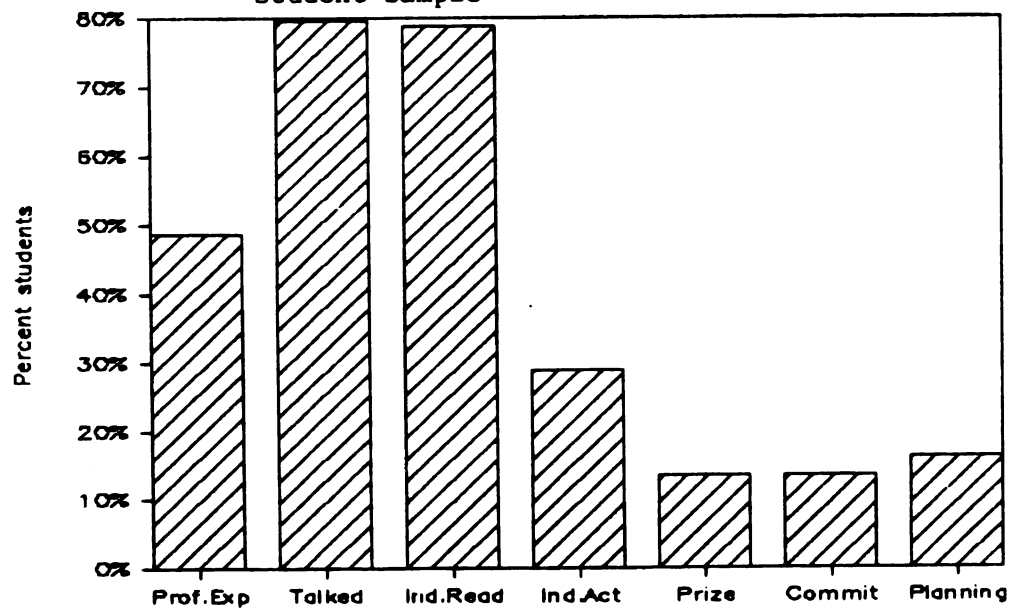


Figure F-4.116a Degree of need for support services and facilities. Mean of all respondents, University of Tennessee at Knoxville student sample

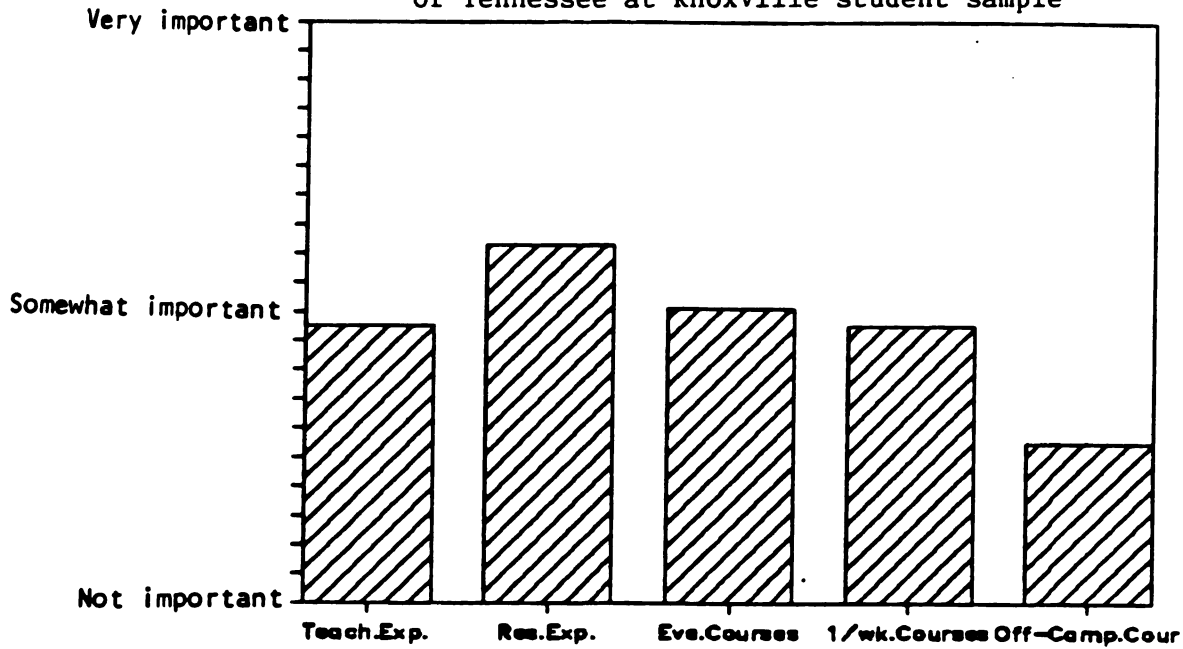


Figure F-4.117a Quality of support services and facilities provided. Mean of respondents who reported having used the service or facility, University of Tennessee at Knoxville student sample

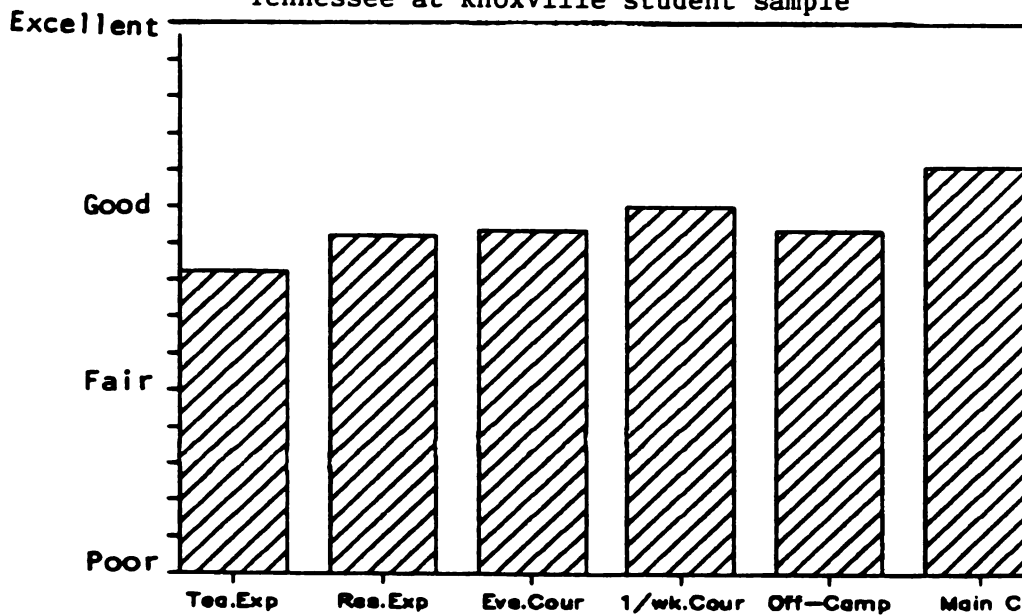


Figure F-4.116b Degree of need for support services and facilities (continued). Mean of all respondents, University of Tennessee at Knoxville student sample

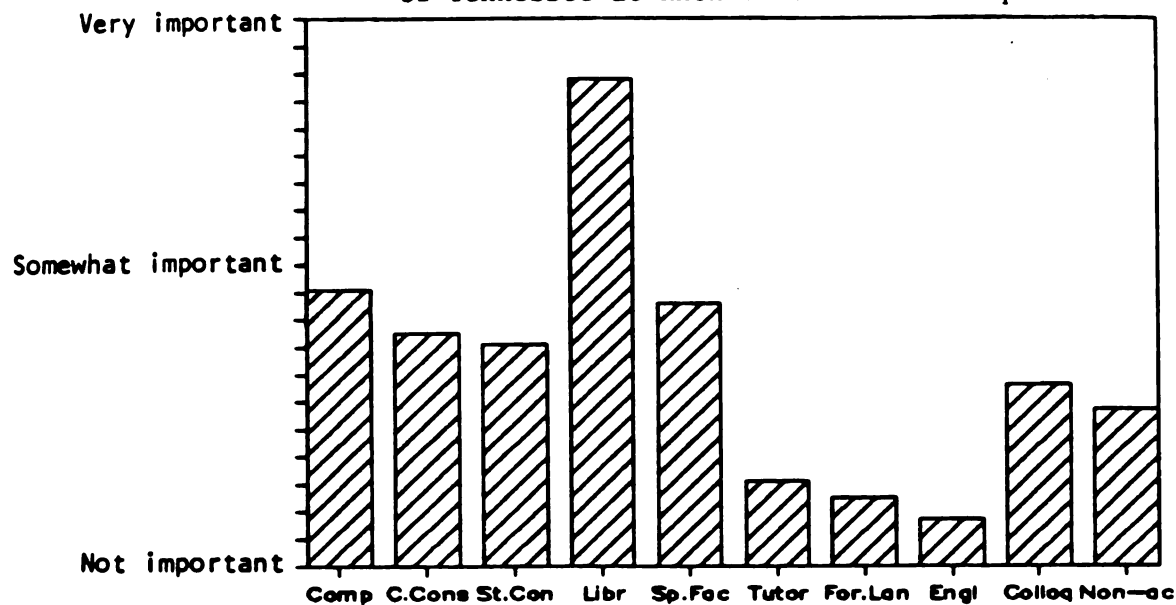


Figure F-4.117b Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, University of Tennessee at Knoxville student sample

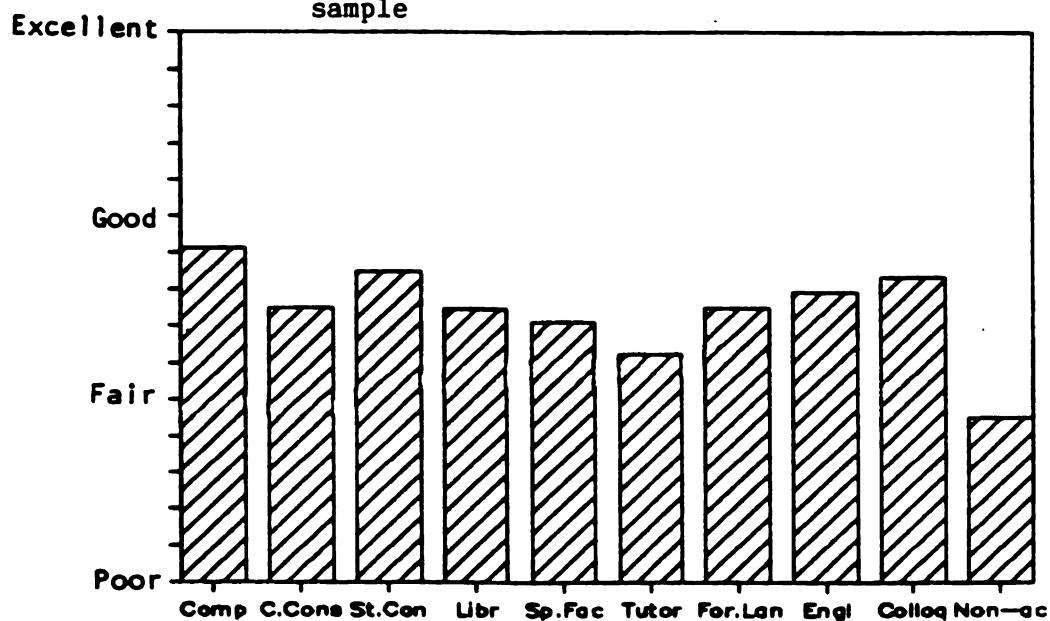


Figure F-4.116c Degree of need for support services and facilities (continued). Mean of all respondents, University of Tennessee at Knoxville student sample

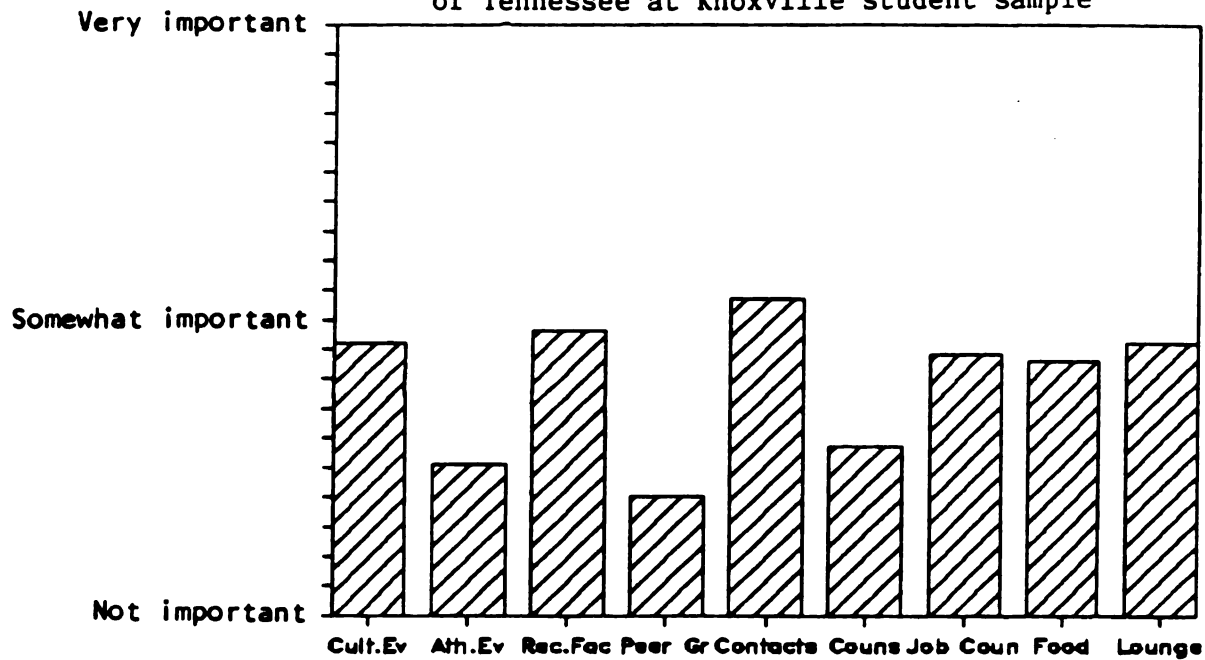


Figure F-4.117c Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, University of Tennessee at Knoxville student sample

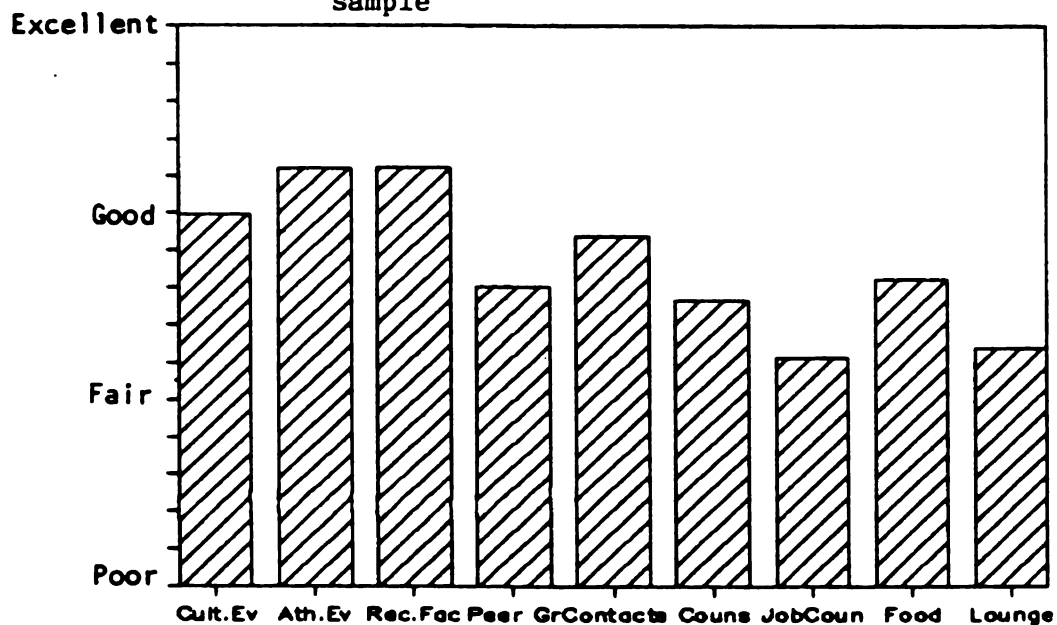


Figure F-4.116d Degree of need for support services and facilities (continued). Mean of all respondents, University of Tennessee at Knoxville student sample



Figure F-4.117d Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, University of Tennessee at Knoxville student sample

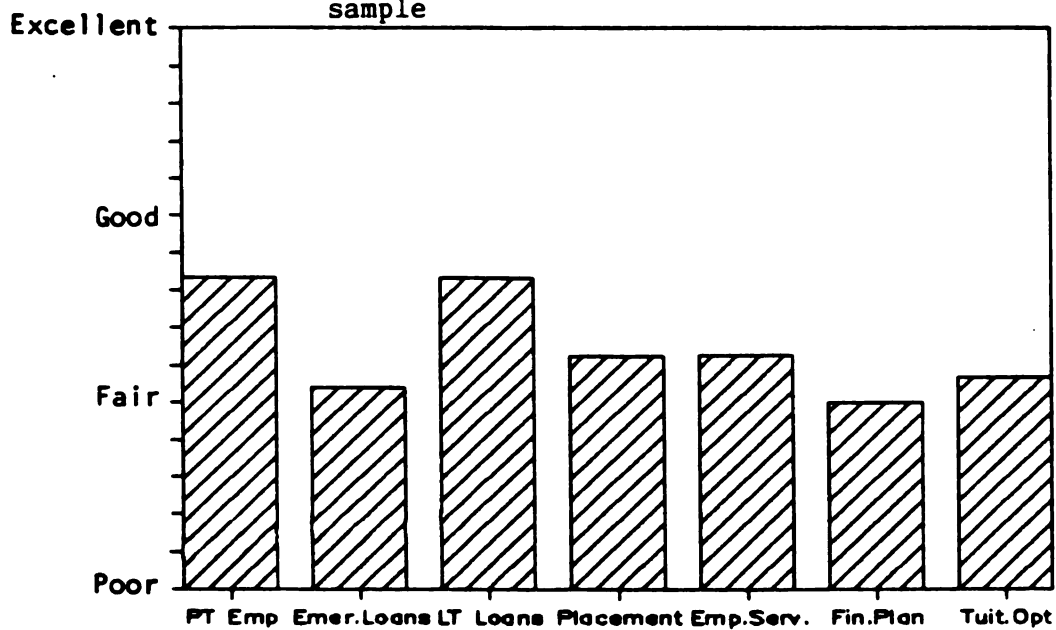


Figure F-4.116e Degree of need for support services and facilities (continued). Mean of all respondents, University of Tennessee at Knoxville student sample

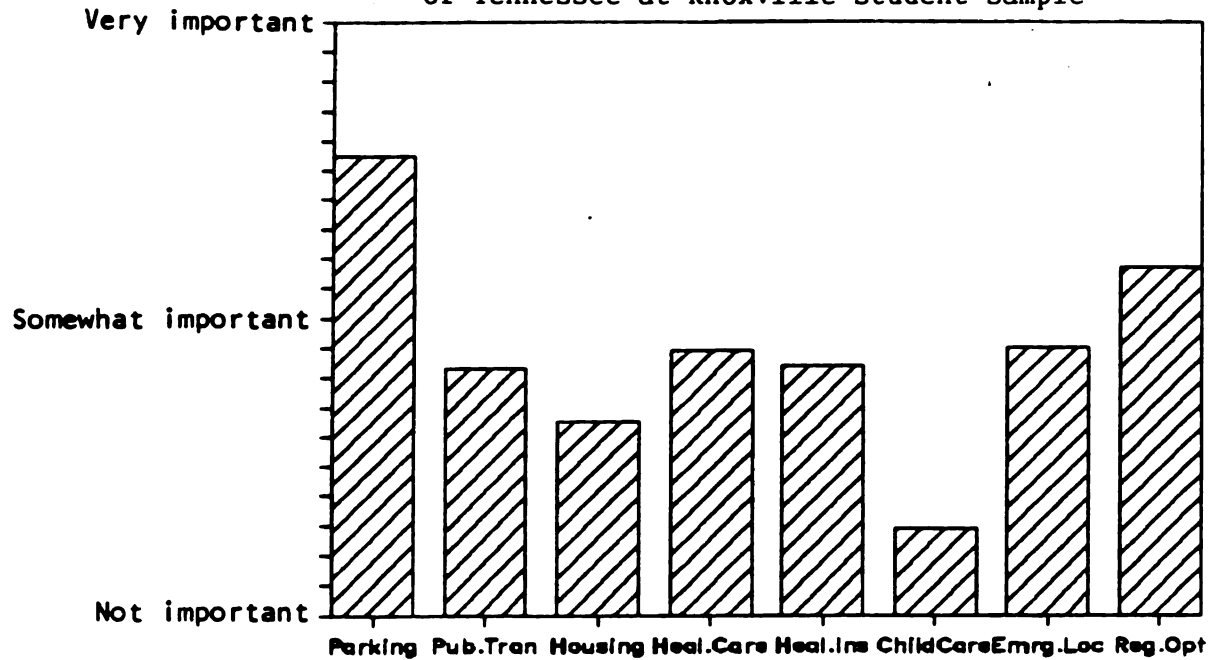


Figure F-4.117e Quality of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, University of Tennessee at Knoxville student sample

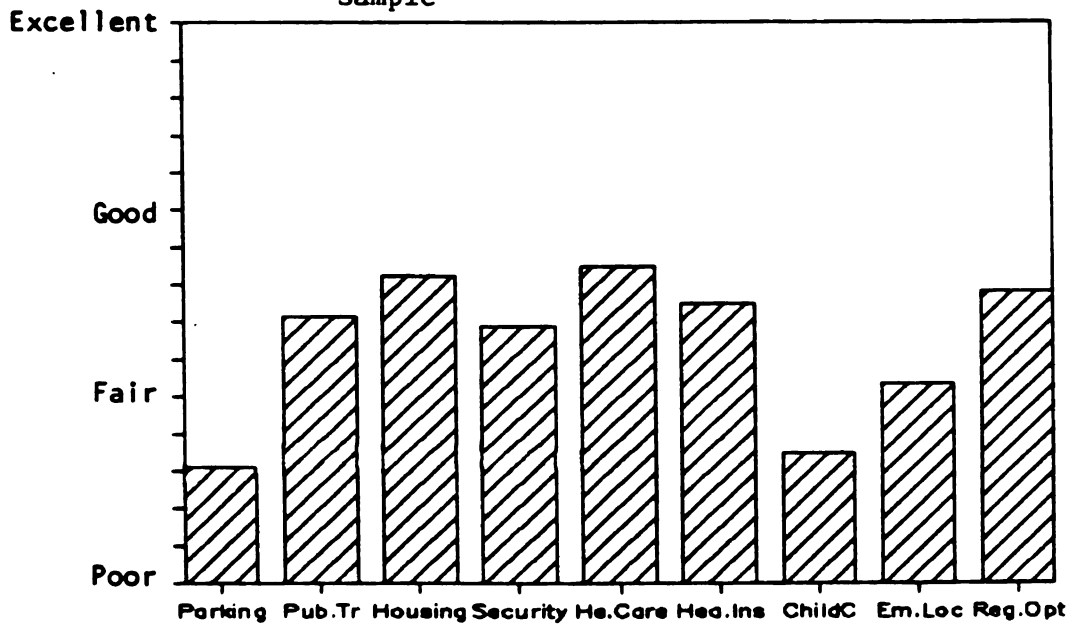


Figure F-4.118a Frequency of use of support services and facilities provided. Mean of respondents who reported having used the service or facility, University of Tennessee at Knoxville student sample

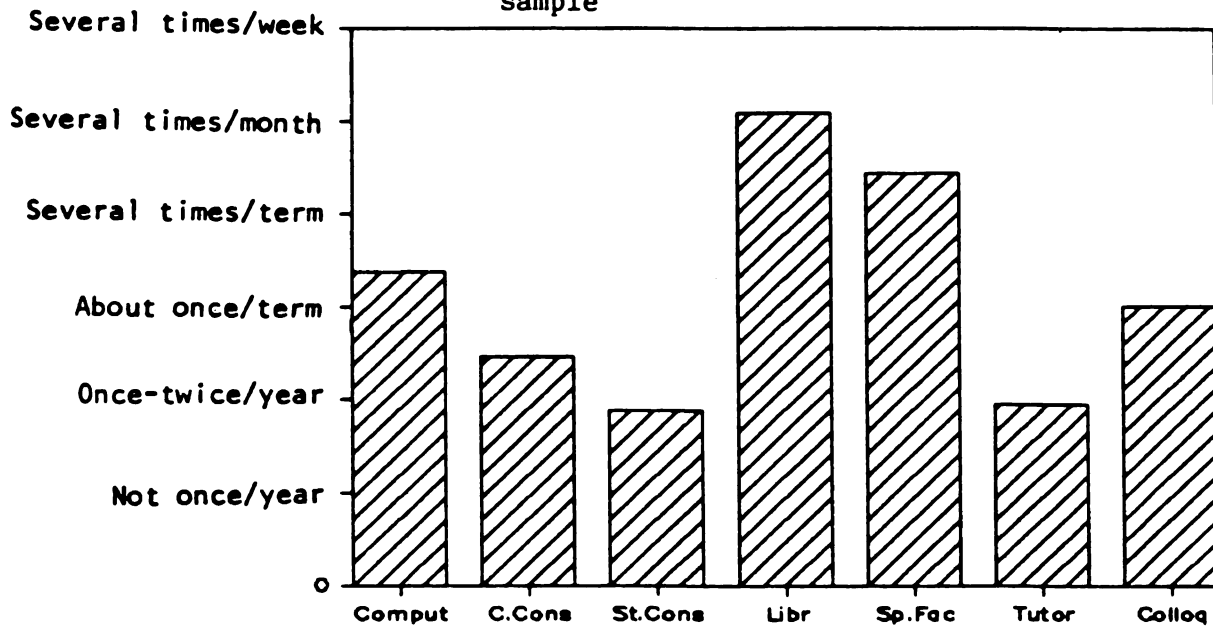


Figure F-4.118b Frequency of use of support services and facilities provided (continued). Mean of respondents who reported having used the service or facility, University of Tennessee at Knoxville student sample

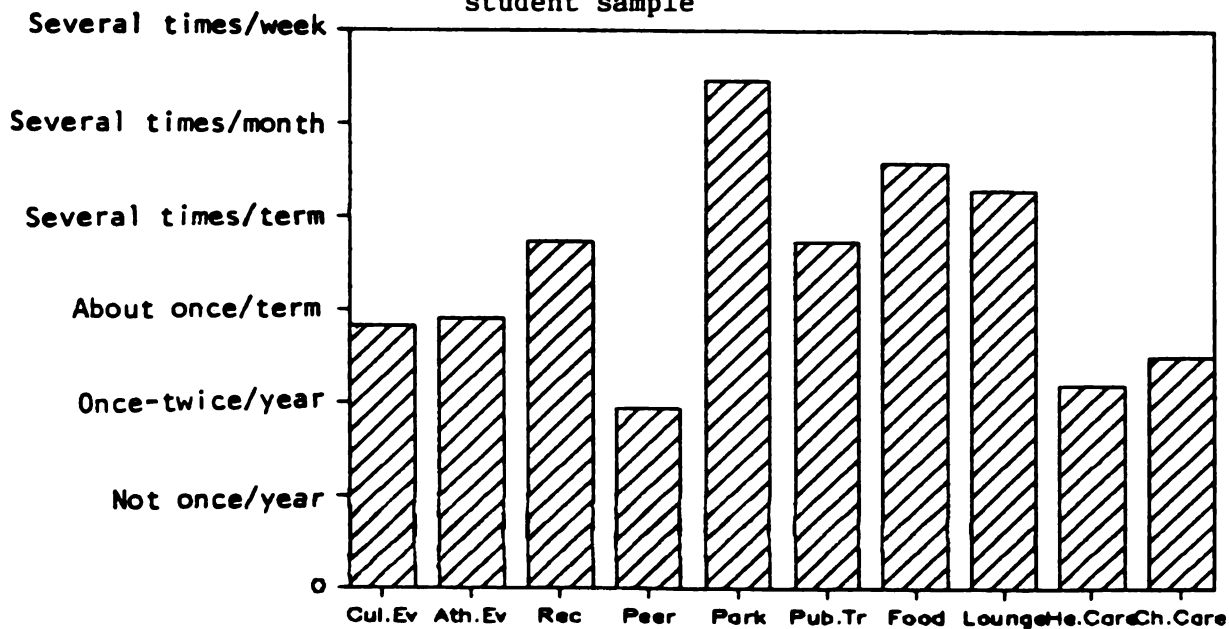


Figure F-4.119 Fusion coefficients for hierarchical clustering of each of five universities. Arrows indicate the discontinuity (vertical line) in change of coefficient selected as the cut off point for further mergers; the groups formed prior to that point were further studied.

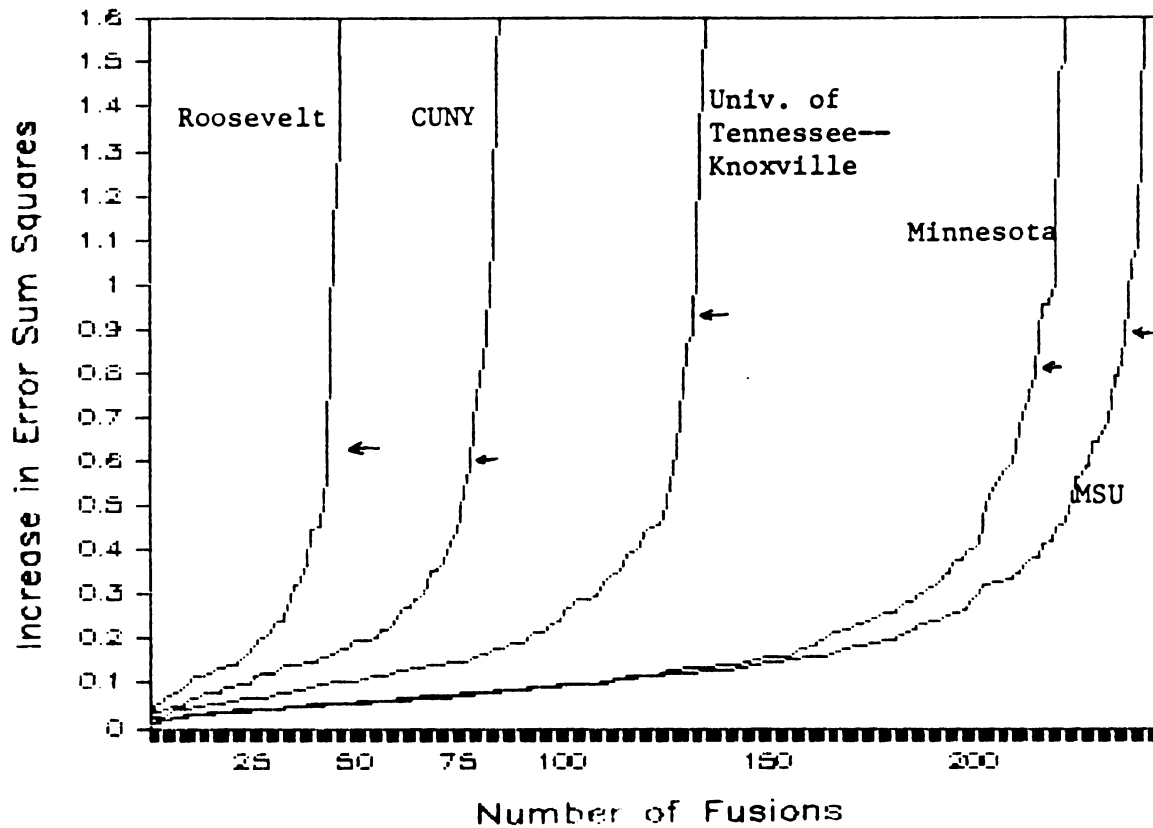


Figure F-4.120 Hierarchical cluster formation, Michigan State University student sample

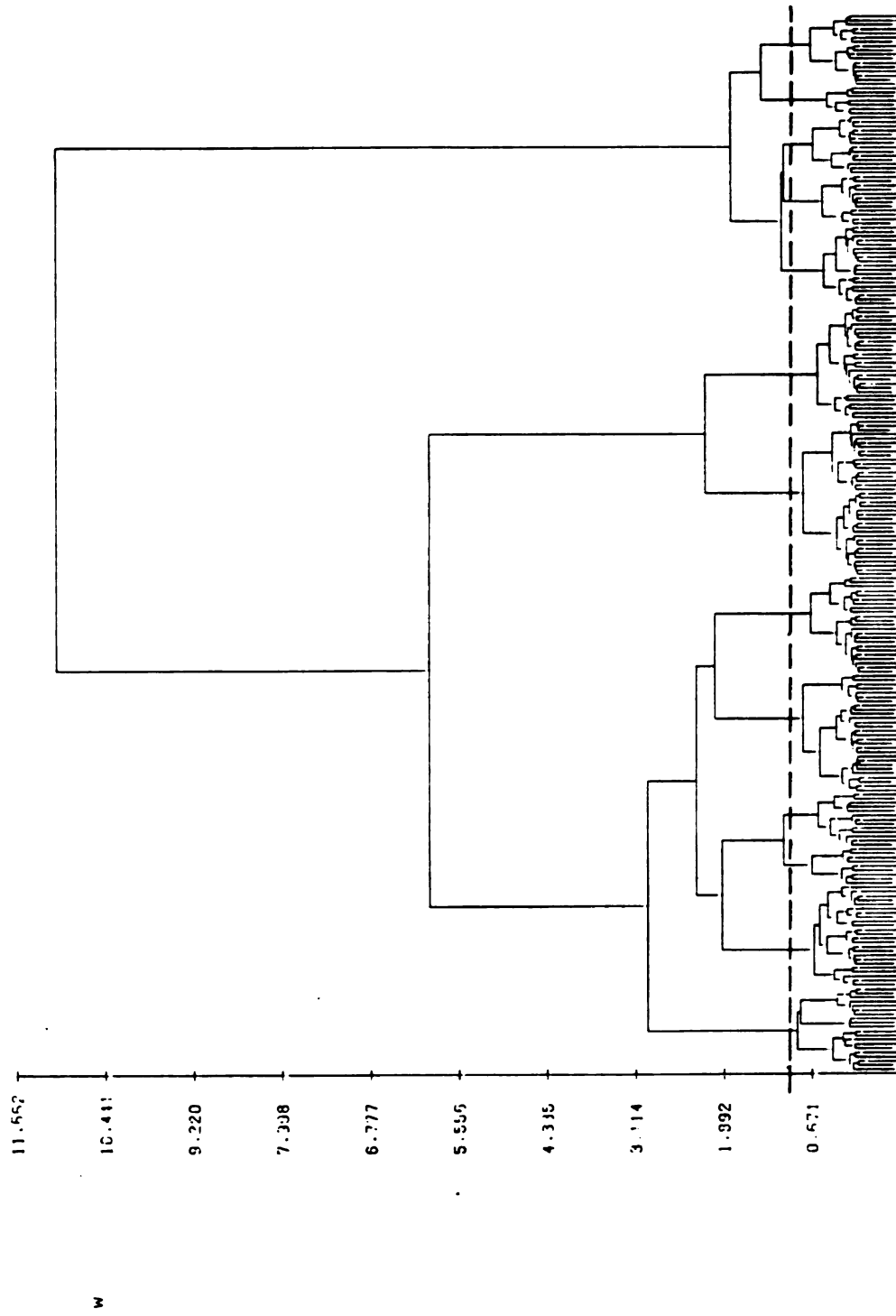


Figure F-4.121 Hierarchical cluster formation, University of
Minnesota student sample

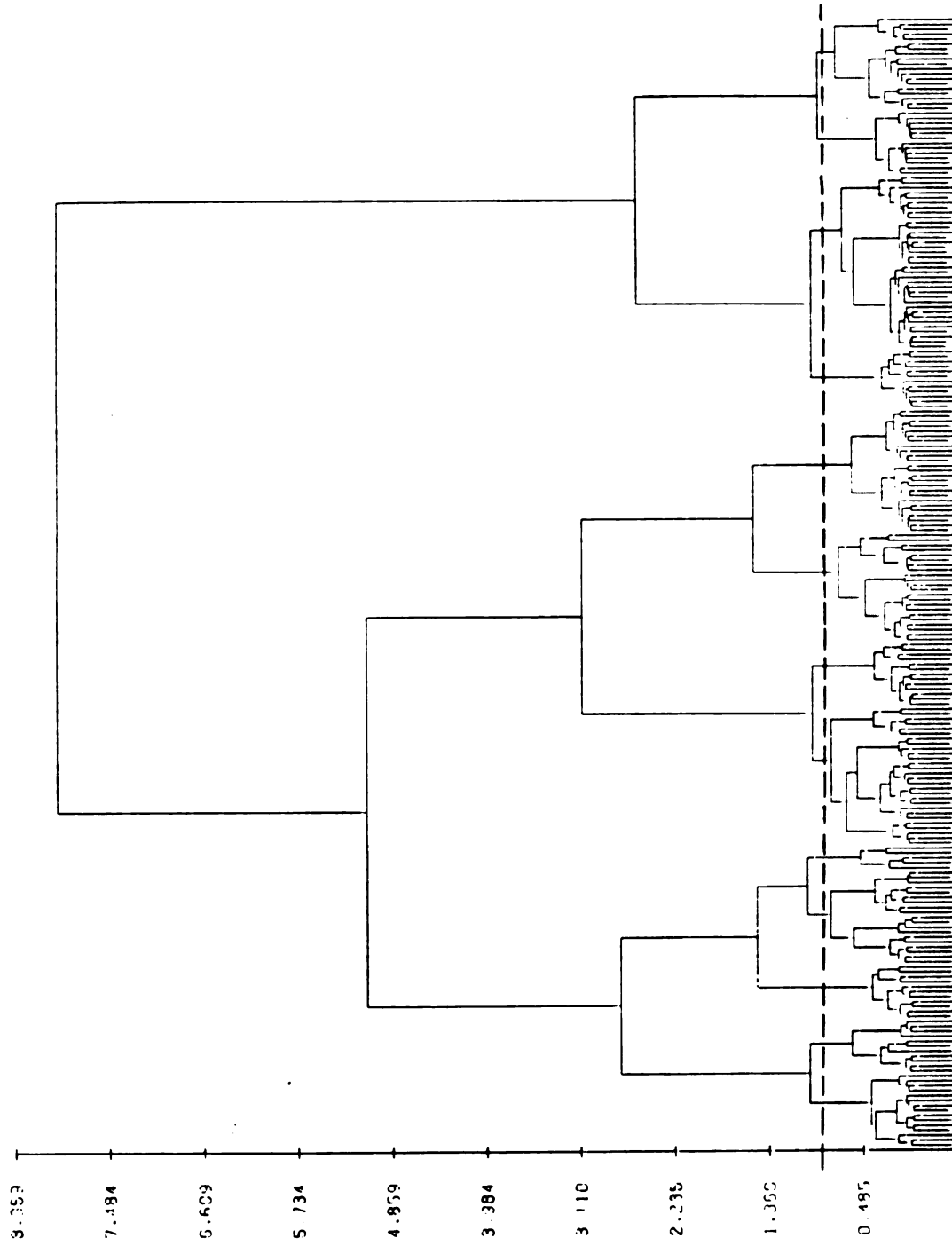


Figure F-4.122 Hierarchical cluster formation, University of Tennessee at Knoxville student sample

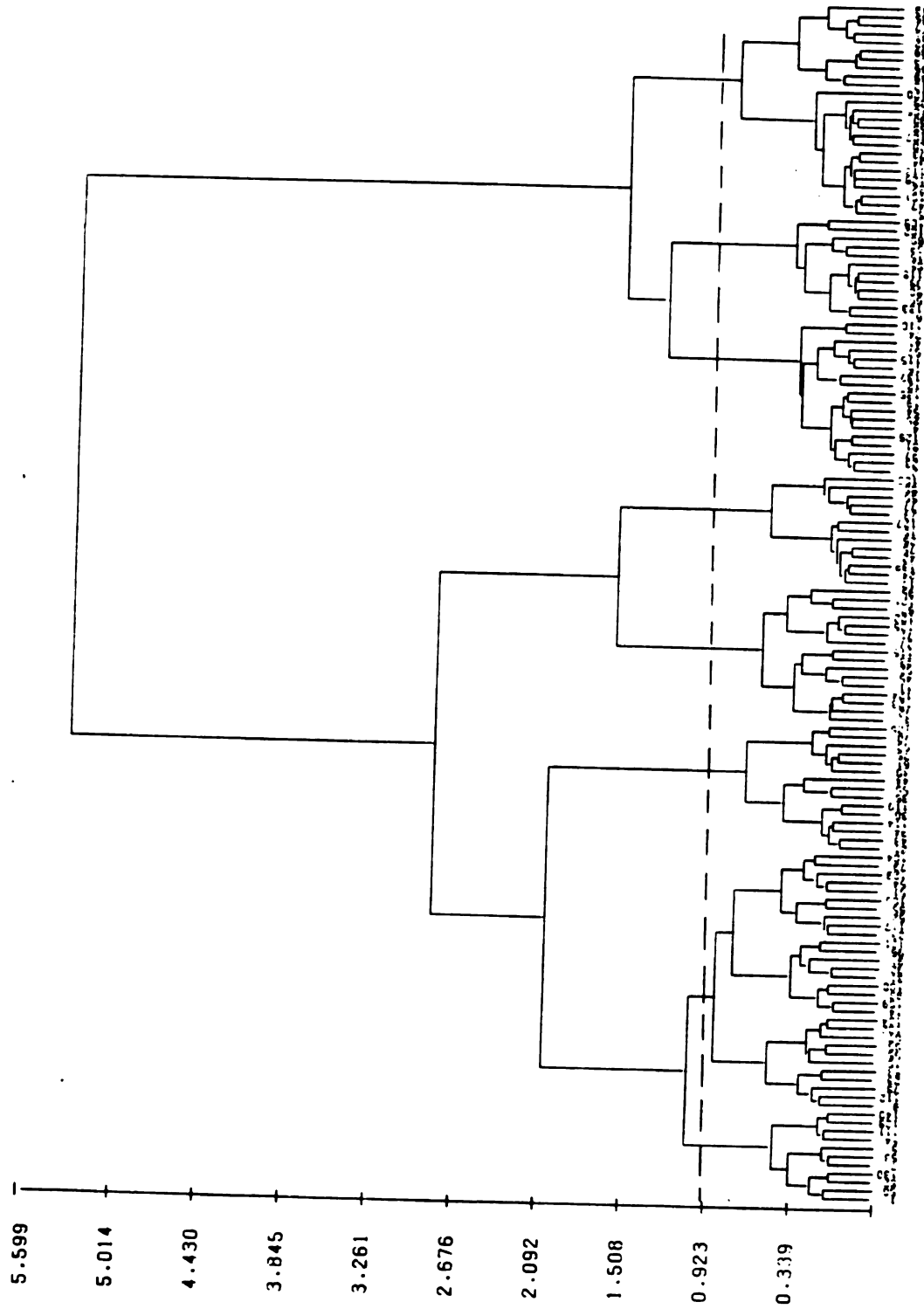


Figure F-4.123 Hierarchical cluster formation, City University of
New York student sample

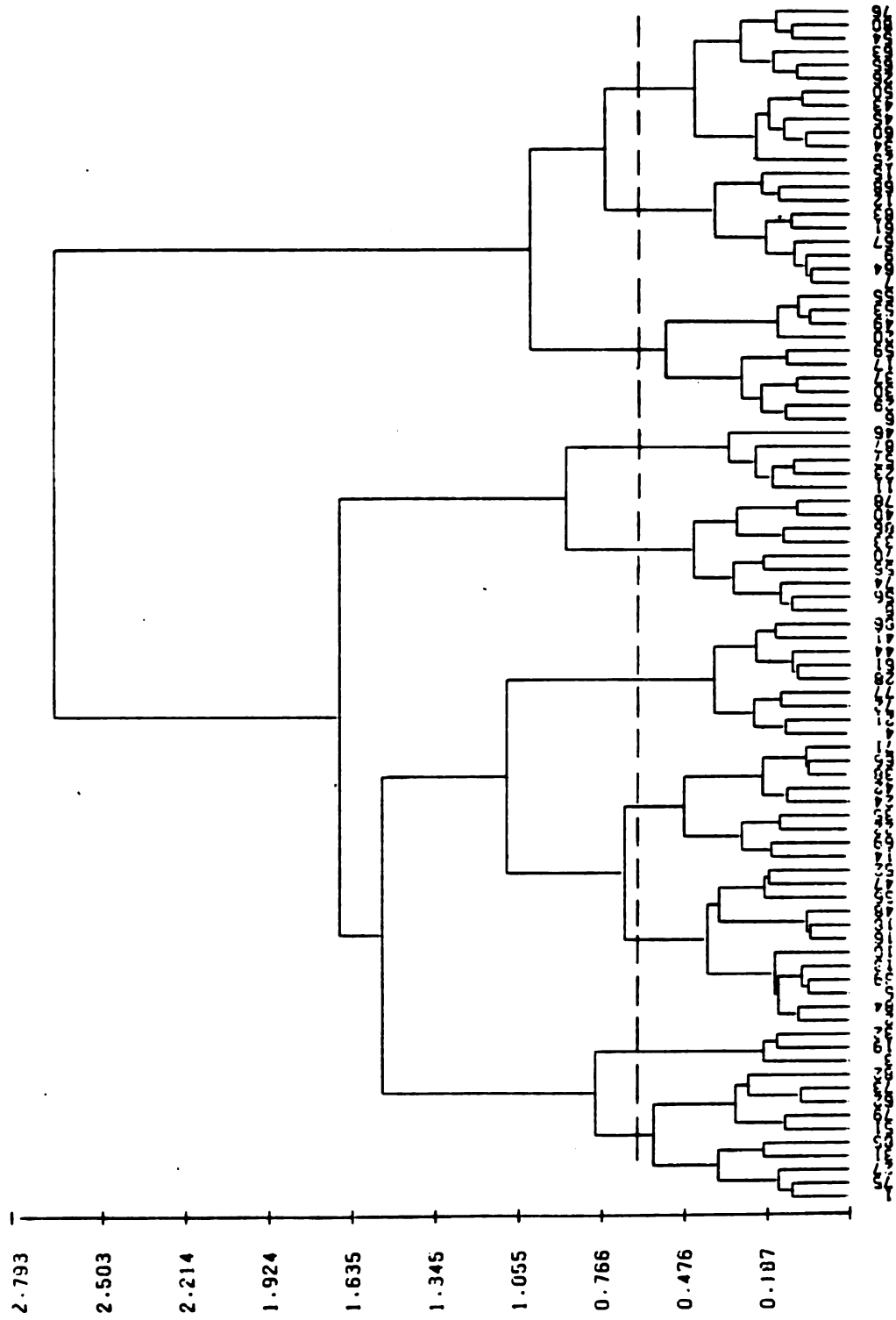


Figure F-4.124 Hierarchical cluster formation, Roosevelt University student sample

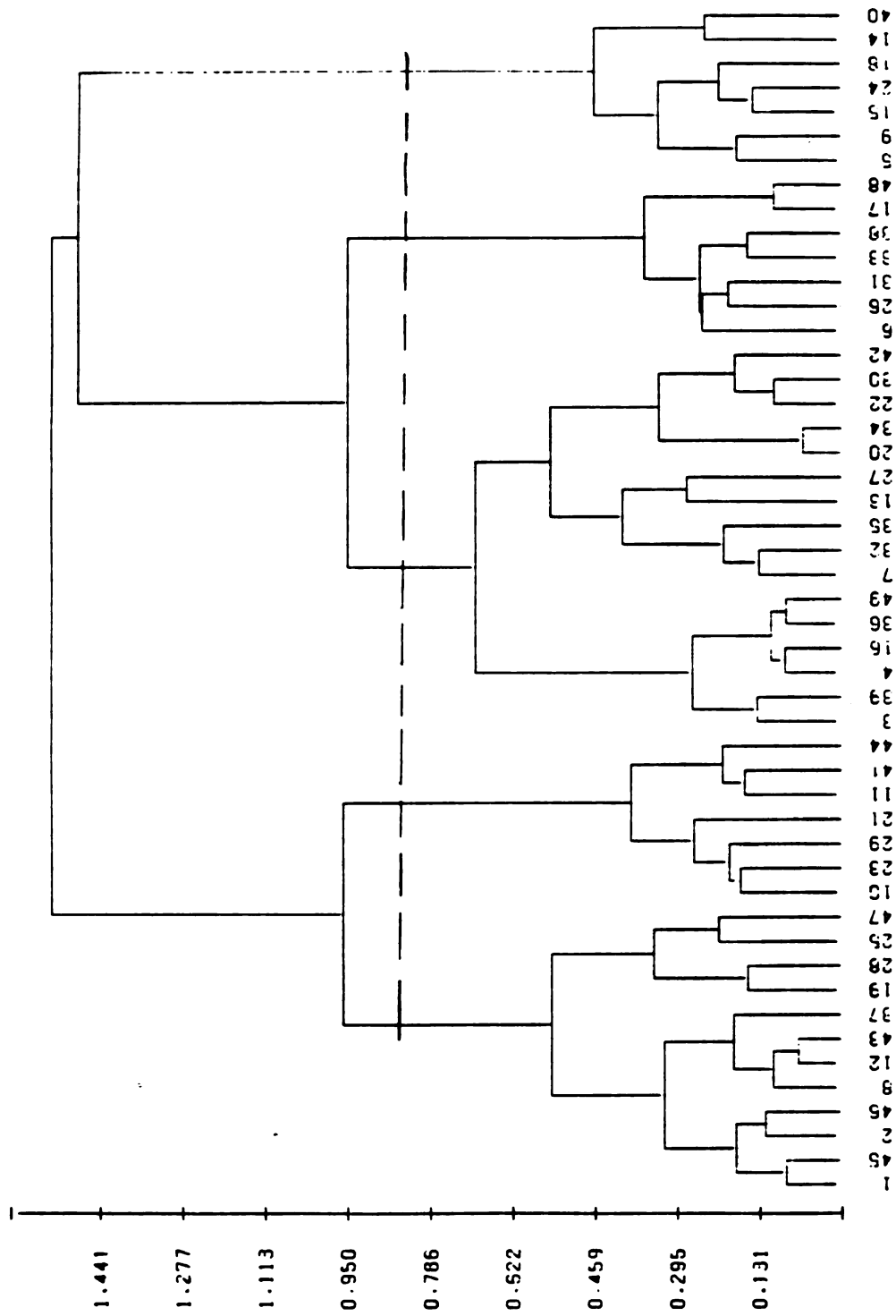


Figure F-4.125 Hierarchical formation of second order clusters
from groups at each university

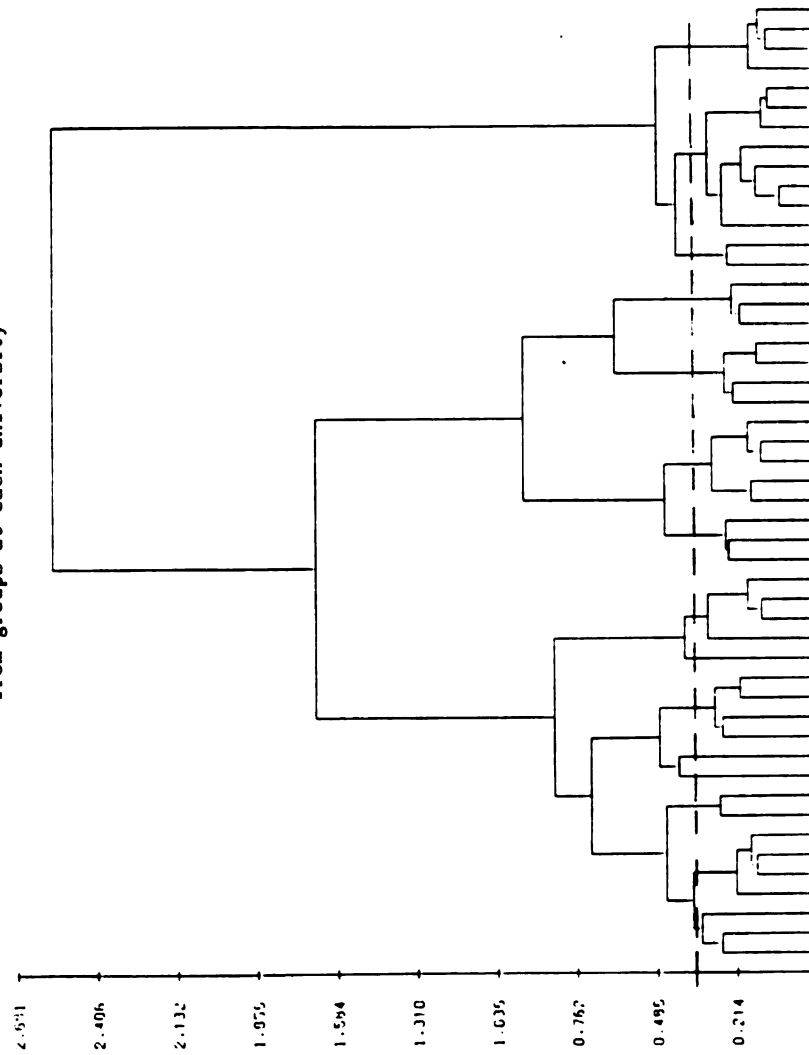


Figure F-4.126 Gender distribution, Roosevelt University graduate student advisers

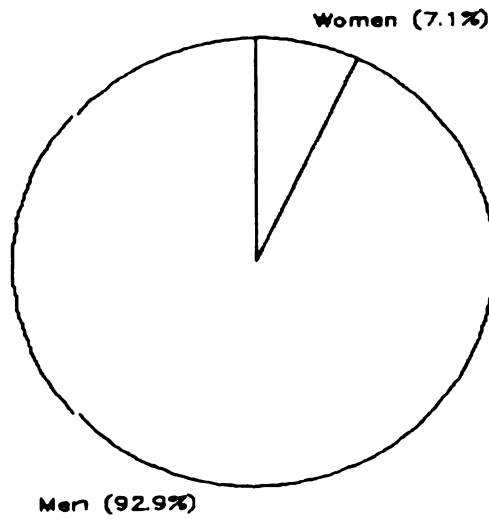


Figure F-4.127 Distribution of highest degree attained, Roosevelt University graduate student advisers

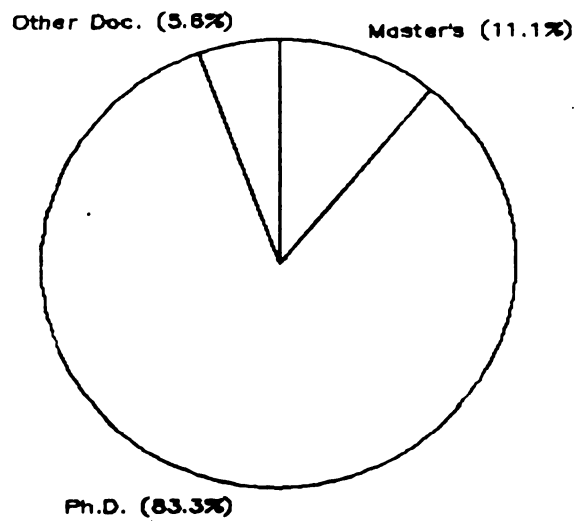


Figure F-4.128 Distribution among disciplines, Roosevelt University graduate student advisers

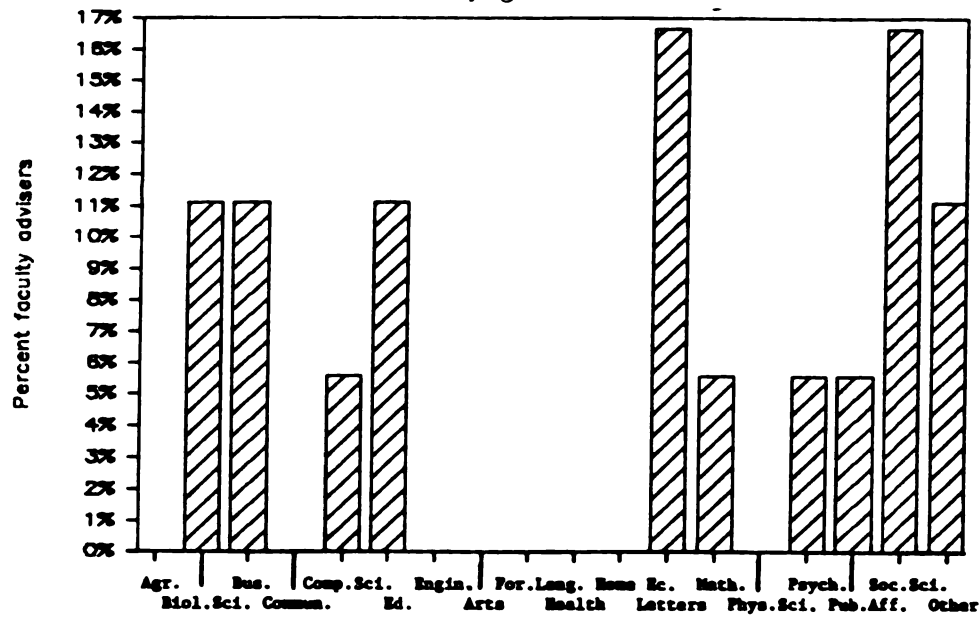


Figure F-4.129 Distribution among faculty ranks, Roosevelt University graduate student advisers

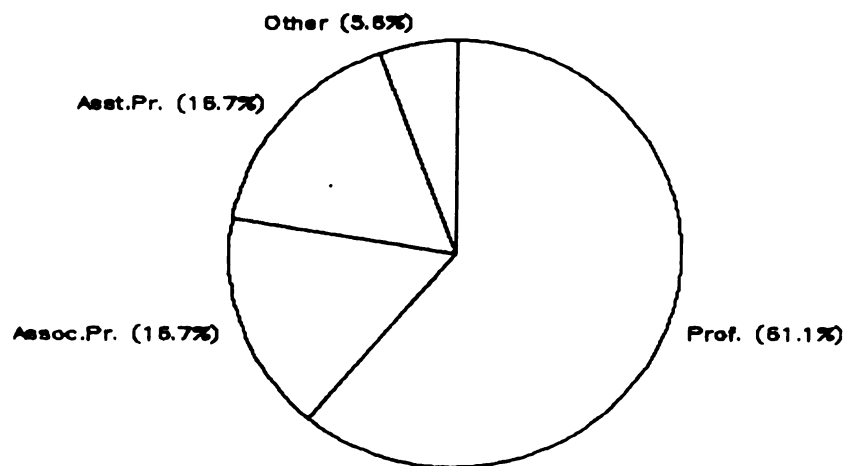


Figure F-4.130 Professional publications and products, Roosevelt University graduate student advisers

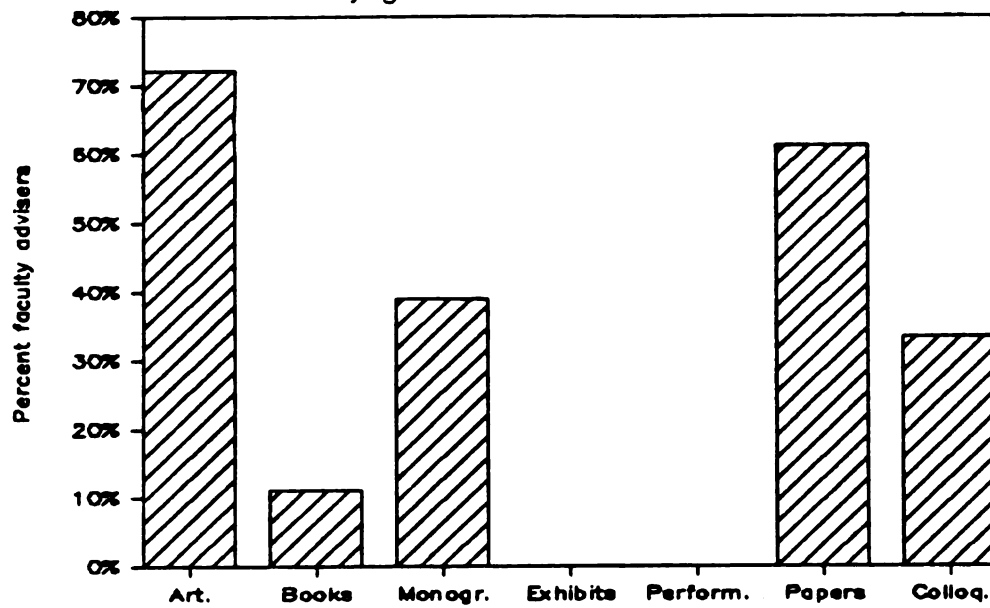


Figure F-4.131 Professional service and awards, Roosevelt University graduate student advisers

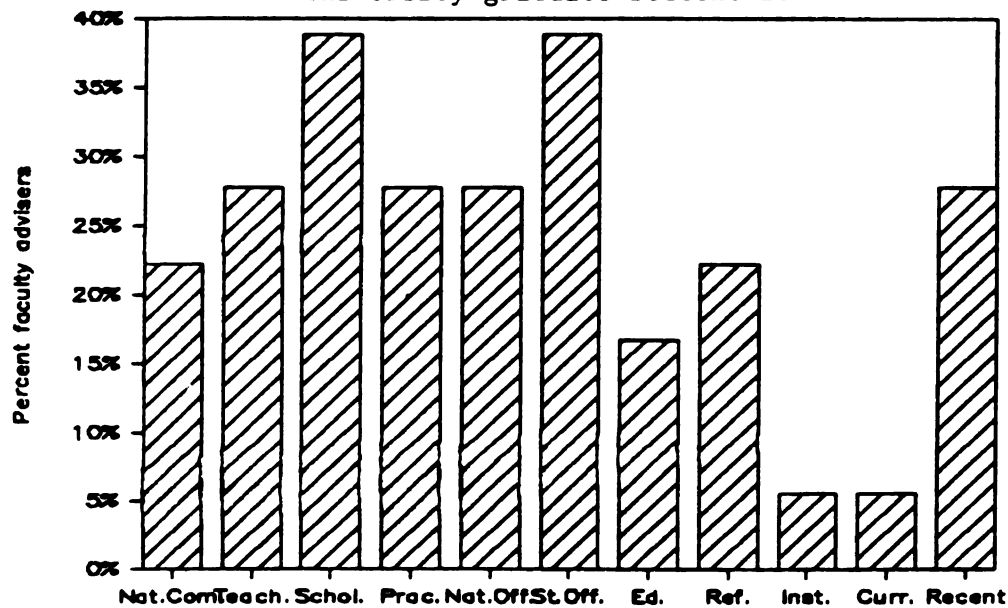


Figure F-4.132 Mean scores on faculty program evaluation scales, Roosevelt University graduate student advisers

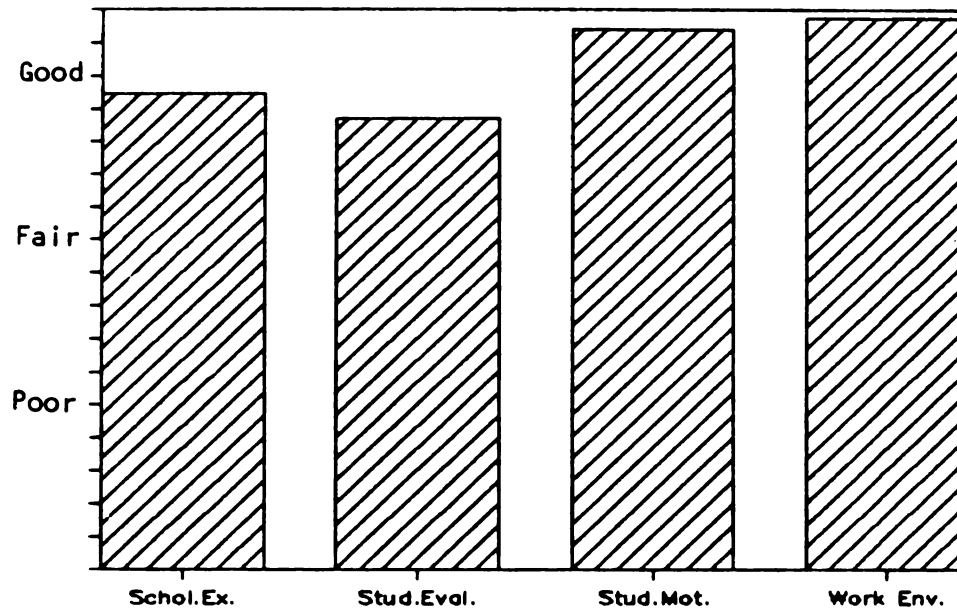


Figure F-4.133 Mean ratings of perceived importance of educational goals to graduate students and to departments, Roosevelt University graduate student advisers

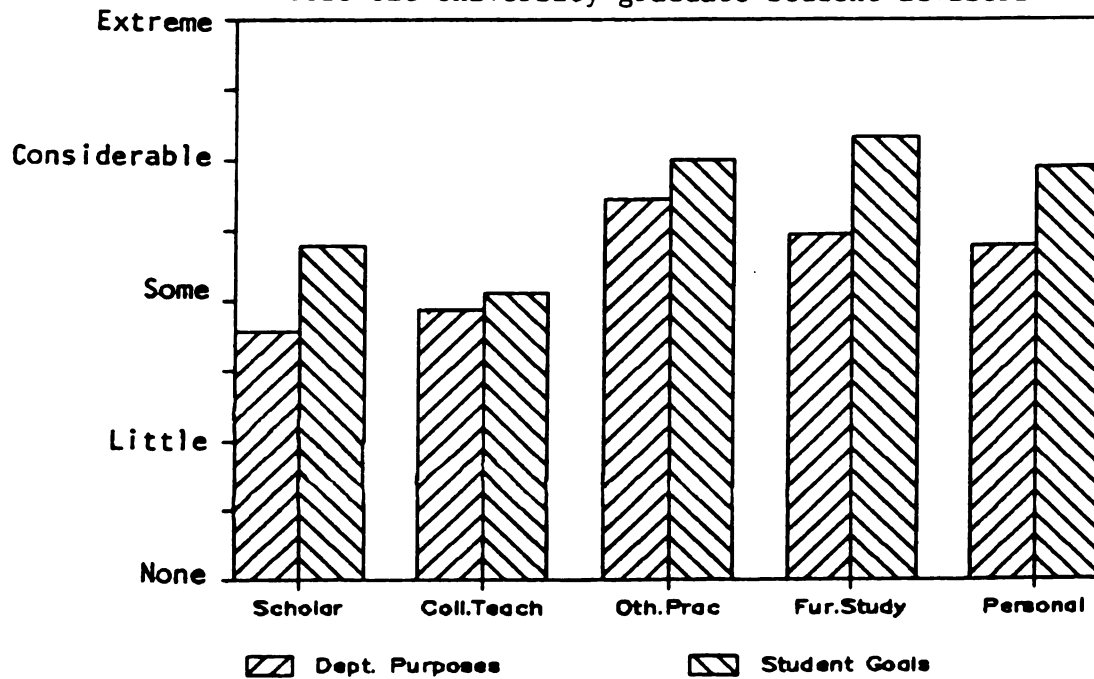


Figure F-4.134a Distribution of perceived institutional barriers for graduate students, Roosevelt University graduate student advisers

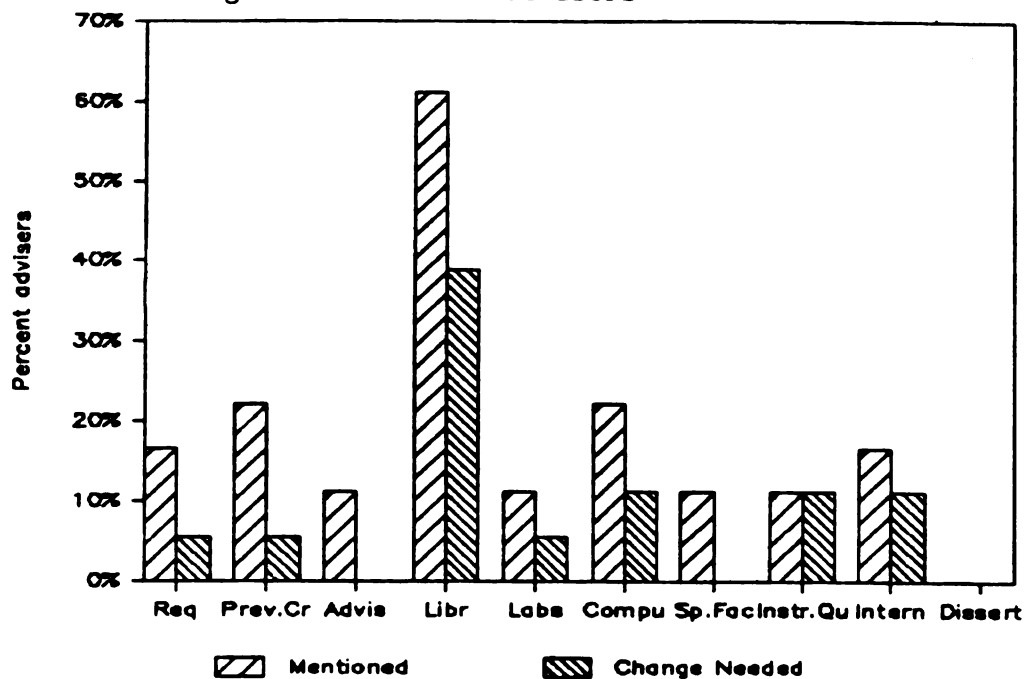


Figure F-4.134b Distribution of perceived institutional barriers for graduate students (continued), Roosevelt University graduate student advisers

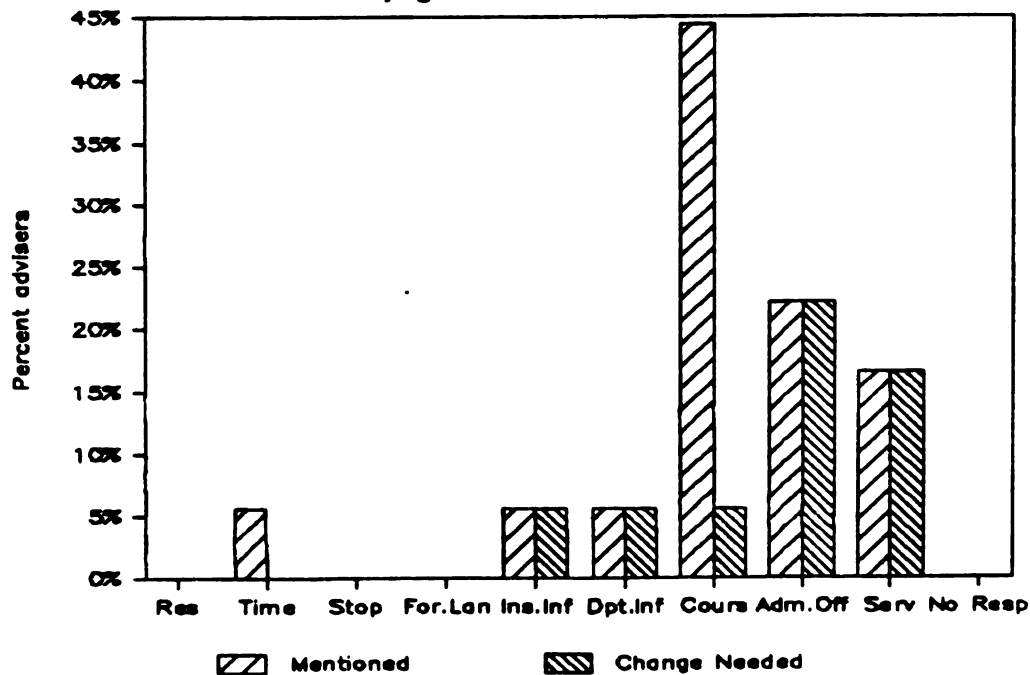


Figure F-4.135a Distribution of perceived graduate student personal problems, Roosevelt University graduate student advisers

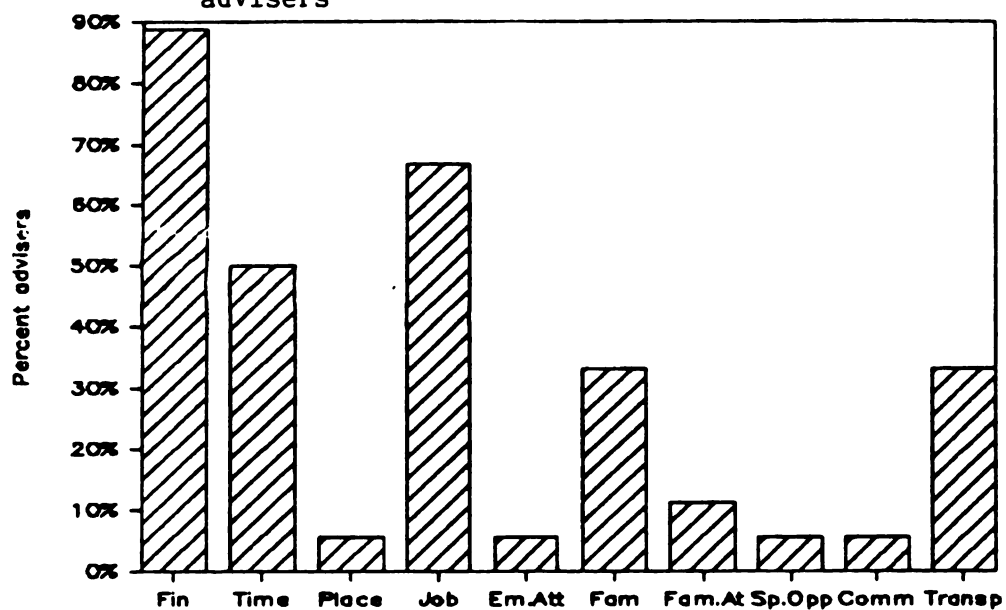


Figure F-4.135b Distribution of perceived graduate student personal problems (continued), Roosevelt University graduate student advisers

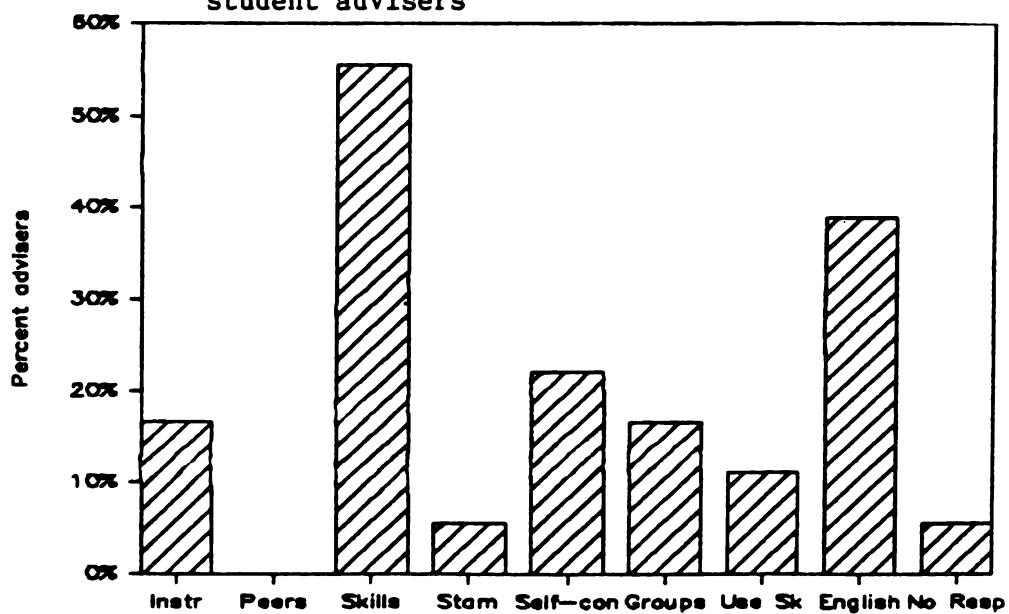


Figure F-4.136a Perceived degree of graduate student need for support services and facilities, Roosevelt University graduate student advisers

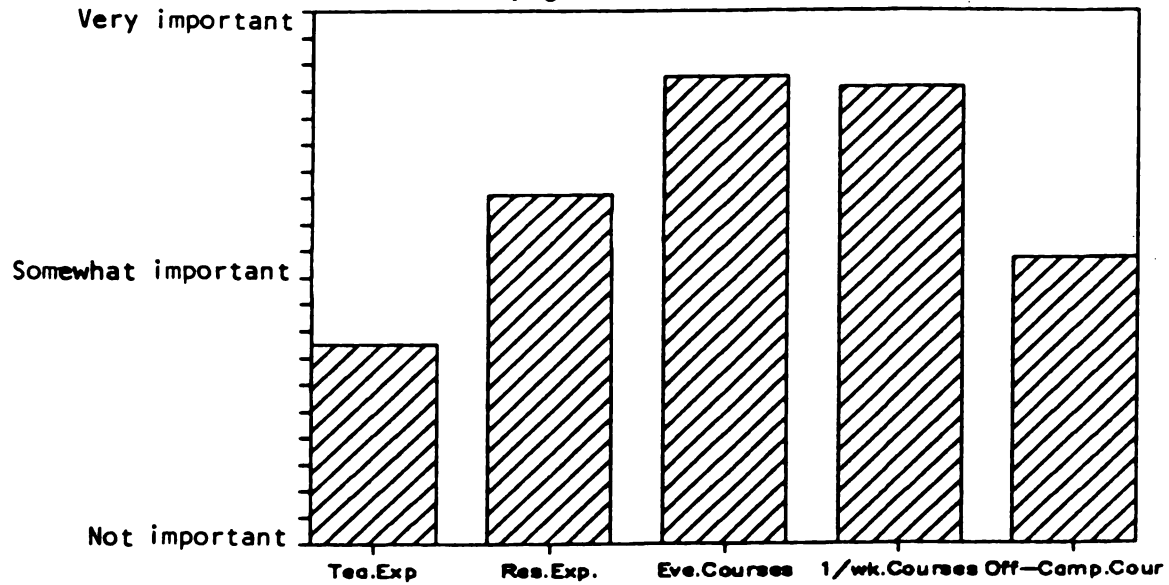


Figure F-4.137a Quality of support services and facilities available to graduate students, Roosevelt University graduate student advisers

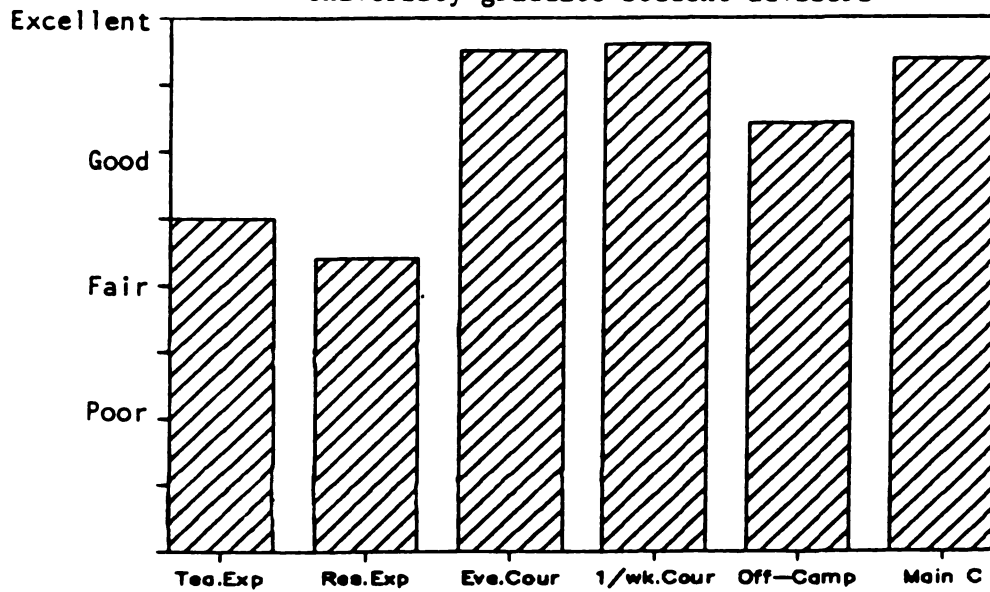


Figure F-4.136b Perceived degree of graduate student need for support services and facilities (continued), Roosevelt University graduate student advisers

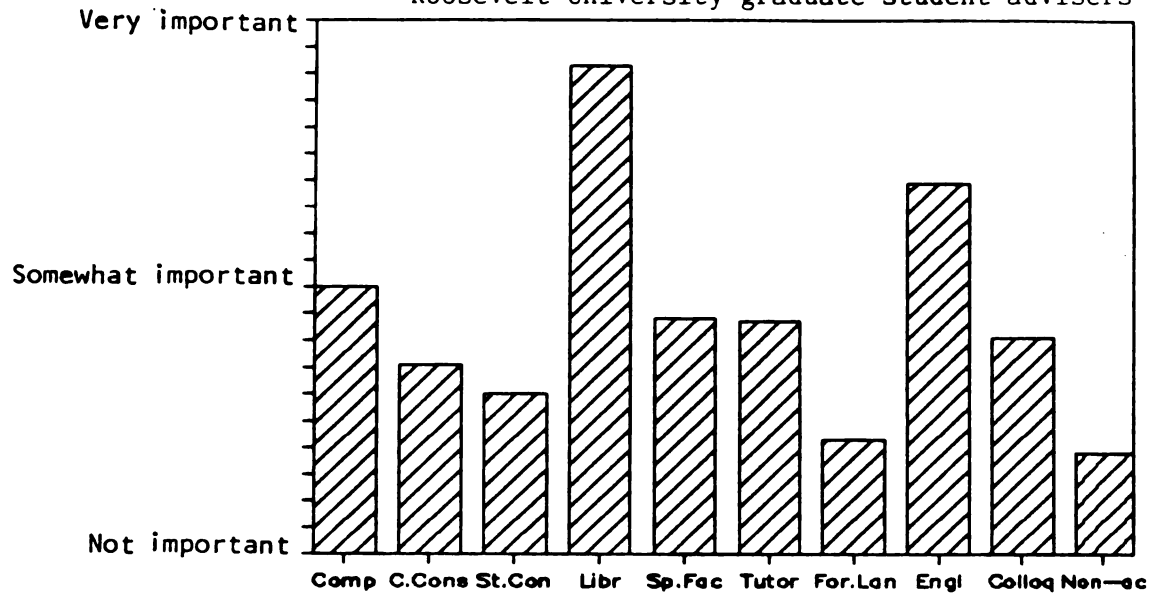


Figure F-4.137b Quality of support services and facilities available to graduate students (continued), Roosevelt University graduate student advisers

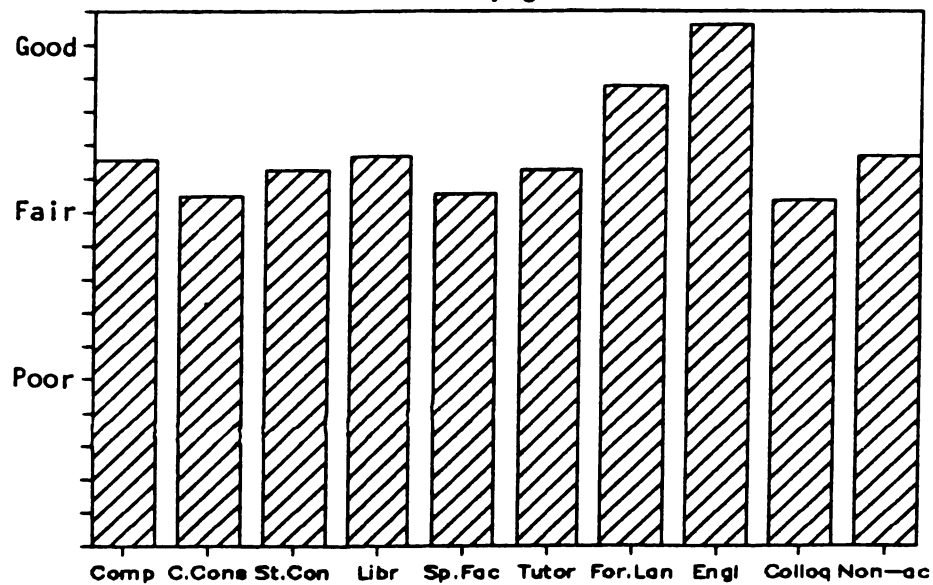


Figure F-4.136c Perceived degree of graduate student need for support services and facilities (continued), Roosevelt University graduate student advisers



Figure F-4.137c Quality of support services and facilities available to graduate students (continued), Roosevelt University graduate student advisers

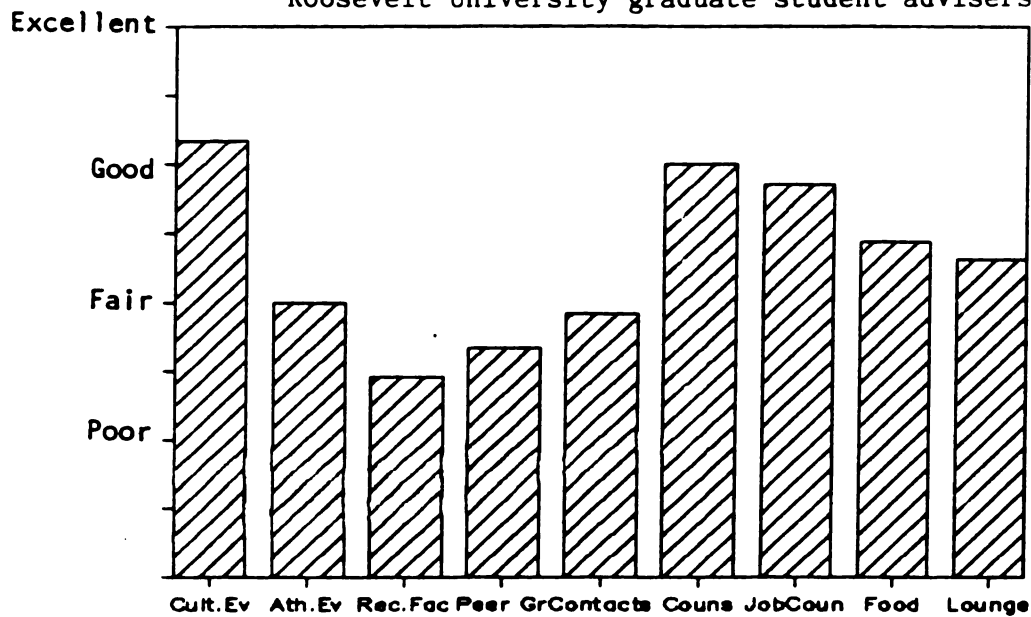


Figure F-4.136d Perceived degree of graduate student need for support services and facilities (continued), Roosevelt University graduate student advisers

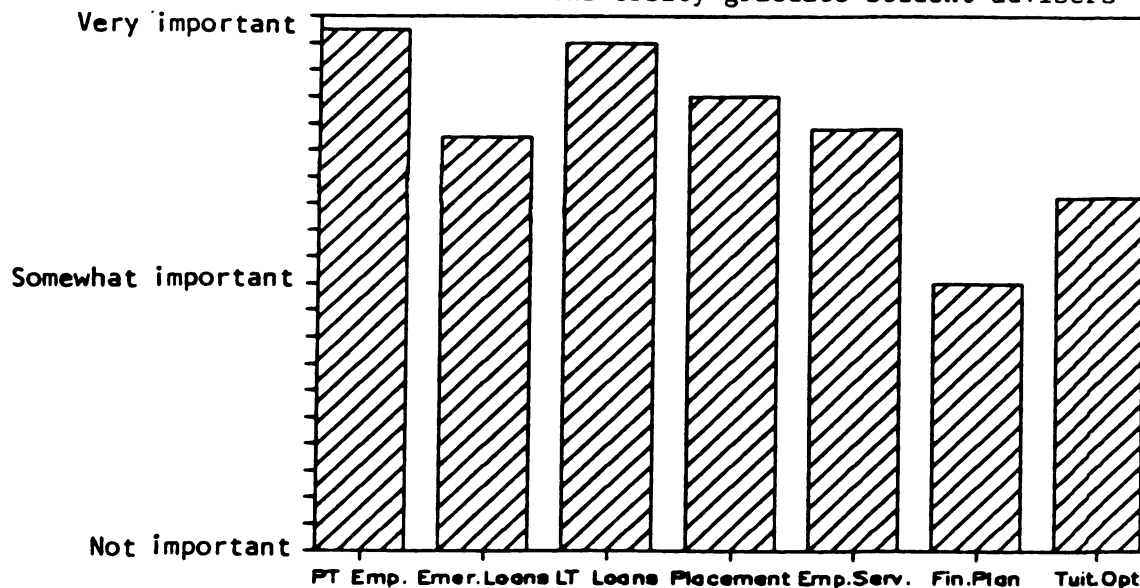


Figure F-4.137d Quality of support services and facilities available to graduate students (continued), Roosevelt University graduate student advisers

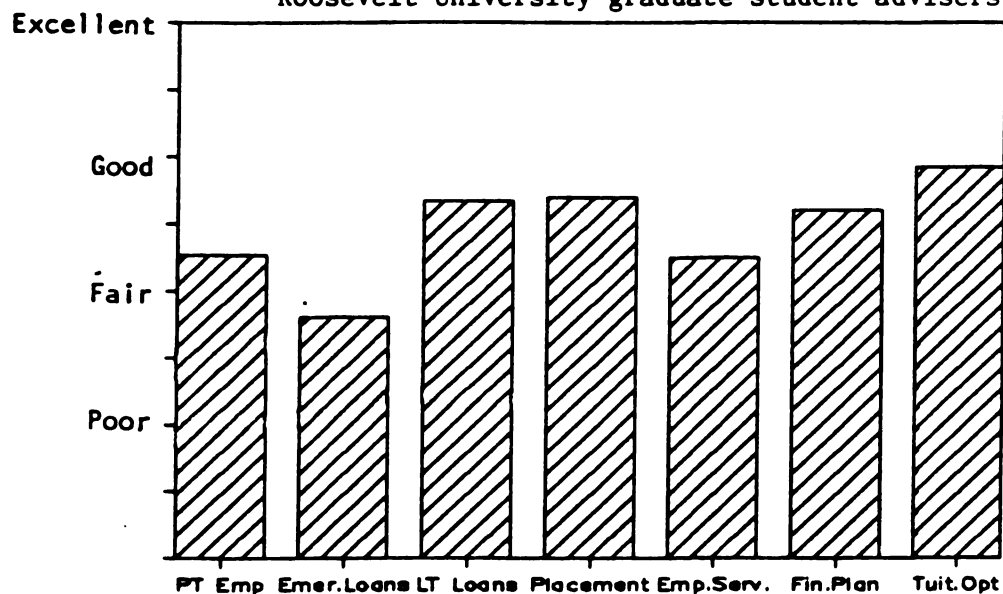


Figure F-4.136e Perceived degree of graduate student need for support services and facilities (continued), Roosevelt University graduate student advisers

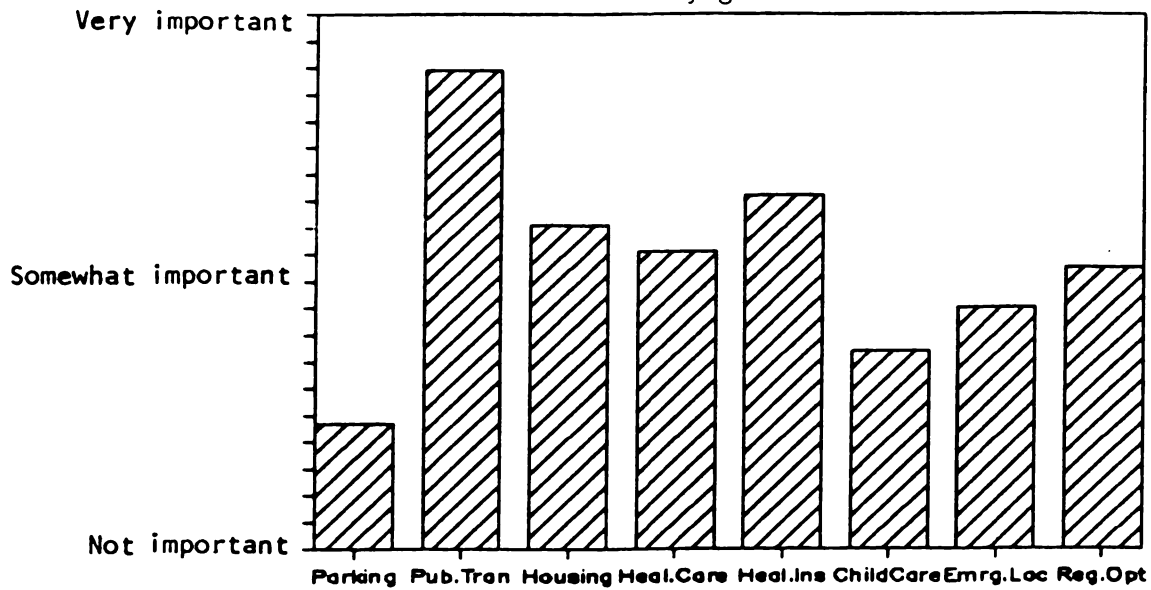


Figure F-4.137e Quality of support services and facilities available to graduate students (continued), Roosevelt University graduate student advisers

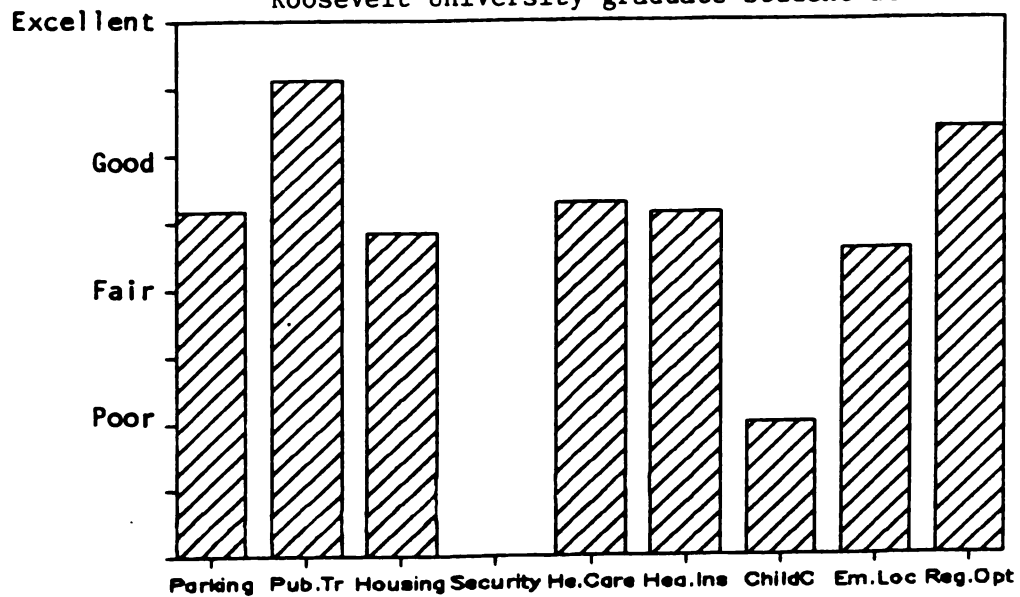


Figure F-4.138 Gender distribution, City University of New York graduate student advisers

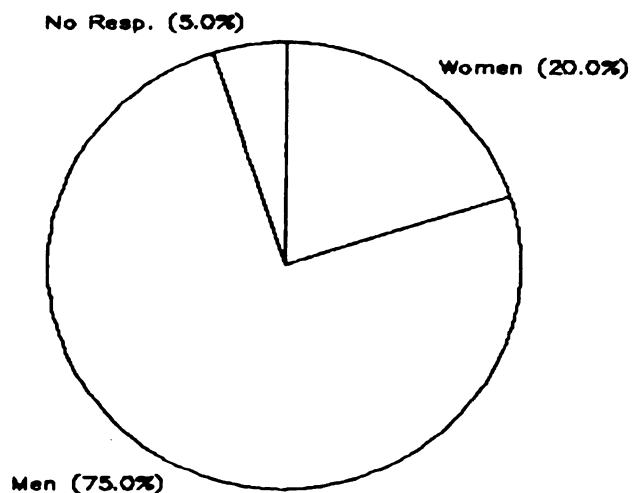


Figure F-4.139 Distribution among disciplines, City University of New York graduate student advisers

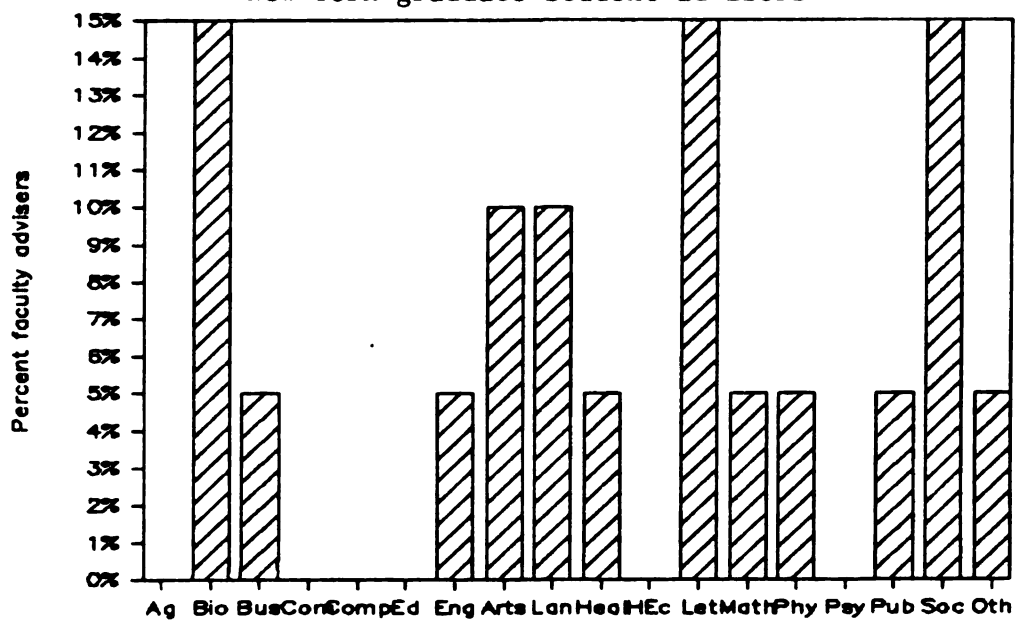


Figure F-4.140 Professional publications and products, City University of New York graduate student advisers

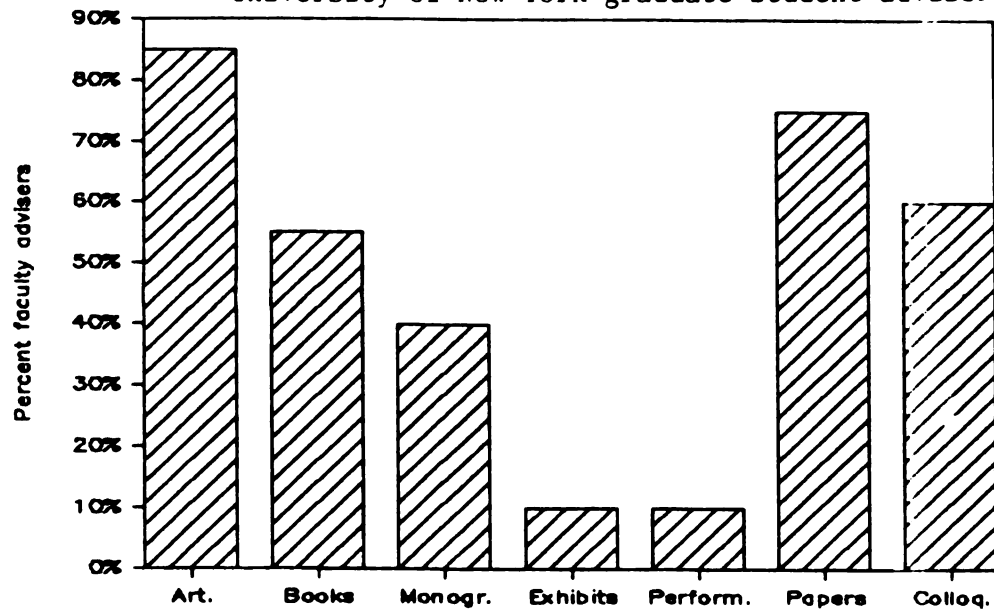


Figure F-4.141 Professional service and awards, City University of New York graduate student advisers

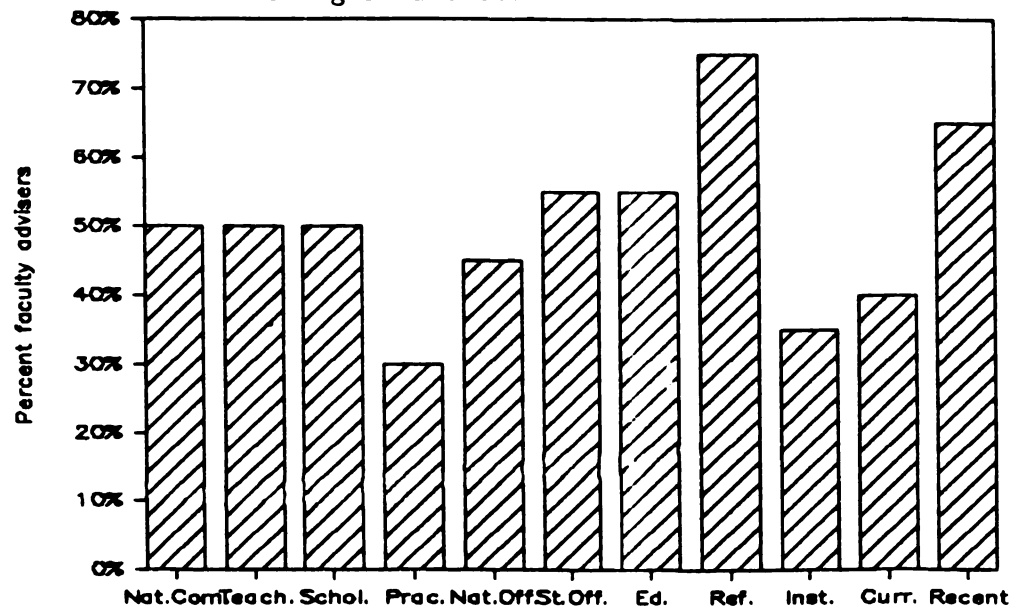


Figure F-4.142 Involvement in department activities, City University of New York graduate student advisers

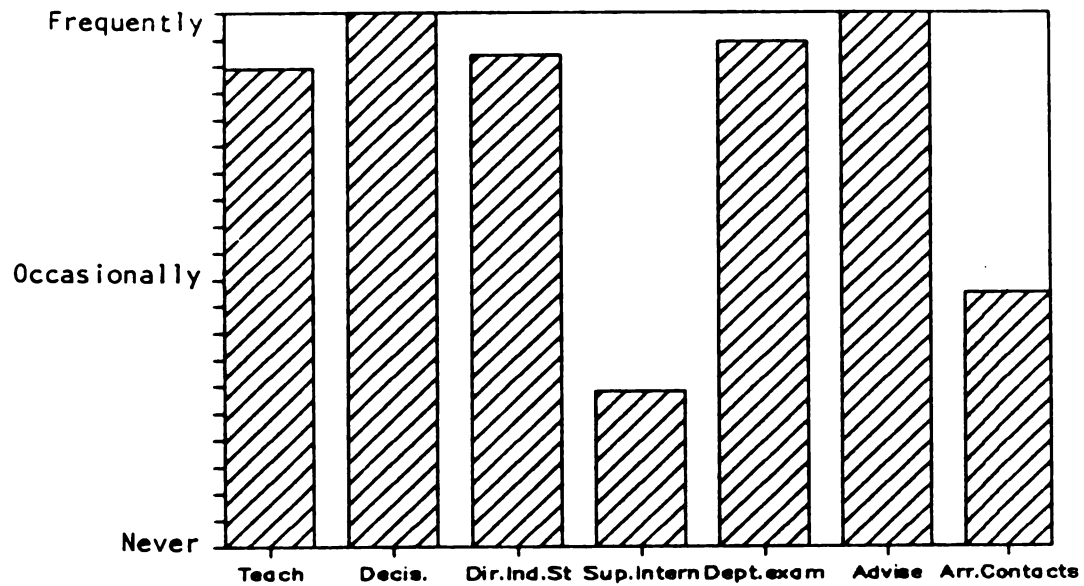


Figure F-4.143 Mean scores on faculty program evaluation scales, City University of New York graduate student advisers

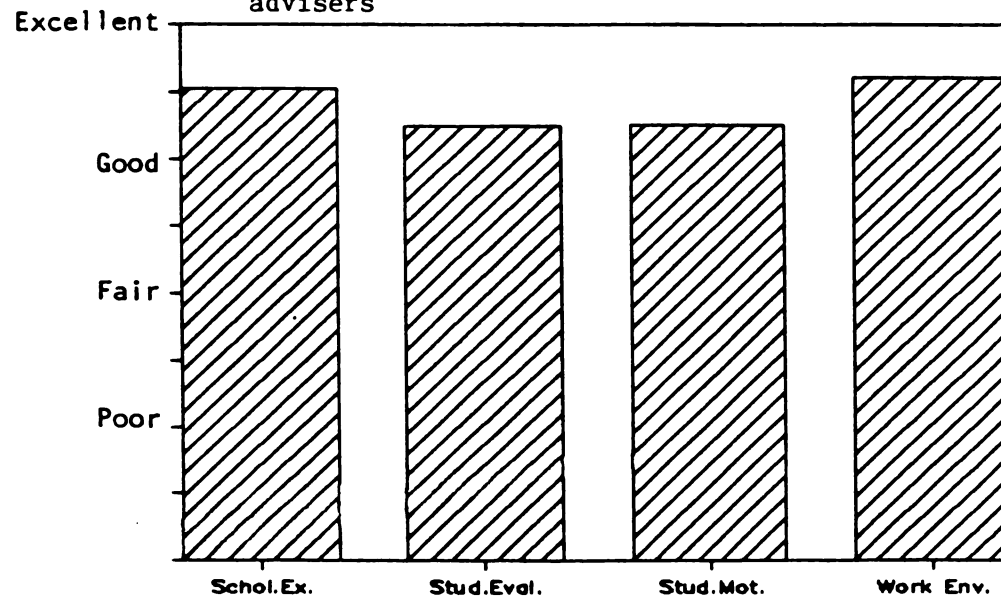


Figure F-4.144 Mean ratings of perceived importance of educational goals to graduate students and to departments, City University of New York graduate student advisers

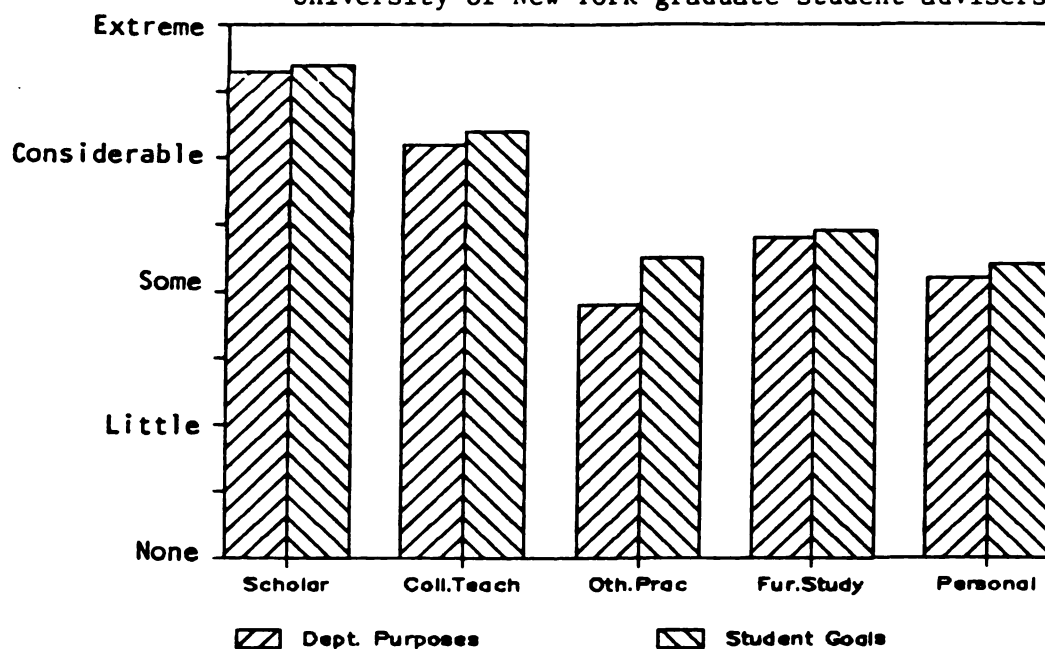


Figure F-4.145a Distribution of perceived institutional barriers for graduate students, City University of New York graduate student advisers

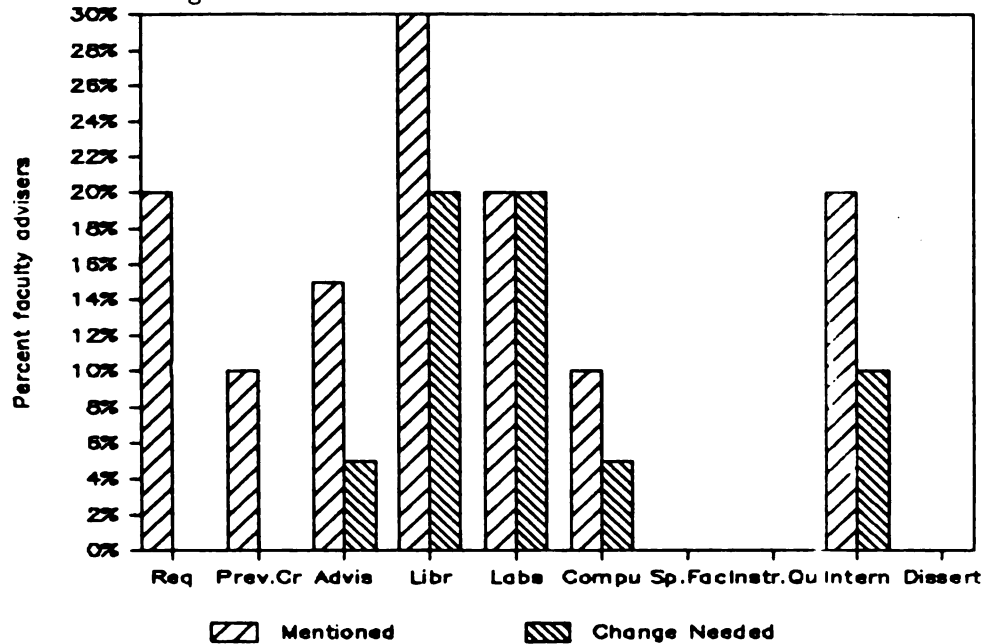


Figure F-4.145b Distribution of perceived institutional barriers for graduate students (continued), City University of New York graduate student advisers

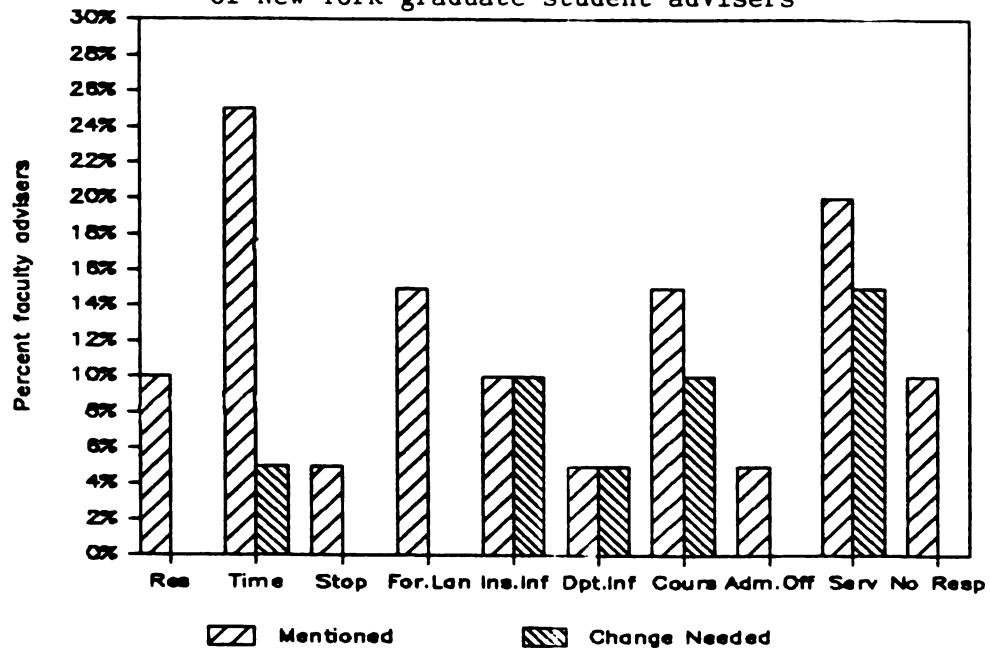


Figure F-4.146a Distribution of perceived graduate student personal problems, City University of New York graduate student advisers

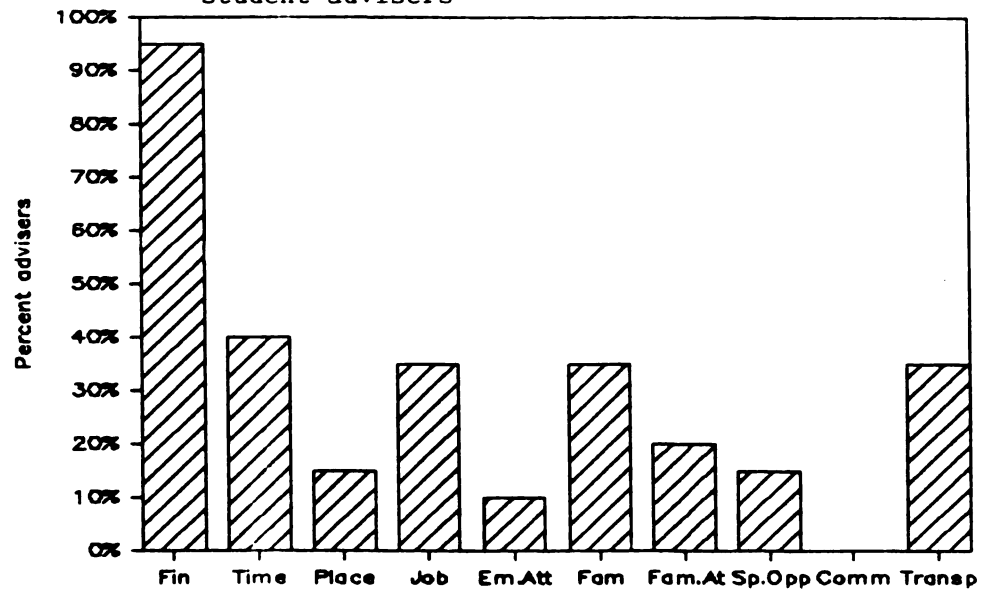


Figure F-4.146b Distribution of perceived graduate student personal problems (continued), City University of New York graduate student advisers

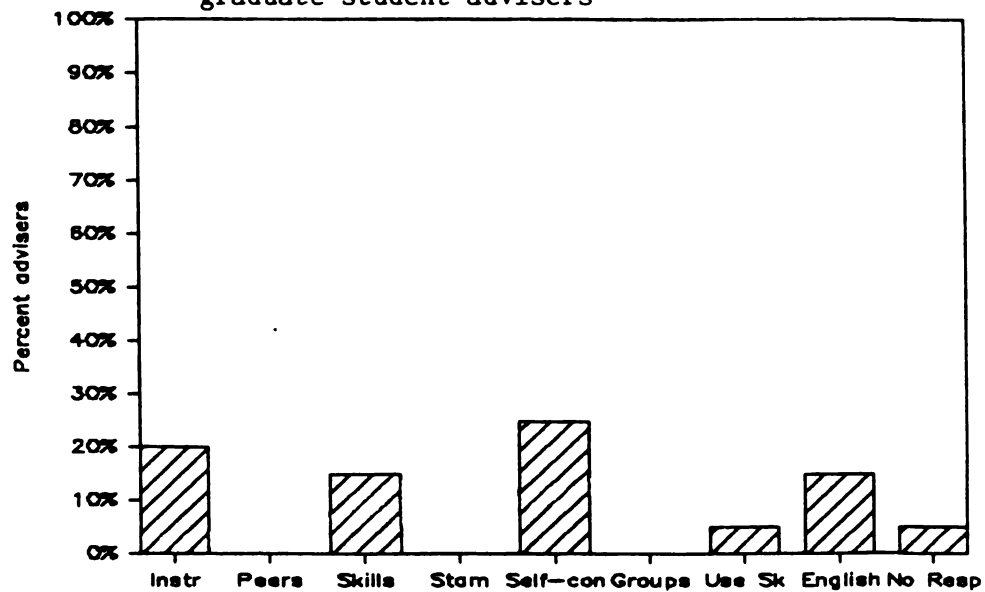


Figure F-4.147a Perceived degree of graduate student need for support services and facilities, City University of New York graduate student advisers

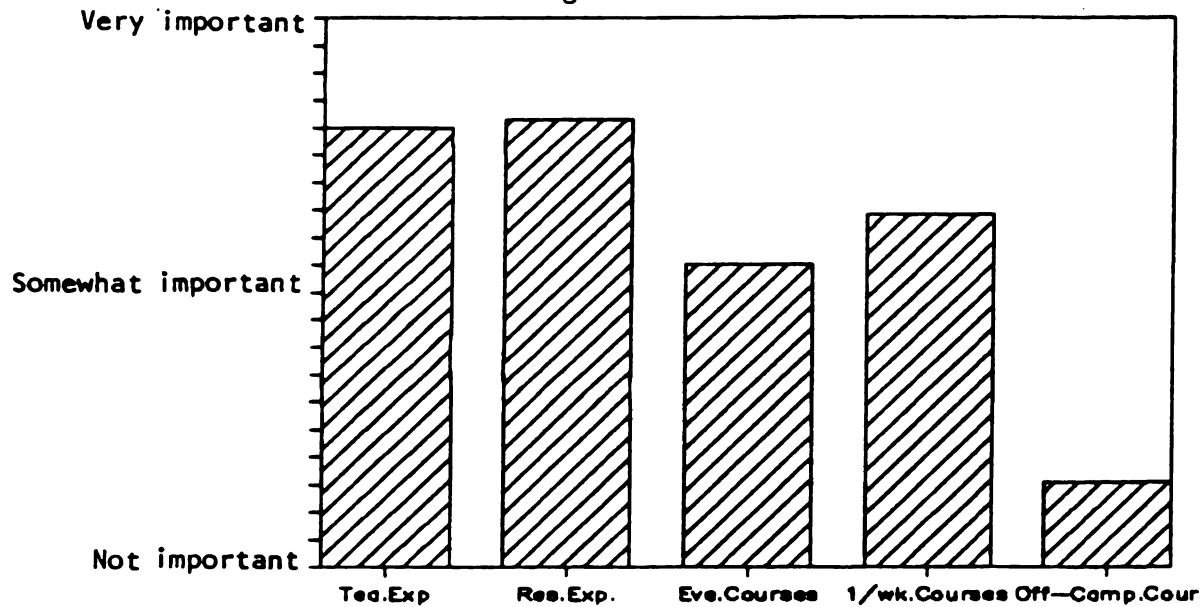


Figure F-4.148a Quality of support services and facilities available to graduate students, City University of New York graduate student advisers

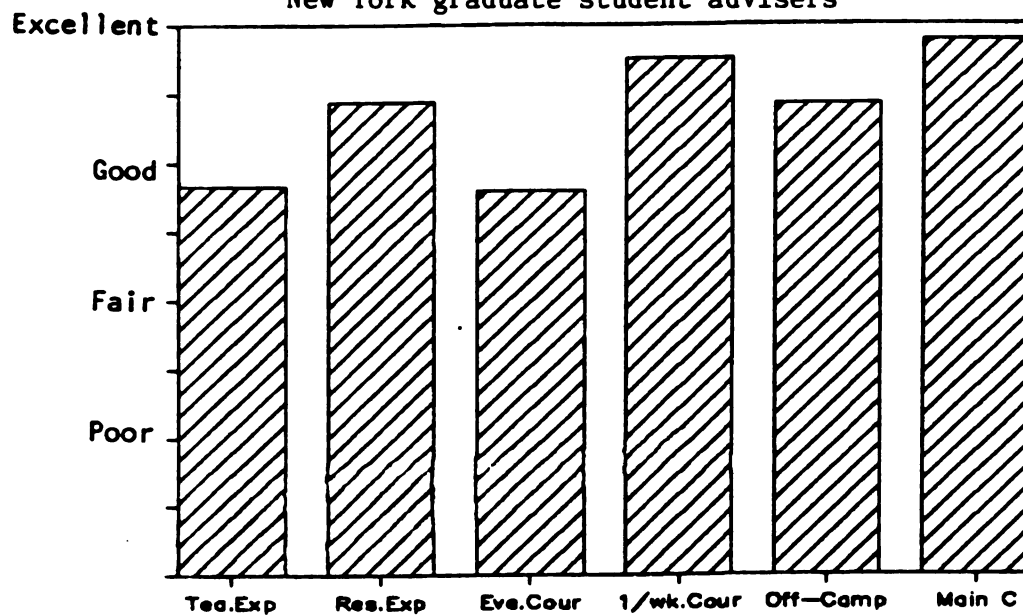


Figure F-4.147b Perceived degree of graduate student need for support services and facilities (continued), City University of New York graduate student advisers

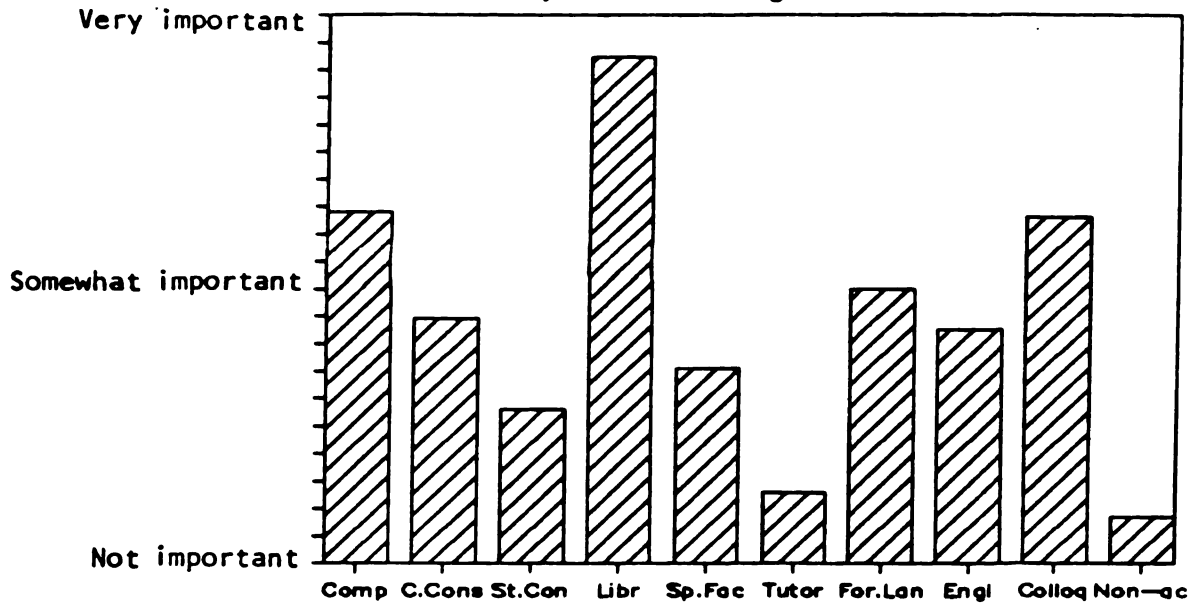


Figure F-4.148b Quality of support services and facilities available to graduate students (continued), City University of New York graduate student advisers



Figure F-4.147c Perceived degree of graduate student need for support services and facilities (continued), City University of New York graduate student advisers

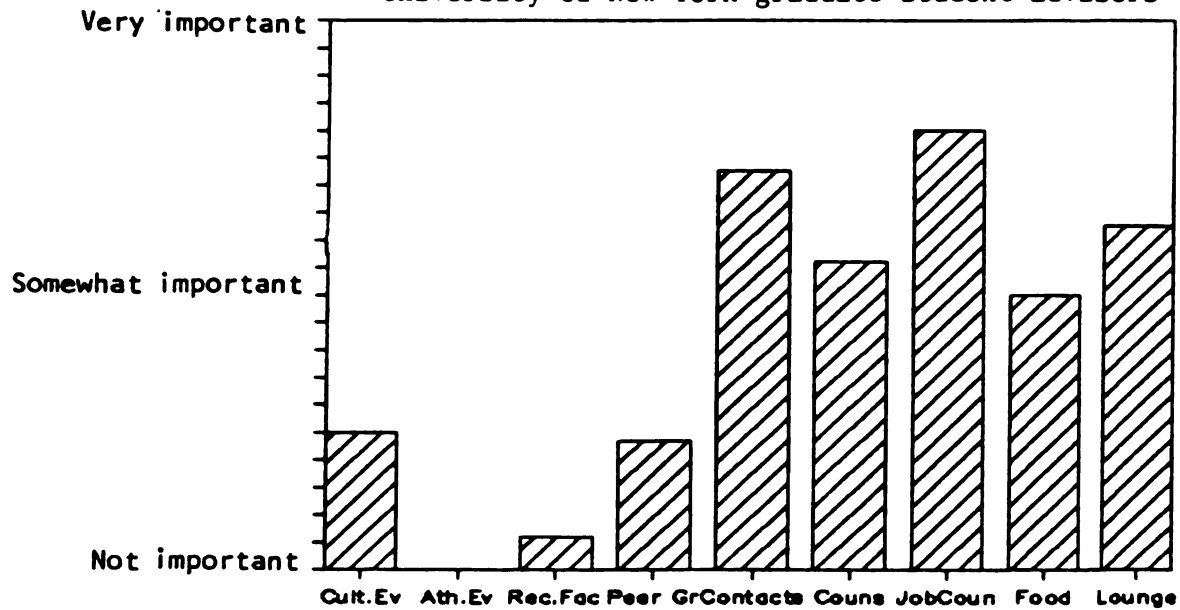


Figure F-4.148c Quality of support services and facilities available to graduate students (continued), City University of New York graduate student advisers

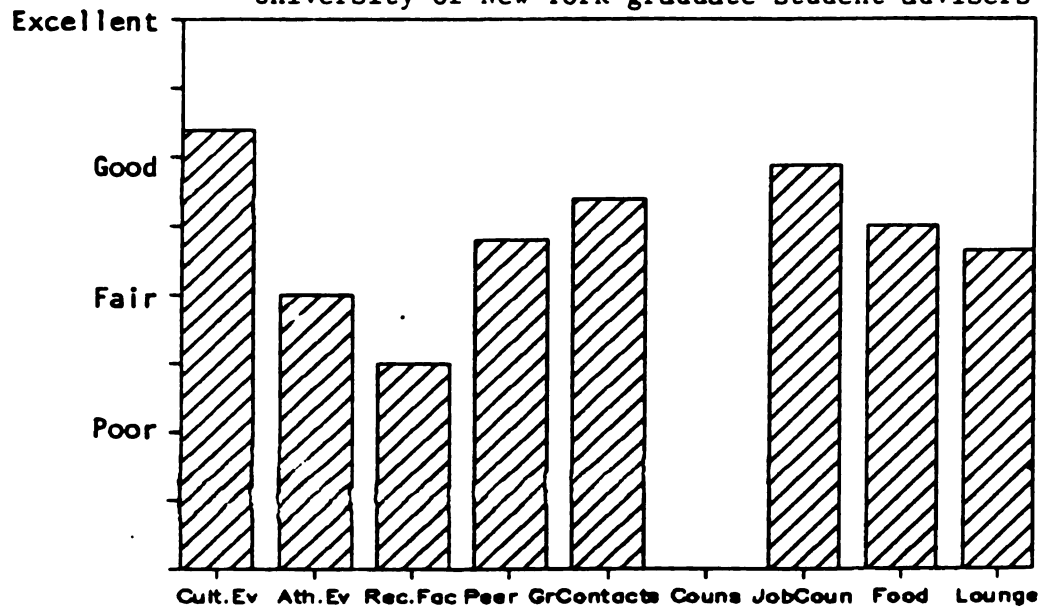


Figure F-4.147d Perceived degree of graduate student need for support services and facilities (continued), City University of New York graduate student advisers

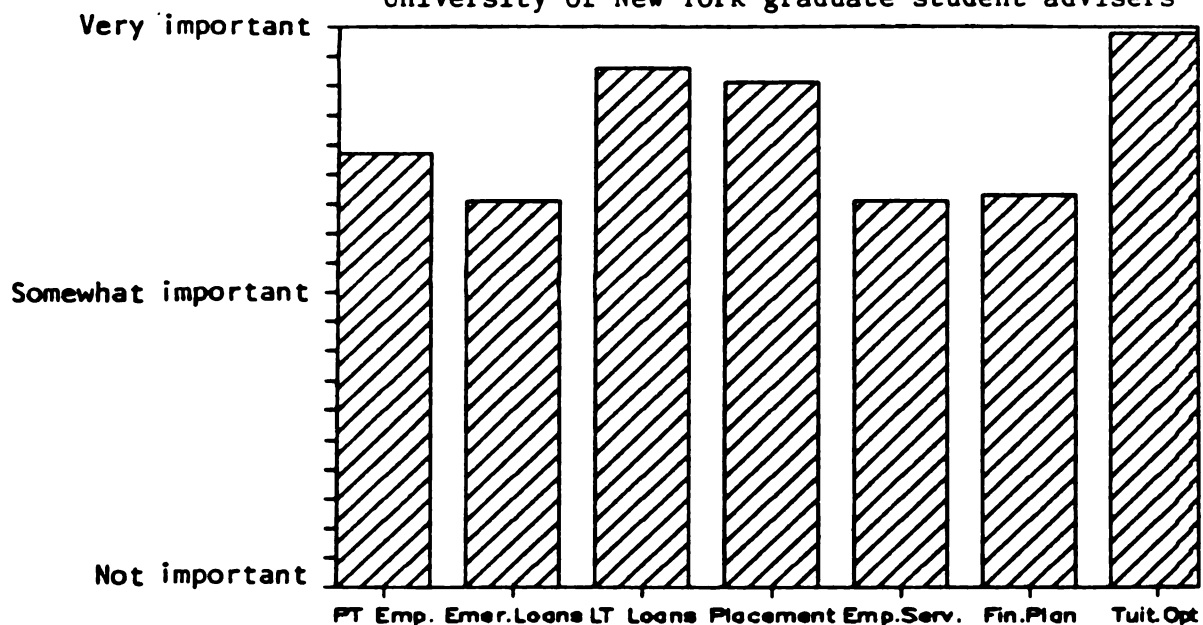


Figure F-4.148d Quality of support services and facilities available to graduate students (continued), City University of New York graduate student advisers

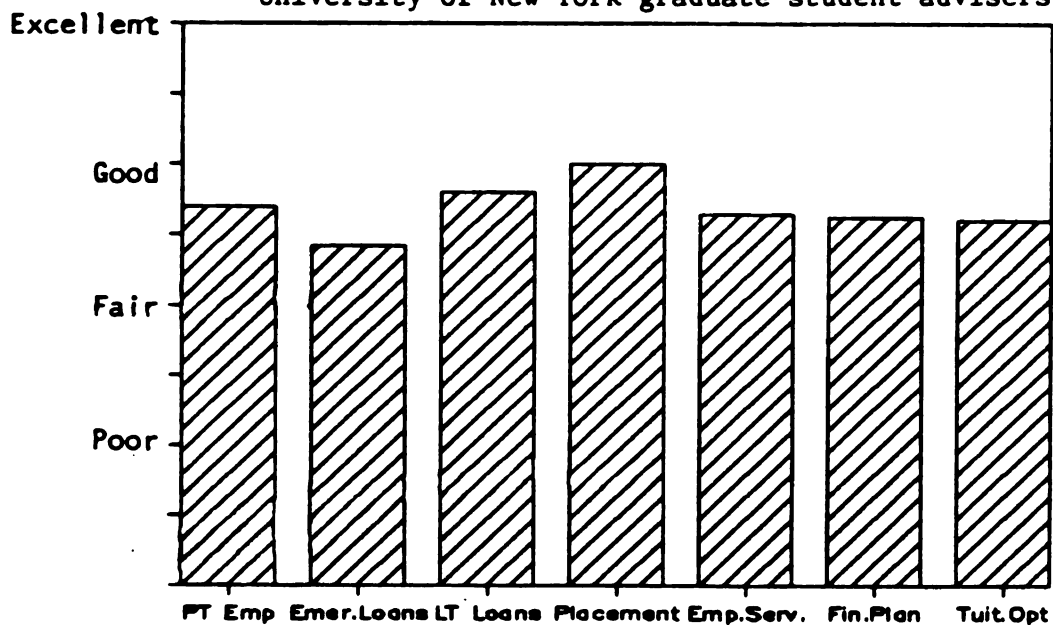


Figure F-4.147e Perceived degree of graduate student need for support services and facilities (continued), City University of New York graduate student advisers

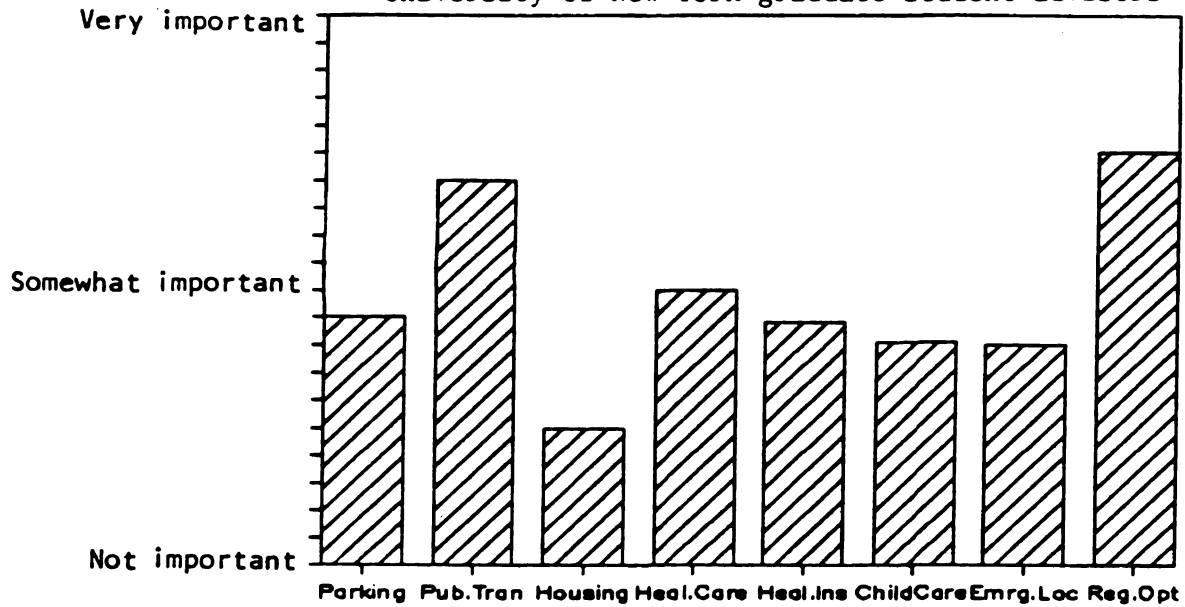
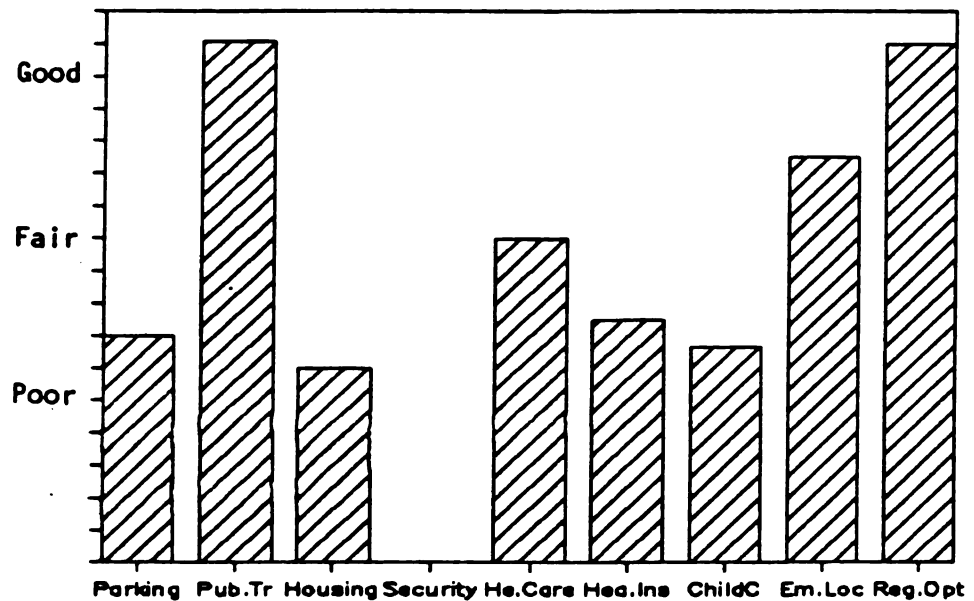


Figure F-4.148e Quality of support services and facilities available to graduate students (continued), City University of New York graduate student advisers



APPENDIX G

TABLES

Table G-1. Extreme values* of variables whose means or distributions were significantly different among clusters, Michigan State University.
Table G-1 (MSU) (continued)

Group No.	1	2	3	5	6	9	11	17	18	24	36	37	41	
	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo
Discipline:														
Agricult.		24%		21%										
Business		16%			22%						43%			
Education			54%			67%	53%	35%	58%	23%		53%	57%	
Engineer.	35%													
Phys. Sci.		11%		14%										
Soc. Sci.				11%										
Interdisc.									17%	15%				
Other							42%					29%	29%	
Type of Program:														
Non-degree							26%					29%	21%	
Master's					70%			14%	75%		86%			
Doctoral	54%		8%				18%	73%		8%	69%	14%		
No. Courses			1.2		2.4			1.2		2.3				0.9
No. Credits		0.5		4.5	0.9									3.1
Eff.Cred.		10.9		5.1	10.9					4.7	11.0			3.7
Total Courses:														
Main Campus					26.7		2.8		3.4				5.9	
Off Campus	0	0.3			0		10.8			0.4				
Professional Activities in Past Year:														
Auth.Paper				46%		0%	0%		0%		0%			
Proposal				68%				58%	0%		14%	0%	28%	
Indus.Res.	80%	67%						0%	7%		27%	0%	20%	
Fellowship	58%							0%	0%		0%	0%	18%	
Ind.Read.								100%	46%	100%	100%		58%	
Held B.A.	74%	83%	26%	77%		12%	0%		18%	69%		0%	0%	9%

*Values of variables to be reported were selected according to the following criteria:

Ordinal variables -- Courses, Credits, ETS Scales, ETS Items, Department and Personal Goals, Support Service Needs: Extreme high and low plus all whose 95% confidence intervals for the mean lay completely outside the 95% confidence interval for the ungrouped data.

Disciplines: Over 25% of cluster majoring in discipline OR over 25% of majors in discipline belong to cluster.

Type of Program, Professional Activities, Reasons Mentioned for Graduate Study: Cluster percent + or - 15% from total percent of that type.

Main Reason for Graduate Study, Main Personal Problem, Main Source of Financial Support: Modal percent for each group if greater than 25%.

Institutional and Personal Problems Mentioned, Sources of Financial Support: Cluster percent + or - 15% from total percent mentioning that problem/source OR cited as a problem/source by at least 50% of group.

G-2

Table G-1 (MSU) (continued)

Group No.	1	2	3	5	6	9	11	17	18	24	34	37	41	
	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo
<u>Program Evaluation</u>														
ETS Scales:														
(Scale: 1=poor to 4=excellent)														
Learn. Envir.	2.7						3.1		3.1					
Overall Sat.	2.9								3.5					
Relevance	2.4								3.2					
Fac. Concern	2.4								3.2					
Curriculum	2.3								3.1					
Items:														
(Scale: 1=poor to 4=excellent)														
Interact. with														
other disc.									3.0				1.7	
Stud. partic.									2.7				1.6	
Variety	2.0		3.0						3.0					
Faculty-student														
relations	2.4					3.1	3.1		3.2					
Supp. staff											3.2			2.0
(Scale: 1=strong disagree to 4=strong agree)														
Fac. interest	2.6								3.5					
Human env.							3.5		3.5		2.7			
Unass. read.						3.0		3.0						1.8
Help find														
employment							1.7			2.9		1.8		
Enroll again	2.6													
Interp. past									3.5			2.0		
Fac. respect.							3.3		3.3		2.2			
Good commun.	2.4					3.0	3.2		3.5		2.5			
Open. for interact.														
with fac.			2.1						2.9		2.1	2.1		
Profs. view of														
ent. reasons.									3.5		2.4			
Use examples	2.7								3.6					
Department Goals:														
(Scale: 1=no importance, 4=extreme importance)														
Pers. enrich.		1.5					3.0		3.3					
Personal Goals:														
Schol/res.	3.5		3.1									1.3		
Coll. teach.					1.3	1.3		2.8		2.9				
Furth. study									3.2					
Pers. enrich.							3.5		3.6					
Reasons for Study														
(a) mentioned														
Obt. degree	40%	92%		96%	93%			91%	100%					
Adv. in job				11%			53%			62%		53%	71%	
Impr. life	56%				63%	56%							12%	

[illegible]

6-4

Table G-1 (MSU) (continued)

Group No.	1	2	3	5	6	9	11	17	18	24	36	37	41	
	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo
Need for Support Services and Facilities:														
(Scale: 1=very important, 3=not important)														
Teach.exp. 1.6				1.6			2.9	2.7		1.5			2.8	
Resear.exp. 1.4				1.2						2.5			2.4	
Ext.cours.	2.7	2.5	1.3		2.5	2.4	1.1	1.3		1.2		1.4	1.1	
1/wk.cours.	2.6	2.6	1.4		2.5		1.4			1.5				
Off-camp.	2.8	2.9					1.2		1.3		2.8			
Comm.fac. 1.4										2.8			2.6	
Com.counsel. 1.6										2.9		2.7	2.7	
Stat.cons.										1.6		2.7		
Library fac.												1.7		
Spec.facil. 1.8				1.8				2.8						
For.lang.								3.0				3.0		
English	2.1		3.0				3.0			3.0		3.0		
Colloquia				1.8				2.9		1.8			2.8	
Cult.events								2.8		1.6				
Rec.facil.								2.8		1.8				
Peer supp.										2.9	1.8			
Inform.con. 1.6										1.6			2.4	
P.s.cmpl. 1.1		1.4		1.4				2.7		2.7	1.4		2.5	2.6
Emerg.loan 1.8								2.8		2.9	1.8	2.9		
Lo-term.ln.								2.6	1.7	2.7				
Placement		1.4		1.5	1.5			2.4						
Emg.serv. 1.6					1.7			2.8						2.8
Fin.plan. 2.8								2.8					2.9	
Unit.out.										2.5	1.5			
Pub.trans. 1.8					1.6			2.9		2.8				
Food facil.					2.8		2.8							
Lessons	1.9							2.7						
Camp.hous. 1.6								3.0		3.0				3.0
Health fac. 1.6				2.8	1.6			2.8		2.8				2.8
Meal.ing. 1.8								2.8		2.9	1.5	3.0		2.8
Child care		3.0					3.0	2.2				3.0		3.0
Emerg.loc. 1.7														
Res.out.		2.2						1.5				1.5		

G-5

Table G-2. Extreme values* of variables whose means or distributions were significantly different among clusters, University of Minnesota.

Group No.	1	2	5	6	7	8	11	12	14	15	18	20	89	
	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo
Discipline:														
Agricult.					23%								20%	
Business	53%	18%				27%					73%			
Education			31%			46%			32%	26%				
Engineering	27%													
Health Pro.		14%								21%				
Letters										21%				
Phys. Sci.				18%									20%	
Type of Program:														
Master's	93%						67%			60%	82%			
Doctoral				86%								72%	80%	
No. Cred.						2.7			9.4					
Eff. Cred.					13.1	4.5							13.4	
Yr. Start, 1980					1980	1973	1980		1980					
Professional Activities in Past Year:														
Pres. exp.	0%										0%	52%	40%	
Fellow.	0%				50%	0%					0%		100%	
Held G.A.	13%			76%	92%	9%		80%	70%			0%	80%	80%
Sources of Financial Support:														
(a) mentioned														
Grad. asst.	0%				92%		0%	42%	63%		21%	0%	64%	60%
Other emp.	93%					0%	82%		20%	26%	60%	91%		20%
GI benefits												27%		
Loans		36%		0%			30%		36%					0%
Spouse	13%	57%	42%			0%		0%	0%	0%	50%		72%	
(b) most important														
Grad. asst.		26%		36%	67%		46%	40%					27%	
Other emp.	87%			27%		80%	31%			42%	82%			
Spouse			50%							32%			42%	
Pers. assets			23%											

*Values of variables to be reported were selected according to the following criteria:

Ordinal variables -- Credits, ETS Scales, ETS items, Department and Personal Goals, support service needs: Extreme high and low means plus all whose 95% confidence intervals for the mean lay completely outside the 95% confidence interval for the ungrouped data.

Discipline: Over 25% of cluster majoring in discipline OR over 25% of majors in discipline belonging to cluster.

Type of Program, ETS professional activities, reasons mentioned for graduate study: Cluster percent + or - 15% from total percent of that item.

Main reason for graduate study, main personal problem, main source of financial support: Modal percent for each group if greater than 25%.

Institutional and personal problems mentioned, sources of financial support: Cluster percent + or - 15% from total percent mentioning that problem/source OR cited as a problem/source by at least 50% of cluster members.

6-6

Table 6-2 (U. Minn.) (continued)

Group No.	1	2	5	6	7	8	11	12	14	15	18	20	89	
	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo
Employer Aid Received:														
None		57%	62%											
Releas.time						46%					27%		48%	
Red. tuit.					50%			34%						
Tuit. paid 88%											73%		88%	
Program Evaluation														
ETS Scales:														
(Scale: 1=poor to 4=excellent)														
Fac.Concern											2.1		3.4	
Teach.Qual.											2.3		3.2	
Evaluation						3.0					2.3			
Items:														
(Scale: 1=poor to 4=excellent)														
Prog.adv.						3.4		2.2	2.2					
Lib.hold.									2.2				3.4	
Interact. with														
oth. dis. 2.9					2.9	3.0		1.9						3.0
Prog.flex.					2.9						1.7	2.9		
Instr.acces.											2.4		3.4	
Adv.access.											2.2		3.0	
Oppor. for														
indiv.proj.			3.2								1.0		3.2	
Prog.eval.						3.1				2.2			3.2	
Teach.eval.						3.4					2.4		3.4	
Comm.eval.						2.9					1.0			
U. commit. 3.1											2.2		3.4	
Fac. help.			3.1			3.1					1.0		3.2	
Mo. staff											1.9		3.2	
Staff eval.											1.9		3.4	
(Scale: 1=strong disagree to 4=strong agree)														
Fac.inter.											2.6		3.0	
Unass.read.							3.2				1.9	3.2		
Help finding														
employment					3.0			1.9			1.9		3.4	
Interact. with														
uni.prof.											1.7		3.0	
Interact. with														
oth. fac.											1.7		3.0	
Prof. view of														
uni.resp.											1.5		3.2	

[illegible]

G-0

Table G-2 (U. Minn.) (continued)

Group No.	1	2	5	6	7	8	11	12	14	15	18	20	09	
	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo
Need for Support Services and Facilities (Scale: 1=very important to 3=not important)														
Teach.exp.	2.7						2.8	1.4	1.5		2.8		1.4	
Res.expert.	2.1				1.8						2.1	1.1		
Ext.cours.	1.5					1.6		2.9			1.2		2.8	
1/4mk.cour.	1.5					1.5		2.7			1.2		2.6	3.0
Comput.fac.										2.3			1.2	
Spec.facil.	2.7		2.6			2.6				2.6			1.2	
English						3.0				3.0	3.0	3.0	1.6	
Colloquia					1.8		1.8					2.7		
Cult.events			2.6		1.8			1.8			2.8			
Rec.facil.			2.8		1.8									
Inform.cont.							1.2				2.5			
P.t. empl.	2.6				1.1	2.7		1.3			3.0	1.2	1.3	
Emerg.loans					1.7						2.7			
Lo-term in.							2.6	1.5			2.6			
Placement			1.1				2.5							
Emp.serv.					1.5		2.7				2.7			
Fin.plan.					1.9		2.9							
Parking						2.4					1.2			
Pub.trans.	2.4	1.4					2.5	1.3					1.2	
Food facil.										2.6			1.6	
Lounges	2.4				1.5								1.4	
Came.hous.					1.7		3.0	2.9			3.0		1.4	
Health fac.	2.7				1.2		2.8				2.9			
Health ins.	2.6				1.2		2.9				2.9		1.2	
Child care	3.0		2.1				3.0	3.0	2.9					
Rec.opt.				2.4		1.2								

Table G-3. Extreme values* of variables whose means or distributions were significantly different among clusters, University of Tennessee at Knoxville.

Group No.	1	2	3	5	6	9	17	21
	Hi Lo	Hi Lo	Hi Lo	Hi Lo	Hi Lo	Hi Lo	Hi Lo	Hi Lo
Discipline:								
Agricult.				16%				
Biol.Sci.		11%						
Business		22%	19%					
Education	82%		31%	16%		23%	54%	20%
Engineer.		39%	19%				15%	
Phys.Sci.		17%						
Psychology				42%				
Pub.Affairs						27%		
Soc. Sci.				16%				20%
Other							15%	
No.Courses			1.4	2.8				
No.Credits			4.8	8.6	8.6		4.8	
Eff.Credits			5.1	11.0				
Year Start.	1978			1980	1980			
Professional Activities in Past Year:								
Fellowship	18%		19%	62%	54%			8%
Won prize				32%	36%			
Ever held grad.								
assist.	9%	72%			64%			0%
Evaluation of grad. assist.:								
(Scale: 1=poor to 4=excellent)								
Chance to practice								
skills	4.0 (N=1)		2.0					
Absence of unnec.								
dirty work			1.8	3.6				

*Values of variables to be reported were selected according to the following criteria:

Ordinal variables -- Courses, Credits, ETS scales, ETS items, Department and Personal Goals, Support Service Needs: Extreme high and low plus all groups whose 95% confidence intervals for the mean lay completely outside the 95% confidence interval for the ungrouped data.

Disciplines: Over 25% of cluster majoring in discipline OR over 25% of majors in discipline belong to cluster.

Type of Program, ETS Professional Activities, Reasons mentioned for graduate study: Cluster percent was + or - 15% from total percent of that response.

Main Reason for Graduate Study, Main Personal Problem, Main Source of Financial Support: Modal response for each group OR highest group for that response if greater than 25%.

Institutional and Personal Problems, Sources of Financial Support mentioned: Cluster percent was + or - 15% from total percent mentioning that problem/source OR cited as a problem/source by at least 50% of group.

G-10

Table G-3 (UTK) (continued)

Group No.	1	2	3	5	6	9	17	21
	Hi Lo	Hi Lo	Hi Lo	Hi Lo	Hi Lo	Hi Lo	Hi Lo	Hi Lo
Program Evaluation								
ETS Scales:								
(Scale: 1=poor to 4=excellent)								
Over. Sat.	3.4	2.6			3.4			
Teaching		2.5			3.0		3.0	
Stud. Eval.	2.9	2.2						
ETS Items:								
(Scale: 1=poor to 4=excellent)								
Program								
advice	3.2	2.2						
Admin. of degree								
require.	3.0	2.1					3.0	
Course evaluation								
proced.	2.9	2.2						
Indiv. proj.	3.3	2.4			3.3			
Eval. of prof.								
competen.	2.9	2.1	2.1					
U. commit.	3.2	2.1						
Admissions	3.4	2.4						
Fac. interest		2.6					3.5	
Learned a great								
deal		2.9		3.7	3.7			
Fac. help find								
employment					2.8			1.9
Fac. exploit								
students		2.8				1.8		
Finan. aid decisions								
are fair	2.0				3.3			
Will complete								
degree		3.1				3.9		
Professional Activities in Past Years:								
Held fell.	18%		19%	62%	54%			8%
Won prize				32%	36%			
Department Goals:								
(Scale: 1=no importance to 4=extreme importance)								
Prep. for other								
practice	3.3	2.1						
Personal Goals:								
Prep. for college								
teaching				1.0				2.8

G-11

Table G-3 (UTK) (continued)

Group No.	1	2	3	5	6	9	17	21
	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo
Reasons for Study								
(a) mentioned								
Devel. family/commun.								
skills			12%		50%			
Adv. in job	54%			16%			67%	53%
(b) main reason								
Obt. degree	36%							33%
Obt. skills in								
field			25%		33%			
Fam. skills	18%							
Prep. new job						34%		
Imp. income							31%	
Problems with the Institution (mentioned):								
Resid. req.	36%			32%				
Times, loc., or freq.								
of courses	26%		69%		50%	70%	77%	
Admin. off.			38%				46%	
Has been hard to. . .								
(Scale: 1=disagree strongly to 4=agree strongly)								
use admin.	3.4			1.8	2.0			
consult adviser/								
thes. chm.	3.0			1.7				
meet instr.				1.8	2.0		3.2	
register				1.4			3.2	
Personal Problems:								
(a) mentioned								
Finan. ed.	36%	33%		64%	67%	70%	23%	53%
Fam. resp.	73%		17%		12%	25%	53%	72%
Instr. att.	9%	56%		44%				7%
(b) worst problem								
Finan. ed.				38%	64%	43%		
Study time							33%	
Job resp.	22%							
Empl. att.	22%							
Instr. att.		31%						
Sources of Financial Support:								
(a) mentioned								
Grad. asst.	9%	67%		0%	48%	58%		0%
Oth. empl.			88%		40%		43%	92%
Loan	0%			40%				0%
Spouse	64%		0%	19%	0%	58%	50%	69%
Parent		0%		40%				0%
(b) most important								
Grad. asst.		59%		42%				
Oth. empl.	60%		75%				62%	
Loan					30%			
Spouse					50%	27%	38%	36%
Parent				21%				
Employer Aid Received:								
Red. tuition					25%			
Raises	36%						23%	

G-12

Table G-3 (UTK) (continued)

Group No.	1		2		3		5		6		9		17		21	
	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo
Need for Support Services and Facilities:																
(Scale: 1=very important to 3=not important)																
Teach.exp.	2.5														1.5	
Resear.exp.					1.4								2.4			
Eve.cours.									2.7				1.0			
1/wk.cour.	1.4		2.8				2.5						1.3			
Off-campus	1.6		2.9				2.9						1.4			
Spec.facil.	2.8				1.6											
Rec.facil.	2.8	1.6														
P.T.employ.	2.5				1.3		1.1						2.7			
Emerg.loans	2.6				1.8											
Lo-term ln.	2.6				1.5											
Placement	2.3				1.4		1.4		1.4							
Emp. serv.	2.6				1.6											
Fin.plan.	2.8				2.0											
Pub.transp.	2.7				1.9											
Food facil.	2.6				1.8											
Camp.hous.	2.9				2.0											
Health care	2.9				1.6											
Health ins.	2.9								1.4							
Child care			3.0												2.2	
Reg. opt.									2.2				1.3			

G-13

Table G-4. Extreme values* of variables whose means or distributions were significantly different among clusters, City University of New York.

Group No.	1	2	3	4	6	7	8	11	14	25
	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo
Professional Activities in Past Years:										
Devel. skills via clin., field work, or internship			25%	0%	10%	67%	78%		20%	25% 75%
Program Evaluation										
ETS Items										
(Scale: 1=poor to 4=excellent)										
Prog.flex.						3.4			1.8	
Eval. of student										
prof.comp.			1.9	3.0						
Personal Goals:										
Scale: 1=no importance to 4=extreme importance)										
Coll.teach.			0.3				3.3		3.3	
Oth.prac.				0.8	3.3					
Reasons for Study (mentioned):										
Adv.in job	40%		67%			0%			0%	0%
New friends			67%		30%					
Indep. life	10%	50%			20%			60%	56%	
Problems with the Institution (mentioned):										
Accep.cred.			33%		50%		0%		40%	0%
Spec.facil.			33%						40%	
Instr.qual.					70%			0%		
Dissert.										
approval			33%					40%		25%
Personal Problems (mentioned):										
Financing	40%	33%	33%	100%	70%	67%	67%	80%	33%	50%
Spouse opp.			33%				33%			
English comm.			33%							
Sources of Financial Support (mentioned):										
Spouse						0%	56%		67%	0%

*Values of variables to be reported were selected according to the following criteria:

Ordinal variables -- ETS Items, Personal Goals, Support Service Needs: Extreme high and low means plus all whose 95% confidence intervals for the mean lay completely outside the 95% confidence interval for the ungrouped data.

Professional Activities, Reasons Mentioned for Graduate Study: Cluster percent + or - 15% from total percent of that type.

Institutional and Personal Problems Mentioned, Sources of Financial Support: Cluster percent + or - 15% from total percent mentioning that problem/source OR cited as a problem/source by at least 50% of group.

G-14

Table G-4 (CUNY) (continued)

Group No.	1		2		3		4		6		7		8		11		14		25	
	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo
Need for Support Services and Facilities:																				
(Scale: 1=very important to 3=not important)																				
Eve.courses					1.5														2.7	
Library	1.0		1.0		2.5	1.0		1.0					1.0							
Eng.train.	3.0		3.0	2.5					3.0		3.0	2.5			3.0		3.0		3.0	
Credit for non-acad.																				
learning	2.0				3.0		3.0								3.0					
Food facil.	1.4				2.7															
Child care					2.0				3.0											
Emerg.loc.													1.6						2.9	

G-15

Table G-5. Extreme values* of variables whose means or distributions were significantly different among clusters, Roosevelt University.

Group No.	1	3	5	6	10					
	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo
No. courses taken on										
main camp.	0.3		14.5							
Professional Activities in Past Year:										
Devel. skills via clin., field work, or										
internship	0%				62%		57%			
Program Evaluation										
ETS Scales										
(Scale: 1=poor to 4=excellent)										
Teaching	2.3		3.3							
ETS Items										
(Scale: 1=poor to 4=excellent)										
Lib. hold.	1.8		3.2							
Prof. promise of										
grad.stud.			3.0		2.1					
Relevance of										
require.	2.2		3.3							
Teach.meth.	2.1		3.5							
Opp. to pursue										
indiv.proj.	1.8		2.8							
Fac. awareness of										
new devel.	2.4		3.7							
Facilities		2.0	3.2		2.0					
Supp. staff			3.3		1.9					
(Scale: 1=strong disagree to 4=strong agree)										
Fac. interest in										
grad.stud.	2.8		3.7							
Fac. help integrating										
new & old	2.0		3.5							
Department Goals:										
(Scale: 1=no importance to 4=extreme importance)										
Prep. for scholarship/										
research	0.7		2.3							

*Values of variables to be reported were selected according to the following criteria:

Ordinal variables -- Number of courses, ETS scales and items, department and personal goals, support service needs: Extreme high and low means plus all whose 95% confidence intervals for the mean lay completely outside the 95% confidence interval for the ungrouped data.

Professional activities, reasons mentioned for graduate study: Cluster percent + or - 15% from total percent of that type.

Institutional and personal problems mentioned: Cluster percent + or - 15% from total percent mentioning that problem OR cited as a problem by at least 50% of group.

Main reason for graduate study, worst personal problem: Cluster +15% from total percent mentioning that reason OR modal percent for group if greater than 25%.

Table G-5 (Roos.) (continued)

Group No.	1	3	5	6	10			
	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo
Personal Goals:								
Prep. for scholarship/ research		0.6				3.0		
Reasons for Study:								
(a) mentioned								
Family/commun. skills			50%					
New job	90%			17%		36%		
Improve income potent.	100%		100%		67%			
Pers.growth	50%	92%						
(b) main reason								
Degree			33%					
New job	60%							
Curr. job				29%				
Income pot.		33%				57%		
Pers.growth			33%		29%			
Problems with the Institution:								
(Scale: 1=strong disagree to 4=strong agree)								
It has been hard for me to. . .								
consult adviser or thes.chm.	3.1			1.4		3.1		
Personal Problems:								
(a) mentioned								
Fam.resp.	90%		17%			14%		
Opp. to use new skills			50%					
(b) worst problem								
Financing				43%				
Study time	30%	27%						
Job resp.	30%	27%	40%					
Fam. resp.	30%							
Opp. to use new skills			40%					
Need for Support Services and Facilities:								
(Scale: 1=very important to 3=not important)								
Opp. for research								
experience	2.7		1.4					
Off-campus								
courses	1.1			2.7				
Special fac.	2.9		1.8					
Eng.train.	3.0	3.0	1.8		2.9	3.0		
Finan.plan.	2.9		2.0			3.0		
Pub.trans.	2.7		1.2					
Req.options			1.8			1.0		

Table G-6 (continued)

	Cluster 11					Cluster 12					Cluster 13					Cluster 14					Cluster 15				
	MSU 18	UT 17	MSU 11	MSU 41	MSU 92.9	MSU 37	MOOS 1	UN 8	CHRY 6	CHRY 25	MSU 2	UN 12	UN 20	UT 6	MSU 5	UN 7	UT 2	MSU 1	MSU 6	UT 5	UN 11	CHRY 7			
VARIABLES DEFINING CLUSTERS																									
% women	66.7	100.0	100.0	92.9		0.0	10.0	18.2	0.0	8.3	0.0	0.0	0.0	0.0	28.6	0.0	0.0	10.3	100.0	70.8	100.0	77.8			
Marital status:																									
% married	83.3	84.6	100.0	0.0		100.0	100.0	90.9	20.0	0.0	0.0	0.0	96.0	75.0	100.0	0.0	5.6	52.6	3.7	0.0	0.0	0.0			
% prev.marr.	0.0	7.7	0.0	50.0		0.0	0.0	9.1	40.0	0.0	0.0	0.0	4.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% never marr.	16.7	7.7	0.0	50.0		0.0	0.0	0.0	40.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0	94.4	47.4	96.3	100.0	100.0	100.0			
Ethnicity:																									
% non-realization	0.0	0.0	0.0	0.0		0.0	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.0	11.1	100.0	3.7	0.0	0.0			
% Caucasian	100.0	100.0	88.9	92.3		93.8	100.0	100.0	22.2	83.3	97.3	97.1	92.0	91.7	96.4	0.0	86.9	0.0	77.8	80.0	100.0	100.0			
% minority	0.0	0.0	11.1	7.7		6.2	0.0	0.0	11.1	16.7	2.7	2.9	8.0	0.0	3.6	25.0	0.0	0.0	18.3	20.0	0.0	0.0			
Mean age	29.2	31.5	39.8	35.9		36.4	38.3	40.5	32.8	30.2	25.7	27.0	28.0	27.8	27.4	26.7	26.9	28.1	24.6	24.9	24.4	25.0			
% 0 pre-kind.	100.0	100.0	84.2	100.0		47.1	50.0	72.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	50.0	100.0	100.0	100.0	100.0			
% 1-12 child.	0.0	0.9	2.0	0.6		1.3	1.7	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0			
% part-time	91.7	84.6	100.0	71.4		78.6	100.0	90.9	30.0	43.3	11.1	11.8	8.3	10.0	29.6	8.3	23.3	12.3	18.5	12.0	16.7	33.3			
% non yr. tech.	74.1	72.3	66.8	69.0		69.0	66.9	64.0	70.9	73.9	78.3	77.3	76.1	77.1	78.9	77.6	77.0	77.2	78.8	79.0	79.2	79.2			
% non yr. ext.	1.8	1.6	3.4	4.4		4.6	5.3	4.9	1.2	0.9	1.2	1.1	0.8	1.4	1.2	0.9	1.2	1.6	0.7	0.6	0.5	0.9			
% commute mile	27.1	19.0	17.6	14.4		20.9	17.5	10.1	9.6	16.2	2.4	2.9	6.2	3.2	11.6	2.2	4.7	3.0	5.2	7.6	5.2	9.1			
% for degree	4.3	3.6	4.2	3.7		4.4	3.4	8.8	3.7	6.1	2.4	3.5	4.6	3.1	3.3	3.4	4.4	3.6	2.6	2.5	3.3	4.6			
% hrs. worked	37.7	43.1	38.6	42.9		37.8	43.4	42.4	12.6	30.2	19.6	17.1	19.9	17.2	26.0	13.9	29.2	17.4	19.0	16.2	20.6	15.0			
Current work setting:																									
% this inst.	0.0	0.0	5.3	7.1		0.0	0.0	0.0	33.3	25.0	81.1	67.6	79.2	83.3	67.9	100.0	77.8	83.3	70.8	60.9	76.9	77.8			
% other college	0.0	0.0	0.0	7.1		11.8	0.0	0.0	11.1	10.9	0.0	2.9	0.0	0.0	3.6	0.0	0.0	3.6	0.0	8.7	0.0	0.0			
% 1-12 schools	91.7	69.2	73.7	64.3		47.1	10.0	27.3	11.1	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
% bus./industry	0.0	0.0	0.0	0.0		0.0	70.0	18.2	11.1	23.0	0.9	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	15.4	11.1			
% nonprofit ag.	8.3	13.4	3.3	7.1		9.0	10.0	9.1	22.2	8.3	2.7	2.9	0.0	0.0	0.0	0.0	0.0	0.0	4.2	17.4	0.0	0.0			
% unemployed	0.0	0.0	0.0	0.0		5.9	10.0	0.0	22.2	0.0	13.3	14.7	16.7	0.0	14.3	0.0	5.6	0.0	20.8	4.3	0.0	0.0			
Desired future work setting:																									
% self/inst.	0.0	0.0	5.3	14.2		11.8	0.0	0.0	30.0	38.3	32.4	51.4	45.5	53.7	48.1	50.0	0.0	31.6	24.0	44.0	53.9	33.3			
% 1-12 schools	91.7	69.2	73.7	64.3		47.1	10.0	27.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	0.0	0.0			
% bus./industry	0.0	0.0	0.0	0.0		0.0	30.0	18.2	20.0	0.0	43.9	28.6	20.8	9.1	23.9	33.3	100.0	77.4	36.0	8.0	7.7	11.1			
% nonprofit ag.	8.3	13.4	3.3	7.1		9.0	10.0	9.1	10.0	8.3	3.4	5.7	12.5	9.1	3.7	0.0	0.0	10.3	24.0	8.0	30.8	22.2			
% curr.-future	100.0	100.0	100.0	100.0		100.0	50.0	100.0	0.0	0.0	29.7	0.0	4.3	45.5	33.3	0.0	0.0	38.9	21.7	43.5	7.7	0.0			
Desired future work activity:																									
% research	0.0	7.7	0.0	0.0		0.0	0.0	9.1	33.3	0.0	16.7	22.9	32.0	9.1	21.4	25.0	33.3	15.8	11.1	16.0	0.0	33.3			
% teach. + res.	0.0	7.7	0.0	14.3		5.9	0.0	0.0	22.2	33.3	19.4	28.6	24.0	27.3	32.1	33.3	11.1	31.6	18.5	32.0	30.8	33.3			
% teaching	91.7	61.5	68.4	42.9		33.3	20.0	18.2	0.0	33.3	8.3	14.3	8.0	0.0	3.6	8.3	0.0	5.3	11.1	16.0	30.8	0.0			
% admin./mgr.	8.3	15.4	26.3	14.3		52.6	50.0	63.6	33.3	8.3	30.4	11.4	8.0	18.2	7.1	16.7	27.8	26.3	23.9	8.0	7.7	0.0			
% prof. serv.	0.0	7.7	5.3	14.3		11.8	30.0	9.1	0.0	16.7	19.4	14.3	28.0	36.4	32.1	16.7	22.2	15.8	25.9	20.0	23.1	11.1			
% yr. ft. emp.	4.2	5.8	7.2	6.8		7.8	8.1	10.7	1.4	3.9	2.2	1.5	1.1	2.2	2.6	0.7	2.8	1.6	1.2	1.6	1.2	0.3			

Table G-6 (continued)

Cluster 1										Cluster 2					Cluster 3					Cluster 4					Cluster 5					Cluster 6					Cluster 7					Cluster 8					Cluster 9					Cluster 10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Table G-6 (continued)

Cluster 11					Cluster 12					Cluster 13					Cluster 14					Cluster 15								
MSU	UT	MSU	MSU	MSU	MSU	ROOS	UN		CLINT	CLINT	MSU	UN	UT	MSU	UN	UT	MSU	UT	MSU	UT	UN	MSU	UT	UN	MSU	UT	UN	
18	17	11	41		37	1	8		6	25	2	12	20	6	5	7	2	1				6	5	11				
MAJOR (% of each group in each field)																												
Agriculture 8.3 0.0 5.3 0.0 5.9 0.0 0.0 0.0 0.0 0.0 0.0 26.3 5.7 20.0 8.3 21.4 0.0 0.0 15.0 19.2 8.7 38.5 33.3 3.7 16.0 0.0 0.0																												
Biolog. Sci. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.4 14.3 8.0 0.0 10.7 16.7 11.1 5.0 11.1 4.0 15.4 44.4 11.1 4.0 15.4 44.4																												
Business 0.0 0.0 0.0 7.1 0.0 60.0 27.3 20.0 0.0 10.0 0.0 16.2 8.6 8.0 0.0 3.6 8.3 22.2 10.0 22.2 0.0 7.7 0.0 22.2 0.0 17.0 0.0																												
Education 50.0 53.8 52.6 57.1 52.9 20.0 45.5 20.0 0.0 20.0 0.0 5.4 2.9 8.0 0.0 10.7 8.3 0.0 5.0 11.1 16.0 0.0 0.0 11.1 16.0 0.0 0.0																												
Engineering 0.0 15.4 0.0 0.0 0.0 0.0 0.0 9.1 0.0 8.3 0.0 10.8 14.3 8.0 8.3 10.7 16.7 38.9 35.0 0.0 4.0 7.7 0.0 0.0 4.0 7.7 0.0																												
Fine, App. Arts 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 10.0 8.3 0.0 11.4 0.0 8.3 3.6 0.0 0.0 0.0 0.0 8.0 7.7 0.0 0.0 8.0 7.7 0.0																												
Foreign Lang. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.6 0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.0 0.0 7.7 0.0																												
Health Prof. 0.0 0.0 0.0 0.0 0.0 5.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 7.7 0.0 0.0 0.0 7.7 0.0																												
Letters 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 10.0 8.3 0.0 11.4 4.0 0.0 7.1 0.0 0.0 0.0 0.0 4.0 0.0 15.4 11.1 4.0 0.0 15.4 11.1																												
Mathematics 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.4 5.7 0.0 0.0 0.0 8.3 0.0 0.0 0.0 4.0 0.0 0.0 0.0 4.0 0.0 0.0																												
Physical Sci. 8.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 30.0 8.3 10.8 8.6 20.0 8.3 14.3 8.3 16.7 10.0 7.4 0.0 0.0 0.0 7.4 0.0 0.0 0.0																												
Psychology 0.0 0.0 0.0 0.0 0.0 0.0 10.0 0.0 0.0 0.0 16.7 2.7 0.0 0.0 41.7 3.6 0.0 0.0 0.0 3.7 8.0 15.4 44.4 3.7 8.0 15.4 44.4																												
Public Affairs 0.0 7.7 0.0 0.0 5.9 0.0 9.1 0.0 8.3 0.0 8.3 2.7 0.0 0.0 8.3 0.0 0.0 0.0 0.0 7.4 4.0 7.7 0.0 7.4 4.0 7.7 0.0																												
Social Sci. 0.0 0.0 0.0 7.1 0.0 0.0 0.0 0.0 10.0 10.0 17.5 5.4 8.6 16.0 8.3 10.7 16.7 0.0 0.0 3.7 16.0 15.4 0.0 3.7 16.0 15.4 0.0																												
Interdis. Stud. 16.7 0.0 0.0 0.0 0.0 0.0 10.0 0.0 0.0 0.0 0.0 2.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0																												
Other 16.7 23.1 42.1 28.6 29.4 0.0 9.1 0.0 0.0 0.0 0.0 8.1 8.6 4.0 0.0 0.0 16.7 11.1 15.0 22.2 8.0 0.0 0.0 22.2 8.0 0.0 0.0																												
TYPE OF PROGRAM (% in each type)																												
Master's 75.0 76.9 57.9 37.1 47.1 90.0 54.5 47.1 90.0 0.0 0.0 67.6 45.7 24.0 0.0 53.6 41.7 66.7 30.0 70.4 76.0 69.2 0.0 70.4 76.0 69.2 0.0																												
Doctoral 0.0 7.7 10.5 21.4 17.6 0.0 36.4 100.0 91.7 29.7 48.6 72.0 58.3 42.9 58.3 33.3 30.0 22.2 20.0 30.0 80.0 0.0 3.7 0.0 30.0 80.0																												
Other 16.7 7.7 5.3 0.0 5.9 0.0 9.1 0.0 0.0 0.0 0.0 0.0 2.9 4.0 0.0 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0																												
(mean values for each group)																												
NO. COURSES 1.5 1.5 1.7 0.9 1.4 0.9 0.8 0.6 1.5 2.2 1.7 1.3 1.3 2.7 1.7 2.1 2.4 2.0 2.4 2.8 1.9 2.7 2.4 2.8 1.9 2.7																												
NO. CREDITS 4.7 4.8 4.9 3.1 4.9 2.8 2.7 3.4 6.0 8.6 6.0 4.1 4.6 4.3 7.0 7.5 7.2 7.2 8.9 8.6 8.1 9.6 8.9 8.6 8.1 9.6																												
EFFEC. CREDITS 4.7 5.9 5.8 3.7 5.6 2.8 4.5 7.0 8.2 10.9 9.3 12.0 9.3 10.3 13.1 9.9 9.3 10.9 11.0 10.7 12.3 10.9 11.0 10.7 12.3																												
PROFESSIONAL ACTIVITIES (% participating)																												
Submit paper 0.0 27.3 7.7 10.0 9.1 0.0 27.3 10.0 8.3 16.7 14.7 32.0 18.2 38.3 33.3 28.4 15.0 19.2 8.7 38.5 33.3																												
Present paper 0.0 8.3 7.7 10.0 9.1 0.0 27.3 10.0 8.3 16.7 14.7 32.0 18.2 38.3 33.3 28.4 15.0 19.2 8.7 38.5 33.3																												
Prep. proposal 0.0 33.3 46.2 20.0 8.3 33.3 61.6 36.9 47.1 56.0 36.4 67.9 58.3 44.4 40.0 24.0 47.8 53.8 55.6 24.0 47.8 53.8 55.6																												
Coop. project 9.1 33.3 7.7 20.0 8.3 33.3 61.6 36.9 47.1 56.0 36.4 67.9 58.3 44.4 40.0 24.0 47.8 53.8 55.6 24.0 47.8 53.8 55.6																												
Hold fellowship 0.0 8.3 0.0 10.0 8.3 0.0 0.0 0.0 0.0 0.0 0.0 38.2 48.0 54.5 43.9 58.3 44.4 50.0 38.5 62.5 38.5 88.9 38.5 62.5 38.5 88.9																												
Practice 36.4 41.7 28.6 40.0 36.4 41.7 28.6 40.0 36.4 41.7 28.6 40.0 36.4 41.7 28.6 40.0 36.4 41.7 28.6 40.0 36.4 41.7 28.6 40.0																												
Indep. reading 45.5 58.3 92.9 90.9 41.7 55.6 63.6 100.0 91.7 77.8 17.6 16.0 100.0 82.1 76.7 72.2 80.0 80.0 78.3 23.1 88.9																												
NO. GRAD. ASST. 10.0 0.0 0.0 9.1 0.0 0.0 9.1 0.0 0.0 70.0 45.5 82.9 88.2 80.0 63.6 78.6 91.7 72.2 73.7 42.3 54.5 46.2 50.0																												
PERSONAL GOALS (Does not include academically important)																												
Scholar/resp. 2.0 2.2 2.2 1.9 1.7 0.6 2.1 1.9 2.9 3.1 2.9 2.3 2.8 3.1 3.6 3.1 3.5 2.4 3.5 2.2 2.8 2.8 3.7																												
College teach. 1.6 1.6 1.0 1.5 1.6 1.2 1.1 2.4 2.8 2.0 2.3 2.2 2.5 2.1 2.5 2.8 1.5 1.4 1.3 2.2 2.2 2.2																												
Other practice 2.8 3.2 2.7 2.7 3.2 3.6 3.2 3.3 2.8 2.8 2.2 2.2 2.5 3.1 2.5 3.2 2.7 2.6 2.1 2.7 2.2 2.3																												
Further study 3.2 2.3 2.9 1.9 2.2 2.4 2.5 2.6 2.8 2.1 2.4 2.4 2.5 2.2 3.2 3.2 2.6 2.1 2.1 2.7 2.2 2.3																												
Pers. enrich. 3.6 3.2 3.5 2.9 2.7 2.4 2.4 3.4 3.2 2.8 3.1 2.7 3.2 3.0 3.2 3.0 3.2 2.9 3.0 3.2 3.1 3.6 3.2																												
REASONS FOR STUDY (% mentioning)																												
Obtain degree 100.0 84.6 78.9 78.6 76.5 80.0 100.0 80.0 83.3 91.9 97.1 92.0 91.7 96.4 83.3 72.2 60.0 92.6 84.0 92.3 100.0																												
Family skills 25.0 38.5 47.4 21.4 17.6 20.0 45.5 10.0 25.0 16.7 14.3 20.0 50.0 14.3 16.7 16.7 35.0 40.7 28.0 23.1 44.4																												
Get new job 33.3 69.2 52.6 71.4 33.3 69.2 52.6 71.4 33.3 69.2 52.6 71.4 33.3 69.2 52.6 71.4 33.3 69.2 52.6 71.4 33.3 69.2 52.6 71.4																												
Improve income 75.0 92.3 68.4 85.7 75.0 92.3 68.4 85.7 75.0 92.3 68.4 85.7 75.0 92.3 68.4 85.7 75.0 92.3 68.4 85.7 75.0 92.3 68.4 85.7																												
Dev. contacts 25.0 30.8 15.8 42.9 29.4 30.8 15.8 42.9 29.4 30.8 15.8 42.9 29.4 30.8 15.8 42.9 29.4 30.8 15.8 42.9 29.4 30.8 15.8 42.9																												
Personal growth 83.3 100.0 89.5 85.7 76.5 50.0 90.9 80.0 83.3 70.3 88.6 68.0 83.3 96.4 75.0 61.1 65.0 81.5 65.0 81.5 68.0 84.6																												
New friends 25.0 15.4 10.5 28.6 5.9 20.0 9.1 30.0 25.0 16.2 22.9 8.0 25.0 14.3 25.0 16.7 20.0 33.3 16.0 23.1 22.2																												
Ind. life style 8.3 38.5 47.4 28.6 11.8 20.0 36.4 20.0 25.0 26.3 37.1 16.0 50.0 35.7 33.3 38.9 50.0 63.0 28.0 46.2 44.4																												

Table 6-6 (continued)

Cluster 1										Cluster 2					Cluster 3					Cluster 4					Cluster 5					Cluster 6					Cluster 7					Cluster 8					Cluster 9					Cluster 10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
CUR	UN	CUR	UN	CUR	UN	UT	UN	CUR	UN	UT	UN	CUR	UN	UT	UN	MOOS	UN	UT	UN	CUR	UN	UT	UN	MOOS	UN	UT	UN	CUR	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN	UT	UN	MOOS	UN

Table 6-6 (continued)

	Cluster 11				Cluster 12				Cluster 13				Cluster 14				Cluster 15			
	NSU	UT	NSU	NSU	NSU	BOGS	UM	NSU	CHMT	CHMT	UM	UM	UM	UT	UM	UT	NSU	UT	UM	CHMT
	18	17	11	41	37	1	8	2	23	6	23	12	20	6	5	7	2	1	6	11
PERSONAL PROBLEMS (\$ mentions)																				
Financing	23.0	23.1	47.4	37.1	29.4	50.0	36.4	64.9	30.0	30.0	30.0	48.6	44.0	66.7	46.4	66.7	33.3	60.0	60.4	61.5
Study time	41.7	61.3	68.4	37.1	52.4	80.0	81.8	39.7	48.7	48.7	48.7	31.4	44.0	41.7	53.6	16.7	44.4	35.0	39.3	46.2
Job responsib.	50.0	61.3	69.3	42.9	70.6	80.0	81.8	35.1	30.0	30.0	30.0	22.9	32.0	41.7	39.3	8.3	44.4	20.0	29.6	33.3
Family respons.	8.3	61.3	69.3	42.9	70.6	80.0	81.8	3.4	0.0	0.0	0.0	8.6	32.0	32.0	39.3	0.0	16.7	35.0	7.9	13.4
Spouse support.	0.0	0.0	10.3	40.0	3.3	10.0	9.1	37.8	40.0	40.0	40.0	2.9	20.0	16.7	39.3	16.7	3.6	35.0	3.7	8.0
Instruct. att.	23.0	23.1	10.3	40.0	23.3	30.0	27.3	37.8	40.0	40.0	40.0	37.8	40.0	32.0	39.3	16.7	3.6	35.0	31.9	44.0
Physical atem.	8.3	23.1	31.1	28.6	0.0	10.0	27.3	8.1	10.0	10.0	10.0	8.6	4.0	16.7	39.3	16.7	11.3	3.0	17.8	44.0
Self-confidence	16.7	23.1	31.1	28.6	0.0	10.0	27.3	32.4	40.0	40.0	40.0	32.4	4.0	16.7	39.3	16.7	11.3	3.0	17.8	44.0
Group projects	0.0	23.1	31.1	28.6	3.9	10.0	9.1	18.9	10.0	10.0	10.0	18.9	2.9	16.7	39.3	16.7	11.3	3.0	17.8	44.0
Opp. use skills	8.3	13.4	21.1	21.4	3.9	10.0	9.1	8.1	10.0	10.0	10.0	18.9	2.9	16.7	39.3	16.7	11.3	3.0	17.8	44.0
English comm.	0.0	7.7	0.0	0.0	3.9	10.0	0.0	2.7	0.0	0.0	0.0	2.7	0.0	0.0	3.6	33.3	3.6	40.0	11.1	4.0
INSTITUTIONAL PROBLEMS (\$ mentions)																				
Course require.	0.0	7.7	13.8	14.3	17.6	10.0	27.3	18.9	0.0	0.0	0.0	14.3	8.0	0.0	14.3	0.0	22.2	30.0	29.6	4.0
Accept. credit	8.3	7.7	13.8	14.3	17.6	10.0	27.3	10.8	0.0	0.0	0.0	10.8	8.0	0.0	14.3	0.0	22.2	30.0	11.1	4.0
Adviser access.	0.0	38.5	51.3	28.6	17.6	30.0	18.2	18.9	0.0	0.0	0.0	18.9	21.1	20.0	25.0	41.7	33.3	25.0	23.9	12.0
Lab. facilities	0.0	0.0	21.3	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0	10.8	21.1	20.0	25.0	33.3	16.7	25.0	23.9	12.0
Special facility	0.0	0.0	5.3	0.0	0.0	20.0	9.1	0.0	0.0	0.0	0.0	0.0	11.4	4.0	16.7	7.1	0.0	5.6	7.4	12.0
Spec. facility	8.3	30.8	15.8	35.7	23.5	30.0	9.1	29.7	0.0	0.0	0.0	43.9	20.0	16.7	25.0	25.0	44.4	35.0	48.1	12.0
Dissect. approv.	0.0	0.0	5.3	7.1	0.0	0.0	0.0	5.4	10.0	25.0	25.0	5.4	20.0	0.0	7.1	16.7	16.7	20.0	7.4	8.0
Adm. office	2.4	2.7	3.1	2.6	3.2	3.2	2.6	2.0	2.5	2.5	2.5	2.0	2.0	2.0	2.2	1.8	2.2	1.9	1.9	1.8
Advisers	2.5	3.2	3.3	3.0	3.2	3.0	2.7	1.9	2.3	2.3	2.3	1.9	1.9	2.0	2.2	2.2	2.4	2.3	2.0	1.8
Registration	2.5	3.2	2.9	2.6	2.8	2.7	2.7	2.0	2.4	2.4	2.4	2.0	1.9	1.8	2.0	2.2	1.7	2.4	1.9	1.8
SOURCES OF FINANCIAL SUPPORT (\$ mentions)																				
Grad. assist.	0.0	0.0	0.0	7.1	0.0	0.0	0.0	73.0	25.0	25.0	25.0	62.9	64.0	58.3	60.7	91.7	66.7	55.0	40.7	48.0
Other employ.	66.7	92.3	99.3	78.6	58.8	80.0	81.8	24.3	66.7	66.7	66.7	24.3	20.0	32.0	58.3	32.1	0.0	44.4	44.4	40.0
Student loans	0.0	0.0	0.0	7.1	11.8	0.0	9.1	37.8	41.7	41.7	41.7	37.8	25.7	12.0	33.3	17.9	16.7	27.8	25.9	40.0
Scholarship	58.3	69.2	73.7	0.0	29.4	20.0	45.5	0.0	0.0	0.0	0.0	0.0	72.0	58.3	60.7	0.0	0.0	0.0	3.7	0.0
Parent	0.0	0.0	5.3	7.1	5.9	0.0	9.1	21.6	16.7	16.7	16.7	21.6	20.0	8.0	8.3	10.7	33.3	27.8	37.0	40.0
Per. assets	83.3	23.1	31.6	42.9	35.3	50.0	63.6	59.5	41.7	41.7	41.7	59.5	45.7	44.0	50.0	35.7	8.3	61.1	44.4	32.0
SUPPORT SERVICE NEEDS (lowest important to most important)																				
Teaching exper.	2.2	2.3	2.7	2.3	2.8	2.6	2.8	1.6	1.3	1.3	1.3	1.9	1.5	1.6	1.8	1.6	2.3	1.4	2.1	1.8
Research exper.	2.5	2.4	2.7	2.1	2.4	2.7	1.9	1.6	1.3	1.3	1.3	1.6	1.5	1.1	1.8	1.2	1.0	1.6	2.0	1.4
Evening classes	1.2	1.0	1.3	1.1	1.4	1.2	1.6	2.6	1.9	1.9	1.9	2.5	2.9	2.8	2.7	2.5	2.5	2.7	2.4	2.5
Occa./wk. classes	1.5	1.3	1.6	1.8	1.6	1.2	1.5	2.6	2.3	2.3	2.3	2.6	2.7	2.6	2.5	2.5	2.8	2.6	2.4	2.5
Off-camp. class	1.5	1.4	1.2	1.8	1.9	1.1	2.8	2.6	2.9	2.9	2.9	2.9	2.9	3.0	2.7	2.7	2.9	2.8	2.8	2.9
Computer facil.	2.8	2.5	2.3	2.4	2.6	2.4	1.9	2.0	1.8	1.8	1.8	2.0	1.8	1.7	1.7	1.9	1.5	1.8	2.0	2.0
Comput. consult.	2.9	2.5	2.4	2.2	2.7	2.6	1.8	2.1	1.9	1.9	1.9	2.1	2.0	2.0	2.2	2.0	1.6	2.1	2.1	2.2
Stat. consult.	2.7	2.5	2.4	2.4	2.4	2.7	2.1	2.3	2.3	2.3	2.3	2.3	2.4	2.1	1.8	2.0	2.1	2.6	2.3	2.0
Library	1.7	1.4	1.7	1.6	1.6	2.1	1.2	1.4	1.3	1.3	1.3	1.4	1.3	1.1	1.1	1.2	1.3	1.2	1.1	1.0
Spec. facil.	2.6	2.5	2.8	2.7	2.5	2.9	2.6	2.1	2.2	2.2	2.2	2.8	2.6	2.6	2.7	2.5	2.5	2.8	2.1	1.6
Foreign lang.	3.0	2.9	3.0	2.9	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.8	2.8	2.4	2.8	2.8
English lang.	3.0	2.9	3.0	2.9	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.8	2.8	2.4	2.8	2.8
Colloquia	2.7	2.6	2.9	2.6	2.8	2.9	2.5	2.3	2.2	2.2	2.2	2.6	2.5	2.5	2.6	2.5	2.5	2.2	2.0	2.3
Non-ac. intracred	2.6	2.2	2.5	2.5	2.5	2.1	2.7	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.2	2.6	2.4	2.3
Cultural ev.	2.3	2.2	2.8	2.3	2.4	2.8	2.3	2.0	2.3	2.3	2.3	1.9	2.0	2.2	2.1	2.3	1.9	1.8	1.9	1.9
Rec. facil.	2.6	2.6	2.8	2.3	2.6	2.7	2.5	2.7	2.3	2.3	2.3	1.9	2.0	2.2	2.1	2.0	1.8	1.6	1.9	1.7
Peer app. grp.	2.9	2.7	2.6	2.6	2.8	2.8	2.9	2.7	2.6	2.6	2.6	2.7	2.6	2.6	2.7	2.5	2.3	2.8	2.2	2.2
Inform. contact	2.3	2.2	2.3	2.3	2.4	2.3	2.1	1.7	1.8	1.8	1.8	1.7	1.7	1.6	1.8	1.5	1.6	1.7	1.7	1.8

Table 6-6 (continued)

	Cluster 11			Cluster 12			Cluster 13			Cluster 14				Cluster 15			
	MSU	UT	MSU	MSU	BOOS	UN	CURT	CURT	UN	MSU	UN	UT	MSU	MSU	UT	UN	CURT
	18	17	11	41	37	1	8	6	25	2	12	20	6	5	7	2	1
SUPPORT SERVICES (cont.)																	
Part-time emp.	2.7	2.7	2.7	2.6	2.5	2.7	2.7	1.5	1.8	1.4	1.3	1.2	1.1	1.1	1.3	1.1	1.1
Buys. lease	2.9	2.5	2.8	2.5	2.6	2.8	2.6	1.8	2.5	2.2	2.1	2.6	2.2	2.0	1.7	2.5	1.4
Long-term lease	2.7	2.4	2.6	2.2	2.2	2.6	2.6	1.7	2.1	1.7	1.8	2.3	1.8	1.8	1.7	2.3	1.8
Placement serv.	2.1	1.9	2.4	2.2	2.2	2.0	2.5	1.5	1.7	1.4	1.5	1.8	1.4	1.5	1.6	1.4	1.5
Bus. serv.	2.5	2.3	2.8	2.8	2.5	2.6	2.7	1.7	1.9	2.1	2.1	2.2	1.8	2.0	1.5	2.4	1.6
Finan. planning	3.0	2.3	2.8	2.7	2.9	2.9	2.9	1.9	2.6	2.5	2.5	2.8	2.5	2.4	1.9	2.7	2.0
Tel. pay opt.	2.6	2.3	2.3	1.8	2.3	1.9	2.5	1.6	2.1	1.8	2.0	2.1	2.2	2.1	1.8	2.3	1.8
Porting	1.8	1.2	2.1	1.6	1.9	1.6	1.5	2.3	2.1	1.7	2.1	2.0	1.8	1.7	2.4	1.7	1.8
Pub. transp.	2.8	2.4	2.9	2.7	2.7	2.7	2.5	1.9	2.2	2.5	1.9	1.8	1.9	2.0	1.8	1.4	1.3
Food facil.	2.7	2.3	2.3	2.7	2.6	2.5	2.4	2.0	2.4	2.2	1.9	2.1	2.5	2.1	1.9	1.8	2.4
Long-term lease	2.7	2.3	2.7	2.6	2.4	2.4	2.3	1.9	2.2	2.2	1.9	2.2	2.1	2.0	1.5	1.9	1.7
Compu. housing	3.0	2.8	3.0	3.0	2.6	3.0	3.0	2.3	2.5	2.6	2.5	2.8	2.2	2.4	1.7	2.2	1.6
Health care	2.8	2.7	2.8	2.8	2.6	2.9	2.8	1.7	2.6	2.1	1.8	1.9	1.4	2.0	1.2	1.9	1.6
Health insur.	2.9	2.7	2.8	2.8	2.7	2.8	2.9	1.5	2.5	2.1	1.8	1.8	1.4	2.0	1.2	2.1	1.8
Child care	2.9	2.9	2.9	3.0	2.8	2.9	3.0	3.0	2.6	3.0	2.9	2.8	2.8	2.8	2.3	3.0	2.8
Locator serv.	2.6	2.3	2.4	2.5	2.3	2.4	2.4	2.3	2.9	2.4	2.6	2.6	2.6	2.2	1.9	2.2	1.7
Reg. options	1.6	1.3	1.5	1.5	1.5	1.5	1.2	2.2	2.3	2.2	2.0	2.2	2.2	1.9	1.8	2.1	1.8

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