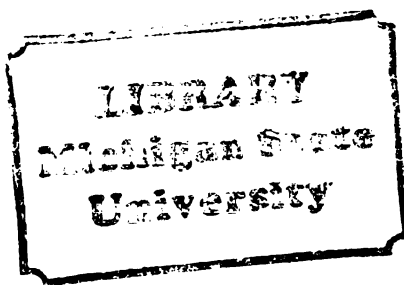


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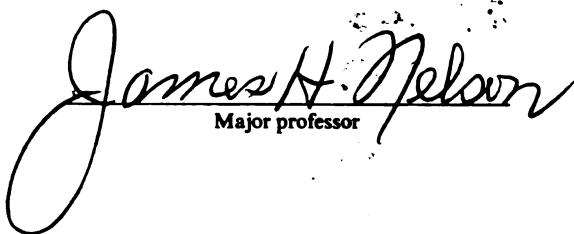
BRAZILIAN UNIVERSITY ADMINISTRATORS' PERCEPTIONS OF
THEIR TRAINING AND THE ADMINISTRATIVE APPOINTMENT
PROCESS: A CASE STUDY

presented by

Gilberto Fidelis

has been accepted towards fulfillment
of the requirements for

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BRAZILIAN UNIVERSITY ADMINISTRATORS' PERCEPTIONS OF
THEIR TRAINING AND THE ADMINISTRATIVE APPOINTMENT
PROCESS: A CASE STUDY

By

Gilberto Fidelis

A DISSERTATION

Submitted to
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1982

ABSTRACT

BRAZILIAN UNIVERSITY ADMINISTRATORS' PERCEPTIONS OF THEIR TRAINING AND THE ADMINISTRATIVE APPOINTMENT PROCESS: A CASE STUDY

By

Gilberto Fidelis

Purpose

The main purpose of this study was to investigate the biographic characteristics, experience, and perceptions of administrators at Universidade Federal de Minas Gerais (UFMG) regarding the preparation, qualifications, and selection of university administrators. Their perceptions of crucial problems confronting administrators of Brazilian public universities were also investigated.

The review of literature included the following topics: origin and development of university administration, development of higher education as a field of study, selected research studies on university administration, history of Brazilian higher education, and implications.

Methodology

The study population was the administrative personnel of UFMG. A mailed questionnaire was used for data collection. UFMG's Council of Graduate Studies administered the instrument. Because no specific hypotheses were set up to be tested, descriptive statistics and measures of central tendency were used as the primary means of data analysis.

Findings

The "typical" administrator at UFMG is male, 45 years old, an associate professor, contracted to work full time, has a graduate degree that was probably awarded by UFMG, has university experience averaging 15 years in teaching and 6 years in administration, and no special preparation or training for his administrative work. Half of his work time is spent in administrative activities, and the other half is distributed among teaching, research, and other tasks. Administrators at UFMG perceived that: professional experience was more important than graduate degrees in the present and future process of administrators' appointments; the two most important personal qualifications of a university administrator were ability to lead and solve problems and impartiality and objectivity; more local control of the appointment process is desirable; programs for preparing administrators should be informal and short-term in format, with emphasis on academic administration, project and program evaluation, public administration, and budget planning. Problems related to financial support, planning, training of faculty and staff, and government centralization were perceived to be the major constraints confronting administrators of Brazilian public universities.

I dedicate this dissertation to my parents:

Joao Fidelis, in memoriam

Alda Rossini Fidelis

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CHAPTER I

INTRODUCTION

This study is concerned with Brazilian public higher education administration at the Federal University of Minas Gerais (Universidade Federal de Minas Gerais--UFMG). Its primary objective is to investigate the training, experience, and perceptions of administrators regarding their preparation for administration in higher education.

The purpose of this chapter is to identify the problem and its background, to establish the importance and need for such a study, to state the research questions, to state the limitations and define important terms, and to provide an overview of the dissertation.

The University's Role in National Development

There is little dispute concerning the important role that universities must play in the total development of a society. Universities must not only produce the trained manpower required for industrial progress, political development, and social advancement; they must also create an adequate social base to undergird developmental aims that are adequate in terms of values, attitudes, and motivation, as well as the skills to support modern national objectives.

In fulfilling this role, universities must meet the challenges of today by contributing to the renovation of overall educational

systems for the benefit of national development. This involves new relationships among administrators, teachers, and learners, in the functioning of universities. Accordingly, changes need to be considered not only in content and methods, but in processes, objectives, and structures, as well as in the administration and organization of higher education.

As Henderson, Boahmah, and Kunst (1970) stated in the preface to their book on training university administrators,

Administration of higher education must be organized on a systematic basis. It can no longer be improvised. Countries must consider ways of rationalizing the utilization of resources, both human and material, and this is a responsibility of the university administrator. (p. 1)

In Brazil, as in most developing countries in which expertise in university administration is generally being provided by "on-the-job learning," there seems to be an urgent need to improve present preparation methods as well as to create new alternatives for preparing higher education administrators.

Oliveira (1970) described the problem in the following way:

The task to adapt the universities to the new demands of a society in evolution is the most difficult faced by under-developed countries. This task requires new mental activities and attitudes from people recognized as conservatives, as these are usually the people responsible for the administration of the educational system of such countries. The changes required involve people with well-defined situations and who have no concern to alter the status quo. In general, these people have the social situation and political links that enable them to resist the changes. (p. 97).

The need for strong and versatile university administration increased with the industrialization and urbanization that are now being experienced. In providing new professionals with the specialized

skills to meet the demands of development, universities must manage their limited resources effectively. One way they can do this is to ensure a high level of efficiency in their administrators.

Commenting on this point, Henderson et al. (1970) pointed out that one of the most important problems of university administration in developing countries involves the training of men and women who, by reason of inexperience, must begin their duties in elementary positions, but rise rapidly in responsibility through the different levels of administration because a shortage of qualified personnel is always present. Thus, as a result, these people might soon become officers at the policy-making level of institutions. "How should they be trained?" asked Henderson et al. (p. 13).

This study was an attempt to deal with this question, at least in part. Investigating the biographic and professional characteristics and perceptions of present university administrators was considered to be one way to gain a better understanding of the situation, discovering alternative ways to improve conditions and ultimately to provide better preparation of university administrators in the public higher education system of Brazil.

General Background

The Brazilian Setting

Brazil is the wealthiest country of the Portuguese-speaking world, with more than 121 million people and a population growth rate of about 2.4 percent per year. Its population has a very high ratio of young people, with 46 percent under the age

of 20 years. Brazil is also the fifth largest country in the world, with 3.3 million square miles of territory, almost half of South America.

In 1974, more than 80 percent of the Brazilian people were baptized members of the Roman Catholic Church. Nevertheless, Protestants, Jews, Buddhists, and others enjoyed religious freedom (Anuario Estatístico do Brasil, 1981, p. 79). Approximately 57 percent of the population are of European descent, 8 percent are of African descent, 4 percent are of Asian descent, and 31 percent are of mixed heritage. Intermingling of the three principal racial groups--Portuguese, Indian, and African--as well as an influx of immigrants from Europe, the Middle East, and Japan, has earned Brazil a reputation as a melting pot.

The latest data available (1976) showed that the labor force comprised approximately 39 million workers. More than 36 percent of these laborers were involved in agriculture, 29 percent in the industrial sector, and the remaining workers were related to the tertiary sector of employment, i.e., services, transport and communication, public administration, and other activities (Anuario Estatístico do Brasil, 1981, p. 139).

One of the most important features of Brazil's recent history has been its rapid urbanization. The steady relative decline in agricultural employment reflects the continuing flow of rural people to the cities, in particular to the prosperous industrial cities of the East and South. This massive migration from country to town has increased the urban population at a rate more than triple that in the countryside. In fact, a comparison of the census figures of 1940 and

1976 indicates that the rate of urbanization increased from 31.2 to 62.1 percent during that period (Anuario Estatístico do Brasil, 1981, p. 113).

Politically, Brazil has adopted a model similar to that of the United States, being organized into a federation of 21 semi-autonomous states and four territories. This might be expected to result in decentralization of education, but that is not the case (Havighurst & Moreira, 1965, p. 6).

The Educational System

The Brazilian educational system has deep traditional roots going back to the Portuguese colonial period, but it has also been influenced through the years by European and American structural models. This diversity of influence has caused some contradictions in educational philosophy and its implementation.

The system of education that developed during the first half of the twentieth century took as its model the French system of about 1900 (Havighurst & Moreira, 1965, p. 135). Today, the formal educational structure provides for eight years of compulsory education beginning at the age of seven. Ensino de primeiro grau (elementary education) is followed by a three- or four-year course termed ensino de segundo grau (secondary education). The latter precedes the ensino de nível superior (higher education).

In recent years, there has been increased interest in schooling at all levels, but this interest has been greatest in higher education. As shown in Table 1, in 1978 more than 21 million children were enrolled in the primeiro grau program (compared to less than 10 million

in 1962), and 2.5 million were enrolled in the segundo grau program (compared to 0.3 million in 1962). Ensino de nível superior registered 1,225,557 students in 1978 compared to 107,299 in 1962. In brief, during the years from 1962 to 1978, enrollment in the educational system increased about 149 percent, with enrollment increases of 122 percent in ensino de primeiro grau, 650 percent in ensino de segundo grau, and more than 1,000 percent in ensino de nível superior (Anuario Estatístico do Brasil, 1981).

Table 1.--Enrollment distribution by levels of schooling, 1962-1978.

Year	Enrollment at the Beginning of the Year			
	Primeiro Grau	Segundo Grau	Nível Superior	Total
1962	9,664,423	335,761	107,299	10,107,483
1964	11,670,995	439,040	142,386	12,252,421
1966	12,585,190	593,413	180,109	13,358,712
1968	14,348,120	801,075	278,295	15,427,490
1970	15,894,627	1,003,475	425,478	17,323,580
1972	18,370,744	1,299,937	688,382	20,359,063
1974	19,286,611	1,681,728	937,593	21,905,932
1976	19,523,058	2,212,749	1,096,727	22,832,534
1978	21,473,100	2,519,122	1,225,557	25,217,779

Source: Adapted from Anuario Estatístico do Brasil 1980 (Rio de Janeiro: Fundação Instituto Brasileiro de Geografia e Estatística, 1981), p. 212.

A broader picture of the educational spectrum of the Brazilian people includes the fact that literacy rose from 49 percent in 1950 to 62 percent in 1960 and to 64 percent in 1970 (Anuario Estatístico do

Brasil, 1981, p. 205). The governmental program to eliminate illiteracy was intensified during the early 1970s, and, in 1973, it was estimated that 74 percent of all adult Brazilians were literate. These literacy statistics, supplied by the Brazilian government, are regarded as optimistic by some observers, who believe that much of the population classified as literate either has never become fully literate or has lapsed into illiteracy (Weil, Black, Blutstein, Johnson, & McMorris, 1975).

Perhaps one of the most serious problems related to the performance of the Brazilian educational system is the rate of attrition observed throughout the entire system. Table 2 shows the development of 10,000 students going through the system and the attrition rate observed.

The situation becomes even more complex when it is remembered that the data in Table 2 were based on the number of students entering elementary school--not the total number of students at the age of compulsory education. In 1974, according to governmental statistics, only 80 percent of the total school-age population was enrolled in the educational system.

As shown in Table 2, 73 percent of all students who began primary education, 79 percent of those who started secondary education, and 60 percent of those enrolled in higher education dropped out of school before graduating. In fact, of the original 10,000 who began primary education, only 34 completed university, with an attrition rate of 99.66 percent.

Table 2.--Experience of 10,000 students who begin elementary education.

Step	Enrollment	Percent Loss From Preceding Step	Percent Loss Accumulated
Beginning primary school	10,000	---	---
Completing primary school	2,673	73.21	73.21
Beginning junior high school	952	64.39	90.48
Completing junior high school	400	57.99	96.00
Completing senior high school	188	53.00	98.12
Beginning university	76	59.58	99.24
Completing university	34	55.27	99.66

Source: Stelio Dias, "A Study of Atconian University Principles and Their Influence on Higher Education Reform in Brazilian Universities" (Ph.D. dissertation, University of Houston, 1973).

The higher education system in Brazil.--The historical roots of Brazilian higher education can be traced to the Jesuit priests who accompanied the first colonial governor, Tomé de Souza, to Brazil in 1549. The original goal of the Jesuits--"to provide religious instruction and literary training"--was later redirected for "secondary and higher education in order to educate the lay leaders of Catholicism as well as priests" (Hausman & Harr, 1978, p. 46).

The major Jesuit school was at Bahia. It began awarding a bachelor's degree in 1575, a licenciature in 1576, and a master's degree

in arts in 1578. After earning such a degree, students would go to Rio de Janeiro to study for the priesthood, to Coimbra to study law, or to Montpellier, France, to study medicine (Benjamin, 1965, p. 32). Portugal, however, never agreed with the establishment of a university in the colony. In 1759, the Portuguese prime minister expelled the Jesuits from Brazil because of general criticism among European monarchs about the priests' authoritarianism and antiquated teaching methods.

The establishment of higher education that was primarily professional in character came in about 1808. The first schools to be established were the Naval Academy and the School of Medicine at Rio de Janeiro. Other schools were soon founded in Bahia, Recife, and São Paulo (Azevedo, 1950). It was not until 1920 that the first university, the University of Rio de Janeiro, was formed by the melding of the existing schools of law, medicine, and engineering. In the last two decades, the Brazilian higher education system has expanded dramatically. In 1962, approximately 107,000 students were enrolled in higher education (Table 1). The current Brazilian higher-education student population was projected by Wright (1977) to be 1.8 million, and higher-education enrollments throughout the country undoubtedly will continue to increase.

The Brazilian higher-education system comprises three basic units: isolated establishments, federations, and universities (privately or publicly funded). The isolated establishment is a self-contained pedagogic and scientific unit structured to offer the basic knowledge essential for the practice of a profession, for

example a school of law or a school of engineering. Federations are formed when independent establishments of the same or adjacent areas consolidate, which results in a coordinated administration and a unified status with regard to organization and function. For example, a school of law might combine with schools of economics and education to form a federation sharing the same administration, by-laws, and academic procedures. "Since 1930, universities have changed in concept from loose associations of a small number of independent institutions organized under a common administrative authority to more structured systems consisting of faculty and departmental organizations similar to the European and American models" (Simao, 1978, p. 12).

These higher-education institutions can be private or public (federal, state, municipal). In 1978, the public sector comprised 44 universities, 1 federation, and 185 isolated establishments; the private sector comprised 21 universities, 31 federations, and 611 independent establishments (Ministry of Education and Culture, 1979). To illustrate the rate of growth evidenced by the preceding figures, it should be noted that in 1940 the distribution was five universities and eight independent establishments for the public sector and one university and 22 independent establishments for the private sector.

Problems in Brazilian higher education.--Brazilian universities are facing a complex set of problems throughout the system. Contradictions in educational philosophy (whom to serve and what to offer), inappropriate facilities, deficient libraries, and inability to attract or to train qualified teachers are typical of the problems currently being faced. These problems are further aggravated by the

"lack of know-how of university administrators which historically maintain universities between disorder and the paroxysm of bureaucracy" (Maya, 1979, p. 97).

Two additional pressing problems that exist in Brazilian higher education are the inability of the institutions to deal with the expanding demand for higher education and the overall system of administration.

Expanding demand:

1. Student applications and enrollments. In the last two decades, the Brazilian university-student population increased by 1,042 percent (see Table 1). This large increase in enrollments was not the result of deliberate planning and specific objectives. Thus, many problems throughout the structure of Brazilian higher education can be related to its rapid growth (Braga, 1978).

According to Braga, the problems that originated with expansion of higher education were brought about because

the explosive expansion of higher education in the last fifteen years, to attend an increasing demand, was executed without any objectives and planning. Thus, such expansion is now characterized by its irregular distribution between public and private institutions; the kinds of institutions, the areas of knowledge, majors, geographical distribution, human and financial resources. (p. 17)

In 1960, for each undergraduate university opening, there were 1.82 student applications. But, in 1980, even with the tremendous increase in availability of higher education, this ratio was projected to be 2.9 students per opening, i.e., one more student applying for each opening than in 1960 (Wright, 1977, p. 23). Instead of alleviating

the growing pressure of students seeking undergraduate studies, the enormous increase in the numbers of students accepted into higher education may have stimulated it. People who would never have expected to seek higher education are now attracted to it because of the increased number of openings.

2. Discrepancy between student demand and national needs.

Another area of potential concern is the distribution of students according to major fields most needed in Brazil. In 1976, more than 25 percent of all higher-education students were enrolled in law, education, and language majors. Since the higher education degree is valued as a status symbol without any interest in the needs of the community or national development, situations such as having eight medical doctors for each graduated nurse, or having 32,000 new business administrators each year as compared to only 150 food scientists, will continue to occur (Braga, 1978, p. 10).

The Administration of Higher Education in Brazil

Until very recently, the university organization model that Brazil inherited was a structure divided up into independent schools, patterned after European models and with their limitation for acquiring and transmitting the scientific knowledge of the day or of applying and adapting such knowledge to meet local needs as a means of solving national problems.

The University Reform Law of 1968 basically changed the structure of Brazilian universities. The French model of the university, with its characteristic tendency toward centralization, was replaced by a more flexible and decentralized system like the American model.

New concepts in university administration emerged from the University Reform Law, such as the departmental structure, credits, basic and professional studies, student participation, and optional or elective courses. However, innovations did not occur throughout the entire university structure; i.e., some methods and processes were perpetuated as they always had been. This condition of "old" methods in some activities interacting with "new" procedures brought about by the University Reform Law has produced some areas of conflict in the universities' academic routines. To cite one example, universities are legally autonomous in administrative and academic areas. However, in practice, their dependence on the federal government is so powerful that university administrators cannot decide on the design of professional curricula, the career structure of faculty and staff, their own budgets, or even the process of selecting top university administrators.

One interesting phenomenon became apparent in the years that followed the University Reform Law. The newly designed structure of universities was intended to transform the older European-type professional school into an American-type system with a departmental structure, more interdisciplinary programs, and an emphasis on research and training in technological fields. Such changes were almost immediately implemented in all public universities in Brazil. However, the expansion and complexity of administrative matters in the new structure, if indeed envisioned, did not receive the necessary support.

Thus, hundreds of new administrative offices--the departmental chairmanship, for example--were created in Brazilian universities, and apparently it was assumed that "on-the-job learning" would be the method by which to train administrators, or that they would receive no special preparation at all, since there were no prerequisites for candidates for the newly created offices and no provisions were made for their training.

Moreover, the Reform Law preserved the original practice of having top administrators in each institution be appointed by the president of the Republic and the Minister of Education. Thus, in the new and dynamic structure envisioned, the old system of appointing administrators was preserved. And, since there is no definition of prerequisites in terms of experience and qualification for any top office in these institutions, the political power in the process of selection and appointment remained unchanged. The problem is aggravated by the fact that decisions on such important matters are made far from the institutions (Dias, 1973).

Two major problems in university administration may be intensified as a result of the increase in administrative positions and the underqualification of administrators:

1. improvisation as a method of administration, since planning is deficient if not completely nonexistent;
2. excessive attention to routines, formats, and processes, and lack of emphasis on the ultimate goals of the institution.

Ribeiro (1974) stated that "the tendency to improvise characteristics of the organization of university life at present should be replaced by centralized planning as an administrative norm and in recognition of the need for social responsibility in the use of meager public funds" (p. 325). Such centralized planning would require a highly competent technical administration to decrease alienation and routines and to generate a creative and critical view of education (Mendes, 1972). This may be almost impossible with the existing process in Brazil with the lack of preparing and training administrators for the university system.

The present processes of selecting and preparing university administrators include:

1. Appointment system. The reitor (chief administrative officer) is appointed by the President of the Republic; the vice-reitor (general vice-president) and diretores (deans) are appointed by the Minister of Education for a four-year term. In essence, this process has been used since the first reitor was selected in 1920. Such appointments are based on "candidate lists" prepared by university councils composed of faculty, staff, and student body representatives and submitted to the federal government. Pro-reitores (university vice-presidents) and chefes de departamentos (departmental chairpersons) are also considered administrators but are appointed by the reitor and diretores, who select them from lists prepared by the respective councils or departments to which the new administrators are related. The term of a chefe de departamento is two years, and that of a pro-reitor is generally four years.

2. Formal preparation. There are no specific requirements for any office in the university administration in terms of academic background, field of study, or level of degree obtained.

3. Experience. No previous administrative experience is required--at least such requirements are not explicitly stated. However, top administrative offices generally attract experienced teachers who usually have a limited knowledge of administration.

Although the common pattern is to appoint teachers to administrative offices without requiring specific preparation, which may imply that no experience at all or "learning on the job" is generally accepted, there are some incipient forms of preparation of university administrators.

The master's degree in university administration at the Federal University of Santa Catarina (Universidade Federal de Santa Catarina) is, to the knowledge of this investigator, the only graduate-degree course offered in the area. A limited number of seminars, congresses, workshops, and short-term courses are also provided by different institutions.

In addition, the Reform Law of 1968, which created a new structure for the system of administration, may have created more contradictions and conflicts in the direction of the institutions of higher education. Although candidates for administrative offices in the university are not required to have administrative training, there is strong evidence to suggest that on-the-job learning is not sufficient.

The importance of special preparation for university administrators was clearly reported by Cox (1966), who stated that

the problem of filling these university administrative vacancies is not one merely of numbers; it is also a problem of quality. The increasing complexity of our institutional involvements makes imperative the availability of academic administrators with the necessary qualifications, skills, and experience to provide competent leadership in dealing effectively with new relationships, internal and external. The pace and complexity of institutional life have increased to such an extent that an institution may be seriously disadvantaged by the appointment of a dean, provost or president who must develop basic administrative skills "on the job." (p. 170)

It is not only in the related literature that evidence of dissatisfaction with the process of on-the-job learning can be encountered. Certain actions taken by the Brazilian government and professional associations in Brazil in regard to this matter can be interpreted as concern to change the present situation.

Among those actions, in 1973, the Technical Assistance Program (DAU-MEC-CODEAT) was established with the objective of providing universities with conditions to overcome the "main deficiencies of the administration, resistance to the reform, and principal obstructions to the change process" (Lanski, 1977, p. 7). Major goals of the program were the training and development of personnel with skills in planning and administration of educational institutions, and the development of an "initial contingent of administrators who should obtain abroad a Master's Degree in University Administration." This was a clear statement that the on-the-job learning process of preparing administrators was not attaining its expected objectives and was a "vote of confidence" for the training of administrators through a formal method of studies, that is, instruction in higher education.

Two years later, the federal government launched a new program, the MSU-MEC Brazil program (MSU International Programs, 1974-78). This program emphasized development of one specific area, agriculture, but had as one of its purposes the improvement of administration and planning across 12 institutions of the Brazilian public higher-education system. In this program, American university professors went to Brazil as consultants for the development of academic activities; six of them had duties specifically related to administrative issues. Again it can be seen that improvement of university administration was one of the project's goals.

The Conselho de Reitores das Universidades Brasileiras (Brazilian Council of University Rectors--CRUB) and the Associação Nacional de Professores de Administração Escolar (Association of Professors in Educational Administration--ANPAE), both professional associations, are vitally concerned with the problem of administrative training. This concern is also reflected in numerous short courses, seminars, international contracts, publications, and conferences on university administration and planning, designed to improve the technical skills of Brazilian university administrators.

In summary, there are two interrelated problems in the administration of public higher education in Brazil: the administrative organization of the system and the insufficient training of administrators. Although the University Reform Law of 1968 overhauled the structure of universities, it did not address the issues of accountability and administrative efficiency. For example, Braga (1978), a member of the Ministry of Education, reported in his analysis of the

present higher-education system that the cost per student in a public university in 1975 was estimated to be three times more than that in a private university. At the same time, Braga asserted that "only 10 to 30 percent of public universities' faculty hours contracted are effectively converted to teaching assignments" (p. 39). He suggested that the high cost for public higher education might be caused by the lack of financial autonomy, the bureaucratic stagnation of financial management, and the lack of social sensitivity to the use of public monies.

This lack of social sensitivity led Castro (1978) to call the Brazilian public universities the "country clubs without fees" (p. 36). These problems, reported a decade after the passing of the University Reform Law, may be interpreted as the ineffectiveness of changes imposed by the government on the administrative organization of universities. Braga contended that changes within the administrative organization must come from internal mobilization and motivation. In assessing the partial failure of the University Reform Law and the need for local leadership and motivation, he stated that the work on the University Reform Law

had as its objectives to renovate and integrate the university. Unfortunately, the renovations were not sufficient to cleanse the university of its bureaucratic mustiness. . . .

It seems that the university not only expects the financial resources from the government . . . but also initiatives for all its actions. This creates a climate and a mentality--at the decision-making center of the university--which inhibits creativity, the acknowledgment of its objectives and consequently its autonomy. The undeniable truth is that . . . no one except the university can make it function and grow. A university that acknowledges its objectives manages its available financial resources through mobilization and involvement of its constituencies. This is a university destined to grow and find its own

identity. In this way, university autonomy, the basic condition for control of the necessary means to attain its objectives, will arise. Autonomy is something to be achieved and not a privilege that is given. (p. 35)

In essence, Braga argued that changes within the Brazilian public university system must first come from within the university and not from without. University administrators are the central actors who could initiate the change. Administrative skills and social vision are essential in this process.

Thus, the present system of preparing university administrators needs to be studied because the problems may, in part, result from an inadequate preparation of administrators. One approach to diagnosing and understanding this problem is to determine how administrators at a Brazilian university perceive the adequacy of their preparation for the jobs assigned to them, and to investigate possible alternatives for preparing university administrators. If administrators actually perceive limitations in the training they receive for administrative roles, their perceptions may be useful in developing alternative means of preparing administrators.

Concerning the background and rationale of staff development in universities, Piper and Glatter (1977) stated that training has to

attract participants. This means that they must at least start from the participant's perception of his own problem. If he has problems which stem from a misconception of his difficulties and he has a rather unsophisticated understanding of his predicament, he is unlikely to respond to course advertisements which do not make some concession to his point of view. (p. 23)

Statement of the Problem

This study was designed to investigate characteristics of administrators at the Federal University of Minas Gerais and their perceptions

regarding the importance of experience and preparation in the appointment process. Professional training for present and future administrators and crucial problems presently confronting Brazilian universities were also investigated.

Research Questions

The following general research questions were investigated:

1. Who is the "typical" administrator at the Federal University of Minas Gerais in terms of biographic, professional, and academic degree qualifications?
2. How do administrators distribute their time according to different categories of work, i.e., administration, teaching, research?
3. What are the perceptions of UFMG administrators about the administrative-appointment process with respect to the importance of degrees, experience, and personal characteristics?
4. What type of special administrative training, if any, do administrators at UFMG perceive as important?
5. What are the crucial problems in Brazilian public university administration, as perceived by UFMG administrators?

Importance of the Study

This study is important because it represents an attempt to investigate personal and professional characteristics of university administrators and their perceptions about major problems in Brazilian university administration and about qualifications and experience needed by future university administrators.

The need for competent administrators is beyond question. Gould (1970) asserted that "the university has never been more necessary to the national life but never in a more precarious position." Palianchak (1970) pointed out that "it is useful to investigate the kinds of preparation that are considered essential for the person

who chooses to enter a field of Higher Education by choice rather than some secondary happenstance" (p. 2).

Few studies on this subject have been conducted in Brazil. One of these is Finger's (1978) study, "The Role and Functions of Brazilian University Presidents." However, his study differed from the present study in the sense that only university presidents and members of the Federal Council on Education were interviewed, and the aspects related to the training for administrative positions did not emphasize details in format and content of training.

Administration of higher education requires a greater diversity of skills than perhaps most comparable positions. In training individuals for such a role, it is important to be aware of their special opinions and perceptions concerning that role. A program for the preparation of administrators should be based on an understanding, from their perspective, of the variety of demands with which they are confronted.

It may also be argued that this study is important because the social and economic development of Brazil inevitably depends on the quality of higher education and therefore relies indirectly on the level of university administration and educational leadership provided.

Finally, it is hoped that this study will serve to stimulate further research and development in the area of university administration.

Limitations

The study limitations were as follows:

1. The study was limited to the Federal University of Minas Gerais, and generalizations can be made only about that university.
2. The primary instrument for collecting data was the questionnaire, with its inherent recognized measurement limitations that should be taken into consideration in the interpretation of data.
3. Less than 100 percent return of the questionnaires could reduce the validity of generalizations made.
4. Although objectivity and impartiality were sought, the researcher may have had cultural and professional biases that affected the study.
5. The subjective perceptions sought in this study could be a limitation because they were based on persons' subjective judgments rather than actual circumstances.

Definition of Terms

Terms used in the study are defined below to clarify their meaning as used in this dissertation. Throughout the remainder of the dissertation, Portuguese terms are used in referring to university officials.

Administration/management--The entire process of planning, decision making, and communicating involved in the management of colleges and universities by their administrative bodies.

Administrators/administrative bodies--Those individuals occupying offices at Brazilian public institutions of higher education in the following positions:

- Reitor--The university's chief administrative officer; the person in charge of a university, appointed for a four-year term.
- Vice-reitor--The general vice-president. The person who, besides his specific tasks, would assume the university presidency in the absence of the president. Appointed for a four-year term.
- Pro-reitor(es)--The university vice-president(s). Assistant to the president for areas like research, extension, undergraduate and graduate studies, administration, and planning. Appointed for a four-year term.
- Diretor--Dean; the head of a college faculty or school of a university; appointed for a four-year term.
- Coordenador de curso de pós-graduação--Graduate degree coordinator; the top coordinator for administrative and academic matters involving a specific segment of courses leading to a graduate degree; appointed for a two-year term.
- Chefe de departamento--Department chairperson; the head of an academic department in a university; appointed for a two-year term.
- Membro de conselho--Council member; elected official holding membership in different councils of one university, like the university council, the council of research and teaching, the council of graduate studies, the council of research, and the council of extension.

Ensino de primeiro grau--Elementary education for eight years, which students are supposed to begin at the age of seven.

Ensino de segundo grau--Secondary education, composed of three or four years of education for students 15 to 18 years old.

Ensino de nível superior--Higher-education courses leading to a B.S. degree, master's degree, and doctoral degree.

Isolated school or independent school--An institution of higher education that is not part of a university.

Public university--An institution that offers academic programs beyond the secondary-school level, and whose legal control and financial support are vested in the federal government.

Overview of the Study

In reporting the investigation of perceptions of administrators at the Universidade Federal de Minas Gerais, this dissertation is divided into five chapters.

Included in Chapter I were the introduction, the problem statement and its background, the importance and limitations of the study, definitions of terms, and the overview of the dissertation.

A review of the selected literature related to the study is found in Chapter II. The evolution of administrative support of the university and preparation of administrators are reviewed. Included are an historical overview of Brazilian higher education and related research concerning perception of needs in higher education administration.

The research design and methodology are described in the third chapter. The population, instrumentation, data-collection procedures, and analysis methods are included.

The results of the study are reported and analyzed in the fourth chapter.

Chapter V contains a summary of the study findings, conclusions, and recommendations for further research or action.

CHAPTER II

REVIEW OF LITERATURE

Introduction

This study was designed to investigate the personal and professional characteristics of administrators at the Federal University of Minas Gerais, as well as their perceptions about the ideal qualifications and preparation of future university administrators. In addition, data related to their opinions about major problems in Brazilian university administration were gathered and analyzed.

The literature search included four major sources of materials: (1) Dissertation Abstracts International (2) ERIC (Educational Resources Information Center) documents, (3) the Educational Index, and (4) secondary sources from the writer's personal collection.

This chapter contains a comprehensive review of various topics related to the present study. First, the writer presents an historical overview of the origin and development of administration in higher education institutions, including a discussion of alternate ways of preparing university administrators. Next, the development of higher education as a field of study in the United States, studies analyzing the nature of administrative preparation, and program elements and structure are covered. Another area requiring attention was research on higher education administration; selected major studies on this topic are reviewed. Finally, the history of Brazilian

higher education and consequent implications for the development of higher education administration in Brazil are briefly discussed, in order to approach the problem from an historical perspective.

Administration of Higher Education:
Its Origins and Development

The features and traditions of the contemporary university date back in part to the European university of the late Middle Ages. Until the 1500s, higher education was religious oriented, leading its students to studies in law, medicine, and theology. Since there was no formal administrative body for such institutions and it was a "time when the university itself had no permanent officers of its own" (Brubacher & Rudi, 1976, p. 365), their government was managed by the "students--as the guild of scholars at the University of Bologna, by the faculty--as the guild of masters at the University of Paris, and by the state" (Phillips, 1969, p. 1). Rashdall (1975) pointed out that the first chancellor of Oxford University was appointed in 1214, and before that masters and scholars were governed by ecclesiastical authorities. Later, the guild of masters or students selected a rector; deans of faculties were the next administrators to appear (Kerr, 1964).

Oxford and Cambridge experienced progressive developments in the 1700s through the establishment of residential colleges as opposed to faculties. Those residencies, according to Perkins (1973), were established to stimulate close contact between teacher and learner, thus promoting the teaching-learning enterprise. By the end of the century, however, European universities had become "centers of

reaction in their societies, opposed, in large part, to the Reformation and antagonistic to the new science and the spirit of creativity" (Kerr, 1964, p. 10).

The rebirth of such institutions was ignited by German universities. The major event leading to this rebirth was the establishment of Berlin University by Humboldt in 1809. Revolutionary ideas concerning the structure of the university were put into practice; such innovations included the creation of the department and the institute, as well as a new role for the faculty. According to Cowley (1980), decisions on academic matters were turned over to the professoriate through "the establishment of governing boards made up of full professors, who elected a rector each year from their own number to administer academic affairs" (p. 23). However, as Cowley stated, two of the most important governing rights remained in the hands of the state: financial control and the appointment of salaried academicians, not to mention the importance of curators, the virtual administrators, who were appointed by the Minister of Education.

Describing the development of administration of higher education in America, Brubacher and Rudy (1976) stated that "Harvard started with a board of overseers composed of magistrates, the presidents and clergy." But, in 1650, when Harvard's first charter was formalized, transportation difficulties prevented this nonresident board from meeting conveniently, so an additional administrative body was set up, "consisting of the president, five fellows and the treasurer." Thus, the "corporation" established at Harvard made that institution the first bicameral form of college and university

administration (p. 25). However, administration remained entirely under the responsibility of the president (Ayers & Russel, 1962). As a teacher, disciplinary mentor, registrar, secretary of the board of control, and even as a librarian and fund raiser for the institution, the president, himself, was the administration.

Toward the end of the nineteenth century, scientific training at the higher education level was greatly stimulated by the Morrill Act, and industrial development led to the renewal of American colleges and universities. Growth and diversification came upon the university scene. With such growth, administrative functions became differentiated. The appearance of deans of men and deans of women in the 1890s and the later creation of posts like business officer, director of public relations, director of admissions, and vice-president were made to "free the top executive officer of the university still further from the duties of administration, which continued to be overwhelming, and to afford him more time to devote to educational policy" (Brubacher & Rudi, 1976, p. 367).

Finger (1979) pointed out that the lack of systematic formulation of universities was not a characteristic of educational institutions alone, but of other establishments as well, like industry, which followed empirical patterns and few systematic methods. Not until the beginning of the twentieth century were the concepts of Frederic Taylor in the United States and Henry Fayol in France directed toward the management of industrial organizations. Their aim was to rationalize the phases of the working process, ultimately to redesign the organizational structure of industrial institutions,

and consequently to provide appropriate training of managers and supervisors. The ensuing managerial revolution remained attached to industrial organizations before spreading to educational institutions as well.

Other authors have seen the reason for the slow development of administration in higher education as a matter of the size and complexity of educational institutions. Duryea (1973), for instance, stated that after the Civil War, academies and church-related colleges flourished and universities appeared with expanded enrollment, academic fragmentation, and diversified relationships with the external society; presidents found their responsibility elaborated and their need for staff assistance imperative (p. 27).

The extraordinary growth of colleges and universities in the first half of the twentieth century led to a multiplication of academic personnel and, consequently, to more specialization and delegation of activities. Such changes, according to Brubacher and Rudy, operated in two directions: that of organization of academic instruction into departments, later becoming "the indispensable vehicle for disciplinary and professional specialization" (p. 368), and that of administration, through which the increasing organization of faculties into different committees "made the faculty meeting, the last stronghold of their power, a rather cumbersome part of college and university administration" (p. 369).

Brubacher and Rudy asserted that not until the 1950s were organizational and administrative changes adopted by American universities, despite drastic developments experienced in size of student

enrollments, teaching methods, community relations, and state control. The former stability in design and structure had been the product of a consistent plan by the architects of American education. Clearly, there had been changes in the number of administrators and in their duties, and specialized functions had been created. However, the structure of administration had resisted change for so long that this was viewed as proof of its vitality (p. 354).

In The Use of the University, Kerr (1964) described the complex process of change as follows:

The general rule is that the administration everywhere becomes by force of circumstance, if not by choice, a more prominent feature of the university. As the institution becomes larger, administration becomes more formalized and separated as a distinct function; as the institution becomes more complex, the role of administration becomes more central in integrating it; as it becomes more related to the once external world, the administration assumes the burdens of these relationships. The managerial revolution has been going on also in the university. (p. 28)

Development of Professional Administrators

According to the International Encyclopedia of Higher Education (Knowles, 1977), the administration of higher education can be defined as "the fulfillment of responsibilities pertaining to the efficient and effective operation of colleges, universities, systems of higher education, or some segment of a system" (p. 1282).

To attain such goals, the training of professional administrators has been developed according to the different academic and administrative functions of institutions of higher education. Academic and support management are the two major educational administrative functions; each type of administration necessitates unique career

preparation and training. Whereas academic-management preparation is directed toward the training of departmental chairpersons, deans, and presidents, support-management training is intended to prepare professionals to administer student-personnel, library, computer, audio-visual services, etc. The demand for professionally trained administrators has been recognized generally in three forms of training: formal instruction, internships and on-the-job training, and other short programs for working administrators.

Formal Instruction

One way to prepare college and university administrators is through graduate programs in the field of higher education. Such a method has long been used in training primary and secondary education administrators, but it has not yet proved to be the best or the traditional way of preparing higher education administrators. Some authors consider administration of higher education as an "emerging field of studies" (Burnet, 1972, p. 16), lending itself to systematic study. At the same time, other authors see no value at all in higher education courses to prepare administrators because, to them, a good administrator is "a person who has been through the academic or professional training within his own discipline and will have the perceptions with which to provide adequate educational leadership" (Henderson, 1966, p. 125).

In spite of this dilemma, a number of educational institutions throughout the United States and in other countries offer formal instruction in higher education administration. An historical

account of the development of this field of study is provided later in this chapter.

Internships and On-the-Job Training

Learning as a co-worker is perhaps the oldest of educational techniques and was used long before the written page provided students an opportunity to read about procedures and practices for mastering a skill. Thus, it is a common practice in higher education training to use real-life situations or to establish simulated conditions to provide "reality-oriented training," through which trainees are given more opportunities to experience on-the-job procedures.

Philips (1969) explained this method in the following way: "The intern is engaged in research in higher education and the host institution which accepted him for the period of leave is his laboratory. The mentor [is] the intern's laboratory consultant" (p. 22).

Roaden and Larimore (1973) stated that, through the internship, trainees may "become intimately involved in all aspects of the administrator's job, and the mentor would be selected as an outstanding model who is supportive" (p. 62).

Within the past 20 years, formalized internships in administration of higher education have been offered by major universities and private organizations in the United States, Canada, and Australia, to name just a few countries.

Short Programs for Working Administrators

A number of conferences, institutes, seminars, and work experiences are offered to college and university administrators. At

these events, intellectual stimulation provides professional upgrading and gives administrators an opportunity to meet and discuss their problems in a relaxed atmosphere away from their own institutions. Although such events occur primarily in the United States, they are becoming more popular in other countries as well.

The Development of Higher Education as a Field of Study in the United States

Most writers, when considering the history of the development of higher education as a field of study, believe it started at the end of the nineteenth century and that it had as a major component the establishment of professional courses in the field of higher education.

Burns Byron Young was apparently the pioneer in historical studies of higher education as a field of study. Young (1952) had no previous studies on which to base his dissertation, entitled "The Rise and Development of Instructional Courses in Higher Education." He found most of his data in original documents, minutes of meetings, and college and university catalogues. Young reviewed the work of early pioneers, which he referred to as the first phase, and then described the rise and development of the contemporary situation in the field, referred to as the second phase.

A third phase in the historical evolution of higher education as a field of study emerged 12 years later when Ewing (1963) advanced Young's work. He investigated the proliferation of graduate courses in higher education and the emergence of institutes and centers for the study of higher education. In his findings, Ewing

--maintained the first phase without change, terming it "the development of Higher Education prior to 1920."

--carried the second phase to 1945 (the end of World War II), calling it "the development of Higher Education from 1920 to 1945."

--introduced a third phase after noting a remarkable growth of the field of Higher Education in the post-war era and labeled it "Development of Higher Education after 1945."

Thus, based on the work of Young and Ewing, the two major historians of higher education as a field of study, the historical development of the field consists of the following three phases:

- Phase One: Development of Higher Education prior to 1920
- Phase Two: Development of Higher Education from 1920 to 1945
- Phase Three: Development of Higher Education after 1945

Development of Higher Education Prior to 1920

According to Ewing, the period from 1890 to 1920 was characterized by intense activity in education. Major events were the founding of professional schools of graduate education at Harvard, Chicago, Columbia, and George Peabody College; the development of I.Q. and Army Alpha tests; the beginning of the junior college; and the initiation of the general education movement. It became obvious that there were weaknesses in the higher education system. Concern over these weaknesses stimulated instruction and research in the field. These early efforts were led by individuals who created unique courses of study based on their experience and concerns. These efforts did not spread but died out entirely when their originators left the scene.

Young (1952) pointed out that probably the first course exclusively devoted to higher education in any American university

was taught by Grenville Stanley Hall in 1893 at Clark University, where he continued his teachings in higher education until 1912. Charles H. Turber (1895-1896 at the University of Chicago) and Dean James (1908-1909 at the University of Minnesota) were the second and third pioneers in this field. Edmund Clark Stanford began teaching higher education courses at Clark University in 1910 and remained in that position for 11 years. Franklin Buchner taught courses in higher education at Johns Hopkins University from 1915 until 1929 (Young, 1952).

The concern of those pioneers was the preparation of teachers for college and university level work. Others viewed colleges and universities as important social institutions and offered courses designed to study them in that context. These two factors, as well as the post-World War I expansion of colleges and universities, precipitated an increase in the number of courses and programs in higher education during the 1920s (Travelstead, 1974).

Development of Higher Education From 1920 to 1945

By 1920, not only had American higher education advanced considerably over its state in 1890, but it marked the beginning of an unprecedented period of growth at every level of education. This constant growth of higher education intensified problems in the sphere of college administration, making the study and research of the problems of higher education more significant than ever before. In response to the expansion of higher education, course offerings were initiated in diverse institutions.

Whereas Young (1952) pointed out that 17 colleges and universities had started offering higher education courses between 1920 and 1945 and were still doing so in 1949-1950, Ewing (1963) found that 27 institutions were offering such courses during the same period. This difference was attributed mainly to Ewing's use of different criteria to define "offering a course in higher education." Nevertheless, the important thing is that in just a short time a considerable number of the best universities in America began offering courses and/or majors in the field of higher education. Higher education as a field of study was institutionalized in this way.

Development of Higher Education After 1945

The end of World War II forms a natural division in the development of higher education as a field of study. Before the war, the number of institutions offering courses in higher education grew at a rate of about one per year. The growth rate quadrupled after the War (Ewing, 1963). Travelstead (1974) pointed out some factors explaining this phenomenon:

The knowledge explosion resulted in expanded curricula and further fragmentation and specialization. The emphasis on research was magnified. The junior college and graduate education, the polar ends of the structure of higher education, experienced the greatest development. Colleges and universities extended themselves into public service. The tremendous rate of growth further intensified problems of organization, and this was accompanied by a shortage of administrators. (p. 24)

Not all of the colleges and universities that initiated courses in the field of higher education remained involved in this field. Johns Hopkins University, Boston University, and Harvard University, for example, no longer offer such courses. Those institutions preferred not

to continue teaching this field, suggesting that higher education may have already attained its maturity. When introducing their work on "Training University Administrators: A Program Guide," Henderson et al. (1974) stated that:

The institutes and schools located in major universities are now well established and successful in the United States of America and in many other countries. These programmes have helped to advance both the art and the science of administration, have raised the ethical tone and the professional character of the services and have produced a welcome flow of persons with superior qualifications for administrative services and leadership. (p. 25)

The efforts of the pioneers in the study of higher education have been well rewarded. The need for self-study and analysis of institutions of higher education was present before World War I. Yet it took the phenomenal growth of higher learning following the World Wars to ensure the development of higher education as a field of study. Its full institutionalization has not yet been accomplished, however, as reflected in Dressel's (1974) assessment of the development of higher education as a field of study:

What emerges then is an active, confused field, lacking many of the attributes of a discipline, yet demanding more disciplined effort. Its future is obscure; but if the present lines of development are strengthened and if the many perplexities are resolved, it may join the band of established specialties, such as history, sociology, and medicine, which once were in similar limbo. (p. 1)

The Nature of Administrative Preparation

The idea of training academic administrators is a revolutionary one because the conventional route into academic administration is established scholarship in a discipline. Not all authorities have supported such training. Barzum (1968) was less than complimentary

about professional training of top administrators. He wrote that the essence of "university administration defies analysis; it is a branch of the black art" (p. 114). He opposed the concept of a professional university administrator because "if preparation succeeded, action would fail; because the very thought of deliberate management, aimed and trained for, would concentrate the spirit of resistance in faculties and bring about the defeat of the certified administrator even before he framed his diploma" (p. 114).

On the other hand, an examination and understanding of the awesome list of responsibilities demanded of the college and university administrator emphasizes the importance of the training he receives for the job. According to Philips (1969), "a good administrator is a professional in his own right" (p. 39). To support this assertion, he cited Flexener's (1915) classic criteria of a profession, which he felt also apply to modern college and university administration:

1. intellectual operations coupled with large individual responsibilities;
2. raw materials drawn from science and learning;
3. practical application;
4. an educationally communicable technique;
5. tendency toward self-organization; and
6. increasingly altruistic motivation (p. 39)

As early as 1946, Day listed the basic responsibilities of administrators; these ranged from adding to the institution's resources to identifying and expressing the general philosophy of the institution. Davidson (1949) included finance, philosophy, and political ability among ten items that should be considered in training university administrators. More recently, Stroke (1966) pointed out that "good administrators depend upon a wide knowledge of education" and

that the role of training programs for university administrators is to shape trainees' educational philosophies. "Perhaps the most important qualification an administrator can bring to his job is a philosophy of education, i.e., some clear ideas as to why the institution exists, for whom it is trying to provide. Such a philosophy is in the foreground of almost every educational decision" (p. 21). Stroke also emphasized the importance of internship types of experiences. He stated, "Administrative effectiveness grows not through knowledge of organization and bylaws so much as through experience and skill in the intangible factors of human relations" (p. 28).

This perception of the importance of practical experience in the preparation of college and university administrators has been a constant feature in studies and surveys on this subject. In 1972, the Journal of College and University Management stated that, when asked how to improve competence and performance among educational administrators, 30 top administrators stressed the need for a highly practical kind of training and experience with more attention to internships, residencies, and other forms of on-the-job training. Bolman (1974) categorized the essential competencies needed by university administrators into three groups: professional skill, comprehensive understanding of the institutions they serve, and "political insight using politics in the classical sense of the ways and purpose by which men relate themselves to each other to achieve the good life" (p. 280).

Changes in Administrator Training

The changes that have taken place in society and technology have been reflected in the nature of the preparation of university administrators. The courses and/or programs designed to prepare administrators were once organized around a single personality or issue. Yet the growing complexity of university management and the changing environment of higher education challenged preparation programs to respond to these changes and to assume greater responsibility in discovering new knowledge about administration and about the education of future administrators. Whereas programs previously were based on the experience of successful administrators, they now emphasize concept development, cultivation of skills, and research.

Program elements. In 1964, Ewing and Stickler studied the status of higher education programs offered by 87 colleges and universities throughout the United States. They also determined the kinds of program elements frequently mentioned by the respondents as the actual course offerings. The following courses were included in at least 25 percent of the respondents' programs:

- Higher Education in the United States
- General Administration and Organization
- Curriculums and Programs
- Student Personnel Work
- Teaching Methods and Problems
- Junior College

Dibden (1966) surveyed 90 departments and/or centers of higher education that were offering courses in higher education in 1965. He found that the following subjects were commonly covered:

Historical Developments and Current Trends in Higher Education
 General Issues, Policies, or Philosophy of Higher Education
 Principles and Preparation of University Organization and
 Administration
 College Teaching and the Teacher
 Design, Administration, and Evaluation of Curriculum
 Financing Higher Education
 Student Personnel Services
 Internships

Two years, later, Overholt (1968) surveyed 121 institutions;
 his results were very similar to those of Ewing and Stickler. That
 is, respondents mentioned the same areas of course offerings and
 included two new areas:

History, Philosophy, and Issues in Higher Education
 Research in Higher Education

Palinchack (1970) found that the greatest preference for
 program elements in 27 universities centered on:

Research Problems
 Curriculum Planning
 Internship
 Student Personnel Laboratory
 Educational Leadership
 General Administration
 Community College
 Statistics
 Educational Philosophy

In 1974, Travelstead analyzed data from 43 institutions and
 concluded that the following were the most frequently offered courses:

College Teaching and College Teacher
 History of Higher Education
 Academic Administration
 Curriculum Development
 Community College Administration
 Financial Resources
 Philosophy of Higher Education
 Current Issues and Problems
 Student Personnel Administration

Bjarnason (1971) attempted to establish whether there existed a need to extend educational administration preparation in the Province of Manitoba. He also tried to determine whether school practitioners, universities, and a jury of nationally known Canadian administrators agreed on the training procedures they desired. Among the program elements with the highest frequencies of agreement among respondents, almost all could be used for the preparation of administrators of higher education. These were:

- Group Processes
- Theory of Administration
- Internship and Field Experience
- Introduction to Research Methods
- Elementary Statistics
- Organizational Behavior

Program structure. Mayhew (1972) suggested that courses in higher education designed to train administrators could be visualized as three different models. The first would emphasize doctoral-level work and would be offered by an institution that "supports its department or concentration in higher education in a quest to seek and maintain a national perspective" (p. 36). Consistent with its national character, there would be efforts to recruit students on a national and international basis, the goal of the program being to prepare leaders for the upper echelons of institutions, government, foundations, and higher education bureaucracy. The second type would be designed with a curriculum oriented toward application of and attendance to local needs, assisted by part-time faculty, and serving part-time students who would work nearby. Finally, the third type of program would be directed to the special needs of a community college,

technical school, or other local institution. Faculty would be provided by other departments.

Two other types of courses, which comprise the model presented by Kelams (1973), are compatible with those suggested by Mayhew. The first program he suggested would organize, synthesize scholarly outputs, and generate new knowledge as well as train professors in higher education. The second program would provide training for professional higher educators and synthesize and apply knowledge of higher education.

Later, Dressel (1974) assessed the alternative methods of preparing university administrators in light of program content and structure and listed the following:

1. Courses of higher education leading to a specialist's, master's, or Ph.D. degree.
2. In-service training programs like membership on committees or task forces, and "fellowship of varying duration in the president's office also constitute recognized paths to administration" (p. 130)
3. The Academic Administration Internship Program from the American Council of Education, which is designed to prepare people for careers as deans, vice-presidents, and presidents of universities; the post-doctoral program at the Center for the Study of Higher Education at the University of Michigan, which provides opportunities for study and research in administration of higher education; and other programs of a regional character.

Aliciatore (1972) pointed out that categorizing programs according to the three types suggested by Mayhew "may give the

impression that the best or only place to prepare the professor-researcher type is in one of the few well-funded type one programs" (p. 42). Thus, for him, it would be more important to categorize programs according to "purposes and to stress 'output' rather than 'input' variables in the study of higher education programs" (p. 42).

In summary, it appears that most sources concluded that the preparation of college and university administrators should not be a narrow specialization. Systematic inquiry into higher education problems and exposure to social studies are highly necessary. As Stoke (in Travelstead, 1974) asserted,

The effective administrator is concerned with the well being of the entire enterprise. This must include not only care for its current operations, but for the realization of its long-range purposes. It follows that good administration depends upon the wide knowledge of education. (p. 84)

The foregoing theoretical issues reflecting different major viewpoints on the preparation of college and university administrators were discussed because of their particular significance for such preparation, the major focus of this study.

The Present Structure of Administrator Preparation

In Europe, mainly in England, "university administration is becoming more professional in character, marked by recruitment of specially trained career administrators, in service training programs, and the development of nationwide organizations for administrators" (Brooks, 1973, p. 439). At the University of Manchester, an in service training seminar in university administration has been offered since 1971, and diverse universities (University of London, North East

London Polytechnic, Sheffield Polytechnic, University of Reading) maintain formalized training studies in the area of educational administration and higher education.

Another European effort to train staff specialists in higher education is the International Institute for Educational Planning Internship Programme, established in Paris by UNESCO in 1963, in cooperation with the government of France, the Ford Foundation, and the World Bank. The program is directed toward solving problems of higher education in developing countries (Henderson et al., 1974).

Canada maintains a restricted but stable group of institutions that offer graduate education in higher education: the University of Alberta, the Ontario Institute for Studies in Education, and the University of British Columbia (Andrews, 1980). In Australia, the Institute for Higher Education at the University of New England has provided formal preparation in higher education administration for more than eight years. Finally, it should be mentioned that the Asian Institute of Educational Planning and Administration in New Delhi, which was opened in 1962 by agreement between UNESCO and the Government of India, provides short in-service training courses for officers of the various departments of education of participating Asian member states (Henderson et al., 1974). However, it is in the United States that preparation for university and college administration has developed most fully.

Dimensions of Administrator Preparation

Instruction and research in higher education in the United States is diversified in operational format and in the ways it is

offered. According to Peterson (1973), the units devoted to the study of higher education in the United States can be divided into four groups, according to their operational format and objectives. He defined as "extra-institutional agencies or groups" those units that study higher education issues but are separate from higher education institutions. The Higher Education centers located at the University of California at Berkeley and Los Angeles; the National Laboratory on Higher Education in North Carolina; the National Center for Higher Education Management Systems at Boulder, Colorado; and the ERIC Clearinghouses at George Washington University (on higher education), at the University of California at Los Angeles (on junior colleges), and at the University of Michigan (on counseling and personnel services) comprise the major components of this group. Peterson also included in this group the massive supporting role of numerous foundations like the Carnegie Corporation, the Ford Foundation, and the Kellogg Foundation in funding broad national studies on the state of higher education, grants to various institutions, and special programs to train administrators.

The second group comprises the network of colleges and universities, with their offices of institutional research, and regional coordinating agencies, which are concerned primarily with providing information on specific academic or administrative problems to faculty, administrators, and legislative bodies.

The third group characterized by Peterson comprised professors within existing disciplines, primarily the social sciences. The

fourth group was the academic higher education units, which have as a major objective the training of administrators, researchers, and professors of higher education.

Several methods have been employed to prepare college and university administrators. Among the most popular methods are the formal process of studies and in service training.

Formal studies in the field of higher education at the master's and doctorate levels are offered at more than 100 institutions throughout the United States. In the same group could be included the Michigan Fellows and Scholars in College Administration program, a well-recognized post-doctoral administration program at the University of Michigan.

Under the category of in service programs, Schults (1968) considered the Institute for College and University Administrators at Harvard to be one of the most prestigious offerings for senior college and university administrators. It was established, in 1955, through a grant from the Carnegie Corporation, and by 1976, 5,000 administrators from 1,200 universities had attended. Another well-known national program of this nature is the American Council on Education's Fellow Program in Academic Administration, which, since 1965, has provided training for promising candidates in the field of higher education administration.

Review of Selected Studies on Higher Education Administration

Studies on higher education administration have shown a diversity of approaches. A large number of researchers have been concerned

with the departmental chairmanship as the first support of administration of higher education. Englund (1967) identified the procedures for selection, orientation, and in service education of departmental chairpersons. He found that the attribute that seemed most necessary for a new chairman was an ability to work with a variety of types of people, e.g., faculty, students, and other administrators. The other attribute mentioned several times was the chairman's competence; apparently he does not have to be the leading scholar in his field, but he must at least be able to command the respect of his colleagues.

Later, Bullen (1969) evaluated the perceptions of selected faculty and administrative personnel at the University of Alabama regarding the departmental system. He found that a composite profile of desirable characteristics should be developed and used in the process of selecting a chairman, that too much of the chairman's time was absorbed in clerical tasks, and that budgetary controls appeared to be the factor most restricting a chairman's performance and plans for departmental development.

Luthes (1972) investigated the relationship between personal variables and perceptions of an administrator's leadership behavior in the context of one department. His analysis indicated that male and female faculty members perceived the leadership behavior of their administrator differently. Similarly, the analysis showed that the age of the faculty members was related to their perception of leadership behavior, whereas rank, tenure in the present assignment, and total years of experience in the professoriate were not related to

faculty members' perceptions of the administrator's leadership behavior.

The aim of Mangelson's (1977) study was to identify the formal abilities considered to be most important for academic department chairpersons. Important results of the analysis included the following: abilities related to financial matters and affecting the careers of faculty members were considered most important for chairpersons; chairpersons and faculty members as a group agreed on the relative and absolute importance of abilities for chairpersons; and experience as a chairperson did make a difference in attitudes about the importance of abilities for chairpersons.

Skubal (1980) not only advocated a clearer definition of the chairperson's position, to provide a basis for performance evaluation, but also, in recognizing the potential conflicts with such a position, suggested a program to provide chairpersons with a university perspective and the involvement of chairpersons in developing any orientation or in-service programs for them.

Although Bjarnason (1971) considered the needs of a specific geographic region, his findings are worth mentioning. The courses his respondents judged to be essential for all graduate candidates studying for a degree in educational administration were somewhat similar to higher education preparation courses, e.g., Administration Theory, Internship, Instruction and Research, Elementary Statistics, and Organizational Behavior.

Cloe (1973) investigated perceptions of competencies needed for academic administrative positions in Indiana. The highest value

placed on any group of competencies was assigned to the understanding of human behavior; English, humanities, and psychology were considered the most useful courses in academic training programs.

Brazilian university presidents and members of the Federal Council of Education saw university presidents as providers of mechanisms for implementing decisions, supporters of research activities, and maintainers of an operative and well-articulated staff, according to Finger (1978), who investigated the role and function of Brazilian university presidents. He found that in terms of minimum requirements for the presidency, previous experience in administration of higher-education systems was ranked the highest, followed by teaching experience. The university presidents perceived the lack of human and material resources and the lack of autonomy as the three greatest problems confronting contemporary Brazilian universities.

Some of the aforementioned problems are common to the administration of Brazilian primary and secondary schools as well; thus, Ferguson's (1978) research may be pertinent to the present discussion. Ferguson attempted to identify some of the problems of providing trained educational leadership for the Brazilian educational system. The following topics were investigated: the educational policy of the Brazilian government, the perceptions of students and teachers toward educational administration as a profession, the organization and content of college and university programs of study to encourage greater competency of educational administrators, and in-service training programs available to practicing administrators. His major findings were:

1. The educational policy and decision-making process in Brazil is formulated at the federal level in the Ministry of Education, which makes it difficult to implement educational programs at the local level.

2. The role of the educational administrator is poorly defined, and few of the survey respondents indicated an interest in the profession.

3. The profession of educational administrator is not believed to be economically attractive, which appears to be a major deterrent to filling educational administration positions with trained personnel.

The work of Sunlay (1974) most closely resembles the present study. In 1974 he conducted a survey to determine if there was a need for a graduate program in the field of higher education in Thailand. He developed a questionnaire concerning characteristics, qualifications, and opinions about preparation of administrators, which was completed by rectors, deputy rectors, secretaries-general, deans of faculties, and directors in universities and vice-presidents of colleges. Sunlay concluded that there is a need for more leaders in higher education administration in Thailand, that certain serious problems in higher education demand expertise in administration if they are to be dealt with successfully, and that institutes and short courses should be the initial effort in establishing programs for higher education administration in Thailand.

History of Brazilian Higher Education and Implications
for Administration and Development

Colonial Period: 1500-1807

As previously noted, the roots of Brazilian education were established by the Jesuit priests who accompanied the first colonial Portuguese governor to Brazil in 1549. Their immediate concern was to provide religious instruction and literary training for the Indian children (Haussman & Harr, 1978). Soon after, in 1586, the Company of Jesus resolved to define its educational goals, hoping by means of secondary and higher education to educate the lay leaders of Catholicism as well as the priests.

However, according to Haussman and Harr,

Jesuit instruction was dogmatic and abstract. Rote learning and encyclopedism were also common features. An exclusive concern with literary and rhetorical studies merely enhanced the prestige of various members of the upper class; education did not serve as a means for upward social mobility, but instead perpetuated the elite cultural values of Brazilian colonial society. (p. 31)

The work of the Jesuits ended in 1759, when the Prime Minister of Portugal issued an order expelling the missionaries from the kingdom and its colonies. In contrast to Mexico, Peru, the Dominican Republic, and Ecuador, which established universities in the 1500s, and the United States, where Harvard was founded in 1636, Brazil went through its colonial period without institutions of higher learning (Mello Franco, 1958). The Jesuit attempts to create schools for higher education remained unrealized, and proposals to found a university never materialized (Dias, 1973).

United Kingdom: 1808-1822

From 1808, when Brazil became the capital of the Portuguese Empire, until 1822, when independence from Portugal was proclaimed, great innovations came about in the cultural setting of the country (Dias, 1973).

To escape Napoleon's army, the Royal Family of Portugal fled to Brazil in November, 1807. The arrival of the Portuguese Imperial Family "not only marked the country as the temporary capital of the Portuguese Empire, but also produced a new era of progress that entirely transformed the colonial Brazilian panorama" (Dias, 1973, p. 33). With the coming of the court to Rio de Janeiro, there was an immediate change in mentality and in customs. Among the major changes that were instituted to adapt Brazil for the imperial court, the following were most closely related to the development of higher education:

1808	Opening of the ports of Brazil to foreign commerce;	
	Founding of the Royal Press and the Bank of Brazil;	
	Founding of the first courses in higher education:	
	Rio de Janeiro	The Naval Academy
		A course in Anatomy and Surgery
	Bahia	A course in Surgery
		A course in Economics

According to Azevedo (1950), Dom Joao VI limited himself to creating special schools, "with the objective of satisfying as quickly and inexpensively as possible the necessity of the environment to which the Portuguese Court had moved. All his educational work was motivated by his concern for practical and immediate utility and was a complete departure from the scholastic and literary program of the colonial period" (pp. 372-73).

The Empire: 1822-1889

The Empire in Brazil was established in 1822 and survived for almost 70 years. This period was primarily identified by an increasing nationalism. For the first time, the concern for popular education, as the basis for the system of universal suffrage, came to occupy the minds of the cultural elite (Azevedo, 1950). But those good intentions were defeated by the poverty of the country, the shortage of qualified teaching personnel, and the lack of means for training teachers.

On August 11, 1827, two courses in law were established: one at the Monastery of São Bento in Olinda and the other at the Convent of São Francisco in São Paulo. According to Havighurst (1965), these schools were of the utmost importance in training the political elite and in shaping the juridical mentality of the Empire.

Perhaps the most important law of this period was the Additional Act of 1834. Under this law, primary and secondary education were decentralized, organizationally and administratively, with responsibility assigned to the provinces. Responsibility for higher education was left to the federal government. Thus, according to Benjamin (1965), the Empire established very early the two basic patterns for all later higher education in Brazil. These were:

1. Everything connected with higher education, even the most detailed items, must be specified by law;
 2. The law must be a federal law to carry the highest prestige.
- (p. 32)

Another accomplishment of the Empire was the founding of the Colegio Pedro II in 1837 and the School of Mines in Ouro Preto in

1875. However, educational advancement continued to be of, by, and for the upper classes. The illiteracy rate during the Empire period was 79 percent (Rodrigues, 1967).

The Republic: 1889 to the Present

With the establishment of the Republic in 1889 and the first Federal Constitution in 1891, higher and secondary education continued to be a function of the federal government, although state and local government were not excluded from those fields (Benjamin, 1965).

Azevedo (1950) commented that this new approach brought anarchy to the system; to support his assertion, he quoted Teixeira Brandao, who said:

Giving primary education to the states and secondary and higher education jointly to the Union and the states, broke up the unity of public education and made it anarchical, by subordinating it to diverse and accidental interference, depending on the economic situation of the different regions of the Republic. (p. 412)

Later, the elimination of theology, rhetoric, and law, and the introduction in their place of such disciplines as mathematics, biology, physics, and chemistry, was sought by Minister of Education Benjamin Constant. Although changes occurred in secondary education, these modifications did not carry over to higher education.

The so-called juridicalism was a blot not easily erased from the country's history. Azevedo asserted that

The same literary and bookish spirit; the same lack of boldness in construction; and the same excessive concern for juridical formulae continued in the Republican period, at least until 1918 (p. 413), [and] for eight free law schools which were created during the first twenty years of the Republic, there were founded only three schools of engineering. (p. 424)

Thus,

from a cultural and pedagogical point of view, the Republic was a revolution which aborted and which, contenting itself with a change of regime, did not have the thought nor the decision to accomplish a radical transformation in the system of education to lead to an intellectual renovation of the cultural and political elite which were necessary to new democratic institutions. (p. 435)

Chagas (1967) pointed out that in addition to those 22 separate attempts to establish a university in Brazil before the Republic, eight other efforts occurred before the University of Rio de Janeiro was founded on September 7, 1920. According to Azevedo (1950), the University of Rio de Janeiro was no more than a grouping of three institutions--the law school, the medical school, and the polytechnic school--for training professional men, and it did not amount to any essential change in the structure and methods of higher education in the country (p. 465).

The Revolution of 1930 immediately affected higher education. In 1931, Francisco Campos, the new Minister of Education and Health, promulgated the Statute of Brazilian Universities. The Statute provided that a university could be organized with three faculties: law, medicine, and engineering or the substitution of a faculty of education, sciences, and letters for any one of the three.

After 1932, with the new guidelines provided by the reform, higher education was encouraged and new institutions were created. The University of São Paulo, created on January 25, 1934, was the first university that Brazil had established in the new spirit and organization (Azevedo, 1950). It was the first university in which the Faculty of Philosophy, Sciences and Letters "became the

heart of the system, and the ruling interest was in scientific research" (p. 465).

From 1935 through the 1950s, several state and private universities and independent establishments were created. The only changes, however, were quantitative ones (Chagas, 1967). In 1937, there were only four universities in Brazil. By 1953, this number had increased to 15.

In 1961, after having been frozen in Congress for 13 years, the Law of Directives and Bases of National Education was promulgated and partially implemented. The Federal Council of Education, created by that law, was entrusted with establishing the minimum curriculum for all college degree programs and approving all statutes and constitutions of colleges and universities. Despite the long legislative process and numerous changes in the original project, this law brought about some benefits. Educational problems were discussed extensively, bringing awareness and creative interests to Brazilian education.

In December 1961, the University of Brasilia was created in the Federal District. The establishment of this University was intended to modify radically the structure and organization of Brazilian universities. The University of Brasilia was the first to adopt a departmental structure and to emphasize institutes as teaching entities and research centers of basic and applied knowledge. Unfortunately, the project for the University could not be developed as planned. First, faculty and potential students demanded the immediate opening of some institutes. This demand did not provide time to establish the plan. Second, in 1964, shortly after the University opened, a military regime took over the government of Brazil. This started a

long process of ideological conflict between faculty and government, which resulted in dismissals of faculty and military intervention into school administration. These events made application of the original model impossible.

In 1968, a decisive change radically modified the entire structure, mission, and purpose of the Brazilian university. The University Reform Law established new structures for universities in terms of departments, faculty, councils, academic structure, admissions, and careers. Among other things, this law defined the department as being the smallest unit in the university and stated that all faculty members of the same field of study must be linked to the same department.

During 1978, 65 universities, 32 federations, and 796 isolated schools existed in Brazil. Table 3 shows the number of institutions in Brazil according to geographic regions.

Table 3.--Number of educational institutions in Brazil, according to geographic regions.

Region	Universities				Federations				Isolated Schools				Total
	F	S	M	P	F	S	M	I	F	S	M	I	
North	3	2	1	-	-	-	-	-	3	1	-	2	9
Northeast	10	2	1	3	-	1	-	1	2	10	26	47	103
Central-East	3	1	-	1	-	-	-	2	1	2	1	14	25
Southeast	11	4	1	10	-	-	-	23	15	23	52	459	598
South	5	3	-	7	-	-	-	5	1	16	32	89	153
Total	32	10	2	21	-	1	-	31	22	52	111	611	893

Source: CAPES, 1979.

Key: F = federal M = municipal
 S = state I = independent

Implications for Administration and Development
of Higher Education in Brazil

It may be worthwhile to recall the major events of each historical period, to see the possible implications of such events in the development of higher education administration and its performance.

From the Colonial period, it can be seen that aside from the dogmatic and abstract instruction provided by the Jesuits, the idea to establish a university remained unrealized (Hausman & Harr, 1978). The advent of higher education courses in Brazil, 300 years after its discovery, was based solely on the objective of supplying the necessities of the Portuguese Court. Such concern for practical and immediate utility appears to have established a pattern for the future development of the entire system.

This pattern continued through the Empire period, when few independent courses were established and the initiatives to found a university were consistently defeated. In the Republican period, it took 30 years to establish the first university in Brazil. Nevertheless, this 1920 milestone amounted to no more than the grouping of three independent professional schools of higher education and did not result in any substantial improvement in the foundation of a "true" university.

Not until 1934, when the University of São Paulo was established, did the country obtain its first integrated institution of higher learning. Later events, however, proved insufficient to provide the nation with a modern and flexible system of higher education.

The Colonial Inheritance

The present problems of Brazilian higher education can be attributed, in part, to its historical origins. Because it took 300 years to establish the first higher education institution and 430 years to establish the first "real" university, Brazil lacks, according to Teixeira (1962), a "true university tradition" (p. 309). There are numerous implications for the institutions that have been developed since and their processes of administration.

Darcy Ribeiro (1974), a renowned Brazilian educator, pointed out that the negative trends that generally characterize Latin American higher education are "a consequence of the social, economic and cultural dependence that has existed since the colonial period" (p. 318). Among such trends, the following are noted because they are still present in the Brazilian educational system.:

1. The organization of the university on federative lines, so that it is a collection of independent schools and faculties lacking any integrating structure that would enable them to work in conjunction.
2. The bureaucratic nature of the administrative organization of public universities, because of which they become governmental bodies with a uniform structure prescribed by law.
3. The insularity of each department in the universities, for lack of co-ordinating machinery, and the dissociation of the university from society, for lack of applied research resources and mass communication facilities.
4. The tendency to increase the number of faculties, which are like growths that feed upon the substance of the university and make no contribution to it, since they serve their own ends.
5. Its elitist character, reflected in the restrictions on entry, through the numerus clausus policy.
6. The restricted range of courses offered to young people, bearing no relation to society's needs for human resources, which demand a wider range of higher training courses.
7. The compartmentalization of professional courses within self-sufficient, independent schools, which take the student from the first year of his studies through to graduation without ever having recourse to any other university body.

8. The career-oriented nature of the instruction, the almost exclusive aim of which is to enable students to obtain the legal qualifications required in order to practice the liberal professions.

9. The rigidity of curricula, which are always designed to provide a single type of professional training; no provision is made for training in related fields, except in cases where new educational units are set up.

10. The single-track, parallel structure of curricula, which obliges the student, in the first place, to select a career before admission to the university (i.e. when he lacks practical information concerning it) and, secondly, makes it impossible for him to change his course of studies except by entering another faculty of the university, in which his previous studies count for nothing.

11. The non-professional and honorary nature of teaching, appointments being sought first and foremost as an indication of qualification and prestige in connection with professional interests outside the university, rather than as a career demanding total dedication. (pp. 316-17)

Contemporary Problems

In writing about the expansion and administration of educational systems in Latin America, Figueroa (1979) stated that there is consensus concerning the need to determine the present situation of administration of educational institutions in Latin America (p. 49). According to him, a minimum diagnosis about it could be made, based on documents and reports of international organizations. He cited recent reports from UNESCO (1976) and OEA (1972), in which the following major problems were summarized (p. 50):

1. Excessive centralization. Creates situations unfavorable to orientation and enaction of educational objectives toward improving socioeconomic and geographic conditions of the country, concentration of power and action in few organs causing lack of integration and coordination in the whole system, and progressive multiplication and heterogeneity of the system.

2. Dysfunctional bureaucracy. Excessive attention by means instead of ends, antiquated manual procedures, resistance to change, and conservatism.

3. Personnel. Inadequate preparation and bureaucratic mentality.

4. Operational incapacity of public administration in general and specifically of the organs related to educational administration.

5. Lack of correspondence between academic structure and administrative organization. Structural changes in the academic structure are not necessarily adjusted to the administrative organization.

The Brazilian Context

Attention will now be directed to some of the preceding problems that are prevalent in the Latin American educational administration system, with specific reference to Brazil.

1. Excessive centralization. The excessive centralization in Latin American administration of educational systems, pointed out by UNESCO and OEA, has been prevalent throughout Brazil's history. Dias (1973) stated that "in terms of public administration, Brazil has a long heritage of centralization. It started with the monarchical period and was reinforced in the republic with the so-called New State (Estado Novo)" (p. 117). To emphasize this point, he cited Anisio Teixeira (1972), who pointed out that the Estado Novo was the most extreme kind of centralization and that one of the main purposes for Law Decree no. 200 of February 25, 1967 (reform of public administration in Brazil), was to decentralize public administration (p. 442). Dias also referred to Mendes's (1972) assumption that the position of

the universities, in accordance with Law Decree 200, "has not yet been clearly defined," and "for the present, at least, the universities have a financial structure inconsistent with their juridical status" (p. 28).

Albuquerque (1978) stated that, over the years, the growing complexity of rules, procedures, laws, and legislative regulations has converted the administration of public higher education in Brazil to the status of a public bureau. Serious problems resulted for the administrative decision-making process. According to Montandon (1980), "the level of administrative dependence within the university system in Brazil is in itself a structural limitation to the development of institutions" (p. 3). The Brazilian situation is far from what Morphet (1967) saw as the ideal: "To accomplish more manageable operating units into the university institution, and to have the educational program better adapted to the needs of a rapidly changing civilization, the school administrative system should be centralized and carried out at the local level" (cited in Montandon, 1980, p. 19).

2. Dysfunctional bureaucracy. Organizational structures are generally affected by bureaucratic constraints. Brazilian university administration is no exception. Montandon suggested that

University administrative staff in charge of controlling at the university level and rendering account at the state level will rely heavily on categories and legalistic interpretations of established procedures and as a result will be insensible and inept at adapting to new demands and situations. (p. 20).

Consequently, he saw the situation as Moos and Rourk (1959) described it: "This results in uncertainty, loss of initiative on the part of

institutional authorities, where freedom of initiative is indispensable to good government" (cited in Montandon, 1980, p. 20).

3. Inadequate preparation of administrators/operational incapacity of public administration. Orlando Magalhaes de Carvalho (cited in Lima, 1975), a renowned Brazilian university administrator, described this problem as follows:

One of the major obstacles to the quality of the higher education system is its own administration. . . . The results of the higher education system are under the expectancy rates because inappropriate administrative methods or unprofessional methods are used. . . . Few persons with no preparation at all are incumbent of all decisions. . . . There is no effort to prepare university administrators by government or private institutions. . . . Generally those who are administrators now do not have any formal knowledge of administration. . . . More than good faculty and majors related to the work market, there is an urgent need of university managers. . . . (p. 296)

According to Maya (1979), the problem of unprepared university administrators has been detrimental to research and teaching in the universities:

Deficiencies in teaching and research are generally caused by weak administration. Higher education is being hurt since schools are not prepared to administrate themselves. Universities, historically, can be situated in the absolute state of lack of coordination or the extreme bureaucratic models. (p. 97)

4. College administration: an inherent source of dysfunction.

Montandon (1980) pointed out that the "state interference in the nomination of university administrators brings dysfunctional consequences to the university institution" (p. 20). Referring to what Thompson (1964) called "the interaction between the systems of authority, status and professional skills" (cited in Montandon, 1980, p. 20), Montandon later summarized the problem in this way:

The fact that deans and rectors are appointed by the President of the Republic and the Ministry of Education creates a crisis of authority within the universities' departments. Because the personnel hired are not representative of the faculty, they lack leadership; this causes dispersion of necessary systematic coordination, which results in disorganization, dissipation of efforts and waste. (p. 88).

Another factor that deserves mention is the public support of Brazilian higher education. Except for the university system, which is supported by the State of São Paulo because of its relatively strong economic development, almost all other public higher education institutions are maintained by the Union. Furthermore, Union support of such institutions provides almost all of their financial resources, since other sources of budgetary income are rudimentarily developed and financially insignificant.

The tuition charged by public universities remains at a symbolic level, which places universities in a position of complete financial dependence on the central government.

As a result of supporting the entire budget of a restricted number of public institutions, the distributive character of the central government is somewhat imbalanced with respect to the:

- different geographical regions of the country, which for historical reasons obtained more or less federally supported institutions.
- different levels of education, since the federal government supports only higher education. Thus, other levels have remained under the responsibility of states and municipalities, which sometimes cannot meet student demand.

--different socioeconomic levels of students, since admission to public institutions is regulated by the numerus clausus policy.

Summary

In the first section of this chapter, the development of administration in higher education institutions was discussed. It was noted that administration per se and the need for professionally trained administrators are relatively recent phenomena, a direct result of expanding educational institutions. The different processes of training administrators and major alternatives involved were then discussed. The development of higher education as a field of study in the United States, the nature of administrative preparation, and changes that have taken place in program elements and structure, as well as the present structure of preparation, were presented to provide a comprehensive approach to the problem.

Since one of the goals of this investigator was to assist Brazilian higher education administrators in their search for a more efficient method of preparation, other selected studies specifically approaching higher education administration were reviewed. Based on some of these results, greater clarity was achieved in the design of this study. Finally, a review of higher education in Brazil and implications for the development of Brazilian higher education administration were presented.

In the following chapter, the design and methodology employed in this study are presented.

CHAPTER III

DESIGN AND METHODOLOGY

Introduction

The objective of this study was to investigate the perceptions of administrators at the Universidade Federal de Minas Gerais regarding their training and administrative preparation. It also dealt with their perceptions of actual and ideal preparation and qualifications for administrative offices in Brazilian public universities. Because the purpose was to obtain individual perceptions, data were collected using a mailed questionnaire survey. This chapter is concerned with the definition of the survey population, the development of the instrument, and the procedures used for collecting the data.

The Survey Population

The survey population selected for this study was the administrative personnel of the Universidade Federal de Minas Gerais. The administrative personnel included: reitor, pro-reitores, vice-reitor, diretores, chefes de departamentos, and coordenadores de cursos de pós-graduação. Questionnaires were sent to all administrative personnel in that university. Individuals occupying these positions have diverse planning and administrative duties. Thus, for the purpose of data analysis, the administrative levels in the university hierarchy were further grouped in terms of their levels of responsibility:

Central administration: The reitor, the vice-reitores, the pro-reitores, and the diretores

Local administration: The chefes de departamentos and the coordenadores de cursos de pós-graduação

The central administrative personnel are in charge of the policy-making and institutional-development process of the university, e.g., planning, resource allocation, institutional research, and federal and state relations. In contrast, the local administrative personnel are in charge of the operations of the departmental units and the implementation of degree programs including admissions, advising, program curriculum, and budget expenditures. These activities also include teaching, research, extension, and general administrative duties that are necessary to maintain the departments or the graduate programs. The two levels of administration have different responsibilities and thus may require different qualifications. It was expected, then, that responses to the questionnaire would differ with respect to the respondents' levels of control. Figure 1 presents a brief summary of administrators' role, appointment, and line of command.

Another subgroup analysis concerned academic disciplines. The college and schools can be divided into four different areas of studies: social sciences and humanities, biomedical and health sciences, physical sciences and engineering, and fine arts. Because of the differences in subject matters, i.e., differences in methods of teaching, professional perspectives, school environment, faculty preparation, and coordinating skills in management, it was assumed

Level	Positions	Role	Appointment Process		Actual Number
			Authority who Appoints	Years of Term	
CENTRAL	<pre> graph TD Reitor[Reitor] --- Vice-Reitor[Vice-Reitor] Reitor --- Pro-Reitores[Pro-Reitores] Reitor --- Diretores[Diretores] </pre>	Policy making and institutional development	Pres. of Republic	4	1
		Academic policies; support to the reitor	Minister of Educ.	4	1
		Policy making & implementation in different areas: research, extension, undergraduate & graduate studies, administration, and planning	Reitor	4	6
		College and school operation	Minister of Educ.	4	19
LOCAL	<pre> graph TD Diretores[Diretores] --- Chefes[Chefes de Departamentos] Diretores --- Coordenadores[Coordenadores de Cursos de Pósgraduação] </pre>	Department operation	Diretor	2	89
		Implementation of graduate-degree programs	Reitor	2	32

Figure 1.--The different groups of UFMG administrators.

that those differences might influence administrators' perceptions. Thus, comparisons were made among respondents associated with the four areas.

Choice of Questionnaire as the Survey Instrument

The survey is a method of data collection in which direct contact is made with the individuals under study. Questionnaires and interviews are the most common methods of gathering data for survey research. A questionnaire solicits the information through questions leading to structured responses relating to attitudes, perceptions, and behavior. It is usually administered by an interviewer in the presence of the respondent, by telephone, or is filled out in private or in group sessions by the respondents (Warwick & Lininger, 1975). In contrast, an interview is a "form of verbal interaction designed to obtain information . . . involving constant communication between the interviewer and respondent, and sometimes other parties as well" (Warwick & Lininger, 1975, p. 182). The interview is usually less structured than a questionnaire, allowing the interviewer to probe for elaboration and clarification of answers provided by the respondent. Often, both questionnaires and interviews are used in the same study.

In this study, the researcher decided to use a mailed questionnaire because personal interviews would require enormous travel and maintenance costs, not to mention problems related to establishing contact with subjects, ease of completion, contamination, and uniform presentation of questions. Given the size of the survey

population as well as the physical distance between the researcher and the subjects, an interview survey for the present study would have been costly. In addition, the Universidade Federal de Minas Gerais assured its cooperation in overseeing the administration of the questionnaires. This would ensure a reasonable response rate that would cover a representative portion of the survey population. Official support of the questionnaire distribution would lessen problems associated with impersonalization and prejudice against this kind of data-collection instrument. Hence, for the present study, a mailed questionnaire survey was deemed an effective and efficient means of gathering the information.

Questionnaire Design

This investigator sought information on the personal and professional characteristics of the respondents, as well as their perceptions of preparation needed for administration and crucial problems in Brazilian higher-education administration. This information was reasonably specific and familiar to the respondents, and comprehensive sets of response alternatives could be constructed for most of the questions. Thus the questions could be presented to the respondents in a standardized questionnaire and be self-administered. Structuring the responses allowed for standardization and thus ease of quantification. Care had to be taken, however, to ensure the completeness of response alternatives for each question.

The eight-page questionnaire, in Portuguese (Appendix A), was developed to elicit information of concern in the present study. Some

of the items on the questionnaire were modeled after an instrument developed by Sunlay (1974) to investigate the need for graduate courses in higher education in Thailand. The items on the present questionnaire were divided into two main areas: (1) respondents' background and (2) respondents' perceptions about the appointment process, training of administrators, and administrative problems. These items are translated and described in the following sections.

Respondents' Background

Questions 1 through 6 related to the respondents' background. The first question sought biographical information and position held in the university:

1. What is your position, sex, age, rank and contract status?

POSITION	SEX/AGE	RANK	CONTRACT STATUS
Chefe de departamento ____	Male ____	Full Professor ____	Exclusive Dedication ____
Coordenador de curso de posgraduação ____	Female ____	Associate Professor ____	40 hours per week ____
Diretor ____		Assistant Professor ____	
Pro-Reitor ____	Age ____	Instructor ____	20 hours per week ____
Vice-Reitor ____			
Reitor ____			

In Brazilian public universities, faculty members are contracted in the following ways:

Exclusive dedication: a full-time faculty member who is forbidden by contract to have any other work contract outside the university

40 hours per week: a full-time faculty member who is allowed to have other contracts outside the university

20 hours per week: a part-time faculty member contracted to work for 20 hours a week

It was possible, although unlikely, that some administrators did not hold faculty ranks; thus the category "Other" was included to ensure completeness of response.

The second question concerned the academic experience of the respondents. It included the degrees obtained, granting institution, major, and the calendar year in which the degree had been obtained.

2. When, where and in what major did you receive your academic degrees?

ACADEMIC DEGREES	YEAR	INSTITUTION	MAJOR
Undergraduate	_____	_____	_____
Specialization	_____	_____	_____
Master	_____	_____	_____
Doctorate	_____	_____	_____
Other _____	_____	_____	_____

"Specialization" refers to a minimum of 360 hours of course work in formal settings. Although specialization is not recognized as graduate study, it is very common in Brazilian universities.

Question 3 inquired about experience in administration and teaching at all levels of the educational system as well as administrative experience outside the educational system.

3. How many years of experience have you had in the following fields? Fill in appropriate spaces.

EXPERIENCE IN EDUCATION			EXPERIENCE OUTSIDE EDUCATION	
EDUCATION	Adm.	Teaching	OTHER FIELDS	Adm.
Primary education	_____	_____	Business	_____
Secondary education	_____	_____	Government	_____
College	_____	_____	Military	_____
University	_____	_____	Other _____	_____
Other	_____	_____		

The category "Other" under the heading "Experience in Education" was intended to include such possibilities as religious education at seminaries, which is not recognized as regular post-secondary education.

Question 4 related to the number of times and years the respondents had been appointed to offices in university administration and training before their present assignment:

4. How many times and for how long have you been in the following positions? Please include a brief description of preparation or training received before each assignment. Fill in appropriate spaces.

POSITION	No. of Times	No. of Years	TRAINING RECEIVED BEFORE EACH ASSIGNMENT
Chefe de Departamento	_____	_____	_____
Coordenador de curso do pós-graduação	_____	_____	_____
Diretor	_____	_____	_____
Membro de conselho	_____	_____	_____
Pro-Reitor	_____	_____	_____
Vice-Reitor	_____	_____	_____
Reitor	_____	_____	_____

Membro de conselho, while not considered to be an administrative position, was included in Question 4 because it represents an important kind of experience related to university administration.

Questions 5 and 6 were concerned with the respondents' work load: the number of hours per week spent on different activities and the average percentage of time devoted to different administrative tasks.

5. Estimate the number of hours spent in your current position per week on each of the following activities. Fill in appropriate spaces.

EMPLOYMENT ACTIVITIES	HOURS SPENT PER WEEK
Administration	_____
Teaching	_____
Research and publication	_____
Extension	_____
Other _____	_____

6. Of your total administrative load, please estimate the average percentage of your time per week devoted to the following categories of work.

CATEGORIES OF WORK	AVERAGE PERCENTAGE OF HOURS PER WEEK
Faculty affairs	_____
Financial matters	_____
Program (curriculum)	_____
Student affairs	_____
Facilities	_____
Other _____	_____

The purpose of these two questions was to obtain information on how much of their time administrators used in performing administrative tasks and to analyze those different categories of activities considered as administration, such as faculty affairs, finance, program, facilities, and student affairs.

Respondents' Perceptions

Questions 7 through 15 related to three different areas of respondents' perceptions. They were concerned with the respondents' opinions about the qualifications and the training of administrators and the administrative problems confronting Brazilian universities.

The qualifications of university administrators.--Questions 7 and 8 related to administrators' perceptions of the actual and ideal importance of academic degrees and academic experience in the process of appointing administrators. Both questions asked the respondents to indicate the importance of different types of degrees and experience on a five-point scale, with 1 indicating minimum importance and 5 indicating maximum importance.

7. In your opinion what is the importance that academic degrees and professional experience of candidates have in the present process of appointment of university administrators?

Mark with one "X" the number that in your opinion corresponds with the importance of each item.		IMPORTANCE					
		Minimum			Maximum		Don't Know
DEGREES	1. Doctoral degree (any major)	1	2	3	4	5	0
	2. Master's degree (any major)	1	2	3	4	5	0
	3. An undergraduate degree in specialty area and a graduate degree in administration	1	2	3	4	5	0
	4. No graduate degree at all	1	2	3	4	5	0
	5. Undergraduate degree (any major)	1	2	3	4	5	0
EXPERIENCE	6. Experience in university teaching	1	2	3	4	5	0
	7. Experience in university administration	1	2	3	4	5	0
	8. Other _____ _____ _____	1	2	3	4	5	0

8. In your opinion what is the importance that academic degrees and professional experience of candidates should have in the future process of appointment of university administrators?

GENERAL QUALIFICATIONS (Degrees and Experience)		IMPORTANCE					
		Minimum			Maximum		Don't Know
DEGREES	1. Doctoral degree (any major)	1	2	3	4	5	0
	2. Master's degree (any major)	1	2	3	4	5	0
	3. An undergraduate degree in specialty area and a graduate degree in administration	1	2	3	4	5	0
	4. No graduate degree at all	1	2	3	4	5	0
EXPERIENCE	5. Experience in university teaching	1	2	3	4	5	0
	6. Experience in university administration	1	2	3	4	5	0
	7. Other (please specify)	1	2	3	4	5	0

Question 9 addressed the importance of personal qualifications of university administrators, which respondents rated on a five-point scale:

9. Please indicate what are the most important qualities and capacities for the efficient administration of universities, from minimal importance (1) to maximum importance (5).

PERSONAL QUALIFICATIONS OF ADMINISTRATORS	IMPORTANCE
Impartial and objective	1 2 3 4 5 0
Broad education, experience and interests	1 2 3 4 5 0
Ability to understand problems in areas other than own specialization	1 2 3 4 5 0
Capacity to plan and foresee the future	1 2 3 4 5 0
Ability to lead and solve problems	1 2 3 4 5 0
Good communication skills and human relations	1 2 3 4 5 0
Broad political relationship	1 2 3 4 5 0
Ability to supervise personnel	1 2 3 4 5 0
Leadership	1 2 3 4 5 0
Capacity to plan and execute budgets	1 2 3 4 5 0
Other _____	1 2 3 4 5 0

Question 12 was an open-ended item soliciting perceptions of the qualifications required for specific offices in the university administration. The position of pro-reitor was further broken down according to the specific areas of responsibility.

12. If you think that there are some specific qualifications and experiences needed for the different offices in the university administration, please list those you consider most important for each of the following positions.

POSITIONS		QUALIFICATIONS AND EXPERIENCES
Reitor		
Vice-Reitor		
Diretor		
Chefe de Departamento		
Coordenador de curso de pós-graduação		
Pro-Reitor	Undergraduate studies	
	Graduate studies	
	Research	
	Extension	
	Administration	
	Planning	

The final question in this section, Question 14, allowed respondents who were not satisfied with the present system of appointment to offer suggestions for improvement.

14. If you think that the present system of appointing university administrators (internal recruiting, composition of lists, fixed period, etc.) is not an ideal one, please indicate your suggestions for improving or changing it. _____
- _____
- _____
- _____

Perceived needs for the training of university administrators.--Questions 10, 11, and 13 related to special preparation of university administrators.

Question 10 concerned the perceived needs for special preparation of administrators. A list of different possible formats for such preparation was provided for the respondents.

10. If you think that special preparation should be provided for Brazilian university administrators, please indicate how this preparation should be provided.

FORMAL PROGRAMS		INFORMAL PROGRAMS
<input type="checkbox"/> Post-doctoral programs <input type="checkbox"/> Doctoral programs <input type="checkbox"/> Master's programs <input type="checkbox"/> Specialization programs <input type="checkbox"/> Other _____	AND/OR	<input type="checkbox"/> On-the-job training <input type="checkbox"/> Short-term courses <input type="checkbox"/> Intensive workshop <input type="checkbox"/> Internship <input type="checkbox"/> Other _____

Topics that might be included in such programs to train future administrators were presented in Question 11. Column two in Question 11 related to respondents' perceived need for their own training. The researcher speculated that the respondents might have different opinions about their own needs than those for other future administrators.

11. Column 1. In your opinion, what are the topics (if any) that administrators should study? Respond in accordance with your answer to Question 10.

Column 2. If formal or informal programs were available in the following topics, indicate those in which you would like to participate.

TOPICS	Column 1		Column 2	
	Formal	Informal	Formal	Informal
Theory of Administration	_____	_____	_____	_____
Public Administration	_____	_____	_____	_____
Academic Administration	_____	_____	_____	_____
Organizational Behavior	_____	_____	_____	_____
Budget Planning & Execution	_____	_____	_____	_____
Finance of Higher Education	_____	_____	_____	_____
Foundations of Education	_____	_____	_____	_____
Sociology of Education	_____	_____	_____	_____
Personnel Evaluation	_____	_____	_____	_____
Project & Program Evaluation	_____	_____	_____	_____
Introduction to Research Methods	_____	_____	_____	_____
Advanced Statistics & Research	_____	_____	_____	_____
Computer Use & Data Processing	_____	_____	_____	_____
Student Personnel Services	_____	_____	_____	_____
History of Higher Education in Brazil	_____	_____	_____	_____
Internship and Field Experience	_____	_____	_____	_____
Other _____	_____	_____	_____	_____
Other _____	_____	_____	_____	_____

Perceived administrative problems confronting Brazilian universities.--Question 13 was open ended. It asked the respondents to report, in ranked order, the four most crucial problems confronting Brazilian public universities:

13. In your opinion, what are the four most crucial administrative problems confronting Brazilian universities at the present time? Please rank those problems from the "most important" (1) to the "least important" (4).

1. _____
2. _____
3. _____
4. _____

Finally, Question 15 asked respondents to list any other possible issues they believed should have been addressed in this study:

15. Do you have any other suggestions to present in order to improve the preparation of university administrators, not presented in this questionnaire? _____

Procedures

Pretest

The questionnaire was pretested with a group of nine Brazilian university administrators enrolled at Michigan State University. The purpose of the pretest was to determine the appropriateness and the content validity of the items and the time needed to complete the questionnaire. Pretest respondents were asked to fill out the questionnaire by putting themselves in the role of administrators. They

noted the time required to complete the instrument. Afterward, the researcher interviewed each of the pretest respondents about the questionnaire. The interview focused on the clarity and completeness of each item, the coverage of the questionnaire, the clarity of the instructions, and the format of the questionnaire. Suggestions for modification were considered and incorporated in the instrument. The average time needed to complete the questionnaire was about 25 minutes.

Delivery and Administration

The questionnaire was sent to the Universidade Federal de Minas Gerais, where it was then duplicated and distributed through the Conselho de Pos-Graduação-UFMG (Council of Graduate Studies). The questionnaire with complete instructions, including statement of confidentiality and place of remittance, was given to all administrators at UFMG in Brazil. The council distributed the questionnaire by university mail along with a cover letter (Appendix B). Each questionnaire was given an identification number to facilitate later follow up attempts. Twenty days following the mailing of the questionnaire forms, telephone follow ups were made to nonrespondents. A second telephone follow up was made one month later. In cases in which respondents had misplaced the forms and declared their willingness to cooperate, duplicate copies were sent. The researcher assured respondents that the confidentiality of their responses would be preserved. Table 4 summarizes the survey response rate according to respondents' administrative positions.

Table 4.--Response rate.

Administrative Position	Questionnaires Sent	Questionnaires Received	Response Rate
Reitor, vice-reitor, and pro-reitores	8	7	87%
Diretores	19	11	58%
Chefes de departamentos	89	56	63%
Coordenador de cursos de pós-graduação	32	24	75%
Total	148	98	66%

The completed questionnaires received by the Council of Graduate Studies were then photocopied and returned to Michigan State University for data processing. Each questionnaire was coded according to code groupings (Appendix C) and punched on 80-column cards. A 10 percent quality check of accuracy on transcribing data from questionnaires revealed 98.2 percent agreement. Coded data were key punched and verified.

Because this investigator did not set out to test any specific hypotheses but rather attempted to discern patterns that may be inherent in the data, descriptive statistics and measures of central tendency were appropriate to much of the analysis. Means, frequency distribution, and cross-tabulations allowed comparison and analysis of the entire population as a group and as different subgroups.

Summary

The method and procedure for data collection were described in this chapter. The researcher decided that a mailed questionnaire would be the most effective way of soliciting the information sought in this study. A detailed description and translation of the questionnaire items were also presented. Finally, the procedure for data collection and analysis was described.

The results of the survey are summarized and discussed in Chapter IV. The five research questions formulated before collecting the data were used as the organizational framework for the chapter.

CHAPTER IV

ANALYSIS OF DATA

Introduction

Results from the survey of administrators at Universidade Federal de Minas Gerais (UFMG) are presented in this chapter. Data were collected according to the procedures outlined in Chapter III. Because of the low return rate after the second telephone follow up (45%), the deadline for questionnaire returns was extended and a third telephone follow-up was conducted. The final response rate was 66% or a total of 98 questionnaires received.

Comparisons of the respondents with the total population of UFMG administrators in terms of sex, age, academic rank, and contract status revealed no significant differences. As shown in Table 5, the respondents were representative of the total population with respect to these biographic characteristics. Thus, it is reasonable to assume that, if there was bias as a result of nonresponses, the bias would be minimal. In other words, the conclusions that could be drawn from the questionnaire respondents could safely be generalized to the whole population of administrators at UFMG.

After the completed questionnaires were duplicated and returned by mail to the researcher at Michigan State University, they were coded, key punched, and analyzed using the Statistical Package for the Social Sciences (Nie et al., 1975). The analysis was performed

Table 5.--Comparison between the population of all administrators and the respondents of the study.

	Total	Sex		Age			Academic Rank				Contract Status		
		Male	Female	30-39 Years	40-49 Years	Over 50 Years	Full Prof.	Assoc. Prof.	Assist. Prof.	Other	Excl. Dedic.	40-hr. Week	20-hr. Week
All administrators	100% (148)	81.7% (121)	18.3% (27)	32.4% (48)	40.6% (60)	27.0% (40)	16.9% (25)	45.3% (67)	37.2% (55)	.6% (1)	50.6% (75)	38.5% (57)	10.8% (16)
Study respondents	66.2% (98)	83.7% (82)	16.3% (16)	32.8% (22)	40.3% (27)	26.9% (18)	11.2% (11)	61.2% (60)	26.5% (26)	1.0% (1)	59.2% (58)	31.6% (31)	9.2% (9)

on the CDC Cyber 750 system at the Michigan State University Computer Laboratory.

The results of the analyses are summarized in four sections:

1. Characteristics of administrators
2. Administrators' perceptions of the process of appointment
3. Administrators' perceptions of the preparation of administrators
4. Administrators' perceptions of the problems facing Brazilian university administrators

Where appropriate, comments are made about the results. A summary of the results is presented at the end of the chapter.

Characteristics of Administrators

The following characteristics are discussed in this section:

1. Biographic characteristics: sex, age, academic rank, contract status, and academic degrees earned
2. Professional experience: teaching and administrative experience obtained at various levels of education and outside education; experience gained through university administration
3. Job-related characteristics: average hours per week dedicated to different types of professional activities; percentage of time spent in different administrative activities, i.e., faculty affairs, student affairs, financial matters, and facility-related activities

Biographic Characteristics

The average age of the respondents was 44.7 years; 84% (or 82 out of 98) were males. Eleven percent of the administrators held the rank of full professor, 61% associate professor, and 27% assistant professor; one administrator was not a faculty member. Ninety-one percent of all administrators were contracted to work full time. The remaining 9% were contracted to work only 20 hours per week. Although all administrators held at least a bachelor's degree, only 21% had an advanced specialist certificate, 25% had a master's degree, and 36% had a doctoral degree. These results are summarized in Table 6.

In terms of academic discipline, as shown in Table 6, there was a higher percentage of female administrators in the area of humanities and social sciences than there was in other areas.¹ This difference was statistically significant. Humanities and social sciences traditionally attract more female students at Brazilian universities, and this may explain the difference of 38% female administrators in these fields compared to 11% for all other areas combined. The distribution of male and female administrators was not significantly related to administrative positions, however. There were no significant relationships in the distributions of age, academic rank, and contract status.

In terms of highest degree earned, there was a significant difference among the administrative positions.² As shown in Table 6,

¹Chi-square = 7.16475 with 2 degrees of freedom; significance = .0278.

²Chi-square = 18.24120 with 9 degrees of freedom; significance = .0325.

Table 6.--Characteristics of the administrators by administrative positions and discipline areas.

	No. of Respondents	Sex		Age				Academic Rank				Contract Status			Highest Degree Attained ^b			
		Male	Female	Mean (S.D.)	30-39 Years	40-49 Years	50+ Years	Ful1 Prof.	Assoc. Prof.	Asst. Prof.	Other	Excl. Ded'c.	40-hr. Week	20-hr. Week	B.A.	Spec.	M.A.	Doct.
All respondents	98	83.7% ^a (82)	16.3% (16)	44.73 (9.76)	32.8% (22)	40.3% (27)	26.9% (18)	11.2% (11)	61.2% (60)	26.5% (26)	1.0% (1)	59.2% (58)	31.6% (31)	9.2% (9)	17.7% (17)	20.8% (20)	25.0% (24)	36.5% (35)
By Administrative Positions																		
Chefe de Departamento	56	80.4% (45)	19.6% (11)	44.07 (9.41)	34.1% (14)	36.6% (15)	29.3% (12)	7.1% (4)	57.1% (32)	35.7% (20)	-- (0)	51.8% (29)	37.5% (21)	10.7% (6)	24.1% (13)	22.2% (12)	27.8% (15)	25.9% (14)
Coordenador de Curso	24	95.8% (23)	4.2% (1)	45.00 (11.06)	38.5% (5)	30.8% (4)	30.8% (4)	20.8% (5)	66.7% (16)	12.5% (3)	-- (0)	66.7% (16)	20.8% (5)	12.5% (3)	4.2% (1)	12.5% (3)	12.5% (3)	70.8% (17)
Diretor	11	63.6% (7)	36.4% (4)	50.33 (12.21)	16.7% (1)	50.0% (4)	33.3% (2)	9.1% (1)	72.7% (8)	18.2% (2)	-- (0)	72.7% (8)	27.3% (3)	-- (0)	18.2% (2)	27.3% (3)	27.3% (3)	27.3% (3)
Pro-Reitor	7	100% (7)	-- (0)	43.29 (7.20)	28.6% (2)	71.4% (5)	-- (0)	14.3% (1)	57.1% (4)	14.3% (1)	14.3% (1)	71.4% (5)	28.6% (2)	-- (0)	14.3% (1)	28.6% (2)	42.9% (3)	14.3% (1)
By Discipline Areas ^c																		
Fine Arts	4	100% (4)	-- (0)	55.50 (10.15)	-- (0)	25.0% (1)	75.0% (3)	25.0% (1)	75.0% (3)	-- (0)	-- (0)	100% (4)	-- (0)	-- (0)	100% (2)	-- (0)	-- (0)	-- (0)
Biomedical and Health Sciences	42	88.1% (37)	11.9% (5)	44.12 (9.97)	40.0% (10)	32.0% (8)	28.0% (7)	7.1% (3)	64.3% (27)	28.6% (12)	-- (0)	54.8% (23)	31.0% (13)	14.3% (6)	21.4% (9)	19.0% (8)	26.2% (11)	33.3% (14)
Engineering and Physical Sciences	24	87.5% (21)	12.5% (3)	43.12 (9.25)	35.3% (6)	47.1% (8)	17.6% (3)	16.7% (4)	62.5% (15)	20.8% (5)	-- (0)	62.5% (15)	29.2% (7)	8.3% (2)	12.5% (3)	20.8% (5)	16.7% (4)	50.0% (12)
Humanities and Social Sciences	21	61.9% (13)	38.1% (8)	45.43 (10.23)	28.6% (4)	35.7% (5)	35.7% (5)	9.5% (2)	52.4% (11)	38.1% (8)	-- (0)	52.4% (11)	42.9% (9)	4.8% (1)	9.5% (2)	23.8% (5)	28.6% (6)	38.1% (8)

^aPercentage of row totals.^bTwo of the respondents (chefe de departamento) did not respond to this question.^cPro-reitores not included.

70.8% of the coordenadores held a doctoral degree, whereas only 26% of the chefes de departamento, 27% of the diretores, and 14% of the pro-reitores held a doctorate degree. These differences could be a result of the fact that personnel in the position of coordenador are required to hold a graduate degree.

Almost all of the administrators (91%) had received their bachelor's degree from UFMG. There were no significant differences among the advanced degrees with respect to the granting institution. About half of the advanced degrees had been granted by UFMG (see Table 7). Significant differences were found among the different discipline areas: all of the doctorate degrees held by administrators in the health and medical area had been granted by UFMG, whereas only 17% and 38% of the degrees in the engineering and humanities/social sciences areas, respectively, had been granted by UFMG.³ In the last two areas, about two-thirds of the degrees had been granted by institutions outside Brazil. The fact that all doctoral degrees in the health and medical discipline area had been awarded by UFMG might be partially explained by the different academic structure of medical education in Brazil. The medical degree is awarded at the undergraduate level, and graduate studies are available to those interested in obtaining masters and doctoral degrees. The possibility of working and continuing graduate studies might also influence the choice to obtain graduate degrees where the bachelors degree was earned.

³Chi-square = 22.50157 with 6 degrees of freedom; significance = .0010.

Table 7.--Earned academic degrees according to place of awarding, by administrative position and discipline areas.

	No. of Respondents	Bachelor's Degree		Specialization		Master's Degree		Doctoral Degree					
		Same Univ. Brazil	Other Univ. in Brazil	Out of Brazil	Same Univ. Brazil	Other Univ. in Brazil	Out of Brazil	Same Univ. Brazil	Other Univ. in Brazil	Out of Brazil			
All respondents ^a	96	90.6% (87)	8.3% (8)	1.0% (1)	48.8% (21)	20.9% (9)	30.3% (13)	47.4% (18)	23.7% (9)	29.0% (11)	57.1% (20)	5.7% (2)	37.1% (13)
<u>By Administrative Positions</u>	54	94.4% (51)	5.6% (3)	-- (0)	60.0% (12)	20.0% (4)	20.0% (4)	50.0% (10)	30.0% (6)	20.0% (4)	57.1% (8)	7.1% (1)	35.7% (5)
	24	83.3% (20)	12.5% (3)	4.2% (1)	27.3% (3)	18.2% (2)	54.6% (6)	60.0% (6)	10.0% (1)	30.0% (3)	58.8% (10)	-- (0)	41.2% (7)
	11	81.8% (9)	18.2% (2)	-- (0)	57.1% (4)	28.6% (2)	14.3% (1)	-- (0)	50.0% (2)	50.0% (2)	33.3% (1)	33.3% (1)	33.3% (1)
	7	100% (7)	-- (0)	-- (0)	40.0% (2)	20.0% (1)	40.0% (2)	50.0% (2)	-- (0)	50.0% (2)	100% (1)	-- (0)	-- (0)
<u>By Discipline Areas</u>	2	100% (2)	-- (0)	-- (0)	-- (0)	-- (0)	-- (0)	-- (0)	-- (0)	-- (0)	-- (0)	-- (0)	-- (0)
	42	92.9% (39)	7.1% (3)	-- (0)	36.8% (7)	26.3% (5)	36.9% (7)	41.7% (5)	41.7% (5)	16.6% (2)	100% (14)	-- (0)	-- (0)
	24	87.5% (21)	12.5% (3)	-- (0)	63.6% (7)	18.2% (2)	18.2% (2)	58.3% (7)	16.7% (2)	25.0% (3)	16.7% (2)	16.7% (2)	66.7% (8)
	21	85.7% (18)	9.5% (2)	4.8% (1)	62.5% (5)	12.5% (1)	25.0% (2)	40.0% (4)	20.0% (2)	40.0% (4)	37.5% (3)	-- (0)	62.5% (5)

^aTwo of the respondents (chefe de departamento) did not respond to this question.

Professional Experience

To determine the extent of professional experience of present administrators, respondents were asked to report the number of years of experience they had in teaching and administration at different levels of the educational system (primary, secondary, college, and university level) as well as experience in other areas such as business, government, and the military. The results revealed that the present administrators had little experience outside the university. Consequently, experience outside the university was combined and presented in Table 8. (For a detailed breakdown of these outside experiences, refer to Appendix D.)

As shown in Table 8, almost all respondents (97) reported experience in teaching at the university level, with an average of 15.5 years. Only 39 respondents had teaching experience at other educational levels, with an average of 9.5 years. Although most of the respondents had administrative experience at the university level (88 respondents had an average of 5.9 years of experience, with a standard deviation of 5.5), administrative experience at other educational levels was more limited. Only 10 respondents reported experience at other educational levels, with an average of 9.2 years; 28 respondents reported administrative experience outside education, with an average of 11.1 years. The respondents reported an average of 10.3 years of administrative experience at all levels.

In addition, although the average number of years of experience in university administration was 5.9, the distribution of the number of years of administrative experience was positively skewed;

Table 8.--Average number of years of teaching and administrative experience, by administrative position and discipline areas.

	No. of Respondents	Average Number of Years of Teaching Experience			Average Number of Years of Administrative Experience			
		University Level Mean (N)	Other Educational Levels ^a Mean (N)	Total Mean (N)	University Level Mean (N)	Other Educational Levels ^a Mean (N)	In Other Fields ^b Mean (N)	Total Mean (N)
All respondents	98	15.5 (97)	9.5 (39)	19.4 (97)	5.9 (88)	9.2 (10)	11.1 (28)	10.3 (90)
<u>By Administrative Positions</u>								
Chefe de Departamento	56	15.1 (56)	10.4 (24)	19.6 (56)	5.7 (52)	11.4 (5)	10.8 (19)	10.3 (54)
Coordenador de Curso	24	15.7 (24)	6.1 (8)	17.8 (24)	5.9 (18)	7.5 (2)	14.2 (4)	9.9 (18)
Diretor	11	16.9 (11)	11.3 (6)	23.0 (11)	6.0 (11)	9.5 (2)	13.6 (3)	11.4 (11)
Pro-Reitor	7	16.1 (6)	5.0 (1)	17.0 (6)	7.5 (7)	1.0 (1)	4.5 (2)	9.0 (7)
<u>By Discipline Areas^c</u>								
Fine Arts	4	19.0 (4)	1.0 (1)	19.2 (4)	2.5 (4)	--	--	2.5 (4)
Biomedical and Health Sciences	42	16.9 (42)	9.2 (13)	19.9 (42)	5.5 (37)	9.3 (4)	15.0 (11)	11.2 (37)
Engineering and Physical Sciences	24	15.7 (24)	9.0 (11)	19.9 (24)	5.7 (22)	3.0 (1)	9.0 (7)	8.7 (22)
Humanities and Social Sciences	21	11.8 (21)	10.7 (13)	18.4 (21)	7.1 (18)	12.8 (4)	9.5 (8)	12.7 (20)

^a Includes primary, secondary, and college-level teaching.^b Includes business, government, military, and other areas.^c Pro-reitores were not included.

the largest number of years reported was 35 and the median was 3.7 years. The ten administrators with the most experience accounted for 31% of the total number of years of experience in administration (i.e., 160 of the 523 years).

No significant differences were found for the different administrative positions in terms of years of experience in teaching and administration, either inside or outside the educational setting. In contrast, administrators affiliated with the various discipline areas differed in terms of the average number of years of teaching in the university environment. Administrators in the fine arts area averaged 19 years of teaching experience, whereas those in health and medical sciences and engineering and physical sciences averaged 16.9 and 15.7 years, respectively. Administrators in humanities and social sciences had the smallest number of years of experience: 11.8 years. These differences were significant at the .05 level.⁴

Respondents were asked to indicate how many times they had been appointed for different administrative positions within the university, the number of years that they had been in such offices, and the kind of training or preparation they had received before assuming each office. Table 9 presents the results according to the different administrative positions and discipline areas. None of the respondents reported having received any specific preparation or training for their positions.

⁴F = 3.7482 with 3 and 87 degrees of freedom; p = .0276.

Table 9.--Average number of terms and years of appointment to various administrative positions, by administrative position and discipline areas.

	Number of Respondents	Appointed Administrative Positions														
		Chefe de Departamento		Coordenador de Curso		Diretor		Pro-Reitor		Membro de Conselho						
		Ave. No. of Terms	Ave. No. of Years	(N)	Ave. No. of Terms	Ave. No. of Years	(N)	Ave. No. of Terms	Ave. No. of Years	(N)	Ave. No. of Terms	Ave. No. of Years				
All respondents ^a	96	1.6	3.2	(72)	1.6	2.7	(43)	0.9	2.8	(20)	1.3	3.3	(9)	1.8	3.6	(43)
<u>By Administrative Positions</u>																
Chefe de Departamento	54	1.6	3.2	(54)	1.7	2.4	(15)	1.0	2.4	(5)	--	--	(0)	1.7	3.8	(21)
Coordenador de Curso	24	1.8	4.0	(5)	1.6	2.9	(24)	1.3	5.7	(4)	1.5	4.5	(2)	2.2	3.6	(9)
Diretor	11	1.6	3.0	(9)	2.0	3.3	(3)	1.0	1.9	(11)	--	--	(0)	2.1	3.4	(9)
Pro-Reitor	7	1.7	3.7	(4)	1.0	1.0	(1)	--	--	(0)	1.3	3.0	(7)	1.5	3.2	(4)
<u>By Discipline Areas^b</u>																
Fine Arts	4	1.7	3.5	(4)	--	--	(0)	--	--	(0)	--	--	(0)	1.0	2.0	(2)
Biomedical and Health Sciences	42	1.5	3.5	(30)	1.8	2.8	(22)	1.1	2.4	(9)	1.0	4.0	(1)	1.8	3.6	(21)
Engineering and Physical Sciences	24	1.6	3.0	(18)	1.3	2.6	(11)	1.0	2.5	(4)	--	--	(0)	2.4	4.3	(10)
Humanities and Social Sciences	21	1.7	2.8	(16)	1.7	3.2	(8)	1.0	4.8	(5)	2.0	5.0	(1)	1.6	3.6	(6)

^aTwo respondents omitted this question.^bPro-reitores were not included.

As shown in Table 9, 72 respondents had been or presently were appointed to the chefe de departamento position, 18 to the diretor position, 7 to the pro-reitor position, and 43 to council membership. Although membro de conselho was not considered an administrative position, it was included because it represented an important kind of experience related to Brazilian university administration. Hence, a total of 214 positions (past and present) were held by all administrators, with an average of 2.18 appointments per administrator. This amounted to an average of two years per appointment. In terms of the different administrative positions, the highest frequencies of reappointment were among the present diretores (average of 1.81 per administrator); averages of 1.35, 1.29, and 1.43 were found for the chefes de departamento, coordenadores, and pro-reitores, respectively.

It is interesting that none of the pro-reitores had been appointed as diretores before or after their appointment to pro-reitorships. Similarly, the same can be said for appointees to the directorship. Almost all of the present diretores (9 out of 11) had held the position of chefe de departamento before the present appointment. Coordenador is the only position in which the respondents had been previously appointed to all of the four positions.

In terms of the different discipline areas, respondents in the fine arts area were the only group who had never been appointed to any positions other than chefe de departamento. Since the area of fine arts does not offer any graduate courses, it is reasonable to expect that no coordenador would be appointed from that area. It

should be noted that the study respondents included only four of the seven administrators from the fine arts area. The two present diretores did not respond to the survey, but the four administrators who did respond reported no previous experience in diretor and pro-reitor positions.

Job-Related Characteristics

Administrators' tasks.--To characterize the administrator's task, respondents were asked to report, in hours, the amount of time they spent each week on various activities. Besides the administrative activity per se, three other categories of activities were included: teaching, research, and extension. The university charter defines these three categories as the main functions of the university.

Because 11 of the respondents were on part-time contract, they were excluded from the analysis. The majority of the respondents reported the amount of time spent on various tasks, based on a 40-hour work week. However, some estimated their working time to be more than 40 hours and some estimated less than 40 hours. The total number of hours reported ranged from 20 to 63 hours. For consistency, the amount of time spent on various tasks was converted to a percentage of the total amount of time spent. The respondents spent an average of 55% of their time on administrative activities, 20.6% on teaching, 16% on research, and the remaining time on extension and other activities. The results are summarized in Table 10.

Table 10.--Percentage of time spent per week by administrators on different activities, by administrative position and discipline areas (based on 40 hours per week contract status).^a

	No. of Respondents	Activities			
		Administration	Teaching	Research	Extension Other
All respondents	87	54.9	20.6	16.0	3.1 5.1
<u>By Administrative Positions</u>					
Chefe de Departamento	49	51.3	25.4	13.7	3.7 5.7
Coordenador de Curso	21	40.0	24.2	29.3	3.0 3.1
Diretor	11	83.2	3.8	9.2	2.7 .9
Pro-Reitor	6	84.1	--	--	-- 15.8
<u>By Discipline Areas^b</u>					
Fine Arts	4	34.5	31.0	--	-- 34.4
Biomedical and Health Sciences	35	57.3	19.2	17.0	2.5 3.7
Engineering and Physical Sciences	22	52.3	21.3	18.2	4.9 3.0
Humanities and Social Sciences	20	48.7	26.6	19.7	3.9 1.0

^aPart timers were not included.

^bSeven pro-reitores were not included.

As shown in Table 10, there were significant differences in terms of the percentage of time spent on administration, teaching, and research among the administrative positions. The most apparent differences were between local and central administration. Whereas chefes de departamento and coordenadores spent 51.3% and 40.1%, respectively, of their time on administration, the central administrators, diretores and pro-reitores, spent 83.2% and 84.1% of their time on administrative activities. These differences were significant at the .05 level.⁵ Chefes de departamento and coordenadores reported spending significantly more time on teaching and research than diretores.⁶ Chefes de departamento, coordenadores, and diretores all reported spending 3-4% of their time on extension. In contrast, pro-reitores reported spending no time on research or extension. (See Table 10 for details.)

Pro-reitores reported spending the balance of their time (16%) on activities related to policy development, community contacts, and other miscellaneous activities. This is generally similar to respondents in other positions.⁷

Administrators in the fine arts area reported spending one-third of their time on miscellaneous activities.⁸ They reported dividing almost evenly the remainder of their time between

⁵F = 30.2851 with 1 and 85 degrees of freedom; p = 0.

⁶F = 7.7095 with 3 and 83 degrees of freedom; p = 0.

⁷F = 1.9119 with 3 and 83 degrees of freedom; p = .1340.

⁸F = 16.63 with 3 and 77 degrees of freedom; p < .0001.

administration and teaching, while spending no time on research or extension. This is quite different from administrators in other discipline areas, who devoted slightly more than half of their time to administration, 20% to teaching, 20% to research, and the remaining 4-7% of their time to extension and other activities.

To clarify further the amount of time devoted to administration, the respondents were asked to report the percentage of time they spent on various administrative activities. The 80 respondents on full-time status reported spending an average of 29.2% of their time on scheduling/program activities (curriculum), 22.5% on faculty affairs, 18.7% on student affairs, 16% on financial affairs, 6.9% on management of facilities, and 6.5% on other administrative activities. (See Table 11.)

As shown in Table 11, there were significant differences between central and local administrators in terms of the amount of time they spent on scheduling/program activities (curriculum), student affairs, and management of facilities. The local administrators (chefes de departamento and coordinadores) spent, on the average, significantly more of their time on scheduling/program activities (curriculum) and on student affairs than did the central administrators (an average of 31.8% versus 17.3% on scheduling/program activities⁹ and an average of 20.3% versus 11.2% on student affairs¹⁰). On the other hand, central administrators devoted, on the average,

⁹F = 9.0029, with 1 and 78 degrees of freedom; p = .0036.

¹⁰F = 4.5053, with 1 and 78 degrees of freedom; p = .0370.

Table 11.--Percentage of time spent on different administrative activities, by administrative position and discipline areas.

	No. of Respondents	Activities					
		Scheduling/ Program (Curriculum)	Faculty Affairs	Student Affairs	Financial Affairs	Building & Facilities	Other Activities
All respondents ^a	80	29.2	22.5	18.7	16.0	6.9	6.5
<u>By Administrative Position</u>							
Chefe de Departamento	47	30.2	25.4	19.0	14.2	5.4	5.6
Coordenador de Curso	19	35.7	15.1	23.4	15.3	4.8	5.4
Diretor	10	20.5	22.7	13.7	18.2	13.7	11.0
Pro-Reitor	4	9.0	23.7	5.0	35.4	16.8	10.0
<u>By Discipline Areas^b</u>							
Fine Arts	3	26.6	25.0	26.6	6.6	6.6	8.3
Biomedical and Health Sciences	32	33.4	21.7	15.9	14.4	7.6	6.7
Engineering and Physical Sciences	22	27.5	17.0	25.4	16.5	5.8	7.5
Humanities and Social Sciences	19	28.9	29.6	17.2	15.4	4.7	3.8

^aOnly respondents on full-time status were included.

^bSeven pro-reitores were not included.

significantly more of their time (14.6%) to management of facilities than did the local administrators (5.3%).¹¹

For respondents in different discipline areas, the only significant difference was in the average amount of time spent on faculty affairs. Respondents in the fine arts (25.0%) and humanities and social science (29.6%) areas tended to spend more time on faculty affairs than did the respondents in health and medical sciences (21.7%) and in engineering and physical sciences (17.0%).¹²

Administrators' Perceptions

Process of Appointment

Importance of academic degrees in the appointment process.--

The respondents were asked to rate the importance of an academic degree in the present process of appointing administrators. They rated the different types of academic degrees of a five-point scale ranging from "minimum importance" (1) to "maximum importance" (5). Separate ratings were requested for the present process of appointment (see Chapter III, p. 78) and for the future process of appointment (see Chapter III, p. 79). To facilitate analysis, the respondents were classified according to the highest academic degree that they rated as important (3 or higher on the five-point scale). The categories were: "doctoral degree in any area," "master's degree in any area or a graduate degree in administration," and "no graduate degree at all or undergraduate degree in any area." The results for the

¹¹F = 19.4256, with 1 and 78 degrees of freedom, $p < .0001$.

¹²F = 3.0761, with 3 and 72 degrees of freedom; $p = .0329$.

present process of appointment are presented in Table 12. Table 13 contains the results for the future process of appointment.

For the present process of appointment, 41.2% of the 97 respondents rated doctoral degrees 3 or higher, 19.6% rated master's degrees 3 or higher, and 30.9% rated "no graduate degree" or "undergraduate degree" 3 or higher. There were no significant differences among respondents in the different administrative positions or discipline areas.

Similarly, 44.6%, 38.0%, and 6.5% of the respondents, respectively, rated the doctoral, master's, and "no graduate degree" or "undergraduate degree" 3 or higher for the future process of appointment. Again, there were no significant differences among respondents in the different administrative positions or discipline areas.

The opinions of the respondents shifted from 60.8% rating graduate degrees as having some importance for the present process of appointment to 81.6% rating graduate degrees as important for the future process of appointment. This shift in opinion, as shown in Table 14, was statistically significant.¹³ In particular, of the respondents who rated the undergraduate degree as having some importance in the present process of appointment, the majority of them indicated that the master's degree or graduate degree in administration should receive more importance in the future process of appointment.

¹³A two-tailed sign test was significant at the .004 level (Seigel, 1965, pp. 68-75).

Table 12.--Percentage of respondents rating different academic degrees as "important" in the present appointment process, by administrative position and discipline areas.

	No. of Respondents	Highest Degree Perceived (%)		
		Doctoral Degree	Master's Degree or Graduate Degree in Administration	No Graduate Degree at All or Undergraduate Degree
All respondents	97	41.2	19.6	30.9
<u>By Administrative Positions</u>				
Chefe de Departamento	55	32.7	23.6	30.9
Coordinador de Curso	24	58.3	12.5	25.0
Diretor	11	54.5	27.3	18.2
Pro-Reitor	7	28.6	.0	71.4
<u>By Discipline Areas</u>				
Fine Arts	4	25.0	75.0	0
Biomedical and Health Sciences	42	42.8	9.5	35.7
Engineering and Physical Sciences	24	54.1	20.8	20.8
Humanities and Social Sciences	20	30.0	35.0	25.0

Table 13.--Percentage of respondents rating different academic degrees as "important" in the future appointment process, by administrative position and discipline areas.

	No. of Respondents	Highest Degree Recommended (%)		
		Doctoral Degree	Master's Degree or Graduate Degree in Administration	No Graduate Degree at All or Under-graduate Degree
All respondents	92	44.6	38.0	6.4
<u>By Administrative Positions</u>				
Chefe de Departamento	52	38.4	38.4	7.1
Coordenador de Curso	24	54.1	33.3	4.1
Diretor	11	45.4	54.5	0
Pro-Reitor	6	50.0	16.6	16.6
<u>By Discipline Areas</u>				
Fine Arts	4	25.0	75.0	0
Biomedical and Health Sciences	41	46.3	34.1	9.7
Engineering and Physical Sciences	23	56.5	26.1	4.3
Humanities and Social Sciences	19	26.3	57.9	0

Table 14.--Cross-tabulation of respondents who rated different academic degrees as "important" in the present and future process of appointment.

	Future			Row Total
	Doctoral Degree	Master's Degree or Graduate Degree in Administration	No Graduate Degree at All or Undergraduate Degree	
Doctoral degree	(33) 86.8%	(5) 13.2%	(0) --	(38) 49.4%
Master's degree or graduate degree in administration	(3) 17.6%	(14) 82.4%	(0) --	(17) 22.0%
No graduate degree at all or undergraduate degree	(2) 9.0%	(15) 68.2%	(5) 22.8%	(22) 28.5%
Column total	(38) 49.4%	(34) 44.1%	(5) 6.5%	(77) 100.0%

Present

Importance of professional experience in the appointment

process.--Respondents were asked to rate the importance of university-level teaching and administrative positions in the process of administrative appointments. As in the previous question, they were asked to rate the importance on a five-point scale ranging from "minimum importance" (1) to "maximum importance" (5). The present and the future appointment processes were rated separately. Ratings were grouped in terms of "low importance" (ratings of 1 and 2) and "high importance" (ratings of 3, 4, and 5). The respondents overwhelmingly affirmed both teaching and administrative experience at the university level as important in both the present and future processes of appointment. Table 15 shows that for teaching and administrative experience, 90.1% and 85.0% of the respondents, respectively, considered such experience important for the present process of appointment. The comparable percentages for the future process of appointment were 97.8% and 95.7%, respectively. These shifts in percentages from present to future process of appointment were significant at the .05 level for both teaching and administrative experience.¹⁴

The overwhelming agreement among the respondents that professional experiences were important in the process of appointment was supported by Finger's (1974) findings. In his interviews with

¹⁴For teaching experience, McNemar test for significant changes: chi-square = 4, with 1 degree of freedom; $p < .05$. For administrative experience, McNemar test for significant changes: chi-square = 5.81; $p < .02$.

Table 15.--Respondents' ratings of the importance of professional experience in the present and future process of appointment.

	Experience in University Teaching			Experience in University Admin.		
	Present		Future	Present		Future
	High Importance	Low Importance		High Importance	Low Importance	
All respondents	90.0% (81)	10.0% (9)	97.8% (88)	85.7% (78)	14.3% (13)	95.7% (89)
						4.3% (13)
<u>By Administrative Positions</u>						
Chefe de departamento	86.5% (45)	13.5% (7)	96.1% (19)	84.3% (43)	15.7% (8)	94.2% (49)
Coordenador de Curso	95.7% (22)	4.3% (1)	100% (24)	87.0% (20)	13.0% (3)	100% (24)
Diretor	90.9% (10)	9.1% (1)	100% (10)	80.0% (8)	20.0% (2)	90.9% (10)
Pro-Reitor	100% (4)	-- (0)	100% (5)	100% (7)	-- (0)	100% (6)
<u>By Discipline Areas</u>						
Fine Arts	100% (4)	-- (0)	100% (3)	100% (1)	-- (0)	100% (4)
Biomedical and Health Sciences	87.8% (36)	12.2% (5)	100% (42)	83.3% (35)	16.7% (7)	92.7% (38)
Engineering and Physical Sciences	87.0% (20)	13.0% (3)	91.3% (21)	82.6% (19)	17.4% (4)	95.8% (23)
Humanities and Social Sciences	94.4% (17)	5.6% (1)	100% (17)	88.9% (16)	11.1% (2)	100% (18)
						-- (0)

Brazilian university presidents, Finger found that "in terms of professional experience, presidents agree that it is extremely important . . . to have previous administrative experience as department heads, deans and so forth, and teaching at the university level" (p. 127). At the same time, however, a majority of the respondents in this study also expressed the belief that, in addition to professional experience, some kind of graduate degree was important in the future process of appointment. (See Table 13.)

Importance of personal qualifications.--In addition to the formal qualifications of university administrators--degrees and professional experience--respondents were asked to rate the importance of 10 additional qualifications on a scale from 1 (minimum importance) to 5 (maximum importance). These qualifications were: impartial and objective, broad education and interests, ability to understand problems in areas other than own specialization, capacity to plan and foresee the future; ability to solve problems, good communication and human-relations skills, broad political relations, ability for personnel supervision, leadership skills, and capacity to plan and execute budget.

The responses on the five-point scale were grouped in terms of "minimum importance" (rating of 1 and 2) and "maximum importance" (rating of 3, 4, and 5). "Ability to solve problems" was the qualification selected most frequently as "important" (56.8%). "Personnel supervision" was the qualification least likely to be selected as "important" (29.5%). The 10 qualifications are presented in Table 16 in terms of their frequencies of selection as "important."

Table 16.--Percentage of respondents selecting the ten qualifications as "maximum importance," by administrative position and discipline areas.

	No. of Respondents	Ability to Lead and Solve Problems	Impartial & Objective	Good Comm. Skills & Human Rel.	Broad Political Relationships	Capacity to Plan and Foresee the Future	Broad Educ. Exper. and Interests	Leadership	Capacity to Plan and Execute Budgets	Ability to Understand Problems in Other Areas	Ability to Supervise Personnel
All respondents	95	56.8	53.7	53.7	50.5	47.9	44.7	44.7	36.7	31.9	29.5
<u>By Administrative Positions</u>											
Chefe de Departamento	55	52.7	49.1	47.2	42.6	39.6	35.2	42.6	30.0	28.3	24.1
Coordenador de Curso	24	56.5	58.3	58.3	66.7	54.2	62.5	34.8	39.1	29.2	41.7
Diretor	11	81.8	72.7	72.7	63.6	81.8	70.0	63.6	54.5	54.5	36.4
Pro-Reitor	5	50.0	40.0	50.0	33.3	33.3	16.7	66.7	50.0	33.3	16.7
<u>By Discipline Areas^a</u>											
Fine Arts	4	0	0	0	0	0	0	0	0	25.0	25.0
Biomedical and Health Sciences	41	48.8	47.6	48.8	47.6	43.9	41.5	43.9	40.0	40.0	31.0
Engineering and Physical Sciences	24	70.8	66.7	62.5	62.5	65.2	58.3	45.8	34.8	29.2	25.0
Humanities and Social Sciences	19	70.0	65.0	63.2	57.9	50.0	52.6	47.4	35.3	20.0	36.8

^aSeven pro-reitores not included.

In addition to "ability to solve problems," three other qualifications also received more than 50% of respondents' endorsement as "maximum importance": "impartial and objective" (53.7%), "good communication and human-relations skills" (53.7%), and "broad political relations" (50.5%). Although not statistically significant, diretores were generally more likely to indicate all of the ten qualifications as "important" than were other position groups. Significant differences were found between central and local administrators for the qualification of "leadership skills"--64.7% versus 40.3%, respectively.¹⁵

Administrators in the fine arts area rarely rated any of the qualifications as "important." Significantly more administrators in the engineering and physical sciences area than in other areas rated "capacity to plan and foresee the future" as important.¹⁶ And more administrators in medical and health sciences rated "ability to understand problems in areas other than own specialization" as important.¹⁷

Specific qualifications and experiences for the different administrative positions.--In addition to the list of ten qualifications discussed above, the respondents were asked to list the most important qualification(s) and experience specific to each administrative position in the university. The positions included were reitor, vice-reitor, diretor, chefe de departamento, coordenador de curso de pos-graduação, and the six pro-reitores responsible for

¹⁵Chi square = 6.06 with 2 degrees of freedom; p = .0484.

¹⁶Chi-square = 10.91 with 4 degrees of freedom; p = .0275.

¹⁷Chi-square = 9.62 with 4 degrees of freedom; p = .0474.

undergraduate studies, graduate studies, research, extension, administration, and planning. The open-ended format of this question yielded a wide range of responses for each position. This required an exhaustive content analysis to present the results in a more coherent fashion. Thus the list of perceived qualifications and experiences for each specific position was grouped into the following areas: those related to personal characteristics, those related to formal qualifications of the individual, those related to acquired experiences of the individual, and others that did not fall into one of the foregoing categories. The frequencies of responses of these qualifications and experiences for each position are presented in Table 17.

As shown in Table 17, nine qualifications or experiences were cited for at least 7 of the 11 positions. They are:

The individual should

- be loyal to the institution and imaginative,
- have been a member of the university council,
- be at least an associate professor and on full-time status,
- have an established reputation with the university, and
- be knowledgeable about the federal laws applicable to education.

These items complemented the list of personal qualifications discussed in the previous section.

In addition, the respondents also suggested the following specific qualifications and experiences for the different positions:

Table 17.--List of specific qualifications and experiences for the different administrative positions.

Qualifications and Experiences	Pro-Reitores										
	Reitor	Vice-Reitor	Director	Chefe de Departamento	Coordenador de Curso Pós-grad.	Undergrad. Studies	Graduate Studies	Research	Extension	Adminis- tration	Planning
<u>Personal Qualifications^a</u>											
Loyalty/loyalty to the institution	1	2	-	3	-	1	1	2	1	1	2
Imagination/creativity	5	6	5	4	4	4	4	-	7	-	-
Independence	-	-	5	-	-	-	-	-	-	-	-
Others (disciplined, understanding, open-spirited, dynamic, good-sensed, responsible, motivated, meticulous, relaxed, patient)	4	3	5	7	7	9	3	4	1	-	2
<u>Skills^a</u>											
Ability to generate resources	1	4	6	-	-	-	-	-	-	-	1
Skills in politicking	-	3	7	4	4	4	4	3	3	2	-
Skills in community relations	-	-	-	-	-	-	-	-	3	-	-
Skills in project/program evaluation	-	-	-	-	-	-	-	-	-	-	1
<u>Formal Qualifications^a</u>											
Graduate degree in administration/public admin.	-	1	-	-	-	-	-	-	-	10	10
Pro-reitor	3	1	-	-	-	-	-	-	-	-	-
Director	4	1	-	-	-	1	-	-	-	-	-

Table 17.--Continued.

Qualifications and Experiences	Pro-Reitores										
	Reitor	Vice-Reitor	Diretor	Chefe de Departamento	Coordenador de Curso Pós-grad.	Undergrad. Studies	Graduate Studies	Research	Extension	Adminis- tration	Planning
<u>Formal Qualifications (cont'd)</u>											
Chefe de departamento	-	-	6	-	-	3	3	2	2	1	1
Membro de conselho	3	2	2	2	2	1	1	1	1	-	-
Full-time faculty	-	1	1	1	1	3	1	1	1	1	1
Full/associate professorship	3	3	3	4	3	2	4	2	3	1	1
Coordenador de curso de pós-graduação	-	-	-	2	-	3	-	-	-	-	-
<u>Acquired Experiences^a</u>											
Foreign experience in graduate studies	-	-	-	-	-	-	6	2	-	-	-
Experience in graduate teaching	-	-	-	-	-	-	14	-	-	-	-
Experience in research	-	-	-	-	-	-	-	11	-	-	-
<u>Others^a</u>											
Established reputation within the university	-	4	4	3	7	2	-	16	3	-	-
Established reputation in research	-	-	-	-	-	-	-	16	-	-	-
Broad political relationships	17	13	-	-	-	-	-	-	-	3	3
Vision of the university	9	12	5	-	-	-	-	-	-	-	-

Table 17.--Continued.

Qualifications and Experiences	Reitor	Vice-Reitor	Diretor	Chefe de Departamento	Coordenador de Curso Pós-grad.	Pro-Reitores					
						Undergrad. Studies	Graduate Studies	Research	Extension	Adminis- tration	Planning
<u>Others (cont'd)</u>											
Knowledge of federal laws applicable to education	4	-	-	3	3	6	4	2	1	2	-
Vision of school goals	-	-	-	1	-	-	-	-	-	-	-
Support from faculty, students, and staff	-	-	-	7	-	-	-	-	-	-	-
Knowledge of undergraduate curricula of the university	-	-	-	-	-	7	-	-	-	-	-
Knowledge of general operation of the university	-	-	-	-	-	-	2	1	2	5	6
Knowledge of the theory, practice, and curriculum of the area	-	-	-	-	9	-	-	-	-	-	-
Good relationship with students/sensitivity to students' needs	-	-	-	-	7	-	-	-	-	-	-
Knowledge of extension	-	-	-	-	-	-	-	-	8	-	-
Sensitivity to community needs	-	-	-	-	-	-	-	-	10	-	-
Sensitivity to future needs of the university	-	-	-	-	-	-	-	-	-	-	5
Contacts with national and international foundations	-	-	-	-	-	-	-	9	-	-	-

^aThe subheadings were used in content analysis and were included for easy reference.

Reitor: Ability to generate resources, broad political relationships, vision of the university, and previous experience in the position of vice-reitor or diretor.

Vice-reitor: Ability to generate resources, broad political relationships, graduate degree in administration or public administration, and previous experience in the position of pro-reitor or diretor.

Diretor: Independence, ability to generate resources, vision of the university, and previous experience in the position of chefe de departamento.

Chefe de departamento: Vision of school's goals; support from faculty, students, and staff; and prior experience in the position of coordenador de curso de pós-graduação.

Coordenador de curso de pós-graduação: Knowledge of the theory, practice, and curricula of the discipline area; good relationship with students; and sensitivity to students' needs.

Pro-reitor--undergraduate studies: Knowledge of the undergraduate curriculum of the university and experience in the position of chefe de departamento or coordenador de curso de pós-graduação.

Pro-reitor--graduate studies: Foreign experience in graduate studies, experience in graduate teaching, and knowledge of the general operation of the university.

Pro-reitor--research: Foreign experience in graduate studies, experience in research, established reputation as researcher, knowledge of the general operation of the university, and contacts with national and international foundations.

Pro-reitor--extension: Skills in community relations, knowledge of the general operations of the university, knowledge of extension, and sensitivity to community needs.

Pro-reitor--administration: Broad political relationships, knowledge of the general operations of the university, and a graduate degree in administration or public administration.

Pro-reitor--planning: Ability to generate resources, skill in project and program evaluation, broad political relationships, knowledge of the general operations of the university, sensitivity to the future needs of the university, and a graduate degree in administration or public administration.

Suggested changes in the process of appointing administrators.--

In Brazil, the top university administrators are appointed by the President of the Republic and the Minister of Education. The appointees (reitor and vice-reitor) are chosen from a list of six names elected by the University Council, and the diretores are elected by the unit (school or college) council. The University Council comprises all upper-level administrators at the university.

The researcher sought to obtain the perceptions of administrators about the adequacy of the present process of appointment. An open-ended question soliciting suggestions for improvement and changes was included for those not satisfied with the present appointment process.

Thirty-eight administrators responded to this question. Almost 40% of the survey respondents were not satisfied with the appointment process. Among proposed changes, the most popular was

"direct election by the entire university community of its own administration," which was mentioned by 23 of the 38 respondents (60.5%). The second most popular suggestion, mentioned by 7 of the 38 respondents (18.4%) was to "increase the participation of the university community in the appointment process." Both suggestions stressed the need for more participation by the university community in the appointment process for its top administrative positions. In other words, a majority of the respondents felt that the appointment process should be more locally controlled.

Preparation of Administrators

Preparation format.--Respondents were asked to indicate the type of preparation, if any, that should be provided for Brazilian university administrators. Ninety-one (93%) of the respondents answered this question. The results clearly indicated that the preferred type of preparation was informal in nature. Of the 91 respondents, only 18 suggested preparation in formal programs (post-doctorate, doctorate, and master's level); the remainder preferred preparation by on-the-job training, short-term courses, intensive workshops, internships, or specialization. As shown in Table 18, all categories included in informal programs were favored by more than half of the respondents (ranging from 50.5% to 64.8%), although there were no clear preferences among them. It should be pointed out that although specialization was included under formal preparation, the nature of the program in the Brazilian system distinguishes it from the others. A specialization program involves a definite program of course work

Table 18.--Percentage of respondents selecting different formats for administrator preparation, by administrative position and discipline areas.

	No. of Respondents	Formal				Informal			
		Post-Doctoral	Doctoral	M.S.	Specialized	On-Job Training	Workshop	Internship	Short-Term Course
All respondents	91	3.3	6.6	9.9	50.5	53.8	58.2	58.2	64.8
<u>By Administrative Position</u>									
Chefe de Departamento	54	--	5.6	9.3	57.4	53.7	53.7	59.3	70.4
Coordenador de Curso	20	15.0	5.0	10.0	30.0	50.0	75.0	60.0	55.0
Diretor	10	--	20.0	10.0	70.0	50.0	70.0	70.0	80.0
Pro-Reitor	7	--	--	14.3	28.6	71.4	28.6	28.6	28.6
<u>By Discipline Areas</u>									
Fine Arts	3	--	--	--	100.0	66.7	66.7	66.7	100.0
Biomedical and Health Sciences	41	2.4	7.3	4.9	51.2	43.9	63.4	65.9	75.6
Engineering and Physical Sciences	20	10.0	10.0	20.0	30.0	65.0	60.0	60.0	50.0
Humanities and Social Sciences	20	--	5.0	10.0	70.0	55.0	55.0	50.0	65.0

that does not lead to a graduate degree. It is less formal than the graduate degree programs.

Although not significant, it is interesting that the pre-reitores clearly preferred on-the-job training as the method of preparation (71.4%), whereas respondents in the other positions were receptive to all suggested types of informal preparation. The preferences of respondents in the different discipline areas were similar. The only significant differences found were among their preferences for specialization.¹⁸ Only 30% of the respondents in engineering and physical sciences indicated a preference for specialization as the format of preparation.

Content of preparation programs.--Respondents were given a list of 16 topics and asked to suggest which, if any, of the topics should be included in a formal or informal program for training and preparation of university administrators. Among the 85 respondents to this part of the questionnaire, the five preferred topics were: academic administration (77.6%), program and project evaluation (63.5%), public administration (63.5%), budget planning (62.4%), and personnel evaluation (58.8%). These five topics are all closely related to the daily functioning of universities, and all are "practice oriented." A summary of the results is presented in Table 19.

Significant differences in the selection of the topic "academic administration" were found among respondents in different administrative positions. Although it was the most popular choice among

¹⁸Chi-square = 9.2549 with 3 degrees of freedom; p = .0261.

Table 19.--Percentage of respondents selecting different topics for the preparation of administrators, by administrative position and discipline areas.

	No. of Respondents	Academic Administration	Project and Program Eval.	Public Administration	Budget Planning and Execution	Personnel Evaluation	Foundations of Education	Internship and Field Experience	Finance of Higher Education	Theory of Administration	Organizational Behavior	Sociology of Education	Introduction to Research Methods	History of Higher Educ. in Brazil	Student Personnel Services	Computer Use and Data Processing	Adv. Statistics and Research
All respondents	85	77.6	63.5	63.5	62.4	58.8	54.1	50.6	48.2	45.9	45.9	43.5	42.4	40.0	31.8	25.9	17.6
<u>By Administrative Position</u>																	
Chefe de Departamento	51	74.5	58.8	60.8	58.8	60.8	52.9	56.9	45.1	51.8	49.0	43.1	41.2	39.2	33.3	29.4	21.6
Coordenador de Curso	18	94.4	72.2	72.2	72.2	61.1	61.1	33.3	66.7	33.3	14.4	38.9	55.6	38.9	27.8	33.3	16.7
Diretor	9	100.0	77.8	77.8	66.7	66.7	55.6	66.7	44.4	45.5	55.6	66.7	22.2	55.6	33.3	--	--
Pro-Reitor	7	28.6	57.1	43.9	57.1	28.6	42.9	28.6	28.6	42.9	14.3	28.6	42.9	28.6	28.6	14.3	14.3
<u>By Discipline Areas^a</u>																	
Fine Arts	1	100.0	--	100.0	--	--	100.0	--	--	100.0	--	--	--	--	--	--	--
Biomedical and Health Sciences	39	82.1	69.2	69.2	61.5	64.1	59.0	56.4	56.4	52.4	51.3	48.7	48.7	43.6	30.8	28.2	15.4
Engineering and Physical Sciences	19	78.9	57.9	52.6	57.9	63.2	52.6	63.2	52.6	45.8	52.6	36.8	42.1	57.9	42.1	36.8	31.6
Humanities and Social Sciences	19	84.2	63.2	68.4	73.7	57.9	47.4	36.8	36.8	38.1	42.1	47.4	31.6	21.1	26.3	15.8	10.5

^aPro-reitores not included.

all respondents, only 28.6% of the pro-reitores selected this topic,¹⁹ but it was overwhelmingly selected by the other administrators. In general, there was less consensus among the pro-reitores about which topic should be included in a formal or informal program (the strongest preferences were for "project and program evaluation" [57.1%] and "budget planning" [57.1%]).

When preferences of topics for formal and informal programs were cross-tabulated with the number of years of experience in university administration, it was found that administrators with more than two years of experience were more likely to select the topic of "academic administration" than those with two years of experience or less. Respondents were divided into three groups: those with two years of experience or less (28 respondents), those with three to six years of experience (28 respondents), and those with more than six years of experience (29 respondents). The preference percentages of these three groups were 57.1%, 92.9%, and 82.8%, respectively, for the topic of "academic administration." These differences were significant at the .05 level.²⁰ No significant differences were found for the other topics.

The same question asked respondents to indicate which topics, if any, should be included in a formal or informal program specifically for future administrators and, if available, in which topics they themselves would be interested. The percentages of

¹⁹Chi-square = 15.52, with 3 degrees of freedom; $p = .0014$.

²⁰Chi-square = 10.95, with 3 degrees of freedom; $p = .0042$.

of respondents selecting each of these topics are summarized in Table 20. Preference percentages across all categories and all topics ranged from 3.5% to 43.5%, with an average of 19.14%. Such low percentages indicated a lack of consensus among respondents about which topics would be appropriately included in a training program. Consistent with their preference for an informal format for training programs (refer to Table 21), more respondents, on the average, selected topics for informal programs than for formal programs (28.6% vs. 16.7% and 19.2% vs. 12.0%). Respondents were more likely to select a topic for formal or informal programs for future administrators than a topic for a formal or informal program in which they would participate (22.65% vs. 15.61%).

Nonetheless, there were some commonalities among the five topics most likely to be selected for future administrators in a formal or informal program and for the respondents themselves in a formal or informal program. As shown in Table 21, among the five most preferred topics for each category, the topics "academic administration" and "program and project evaluation" appeared in all selections. "Foundations of education," "theory of administration," and "public administration" were selected for formal programs, whereas "personnel evaluation" and "internship and field experience" were selected for informal programs. "Budget planning/execution" and "sociology of education" were selected for informal programs to train future and present administrators, respectively.

General suggestions for preparation of administrators.--Another open-ended question was included to obtain additional comments from

Table 20.--Percentage of respondents selecting different topics for formal and informal preparation of present and future administrators.

Topics	Future Administrators Should Study		Present Administrators Would Study	
	Formal Programs	Informal Programs	Formal Programs	Informal Programs
Theory of administration	29.4	20.0	22.4	10.6
Public administration	28.2	32.9	18.8	20.0
Academic administration	32.9	38.8	25.9	29.4
Organizational behavior	15.3	29.4	10.6	15.3
Budget planning & execution	16.5	43.5	12.9	20.0
Finance of higher education	12.9	34.1	4.7	15.3
Foundations of education	23.5	25.9	16.5	20.0
Sociology of education	16.5	22.4	10.6	22.4
Personnel evaluation	20.0	36.5	14.1	27.1
Project & program evaluation	21.2	38.8	16.5	32.9
Introd. to research methods	11.8	25.9	9.4	16.5
Advanced statistics & research	5.9	9.4	3.5	5.9
Computer use & data processing	5.9	15.3	3.5	10.6
Student personnel services	7.1	21.2	4.7	16.5
History of higher education in Brazil	7.1	29.4	9.4	21.2
Internship & field experience	12.9	34.1	9.4	23.5
	16.7	28.6	12.0	19.2
Average percentage of responses	22.6		15.6	

Table 21.--Preferred topics for preparation of administrators.

	What Future Administrators Should Study		What Present Administrators Would Study	
	Formal Program	Informal Program	Formal Program	Informal Program
Topic selected for informal and formal categories	Academic adminis- tration (32.9%) Project & program evaluation (21.2%)	Academic adminis- tration (38.8%) Project & program evaluation (38.8%)	Academic adminis- tration (25.9%) Project & program evaluation (16.5%)	Academic adminis- tration (29.4%) Project & program evaluation (32.9%)
Topic selected for formal category	Theory of admin- istration (29.4%) Public adminis- tration (28.2%) Foundations of education (23.5%)		Theory of admin- istration (22.4%) Public adminis- tration (18.8%) Foundations of education (16.5%)	
Topic selected for informal category		Personnel eval- uation (36.5%) Internship & field experi- ence/finance of higher education (34.1%)		Personnel evalua- tion (27.1%) Internship & field experi- ence (23.5%)
Topic selected for specific category		Budget planning and execution (43.5%)		Sociology of edu- cation (22.4%)

respondents regarding options to improve the preparation of university administrators. Fifteen percent of the administrators surveyed responded to this question. Most of the suggestions referred to training programs for university administrators, such as the creation of a national school for Brazilian university administrators, the reopening of internship programs sponsored by the Brazilian Council of University Rectors (CRUB), and the creation of other systematic processes to prepare university administrators.

Problems Faced by Brazilian University Administrators

Respondents were asked to list, in order of importance, the four most crucial problems presently confronting the administrators of Brazilian universities. A wide range of differing answers (79) was obtained. This diversity of responses required an exhaustive content analysis to obtain a consistent and understandable set of problem areas. The five most frequently cited areas are presented in Table 22. The problem areas are listed in descending order of response frequency.

The major problem perceived by administrators was related to financial matters and concerned various aspects of the financial life of the institution. Eighty-nine respondents mentioned this problem. Whereas 61 respondents specifically mentioned "lack of financial resources," other responses included such concerns as "bad or insufficient salary" (12), "lack of equipment or physical space" (7), and, simply, "financial problems" (9).

Table 22.--Average ranking of perceived crucial problems confronting Brazilian public university administrators.

Problem Areas	Average Rank	Number of Respondents	Percent ^a
Related to finance	1.61	89	90.8
Related to government administrative centralization	1.96	65	66.3
Related to personnel	2.26	60	61.2
Related to faculty	2.57	38	38.7
Related to planning process	2.61	42	42.8
Others	3.13	19	19.3

^aPercentage of all respondents.

Sixty-five respondents reported problems related to the structure of higher education in Brazil and its recurrent themes. The most frequently cited problems, attributed by respondents to government interference, included: lack of general autonomy (28), excess of bureaucracy (20), inadequate institutional structure (8), excessive centralization (3), and lack of autonomy for specific decisions, i.e., academic, political, and financial decisions (6).

Staff inadequacy (21), lack of training (19), lack of leadership (11), and lack of interest (7) were the most common responses in "problems related to personnel." There was a total of 60 responses in this category.

The fourth most frequently cited problem, with 38 mentions, was in the faculty area. This represented an assessment of the

faculty: lack of interest (7), poor selection (5), lack of preparation (11), excessive politics in academic life (5), and lack of professionalism as a teacher (6).

Finally, "problems related to the planning process" included items related to institutional planning and the local level of decision making. From the total of 42 responses, major items included: inadequate planning (14), lack of planning (10), lack of integration (9), problems of coordination between various academic areas (6), and administrative disorganization (3).

Among other problems reported were inadequate objectives of the institution in relation to the needs of the country (7), isolation from the community (8), and excessive number of students (3). These concerns were noted, but they could not be meaningfully grouped for analysis.

The problems identified here were similar to those reported by Finger (1978), who surveyed Brazilian university reitores. He reported that

in the opinion of Brazilian university presidents, the largest problems [faced by universities] were: (1) Limited human resources, (2) Meager material resources and (3) Lack of university autonomy. Other problems mentioned were: inadequately prepared faculty, lack of an educational and administrative philosophy, quality of academic programs, excessive bureaucracy, mass education. . . . (p. 139).

Sunlay (1974), when investigating the need for higher education administrative courses in Thailand, reported that the ten most crucial

problems listed by the rectors included (a) insufficient system of financing higher education, (b) system of administration (rigid rules and regulations). . . , (c) shortage of highly qualified staff

and faculty, (d) lack of clear-cut objectives and long-range plan for universities at the national level, (e) inadequate salary and compensations for university staff and faculty, (f) lack of adequately prepared administrators, (g) poor university environment. . . .

Although the population of Sunlay's study was of a different cultural background than the respondents in the present study and Finger's study was completed in 1978 rather than 1981, both of these studies were nevertheless consistent with the present study. This might suggest this set of problems transcends time and geographic boundaries, but it does not imply that local solutions to the problems are the same.

Summary and Discussion

In the preceding sections of this chapter, the major findings were presented and statistically significant relationships between variables were noted. In this section, the findings are summarized and implications are discussed. Summaries of findings and comments are presented in the following order:

Characteristics of Administrators

- Biographical Characteristics
- Professional Experience
- Job-Related Characteristics

Administrators' Perceptions

- Process of Appointment
 - Importance of Academic Degrees and Professional Experience
 - Importance of Personal Qualifications
 - Specific Qualifications and Experiences for the Different Administrative Positions
 - Suggested Changes in the Process of Appointing Administrators
- Preparation of Administrators: Format, Content, and General Suggestions
- Problems Faced by Brazilian University Administrators

Characteristics of Administrators: Biographical

Summary.--The typical administrator at UFMG is a male (84%) with an average age of 45 years, holds the rank of associate professor (61%), and is contracted to work full time (91%). All administrators hold the bachelor's degree, 21% have specialized post-bachelor's training below the master's level, 25% have the master's degree, and 36% have doctoral degrees. Coordenadores de curso have the highest percentage of doctoral degrees (71%) among administrative positions. Most of the academic degrees awarded to respondents were granted by UFMG (the institution where they currently work). These degrees are as follows: bachelor's degree (90.6%), specialization level (48.8%), master's degree (47.4%), and doctoral degree (57.1%).

Discussion.--The preponderant number of male administrators at the university is expected. Only recently has a balance of enrollment, in terms of students' sex, been achieved at Brazilian universities. Within each discipline area, however, an overall balance has not yet been reached. The humanities and social science discipline area traditionally attracts more female than male students; hence, the same trend appears in the university administration, where females within the humanities and social science area constitute 31% of the administrators. This is the largest percentage of female administrators of the four discipline areas.

In Brazil, a full professorship can be considered a terminal rank attained at maturity of the teaching career. The academic rank

system is not a tenure system but rather a system closely related to the degree held and the age of the faculty member. Since the average age of administrators is 45, one might expect the predominant rank to be at the middle level. Although 11% of the respondents reported ranks of full professor and 26% of assistant professor, the largest group of administrators (61%) was at the associate professor rank.

Ninety-one percent of the respondents are contracted to work full time, of whom 34% are contracted to work 40 hours per week in a nonexclusive-dedication status. The latter contract status allows them to have additional employment outside the university, and this is common in Brazilian universities.

Four trends seem to be clear when analyzing the academic degrees of UFMG administrators:

1. Faculty and administrators follow a fixed direction in terms of discipline areas at the various academic levels of their professional lives. For example, an administrator holding an undergraduate degree in engineering is likely to obtain a master's degree and a doctoral degree in this same field of specialization. This predictability can be credited to two major factors: the very broad definition of discipline areas used by the university and the traditional, less-specialized scope of majors granted by Brazilian universities. Thus, it can be stated that an administrator working in a discipline area at UFMG probably will obtain all of his academic degrees in that discipline area, and, in many instances, all degrees are from the same school and department in which he is currently employed.

2. The higher the degree, the less likely it is that an administrator will hold it.

3. The higher the degree, the more likely it is that a foreign university granted it.

4. The phenomenon of inbreeding is found at all degree levels, ranging from 88% at the bachelor's level to 57% at the doctoral level. Luce (1978) stated that "the mobility of Brazilian scientists is much lower than the European and American counterparts, bringing excessive 'inbreeding' [to the university]" (p. 110).

Characteristics of Administrators: Professional Experience

Summary.--Respondents reported having greater experience in teaching than in administrative activities. Furthermore, the teaching experience at the university level (97 respondents with an average of 15.5 years' experience) was greater than the experience in all other educational levels combined (39 respondents with an average of 9.5 years). Administrative experience at the university level was reported by 88 respondents (5.9 years average), whereas only 10 respondents reported an average of 9.2 years in administration outside the university. Diretores had more years in teaching experience at the university level (16.9 years) and at other educational levels (11.3 years) than did individuals in any other administrative position. At the same time, diretores presented the highest frequencies (1.81) of reappointment for different positions in university administrative offices of all the administrative groups. None of the respondents

in any of the university positions studied reported having received special preparation for their administrative assignments.

Discussion.--Brazilian public university administrators are primarily faculty members, and by the very nature of the Brazilian system of administrative appointments, faculty appointments to administrative positions rotate across the different administrative positions. However, as observed in the review of the literature, only after the 1968 University Reform Law were most of the present administrative positions created (chefe de departamento and pro-reitor, for example), thus extending the range of opportunities for administrative experience to a larger number of faculty members. In contrast, teaching experience at the university could be readily accumulated by professors before the 1968 Reform Law.

The system of appointing a diretor of a school at UFMG, although formalized through election and governmental participation, seems to be consistent with the "faculty seniority system." Diretores present more years of experience in teaching at the university level and higher frequencies of reappointment for different administrative positions than any other administrator group. The fact that diretores are never appointed for the position of pro-reitor is not in conflict with the system. The pro-reitor position is a personal appointment of the reitor, who generally chooses younger professionals with high potential in their fields whom he thinks would enhance his administration and not create political conflicts with his policies. Consequently, the reverse is also true;

i.e., present pro-reitores were never appointed to the position of diretor.

The fact that none of the administrators received special preparation for their administrative assignments strongly suggests that "learning on the job" is the most likely process by which present administrators are prepared to cope with their responsibilities. This is one of the important findings in this study. It is likely, however, that some of the respondents had participated in seminars or workshops on university administration. It might be that they did not consider this kind of experience as a form of preparation to cope with their responsibilities.

Characteristics of Administrators: Job Related

Summary.--Respondents reported that more than half of their time (54.9%) is dedicated to administrative activities. One-fifth (20.6%) of their time is dedicated to teaching activities and 16% is used for research. Extension and other activities demand only small amounts of time (3.1% and 5.1%, respectively). Chefes de departamento and coordenadores spent far less time on administrative activities (51.3% and 40.1%, respectively) than did diretores and pro-reitores (83.2% and 84.1%, respectively). In terms of teaching and research activities, the situation was reversed. Teaching activities represented 25.4% of chefes' de departamento time and 24.2% of coordenadores' time, whereas diretores dedicated only 3.8% of their time to teaching and pro-reitores reported spending no time on teaching. Research activities represented 13.7% of chefes' de departamento time and

29.3% of coordenadores' time, whereas diretores declared that they dedicated only 9.2% of their time to research and pro-reitores did not do research at all. Respondents from the fine arts area reported spending 34.4% of their time on activities other than administration, research, teaching, and extension. This was quite different from administrators in other areas. The breakdown of time dedicated to administration by diverse activities showed that administration of program (curriculum) received the highest percentage of respondents' time (29.2%). Faculty affairs (22.5%), student affairs (18.7%), and financial affairs (16.0%) were the second, third, and fourth most time-consuming activities, respectively. A higher portion of administrative time was dedicated to programs (curriculum) by chefes de departamento (30.2%) and coordenadores (35.7%). However, diretores reported 22.7% of their time was dedicated to faculty affairs, and pro-reitores reported 35.4% of their time was dedicated to financial affairs.

Discussion.--The results suggested that university administrators at UFMG at the level of chefe de departamento and coordenador function as half-time administrators and half-time faculty members. This seems reasonable for the position of coordenador because the scope of this role is limited to coordination of administrative and academic efforts in one specific graduate degree program. However, such is not the case with chefes de departamento. The departmental chairman is involved in the administration of diverse activities, such as program (curriculum), research, and faculty and student affairs. Results previously presented show that 48% of the chefes de

departamento are contracted in nonexclusive dedication or part-time contract status, and they dedicate only half of their contract time to administrative activities.

As discussed in the literature review, many authors have pointed out the inefficiency of Brazilian public university administration. The present finding suggests that the chefe de departamento devotes little attention to administrative responsibilities. This finding seems to support the notion that administrative inefficiency of Brazilian universities is most serious at the local level. It could also support the contention that inefficiency might be a function of a disorganized central administration that allows such conditions to exist.

As previously noted, results for the fine arts area were not typical for UFMG. However, it should be mentioned that the questionnaire used in this study was designed for the scope of the total university, and this may have contributed to the nature of the results obtained. Perhaps it did not accommodate the very specific activities unique to that area (concerts, expositions, and other artistic events).

Administrators' Perceptions of the Process of Appointment: Importance of Academic Degrees and Professional Experience

Summary.--As a group, administrators perceive that academic degrees and professional experience are important in the present appointment process. This is reflected in the following percentages of respondents rating each item important: experience in teaching (90%), experience in administration (85.7%), doctoral degree (41%),

master's degree or a graduate degree in administration (19.6%), and no graduate degree at all or an undergraduate degree (30.9%). In terms of the future process of appointment, respondents' ratings shifted, but there were no changes in the original sequence (importance of academic degrees and professional experience). The following ratings were obtained: experience in teaching (97.8%), experience in administration (95.7%), doctoral degree (44.6%), and master's degree or a graduate degree in administration (38.0%). Perceptions of importance of academic degrees and professional experience in the present and future processes of appointment were analyzed separately in this study. However, a consistently higher value was given to professional experience than academic degrees in both the present and future processes of appointing administrators.

Discussion.--Administrators' preference for professional experience is no surprise. When interviewing Brazilian university presidents, Finger (1974) found somewhat similar results. Also Luce (1978), in assessing criteria to evaluate graduate education programs in Brazilian universities, found that "there is a striking coincidence among the most-valued academic credentials and the attributes actually exhibited by the Brazilian faculty. . . . The professors are stronger in terms of professional and academic experience than in earned advanced degrees" (p. 110). Although Luce's study was not concerned with the qualifications of administrators, it did point out that faculty in general had greater strength in and valued more highly experience than formal training. Similarly, relatively few respondents in this study held doctoral degrees (36.5%) and master's

degrees (25.0%), and they were stronger in total teaching experience (19.4 years average) and total administrative experience (10.3 years average). Thus findings suggest that respondents with comparatively limited graduate academic degrees and comparatively extensive professional experience tend to perceive and value professional experience as more important than academic degrees.

Administrators' Perceptions of the
Process of Appointment: Importance
of Personal Qualifications

Summary.--In terms of personal qualifications for a university administrator, "ability to solve problems" was the qualification selected most frequently as "high importance" (56.8%). Three other personal qualifications also received more than 50% of the respondents' endorsements as of "high importance": "impartial and objective" (55.7%), "good communication and human-relations skills" (53.7%), and "broad political relations" (50.5%).

Discussion.--These findings are consistent with the earlier-stated finding that the respondents do not see themselves as prepared for the job in the formal sense, i.e., through some systematic process of preparation. For this reason the respondents may have seen these abilities as important in order to be effective in university administration.

Administrators' Perceptions of the
Process of Appointment: Specific
Qualifications and Experiences for
the Different Administrative
Positions

Summary.--Respondents selected nine qualifications or experiences for the administrative positions studied (see page 81). Loyalty

to the institution, imagination, membership in the university council, rank of at least associate professor, full-time status, reputation in the university, and knowledge of federal educational laws were the most common qualifications, as shown in Table 17. In addition, respondents suggested some specific qualifications for different positions in the university administration. Among those most commonly cited were the following:

Reitor: Broad political relations and general vision of the university

Vice-Reitor: Broad political relations and ability to generate resources

Pro-reitor (undergraduate study): Knowledge of theory, practice, and curriculum of the area; good relationships with students; and sensitivity to students' needs

Pro-reitor (graduate study): Foreign experience in graduate study and experience in graduate teaching

Pro-reitor (research): Foreign experience in graduate study and experience in research

Pro-reitor (extension): Skills in community relations, skills in determining community needs, and knowledge of extension

Pro-reitor (administration): Graduate degree in administration and broad political relations

Pro-reitor (planning): Graduate degree in administration and sensitivity to future needs of the university

Diretor: Independence and ability to generate resources

Chefe de departamento: Previous experience as coordenador de curso

Coordenador de curso: Knowledge of theory, practice, and curriculum of the area; good relationships with students; and sensitivity to students' needs

Discussion.--The qualification of "broad political relationships" was indicated only for the reitor, vice-reitor, and pro-reitores of administration and planning. Those are the administrative positions that require broad contact with the "external" environment of the university. For most administrative positions, the qualification of "being full-time faculty" was indicated. This agrees with Ribeiros's (1974) assessment of Latin American universities, in which faculty appointments are sought "first and foremost as an indication of qualification and prestige . . . rather than a career demanding total dedication" (p. 316).

Administrators' Perceptions of the
Process of Appointment: Suggested
Changes in the Process of
Appointing Administrators

Summary.--Despite the agreement regarding the importance of degrees and professional experience in the process of appointment, 38% of the respondents were not satisfied with the present appointment process. They suggested that "there should be direct election by the entire university community of its own administrators." Their second most frequent suggestion was "to increase the participation of the university community in the appointment process."

Discussion.--Both suggestions reflect respondents' desire for more active participation in the selection process of administrators. This perception of independence in the choice of their own leaders was emphasized by Montandon (1980), who pointed out that "state interference in the nomination of university administrators brings dysfunctional consequences to the university" (p. 20) and "causes dispersion

of necessary systematic coordination, which results in disorganization, dissipation of efforts and waste" (p. 88).

Administrators' Perceptions of the
Preparation of Administrators:
Format, Content, and General
Suggestions

Summary.--More than 50% of the respondents suggested that administrators should receive specialized training in terms of short-term courses (64.8%), intensive workshops (58.2%), internships (58.2%), on-the-job training (53.8%), and specialized courses (50.8%). Formal training (graduate courses) was accepted by only a small segment of respondents as an appropriate way to prepare administrators: master's degree (9.9%), doctoral degree (6.6%), and post-doctoral degree (3.3%). In suggesting topics that should be included in programs to prepare administrators, respondents as a group favored "academic administration" (77.6%), "program and project evaluation" (63.5%), "budget planning" (62.4%), and "personnel evaluation" (53.8%). Consistent with their preference for informal programs to prepare administrators, more respondents generally selected topics for informal programs rather than formal programs. Also, respondents were more likely to select a topic for the training of future administrators than a topic for preparation in which they themselves would participate. Of the 16 topics that were presented to respondents in the questionnaire, the following were selected most frequently (see Table 19 for more details):

Academic administration
Project and program evaluation
Public administration
Budget planning
Personnel evaluation
Foundation of education
Internship and field experience

Among the general suggestions respondents offered to improve the preparation of university administrators were the creation of a national school for Brazilian university administrators and the reopening of internship programs sponsored by the Brazilian Council of University Reitores (CRUB).

Discussion.--As early as 1973, the Brazilian Ministry of Education, through the Technical Assistance Program, had as one of its goals the development of university administration in the public system. Lanski (1977) reported that one of the phases of the program consisted in selecting one "initial contingent of administrators who should obtain abroad a Master's degree in university administration" (p. 7). Such a need was not yet perceived by this study's respondents. The preparation of university administrators at the master's or doctoral level was perceived as appropriate by only 9.9% and 6.6%, of the respondents, respectively. Similarly, short informal courses for administrator preparation received more favorable ratings, as did practical topics directly related to daily administrative concerns of the university.

The suggestion to create a "national school for university administrators" may seem to be in conflict with the general findings. However, as previously reported, at least 9.0% of the respondents

perceived the master's or doctoral degree as appropriate preparation for university administrators. The suggestion of creating a national school undoubtedly came from this minority.

Administrators' Perceptions of the
Problems Faced by Brazilian
University Administrators

Summary.--Administrators perceived the following problems to be the major roadblocks to public higher education institutions in Brazil: problems related to the finance of public higher education (90.8%), excessive government centralization (66.3%), inadequately trained staff (61.2%), problems related to faculty (38.7%), and problems related to planning (42.8%).

Discussion.--These findings (as reported on pages 130-132) are similar to the results encountered by Sunlay (1974) and Finger (1978), and some of the findings are similar to those reported by Dias (1973) and Montandon (1980).

In this chapter, the results from the survey were presented in four areas: characteristics of administrators, perceptions about the process of appointment, perceptions about the preparation of university administrators, and perceptions of crucial problems facing Brazilian university administrators. In addition, administrators were compared by administrative positions and academic disciplines. Statistically significant differences were noted. Finally, results were discussed and summarized. Conclusions and recommendations are presented in Chapter V.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

In this chapter, the study purpose, methodology, instrument, and findings are summarized. Conclusions and recommendations based on the findings of the study are also presented.

Summary

Purpose

The main purpose of this study was to investigate the characteristics of administrators at Universidade Federal de Minas Gerais and their perceptions regarding professional training for present and future university administrators and the importance of preparation and experience in the appointment process. Their perceptions of crucial problems confronting administrators of Brazilian public universities were also investigated.

Research Questions

Five major research questions were examined in the study. The first concerned biographic and professional characteristics of UFMG administrators. The second dealt with the distribution of administrators' time among different activities in the work place. The third related to respondents' perceptions about the administrative

appointment process with respect to the importance of degrees, experience, and personal characteristics. The fourth question inquired about the perceived importance of special administrative training, and the fifth related to administrators' perceptions about crucial problems in Brazilian public university administration.

Review of Literature

The review of literature included the following topics: origin and development of administration in higher education institutions, development of higher education as a field of study in the United States, pertinent research studies on higher education administration, history of Brazilian higher education, and implications of the foregoing topics for the development of higher education administration in Brazil.

Methodology

The study population was the administrative personnel of the Universidade Federal de Minas Gerais. Administrative personnel included reitor, vice-reitor, pro-reitores, diretores, chefes de departamento, and coordenadores de curso de pós-graduação (population $N = 148$).

A mailed questionnaire was chosen for data collection because it would provide the necessary information in a parsimonious manner. Among the reasons for using a mailed questionnaire were: assurance of UFMG's cooperation in overseeing administration of the questionnaire, the enormous travel and maintenance costs associated with personal interviews, problems related to establishing contacts with

subjects, and contamination and difficulties in uniform presentation of questions by interview. An eight-page questionnaire (15 questions in Portuguese) was developed to elicit information of concern in the present study. Items on the questionnaire were divided into two major areas: (1) respondents' background and (2) respondents' perceptions about the appointment process, training of administrators, and administrative problems.

UFMG's Council of Graduate Studies administered the instrument. Completed questionnaires were later photocopied and returned to Michigan State University for data processing. Because no specific hypotheses were set up to be tested, descriptive statistics and measures of central tendency were used as the primary means of data analysis.

Findings

The findings are organized and presented in two major groupings central to the study: administrators' characteristics and administrators' perceptions. These observations represent generalizations drawn from this study population. For ease in reading, a breakdown of each major area is provided.

Profile of UFMG administrators.--The typical administrator at UFMG is male, 45 years old, an associate professor, contracted to work full time with exclusive dedication to the university, and has a graduate degree that was usually awarded by UFMG.

This "typical" administrator has an average of 15 years of teaching experience at the university level and six years of administrative experience at the university level. The administrative

experience was largely obtained through the position of chefe de departamento (average appointment of three years reported). Finally, the "typical" administrator had no special training or preparation for his administrative work.

Half of the administrative time of the "typical" administrator is spent in administrative activities, and the other half is distributed among teaching, research, extension, and other activities. The portion of time dedicated to administration is spent primarily on program administration (curriculum), faculty affairs, student affairs, and financial affairs. Very little time is dedicated to physical facilities and other activities.

Administrators' perceptions.--Experience in teaching and administration was perceived as more important than graduate degrees in the present process of administrators' appointments. The same general relationship held for the future process of appointment, although graduate degrees were perceived as more important in the future than at present.

Perceptions of the importance of personal qualifications revealed the four most important personal qualifications for a university administrator to be the "ability to lead and to solve problems," "impartial and objective," "good communications and human relations skills," and "broad political relationships."

Different sets of qualifications were perceived as important for different administrative positions in the university. In terms of personal qualifications, "loyalty to the institution" and "imagination/creativity" were perceived as important for almost all

administrative positions. "Political skills" (skills in politicking), "full-time status," "full professor or associate professor rank," "membership in the University Council," and "established reputation within the university" were perceived as important qualifications for offices in the university.

There was relatively strong dissatisfaction with the present process of administrative appointment. More than one-third of the administrators suggested direct election of administrators or increased participation in the selection process by the university community. This reflects a desire for more local control of the appointment process.

There was a generalized perception that programs for preparing administrators should be of an informal nature. Short-term courses, internships, workshops, training on the job, and specialization courses were perceived as more appropriate alternatives for preparing administrators than were masters, doctoral, and postdoctoral programs.

Major topics that were perceived to be appropriate for administrative preparation were "academic administration," "project and program evaluation," "public administration," "budget planning," "personnel evaluation," "educational foundations," and "internship." Training for university administrative work was perceived more favorably for future administrators than for the respondents themselves.

Problems related to the finance of public higher education, excessive government centralization, inadequately trained staff and faculty, and inadequate planning of university operations were

perceived as the major problems confronting administrators of public higher education in Brazil.

Conclusions

The following conclusions drawn from the study are presented in two major sections: (1) conclusions based upon study data directly responding to research questions (see page 21) with major implications and (2) additional conclusions.

Conclusions Responding Directly to Research Questions

1. In terms of biographic, professional, and academic-degree qualifications, the administrator at UFMG is a mid-career male and has full-time status, with a graduate degree from UFMG. He has had no special preparation for his administrative position but has substantial experience in university teaching and administration, largely obtained through the position of chefe de departamento. His professional experience outside the university has been limited.

2. UFMG administrators dedicate more than half of their time to administrative activities and one-third to teaching and research, with almost no time given to extension and other activities.

3. Administrators at UFMG perceive that professional experience and graduate degrees, in that order, are important in the present and future processes of administrative appointment and that graduate degrees should be more important in the future than they are now. The most important personal qualifications of administrators are perceived to be ability to solve problems, objectivity and freedom from

bias, loyalty to the institution, and imagination. More local control of the process of appointment is also perceived as appropriate.

4. Administrators at UFMG perceive that short, informal, and practical learning experiences are more appropriate for training university administrators than are long, formal programs. They perceive the need and content of this preparation differently for themselves than for future administrators. UFMG administrators are concerned primarily with practical topics like academic administration, project and program evaluation, personnel evaluation, budget planning, and internship and field experience.

5. Administrators at UFMG perceive the most crucial problems for Brazilian public universities to be the system's financing, governmental centralization, unprepared staff and faculty, and inadequate planning.

Major implications.--

1. The administrative work being performed at UFMG is probably limited by the following factors:

- insufficient and fragmented time dedicated to administrative tasks (particularly chefes de departamento).
- inappropriate preparation or training of administrators.
- lack of acceptance and support for the system of administrator appointment.

2. In planning and implementing preparation programs for UFMG administrators, attention should be given to the following facts:

- UFMG administrators have expressed a comparatively weak interest in program participation for themselves.

- Incumbents of different administrative positions expressed different interests in topics for preparation programs.
- These differences should be kept in mind in preparing future administrators and training present administrators.

3. Some of the problems perceived by administrators as crucial in the process of Brazilian university administration can be ameliorated, if not solved, at the local level. For example, faculty and staff preparation can be significantly improved at each university with minimal constraint by the federal government.

Additional Conclusions

1. The Brazilian network of higher education comprises almost one thousand institutions serving approximately two million students. The existence of only one program leading to a graduate degree in university administration in all of Brazil seems to indicate a need for the development of new programs. Although sporadic efforts are made to up-date administrators, a more institutionalized and systematic process is needed. It seems evident that there is a need to establish and expand efforts to improve the preparation of university administrators.

2. Some of the shortcomings in preparing university administrators might be eliminated by means of short courses and systematically structured internships. Present administrators and new appointees should be given priority in attendance. The cooperation and experience of private organizations such as the Conselho de Reitores das Universidades Brasileiras (CRUB) and the Associação Nacional dos

Professores em Administraçao Educacional (ANPAE) should be used in defining and implementing program policies.

Findings from the present study may provide basic information and new insights for planning and implementing programs to better prepare Brazilian university administrators.

Recommendations

The following recommendations are advanced to improve the preparation of administrators for public higher education in Brazil. Adoption of these recommendations might stimulate new insights and promote greater efficiency in the system.

More substantial studies in the field of higher education administration should be conducted. Suggestions for such research are:

1. Additional studies like the present one and others focused on:
 - other groups internal and external to the university, e.g., faculty, legislators, state and federal educational councils, and members of private organizations (CRUB, ANPAE).
 - other universities, public and private, situated in different geo-political locations of the country (to further validate conclusions drawn from this study and to establish a more extensive data base).
2. Surveys concerning the upgrading of university administrators in order to define minimum requirements for nomination, e.g., special training, experience in university administration, and degrees earned.
3. Inquiries into the lack of financial incentives for administrative positions and the impact of academic duties upon the

performance of administrators. These factors may negatively influence the institutionalization of university administration as a professional career. Thus, studies should be undertaken to discover ways to improve the current situation.

4. Studies to determine and evaluate consequences of university administrators being appointed by the government vs. elected by their peers. Similarly, consequences of "permanent" and "rotating" leadership of the university, schools, and departments should be studied.

5. A long-range project designed to train university administrators should be implemented. Accordingly, one should closely study some similar attempts already made in related areas. The experience of the Brazilian Finance Ministry could provide a model. (It consisted of a master's degree program in financial administration for a select group. Ministry personnel are chosen annually from the entire nation and sent to the national center in Brasilia.) This project should be studied to draw comparisons and to analyze the feasibility of a similar course designed for university administration. If regional characteristics of the country make it difficult to establish a common model, experimental projects in higher education could be designed to meet different regional needs.

6. At UFMG, programs for preparation of administrators might appropriately include topics selected from the following:

- Academic Administration
- Project and Program Evaluation
- Public Administration
- Budget Planning

- Personnel Evaluation
- Foundation of Education
- Internship and Field Experience

The following recommendations, although not specifically based on this study's findings, are presented because they relate directly to the problem of preparing Brazilian university administrators.

1. Although large numbers of persons are not involved, the training of Brazilian university administrators in foreign countries gives rise to a series of interrelated problems. In addition to prohibitive costs, cultural adjustments, and language problems encountered by participants, their absence from Brazil insulates students from pressing national problems. Educational objectives and processes studied abroad are largely inapplicable in Brazil. Therefore, the preparation of university administrators in Brazil might prove to be more authentic because training would be directed toward conditions reflecting the Brazilian reality.

2. A survey should be conducted to facilitate the use of former administrators as resource persons, capitalizing on their talents and experience in training new administrators.

3. For any preparation program that might be established, a systematic follow-up procedure should be adopted wherein recent trainees would provide regular feedback and evaluation concerning the training received. "Alumni" of training programs, chefes de departamento, coordenadores de curso, pro-reitores, and others would periodically be consulted for suggestions and proposals to improve and revise programs.

APPENDICES

APPENDIX A

QUESTIONNAIRE

"SURVEY" REFERENTE À PERCEPÇÃO QUE ADMINISTRADORES UNIVERSITÁRIOS TÊM SOBRE A PREPARAÇÃO E QUALIFICAÇÕES GERAIS PARA O CARGO DE ADMINISTRADOR UNIVERSITÁRIO. - UM ESTUDO DE CASO DA U.F.M.G.

CONTROLE	
CARGO	_____
UNIDADE	_____
CÓDIGO	_____

Objetivos

Este estudo objetiva investigar a percepção que administradores universitários (Reitor, Vice-Reitor, Pró-Reitores, Diretores de Escolas, Faculdades e Institutos e Chefes de Departamentos Acadêmicos) têm sobre a formação e qualificação necessárias para o desempenho de cargos na administração da universidade. Objetiva também caracterizar o administrador universitário em termos de sua qualificação, tarefas, dados demográficos e percepção de problemas gerais na administração da universidade brasileira.

Instruções

Todas as questões apresentam espaço para resposta (preenchimento de espaço próprio ou indicação do grau de importância). Solicita-se que seja usado o verso de cada folha para complementação das respostas, caso se mostre necessário. O tratamento destes dados obedecerá estrita confidencialidade sendo que a identificação do local de resposta se faz necessária em função do controle de recebimento dos questionários.

POR FAVOR RESPONDA A ESTE QUESTIONÁRIO E REMETA-O PARA O

"CONSELHO DE PÓS-GRADUAÇÃO DA UFMG" - REITORIA - 2º

1. Qual é o seu cargo, sexo, idade, nível e regime de trabalho?
(Marque com x)

CARGO	SEXO/IDADE	NÍVEL	REGIME/TRAB.
Chefe Departº _____		Titular _____	Ded.Exc. _____
Coordenador Curso _____	Masc. _____	Adjunto _____	40 horas _____
Diretor Escola _____	Fem. _____	Assistente _____	20 horas _____
Pró-Reitor _____	Idade _____	Aux.Ensino _____	Outro _____
Vice-Reitor _____			
Reitor _____			

2. Quando, onde e em que área (diploma) você obteve seus títulos acadêmicos? (Marque com x)

NÍVEL	ANO	UNIVERSIDADE	DIPLOMADO EM
Graduação			
Especialização			
Mestrado			
Doutorado			
Outro			

3. Quantos anos de experiência você tem nas seguintes áreas?
(Preencha espaços apropriados)

Experiência em Educação	Adm.	Mag.	Experiência em outras áreas	Adm.
- Primária			Comércio e Indústria	
- Secundária			Governo	
- Esc.Sup.Isolada			Militar	
- Universidade			Outra	
- Outra				

4. Quantas vezes e por quanto tempo você foi encarregado dos seguintes cargos? Inclua breve descrição de treinamento recebido antes de assumir cada cargo. (Preencha espaços apropriados)

CARGOS	Nº de vezes	Nº de anos	TREINAMENTO RECº PARA CADA CARGO
Chefe Departº			
Coordenador Curso			
Diretor Escola			
Membro Conselho			
Pró-Reitor			
Vice-Reitor			
Reitor			

5. Estime o número de horas aplicadas por semana em cada uma das seguintes atividades (Preencha espaços apropriados)

Atividades no cargo	Horas semanais
Administração	_____
Magistério	_____
Pesquisa e Publicação	_____
Extensão	_____
Outra	_____

6. De sua carga horária semanal total dedicada à administração, estime o percentual médio de tempo dedicado às seguintes categorias:

Categoria de trabalho	% de Hs. semanais
Assuntos refs.Profs.	_____
Assuntos financeiros	_____
Assuntos refs.Ensino	_____
Assuntos refs.Alunos	_____
Prédios e Instalações	_____
Outra	_____

7. Na sua opinião qual é a importância da titulação acadêmica e experiência profissional dos candidatos no atual processo de nomeação de administradores universitários?

Marque com um "x" o algarismo que na sua opinião corresponda ao grau de importância		IMPORTÂNCIA					
		MÍNIMA			MÁXIMA	NÃO SEI	
TITULAÇÃO	1) Diploma de Doutor (qualquer área)	1	2	3	4	5	0
	2) Diploma de Mestre (qualquer área)	1	2	3	4	5	0
	3) Diploma de pós-graduação em administração	1	2	3	4	5	0
	4) Nenhum diploma de pós-graduação necessariamente	1	2	3	4	5	0
	5) Diploma de graduação (qualquer área)	1	2	3	4	5	0
EXPERIÊNCIA	6) Experiência de Magistério Superior	1	2	3	4	5	0
	7) Experiência em Administração do Ensino Superior	1	2	3	4	5	0
	8) Outra	1	2	3	4	5	0

8. Na sua opinião qual a importância que a titulação acadêmica e experiência profissional dos candidatos deveria ter em futuros processos de nomeação de administradores universitários?

Marque com um "x" o algarismo que na sua opinião corresponda ao grau de importância		IMPORTÂNCIA					
		MÍNIMA			MÁXIMA	NÃO SEI	
TITULAÇÃO	1) Diploma de Doutor (qualquer área)	1	2	3	4	5	0
	2) Diploma de Mestre (qualquer área)	1	2	3	4	5	0
	3) Diploma de graduação em área específica e diploma de pós-graduação em administração	1	2	3	4	5	0
	4) Nenhum diploma de pós-graduação necessariamente	1	2	3	4	5	0
EXPERIÊNCIA	5) Experiência de Magistério Superior	1	2	3	4	5	0
	6) Experiência em Administração do Ensino Superior	1	2	3	4	5	0
	7) Outra	1	2	3	4	5	0

9. Por favor, indique quais são as qualidades e capacidades mais importantes para a eficiente administração de universidades. Desde o "menos importante" (1) até o "mais importante" (5).

QUALIFICAÇÕES PESSOAIS DE ADMINISTRADORES	IMPORTÂNCIA					
Imparcialidade e objetividade	1	2	3	4	5	0
Ampla experiência e interesses	1	2	3	4	5	0
Habilidade para tratar problemas em outras áreas de esp.	1	2	3	4	5	0
Capacidade para planejamento e previsão para o futuro	1	2	3	4	5	0
Habilidade na solução de problemas	1	2	3	4	5	0
Habilidade em comunicação e relações humanas	1	2	3	4	5	0
Amplo relacionamento político	1	2	3	4	5	0
Habilidade para supervisão de pessoal	1	2	3	4	5	0
Habilidade de liderança	1	2	3	4	5	0
Capacidade em planejamento e execução orçamentária	1	2	3	4	5	0
Outra	1	2	3	4	5	0

10. Se você pensa que preparação especial deveria ser oferecida para administradores universitários, indique como tal preparação deveria ser oferecida.

PROGRAMA FORMAL		PROGRAMA INFORMAL
_____ Pós-Doutorado	e/ou	_____ Treinamento em Serviço
_____ Doutorado		_____ Cursos de Curta Duração
_____ Mestrado		_____ Seminários
_____ Especialização		_____ Estágios
_____ Outro _____		_____ Outro _____

11. A) COLUNA 1 - Na sua opinião quais seriam as áreas (se alguma) que administradores de universidade deveriam cursar em programas formais ou informais? (Responda de acordo c/ sua resposta à pergunta 10)
- B) COLUNA 2 - Se programas de estudo de caráter formal ou informal fossem oferecidos nas áreas abaixo discriminadas, em quais programas e áreas você teria interesse em participar?

ÁREAS	COLUNA 1		COLUNA 2	
	FORMAL	INFORM	FORMAL	INFORM
Teoria da Administração	_____	_____	_____	_____
Administração Pública	_____	_____	_____	_____
Administração Acadêmica	_____	_____	_____	_____
Comportamento Organizacional	_____	_____	_____	_____
Planejamento e Execução Orçamentos	_____	_____	_____	_____
Finanças da Educação Superior	_____	_____	_____	_____
Fundamentos da Educação	_____	_____	_____	_____
Sociologia da Educação	_____	_____	_____	_____
Avaliação de Pessoal	_____	_____	_____	_____
Avaliação de Projetos e Programas	_____	_____	_____	_____
Introdução aos Métodos da Pesquisa	_____	_____	_____	_____
Pesquisa e Estatística Avançada	_____	_____	_____	_____
Processamento de Dados- Computação	_____	_____	_____	_____
Serviços Gerais ao Estudante	_____	_____	_____	_____
História do Ensino Superior no Brasil	_____	_____	_____	_____
Estágio e experiência em campo	_____	_____	_____	_____
Outra _____	_____	_____	_____	_____
Outra _____	_____	_____	_____	_____

12. Se você pensa que existiriam algumas qualificações e habilidades específicas segundo diferentes cargos dentro da universidade, por favor descreva aquelas mais importantes para cada cargo.

CARGO		EXPERIÊNCIAS E QUALIFICAÇÕES
REITOR		
VICE-REITOR		
DIRETOR ESCOLA		
CHEFE DE DEPARTAMENTO		
COORDENADOR DE CURSO		
PRÓ - REITOR DE	GRADUAÇÃO	
	PÓS-GRADUAÇÃO	
	PESQUISA	
	EXTENSÃO	
	ADMINISTRAÇÃO	
	PLANEJAMENTO	

13. Na sua opinião, quais são os quatro problemas administrativos mais importantes que a universidade brasileira enfrenta. Responda em ordem de importância, do "mais importante" (1) ao "menos importante" (4).

1. _____
2. _____
3. _____
4. _____

14. Se você aceita que o presente sistema de nomeação de adminis
tradores universitários (recrutamento interno, eleição de
listas, período fixo de mandato, etc) não seja o ideal, qual
seriam suas sugestões para melhorá-lo ou alterá-lo? _____

15. Você possui alguma outra sugestão para melhorar a preparação
de administradores universitários não referida neste questio
nário? _____

APPENDIX B

COVER LETTER

.



MINISTÉRIO DA EDUCAÇÃO E CULTURA
UNIVERSIDADE FEDERAL DE MINAS GERAIS
CONSELHO DE PÓS-GRADUAÇÃO
30.000 - BELO HORIZONTE — MG

OF/CIRC/CPG/UFGM/001/81

Em 06 de m a r ç o de 1981

Do Prô-Reitor

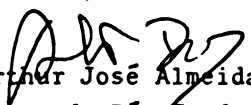
Ao Reitor, Vice-Reitor, Prô-Reitores
Diretores de Unidades, Chefes de Departamentos
Coordenadores de Cursos de Pós-Graduação

Ao encaminhar a V.Sa. o presente questi
nário, solicito sua especial atenção e valiosa contribuição pes
soal para o respectivo preenchimento.

Trata-se de um levantamento preliminar ,
com vistas a uma tentativa deste Conselho em favor da definição
de linhas mestras para os cursos de pós-graduação da UFGM e das
demais universidades brasileiras. E, por constituir este questi
onário etapa inicial de nosso projeto, pediria que a sua devolu
ção se fizesse dentro do prazo máximo de duas semanas.

Aproveito para antecipar-lhe o meu agra
decimento, na certeza de que sua colaboração é parte essencial
deste trabalho.

Cordialmente,


Prof. Arthur José Almeida Diniz
Prô-Reitor de Pós-Graduação da UFGM

nmc/

APPENDIX C

CODE GROUPINGS

Coding for Post-partum Class Data
(All missing values = blank)

VARIABLE	LABEL	VALUES	COLUMN
ID	Identification	xxx	1-3
V 1	Level of Administration	1 2	4
V 2	Position	1=Chefe de departamento 2=Coordenador de curso de pósgraduação 3=Diretor 4=Vice-reitor 5=Pro-reitor 6=Reitor	5
V 3	Area of Pro-reitor	1=Research 2=Extension 3=Grad. Study 4=Undergrad. Study 5=Administration 6=Planning & Dev.	6
V 4	School (Fine Arts) (Biomedical & Health Sci.) (Phys. Sci. & Engineer.) (Social Sci. & Human.)	1=Belas Artes 2=Musica 3=I. Ciencias Biologicas 4=E. Educacao Fisica 5=E. Enfermagem 6=E. Veterinaria 7=F. Farmacia 8=F. Medicina 9=F. Odontologia 10=I. Ciencias Exatas 11=I. Geo-Ciencias 12=E. Arquitetura 13=E. Engenharia 14=F. Filosofia C. Humanas 15=E. Biblioteconomia 16=F. Ciencias Economicas 17=F. Direito 18=F. Educacao 19=F. Letras	7-8
V 5	Departments	1=Artes Plasticas 2=Desenho 3=Cinema 4=Canto e Instrumento 5=Teoria Geral Musica	9-10

VARIABLE	LABEL	VALUES	COLUMN
		6=Biologia Geral	
		7=Imunologia	
		8=Botanica	
		9=Bioquimica	
		10=Farmacologia	
		11=Fisiologia	
		12=Microbiologia	
		13=Morfologia	
		14=Parasitologia	
		15=Patologia Geral	
		16=Zoologia	
		17=Educacao Fisica	
		18=Esportes	
		19=Enfermagem Aplicada	
		20=Enfermagem Basica	
		21=Cli. Cirurgia Vet.	
		22=Veterinaria Preventiva	
		23=Tec. Inspecao Prod. Orig. Ani.	
		24=Zootecnia	
		25=Biologia Aplicada	
		26=Quimica Aplicada	
		27=Tecnologia Farmaceutica	
		28=Medicina Legal	
		29=Aparelho Locomotor	
		30=Clinica Medica	
		31=Cirurgia	
		32=Ginecologia	
		33=Medicina Social	
		34=Oftalmologia	
		35=Pediatria	
		36=Psiquiatria	
		37=Cirurgia Odontologica	
		38=Reabilitacao Oral	
		39=Odontologia Social	
		40=Odontopediatria	
		41=Computacao	
		42=Estatistica	
		43=Fisica	
		44=Matematica	
		45=Quimica	
		46=Cartografia	
		47=Geografia	
		48=Geologia	
		49=Hist. de Arquitetura	
		50=Planejamento Arquitetonico	
		51=Representacao Grafica	
		52=Urbanismo	
		53=Construcao Maquinas	
		54=Eng. Estruturas	
		55=Eng. Construcao Civil	

VARIABLE	LABEL	VALUES	COLUMN
		56=Eng. Minas 57=Eng. Estradas 58=Eng. Eletrica 59=Eng. Eletronica 60=Eng. Hidraulica 61=Eng. Industrial 62=Eng. Metalurgica 63=Eng. Quimica 64=Eng. Sanitaria 65=Eng. Termica 66=Ciencia Politica 67=Comunicacao Social 68=Filosofia 69=Historia 70=Psicologia 71=Sociologia 72=Documentacao 73=Biblioteca 74=Administracao 75=Contabilidade 76=Economia 77=Introducao Direito 78=D. Comercial e Civil 79=D. Penal e Internacional 80=D. Publico 81=Administracao Escolar 82=Ciencia Aplicadas Ed. 83=Met. e Tec. Ensino 84=Linguas Classicas 85=Linguas Germanicas 86=Linguas Romanicas 87=Linguas Vernaculas	
V 6	Grad. Degrees	1=Bioquimica 2=Fisiologia 3=Microbiologia 4=Morfologia 5=Parasitologia 6=Medicina Veterinaria 7=Ciencia Alimentos 8=Cirurgia Abdominal 9=Dermatologia 10=Ginecologia 11=Medicina Tropical 12=Oftalmologia 13=Patologia 14=Odontologia 15=Administracao Bibliotecas 16=Administracao 17=Economia	11-12

VARIABLE	LABEL	VALUES	COLUMN
		18=Direito 19=Educacao 20=Ciencia Politica 21=Filosofia 22=Lingua-Letras 23=Computacao 24=Fisica 25=Matematica 26=Quimica 27=Ciencia Nuclear 28=Eng. Eletrica 29=Eng. Sanitaria 30=Engenharia Termica 31=Eng. Metalurgica	
V 7A	Grad. Degree Courses (by level)		
	MASTER	1=Yes 2=No	13
V 7B	DOCTORAL	1=Yes 2=No	14
V 8	Sex	1=Male 2=Female	15
V 9	Age	xxx	16-17
V 10	Rank	1=Titular 2=Adjunto 3=Assistente 4=Aux. Ensino	18
V 11	Contract Status	1=Dedicacao Exclusiva 2=40 horas 3=20 horas 4=Outra	19
V 12	Year Undergraduate	xxx	20-21
V 13	Institution-Undergrad.	1=Same 2=Other Brazil 3=USA 4=Other	22
V 14	Major Undergraduate	1=Artes 2=Biomedicas 3=Exatas 4=Sociais	23

VARIABLE	LABEL	VALUES	COLUMN
V 15	Year Specialization	xxx	24-25
V 16	Institution - Specialization	(Iden 13) 1,2,3,4	26
V 17	Major Specialization	(Iden 14) 1,2,3,4	27
V 18	Year Master	xxx	28-29
V 19	Institution - Master	(Iden 13) 1,2,3,4	30
V 20	Major Master	(Iden 14) 1,2,3,4	31
V 21	Year - Doctorate	xxx	33
V 22	Institution - Doctorate	(Iden 13) 1,2,3,4	34
V 23	Major - Doctorate	(Iden 14) 1,2,3,4	35
V 24	Year - Other	xxx	36-37
V 25	Institution - Other	(Iden 13) 1,2,3,4	38
V 26	Major - Other	(Iden 14) 1,2,3,4	39
V 27	Primary Educ. - Administration	xxx	40-41
V 28	Primary Educ. - Teaching	xxx	42-43
V 29	Secondary Ed. - Administration	xxx	44-45
V 30	Secondary Ed. - Teaching	xxx	46-47
V 31	College Ed. - Administration	xxx	48-49
V 32	College Ed. - Teaching	xxx	50-51
V 33	University Ed. - Admin.	xxx	52-53
V 34	University Ed. - Teaching	xxx	54-55
V 35	Other level - Administration	xxx	56-57
V 36	Other level - Teaching	xxx	58-59
V 37	Business - Administration	xxx	60-61
V 38	Business - Nonadministration	xxx	62-63
V 39	Government - Administration	xxx	64-65

VARIABLE	LABEL	VALUES	COLUMN
V 40	Government - Nonadministration	xxx	66-67
V 41	Military - Administration	xxx	68-69
V 42	Military - Nonadministration	xxx	70-71
V 43	Other - Administration	xxx	72-73
V 44	Other - Nonadministration	xxx	74-75
Card ID	x		80
IDENT.		xxx	1-3
V 45	Chefe de departamento - Times	xxx	4
V 46	Chefe de departamento - Years	xxx	5-6
V 47	Chefe de departamento - Exp.	1=Yes 2=No	7
V 48	Coordenador de curso de posgraduação - Times	xxx	8
V 49	Coordenador de curso de posgraduação - Years	xxx	9-10
V 50	Coordenador de curso de posgraduação - Experience	1=Yes 2=No	11
V 51	Diretor - Times	xxx	12
V 52	Diretor - Years	xxx	13-14
V 53	Diretor - Experience	1=Yes 2=No	15
V 54	Membro de conselho - Times	xxx	16
V 55	Membro de conselho - Years	xxx	17-18
V 56	Membro de conselho - Exper.	1=Yes 2=No	19
V 57	Vice-reitor - Times	xxx	20
V 58	Vice-reitor - Years	xxx	21-22
V 59	Vice-reitor - Experience	1=Yes 2=No	23

VARIABLE	LABEL	VALUES	COLUMN
V 60	Pro-reitor - Times	xxx	24
V 61	Pro-reitor - Years	xxx	25-26
V 62	Pro-reitor - Experience	1=Yes 2=No	27
V 63	Reitor - Times	xxx	28
V 64	Reitor - Years	xxx	29-30
V 65	Reitor - Experience	1=Yes 2=No	31
V 66	Hours/week - Administration	xxx	32-33
V 67	Hours/week - Teaching	xxx	34-35
V 68	Hours/week - Research	xxx	36-37
V 69	Hours/week - Extension	xxx	38-39
V 70	Hours/week - Other	xxx	40-41
V 71	Adm. time - % for faculty	xxx	42-43
V 72	Adm. time - % for finance	xxx	44-45
V 73	Adm. time - % for teaching	xxx	46-47
V 74	Adm. time - % for students	xxx	48-49
V 75	Adm. time - % for buildings	xxx	50-51
V 76	Adm. time - % for other	xxx	52-53
V 77	Actual Degree - Doctor	1,2,3,4,5,0	54
V 78	Actual Degree - Master	1,2,3,4,5,0	55
V 79	Actual Degree - Grad. Adm.	1,2,3,4,5,0	56
V 80	Actual Degree - No degree	1,2,3,4,5,0	57
V 81	Actual Degree - Any undergrad.	1,2,3,4,5,0	58
V 82	Actual Experience - Teaching	1,2,3,4,5,0	59
V 83	Actual Experience - Admin.	1,2,3,4,5,0	60

VARIABLE	LABEL	VALUES	COLUMN
V 84	Actual - Other	1,2,3,4,5,0	61
V 85	Ideal Degree - Doctor	1,2,3,4,5,0	62
V 86	Ideal Degree - Master	1,2,3,4,5,0	63
V 87	Ideal Degree - Grad. Adm.	1,2,3,4,5,0	64
V 88	Ideal Degree - No degree	1,2,3,4,5,0	65
V 89	Ideal Experience - Teaching	1,2,3,4,5,0	66
V 90	Ideal Experience - Administering	1,2,3,4,5,0	67
V 91	Impartiality/objectivity	1,2,3,4,5,0	68
V 92	Experience	1,2,3,4,5,0	69
V 93	Ability in other area	1,2,3,4,5,0	70
V 94	Planning	1,2,3,4,5,0	71
V 95	Solve problems	1,2,3,4,5,0	72
V 96	Communication and human rel.	1,2,3,4,5,0	73
V 97	Political relation	1,2,3,4,5,0	74
V 98	Personnel supervision	1,2,3,4,5,0	75
V 99	Leadership	1,2,3,4,5,0	76
V 100	Budget planning	1,2,3,4,5,0	77
V 101	Other ability	1,2,3,4,5,0	78
CARD ID	x		80
IDENT.		xxx	1-3
V 102	Post-doctoral	1=Yes 2=No	4
V 103	Doctoral	1=Yes 2=No	5
V 104	Master	1=Yes 2=No	6

VARIABLE	LABEL		VALUES	COLUMN
V 105	Specialization		1=Yes 2=No	7
V 106	Other		1=Yes 2=No	8
V 107	Training on Job		1=Yes 2=No	9
V 108	Short-Term Courses		1=Yes 2=No	10
V 109	Intensive Workshop		1=Yes 2=No	11
V 110	Internship		1=Yes 2=No	12
V 111	Other		1=Yes 2=No	13
V 112	Teoria de Admin.	Col. 1 Formal	1=Yes 2=No	14
V 113	Teoria de Admin.	Col. 1 Informal	1=Yes 2=No	15
V 114	Teoria de Admin.	Col. 2 Formal	1=Yes 2=No	16
V 115	Teoria de Admin.	Col. 2 Informal	1=Yes 2=No	17
V 116	Adm. Publica	Col. 1 Formal	1=Yes 2=No	18
V 117	Adm. Publica	Col. 1 Informal	1=Yes 2=No	19
V 118	Adm. Publica	Col. 2 Formal	1=Yes 2=No	20
V 119	Adm. Publica	Col. 2 Informal	1=Yes 2=No	21
V 120	Adm. Academica	Col. 1 Formal	1=Yes 2=No	22
V 121	Adm. Academica	Col. 1 Informal	1=Yes 2=No	23

VARIABLE	LABEL		VALUES	COLUMN
V 122	Adm. Academica	Col. 2 Formal	1=Yes 2=No	24
V 123	Adm. Academica	Col. 2 Informal	1=Yes 2=No	25
V 124	Comport. Org.	Col. 1 Formal	1=Yes 2=No	26
V 125	Comport. Org.	Col. 1 Informal	1=Yes 2=No	27
V 126	Comport. Org.	Col. 2 Formal	1=Yes 2=No	28
V 127	Comport. Org.	Col. 2 Informal	1=Yes 2=No	29
V 128	Planej. Orcam.	Col. 1 Formal	1=Yes 2=No	30
V 129	Planej. Orcam.	Col. 1 Informal	1=Yes 2=No	31
V 130	Planej. Orcam.	Col. 2 Formal	1=Yes 2=No	32
V 131	Planej. Orcam.	Col. 2 Informal	1=Yes 2=No	33
V 132	Fin. Ed. Sup.	Col. 1 Formal	1=Yes 2=No	34
V 133	Fin. Ed. Sup.	Col. 1 Informal	1=Yes 2=No	35
V 134	Fin. Ed. Sup.	Col. 2 Formal	1=Yes 2=No	36
V 135	Fin. Ed. Sup.	Col. 2 Informal	1=Yes 2=No	37
V 136	Fund. Ed.	Col. 1 Formal	1=Yes 2=No	38
V 137	Fund. Ed.	Col. 1 Informal	1=Yes 2=No	39
V 138	Fund. Ed.	Col. 2 Formal	1=Yes 2=No	40

VARIABLE	LABEL		VALUES	COLUMN
V 139	Fund. Ed.	Col. 2 Informal	1=Yes 2=No	41
V 140	Sociol. Ed.	Col. 1 Formal	1=Yes 2=No	42
V 141	Sociol. Ed.	Col. 1 Informal	1=Yes 2=No	43
V 142	Sociol. Ed.	Col. 2 Formal	1=Yes 2=No	44
V 143	Sociol. Ed.	Col. 2 Informal	1=Yes 2=No	45
V 144	Avaliacao Pess.	Col. 1 Formal	1=Yes 2=No	46
V 145	Avaliacao Pess.	Col. 1 Informal	1=Yes 2=No	47
V 146	Avaliacao Pess.	Col. 2 Formal	1=Yes 2=No	48
V 147	Avaliacao Pess.	Col. 2 Informal	1=Yes 2=No	49
V 148	Aval. Proj. Prog.	Col. 1 Formal	1=Yes 2=No	50
V 149	Aval. Proj. Prog.	Col. 1 Informal	1=Yes 2=No	51
V 150	Aval. Proj. Prog.	Col. 2 Formal	1=Yes 2=No	52
V 151	Aval. Proj. Prog.	Col. 2 Informal	1=Yes 2=No	53
V 152	Introd. Met. Pesq.	Col. 1 Formal	1=Yes 2=No	54
V 153	Introd. Met. Pesq.	Col. 1 Informal	1=Yes 2=No	55
V 154	Introd. Met. Pesq.	Col. 2 Formal	1=Yes 2=No	56
V 155	Introd. Met. Pesq.	Col. 2 Informal	1=Yes 2=No	57

VARIABLE	LABEL		VALUES	COLUMN
V 156	Pesq. Est. Avan.	Col. 1 Formal	1=Yes 2=No	58
V 157	Pesq. Est. Avan.	Col. 1 Informal	1=Yes 2=No	59
V 158	Pesq. Est. Avan.	Col. 2 Formal	1=Yes 2=No	60
V 159	Pesq. Est. Avan.	Col. 2 Informal	1=Yes 2=No	61
V 160	Proc. Dados	Col. 1 Formal	1=Yes 2=No	62
V 161	Proc. Dados	Col. 1 Informal	1=Yes 2=No	63
V 162	Proc. Dados	Col. 2 Formal	1=Yes 2=No	64
V 163	Proc. Dados	Col. 2 Informal	1=Yes 2=No	65
V 164	Serv. Estud.	Col. 1 Formal	1=Yes 2=No	66
V 165	Serv. Estud.	Col. 1 Informal	1=Yes 2=No	67
V 166	Serv. Estud.	Col. 2 Formal	1=Yes 2=No	68
V 167	Serv. Estud.	Col. 2 Informal	1=Yes 2=No	69
V 168	Historia Educaão Superior no Brasil	Col. 1 Formal	1=Yes 2=No	70
V 169	Historia Educaão Superior no Brasil	Col. 1 Informal	1=Yes 2=No	71
V 170	Historia Educaão Superior no Brasil	Col. 2 Formal	1=Yes 2=No	72
V 171	Historia Educaão Superior no Brasil	Col. 2 Informal	1=Yes 2=No	73

VARIABLE	LABEL		VALUES	COLUMN
V 172	Estagio	Column 1 Formal	1=Yes 2=No	74
V 173	Estagio	Column 1 Informal	1=Yes 2=No	75
V 174	Estagio	Column 2 Formal	1=Yes 2=No	76
V 175	Estagio	Column 2 Informal	1=Yes 2=No	77
CARD ID		x		80

APPENDIX D

TEACHING AND ADMINISTRATIVE EXPERIENCE

Teaching and Administrative Experience

Respondents reported the number of years of teaching and administrative experience at different levels of the educational system (primary, secondary, college, and university levels) and in other areas such as business, government, and the military. A summary is presented below.

As shown in Table D1, very few respondents had teaching experience in educational levels other than the university; 7 had teaching experience in primary education (average 2.0 years), 30 in secondary education (average 7.7 years), 15 in college education (average 7.7 years), and 2 in other educational settings (average 5.0 years). In contrast, at the university level, 97 administrators had experience in teaching, with an average of 15.5 years.

As for administrative experience inside and outside educational institutions, results were similar to teaching experience. No respondents had administrative experience in primary education, only three had experience at the secondary level (average of 17.3 years), six at the college level (average 6.5 years), and one in another educational setting, with one year of experience. Thirteen had an average of 5.9 years of experience in business, 7 in government, 4 in the military, and 11 in other areas. In contrast, administrative experience at the university level was reported by 88 respondents with an average of 5.5 years.

Table D1.--Average number of years of teaching and administrative experience in different areas.

	No. of Respondents	Teaching Experience	Administrative Experience												
			Educational Institutions						Other Institutions						
			Primary Education	Secondary Education	College Education	University Education	Other	Business	Government	Military	Other				
Mean		2.0	7.7	7.7	15.5	5.0	--	17.3	6.5	5.9	1.0	7.7	6.2	13.0	10.5
(N)	(98)	(7)	(30)	(15)	(97)	(2)	(0)	(3)	(6)	(88)	(1)	(13)	(7)	(4)	(11)

BIBLIOGRAPHY

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- Abu-Merhy, Nair Fortes. "Emerging National Policies for Higher Education in Brazil." In The Yearbook of Education--1971/72. Edited by Brian Holmes. New York: Harcourt, Brace, Jovanovich, 1973.
- Albuquerque, Lynaldo Cavalcanti. "A Inserção da Universidade na Realidade Brasileira." Edições do Cinquentenario da Universidade Federal de Minas Gerais. Minas Gerais: UFMG, 1978. Cited by Montandon, Renato. "A Comparative Study of the Relative Efficiencies of IES-Autarchies and IES-Foundations in Brazilian Higher Education." Ph.D. dissertation, Michigan State University, 1981.
- Andrews, John H. M., Faculty of Education, University of British Columbia. Personal letter, October 29, 1981.
- Armstrong, George Ernest. "A Study of Doctoral Training Programs for College and University Administrators, Including a Critical Evaluation of the Ph.D. Degree Program in Higher Education Administration at the University of Utah." Ph.D. dissertation, University of Utah, 1974.
- Ayers, Archie R., and Russell, John H. Organization and Administration of Institutions of Higher Education--Internal Structure. U.S. Department of Health, Education, and Welfare Bulletin No. 9. Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1962.
- Azevedo, Fernando de. Brazilian Culture. Translated by William Rex Crawford. New York: Macmillan, 1950.
- Barzun, Jacques. The American University--How It Runs, Where It Is Going. New York: Harper & Row, Publishers, 1968.
- Benjamin, Harold R. W. Higher Education in the American Republics. New York: McGraw-Hill Book Co., 1965.
- Bjarnason, Carl. "The Preparation of Educational Administrators in Manitoba." Ph.D. dissertation, Michigan State University, 1971.
- Bolman, Frederick de W. "Can We Prepare Better College and University Administrators?" The Educational Record 45 (Summer 1974): 272-84.
- Braga, Ronald. "O Ensino Superior no Brasil: Presente e Futuro." Brasilia: Ministerio da Educação e Cultura, 1978. (Mimeographed.)

- Brazil. Anuario Estatico do Brasil 1980. Rio de Janeiro: Fundação Instituto Brasileiro de Geografia e Estatística, 1981.
- Brooks, Glenn E. "Administrative Modernization in British Universities." University Quarterly 27 (Summer 1973).
- Brubacher, John S., and Rudy, Willis. Higher Education in Transition. 3rd ed. New York: Harper & Row, Publishers, 1976.
- Bullen, Robert Abbot, Jr. "A Study of Selected Deans, Departmental Chairmen and Faculty on the Role of the Departmental Chairman at the University of Alabama." Ph.D. dissertation, University of Alabama, 1969.
- Burnett, Collins W. "Higher Education as a Field of Study." Paper presented at the meeting of the Association of Professors of Higher Education, Chicago, Illinois, March 5, 1972.
- Castro, Claudio de Moura. "Growth, Misunderstanding, and Crisis in Latin American Universities." In Education and Work. Edited by Daniel Heydul. Symposium of the Institute of International Education, Council on Higher Education in the American Republics, 1978.
- Chagas, Walnir. "A Luta Pela Universidade no Brasil." Revista Brasileira de Estudos Pedagogicos (1967): 46-48.
- Cloe, Lee Ernest. "Administrative Competencies Needed in Academic Administrative Positions in Institutions of Higher Education in the State of Indiana." Ph.D. dissertation, Indiana University, 1973.
- Cowley, W. H. Presidents, Professors and Trustees. San Francisco: Jossey-Bass, Publishers, 1980.
- Cox, Lenier. "The ACE Academic Administration Internship Program." The Educational Record 47 (Spring 1966): 163-72.
- Davidson, Carter. "Is College Administration a Profession?" Association of American College Bulletin 35 (1949): 105-11.
- Day, Edmund E. "Role of Administration in Higher Education." Journal of Higher Education 17 (1946): 339-43.
- Dias, Stelio. "A Study of Atconian University Principles and Their Influence on Higher Education Reform in Brazilian Universities." Ph.D. dissertation, University of Houston, 1973.
- Dressel, Paul L. Higher Education as a Field of Study. San Francisco: Jossey-Bass, Publishers, 1974.

- Duryea, E. D. "Evolution of University Organizations." In The University as an Organization. Edited by James A. Perkins. New York: McGraw-Hill, 1973.
- Englund, Thomas Howard. "The Selection, Orientation and In-Service Education of Department Chairmen in Selected Schools and Colleges of Education." Ph.D. dissertation, Michigan State University, 1967.
- Ewing, John C. "The Development and Current Status of Higher Education as a Field of Study and Research in American Universities." Ph.D. dissertation, The Florida State University, 1963.
- _____, and Sticker, W. Hugh. "Progress in the Development of Higher Education as a Field of Professional Study and Research." Journal of Teacher Education 15 (December 1964): 397-403.
- Ferguson, Milford S. "Human Resources Development in Educational Administration in Brazil." Ph.D. dissertation, Ohio University, 1978.
- Figueroa, Carlos Pallan. "Politica y Administracion Publica, Politica y Administracion de la Educacion." Paper presented to the First Inter-American Congress on Educational Administration. Brasilia: December 14, 1979. (Mimeographed.)
- Finger, Almeri Paulo. A Administração Universitaria no Brasil-- Cadernos do Curso de Pos Graduação. Florianopolis: UFSC, 1979.
- _____. "The Role and Functions of Brazilian University Presidents." Ph.D. dissertation, George Peabody College for Teachers, 1978.
- Flexner, Abraham. "Is Social Work a Profession?" Address before the National Conference of Charities and Corrections, Baltimore, Maryland, May 17, 1915. Cited by Philips, Ellis L., Jr. New Approach to Academic Administration. New York: Teachers College, Columbia University, 1969.
- Gould, Samuel E. Today's Academic Conditions. New York: McGraw-Hill, 1970. Cited by Beltran, Lydia A. "Institutional Goals as Perceived and Preferred by Selected Constituent Groups in Five State-Supported Universities in Michigan." Ph.D. dissertation, Michigan State University, 1974.
- Gross, Edward, and Grambsch, Paul V. Changes in University Organization 1964-1971. Report prepared for the Carnegie Commission on Higher Education. New York: McGraw-Hill Book Co., 1974.
- Hastings, Rashdall. The Universities of Europe in the Middle Ages. London: Oxford at Clarendon Press, 1895.

- Haussman, Fay, and Harr, Jerry. Education in Brazil. Hartford, Conn.: Anchor Books, 1978.
- Havighurst, Robert J., and Moreira, J. Roberto. Society and Education in Brazil. Pittsburgh: University of Pittsburgh Press, 1965.
- Henderson, Algo D. "Higher Education as a Field of Study in the University." In On Higher Education, pp. 125-41. Toronto: University of Toronto Press, 1966.
- _____, with Adwere-Boahmah, Joseph, and Kunst, Katharine. Training University Administrators: A Programme Guide. Paris: UNESCO, 1970.
- Kerr, Clark. The Uses of the University. Cambridge, Mass.: Harvard University Press, 1964.
- Knowles, Asa S., ed. The International Encyclopedia of Higher Education. San Francisco: Jossey-Bass, Publishers, 1977.
- Lanski, Mauricio. "A Chronological Descriptive Analysis and Assessment of a Technical Assistance Program Developed for Brazilian Higher Education Institutions." Ph.D. dissertation, Michigan State University, 1977.
- Luce, Maria Beatriz Moreira. "An Assessment of Criteria to Evaluate the Graduate Education Program in Brazil." Ph.D. dissertation, Michigan State University, 1979.
- Lutes, Ronald D. "Personal Variables of University Faculty Members as Related to Their Perception of the Leader Behavior of an Administrator." Ph.D. dissertation, Purdue University, 1972.
- Mangelson, Wayne Leon. "Attitudes of Academic Department Chairpersons and Faculty About the Importance of Various Formal Abilities for Chairpersons." Ph.D. dissertation, University of Michigan, 1977.
- Maya, Nely Aleotty. "Educação Superior no Brasil--Una Política Necesaria." Estudos e Debates, No. 2. Brasília: CRUB, 1979.
- Mello Franco, Afonso Arinos de. "Missão da Universidade." Revista Brasileira de Estudos Pedagógicos 29 (Abr/Jun 1958): 105. Cited by Finger, Almeri Paulo. "The Role and Functions of Brazilian University Presidents." Ph.D. dissertation, George Peabody College for Teachers, 1978.
- Mendes, Demerval Trigueiro. "Pesquisa e Ensino no Mestrado de Educação." Revista Brasileira de Estudos Pedagógicos 58 (Out dez 1972): 249-65. Cited by Dias, Stelio. "A Study of Atconian University Principles and Their Influence on Higher Education Reform in Brazilian Universities." Ph.D. dissertation, University of Houston, 1973.

- . Toward a Theory of Educational Planning: The Brazilian Case.
Monograph Series No. 7. East Lansing: Latin American Studies
Center, Michigan State University, 1972.
- Ministry of Education and Culture, CAPES. "Coordenação de Pessoal
Docente." Brasilia: MEC-CAPES, 1979. (Mimeographed.)
- Montandon, Renato. "A Comparative Study of the Relative Efficiencies
of IES-Autarchies and IES-Foundations in Brazilian Higher Educa-
tion." Ph.D. dissertation, Michigan State University, 1981.
- Moos, Malcolm, and Rourke, Francis E. The Campus and the State.
Baltimore: The Johns Hopkins Press, 1959. Cited by Montandon,
Renato. "A Comparative Study of the Relative Efficiencies of
IES-Autarchies and IES-Foundations in Brazilian Higher Educa-
tion." Ph.D. dissertation, Michigan State University, 1981.
- Morphet, Edgar L.; Johns, Roe L.; and Reller, Theodore L. Educational
Organization and Administration. Englewood Cliffs, N.J.:
Prentice-Hall, Inc., 1967. Cited by Montandon, Renato. "A
Comparative Study of the Relative Efficiencies of IES-Autarchies
and IES-Foundations in Brazilian Higher Education." Ph.D. dis-
sertation, Michigan State University, 1981.
- MSU International Programs. MSU-Brazil-MEC. Project Reports, 1974-1978.
- Newburn, Harry. "The Organization and Administration of Universities
in France, Italy, and Great Britain." Educational Record 34
(1953): 245-74.
- Nie, Norman H.; Hull, C. Hadlai; Jenkins, Jean G.; Steinbrenner, Karin;
and Bent, Dale H. Statistical Package for the Social Sciences.
New York: McGraw-Hill Book Co., 1975.
- OEA. "La Administración Educativa en América Latina." Reunion del
Consejo Interamericano para la Educación, la Ciencia y la
Cultura, Mar del Plata, Argentina, Diciembre de 1972.
- Oliveira Lima, Ernesto Luiz de. "A Mudanca da Estrutura Social e a
Universidade." Revista Brasileira de Estudos Pedagogicos 118
(Abr./Jun 1970): 278. Cited in Finger, Almeri Paulo. "The Role
and Functions of Brazilian University Presidents." Ph.D. disser-
tation, George Peabody College for Teachers, 1978.
- Palinchack, R. S. "Survey of Requirements for a Doctoral Program in
the Field of Higher Education." Syracuse University, 1970.
ERIC ED 041 542.
- Perkins, James A. "Organizations and Functions of Universities."
In The University as an Organization, pp. 3-14. Edited by
James A. Perkins. New York: McGraw-Hill Book Company, 1973.

Peterson, Marwin W. "Form, Function and Strategic Issues in the Study of Higher Education." Journal of Research and Development in Education 6 (Winter 1973): 16-29.

Philips, Ellis L., Jr. New Approach to Academic Administration. New York: Teachers College, Columbia University, 1969.

Piper, David Warren, and Glatter, Ron. The Changing University. London: NFER Publishing Co., Ltd., 1977.

Ribeiro, Darcy. "Rethinking the University in Latin America." Prospects 4 (Autumn 1974): 315-30.

Roaden, Arlis L., and Larimore, David L. "The Scholar-Practitioner Paradox Revisited." Journal of Research and Development in Education 6 (Winter 1973): 50-65.

Rodrigues, Jose Honorio. The Brazilians. Translated by Ralph Edward Dimmick. The Texas Pan American Series. Austin: University of Texas Press, 1967.

Schults, Raymond E. "The Preparation of College and University Administrators." Phi Delta Kappan 49 (March 1968): 7.

Siegel, Sidney. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw-Hill Book Company, 1956.

Simao, Jose Veiga. "Road to the Future--General Aspects of Brazilian Higher Education and a Brief Comparison With Other Educational Modes." Yale Higher Education Research Group Working Paper. July 1978.

Skubal, Jacqueline. "An Analysis of the Administrative Support Needs of the Academic Department Chairperson." Ph.D. dissertation, Michigan State University, 1980.

Stoke, Harold V. Viewpoints for the Study of the Administration of Higher Education. Eugene: University of Oregon Press, 1966. Cited by Armstrong, George Ernest. "A Study of Doctoral Training Programs for College and University Administrators, Including a Critical Evaluation of the Ph.D. Degree Program in Higher Education Administration at the University of Utah." Ph.D. dissertation, University of Utah, 1974.

Sunlay, Wallapa. "Need for Graduate Study in Higher Education in Thailand." Ph.D. dissertation, Indiana University, 1974.

- Teixeira, Anísio. *A Administração Pública Brasileira e a Educação*, in *Brasil no Pensamento Brasileiro*. Organized by Djacyr Menezes. Rio de Janeiro: Conselho Federal de Cultura, MEC, 1972. Cited by Dias, Stelio. "A Study of Atconian University Principles and Their Influence on Higher Education Reform in Brazilian Universities." Ph.D. dissertation, University of Houston, 1973.
- _____, & Ribeiro, Darcy. "The University of Brasilia." Educational Forum (March 1962): 309. Cited by Dias, Stelio. "A Study of Atconian University Principles and Their Influence on Higher Education Reform in Brazilian Universities." Ph.D. dissertation, University of Houston, 1973.
- Thompson, Victor. *Modern Organizations*. New York: Alfred A. Knopf, 1964. Cited by Montandon, Renato. "A Comparative Study of the Relative Efficiencies of IES-Autarchies and IES-Foundations in Brazilian Higher Education." Ph.D. dissertation, Michigan State University, 1981.
- Travelstead, Will W. "An Appraisal of Degree Programs of Academic Administration in Higher Education in Selected Colleges and Universities." Ph.D. dissertation, Southern Illinois University, 1974.
- UNESCO. Evolucion reciente de la Educacion en America Latina I. Col. Sepsetentas, Mexico: SEP, 1976.
- Waldron, Wilfred R. "A Survey of Doctoral Programs in Higher Education at Selected American Universities." Cited by Burnet, Colins W. "Higher Education as a Field of Study." Paper presented at the Annual Meeting of the Association of Professors in Higher Education, Chicago, Illinois, March 1972.
- "Wanted: Qualified Administrators." College and Management 7 (May 1972).
- Warwick, Donald P., and Lininger, Charles A. The Sample Survey: Theory and Practice. New York: McGraw-Hill Book Co., 1975.
- Weil, E. Thomas; Black, Jan Knippers; Blutstein, Howard I.; Johnson, Kathryn Therese; and McMorris, David S. Area Handbook for Brazil. Washington, D.C.: Government Printing Office, 1975.
- Wright, Richard G. "Planning Priorities and In-Service Training Programs of Higher Educational Centers in Rio Grande Do Sul." Brasilia: UFRGS, 1977. (Mimeographed.)

_____. "Professionalization of Administrators: Development in the Community College Field." Ph.D. dissertation, Teachers College, Columbia University, 1976.

Young, Burns B. "The Rise and Development of Instructional Courses in Higher Education." Ph.D. dissertation, Stanford University, 1952.

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