# AN INVESTIGATION OF ATTITUDES OF SELECTED recent graduates in TEAcher education TOWARD THEIR EDUCATIONAL PREPARATION FOR TEACHING AT THE UNIVERSITY OF ARKANSAS AT PINE BLUFF 

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## ABSTRACT

# AN INVESTIGATION OF ATTITUDES OF SELECTED <br> RECENT GRADUATES IN TEACHER EDUCATION <br> TOWARD THEIR EDUCATIONAL PREPARATION FOR TEACHING AT THE UNIVERSITY OF ARKANSAS AT PINE BLUFF 

## By

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The primary purpose of this study was to obtain an appraisal by recent graduates of English and Mathematics Education at the University of Arkansas at Pine Bluff of the adequacy of their undergraduate education in meeting job demands and individual needs. The study was prompted in part by a recognized need on the part of the University of Arkansas at Pine Bluff, a predominantly Black institution, to determine the effectiveness and quality of its undergraduate programs compared with programs at other institutions.

Data were obtained from mailed questionnaires sent to recent (1969-1974) graduates who had majored in English and Mathematics Education at the university. Both curricula prepare graduates for careers in teaching, although the emphasis of the two programs is considerably different. An attempt was made to
analyze the difference in perception which existed between both groups in their appraisal of the effectiveness of their training for positions undertaken after graduation.

A total of 84 percent of the graduates responded, 46 percent of whom were English and 54 percent Mathematics graduates. The graduates supplied information about (1) their attitudes toward their undergraduate instruction, their student teaching experience, and attending a predominantly Black institution; (2) their work experience and initial starting salaries after graduation; (3) their post-graduate education and training; and (4) their evaluation of their undergraduate professional and general education.

The major findings of the study were as follows:

1. There were some differences in the employment status of graduates in the two fields, even though both types of curricula prepared students for careers in teaching. For example, English graduates not employed in their major field were primarily interested in other fields of education, whereas mathematics graduates were attracted to careers in research, statistics, counseling and recruiting.
2. The majority of both groups of graduates were teaching in their major field; however, there were more Mathematics than English graduates doing so.
3. Eighty-nine percent of all graduates were employed by public schools as opposed to other employing organizations.
4. Twenty-three percent of the total graduates had either not entered or had left the profession for which they were trained.
5. There was no great difference in the starting salary of
graduates in English or Mathematics education when sex was not considered, but the starting salary for male Mathematics majors was significantly higher than that of male English majors. The mean salary of all graduates in their present position was over \$9,000.
6. The majority of both groups rated the quality of instruction received in their major field as "very good" or "excellent" (English graduates 86 percent, Mathematics 87 percent).
7. The grade point averages of Mathematics Education graduates tended to be higher than those of English Education graduates.
8. Mathematics graduates rated their overall student teaching experience higher than did English Education graduates, although the majority of both groups rated it "very valuable."
9. Overall, there was no significant difference in the ratings by graduates of the professional education provided for secondary teaching and both groups tended to rate their undergraduate education highly.
10. Mathematics graduates as a whole evaluated the department objectives as being carried out well; however, they did indicate that some needed to be improved upon. English graduates as a whole evaluated the objectives established by their department as being carried out well.
11. Graduates responding to the questionnaire item "advantages and disadvantages of attending a predominantly Black institution and other deficiencies were most impressed with faculty-student
relationships, the ability to develop Black unity and pride, the quality of instruction provided by the general faculty of the institution, wholesomeness and quality of student life, and the small amount of racial tension." Respondents indicated disadvantages to be lack of adequate facilities, resources and supplies; lack of proper recognition from the mainstream of society and other institutions (especially predominantly white); lack of adequate contact with other ethnic groups especially in a classroom setting; lack of adequate educational preparation in some areas, inadequate funding and financing of the institution to provide the quality of education compared with predominantly white institutions; and lack of motivation and competition.
12. The majority of the respondents were strong advocates of general education and many made comments expressing concern that there was not enough time to take adequate work in the liberal arts.

A major implication that can be drawn from this study is that one should not make broad generalizations about the superiority or inferiority of one educational program in one predominantly Black institution. Since this study was confined to one institution, no definitive comparisons can be made concerning what might prevail at other institutions, either Black or white.

Finally, this study revealed that there is little research being conducted concerning the positive and progressive aspect of predominantly Black institutions and there is a need for periodic institutional self-study in order to evaluate the effectiveness of educational programs.AN INVESTIGATION OF ATTITUDES OF SELECTEDRECENT GRADUATES IN TEACHER EDUCATIONTOWARD THEIR EDUCATIONAL PREPARATIONFOR TEACHING AT THE UNIVERSITY OFARKANSAS AT PINE BLUFF
By

Ruth L. Lambert

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## DEDICATION

This dissertation is dedicated with love to my mother, the late Mrs. Alberta C. Stockman, who passed away before the final printing of this dissertation and to Dr. and Mrs. Walter Johnson for their personal counseling and moral support throughout the completion of this project.

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## CHAPTER I

THE PROBLEM

## Introduction

It would be ideal if all elementary and secondary school children would attend school regularly and be taught by perfectly competent teachers who are the finished product of a well planned and effective student teaching program. These polished teachers would inspire their students' interest and an atmosphere of excitement would negate unnecessary absenteeism. This ideal has never been reached, unfortunately, and the odds are that it never will be. Many of the students' questionable absences which are classified as legal and unavoidable, such as illness, death in the family and climatic conditions, may in reality be a consequence of inadequately trained, uninspiring teachers. Undesirable teachers often are a result of weak teacher college programs, poor cooperation and coordination among the college, the cooperating school, and all personnel involved in the process of teacher education. Although the ideal may not be readily attainable, serious and continual attention must be given to upgrading the preparation of prospective teachers towards that ideal.

## Background of the Problem

Many factors must be considered in the total training of the prospective teacher. Some research has been done in this area during the past twenty-five years and the next quarter century should see much more (Brubacher, 1947).

Moore (1959) and Milner (1963) indicate that the profession of teaching faces a challenge today which is shared by most other professions--that of providing the type of educational experiences which will equip the beginning practitioner with essential skills in an increasingly complex profession and at the same time allow sufficient time in the educational program to permit the individual to obtain the broad general education essential for effective functioning in our complex modern society.

Cyrus Pierce was the first principal of the first normal school in the United States. In 1839 he formulated the first teacher education curriculum at the school in Lexington (Rudolph, 1962). One can visualize the difficulty he would encounter since he had very little previous teacher training data to lean on.

The act of teaching once seems to have been regarded as a God-given gift. Brubacher writes that this theory prevailed in the time of Charlemagne and no doubt was responsible for the postponement of further study of how the technique of teaching might be improved. The medieval university was chiefly concerned with imparting knowledge in the subject matter field.

As yet, little if anything was known of the mystery of imparting the arts; therefore, the future teacher
received no formal instruction on this point. In the absence of such instruction, decendo discere was the rule, that is, the candidate for the arts degree was to learn to teach by teaching.
(Brubacher, 1947)

Vives (1492-1540, in his De tradendis disciplis, stated that the way to acquire the art of teaching is to observe the work of those already masters of the art. In fact, he favored the observation of many different teachers to see if rules of teaching could be determined from their experience (Brubacher, 1947).

To make the system of preparing teachers more effective, the Jesuits, in their Ratio Studierum, advised Jesuit provincials to put those likely to specialize in teaching under the supervision of a master teacher in order to give them practice in conducting classes (Brubacher, 1947). This practice still holds today. Prospective teachers have to do student or directed teaching under the direction of a supervising teacher in order to be certified to teach in a public or private elementary or secondary school.

In light of the changes in the scope of responsibilities in the positions open to graduates in the teaching profession, colleges and universities need to evaluate their curricula in teacher education for secondary education majors. Teacher education faculties need also to be aware of increased competition for jobs in teacher education and related fields and do everything possible to equip their graduates to meet this competition.

Mosher (1968) has shown that there has been consistent increase in the number of educational occupations. Between 1900 and 1960, he reported, the American labor force grew about 123 percent
while the numbers in educational occupations multiplied by 485 percent.

Millerson (1968) noted that of all the sociological ideas, one of the most difficult to analyze is the concept of a profession. He points out that the wide and indiscriminate use of the word has led to much confusion. Furthermore, attempts to delineate fundamental characteristics of a profession and to apply them to all professional associations encounter structural limitations and do not allow sufficiently for the dynamic changes which are occurring in all organizations.

Despite these admonitions, Millerson and others have identified certain characteristics which are commonly accepted hallmarks of a profession. These essential features include (1) skill based upon theoretical knowledge, (2) demonstration of competence by the passing of a test or tests, (3) integrity maintained by adherence to a code of conduct, (4) service provided for the public good, and (5) organization of practitioners into a body, the professional association.

In contrast with our social attitude toward other occupations, society has accorded professions, either explicitly or implicitly, relatively complete autonomy in their work. It has been assumed that if their performance is unsatisfactory only another member of the profession can state whether this is the result of incompetence.

Despite the emphasis today on specialization, it is also important to give students an opportunity to acquire a broad,
general education. The responsibilities of citizenship become increasingly more complex and rapidly changing society demands more flexible, ingenious persons. A good college education should equip the individual to lead a more interesting and resourceful life and should make him aware of his responsibilities to society and to himself.

## Purpose of This Study

The problem of developing a professional curriculum for secondary school teachers which will provide essential skills for beginning jobs and at the same time a good general education is quite challenging. No one of these major objectives can be completely satisfied in the brief span of time alloted to undergraduate education, if indeed it could ever be satisfied, but a reasonable balance must be sought.

Mayhew (1961) and Perkins (1966) stated that the complex problem of meeting the multiple objectives of the professional curriculum can be approached through study of the job demands of its graduates and their evaluation of their preparation. Along these lines, recent graduates of English and Mathematics Education curricula in secondary education were asked to appraise their undergraduate education in terms of providing a basis for professional responsibilities and individual needs. Their appraisals were evaluated in an attempt to ascertain the relative strengths and weaknesses of these two departments in their endeavor to prepare students for teaching. An attempt is made to analyze the differences in perception
which exist between English and Mathematics Education graduates.

## Need for This Study

Recent research, including studies by Aleamani (1974), Hildebrand (1971) and Sockloff (1973), and books and articles by Dressel (1961), Armstrong (1970), DuBois and Mayo (1970), Atkins (1968), Cronbach (1963), Williams (1973), and McClelland (1970), point up that evaluation is becoming increasingly important in education. Educators must prove the merit of their programs with objective evidence: their work alone is no longer convincing taxpayers and parents that adequate results are coming from the billions of dollars spent for education each year. According to the Carnegie Commission (1971), evaluation can help explain to a very large extent why educational programs work out as they do. Used in this way, evaluation becomes something like an educational bookkeeping process in which progress is traced on a day-to-day basis.

Through evaluation and through use of a computer, hundreds of factors which influence learning can be weighed and assigned their proper importance in the school.

A number of studies indicate that information gathered through evaluation tells whether an overall program is meeting its objectives. Along with learning just which classrooms and school activities are more effective, educators learn which objectives contribute significantly to their goals. Thus, evaluation becomes more than a measure of past education programs: it is the basis for building better programs in the future, and a way of helping
teachers measure the results of their own work.
Dressel (1959) states three basic purposes of evaluation:
(1) to reach a decision about whether a program should be continued;
(2) to bring about improvement in the program; and (3) to develop evaluation as an integral part of the program. These basic purposes are firm foundations and formative goals for this proposed study.

Another need for this study is based on major trends and issues of higher education. One national higher education movement points to the need for evaluation of educational curricula to meet the increasing demand for usefulness of education, for purpose in learning, for schooling resulting in doing. Related to this demand is the need and/or desire of many students to learn new skills, increase competencies, or change life work, styles and/or goals. The trend is for relevance, not merely in ideology, but in activity. Many students are seeking guidance for usefulness and renewal in work and life.

## Need for This Study by the <br> University of Arkansas at Pine Bluff

A study such as this is greatly needed by the University of Arkansas at Pine Bluff because there has not been, on the part of the university, an attempt to conduct a sophisticated study to evaluate its teacher education program and curriculum in secondary education to determine if it is providing the basic general and
professional education needed by its graduates. All previous evaluation attempts have been done with the students presently enrolled, thus giving a rather narrow perspective. In order to get a broader picture of how effective the curriculum is, a study assessing graduates' attitudes regarding the effectiveness of the university's teacher education curricula gives the university another dimension and is a positive step towards meaningful evaluation of its programs.

There is also a need on the part of the university, as expressed by its chancellor, Dr. Herman B. Smith, Jr., to find out what the university graduates are doing now, if they have changed fields, if so why, and what types of positions they are presently holding.

It is the hope of the researcher that the findings of this study will provide the university with some indications of desirable and undesirable facets of its program. It is hoped, too, that the university in turn will take a close look at the problem areas indicated and begin making needed reform in its curriculum in order to make it more meaningful and relevant to students presently enrolled and those yet to come through its doors.

## Statement of the Problem

Although much research has been conducted on assessing the attitudes of four-year students toward the college environment, curricula, and faculty, very little information exists on the attitudes of graduates, especially graduates who attended predominantly Black institutions. Most of the recent research has been
conducted on the attitudes of graduates from comprehensive community colleges as opposed to graduates of four-year colleges, regardless of racial composition.

The researcher proposed to investigate the types of positions taken by recent graduates of English and Mathematics Education and to get an appraisal by these graduates of the adequacy of their undergraduate education in meeting job demands and individual needs. An attempt is made to analyze the differences in perception which exist between English and Mathematics Education graduates.

## Objectives of This Study

Since there exists on the part of the University of Arkansas at Pine Bluff the need to assess its teacher education program in secondary education, it was felt by the researcher that the best approach would be to survey recent graduates in selected areas of teacher education in order to obtain their appraisal of their undergraduate program. Consequently, the following objectives of this study were established:

1. To investigate the types of employment and salaries obtained by recent graduates.
2. To investigate recent graduates' attitudes about the university as they relate to professional preparation for a job in teaching.
3. To assess recent graduates' attitudes about the university and the utility of their college experiences.
4. To investigate recent graduates' attitudes about the
university as they relate to general education preparation provided by the university.
5. To investigate academic achievement of males and females who majored in English and Mathematics education.

## Research Hypotheses

Following directly from the previously stated purpose and objectives of the study, the following research hypotheses are formulated:

Hypothesis I: More English and Mathematics Education graduates are employed by public schools than by any other type of employing organization.

Hypothesis II: Males who majored in English or Mathematics Education are initially hired at higher salaries than females who have majored in English or Mathematics Education.

Hypothesis III: A higher proportion of graduates who majored in Mathematics Education find jobs teaching in their major field than do graduates who majored in English Education.

Hypothesis IV: Graduates who majored in Mathematics and English Education give similar ratings to the quality of general education and professional preparation provided by their departments.

Hypothesis V: Graduates who majored in Mathematics and English Education give similar ratings to their student teaching experiences and quality of instruction provided by their major department.

Hypothesis VI: Graduates who majored in Mathematics and

English Education give similar ratings regarding their attitudes toward the university.

Hypothesis VII: There is no difference between the grade point averages of males and females who majored in English or Mathematics Education.

## Organization of the Study

The study is presented in six chapters. Chapter I is an introduction to the study and includes a background of the problem, a brief history of teacher education, a statement of the problem, and outlines of the purpose and objectives of the study.

Chapter II is a review of the literature relating to basic concerns of the study.

To better explain the significance of the study, Chapter III includes a brief description of the historical development of the University of Arkansas at Pine Bluff along with the organization of its teacher education program.

Chapter IV, Methodology, begins with an overview of the chapter and continues with a discussion of the procedure used in the selection of the sample, development of the questionnaire, procedures for conducting the study, a statement of the limitations, and definitions used in the study.

Chapter $V$ gives complete data analyses of the findings and Chapter VI contains a summary of the preceding chapters along with conclusions and recommendations derived from the study.

## CHAPTER II

## REVIEW OF RELATED LITERATURE

## Professional Education

Professional education as a part of higher education has developed largely within the past half-century. Consequently, there has been little research on the effectiveness of the professional educational programs. Certainly this is true of the teaching profession, and research done by other professions must be studied. At this stage of development, research in engineering and medicine is of value to other professional schools and is reviewed here because (1) their findings indicate that many of the major problems faced by each profession are common to all and (2) these professions have been established longer and have considerably more status, hence research findings in these fields will probably have great impact on educational policy in higher institutions (Bode, 1972).

The concept of a profession varies, but a comprehensive one is given by Blauch (1955). He lists three distinguishing earmarks of a profession: (1) the possession of a body of knowledge, a set of attitudes, and a group of skills, collectively called a technique, which is necessary for the performance of a particular type of service; (2) an emphasis on quality of service rendered, rather than financial gain; and (3) an organized membership who wish to maintain
high standards of education, training, and ethical conduct.
Professional schools have two major objectives. The most obvious one is to train future members of the profession, but as a part of higher education, professional schools also have a responsibility for providing opportunities for a broad general education. The Educational Policies Commission (1957) asserted that general/liberal education (synonymous terms, according to this commission) constitutes the essential core of programs of higher education. It conceives of general and liberal education as enlarged opportunity for mature personal development and for those experiences by which students gain fuller insight into the nature of man and his environment. "It is, in part at least, such general and liberal education which make higher education higher."

Colleges, universities, and other institutions of higher education have become the primary source of supply of specialized personnel. The Educational Policies Commission predicts that the demand for specialized education will increase, both in number of students enrolled and in number of occupations. "Our culture is in danger of becoming so specialized that educated men and women no longer speak a common language."

Over-specialization is the major problem under attack in each of the professions reviewed. It is the parent of such specific
problems as (1) how to adequately prepare students for a profession which is undergoing a rapid expansion of knowledge and corresponding changes in techniques, (2) how to make room in the curriculum for general education without sacrificing professional goals, and (3) how to accommodate and exploit individual differences in interest and ability.

The President's Committee on Education Beyond the High School (1957) warned that the demands of diversity must not be allowed to destroy the central position of general education and training in basic skills. "The very fact that specific skills are now so varied, and are changing so rapidly, only underscores the need for educational institutions to provide students with the common denominators of adaptability which is rooted in education in the fundamentals." The Report of the Committee on Evaluation of Engineering Education (1955) recommends that engineering curricula be strengthened in the area of basic sciences and engineering sciences, that a concentrated effort be made to strengthen and integrate work in the humanistic and social sciences, and that a high level of performance in the oral, written, and graphic communication of ideas be developed in all engineering students. The Committee recommended the elimination of "those courses having a highly vocational or skill content and primarily attempting to convey engineering art or practice." The teaching of specific skills and techniques should be left to industry, it concludes. Dietrick and Benson (1953), directors of a survey of the medical profession, reached the conclusion that the primary function of the medical school curriculum is to help the student develop
habits of study and acquire basic knowledge as a foundation for continuing education and training throughout his professional life. "No formal curriculum, however long or crowded, could include all of the medical knowledge that would profit the student." The Committee recommended that mastering of techniques and specialty training be left for internship and residency training.

Although all of the professions studied have general education as one of their objectives, some professional schools give only lip service to this objective. Severinghaus, et al (1963), in the report of the Subcommittee on Preprofessional Education of the Survey of Medical Education, found that the program taken by the average premedical student in at least 20 percent of the liberal arts colleges participating in the study does not represent a liberal education and that in about 25 percent of the other liberal arts colleges studied it was barely adequate. The central thesis of this report is the value of a sound liberal eduçation as a preparation for life and also as an educational basis for later vocational training.

Burdell (1958), Chairman of the Committee of HumanisticSocial Projects, American Society for Engineering Education, stated that although there cannot and should not be a ready-made program for all schools for teaching general education, certain valid observations could be made about successful programs: (1) vigorous administrative support of the faculty; (2) faculty cooperation in making humanistic-social studies an integral part of the students' total educational experience; (3) successful collaboration with
the liberal arts faculty; and (4) student interest secured and maintained through presentation of the subject matter from a vigorous, fresh, experimental point of view.

Smith (1948), who participated in the Professional Conference on Education, urges that professional students, particularly, be encouraged to participate in the cultural and social life of the university. He warns that unless a professional student while in college takes time apart from his professional studies to cultivate his mind and spirit and to study the problems of the society in which he will practice his profession, he will form habits of letting his profession preoccupy him to the exclusion of the cultural and the civic--habits which will be difficult to overcome in later crowded hours of professional life.

Dressel (1958) maintains that there is no clear-cut dichotomy between liberal and vocational education, that liberal education has become increasingly vocational and vocational education increasingly contains liberal elements. "As professional courses are developed around principles and theory, as they deal with social responsibility, with reasons for and effects of techniques, they become instruments of liberal education." He concludes that since all education today is and must be both liberal and vocational, the task is not one of finding the appropriate proportions of each but rather of reappraising and re-defining all courses so that they contribute to both.

Many educators today are seriously concerned that rigid, over-crowded curricula fail to exploit individual differences in interests and ability. Society would benefit as mucr as the individual
if the student were allowed to develop his particular interest to the limit of his ability rather than conform to a stereotyped educational program.

Honors programs, special seminars, opportunity for individual study and research are some of the techniques which have been instituted by a few colleges in an attempt to adapt the educational program to individual differences. These programs of ten require additional faculty time and special facilities and cannot be adopted by every college. Some accommodations of individual differences in interest and ability can be made in every educational program, however, and without exception the studies reviewed here recommended the inclusion of some electives in each curriculum. Another technique, also recommended in each of these studies, is to allow the student to select a major field of interest or specialization. Severinghaus, et al (1963) recommended that every student's program should provide for the development of his intellectual capacity along at least one line toward a high level of maturity; that the major should promote an increasingly mature mastery of a field of knowledge and not merely a patchwork of more or less related courses.

Briefly summed up, recommendations of the specific studies reviewed here which are applicable to education in all of the professions are as follows:

1. That professional schools should provide adequate opportunities for a broad general education as well as specialized education.
2. That professional education be based on mastery of fundamental skills rather than specific techniques and current practices.
3. That students be allowed some freedom in selecting courses so that they can develop their special interests and abilities.

## Research Specifically Related to This Study

In 1972 Portland College in Portland, Oregon, appointed a committee to do a follow-up study of the status of the spring 1971 graduates. ${ }^{1}$

The study was conducted to determine where graduates were, what they were doing, and how well they were performing. Findings were (1) 309 of the 527 responding were employed, 134 continued their education and 54 were unemployed; (2) major factors in the choice of schools were the available programs, finances, location, and desire to increase job skills; (3) over 31 percent of the graduates were earning between $\$ 600$ and $\$ 750$ per month, with 59 percent earning less than $\$ 600$ per month; (4) over one-half of the graduates regarded their own initiative as having been the most influential factor in obtaining their first positions; (5) 73 percent felt that their specialized training helped them to obtain their employment; (6) 73 percent of the employers felt that their employees were better prepared as a result of their college work; and (7) 57 percent of employers stated that the training of the graduates influenced their decision to hire them.

In follow-up studies done by Snyder (1972) and Grieve (1970) on graduates in teacher education, analysis of data indicated that almost three-fourths of the graduates were employed full time and almost all of them found employment in their field of
specialization. Findings also revealed that over half continued their education after graduation; the average salary was over $\$ 6900$ yearly; employers preferred graduates to have specialized training in the area of employment; graduates evaluated their cooperative work experience positively; and the large majority of graduates rated their education as superior or good, along with stating that they would recommend the college to a person with an interest in their field.

Bode (1970) conducted a study in which he looked at criteria for determining probable success for future teachers in specific areas of teacher education. The study showed that characteristics associated with success among teachers were dedication, industry, the maintenance of good interpersonal relationships, cormand of subject matter, instructional versatility, involvement and cooperation in community activities, and selection of relevant subject matter. Contributing most to lack of success was the inability of teachers to maintain discipline in the classroom. Grade-point average of the teacher during his college years was not found to be a valid predictor of success.

The review of literature also revealed that the most recent follow-up studies have been done on community college graduates since quite a bit of emphasis has been placed on this level in the last decade. Some significant findings of the studies reviewed indicated that most graduates found their educational experiences satisfactory, necessary for their careers, and helpful in obtaining their current employment.

CHAPTER III

HISTORICAL SKETCH OF THE UNIVERSITY OF ARKANSAS<br>AT PINE BLUFF

The University of Arkansas at Pine Bluff, a state-supported predominantly Black land grant institution, was created in 1873 by act of the Legislature as the first branch of its sister land grant institution, the University of Arkansas. It is located on the north edge of the City of Pine Bluff, Jefferson County, on U.S. Highway 79.

Originally known as Branch Normal College, the school opened on September 27, 1875, with Professor J. C. Corbin in charge and an enrollment of seven Black students. Its main objective was to provide some form of higher education for the Black population of Arkansas. The first location was a rented frame building on the corner of Siener and Lindsey Streets, in the City of Pine Bluff. In 1882 the school moved into a two-story brick structure erected by state funds on a fifty-acre plot in the suburbs of Pine Bluff. The school conferred ten B.A. degrees between 1882 and 1894, but from 1894 until 1929 the school operated as a junior college.

In 1927 the governor appointed an independent board of trustees for the college and the state legislature appropriated $\$ 275,000$ for the erection of a new plant just outside the city limits. To aid this project, the General Education Board contributed $\$ 183,000$
and the Rosenwald Fund $\$ 33,000$.
In 1929 the school was expanded into a standard four-year degree-granting institution and in 1933 it was certified as a standard four-year college.

In 1942, as a result of the sudden death of Dr. J. B. Watson, his youthful assistant, Lawrence A. Davis, was named president. In April 1943 the Board of Trustees named Davis official head of the institution as President of the College, the position he held until August of 1973.

Integral to the development of the college has been its philosophy of belief in the education of the whole man, its dedication to providing opportunity to all who have the will and ability, and its endeavor to help the student discover a meaning and purpose to life.

The philosophy of the college has been . . . characterized in relationship to the individual and society. The college accepts the responsibility to society to help every student within the limits of his desire and mental capacity toward a productive and abundant life as a person, a worker, and a citizen; and in addition to prepare him to serve society effectively where needed most within the boundaries of his own interests, aptitudes, abilities, and desires.

Pursuant to the resignation of Dr. Lawrence A. Davis, Sr. in August 1973, Dr. Johnny B. Johnson, Sr. was appointed Acting Chancellor until a successor to Lawrence Davis could be chosen. On July 1, 1974, Dr. Herman B. Smith, Jr. began his duties as chancellor.

[^0]Dr. Smith immediately put into operation a program which accelerated improvement of the physical plant, the curriculum, and of public understanding and support. His clear perception of the great potential of the institution and his ability to elicit support continue to be great assets in the attainment of the goals of the University of Arkansas at Pine Bluff.

Purpose of the University of Arkansas at Pine Bluff

The general purpose of the university is to provide an environment for learning calculated to develop healthy, wellbalanced personalities and to foster those activities designed to encourage constructive citizenship, clear and accurate thinking, and effective leadership in the communities students become identified with later in life. ${ }^{1}$

The specific aims of the university are as follows:

1. To strengthen and encourage in individuals those habits of living which must be practiced if community living is to become significant and meaningful.
2. To contribute to the development of skills and selfdirection which are essential for effective living and leadership.
3. To enrich the lives of students through the promotion of cultural, religious and aesthetic aspects of life.
4. To train for the acquisition and maintenance of social, mental and physical health.
5. To train for teaching in the elementary and secondary schools.
${ }^{1}$ Excerpted from University of Arkansas at Pine Bluff Catalog.
6. To provide academic and professional training for inservice personnel.
7. To train teachers and other professional personnel in agriculture, vocational arts, home economics and other vocations to carry on the practical phases of these vocations in addition to learning teaching skills.
8. To prepare students for professional work in nursing, social work, engineering, law enforcement, etc.
9. To prepare students for graduate and professional studies.

## The Division of Teacher Education

The Division of Teacher Education consists of the Department of Health, Physical Education and Recreation; the Department of Early Childhood and Elementary Education; the Department of Educational Media and Services; the Department of Special Education and Psychology; the Department of Vocational Teacher Education; and the Department of Secondary Education.

The program of the Division of Teacher Education is designed to achieve the following objectives: 1

1. To provide instruction and guidance for those preparing to be elementary school teachers.
2. To provide instruction and guidance for those preparing to be secondary school teachers.
3. To provide instruction and guidance in professional courses for secondary school teachers of special academic and vocational subjects.
4. To provide facilities and supervision for students teaching in cooperating public schools.
${ }^{1}$ Ibid.
5. To cooperate with public school officials at state and local levels by providing experiences essential for professional growth.
6. To strengthen classroom teaching by arranging for experience-learning in the public schools, community agencies of the city and surrounding areas.

To accomplish these aims, the efforts of the Division of
Teacher Education are directed toward providing experiences that:

1. Assure the best possible general education.
2. Allow for individual differences in the abilities, problems, needs, talents, and special interests of prospective teachers.
3. Bring students in contact with (a) children of various stages of development, under different types of circumstances, (b) the best available types of school programs, buildings and equipment, and (c) types of actual school situations which they are likely to meet in the field.
4. Provide a thorough acquaintance with boys and girls and a sympathetic understanding of the physiological, sociological factors determining their development.
5. Provide opportunities for students to observe, participate in, and do responsible teaching under supervision and constructive guidance.
6. Provide opportunities for students to participate in the community life of which the school is a part.
7. Provide opportunities for students to learn professional concepts and skills essential to all teachers, including the basic principles of learning, classroom management, and the use of materials of instruction.
8. Motivate the prospective teacher to become creative and responsible in his role as a teacher, as a citizen, and as a member of a professional group.

All students in the Teacher Education Division must maintain
a scholastic average of at least "C" (or a grade-point average of
2.00 ), regardless of the number of semester hours of credit earned.

A major in the Arts and Sciences requires a minimum of 24 semester
hours in the department or division in which it is taken, and a minor consists of 18 semester hours or more in some department or division other than the student's major field.

## Secondary Education

Aims and Objectives
The curricula in Secondary Education are coordinated with the requirements of the State Board of Education. The scope embraces (1) an area of general education, (2) a sequence of professional courses, and (3) concentration in one or more areas for certification, e.g. English, Mathematics, Science, Social Studies, etc.

The preparation of secondary teachers in the special areas of Vocational Agriculture, Vocational Home Economics, and Mechanical Arts is under the supervision of other divisions of the College. 1

## Policies for Admission and Retention in Secondary Education

Admission to the secondary education program usually takes place the first semester of the sophomore year. Applications are reviewed by a committee composed of the Dean of the Division of Teacher Education, the Department Chairman, Dean of Students, and Education advisors from the Department of Secondary Education. This procedure gives the division an opportunity to review the student's

[^1]past academic record and to use whatever information may be gleaned from standardized test scores, personality inventories, and faculty and departmental recommendations to counsel and guide him in the selection of appropriate professional curriculum.

As a means of evaluating the teacher education program, the Teacher Education Examination Program (TEEP) is required of all candidates for graduation. ${ }^{1}$

Department of
Mathematics Education
The stated general aim of the department ${ }^{2}$ is to acquaint the student with the beauty, utility, and consistency of mathematics as a science and as an academic discipline. The specific aims of the department are as follows:

1. To offer courses leading to a B.S. degree with a major in mathematics, to train indivisuals for teaching mathematics in high school, and to prepare students for advanced study in mathematics and other technical courses.
2. To offer a carefully planned course in the basic principles of mathematics for students lacking the prerequisites for college courses in this field.
3. To cooperate with other departments in the Arts and Science Division, and other divisions that may request it, by giving the courses whose requirements include mathematics.
4. To offer courses in mathematics designed to form a part of a liberal education which will better equip the individual to meet the challenge of a rapidly changing society.
${ }^{1}$ Ibid.
${ }^{2}$ Ibid.
5. To emphasize the ever-increasing importance of mathematics and other sciences in everyday living.

Department of English, Speech and Drama Education

The curricula in English and Speech and Drama Education were developed to prepare teachers for careers in junior and senior high schools. Courses are designed (1) to provide the student with skills and methods that will enable him to perform well in his discipline, (2) to assist the student in attaining a fundamental and specialized knowledge of the English language and its literature and/or to provide a broad base of knowledge of as many phases of speech and drama as possible, (3) to provide good English or speech and drama backgrounds for those students wishing to pursue advanced study in English or Speech and Drama or a related field, and (4) to provide the necessary training for students to meet requirements for teacher certification. 1

[^2]CHAPTER IV

METHODOLOGY

Introduction
This chapter consists of eight main sections which deal with the population and sample, the instrumentation, the statistical hypotheses, the collection of data, the statistical techniques, limitations of the study, definition of terms, and the chapter summary.

## Population and Sample

The population for this study constituted all English and Mathematics Education graduates of the University of Arkansas at Pine Bluff during the years 1969 through 1974. The office of the registrar provided the researcher with name, most recent address, and year of graduation of each graduate in the English and Mathematics Education Departments. A total of 165 names were reported to the researcher.

## Instrumentation

Two questionnaires were developed by the researcher, one for English Education graduates and another for Mathematics Education graduates. Both questionnaires contained 26 items with the only difference existing in item 25, which contained the objectives
set up by each department. If this item had not been included, the questionnaire for both groups would have been the same.

## Pre-Testing the Questionnaire

The original 26 -item questionnaire constructed for this study was first pre-tested on approximately twenty English and Mathematics teachers employed in the Pine Bluff school district in order to remove ambiguous language, to delete irrelevant statements, to assure easy reading, and to make any necessary changes in item structure and format. On the basis of the replies received, it was also possible to construct a checklist of answers to several openended questions.

Construction of the Questionnaire

A mail questionnaire (see Appendix C) was considered the best way to reach a large number of graduates scattered over a wide geographical area and it was chosen, too, because of the limited time and finances available for the study.

For ease of response and coding, the questionnaire was constructed so that the respondent could check most of the items or else answer with a word or short phrase. Opportunity was given respondents to write in additional information on some items if they desired.

The 26 items on the questionnaire were divided into categories which reflected the objectives of the researcher. Responses
made by the graduates were recorded on three-, four-, or five-point scales. A variety of scales were used ranging on a positive to negative continuum. Examples of the choices were:

3
inadequate

3
poorly
3
little value
$\stackrel{1}{1}$ very valuable some value
$\begin{array}{ccccc}1 & 2 & 3 & 4 & 5 \\ \text { excellent } & \text { very good } & \text { good } & \text { fair } & \text { unsatisfactory }\end{array}$

Some items were ranked on continuum scales 1-4 and 1-6, with the lowest number denoting greatest and the highest number denoting least importance. The salary scale was based on the largest percentage of graduates falling within a particular salary range.

Data collected were limited to (1) demographics, (2) postgraduate education and training, (3) work experience after graduation from college and starting salaries, (4) evaluation of undergraduate professional and general education, (5) assessment of attitude toward the university, and (6) academic achievement and post-graduate education.

The questionnaire was subject to frequent revisions before the final form was reached. Faculty members from the University of Arkansas at Pine Bluff Teacher Education Division and the Assistant Superintendent of Elkhart Community Schools, Elkhart, Indiana, were consulted regarding professional education. The objectives of general education were formulated by Dr. Paul Dressel (1958) and the objectives for each curriculum were formulated by each department (1975).

## Cover Letters

Since the cover letter was the first communication with the graduates whose cooperation was solicited, letters were reproduced on University of Arkansas stationery and were sent over the signature of the university's chancellor and the researcher. The letter emphasized the importance of the study to the university and urged the alumni to cooperate (see Appendix A). Since the questionnaires were to be returned to the researcher in a different state, the university's envelopes were not used.

The cover letter for the second mailing (Appendix A) was written by the investigator and reproduced on the letterhead of her department.

## Mailing Procedures

Addresses were obtained from the registrar's office as mentioned previously. All graduates in English and Mathematics Education from 1969 through 1974 were sent questionnaires, with stamped, self-addressed return envelopes enclosed.

Questionnaires returned because of incorrect addresses were again checked with the alumni office and with the university's alumni files. If an alternate address was found, they were readdressed. Only 20 questionnaires out of a total of 165 were returned "address unknown" after the first mailing.

Approximately one month after the first mailing, a second questionnaire with self-addressed, stamped return envelope was sent to all those who had not replied or whose reply was unidentified.

The respondents had been told on the front of the questionnaire that they need not sign the questionnaire, but a place was left at the end of the questionnaire for their name. Also, a place for the return address was printed on the return envelope and practically all of the respondents signed one or the other, if not both.

Thirty-two additional questionnaires were returned after the second mailing, a few with the notation that it was the first questionnaire received. This was approximately 23 percent of the total return.

## Response to the Questionnaire

A summary of the questionnaires returned, by major and year of graduation, is shown in Table 1. Eighty-four percent (138) of the graduates for whom addresses could be found returned the questionnaire in time to be tabulated. A cut-off date was established approximately one month after the first mailing, and replies which were received after that time were not tabulated. However, most of the replies were in by that time and only four were received after the cut-off date.

One can never be sure why some people reply to a questionnaire and others do not. It is possible that the 23 ( 14 percent) who did not reply would have changed the character of these data. Therefore, the conclusions and generalizations about the findings of the study are confined only to the portion of the total alumni group who responded.
Table 1. Summary of responses to questionnaire by major and year of graduation.

| Major and Year of Graduation | Tota 1 Sent | Returned | Percentage Returned | Not Returned | Percentage Not Used in Data Analysis |
| :---: | :---: | :---: | :---: | :---: | :---: |
| English |  |  |  |  |  |
| 1969-70 | 15 | 13 | $8{ }^{*}$ | 2 | 1* |
| 1970-71 | 21 | 15 | 9 | 6 | 3 |
| 1971-72 | 18 | 15 | 9 | 3 | 2 |
| 1972-73 | 14 | 12 | 7 | 2 | 1 |
| 1973-74 | 9 | 8 | 5 | 1 | 1 |
| Total | 77 | 63 | 38 | 14 | 8 |
| Mathematics |  |  |  |  |  |
| 1969-70 | 30 | 24 | 15 | 6 | 3 |
| 1970-71 | 15 | 14 | 9 | 1 | 1 |
| 1971-72 | 21 | 18 | 11 | 3 | 2 |
| 1972-73 | 10 | 9 | 5 | 1 | 1 |
| 1973-74 | 12 | 10 | 6 | 2 | 1 |
| Total | 88 | 75 | 45 | 13 | 8 |
| Total Sample: | 165 | 138 | 84 | 27 | 16 |

*Percentages were calculated on total sample.

## Definition of Terms

To avoid semantic difficulties, the following terms are defined either because of their specialized meaning or because of the operational definition which is used in this particular study.

Recent Graduate.--Used in this study, this term is interchangeable with respondent. Both mean an individual who graduated in Mathematics or English Education during the years of 1969 through 1974 from the University of Arkansas at Pine Bluff.

Attitude.--The sense in which this general term will be used follows the definition of Thurston (1946)--the intensity of positive or negative affect for or against a psychological object. A psychological object is any symbol, person, place, slogan, or idea toward which people can differ as regards positive or negative affect.

Demographic Variables.--Refers in the present study to certain variables typically used in sociological studies. These variables are (1) sex, (2) age, (3) year of graduation, (4) major, (5) job classification, and (6) salary range. Data on these demographic variables were secured through responses to questionnaire items.

Pre-Coded or Closed Questions.--Used when simple factual information or opinion can be expressed and recorded by one term or a check mark under a certain descriptive category with regard to a particular question.

Open or Free-Answer Questions.--Used when the respondent expresses his or her answer to a question in his or her own way,
with perhaps greater explanation and reasons provided than in precoded questions. It is then up to the researcher to determine what the respondent meant by his or her answer and it involves interpretation and judgment on the part of the investigator.

## Scope of the Study

This study was designed to assess the attitudes of predominantly Black recent graduates at one particular four-year liberal arts university. While it is possible that the findings of this study could be generalized to most predominantly Black four-year universities, it was not conducted for this purpose and caution would have to be emphasized in attempting to generalize the findings beyond the particular institution from which they are derived.

## Limitations of the Study

This study is limited by factors inherent in studies of a survey-research nature.

In order to study the responses of graduates of the teacher education curriculum in secondary education at the University of Arkansas at Pine Bluff, only graduates from this university were considered, which limited the study to this particular university. Although it is important to assess all areas of teacher education curricula for their effectiveness, this study was further limited to graduates in the secondary education department who majored in Mathematics and English Education because of a limited amount of time and finances available for the study. Such a narrowing of scope
also allowed the researcher to make a concentrated effort to get a higher percentage of responses to the questionnaire.

It was the researcher's decision, with approval of her advisor, to limit the study to graduates who had received bachelor's degrees in the years 1969 through 1974 for several reasons:

The major objective of undergraduate professional education is to prepare the graduate for the responsibilities he will assume in his first position, and judgments about the quality of education received are likely to be more valid if the educational experience is fairly recent.

Only recent graduates would have recent educational experience and therefore can more objectively criticize the present program. Female graduates in the study may have married and left their field, at least temporarily, within a few years after graduation.

The researcher was a member of the student personnel administrative staff during the time period under investigation and was known to some degree by most of the graduates. Hopefully, this would have a positive effect on the percentage of returns.

Variables other than those or in combination with those used in this study may be critical for consideration in the prediction of graduates' attitudes toward their educational preparation for teaching, both professionally and generally.

Only a small percentage of the sample responded to the item requesting them to list advantages, disadvantages and other deficiencies of attending a predominantly Black institution; therefore, the comments represent only the percentage that responded and
not the whole sample. This also holds true with the item regarding inadequacies of professional preparation for teaching.

Since the instrument contained pre-coded or closed items, open or free-answer items, and was individually rated by the respondents without supervision by the researcher, the degree to which the subjects' responses reflect true attitudes and knowledge is uncertain.

The questionnaire items used were developed by the researcher after reviewing longer, more comprehensive instruments developed by Aimee Nott Moore and Richard Sanders. Although the instrument used in this study was carefully developed over a period of twelve months, it is relatively new.

The racial composition of the university (predominantly Black) along with the small number of male graduates in English Education may also serve as limiting factors on the findings of this study.

## Hypotheses

The research hypotheses of this study were stated in Chapter I. To facilitate statistical testing, the directional Hypotheses 1, 2 and 3 were rewritten in null form. Hypotheses 4, 5, 6, and 7 were already in null form but were rewritten for consistency in stating the hypotheses. These hypotheses were designed to reflect and test the three objectives of this study. The following null hypotheses were tested in the study:

$$
\begin{aligned}
& H_{1}: \begin{array}{l}
\text { There is no significant difference between the } \\
\text { number of English and Mathematics Education graduates } \\
\text { employed by public schools and the number employed by } \\
\text { other employing organizations. }
\end{array} .
\end{aligned}
$$

> $H_{2}$ : There is no significant difference between the starting salaries of male and female graduates who majored in English Education and the starting salaries of those who majored in Mathematics Education.
> $H_{3}$ : There is no significant difference between the number of English and Mathematics Education graduates teaching in their major field and the number not teaching in their major field.
> $\mathrm{H}_{4}$ : There is no significant difference between the ratings given by graduates who majored in English Education regarding the quality of general education and professional preparation provided by their major department, and the ratings given by graduates who majored in Mathematics Education.
> $\mathrm{H}_{5}$ : There is no significant difference between the ratings given by graduates who majored in English Education regarding their student teaching experiences and the quality of instruction provided by their major department, and the ratings given by graduates who majored in Mathematics Education.
> $H_{6}$ : There is no significant difference between the grade point average of male and female graduates who majored in English Education and the grade point average of those who majored in Mathematics Education.

## Statistical Techniques

The statistical techniques employed in analyzing the data were frequency distributions, chi-square analyses, and t-tests.

Frequency distributions were calculated to summarize the data collected and to determine the number of responses falling into each category. Results of frequency distributions were used to summarize the characteristics of the group as a whole. They represented what was actually seen to be true from a limited number of observations (Hayes, 1973).

These distributions were not used to test the hypotheses but rather to provide an overall perspective of the entire sample
studied and to set up tables pertinent to the study. This type of summarizing was used for items 1 through 20 and 24 through 25 and provided data regarding the frequency, mean, and standard deviation of individual item responses.

Chi-square ( $\mathrm{X}^{2}$ ) was used to analyze Hypotheses I, II and III. This procedure was used to compare distributions of responses for two different groups of persons in the sample. Results were shown in contingency tables.

The t-test was used in analyzing Hypothesis II, along with the chi-square, and to analyze Hypotheses IV, V, VI and VII. These statistics were used to compare continuous data and to determine whether the difference between the two means is significant.

All references to "significance" in this study are based on the chi-square and t-tests and the .05 level of significance was used. The . 05 level means that an observed frequency could occur by chance only five times in 100 trials.

The data obtained from the questionnaire were coded, placed on data coding forms, key-punched on IBM cards, and programmed on the IBM 3600 computer. The Statistical Package for the Social Sciences (SPSS) Program analysis was used. The responses are reported from the computer in frequency and percentage tables. The control variables for most tables consist of two levels: the first level coded (1) are English Education graduates; the second level coded (2) are Mathematics Education graduates.

## Summary

The population of this study consisted of all English and Mathematics Education graduates from 1969 through 1974 at the University of Arkansas at Pine Bluff. Eighty-four percent of the population returned their questionnaires in time to be used for this study. Hypotheses were developed to test the objectives of the study.

The questionnaire was distributed to both groups by the researcher by mail and was returned by mail.

Frequency distribution, Chi-Square and t-test statistical techniques were used to analyze the data. However, only Chi-Square and $t$-tests were used to test the hypotheses at the .05 level of significance. If the Alpha level obtained is .05 , the null hypotheses will not be retained.

The following chapter reports the results of the data analysis.

## CHAPTER V

## ANALYSIS OF THE DATA

## Introduction

A general description of the respondents since graduation, the results of the analysis of the data for the seven hypotheses, and a listing of respondents' perceptions regarding the advantages or disadvantages of their education are presented in this chapter. Respondents' reasons for rating any of their programs and/or general education as inadequate will also be discussed, along with other deficiencies enumerated by these recent graduates.

With regard to the statistical analysis, some items were analyzed alone and others were grouped and interpreted, according to the hypotheses. Findings regarding an item provided a basis for retention or non-retention of a given hypothesis and were determined on the basis of chi-square value or t-test score. Tables include frequency distributions, chi-square analyses, and t-test data. In addition to the tables, the items which highlight each statistical hypothesis are discussed, concluding with a statement reflecting retention or non-retention of the hypothesis.

## Background of Respondents

Tabulations of the responses of the 63 English Education
graduates and 75 Mathematics Education graduates of the University of Arkansas at Pine Bluff yielded an abundance of information which has been summarized in tables in this chapter with supplementary descriptive tables in Appendix D. Comparisons are made of the responses of English and Mathematics Education graduates and, in some instances, of responses of graduates of the same type of curriculum.

Of the total respondents, 41 percent were female English graduates, 4 percent were male English graduates, 33 percent were female Mathematics graduates, and 22 percent were male Mathematics graduates.

## Marital and Employment Status

Approximately 75 percent of the graduates were married, 20 percent single, none were widowed, and 4 percent were divorced (Table 2).

Nearly all the graduates (97 percent) were employed full time at the time of the study, 2 percent were employed part time and only 1 percent had never worked since graduation. Seventy-seven percent of the graduates, regardless of marital status, had worked continuously since graduation.

Marriage had little apparent effect on the types of jobs graduates held. Almost all of the graduates who worked continued in the same position or changed to a similar position, especially Mathematics graduates. The work history of English graduates shows that if they were employed in another teaching field, it usually
Table 2. Description of Respondents.

| Characteristic | Number | Percentage | Characteristic | Number | Percentage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Race |  |  | Grade Point Average |  |  |
| Black/Afro American | 123 | 89 | at Graduation |  |  |
| White/Caucasian | 13 | 9 | 2.0 | 39 | 28 |
| Other | 2 | 2 | 2.5 | 61 | 44 |
| Total | 138 | 100 | 3.0 | 27 | 20 |
|  |  |  | 3.5 | 0 | 0 |
| Sex |  |  | 4.0 | 11 | 11 |
| Femate | 36 | 26 | Total | 138 | 100 |
| Male | 102 | 74 |  |  |  |
| Total | 138 | 100 | School Year of Graduation |  |  |
| Age |  |  | 1969-1970 | 35 | 25 |
| Under 22 | 18 | 13 | 1970-1971 | 37 | 27 |
| 22-24 | 63 | 46 | 1971-1972 | 26 | 19 |
| 25-28 | 22 | 16 | 1972-1973 | 23 | 17 |
| 29-31 | 18 | 13 | 1973-1974 | 17 | 12 |
| 32-34 | 17 | 12 | Total | 138 | 100 |
| 35 or Over | 0 | 0 |  |  |  |
| Total | 138 | $\overline{100}$ | Years of Teaching Experience |  |  |
| Marital Status |  |  | Less than 1 year | 8 | 6 |
| Single <br> Married | 28 103 | 20 | 1 Year | 2 | 2 |
| Separated | 103 2 | 75 1 | 2 Years | 15 | 11 |
| Divorced | 0 | 0 | 3 Years 4 Years or More | 36 77 | 26 55 |
| Widowed Total | $\frac{5}{138}$ | $\frac{4}{100}$ | 4 Years or More Total | $\frac{77}{138}$ | $\frac{55}{100}$ |
| College Major |  |  |  |  |  |
| English | 63 | 46 |  |  |  |
| Mathematics | 75 | 54 |  |  |  |
| Total | 138 | 100 |  |  |  |

was the field in which they received an advanced or additional degree, such as Special or Elementary Education.

## Graduate Study

Even though the interpretation of the data about graduate study is limited by the fact that the length of time since graduation is relatively short, and therefore plans for graduate study may be unformed or subject to change, these data do give some indication of the fields of study which graduates have pursued or shown interest in entering. There are a few duplications in these figures--some respondents who had a master's degree had already begun to do advanced graduate study--nontheless, almost 67 percent of the respondents indicated some definite study beyond the bachelor's degree (Table 3).

Approximately half of the master's degrees begun or completed by Mathematics Education graduates were in the fields of Mathematics Education or Statistics. Half of the graduate degrees begun or completed by English Education graduates were in the fields of English Education, Special, and Elementary Education.

Three percent of the Mathematics respondents had already received the doctoral degree, one percent had begun, but not yet completed, a doctoral degree (Table 3). Twelve percent of the respondents had already received their master's degree and 31 percent had begun, but not yet completed, a master's degree (Table 3). An additional three percent of the English respondents indicated they were in the field of English Education, Special or Elementary Education. One fourth of the Mathematics Education graduates who had begun

|  | English |  | Mathematics |  | Total Number |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Percentage | Number | Percentage |  |
| Graduate Degrees Completed |  |  |  |  |  |
| Masters Ed. Specialist Doctorate | 5 1 | 5 2 | 11 4 | 13 5 | $\begin{array}{r} 16 \\ 1 \\ 4 \end{array}$ |
| Graduate Degrees Begun, Not Completed |  |  |  |  |  |
| Masters <br> Doctorate <br> Ed. Specialist | 32 | 54 | $\begin{array}{r} 38 \\ 2 \end{array}$ | $\begin{array}{r} 51 \\ 4 \end{array}$ | $\begin{array}{r} 70 \\ 2 \end{array}$ |
| Graduate Degrees Not Begun |  |  |  |  |  |
| Masters Doctorate Other Ed. Specialist Other | 25 | 39 | 18 | 25 | 43 |
| Medical Doctor |  |  | 1 | 1 | 1 |
| Total | 63 | 100 | $\overline{74}{ }^{2}$ | 99 | 137 |

[^3]graduate study were in Administration and one-fourth of the English Education graduates were in Education.

## Work Experience

Eighty-one percent of the graduates had had three years or more of work experience, as might be expected. The earlier the year of graduation the more work experience the graduate had received. The category "Less than one year of work" included those graduates who had not taught at all (Table 2). Of those graduates who had not entered or who had left the profession for which they were trained, 5 percent left because they were not able to find a job in the preferred location and 11 percent left because of unsatisfactory working conditions. A total of 23 percent had either not entered or had left the profession for which they were trained (Table 4). Seventy-six percent (105) of the graduates had not left the profession for which trained. Table 5 reports the occupational status of graduates not working in their major field.

## Testing the Hypotheses

## Hypotheses 1 and 2

These hypotheses deal with the types of employing organizations and salaries obtained by recent graduates. Hypothesis 1 as stated in Chapter IV was:
$\mathrm{H}_{1}$ : There is no significant difference between the number of English and Mathematics Education graduates employed by public schools and the number employed by other employing institutions.

Table 4. Reasons indicated by respondents for either not entering or leaving the occupation for which they were trained.

| Reasons for not entering <br> or for leaving occupation | Number | Percentage |
| :--- | :---: | :---: |
| Compulsory military service | 0 | 0 |
| Personal reasons (family respon- <br> sibilities, illness, etc.) | 1 | .7 |
| Unable to find a job in <br> preferred location | 7 | 5.1 |
| Income low in relation <br> to other occupations | 3 | 2.2 |
| Did not like the work | 3 | 2.2 |
| Unsatisfactory working <br> conditions | 15 | 10.9 |
| Graduate study | 3 | 2.2 |
| Total | 32 | 23.3 |

Table 5. Occupational status of English and Mathematics Education graduates not teaching or working in major field.

| Occupation | English |  | Mathematics |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| Elementary |  |  |  |  |  |  |
| Administrator | 1 | 1 | 0 | 0 | 1 | . 7 |
| Consultant | 0 | 0 | 1 | 1 | 1 | . 7 |
| Counselor | 2 | 3 | 1 | 1 | 3 | 2.1 |
| Researcher | 0 | 0 | 2 | 3 | 2 | 1.4 |
| Laborer | 0 | 0 | 2 | 3 | 2 | 1.4 |
| Recruiter | 1 | 1 | 1 | 1 | 2 | 1.4 |
| Special <br> Education | 2 | 3 | 1 | 1 | 3 | 2.1 |
| Nurses Aide (part time) | 2 | 3 | 0 | 0 | 2 | 1.4 |
| Total | 21 | 33 | 11 | 14 | 32 | 22.8 |
| Mean $=1.232$ <br> Standard Deviation $=.424$ <br> Significance $=.0171 *$ |  |  |  | $\begin{aligned} & \text { Chi-square }=5.69118 \\ & \text { Degrees of Freedom }=1 \end{aligned}$ |  |  |

Table 6 shows that 85 percent of the total English graduates and 82 percent of the total Mathematics graduates were employed by public schools. Fifteen percent of the English and 18 percent of the Mathematics Education graduates reported being employed by other organizations. Hypothesis I is therefore not retained since there is a significant difference in the number of English and Mathematics Education graduates employed by public schools compared with other employing organizations. The findings further indicate that 89 percent were working in some type of institution of learning.

Table 6. A comparison of the number of English and Mathematics graduates employed by public schools and other employing organizations.


Hypothesis 2, as stated in Chapter IV, was:
$\mathrm{H}_{2}$ : There is no significant difference between the starting salary of male graduates who majored in English and Mathematics Education and the starting salary of female graduates who majored in English and Mathematics Education.

The results of this analysis are summarized in Tables 7-9.
Table 7 reveals that 89 percent of the male graduates and 73 percent of the female graduates in Mathematics Education received a starting

| Starting Salary | English |  |  |  | Mathematics |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Male } \\ (N=6) \end{gathered}$ |  | $\begin{gathered} \text { Female } \\ (N=57) \end{gathered}$ |  | $\begin{gathered} \text { Male } \\ (N=30) \end{gathered}$ |  | $\begin{gathered} \text { Female } \\ (N=45) \end{gathered}$ |  |
|  | Number | Percentage | Number | Percentage | Number | Percentage | Number | Percentage |
| Under \$4,999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5,000-5,999 | 0 | 0 | 7 | 13 | 0 | 0 | 4 | 9 |
| 6,000-6,999 | 3 | 50 | 13 | 24 | 3 | 10 | 8 | 18 |
| 7,000-7,999 | 1 | 17 | 14 | 25 | 7 | 23 | 6 | 14 |
| 8,000-8,999 | 0 | 0 | 16 | 29 | 19 | 63 | 19 | 43 |
| 9,000-9,999 | 1 | 17 | 2 | 4 | 1 | 3 | 2 | 4 |
| 10,000-10,999 | 0 | 0 | 3 | 5 | 0 | 0 | 3 | 7 |
| 11,000-11,999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12,000-12,999 | 1 | 17 | 0 | 0 | 0 | 0 | 2 | 5 |
| 13,000 or over | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total |  | 1017 | 55 | 100 | 30 | $99^{1}$ | $44^{2}$ | 100 |

[^4]Table 8. Chi-square analysis of starting salaries of male and female graduates in English and Mathematics Education.

Male Graduates in<br>English and Mathematics Education

Female Graduates in English and Mathematics Education

| Chi-square $=15.3000$ | Chi-square $=6.32162$ |
| :--- | :--- |
| Degree of Freedom $=4$ | Degree of Freedom $=6$ |
| Significance $=.0041^{\star}$ | Significance $=.3881$ |

*Significant at the . 05 level.
salary of $\$ 7,000$ or over. Fifty-one percent of the male and 53 percent of the female graduates in English Education also received a starting salary of over $\$ 7,000$. Hypothesis 2 is therefore not rejected, there being no significant differences between males and females' starting salaries within each major. Of the whole sample, Mathematics Education graduates, male and female, appeared to have received higher starting salaries than English Education graduates, with males receiving slightly higher starting salaries than females.

Further analysis of the data reveals there is significant difference at the . 01 level between the initial hiring salary of male Mathematics and male English Education graduates (Table 8). The difference for females was not significant. However, as indicated at the beginning of this chapter, since the number of male English Education graduates is small (six), the validity of the
comparison of the two male graduate groups may be questionable.
For data regarding present hiring salary, see Appendix D,
Table D2.
Table 9 reveals no significant differences in the mean of the starting salary of male and female graduates in English and Mathematics Education.

Table 9. A comparison of mean starting salaries of male and female graduates in English and Mathematics Education, t-test score.

|  | $\begin{aligned} & \text { Number } \\ & (N=138) \end{aligned}$ | Mean | Standard <br> Deviation | F | $\begin{aligned} & \text { Two-Tail } \\ & \text { Probability } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| English Education Majors | $61{ }^{1}$ | 3.0984 | 1.434 |  |  |
| Mathematics Education Majors | $74^{1}$ | 3.5946 | 1.323 | 1.17 | . 509 |

## Hypothesis 3

This hypothesis compares the number of graduates working and not working in their major field. Hypothesis 3, as stated in Chapter IV, was:
$\mathrm{H}_{3}$ : There is no significant difference between the number of English and Mathematics Education graduates teaching in their major field and the number not teaching in their major field.

The results of this analysis are summarized in Table 10.

Table 10. A comparison of English and Mathematics Education graduates teaching and not teaching in their major field, frequency table with chi-square analysis.

|  | English <br> $(N=63)$ | Mathematics <br> $(N=75)$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Teaching <br> Status | Number Percentage |  |$\quad$| Number Percentage |
| :--- | Total Percentage

*Significant at the . 05 level.

In Table 10 a comparison was made between the number of graduates working and not working in their major field. In this table it can be seen that the majority of both English and Mathematics Education graduates are teaching in their major field, especially Mathematics Education graduates. Eighty-five percent of the Mathematics Education graduates are working in their major fields compared with 67 percent of the English Education graduates, which predicated non-retention of Hypothesis 3. This indicates that differences may exist between the number of English and Mathematics Education graduates teaching in their major field. This difference may indicate a more positive attitude on the part of Mathematics Education graduates regarding being professionally prepared for teaching.

## Hypothesis 4

Hypothesis 4 deals with recent graduates' attitudes about the general education and professional preparation provided by the university.
$\mathrm{H}_{4}$ : There is no significant difference between the ratings given by graduates who majored in English Education regarding the quality of general education and professional preparation provided by their major department, and the ratings given by graduates who majored in Mathematics Education.

The results of this analysis are summarized in Tables 11-12.

Table 11. A comparison of ratings given by English and Mathematics Education graduates regarding the quality of professional preparation provided by their major department.

|  | Number | Mean | Standard <br> Deviation | F | Two-Tail <br> Probability | Number <br> Not <br> Responding |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| English <br> Graduates | 58 | 1.6594 | .327 | 1.31 | .279 | 5 |
| Mathe- <br> matics <br> Graduates | 72 | 1.6028 | .286 |  |  | 3 |

Table 12. A comparison of ratings given be English and Mathematics Education graduates regarding the quality of general education provided by their major department.

|  | Number | Mean | Standard <br> Deviation | F | Two-Tail <br> Probability |
| :--- | :---: | :---: | :---: | :---: | :---: |
| English | 63 | 1.5637 | .300 |  |  |
| Mathematics | 75 | 1.5419 | .311 | 1.07 | .778 |

The analysis indicates the groups did not differ in the ratings regarding the quality of general education and professional preparation provided by their major department. There was no significant difference noted in the responses in the two graduate groups, which does not suggest non-retention of Hypothesis 4.

Five (8 percent) English Education graduates did not respond to the item. Had they responded, it is possible that the outcome may have been different. Only three (4 percent) Mathematics graduates did not respond to the item.

There were some differences in the ratings of some areas of responsibility in Question 26 when considered separately by English and Mathematics Education, but not enough to cause rejection of the hypothesis.

For a more detailed analysis of individual items rated by the graduates, see Appendix D, Tables D3-D7.

## Hypotheses 5 and 6

These two hypotheses deal with the assessment of recent graduates' attitudes about the university and the utility of their college experiences.

Hypothesis 5, as stated in Chapter IV, was:
$\mathrm{H}_{5}$ : There is no significant difference between the ratings given by graduates who majored in English Education regarding their student teaching experiences and the quality of instruction provided by their major department, and the ratings given by graduates who majored in Mathematics Education.

Discussion of Hypothesis 5 is divided into two parts
in order to give a more detailed analysis of the data: Hypothesis 5a is concerned with student teaching experiences and Hypothesis 5b deals with quality of instruction. Respondents were asked how they would rate their student teaching experiences and the quality of instruction in their major field. Their responses are summarized in Tables 13 and 15 and compared in Tables 14 and 16.

In responding to Hypothesis 5a, Mathematics Education graduates rated their student teaching experience higher than did English Education graduates. Seventy-one percent rated it very valuable compared with 59 percent of English Education graduates. Eighty-eight percent of the Mathematics Education graduates and 75 percent of the English Education graduates indicated no major criticism of their student teaching program.

Table 14 reveals a significant difference in the mean score reported; therefore, Hypothesis 5a, regarding student teaching experience, was rejected, indicating a significant difference in the ratings of the student teaching program between English and Mathematics Education graduates.

Analysis of Hypothesis 5b, quality of instruction, revealed that 86 percent of the English Education graduates and 87 percent of the Mathematics Education graduates rated the quality of instruction in their major field as "very good" or higher (see Tables 15 and 16). These data indicate that there is no significant difference in the ratings of the quality of instruction by graduates of the two departments, and Hypothesis 5b, therefore, was retained.
Table 13. Summary of respondents' evaluation and criticisms of their student teaching experience.

More than one criticism could be indicated; all respondents checked only one.
Table 14. Comparisons of respondents' evaluation and criticisms of their student teaching experience, t-test results.
Table

|  | Number |  | Standard <br> Deviation | F |
| :--- | :---: | :---: | :---: | :---: |

Table 16. Comparison of respondents' ratings on the question, "How would you rate the quality of instruction in your major field?"

| Major | Number | Mean | Standard <br> Deviation | $F$ | Two-Tail <br> Probability |
| :--- | :---: | :---: | :---: | :---: | :---: |
| English | 63 | 1.8413 | .653 |  |  |
| Mathematics | 75 | 1.9067 | .720 | 1.22 | .429 |

Hypothesis 6, as stated in Chapter IV, was:
$H_{6}$ : There is no significant difference between the ratings given by graduates who majored in English Education and graduates who majored in Mathematics Education regarding their attitudes toward attending the university.

Respondents were asked, "When you were in college, how well did you like it?" and "If you were to begin your undergraduate education again would you attend UAPB?" The items in both questions were rated on a continuum scale from 1 to 5 with the smaller number indicating a higher rating. Table 17 reveals that the majority of both groups indicated they were enthusiastic about attending the university and would attend again if they were to begin their undergraduate education again. A comparison of the two groups' ratings revealed that both groups liked attending the university but tended to lean toward having a neutral feeling about attending the university. Table 17 shows that there is no significant difference noted in the ratings of the English Education as compared with the Mathematics Education graduates regarding their attitudes toward attending the university. Hypothesis 6 was retained.

Table 17. A comparison of the mean scores of attitudes of English and Mathematics Education graduates regarding attending UAPB.

| Major | Number | Mean | Standard <br> Deviation | $F$ | Two-Tail <br> Probability |
| :--- | :---: | :---: | :---: | :---: | :---: |
| English | 63 | 2.7778 | 1.156 |  |  |
| Mathematics | 75 | 2.7867 | 1.017 | 1.29 | .290 |

## Hypothesis 7

This hypothesis involves the investigation of the academic achievement of males and females who majored in English and Mathematics Education.

Hypothesis 7, as stated in Chapter IV, was:
$H_{7}$ : There is no significant difference between the grade point average of male and female graduates who majored in English Education, and the grade point average of those who majored in Mathematics Education.

The results of this analysis are presented in Table 18.

Table 18. Comparison of grade point average between English and Mathematics Education graduates, t-test score.

| Major | Number | Mean | Standard <br> Deviation | F | Two-Tail <br> Probability |
| :--- | :---: | :---: | :---: | :---: | :---: |
| English | 63 | 2.9206 | .703 |  |  |
| Mathematics | 75 | 3.3333 | 1.319 | 3.52 | .001* |

*Significant at the . 05 level.

Comparison of the two groups shows that the English Education male and female graduates' mean score was 2.9206, while the Mathematics graduates' mean score was 3.3333, which gave a twotailed probability of .001. Therefore, Hypothesis 7 was not retained, indicating that there may be a difference in the grade point average of English Education and Mathematics Education graduates. Mathematics Education graduates tended to have higher grade point averages than English Education graduates.

## Further Responses from Questionnaires

This section is divided into two parts. The•first deals with graduates' reactions to advantages and disadvantages of attending a predominantly Black institution. The second reports reasons for rating as inadequate some specific areas of professional responsibility for which they were trained as an undergraduate, along with other perceived deficiencies in the undergraduate program.

Advantages and Disadvantages of Attending the University

Recent graduates in English and Mathematics Education listed in their own words factors they would consider as advantages and/or disadvantages of attending a predominantly Black university. Their responses are listed, in order of highest rating first, on the following pages. A few direct statements and comments given by graduates are also listed under some of the responses. Comments in quotes are direct statements from the questionnaire.

Some graduates did not respond or listed "none" under both headings; therefore, the responses represent only those students who responded and are small in number. Thirty-three respondents listed advantages and fourteen listed disadvantages. Sixty respondents indicated "none" for both and thirty-one did not corment in the spaces.

Items classified by English and Mathematics Education graduates as advantages of attending a predominantly Black university were:

## 1. Faculty-Student Relationships.

a. More understanding, personal and individual attention from professors and instructors.
b. "Most teachers understood your weaknesses and tried to gear the curriculum to strengthen those areas.
c. Adequate communication between students and professors along with good relationships.
d. "Professors were sensitive to the needs of students."
e. "A better education because of the concerned teachers who made you feel comfortable and not threatened."
f. Administrators, teachers and students understood the two-fold challenge.
g. No prejudice from students or professors concerning race.
h. "I had few reservations in seeking additional help from instructors."
i. "The instructors seemed to understand my weaknesses and shortcomings without making me feel inferior."
2. Self Identity.
a. Develop self-awareness and identification.
b. Develop a sense of belonging.
c. Able to develop individual talents.
d. Offers opportunity to develop self-confidence.
e. Better adjustment and acceptance from your own people.
f. Better able to propose changes for your people.
g. Better able to contribute to your people.
h. Leadership opportunities.
3. Unity and Pride.
a. Adequate communication and involvement between students, faculty and administration which brought about unity.
b. Development of long-lasting, personal relationships with people who are of the same point of reference.
c. Broader view of literary contributions made by a minority group.
d. Development of closeness as a group.
e. Development of unity and Black pride.
4. Instruction.
a. Good quality instruction.
b. Striving to educate more Blacks.
c. Preparing students for professional career.
d. More effective counseling.
e. Small classes.
f. Interest of faculty in students' achievements.
g. Opportunity to interact with other social groups from a superior position.
h. A special kind of dedication and concern was exmplified by professors and instructors.
5. Student Life.
a. A good and well-rounded student life.
b. Proper social activities.
c. Free choice of a sorority and possible membership.
d. Learned about different races.
e. "Some of the things I was able to participate in, I could not have at a predominantly white school."
f. Better chance to participate in activities.
6. Racial Tension.
a. Less racial tension and incidents on campus and in the community.
b. Comfortable association with peers.
c. Gave some whites the opportunity of knowing and understanding Blacks better.

Other advantages listed, but not rated highly, were "less expensive," "it opened your eyes to the major injustices and shortchanges than an all-Black school is subject to," and "financial aids are more available."

Items characterized by English and Mathematics Education graduates as disadvantages of attending a predominantly Black university were:

## 1. Facilities, Resources and Supplies.

a. "Some inadequate facilities and resources such as library facilities and resources, art supplies and equipment, duplicating equipment, audio-visual aids, and computer services and equipment."
b. Limited supplies available for students' use.
c. Unavailability to students of the audio-visual and duplicating facilities.
d. Did not have enough resource materials.
e. "Facilities are not up to par with predominantly white schools."

## 2. Recognition.

a. Lack of recognition by main stream society.
b. Not being truly accepted in outside world.
c. Job placement opportunities limited.
d. Improper recognition from other schools.
e. Prejudice as far as getting a job.
f. "Many employers have the idea that graduates of predominantly Black universities are inferior."
g. "Attending an all-Black school could hold you back on some job applications in certain areas when that school name is shown on your transcript."
h. "Most Black schools are not recognized as being good schools regardless of the quality of instruction and the end product."
i. Does not give advantages in a super-competitive job market.
3. Contacts with Other Ethnic Groups.
a. Little contact with whites and other ethnic groups.
b. "Lack of association with people of different ethnic backgrounds and cultures. Most ethnic group contact was with faculty."
c. Lack of understanding of other people and their culture.
d. Do not have well-rounded experiences with other races.
e. Didn't learn how to work with other types of people.
f. Didn't prepare for social relationships with white people.
g. Tend to promote prejudice.
4. Educational Preparation.
a. Limited educational experiences.
b. Limited educational experiences in travel and the arts.
c. "Little exposure to research."
d. Limited degrees.
e. "Small amount of actual field training."
f. "Some teachers evidently did not take refresher courses and taught outdated materials."
5. Funding and Finance.
a. Lack of adequate fundings, resulting in limited physical equipment, programs and curricula.
b. "Not enough grants or other financial aids available for low-income families."
c. Low-income families are pressured into paying over half of their income for loans when financially disabled because of unemployment after graduation.
d. Black schools get fewer state and federal dollars, which results in inadequate funding.
6. Competition.
a. Probably would have tried harder in my subjects if more whites had attended the school.
b. "Not competitive enough."

Other deficiencies in the undergraduate programs, as listed by recent graduates, were not explored in the questionnaire:

1. English Education Graduates.
a. "If I had availability of duplicating and audio-visual materials, my beginning years as a teacher would have been smoother."
b. "Secondary education majors were not required to take audio-visual courses as elementary majors were. I have found that course to be required in graduate school. My deficiency in the use of audio-visual was marked once I began teaching."
c. "Not taught how to budget, take inventory or how to get funds for supplies and equipment."
d. "Basically no academic training and preparation for the brutality of practical business and survival."
e. "The only other deficiencies were my own shortcomings. I did not do all I should have done."
f. "There was too little emphasis on how to deal with slow learners."
g. "No exposure to data processing and computer programming."
2. Mathematics Education Graduates.
a. "Computer programming facilities were not available."
b. "Not enough theory in Mathematics education for further study."
c. "A lack of equipment for courses."
d. "Courses in our major and minor fields did not prepare us for the questions we would run across in teaching; however, they did prepare us on the subject matter."
e. "There should be more physical demonstration throughout each course, not just written or oral examinations. A more training-on-the-job type similation-type atmosphere would be more rewarding.
f. "Lack of adequate training in use of educational aids."
g. "Very little emphasis on how to deal with the slow learners."
h. "Prepared to meet the world under conditions most Blacks are prepared that is, too long getting into the English problem, but not the fault of the school. If it were not for A. M. \& N. job prospect would look slim for a lot of Blacks. The school remains the only hope for poor Blacks!!!"

## Areas of Inadequate Training

Following are the respondents' reasons for listing some of their professional preparation as inadequate. Responses are reported separately for each group. Since only a few responded, these
responses cannot represent the whole sample. Assumptions and generalizations can be made by comparing the responses given by the two groups, but to attempt to use their ratings as the feeling of the complete sample would be misleading and probably invalid.

Most graduates who checked some areas inadequate checked only items $13,12,7,7$, and 2 , with most rating the larger numbered items as to where the most inadequacy occurred. English graduates checked more areas inadequate than did Mathematics graduates. The majority of the graduates did not rate any of the areas inadequate.

Responses are direct quotes.
Item 13: Obtain, allocate and account for appropriate fiscal resources.

English Education Graduates:

1. "Not exposed to the procedure of obtaining funds from government-sponsored programs in the field of public education and for obtaining, allocating and accounting for fiscal resources."
2. "Needed budgeting and planning of fiscal affairs."
3. "Management and budgeting was not part of the curriculum."
4. "When I began teaching, I had not been made aware of the available funds for necessary materials and aids for the classroom teachers' use; consequently, I often bought necessities myself or did without."
5. "Was not taught budgeting and how funds are set up and allocated for teaching supplies, equipment and other aids."

Mathematics Education Graduates.
"Didn't inform students in education the different grants available for classroom teachers."

Item 12: Evaluate effectiveness of own teaching methods.

## English Education Graduates.

1. "Was not given techniques in evaluating other than testing."
2. "No techniques were given to help me evaluate my own teaching methods other than through written tests. There are other methods available that students should be aware of and taught."

Mathematics Education Graduates.

1. "Should be more physical demonstration on how to evaluate along with written and oral examinations."
2. "Were given more on what the book would say, not how they would go about evaluating effective teaching methods."

Item 8: Effective communication--oral and written.
English Education Graduates.

1. "More emphasis should have been placed on grammar."
2. "More than one course should have been required in public speaking."
3. "I was not taught how to write special reports for students' records and how to prepare reports necessary for school operation and evaluation.

## Mathematics Education Graduates.

1. "A need for more classes in public speaking."
2. "More basic grammar courses should be offered."
3. "More emphasis should have been given on the importance and need of effective written communication and the importance of keeping written records on students."

Item 7: Achieve discipline control.
English Education Graduates.

1. "Techniques were not discussed on how to work with discipline."
2. "Did not prepare us on keeping control. They more or less left it to the books. I would have liked some of their ideas on the matter."
3. "A class on discipline in Secondary Education would be a great help to assist in learning to control some common classroom situations."
4. "I think that discipline controll (sic) is something that comes with experience. For most situations, controll (sic) depends on the class and the size of the class. It also depends on the age group and the attitudes and the student and teacher. I believe one have (sic) to developed (sic) his own discipline controll (sic). This is something that can't be taught."

Item 2: Loyalty to school policies.

## English Education Graduates

"This is a personal and professional decision. Since most institutions do not readily accept change and new methodology. I am loyal to school policies only when I personally and professionally feel they operate to the best advantage of the student."

The corments under each item, as stated before, are personal statements given by respondents and in no way can speak for the total sample; however, there is an agreement by those who responded for more basic courses in grammar, additional courses in public speaking, skills to help students communicate more effectively both orally and written, and provision of practical ways of handling disciplinary problems in the classroom.

More English Education graduates felt the need for additional training in obtaining, allocating and accounting for appropriate fiscal resources than did Mathematics Education graduates. This is somewhat understandable since training for the latter group is in mathematics. However, it does indicate the English Department should consider what mathematics courses could be included in the English curriculum to give the majors this necessary training.

Mathematics Education graduates indicated a need for information on obtaining grants for further study, classroom supplies and equipment and resources. One Mathematics Education graduate made a clear statement on Item 14, "Establishing rapport with community and parents." He stated:

In time I believe everyone learns how to meet parents and react to the community. Just like discipline, I believe that if you get a mad parent, there is no learning or knowledge that will help you control them. The best thing to do is remain calm and at the same time try to understand the reason for the action and the complaint and respond from there.

## Summary

This chapter presented the analyses of the data from the questionnaire, including pertinent background information on the respondents. Each hypothesis was examined and analyzed according to the data available and results were obtained from chi-square or t-test analyses. A statement reflecting acceptance or rejection of each hypothesis was included in the discussion.

An additional section dealt with respondents' statements of advantages and disadvantages of attending an all Black institution, but the small size of the sample responding to this item on the questionnaire precluded making a valid statistical analysis of the data.

## CHAPTER VI

## FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

## Introduction

The purpose of this study was to investigate the types of positions undertaken by recent graduates of English and Mathematics Education at the University of Arkansas at Pine Bluff and to obtain an appraisal by these graduates of the adequacy of their undergraduate education in meeting job demands and individual needs. An attempt was made to analyze the differences in perception which exist between both groups. Both curricula prepare these graduates for careers in teaching, although the emphasis of the two programs is considerably different.

An effort was made to review, collate and assess the literature. This was difficult because of the limited amount of research available on appraisals of predominantly Black institutions of higher learning.

Data were obtained from answers to mailed questionnaires which were sent to recent (1969-1974) English and Mathematics Education graduates. Of the number responding, 46 percent were English Education graduates and 54 percent were Mathematics Education graduates. The total response rate was 84 percent.

The graduates supplied information about (1) their attitudes about the instruction received, their student teaching
experience at, and their attending a predominantly Black institution; (2) their academic achievement; (3) work experience and starting salary after graduation; (4) post-graduate education and training; and (5) evaluation of their undergraduate professional and general education.

Two questionnaires were developed (see Appendix C), one for Mathematics and one for English Education graduates. Both questionnaires contained 26 items with the only difference existing in item 25, which contained the objectives set up for each department. The items were divided into categories which reflected the objectives of the study.

The responses of both groups to pre-coded or closed items were rated on three-, four- or five-point scales. Items of open or free answer responses were ranked on continuum scales 1-4 and 1-6, with the lowest number denoting greatest and the highest number least importance. Some items included yes and no responses, while others presented a choice of alternatives for the respondents. The salary scale was based on the largest percentage of graduates falling within a particular salary range.

Chi-square analyses were conducted on three and t-tests on five of the seven hypotheses (both tests were calculated on one variable) to determine if significant differences existed between English and Mathematics Education graduates. The . 05 level of confidence was used to determine statistical significance among the groups. Frequency distributions were used on the remainder of the variables along with the chi-square analysis on some.

## Findings

1. The types of students who were graduated in English and Mathematics Education were different in certain general factors, even though both types of curricula prepared these graduates for careers in teaching. These differences include:
a. The majority of the English Education graduates were women; the Mathematics Education group were more evenly distributed between men and women.
b. More Mathematics graduates were able to find employment in their major or related fields.
c. English graduates not employed in their major field were primarily interested in special or elementary education and other fields of education. Mathematics graduates were attracted to careers in research, statistics, counseling or recruiting.
2. The majority of both groups of graduates were teaching in their major field. However, there were more Mathematics than English graduates teaching in their appropriate field.
3. There was a considerable difference in the number of Mathematics and English graduates employed by public schools and those employed by other employing organizations.
a. Ninety-two percent of all Mathematics graduates were employed by public schools, 8 percent by other employing organizations.
b. Eighty-five percent of all English graduates were employed by public schools and 15 percent by other employing organizations.
4. Twenty-three percent of the total graduates had either not entered or had left the profession for which they were trained.
a. Ten percent left because of unsatisfactory working conditions; 5 percent left because they were not able to find a job in a preferred location.
b. A little over two percent left because of graduate study, income low in relation to other occupations or because they did not like the work. Less than one percent left for personal reasons.
5. There was no great difference in the starting salary of graduates in English or Mathematics education when sex was not considered, but the starting salary for male Mathematics majors was signficantly higher than that of male English majors.
a. Eighty-nine percent of male Mathematics graduates were initially employed at salaries over $\$ 7,000$, compared with 51 percent of the male English graduates.
b. Seventy-three percent of the female Mathematics graduates were initially hired at salaries over $\$ 7,000$, compared with 53 percent of the female English graduates.
6. The mean salary of all graduates in their present position was over $\$ 9,000$ (100 percent of the male English graduates and 89 percent of all others fell in that salary range).
7. The majority of both groups rated the quality of instruction they received as "Very Good" (English graduates 56 percent, Mathematics 60 percent).
8. The grade point averages of Mathematics Education graduates tended to be higher than those of English Education graduates.
9. Mathematics graduates rated their overall student teaching experience higher than did English Education graduates: 71 percent of the Mathematics graduates rated it as "Very Valuable," compared with 59 percent of the English graduates. Eighty-eight percent of the Mathematics graduates had no major criticism about the program, compared with 75 percent of the English graduates.
10. Overall, there was no significant difference in the
ratings by graduates of the professional education provided for secondary teaching; however, there were significant differences in ratings of three of the areas. (See Appendix D, Tables D4 and D5.)
a. English and Mathematics graduates' ratings were significantly different in the area of "effective communication--oral and written":
$\underset{\%}{\text { Excellent }} \quad \underset{\%}{\text { Adequate }} \quad \underset{\%}{\text { Inadequate }}$

| Mathematics | 21 | 76 | 3 |
| :--- | :--- | :--- | :--- | English 39 53 9

b. Mathematics and English graduates' ratings were significantly different in the area of "measuring learning outcomes." None rated it inadequate.

$\underset{\%}{\text { Excellent }} \quad$| Adequate |
| :---: |
| $\%$ |

Mathematics 4653

English
1981
c. Mathematics and English graduates' ratings were significantly different in the area of evaluating "effectiveness of own teaching methods":

| Excellent | Adequate | Inadequate |
| :---: | :---: | :---: |

$\begin{array}{llll}\text { Mathematics } & 39 & 53 & 7\end{array}$
English $15 \quad 81$
3
12. An overall comparison of the graduates' evaluation of their undergraduate education indicated both groups tended to rate it well; however, there were significant differences in ratings of three of the areas. (See Appendix D, Tables D6 and D7.)
a. English and Mathematics graduates' ratings were significantly different on the item "to understand and enjoy literature, art and music":

|  | Well <br> $\%$ | Fairly Well <br> $\%$ | Poorly <br> $\%$ |
| :--- | :---: | :---: | :---: |
| Mathematics | 38 | 53 | 7 |
| English | 83 | 18 | 0 |

b. Mathematics and English graduates' ratings were significantly different on the item "to habitually apply scientific thought to the discovery of facts":

| Well | Fairly Well | Poorly |
| :---: | :---: | :---: |
| $\%$ |  |  |


| Mathematics | 49 | 44 | 7 |
| :--- | :--- | :--- | :--- |
| English | 27 | 61 | 11 |

c. Mathematics and English graduates' ratings were significantly different on the item "to understand the culture of other people":

|  | Well <br> $\%$ | Fairly Well <br> $\%$ | Poorly <br> $\%$ | Not at A11 <br> $\%$ |
| :--- | :---: | :---: | :---: | :---: |
| Mathematics | 21 | 63 | 15 | 1 |
| English | 21 | 34 | 40 | 2 |

13. Both groups' attitudes toward attending the university were quite positive.
a. The majority would select the university to begin their undergraduate education again. Eighty-eight percent of the total group responded yes, 4 percent no and 9 percent were uncertain.
b. Both groups' responses to "when you were in college, how well did you like it?" were quite positive. Sixtysix percent of the total group responded "I was enthusiastic about it," 33 percent responded "I liked it," and 1 percent responded "I was neutral about it." None of the respondents indicated they did not like or hated it.
14. Mathematics graduates as a whole evaluated their objectives as being carried out well by the department; however, they did indicate the following objectives needed to be improved upon:
(1) acquaint teachers with the objectives and content of the many
proposals for changing our curricula and texts, 5 percent; (2) prepare teachers to select intelligently what changes in content, pace and sequence are to be adopted in the schools, 8 percent; (3) introduce the students to the literature and history of mathematics, 8 percent; and (4) present techniques, relative merits, and deductive approaches to new ideas, 1 percent.
15. English graduates as a whole evaluated the objectives established by their department as being carried out well. Only one percent indicated a need for improving this aspect of the program.
16. Both groups indicated considerable interest in postgraduate education. Four percent of the English and 8 percent of the Mathematics graduates had received master's degrees; however, a total of 15 percent had received some type of degree beyond the B.S. or B.A. Other degrees included educational specialist and doctorate. Only Mathematics Education graduates had received doctorates (3 percent). One Mathematics graduate had received a medical degree. Eighteen percent of the English graduates and 13 percent of the Mathematics graduates had begun working on a master's degree; none of the respondents indicated working on a degree beyond a master's.
17. Graduates' free responses to "advantages and disadvantages of attending a predominantly Black institution and other deficiencies" proved to be quite interesting. A small percentage of respondents filled in this item, enabling several direct statements to be included in the discussion of this item in Chapter V. Advantages and
disadvantages were grouped according to the importance placed on the area by graduates. Those graduates who responded were most impressed with faculty-student relationships, the ability to develop Black unity and pride, the quality of instruction considering it was a predominantly Black institution, wholesomeness and quality of student life, and the small amount of racial tension.

The respondents' indications of disadvantages were lack of adequate facilities, resources and supplies; lack of proper recognition from mainstream of society and other institutions (especially predominantly white), the employment market and the quality of education provided; lack of adequate contact with other ethnic groups, especially in a classroom setting; lack of adequate educational preparation in some areas (see earlier discussion); inadequate funding and financing of the institution to provide the quality of education compared with predominantly white institutions; and lack of motivation and competition.
18. The majority of the respondents were strong advocates of general education and expressed concern about the adequacy of their general education as well as their professional education.

Many respondents made comments expressing concern that there was not enough time to take adequate work in the liberal arts. The comment of one graduate was typical of the concern shown by many: "An educated liberal mind is necessary for satisfying relations with our fellow college graduates." Another stated it this way, "I feel that my overall undergraduate education would have had
greater permanent value had it included courses in philosophy, literature, art, cultural studies, and more psychology.

A major implication that can be drawn from this study is that one should not make broad generalizations about the superiority or inferiority of one educational program or one predominantly Black institution. Since this study was confined to one institution, no definitive comparisons can be made concerning what might prevail at other institutions, either Black or white.

## Conclusions

This study was prompted by the realization that there is little research going on about or in predominantly Black institutions, particularly concerning the positive and progressive aspect of such institutions. The researcher's intent was to assess selected recent graduates' attitudes toward their educational preparation for teaching by a predominantly Black institution.

This study does reveal the need for periodic institutional self-study in order to evaluate the effectiveness of educational programs.

College curricula are not, and should not be, limited to the requirements of any professional organization. Each department has unique facilities which should be exploited, and herein lies the opportunity for experimentation and the possibility of improving the profession. It is also this uniqueness which gives variety to our educational system, and which, therefore, attracts a large number of people with a wide range of interests. This study clearly points
this up because although Mathematics has traditionally been a man's field, a large number of women are now expanding their interests and going into Mathematics or Mathematics-related areas.

Departments do not necessarily need to add new curricula in order to satisfy the general as well as professional needs of their students because facilities are available in other parts of a university to supplement courses taught in each major. By requiring students to take some of their work in other parts of the university, the educational horizons of the students would be broadened, thereby fulfilling the need expressed by some graduates in this study to take more liberal arts courses than currently required.

Steps should be taken by English and Mathematics departments to expand their curricula to better assist students in the areas of discipline and classroom control, oral and written communication, obtaining, allocating and accounting for appropriate fiscal resources and evaluating effectiveness of own teaching methods.

Both departments need to improve in areas of general education, such as helping students to better understand the culture of other people, to habitually apply scientific thought to the discovery of facts, to acquire knowledge and attitudes basic to a satisfying family life. Some of the respondents observed that this would have enhanced their preparation for teaching. It would appear that this area would be well worth pursuing. Another very imporant skill is the ability to do significant independent research, which is essential to the pursuit of post-graduate
study and to be effective English and Mathematics teachers.
An often overlooked area which should receive more emphasis is that of maintaining and/or improving one's own health. One has to be mentally and physically healthy in order to perform to one's capacity and to set a good example for students. As a nation we are learning to set a high value on good health and our schools are beginning to reflect our interest in promoting good health habits.

Concern over professional education and the problems of specialization should not be allowed to preclude concern for the general education needs of students. Provisions should be made in the curriculum for some required work in the liberal arts in order to be sure that all students select some courses outside of their professional curriculum. Whether this general education requirement should take the form of a block of specially designed interdepartmental courses, or a required distribution of courses which leaves the student considerable leeway in the choice of the particular courses which are most interesting to him is a moot question. The majority of graduates of both types of programs indicated they thought the program they took had adequately met their needs. However, many graduates commented that they would have liked to have had more electives in order to pursue interests which had been developed in the general education program.

One way to permit the development of individual interests is to plan the undergraduate curriculum so that there are some free electives. In a crowded professional curriculum this is difficult.

Undoubtedly, however, there are courses in any curriculum which could be eliminated or modified after careful study. A number of the graduates indicated some concern that some of the required courses were unchallenging and repetitious (and recommended more field placement and internships). These courses should be condensed and perhaps combined with other required courses or perhaps eliminated so that there would be more time for electives. Methods of teaching should also be critically evaluated. One of the remarks which typifies the opinion of some of the graduates about the quality of instruction was, "there is too much emphasis on the memorization of facts, not enough on problem solving and application of facts."

Since the four-year curriculum is far too short to permit the teaching of facts and the development of skills which would be useful when the graduate faces the responsibilities of his/her first job, the researcher feels that students should be required to get some practical experience through working or observing in their major field before student teaching, to help determine if they have chosen the appropriate field. It would be highly desirable if a member of the faculty could visit the students to find out what problems they encounter and to help them evaluate their experiences. Some follow-up by the college should definitely be planned in order to get the maximum benefit from the experience.

There are no easy solutions to the problems facing the college faculties responsible for the undergraduate professional education of students. A concerted effort must be made by college faculties and other professional leaders, however, to single out the
basic principles and the skills which are essential for beginning jobs so that colleges or departments may concentrate on teaching their knowledge and on developing in their students habits of study and critical evaluation which will lead to continual selfevaluation after the period of formal education is finished.

The graduates gave quite positive responses toward their student teaching experiences, which is encouraging. Such field experience is especially valuable after the rapid technological and scientific advances of the 1950's when education inherited the responsibility of preparing students who could cope with the developments of electronics, mechanization, and automation. The teachers of tomorrow must be prepared to implement the most modern teaching methods and aids which have resulted from research and experimentation in order to promote more efficient teaching in the classrooms of the future. The student teaching programs of the 1980's and 1990's will have to change according to the educational research, philosophy, social patterns, and technological advances between now and then. Many advances in psychology, science and technology, human relations and other areas of significance should greatly improve and enhance the student teaching programs of the future.

Respondents gave a very positive rating regarding their attitudes about the university. However, the following comment by a 1974 Mathematics graduate seems to exemplify the deepest feeling:

I believe that the University of Arkansas at Pine Bluff is one of the many colleges that develop and train one for that particular occupation of his choice. Therefore, I will rank it as one of the best, considering the situation and the equipment that is there. I will go as far as to say that if you want a good education which consists of formal and informal learning, stop at the University of Arkansas at Pine Bluff. As far as a Black college, I think it needs to continue on in that manner, provided it is adequately funded, because for Blacks to really feel or get the feeling of unity they need to all be united as one body, one race in Christ. Although I know this is only a dream now, but I can say my dream was once a reality when it was first developed as Arkansas A. M. \& N., and too I can say although I know this is only a dream, but did help my dream to become a reality in a sense because it was a predominantly Black college during my attendance.

It probably is not necessary to comment on this graduate's statement, but it is consistent with what has been stated as the main philosophy of the University of Arkansas, articulated most effectively by Dr. Lawrence Arnett Davis, a great scholar and educator, who said,

> and purposes of His universe and to reconcile one's life and ond with these laws. The first aim of a good college is not to teach books, but the meaning and purpose of life. Hard study and the learning of books are only a means to this end. We develop power and courage and determination and we go out to achieve Truth, Wisdom, and Justice. If we do not come to this the cost of schooling is wasted.

Dr. Davis served as president of the institution from 1943 to 1973.

## Recommendations for Further Research

Based on the findings of this study, a number of areas for further research and investigation are suggested.

1. The present study could be replicated with a statistically representative sample of graduates in other fields in predominantly

Black institutions which train teachers in secondary and elementary education.
2. The present study could be replicated with a larger, statistically representative sample of a university's total graduate population, comparing graduates in teaching and non-teaching fields.
3. Even though the trend is toward racially balancing the institutions, more studies should be conducted on predominantly Black institutions for evaluation and comparison purposes since there has been a paucity of research on these institutions.

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## APPENDIX A

## Cover Letter for First Mailing and Follow-Up Letter

# UNIVERSITY OF ARKANSAS AT PINE BLUFF <br> PINE BLUFF. ARKANSAS 71601 <br> 501/535.6700 

## Dear Alumni:

As a recent graduate of our college you have been randomly selected in seeking your cooperation in a study which is attempting to assess the effectiveness of your undergraduate education, particularly as it relates to your academic achievement, your professional experience and success since graduation. We are interested in what you are doing now, why you have changed fields', if you have so, and what types of positions you have held.

This study, which is being conducted by Mrs. Ruth L. Lambert, (AM\&N graduate and former Associate Dean of Students at this university; at present, a full-time graduate student at Michigan State University), as a part of her doctoral dissertation, is concerned with alumni whose undergraduate majors prepared them for a possible career in teacher education. Your evaluation of how well your undergraduate education prepared you for your profession will provide Mrs. Lambert with information which will be of great value to her in appraising the curriculum and in making recommendations which may help the university and other schools and colleges in curriculum planning and course revisions in teacher education.

The National Fellowships Fund has awarded Mrs. Lambert a fellowship to finance the research and therefore, holds partial interest in the study. It is the rain interest of the Fund to assist with developmental programs of black talent for academic careers in colleges and universities in the United States.

We hope that you will assist in the compilation of this important information by completing the enclosed forms and returning it in the envelope supplied for your use. We solicit your cooperation in returning the completed questionnaire within two weeks.

Yours truly,


Herman B. Smith, Jr. CHANCELLOR


Ruth L. Lambert, Graduate Student
Michigan State University
HBSjr: 1
Enclosure

college of education - department of administration and higher education
ERICKSON HALL

November 22, 1976

Dear Alunn:
Several weeks ago you were sent a questionnaire which was designed to ascertain the effectiveness of your undergraduate education in preparing you for subsequent professional responsibilities and personal and civic life. The data obtained from your response will make it possible for the Division of Education to apply the results in curriculum evaluation and program improvement.

The responses have been gratifying, however, since I solicited a very small sample size, I am in need of a return of every questionnaire that it is possible to obtain.

I am enclosing another questionnaire for your convenience. If your questionnaire is already in the mail, nlease disregard this letter and accept my sincere thanks for your cooperation. If it is not, please complete the enclosed copy and return it in the envelope provided for your use.

Your response is very important to the success of this study and the time and effort you take will be greatly apreciated.

Sincerely,
Retst L. ©
Ruth L. Lambert
Doctoral Candidate in
Higher Education

## APPENDIX B

## Pre-Test Questionnaires

Check List of Professional Education and Work Experiences for Selected Graduates in Secondary Education at the University of Arkansas at Pine Bluff

Instructions: Please fill out the following questionnaire and respond to all items. Most items require only a check $(\checkmark)$, a letter or short phrase. Your answers will be treated confidentially and used only in group tabulations. Your name is requested for follow-up purposes only.

Background Information:
. School year of graduation:
$1969-170$
$\_1970-171$
$-1971-172-1973-74$
2. Sex:

Male
Female
5. Age:

Under 22
22-24
-25-28
-29-31
$-32-34$
$-35-$ or over
3. Race:

Black/Afro American White/Caucasian Other, please specify
6. Grade point average at graduation:

7. If you have not entered or have entered and left the profession for which you have trained as an undergraduate, please indicate your reason(s).
_ Personal reason (illness, pregnancy,
family responsibilities, etc.)
Compulsory military service
Did not like the work
Unsatisfactory working conditions
Income low in relation to other
_Unable to find a job in preferred occupations
Other reason(s), specify
Employment and Career Information:
College Major
8. English
-Mathematics
Other, please specify
9. Are you employed in your major field? Yes No
If no, what field? $\qquad$
10. If you are teaching, how long have you been teaching?

Less than 1 year _ year $\quad 1$ years _ 3 years _ years or more Have you taught at all, if not indicate why?
11. If not in teaching profession, indicate area of employment.
12. If you are not in secondary education, please respond in terms of your current position, otherwise respond in terms of your most recent one.
Teacher (elem., college)
Consultant
Counselor
Researcher Administrator Laboratory work Supervisor
$\qquad$
14. Salary Range:

Please check appropriate salary received in your first and present position.
Place an $E$ in space for first salary range and a $P$ for present salary range.
For 12_ 10_ 9_month contract, if other, please specify
Under $\$ 4,999$
$-\$ 5,000-5,999$
$-\$ 6,000-6,999$
$\$ 5,000-5,999$
$-\quad \$ 6,000-6,999$

- $\$ 7,000-7,999$
\$8,000-8,999
\$12,000-12,999

| $\$ 8,000-8,999$ |
| :--- |
| $-\$ 9,000-9,999$ |
| $-\$ 10,000-10,999$ |
|  |
| $\$ 11,000-11,999$ |


| $-\$ 13,000-13,999$ |
| :--- |
| $-\$ 14,000-14,999$ |
| $-\$ 15,000$ or over |

15. Advanced degrees earned since bachelor's degree. Masters Doctorate

Reaction to Educational Experiences at UAPB:
16. How well do you feel your coursework prepared you for your professional responsibilities? Respond only if you are working in your major or a related field. _Well Fairly well __Poorly _ Not at all
17. How would you rate the quality of instruction in your major field?
__Excellent __Very good Good __Fair __Unsatisfactory
18. How would you rate your student teaching experiences?

Very valuable Criticism of the program
Some value No major criticism
Little value
No value

Too long
—Too theoretical
-Too specific
Too repetitive of previous experiences
Too rigid in method
_Too rigid in discipline

- Too physically exhausting
- Other(s), specify

Too physically exhausting
Other(s), specify $\qquad$
19. When you were in college, how well did you like it?

I was enthusiastic about it. ___ did not like it.
-I liked it.
I hated it.
I was neutral about it.
20. If you were to begin your undergraduate education again, would you attend the university? __Yes __No __Uncertain
21. Please indicate below items you would classify as advantages and disadvantages of attending a predominately or all black university in the appropriate space below.

## Advantages Disadvantages

$\qquad$
$\qquad$
$\qquad$
$\qquad$
22. If there are deficiencies in your undergraduate education not otherwise explored in this questionnaire, please list them here. Be specific.
23. In retrospect, would you say that your undergraduate education was: Adequate both generally and professionally
Adequate professionally but not generally
Adequate generally but not professionally

University Section:
24. How well did your undergraduate education provide a basis for the professional responsibilities which you have had since graduating from college? Respond to this question only if you are working or have worked in your major field. Please keep in mind that most colleges do not presume to train you entirely for specific jobs.

| Areas of Responsibility | Adequacy of Preparation Excellent Adequate Inadequate* |  |  |
| :---: | :---: | :---: | :---: |
| 1. Competency in major field. |  |  |  |
| 2. Loyalty to school policies. |  |  |  |
| 3. Effectiveness and creativity in work. |  |  |  |
| 4. Consciousness in doing work. |  |  |  |
| 5. Develop professional relationship with colleagues |  |  |  |
| 6. Develop respectful attitude toward students. |  |  |  |
| 7. Achieve discipline control |  |  |  |
| 8. Effective communication--oral and written. |  |  |  |
| 9. Appropriate dress. |  |  |  |
| 10. Develop a good classroom climate. |  |  |  |
| 11. Measure learning outcomes. |  |  |  |
| 12. Evaluate effectiveness of own teaching methods. |  |  |  |
| 13. Obtain, allocate and account for appropriate fiscal resources. |  |  |  |
| 14. Establish rapport with community and parents. |  |  |  |

*If you rate any of your preparation inadequate, please give specific reason why. Please place conments on back of page.
25. In your opinion how well did your major department carry out the objectives set up for English Education?

| Please check the appropriate one | Well | Fairly well | Poorly | $\begin{array}{\|c\|} \hline \text { Not at } \\ \text { all } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: |
| 7. Prepare teachers for careers in junior and senior high schools |  |  |  |  |
| 2. To provide students with skills and methods that will enable them to perform well in their disciplines. |  |  |  |  |
| 3. To assist students in attaining a fundamental and specialized knowledge of the English Language and its literature. |  |  |  |  |
| 4. To provide good English backgrounds for those students wishing to pursue advanced study in English. |  |  |  |  |


| Please check the appropriate one | Well | Fairly <br> well | Poorly | Not at <br> all |
| :--- | :---: | :---: | :---: | :---: |
| 5.To provide the necessary training for <br> students to meet requirements for teacher <br> certification. |  |  |  |  |

26. Professional Section:

How well did your undergraduate education prepare you for the following?

| Please check the appropriate one | Well | $\begin{gathered} \text { Fairly } \\ \text { well } \end{gathered}$ | Poorly | $\begin{array}{\|c\|} \hline \text { Not at } \\ \text { all } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1. To acquire and use skills and habits involved in critical and constructive thinking? |  |  |  |  |
| 2. To develop a code of behavior based on democratic and ethical principles? |  |  |  |  |
| 3. To recognize the fact of world interdependence? |  |  |  |  |
| 4. To learn to get along with people? |  |  |  |  |
| 5. To attain a satisfactory emotional and social adjustment. |  |  |  |  |
| 6. To understand the culture of other people? |  |  |  |  |
| 7. To understand the ideas of others? |  |  |  |  |
| 8. To habitually apply scientific thought to the discovery of facts? |  |  |  |  |
| 9. To understand and enjoy literature, art, and music? |  |  |  |  |
| 10. To understand one's physical and social environment? |  |  |  |  |
| 11. To move smoothly from high school to adult independence? |  |  |  |  |
| 12. To develop a broad general outlook and familiarity with a variety of subjects? |  |  |  |  |
| 13. To acquire knowledge and attitudes basic to a satisfying family life? |  |  |  |  |
| 14. To develop the ability to do significant independent research? |  |  |  |  |
| 15. To maintain and improve one's own health? |  |  |  |  |

Will you be available for an interview by telephone or in person? Please check one.
$\square$ Yes
No
Only complete the items below if you checked yes above.
$\qquad$ Address $\qquad$
Telephone number $\qquad$

Check List of Professional Education and Work Experiences for Selected Graduates in Secondary Education at the University of Arkansas at Pine Bluff

Instructions: Please fill out the following questionnaire and respond to all items. Most items require only a check (v), a letter or short phrase. Your answers will be treated confidentially and used only in group tabulations. Your name is requested for follow-up purposes only.

Background Information:

1. School year of graduation:
$1969-170-1972-173$
$-1970-171-1973-174$
2. Sex:

Male
Female
5. Age:

Under 22
$-\quad 22-24$
$-25-28$
$-\quad 29-31$
$-32-34$
$-\quad 35-$ or over
3. Race:

Black/Afro American White/Caucasian Other, please specify
6. Grade point average at graduation:

| 2.0 | 3.5 |
| :---: | :---: |
| -2.5 | -4.0 |
| -3.0 | - 0 ther, |
|  | Specify |

7. If you have not entered or have entered and left the profession for which you have trained as an undergraduate, please indicate your reason(s).

Personal reason (illness, pregnancy, Did not like the work
family responsibilities, etc.) -Unsatisfactory working conditions Compulsory military service Income low in relation to other occupations
Other reason(s), specify
Employment and Career Information:
College Major
8.
_ English Mathematics Other, please specify
9. Are you employed in your major field? Yes No

If no, what field?
10. If you are teaching, how long have you been teaching? Less than 1 year _1 year 2 years __ 3 years __ 3 years or more Have you taught at all, if not indicate why?
11. If not in teaching profession, indicate area of employment.
12. If you are not in secondary education, please respond in terms of your current position, otherwise respond in terms of your most recent one.

Teacher (elem., college) Consultant
-Administrator
Laboratory work
Counselor
Supervisor
_Researcher
3. What is the type of your current employing organization?

Public school (senior, junior, elem.)
_County government
—Community college

- National government
-College or university
Public
-Private Industrial or commercial

4-year
Not employed at all
-organization
State government
—Private school
—Other, please specify
14. Salary Range:

Please check appropriate salary received in your first and present position.
Place an $\mathcal{F}$ in space for first salary range and a $P$ for present salary range. For 12_ 10_ 9_month contract, if other, please specify

Under \$4,999
\$5,000-5,999
\$6,000-6,999
\$7,000-7,999
\$8,000-8,999
\$9,000-9,999
\$10,000-10,999
\$11,000-11,999
\$12,000-12,999
\$13,000-13,999 $\$ 14,000-14,999$ $\$ 15,000$ or over
15. Advanced degrees earned since bachelor's degree.

Masters Doctorate Ed.S.

Post graduate credit only
Other
Reaction to Educational Experiences at UAPB:
16. How well do you feel your coursework prepared you for your professional responsibilities? Respond only if you are working in your major or a related field. Well Fairly well __Poorly Not at all
17. How would you rate the quality of instruction in your major field?
$\qquad$ Excellent Very good
Good $\qquad$ Fair $\qquad$ Unsatisfactory
18. How would you rate your student teaching experiences?

Very valuable Criticism of the program
_ Some value
No major criticism
— Too long

- Too theoretical
Too specific
— Too repetitive of previous
experiences
Too rigid in method
Too rigid in discipline
- Too physically exhausting
Other(s), specify

Little value
No value Other(s), specify $\qquad$
19. When you were in college, how well did you like it?
_ I was enthusiastic about it.
-I liked it.
I did not like it.
—_I was neutral about it.
20. If you were to begin your undergraduate education again, would you attend the university? $\qquad$ Yes $\qquad$ No $\qquad$ Uncertain
21. Please indicate below items you would classify as advantages and disadvantages of attending a predominately or all black university in the appropriate space below.
Advantages Disadvantages
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
22. If there are deficiencies in your undergraduate education not otherwise explored in this questionnaire, please list them here. Be specific.
$\qquad$
$\qquad$
$\qquad$
23. In retrospect, would you say that your undergraduate education was: Adequate both generally and Adequate generally but not professionally professionally
$\qquad$ Adequate professionally but not generally

University Section:
24. How well did your undergraduate education provide a basis for the professional responsibilities which you have had since graduating from college? Respond to this question only if you are working or have worked in your major field. Please keep in mind that most colleges do not presume to train you entirely for specific jobs.

| Areas of Responsibility | Adequacy of Preparation Excellent $\mid$ Adequate $\mid$ Inadequate* |  |  |
| :---: | :---: | :---: | :---: |
| 1. Competency in major field. |  |  |  |
| 2. Loyalty to school policies. |  |  |  |
| 3. Effectiveness and creativity in work. |  |  |  |
| 4. Consciousness in doing work. |  |  |  |
| 5. Develop professional relationship with colleagues. |  |  |  |
| 6. Develop respectful attitude toward students. |  |  |  |
| 7. Achieve discipline control. |  |  |  |
| 8. Effective communication-oral and written. |  |  |  |
| 9. Appropriate dress. |  |  |  |
| 10. Develop a good classroom climate. |  |  |  |
| 11. Measure learning outcomes. |  |  |  |
| 12. Evaluate effectiveness of own teaching methods. |  |  |  |
| 13. Obtain, allocate and account for appropriate fiscal resources. |  |  |  |
| 14. Establish rapport with community and parents. |  |  |  |

*If you rate any of your preparation inadequate, please give specific reason why. Please place comments on back of page.
25. In your opinion how well did your major department carry out the objectives set up for Mathematics Education?

| Please check the appropriate one | Well | Fairly <br> well | Poorly | Not at <br> all |
| :--- | :--- | :--- | :--- | :--- |
| 1.Train teachers of junior and senior high <br> school Mathematics. |  |  |  |  |
| 2.Present to future teachers courses that <br> will be adequate both quantitatively and <br> qualitatively. |  |  |  |  |
| Prepare teachers to select intelligently <br> what changes in content, pace and sequence <br> are to be adopted in the schools. |  |  |  |  |
| 4. Acquaint teachers with the objectives and |  |  |  |  |
| content of the many proposals for changing |  |  |  |  |
| in our curricula and texts. |  |  |  |  |$\quad$|  |
| :--- | :--- | :--- | :--- |
| 5. Introduce the students to the literature and |
| history of mathematics. |


| Please check the appropriate one | Well | Fairly <br> well | Poorly | Not at <br> all |
| :--- | :--- | :--- | :--- | :--- |
| 6.Present techniques, relative merits, and <br> deductive approaches to new ideas. |  |  |  |  |
| 7.Prepare professional courses of the type and <br> quantity to insure that our graduates in <br> Mathematics Education can be accredited in <br> the various states of the nation. |  |  |  |  |
| 3.Prepare "leaders of teachers" in local school <br> systems. |  |  |  |  |

26. Professional Section:

How well did your undergraduate education prepare you for the following?

| Please check the appropriate one | Well | Fairly well | Poorly | $\begin{array}{\|c} \text { Not at } \\ \text { all } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1. To acquire and use skills and habits involved in critical and constructive thinking? |  |  |  |  |
| 2. To develop a code of behavior based on democratic and ethical principles? |  |  |  |  |
| 3. To recognize the fact of world interdependence? |  |  |  |  |
| 4. To learn to get along with people? |  |  |  |  |
| 5. To attain a satisfactory emotional and social adjustment? |  |  |  |  |
| 6. To understand the culture of other people? |  |  |  |  |
| 7. To understand the ideas of others? |  |  |  |  |
| 8. To habitually apply scientific thought to the discovery of facts? |  |  |  |  |
| 9. To understand and enjoy literature, art, and music? |  |  |  |  |
| 10. To understand one's physical and social environment? |  |  |  |  |
| 11. To move smoothly from high school to adult independence? |  |  |  |  |
| 12. To develop a broad general outlook and familiarity with a variety of subjects? |  |  |  |  |
| 13. To acquire knowledge and attitudes basic to a satisfying family life? |  |  |  |  |
| 14. To develop the ability to do significant independent research? |  |  |  |  |
| 15. To maintain and improve one's own health? |  |  |  |  |

Will you be available for an interview by telephone or in person?
Please check one.
$\square$
Only complete the items below if you checked yes above.
$\qquad$ Address $\qquad$
Telephone number
Suggested time for contact for interview

Check List of Professional Education and Work Experiences
for Selected Graduates in Secondary Education
at the University of Arkansas at Pine Bluff
Instructions: Please fill out the following questionnaire and respond to all items. Most items require only a check ( $\sqrt{ }$ ), a letter or short phrase. Your answers will be treated confidentially and used only in group tabulations. Your name is requested for follow-up purposes only.

## Background Information:

1. School year of graduation:
$1969-170-1972-173$
$-1970-171$
$-1971-172-1973-74$
2. Sex:
_Male
$\qquad$ Female
3. Marital Status:
Single
-Married
—Separated
-Divorced
4. Age:
Under 22
$-\quad 22-24$
$-25-28$
$-\quad 29-31$
$-32-24$
$-\quad 35$ or over
5. Race:
Black/Afro American
-White/Caucasian Other, please specify
6. Grade point average at graduation:

| 2.0 | 3.5 |
| ---: | :--- |
| -2.5 | - 4.0 |
| -3.0 | Other, |
|  | specify |

7. If you have not entered or have entered and left the profession for which you have trained as an undergraduate, please indicate your reason(s). _ Personal reason (illness, pregnancy, family responsibilities, etc.) —Unsatisfactory working conditions Compulsory military service -Income low in relation to other preferred location Unable to find a job in occupations _Other reason(s), specify

## Employment and Career Information:

8. College Major: English Mathematics Other, please specify
9. Are you employed? Yes No If you are employed, are you employed in your major field? _Yes ___No
10. If you are teaching, how long have you been teaching? Less than 1 year 1 year 2 years 3 years __3 years or more Have you taught at all?
11. If not in teaching profession, indicate area of employment.
12. If you are not in secondary education, please respond in terms of your current position, otherwise respond in terms of your most recent one.

Teacher (elem. Laboratory work Supervisor

Consultant
Counselor
Researcher
Other, please specify
13. What is the type of your current employing organization? Public school (senior, junior, elem.) County government
Community college _National government
College or university
-Industrial or commercial
Public
Private 4-year
$\overline{N o t}$ employed at all
organization

State government
-Private school
__Other, specify $\qquad$
14. Salary Range:

Please check appropriate salary received in your first and present position.
Place an $F$ in space for first salary range and a $P$ for present salary range.
For $12 \frac{F}{P} \quad 10 \frac{F}{P} \quad 9 \quad \begin{aligned} & \text { P_ month contract; if other, specify }\end{aligned}$ $\qquad$

| Under \$4,999 | \$ 8,000-8,999 | \$12,000-12,999 |
| :---: | :---: | :---: |
| \$5,000-5,999 | \$ 9,000-9,999 | \$13,000-13,999 |
| \$6,000-6,999 | \$10,000-10,999 | \$14,000-14,999 |
| \$7,000-7,999 | \$11,000-11,999 | \$15,000 or over |

15. Advanced degrees earned since bacherlor's degree.

Masters_Doctorate Ed.S._Post graduate credit only _O_Other Major field
Reaction to Educational Experiences at UAPB:
16. How well do you feel your coursework prepared you for your professional responsibilities? Respond only if you are working in your major or a related field. _Well_Fairly Well_Poorly Not at all
17. How would you rate the quality of instruction in your major field? __Excellent __ Very good Good ___ Fair ___ Unsatisfactory
18. How would you rate your student teaching experiences?
_ Very valuable __Some value ___ Little value No value
Criticism of the program: You may check more than one

19. When you were in college, how well did you like it?
_I was enthusiastic about it. I did not like it.
—I liked it.
_I hated it.
-I was neutral about it.
20. If you were to begin your undergraduate education again, would you attend UAPB? Yes No Uncertain
21. Please indicate below items you would classify as advantages and disadvantages of attending a predominantly or all black university. Advantages Disadvantages
22. If there are deficiencies in your undergraduate education not otherwise explored in this questionnaire, please list them here. Be specific.
$\qquad$
$\qquad$

2 In retrospect, wculd you say that your undergraduate education was:
Adequate both generally and professionally
-Adequate professionally but not generally
—Adequate generally but not professionally
—Inadequate both generally and professionally

## Professional Section:

24. How well did your undergraduate education provide a basis for the professional responsibilities which you have had since graduating from college? Respond to this question only if you are working or have worked in your major field. Please keep in mind that most colleges do not presume to train you entirely for specific jobs.

|  | Adequacy of Preparation <br> Areas of Responsibility |  | Excellent |
| :--- | :--- | :--- | :--- |
| Adequate | Inadequate* |  |  |

25. In your opinion how well did your major department carry out the objectives set up for English Education?

| Please check the appropriate one |
| :--- | :--- | :--- | :--- | :--- | Well | Fairly |
| :--- |
| Well | Poorly | Not at |
| :--- |
| All |

## General Section:

26. How well did your undergraduate education prepare you for the following?

| Please check the appropriate one | Well | Fairly <br> Well | Poorly | Not at <br> All |
| :--- | :--- | :--- | :--- | :--- |
| 1. To acquire and use skills and habits <br> involved in critical and constructive <br> thinking. |  |  |  |  |
| 2. To develop a code of behavior based on <br> democratic and ethical principles. |  |  |  |  |
| 3. To recognize the fact of world inter- <br> dependence. |  |  |  |  |
| 4. To learn to get along with people. |  |  |  |  |
| 5. To attain a satisfactory emotional <br> and social adjustment. |  |  |  |  |


| Please check the appropriate one | Well | Fairly <br> Well | Poorly | Not at <br> All |
| :--- | :--- | :--- | :--- | :--- |
| 6. To understand the culture of other people. |  |  |  |  |
| 7. To understand the ideas of others. |  |  |  |  |
| 8. To habitually apply scientific thought <br> to the discovery of facts. |  |  |  |  |
| 9. To understand and enjoy literature, art <br> and music. |  |  |  |  |
| 10. To understand one's physical and social <br> environment. |  |  |  |  |
| 11. To move smoothly from high school to <br> adult independence. |  |  |  |  |
| 12. To develop a broad general outlook and <br> familiarity with a variety of subjects. |  |  |  |  |
| 13. To acquire knowledge and attitudes basic <br> to a satisfying family life. |  |  |  |  |
| 14. To develop the ability to do <br> significant independent research. |  |  |  |  |
| 15. To maintain and improve one's own health. |  |  |  |  |

Will you be available for an interview by telephone or in person? Please check one.
$\qquad$ Yes $\qquad$ No

Complete the items below only if you checked yes above.

Full Name $\qquad$
Address $\qquad$
City State Zip Code

Telephone $\qquad$
Suggested time for contact for interview $\qquad$

Check List of Professional Education and Work Experiences for Selected Graduates in Secondary Education at the University of Arkansas at Pine Bluff

Instructions: Please fill out the following questionnaire and respond to all items. Most items require only a check $(\checkmark)$, a letter or short phrase. Your answers will be treated confidentially and used only in group tabulations. Your name is requested for follow-up purposes only.

Background Information:

1. School year of graduation:
$1969-170-1972-173$
$-\quad 1970-71-1973-174$
$-\quad 1971-72-1$
2. Sex:

Male
Female
5. Age:

Under 22
$22-24$
$25-28$
$29-31$
$32-24$
35 or over
3. Race:

```
Black/Afro American
    White/Caucasian
    Other, please specify
```

6. Grade point average at graduation:

| 2.0 | 3.5 |
| :--- | :--- |
| - | 4.0 |
| - | 3.0 |
|  | Other, |
|  | specify |

7. If you have not entered or have entered and left the profession for which you have trained as an undergraduate, please indicate your reason(s).
_ Personal reason (illness, pregnancy,
family responsibilities, etc.) Compulsory military service
—_Income low in relation to other occupations
Other reason(s), specify

## Employment and Career Information:

8. College Major:

English
-Mathematics
——Other, please specify
9. Are you employed? Yes No If you are employed, are you employed in your major field? Yes No
10. If you are teaching, how long have you been teaching?

Less than 1 year 1 year 2 years 3 years $\qquad$ 3 years or more
Have you taught at all? $\qquad$ Yes _No If not indicate why $\qquad$
11. If not in teaching profession, indicate area of employment.
12. If you are not in secondary education, please respond in terms of your current position, otherwise respond in terms of your most recent one. Teacher (elem., college) Consultant
Administrator Laboratory work Supervisor

Counselor

- Researcher
——Other, please specify

13. What is the type of your current employing organization?

Public school (senior, junior, elem.)
_Cominunity college
_College or university
Public

- Private

4-year
Not employed at all

County government
_ National government
Industrial or commercial
organization
State government
Private school
_Other, specify $\qquad$
14. Salary Range:

Please check appropriate salary received in your first and present position. Place an $F$ in space for first salary range and a $P$ for present salary range. For $12 \frac{F}{P} \quad 10 \frac{F}{P} \quad 9 \quad \underset{P}{F}$ - month contract; if other, specify $\qquad$
Under $\$ 4,999 \quad \$ 8,000-8,999$
\$12,000-12,999
\$5,000-5,999
$\$ 6,000-6,999$
\$7,000-7,999
\$ 9,000-9,999 $\$ 10,000-10,999$
$\$ 11,000-11,999$
$\$ 13,000-13,999$
$\$ 14,000-14,999$
$\$ 15,000$ or over
15. Advanced degrees earned since bacherlor's degree.

Masters Doctorate Ed.S. Post graduate credit only__O_Other Major field $\qquad$
Reaction to Educational Experiences at UAPB:
16. How well do you feel your coursework prepared you for your professional responsibilities? Respond only if you are working in your major or a related field. Well_Fairly Well_Poorly_Not at all
17. How would you rate the quality of instruction in your major field?
$\qquad$ Excellent __ Very good Good Fair ___ Unsatisfactory
18. How would you rate your student teaching experiences?

Very valuable Some value Little value
Criticism of the program: You may check more than one

| No major criticism | Too repetitive of | Too rigid in discipline |
| :--- | :--- | :--- |
| Too long | previous experiences | Too physically exhausting |
| Too theoretical | Too short |  |
| Too specific | Too rigid in method |  |

19. When you were in college, how well did you like it?

I was enthusiastic about it.
_I liked it.
I did not like it.
_I was neutral about it.
20. If you were to begin your undergraduate education again, would you attend UAPB? Yes $\qquad$ No $\qquad$ Uncertain
21. Please indicate below items you would classify as advantagés and disadvantages of attending a predominantly or all black university. Advantages Disadvantages
22. If there are deficiencies in your undergraduate education not otherwise explored in this questionnaire, please list them here. Be specific.
$\qquad$
$\qquad$

In retrospect, would you say that your undergraduate education was:
Adequate both generally and professionally
-Adequate professionally but not generally
—Adequate generally but not professionally
_Inadequate both generally and professionally

## Professional Section:

24. How well did your undergraduate education provide a basis for the professional responsibilities which you have had since graduating from college? Respond to this question only if you are working or have worked in your major field. Please keep in mind that most colleges do not presume to train you entirely for specific jobs.

| Areas of Responsibility | Adequacy of Preparation |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 1. Competency in major field |  |  |  |
| 2. Loyalty to school policies |  |  |  |
| 3. Effectiveness and creativity in work |  |  |  |
| 4. Conscientiousness in doing work |  |  |  |
| 5. Professional relationships with colleagues |  |  |  |
| 6. Appropriate relationships with students |  |  |  |
| 7. Discipline control |  |  |  |
| 8. Effective communication--oral and written |  |  |  |
| 9. Appropriate dress |  |  |  |
| 10. A good classroom climate |  |  |  |
| 11. Measuring learning outcomes |  |  |  |
| 12. Evaluating effectiveness of own teaching methods |  |  |  |
| 13. Obtaining, allocating and accounting for appropriate fiscal resources |  |  |  |
| 14. Establishing rapport with community and parents |  |  |  |
| *If you rate any of your preparation reason why. Please place comments on ba | dequate, page. | ease gi | specific |

25. In your opinion how well did your major department carry out the objectives set up for Mathematics Education?

| Please check the appropriate one | Well | $\begin{aligned} & \text { Fairly } \\ & \text { Well } \end{aligned}$ | Poorly | Not at All |
| :---: | :---: | :---: | :---: | :---: |
| 1. Train teachers of junior and senior high school Mathematics. |  |  |  |  |
| 2. Present to future teachers courses that will be adequate both quantitatively and qualitatively. |  |  |  |  |
| 3. Prepare teachers to select intelligently what changes in content, pace and sequence are to be adopted in the schools. |  |  |  |  |
| 4. Acquaint teachers with the objectives and content of the many proposals for changing in our curricula and texts. |  |  |  |  |
| 5. Introduce the students to the literature and history of mathematics. |  |  |  |  |
| 6. Present techniques, relative merits, and deductive approaches to new ideas. |  |  |  |  |
| 7. Prepare professional courses of the type and quantity to insure that our graduates in Mathematics Education can be accredited in the various states of the nation. |  |  |  |  |
| 8. Prepare "leaders of teachers" in local school systems. |  |  |  |  |

## General Section:

26. How well did your undergraduate education prepare you for the following?

| Please check the appropriate one | Well | Fairly <br> Well | Poorly | Not at <br> All |
| :--- | :--- | :--- | :--- | :--- |
| 1. To acquire and use skills and habits <br> involved in critical and constructive <br> thinking. |  |  |  |  |
| 2. To develop a code of behavior based on <br> democratic and ethical principles. |  |  |  |  |
| 3. To recognize the fact of world inter- <br> dependence. |  |  |  |  |
| 4. To learn to get along with people. |  |  |  |  |
| 5. To attain a satisfactory emotional and |  |  |  |  |
| social adjustment. |  |  |  |  |


| Please check the appropriate one |
| :--- | :--- | :--- | :--- | :--- | Well | Fairly |
| :---: |
| Well | Poorly | Not at |
| :---: |
| All |

Will you be available for an interview by telephone or in person? Please check one.
$\qquad$ Yes $\qquad$ No

Complete the items below only if you checked yes above.

Full Name $\qquad$
Address
City State $\quad$ Zip Code

Telephone $\qquad$
Suggested time for contact for interview $\qquad$

## APPENDIX D

## Supplementary Descriptive Tables

Table DI. Year of graduation listed by major and sex.

Table D2. Salary in full time positions--present position.

| Salary | $\begin{aligned} & \text { English } \\ & (N=63) \end{aligned}$ |  |  |  | $\begin{aligned} & \text { Mathematics } \\ & \quad(N=75) \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male$(N=6)$ |  | $\begin{aligned} & \text { Female } \\ & (N=55) \star \end{aligned}$ <br> Number Percentage |  | Male ( $N=30$ ) <br> Number Percentage |  | Female ( $N=44$ ) * <br> Number Percentage |  |
| Under \$4,999 | 0 | 0 | 2 | 4 | 0 | 0 | 0 | 0 |
| \$5,000-5,999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| \$6,000-6,999 | 0 | 0 | 1 | 2 | 2 | 7 | 0 | 0 |
| \$7,000-7,999 | 0 | 0 | 3 | 5 | 4 | 13 | 0 | 0 |
| \$8,000-8,999 | 0 | 0 | 12 | 22 | 4 | 13 | 3 | 7 |
| \$9,000-9,999 | 5 | 83 | 21 | 38 | 15 | 50 | 21 | 48 |
| \$10,000-10,999 | 0 | 0 | 9 | 16 | 0 | 0 | 8 | 18 |
| \$11,000-11,999 | 0 | 0 | 2 | 4 | 0 | 0 | 5 | 11 |
| \$12,000-12,999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| \$13,000-13,999 | 1 | 17 | 4 | 7 | 1 | 3 | 3 | 7 |
| \$14,000-14,999 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 2 |
| \$15,000-over | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Female English Male English | and Ma and Ma | thematics $g$ thematics | duates duates | Chi Square <br> 13.83599 <br> 5.40000 |  | $\begin{gathered} \text { es of Freedom } \\ 9 \\ 6 \end{gathered}$ |  | $\begin{aligned} & \text { ificance } \\ & 1283 \\ & 4936 \end{aligned}$ |

Table D3. Respondents reaction to coursework preparation for professional responsibilities. ${ }^{1}$

| Ratings |  |  | Fenale |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Number | Percentage |
| Well | 9 | 25 | ${ }^{26}$ | 25 |
| Fairly well ${ }^{2}$ | 21 | ${ }^{58}$ | 55 | 54 |
| Poorly | 3 | 8 | 13 | 13 |
| Not at All | 1 | 3 | $\underline{2}$ | $\underline{2}$ |
| Total | 34 | 94 | 96 | 94 |

[^5]Table D4. Comparison of the evaluation of undergraduate professional education for secondary

| Area of Responsibility Ex | Mathematics ( $\mathrm{N}=75$ ) |  |  |  | English ( $\mathrm{N}=63$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Excellent } \\ \% \end{gathered}$ | $\begin{gathered} \text { Adequate } \\ \hline \end{gathered}$ | Inadequate $\%$ | $\begin{gathered} \mathrm{NR} \\ \% \end{gathered}$ | $\underset{\%}{\text { Excellent }}$ | $\begin{gathered} \text { Adequate } \\ \hline \end{gathered}$ | Inadequate \% | NR $\%$ |
| 1. Competency in major field | 53 | 47 | 0 | 3 | 57 | 43 | 0 | 5 |
| 2. Loyalty to school policies | 51 | 49 | 0 | 4 | 38 | 60 | 2 | 5 |
| 3. Effectiveness and creativity in work | 34 | 66 | 0 | 5 | 38 | 60 | 0 | 5 |
| 4. Conscientiousness in doing work | 62 | 38 | 0 | 4 | 59 | 41 | 0 | 5 |
| 5. Professional relationships with colleagues | 48 | 51 | 1 | 4 | 48 | 52 | 0 | 5 |
| 6. Appropriate relationships with students | 66 | 31 | 3 | 4 | 55 | 45 | 0 | 5 |
| 7. Discipline control | 42 | 44 | 14 | 3 | 40 | 54 | 5 | 6 |
| 8. Effective communication --oral and written | 21 | 76 | 3 | 3 | 39 | 53 |  | 6 |
| 9. Appropriate dress | 53 | 47 | 0 | 0 | 45 | 48 | 2 | 0 |
| 10. Good classroom climate | 49 | 50 | 2 |  | 43 |  |  | 0 |
| 11. Measuring learning outcomes | 46 | 53 | 0 | 4 | 19 | 81 | 0 | 0 |
| 12. Evaluating effectiveness of own teaching methods | S 39 | 53 | 7 | 4 | 15 | 81 |  | 0 |
| 13. Obtaining, allocating and accounting for appropriate fiscal |  |  | 17 |  | 12 | 55 | 33 |  |
| 14. $\begin{aligned} & \text { resources } \\ & \text { Establishing rapport with }\end{aligned}$ | th 9 | 74 | 17 | 6 | 12 | 55 |  | 0 |
| 14. Establishing rapport with community and parents | 37 | 58 | 4 | 6 | 36 | 56 | 7 | 0 |

*Significant at the . 05 level.
Table D5. Comparison of the evaluation of undergraduate professional education for secondary

| Area of Responsibility | Chi-Square | Degrees of Freedom | Significance |
| :--- | :---: | :---: | :---: |
| 1. Competency in major field | .8508 | 1 | .7705 |
| 2. Loyalty to school policies | 3.10072 | 2 | .2122 |
| 3. Effectiveness and creativity in work | .19640 | 1 | .6576 |
| 4. Conscientiousness in doing work | .04254 | 1 | .8366 |
| 5. Professional relationships with colleagues | .82439 | 2 | .6622 |
| 6. Appropriate relationships with students | 3.91108 | 2 | .1415 |
| 7. Discipline control | 3.00609 | 2 | .2225 |
| 8. Effective communication--oral and written | 8.33144 | 2 | $.0155^{*}$ |
| 9. Appropriate dress | 1.90284 | 2 | .3862 |
| 10. Good classroom climate | 1.30454 | 2 | .5209 |
| 11. Measuring learning outcomes | 9.56271 | 1 | $.0020^{*}$ |
| 12. Evaluating effectiveness of own teaching methods | 10.79496 | 2 | $.0045^{*}$ |
| 13. Obtaining, allocating and accounting for | 5.09241 | 2 | .0784 |
| 14. Establishing rapport with community and parents | .39622 | 2 | .8203 |

Table D6. Comparison of the respondents' evaluation of their undergraduate general education in

| Objectives of General Education | TN $=75$ Mathematics |  |  |  |  | TN $=63$ English |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratings |  |  |  |  |  |  |  |  |  |
|  | Well | Fairly Well | Poorly | Not at all | NR | Well | Fairly <br> Well | Poorly | Not at all | NR |
|  | \% | \% | \% | \% | \% | \% | \% | \% | \% | \% |



Table D7. Comparison of the respondents' evaluation of their undergraduate general education in

| Area of Responsibility | Chi-Square | Degrees of Freedom | Significance |
| :---: | :---: | :---: | :---: |
| 1. To acquire and use skills and habits involved 6844 |  |  |  |
|  |  |  |  |
| 2. To develop a code of behavior based on democratic and ethical principles | 4.47899 | 2 | . 1065 |
| 3. To recognize the fact of world interdependence | 2.90405 | 2 | . 2341 |
| 4. To learn to get along with people | 1.37716 | 2 | . 5023 |
| 5. To attain a satisfactory emotional and social adjustment | . 03912 | 2 | . 9606 |
| 6. To understand the culture of other people | 12.25468 | 3 | .0066* |
| 7. To understand the ideas of others | 2.34425 | 2 | . 3097 |
| 8. To habitually apply scientific thought to the |  |  |  |
| 9. To understand and enjoy literature, art, and music | 28.19074 | 2 | .0001* |
| 10. To understand one's physical and social environment | . 62358 | 1 | . 4297 |
| 11. To move smoothly from high school to adult independence | . 31503 | 3 | . 9572 |
| 12. To develop a broad general outlook and familiarity with a variety of subjects | . 5975 | 1 | . 8069 |
| 13. To acquire knowledge and attitudes basic to a satisfying family life | 5.48623 | 3 | . 1395 |
| 14. To develop the ability to do significant independent research | . 13899 | 3 | . 4404 |
| 15. To maintain and improve one's own health | 3.80098 | 3 | . 2838 |

$$
\text { *Significant at the . } 05 \text { level. }
$$

Table D8. Respondents' evaluation of the objectives set up for their major field (Mathematics

| Objectives |  |  | Fairly |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Table D9. Respondents' evaluation of the objectives set up for their major field (English Education).

| Objectives of English Education | Well |  | FairlyWell |  | $N=63$ <br> Poorly |  | Not at all |  | TR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $N$ | \% | $N$ | \% |  |  | $N$ | \% |  |
| 1. Prepare teachers for careers in junior and senior high schools | 38 | 60 | 25 | 40 | 0 | 0 | 0 | 0 | 63 |
| 2. To provide students with skills and methods that will enable them to perform well |  |  |  |  |  |  |  |  |  |
| in their disciplines <br> 3. To assist students in attaining a fundamental and specialized knowledge of the English language and its | 32 | 51 | 31 | 49 | 0 | 0 | 0 | 0 | 63 |
| literature | 53 | 84 | 10 | 16 | 0 | 0 | 0 | 0 | 63 |
| 4. To provide good English backgrounds for those students wishing to pursue advanced study in English | 49 | 78 | 14 | 22 | 0 | 0 | 0 | 0 | 63 |
| 5. To provide the necessary training for students to meet requirements for teacher certification | 51 | 81 | 12 | 19 | 0 | 0 | 0 | 0 |  |


[^0]:    ${ }^{1}$ Excerpted from Arkansas A. M. \& N. College Alumni Association Bulletin.

[^1]:    ${ }^{1}$ Ibid.

[^2]:    ${ }^{1}$ Ibid.

[^3]:    In space for Other, most respondents wrote none--meaning have not begun post-graduate education, and was placed under Not Begun Master's degree.
    ${ }^{2}$ One Mathematics Education graduate did not respond to item.

[^4]:    ${ }^{1}$ Total may not equal 100 because of rounding error.
     graduate did not report starting salary.

[^5]:    ${ }^{1}$ Responded only if working in major or related field.
    ${ }^{2}$ The majority of the graduates indicated their coursework prepared them fairly
    well for their professional responsibilities.
    Mean $=1.877 \quad$ Standard Deviation $=.688$

