A FEASIBILITY STUDY FOR DEVELOPING A TECHNICAL-VOCATIONAL SCHOOL WITHIN THE NEW MEXICO STATE UNIVERSITY'S BRANCH COLLEGE AT GRANTS, NEW MEXICO, WITH GUIDELINE IMPLICATIONS FOR ALL BRANCH COLLEGES IN THE UNIVERSITY SYSTEM

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PREFACE

The aim of Vocational-Technical Education is to prepare people for the world of work on a subprofessional level in fields of their interests and abilities and further, to confine such efforts to those occupations for which there will be a manpower demand. The nation's manpower needs and economic well-being require that each of its citizens be educated and trained to be productive in whatever he chooses as his life's work and for which he has ability.

One of the most pressing problems relating to vocational education at post-secondary institutions in New Mexico is that of securing accurate information on jobs as they actually exist. While it is known that jobs exist, sufficient detail as to their nature, number, and location is not currently available to institutions responsible for training. As a result, curriculums are designed without adequate employment information from business and industry offering these job opportunities. This study was designed to yield the types of information needed to plan programs in vocational education that are tuned to area business-industry demands and which would thereby aid administrators, supervisors and teachers in making curriculum decisions.

I would like to express my appreciation to Dr. Robert R. Price, Head of the Department of Agricultural Education and chairman of my committee; and to Dr. William W. Stevenson, Head of the Division of Research Planning and Evaluation; Mr. George E. Cook, Department of Agricultural Engineering; and Dr. Harold C. Raley, Head of the Depart-

ment of Foreign Languages, members of my doctoral committee.

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The study received generous financial assistance through the New Mexico State Board of Vocational Education. The interest and assistance of representatives of the Division of Vocational Education, State Department of Education, are greatly appreciated.

Most especially, I wish to express appreciation to Mr. M. B. McBride, Superintendent of the Grants Municipal School District for cooperating in this study; to Mr. Barney Oldfield, Distributive Education Coordinator, who did the time-consuming task of interviewing over three-hundred business-industry firms; and to Dr. William W. Stevenson, Head of the Division of Research Planning and Evaluation, who assisted in designing the survey instruments.

I am especially grateful to my wife, Emily, and my children, Vincent and Carla, for their constant encouragement and help during the time this study was made and thesis prepared.

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CHAPTER I

INTRODUCTION

The purpose of education in a democratic society, the kind of society in which we live, both in and out of school, is to develop in each individual the potential knowledge, interests, ideals, habits, and powers so that he may find his place in society and use that place to benefit both himself and society.

Revolutionary changes are occurring in American education. We are facing a challenging new era brought on by an explosion of knowledge, a burst of technological and economic advancement, and an unparalleled demand for more and better education.

Planning educational programs to meet the needs and demands of the present era must result from the cooperative effort of school leaders and the public. Appropriate combinations of both general education and vocational and technical education are necessary in preparing individuals for a happy life and for earning a living. Close ties of communication between education and business and industry are most essential.

New Mexico, in a bid for more firmly establishing an industrial economy, is faced with many problems in the changing patterns of educational needs. The coming of industry into any rural oriented state presents perplexing problems, new and expanding needs, and greatly expanded responsibilities. In New Mexico these needs and problems are

compounded due to the ethnic makeup of its citizenry. In contrast, many states which have and are presently facing this change, have had only to meet the needs of two ethnic groups--mainly the Negro and/or the Anglo-American. New Mexico has primarily three groups--the Indian, the Spanish-American and the Anglo-American. The Negro and the Anglo-Americans speak the same language but with the Indian and Spanish-American added problems exist which must be overcome before they can be channeled into the mainstream of American economy and society.

It is estimated that only two out of every ten of the nation's high school graduates are completing college degrees. It may be concluded that there is a need for concern about the kinds of experiences presently afforded the youth by existing educational programs. Are these programs enabling the young people to make intelligent occupational choices concerning a career?

At the time the study was implemented, there were only five area vocational-technical institutions in New Mexico. They included the Technical-Vocational Institute in Alburquerque; New Mexico Junior College at Hobbs; Eastern New Mexico University, Roswell Branch; Northern New Mexico State School at El Rito; and New Mexico State University's Branch College at Farmington. These five institutions were thus operating as a part of New Mexico higher education and either served as a branch college, junior college or as a post-high area vocational school. The total vocational-technical enrollment in terminal vocational programs was approximately four thousand students. It was asserted that many areas of the state still needed to be served and would greatly profit through establishment of vocational-technical

facilities.

Statement of the Problem

There was little bona fide vocational-technical education offered in the branch or community colleges of New Mexico at the time the study was implemented. The move to establish branch colleges in cities of the state which previously were not served by an institution of higher education was a relatively recent venture. While in nearly all of the neighboring states adjacent to New Mexico, the trend within the state has been to establish independent community or junior colleges. In New Mexico the pattern has been for the four-year universities to establish branch colleges rather than independent junior colleges and as a result, these branch campuses all began with a two-year general or liberal arts transfer curriculum.

Basic to all problems of the study was a lack of reliable information at the local level to determine where employment opportunities did exist and the type of occupational training employers desired for the preparation of young people for job entry.

There is little, if any, evidence of the existence of criteria which might be used by post-secondary schools or institutions of higher education in developing an effective vocational-technical program. What are the needs of the people? What are the needs and demands of business and industry? What training programs are needed which will relate to existing and future employment opportunities?

Need for the Study

With passage of the 1963 Vocational Education Act much emphasis has been focused upon the needs for vocational programs in order to prepare skilled employees for business and industry. Much attention has also been given to people with special needs who do not plan to attend college for various reasons, but, at the same time, need to prepare themselves for less than professional occupations. Some of the cities in which branch colleges exist have less than thirty percent of the high school graduates attending colleges.

An oft stated primary purpose of the branch college is to serve the needs and demands of the local community. An academic liberal arts curriculum only serves a small part of the total educational needs of these communities. Citizens, particularly those closely associated with business and industry are demanding a more realistic and flexible curriculum in order to meet these needs. In general, the parent institutions of the branch colleges have been giving major emphasis to preparing their students in the liberal arts and the professions and are not oriented to offering less than college degree terminal vocational programs.

To date, much of the research concerning vocational education needs in New Mexico has dealt with high school level programs and post secondary programs connected with private schools or non-college level institutions. No indepth study has been made concerning the development of a vocational-technical school within a branch or community college in the state. Information was greatly needed which would point out the local needs at a specific branch college and also serve as a model for other branch colleges within a university system.

Therefore, the established central need of the study was to identify and establish needs for vocational-technical instruction within the area served by the New Mexico State University - Grants Branch. Concurrently, the study attempted to cope with the problem of the feasibility of providing such needed instruction through and as a part of the on-going program of the New Mexico State University - Grants Branch.

Objectives of the Study

In recognition of the existing need for information which would give direction to possible changes in programs of branch or community colleges, this study was designed to achieve the following objectives:

A. Objectives concerned with population and occupational characteristics:

1. To determine the characteristics of the present and projected high school enrollment and of total present population.

2. To identify present and potential occupations of a specific branch college service area (New Mexico State University - Grants Branch) for which vocational-technical training should be available.

3. To identify the present number of employees in these occupations and determine the level of their educational training desired by employers.

4. To determine the nature and rate of turnover and entry opportunities in these occupations.

5. To determine other characteristics of these occupations such as salary, minimum age for job entry, required work experiences and sex as these might be preferred by the employer.

B. Objectives concerned with instructional program implementation:

1. To determine the types of vocational-technical programs which might feasibly be implemented in the branch college.

2. To establish priority on development of vocational programs within the branch college (Phrase I, II, III).

3. To review facilities and equipment available and needed for implementing the program.

4. To review and suggest ways and means of financing the developing vocational-technical programs.

5. To recognize implications which might serve as useful recommendations to other branch colleges within the New Mexico State University system.

Limitations of the Study

The study was limited to the approximately three hundred business and industrial firms located within the 5,000 square miles of the New Mexico State University--Grants Branch College service area and to the New Mexico State University Branch College system.

Further, the study was limited to responses to questionnaires and interviews to representatives of business and industrial firms within the service area of New Mexico State University--Grants Branch College and to the public schools located in the area. Obviously, the study was also limited to the New Mexico State University Branch College system.

Scope of the Study

The study attempted to include all of the three hundred and fifty-two business and industrial firms operating in the New Mexico State University--Grants Branch College service area which is approximately 5,000 square miles in size. Also included were public schools of the service area, the adult population and the New Mexico State University Branch College system.

CHAPTER II

REVIEW OF THE LITERATURE

In higher education today the community college is where the action is. Arising at the rate of one a week, the American community college is bursting on the scene with an exciting variety of campuses. In appearance they range from sprawling, low-slung, campground complexes, sometimes indistinguishable from other factories in the fields, to suburban enclaves whose manicured lawns and leaf-strewn walks smack of the neighboring country club, to the downtown, high-rise, high-density, vertical campus--sometimes a converted department store to which the avid scholars of the inner city flock by bus or subway (1).

And that is the genius of a community college: it responds to life like it is, where it is. Lacking the arrogance which older institutions are permitted to display--the American university imported from Germany, the American college imported from England, the American elementary school first established in 1641 (and later organized along lines much admired by Horace Mann on his visit to Prussia), the American high school whose early ancestor was the Boston Latin School established in 1635--the community college as a movement has seldom attempted to insert a foreign object into the culture it proposes to serve. By and large, community colleges have taken on the protective coloration of the places and the people they serve. Unlike many

universities which of necessity are islands in their culture, the community college has sought to be indigenous, local, and relevant to what people want; where they want it; and when they want it. The community college, having not yet developed an institutional ego and clear image, still responds sensitively, quickly, and without a sense of academic guilt to what the people want--day or night (2).

There is every indication that more thought and deep concern is being given to the planning process in the community college field than in most levels of education, by professional educators, architects and the lay public. Whether this is being brought about because these institutions are being developed at a time when we are engaged in reviewing our educational position on all levels, or for other reasons, is not clear. The community college differs in that it is somewhat unique and a fairly new addition to our educational organizational creations. It is an institution of higher learning that has many local ties. Most lay members concerned have mixed ideas as to what it is, varying from an extended secondary school to a small liberal arts institution at home, to a minature university--"None of which it should be" (3).

Our nation was founded on the concept of the worth of the individual. Every effort must be expended to help each person make the most of his abilities. This point of view recognizes that many able young persons are denied education beyond high school because they cannot afford to leave home to attend college. It also recognizes that there are a variety of abilities which can contribute to our society which need development. The local community college can serve this vital need with its low tuition charges and a broad instructional program (4).

The community college must be much more than the lower half of a college or university. The community or "peoples college" must be designed to serve the whole population. Because of the breadth and purpose, few community colleges should aspire to four-year status (5).

In John W. Gardner's (6) book on excellence, he rejects the notion that excellence can only be experienced in the most rarified strata of higher education. It may be experienced at every level and in every serious kind of higher education. And not only may it be experienced everywhere, but we must demand it everywhere. We must never make the insolent and degrading assumption that young people unfitted for the most demanding fields of intellectural endeavor are incapable of rigorous attention to some sort of standards. It is an appalling error to assume--as some of our institutions seem to have assumed--that young men and women incapable of the highest standards of intellectual excellence are incapable of any standard whatsoever, and can properly be subjected to shoddy, slovenly and trashy educational fare. College should be a demanding as well as an enriching experience--demanding for the brilliant youngster at a high level of expectation and for the less brilliant at a more modest level.

It is no sin to let average as well as brilliant youngsters into college. It is a sin to let any substantial portion of them--average or brilliant--drift through college without effort, without growth and without a goal. That is the real scandal in many of our institutions.

Though we must make enormous concessions to individual differences in aptitude, we may properly expect that every form of education be such as to stretch the individual to the utmost of his potentialities. And we must expect each student to strive for excellence in terms of

the kind of excellence that is within his reach. Here again we must recognize that there may be excellence or shoddiness in every line of human endeavor. We must learn to honor excellence (indeed to demand it) in every socially accepted human activity, however humble the activity. As John W. Gardner (6) stated: "an excellent plumber is infinitely more admirable than an incompetent philosopher. The society which scorns excellence in plumbing because plumbing is a humble activity and tolerates shoddiness in philosophy because it is an exalted activity will have neither good plumbing nor good philosophy. Neither its pipes nor its theories will hold water."

Approximately forty-three percent of New Mexico's high school graduates enrolled in college. This is a fact in which the State can be justifiably proud. However, recent statistics indicate that only about forty percent of those who enter college will graduate. Furthermore, the same high school graduating class probably retained less than half of the students it had started school with twelve years previously. The mathematics are straight forward; approximately one student in ten receives a college degree (7).

The state-wide average is forty-three percent of high school graduates who enroll in college, however, this figure is misleading for approximately one-third of the counties in New Mexico. In these eleven counties with a high population of Indians and Spanish-Americans, the percentage is less than twenty percent who enroll in college and the drop-out rate in grades one through twelve is over fifty percent. In most of the school districts of these eleven counties, the vocational course offering is very limited or non-existent (8).

The unemployment rate among Indians is nearly forty percent--more

than ten times the national average. Fifty percent of Indian school children--double the national average--drop out before completing high school. Indian literacy rates are among the lowest in the nation; the rates of sickness and poverty are among the highest.

What is needed is an awareness on the part of our institutions of the special needs of the Indian community for adult education opportunities. There is no doubt, that once the needs are known, our institutions will be able to design imaginative programs to help provide the means to resolving the needs. Often in the past, much of the work done by people was a "study of" the Indian rather than a "program with" him (9).

New Mexico has interrelated economic, sociological and educational problems which lend themselves to at least partial solution by a comprehensive Vocational Educational effort.

Economically, the State has not kept pace with National or regional growth patterns. Since 1959, personal income has fallen steadily in relation to the national average (10). Unemployment in October, 1968, was fifty-five percent above the national figure (11). Particularly critical is the fact that forty percent of the unemployed are 22 years of age or younger (12). Industrial growth, even in the urban center of the Albuquerque-Santa Fe-Los Alamos crescent has been slow. The counties which surround these cities are among the most economically blighted in the State. This area represents approximately one-fourth of the land area of New Mexico.

Area vocational-technical schools can be used economically for adult basic education, skills upgrading, and industrial training as well as for regularly scheduled secondary and post-secondary courses.

They can provide an attractive training base for relocating industries, in addition to indicating to these industries the existence of a trained work force and community interest in industrial training. These are important factors in industrial plant site selection, and therefore, industrial growth (13).

All post-high school, technical, supervisory, and other post-high vocational education programs are located in junior colleges in the state of Arizona. An exception is adult education which may be offered by high schools or junior colleges where there is a demonstrated need. The Arizona Legislature passed a law in 1964 which authorizes high school districts to cooperate with junior college districts in offering vocational programs (14).

The Colorado State Board of Education conducted a feasibility study of possible location of area vocational schools and designated fourteen areas as eligible. Most of these programs are slated for the junior or community colleges (15).

Joint Resolution Number 520 was adopted by the Oklahoma Senate on July 14, 1965, and the House of Representatives passed the Resolution on July 15, 1965, to refer to the people of Oklahoma for their approval or rejection of a constitutional amendment to provide for vocational-technical education in Oklahoma. This Resolution was approved by the citizens of Oklahoma and the State Board for Vocational Education established the following minimum criteria for approval of area vocational school districts:

1. The proposed area school district shall have a total minimum scholastic population of 15,000 or serve a fifty-mile radius from the proposed site of the school.

2. The proposed area school district shall have a minimum

net assessed valuation of $40,000,000 after homestead exemptions.

3. An application shall be prepared which provides a complete picture of the proposed district in regard to size, population, assessed valuation, current school enrollments, including secondary school and elementary enrollments, adult enrollments, employment opportunities and other information relating to a justification of a school (16).

In New Mexico the Junior College Act (73-33-1) and the Technical-Vocational Institute Act (73-34-1) provided for vocational education, however, passage of the Area Vocational School Act (House Bill 50, 1967 - Chapter #177) and House Bill 228 - Chapter #104 amending the Branch-Community College statutes by the New Mexico Twenty-Eighth Legislature significantly enhanced the provision for vocational education by providing for the establishment of area vocational schools (17). (Appendix E). Both of these legislative measures were really the first attempts to clarify and lay down orderly procedures for establishing area vocational schools within the state.

The Sterling Institute, Washington, D. C., completed a "Master Plan for the Development of Vocational-Technical Education in New Mexico" in September of 1969 (18). This study was funded by the Economic Development Administration and the New Mexico State Board of Vocational Education approved the resulting recommendations. These recommendations established the locations of future area vocational schools and also set priorities for their establishment.

A review of the 1963 Vocational Education Act and subsequent amendments as well as prior legislation and specifically House Bill 50, 1967, and House Bill 228 which amended the Branch College Statuates in New Mexico served as benchmarks for this study.

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CHAPTER III

DESIGN AND METHODOLOGY OF THE STUDY

The primary purpose of this chapter is to describe the method by which the population for the study was determined, the sampling procedures used, and the method of data collection and analysis. The objectives of the study were to gather information about present and potential employers and employees in order to determine the types of vocational education programs that should be offered by the New Mexico State University's Grants Branch College (hereafter referred to as the college).

Selection of the Population

It was felt by the investigator that the research should be as comprehensive as possible within the objectives, scope and limitations of the study. It was decided, with approval of the advisory committee, to conduct surveys aimed at three different population groups. The three population groups selected were: (1) all business and industrial firms within the five thousand square mile college service area, (2) the junior and senior students at both senior high schools within the college service area, and (3) the adult population of the area.

Selection of the Sample: Business-Industry Survey

A list was obtained from the Grants-Western Valencia Chamber of

Commerce which contained the names and addresses of all business firms that were current members. The list was checked against the telephone books of the cities of Grants and Milan and the smaller villages within the college service area. The effort was aimed at securing data from the total business-industry population within the college service area.

Procedure: Business-Industry Survey

The information was secured by personal interview with the owner or manager or other responsible person of the businesses. Interview forms were developed by the investigator, with the able assistance of Dr. William W. Stevenson, Head of the Division of Research Planning and Evaluation, and approved by the advisory committee. The forms were tested in trial runs by the writer and his staff upon a limited number of businesses before actual interviews started. Form I covered a general review of the business, its function, its number of years in operation, and its total number of employees. Employees were divided into various job titles with the number of full-time and part-time positions. Form II was used to secure information on each job title listed by the employer such as classification, male or female, average weeks worked per year, salary range, and employee projections. Form III dealt with desired employee characteristics such as age, educational level, residential background preference, job limitations and further education required for advancement.

Selection of the Sample: Student Survey

Due to the maturity of the students, the dropout rates of the area, and the fact that almost immediate training for graduating seniors

would be desirable, it was decided by the writer to survey only students from the junior and senior classes. This was approved by the advisory committees. The total population of junior and senior students in both senior high schools of the district were selected as the sample.

Procedure: Student Survey

The superintendent of the Grants Municipal School District was contacted by the writer of this thesis for permission to administer the instruments at both senior high schools. Permission was granted to meet with the principals of the respective schools in order to set dates with the least possible conflicts. Both principals agreed upon the same date in November of 1969 for administering the survey instruments. The survey forms were distributed to the junior and senior students at Grants High School in a morning session and at Laguna-Acoma High School in the afternoon of the same day. Students at both high schools were informed of the purposes of the survey and that participation was voluntary on their part. All of the students present at both high schools completed the instruments and turned them over to counselors and/or assistant principals. They in turn assisted the investigator in sorting and classifying responses before turning them over to him.

Selection of the Sample: Adult Survey

Vocational-technical education programs of a terminal nature normally are aimed at recent high school graduates, at adults who have left school for various reasons, and at employed adults who need or

desire evening programs for upgrading present skills or to learn new skills. It was felt by the investigator that any research must include the adult population if the educational needs and desires of a community are to be given ample consideration. Since it would have been both physically and financially impossible for the investigator to reach all of the adults in the five thousand square mile college service area a random sample was agreed upon with approval of the advisory committee. It was decided that the same type of survey instrument which was administered to the student population would be mailed to the adult population. In a conference with the local post-master, it was determined that approximately fifty percent of the adults in the area could be reached by mailing the survey forms to post office "boxholders" or to "occupants" where home deliveries are made. Street mail deliveries are not made in the City of Milan and also in certain outlying areas of Grants. It also must be noted that many adults receive their mail through general delivery at the various post offices.

Procedure: Adult Survey

The number of post office "boxholders" at the Grants Post Office and for all of the small outlying post offices were obtained from the Grants Postmaster. He also furnished the number of home deliveries within the City of Grants. The total sample mailing to "occupants" and "boxholders" was four thousand instruments.

A bulk mailing permit was applied for and rubber stamps were ordered for stamping the four thousand pieces either "boxholder" or "occupant" and with the correct paid postage and permit number. The survey forms were folded, stamped, tied in bundles and delivered to the

Grants Post Office for distribution.

Collection and Collation of Data

Information on employment opportunities and needs of business-industry was collected through personal interviews with the owner, manager or some responsible person in each business. In the case of several of the larger business firms a number of individuals were involved in the interview. This was necessary in order to obtain the needed data.

Newspaper articles, speeches at civic clubs, and radio station interviews were utilized by the researcher in an effort to effect acquaintence of the general public and business officials with the objectives of the vocational-technical study. Three hundred thirty (330) businesses completed interview schedules which resulted in approximately six thousand job title interviews which identified over one hundred fifty (150) different job titles in the various businesses. The business community exhibited a very cooperative attitude toward the study and in almost all cases completed their interview schedule at the appointed time.

Instruments for securing response data for student surveys were distributed and collected by the writer and his office staff at the two senior high schools. The adult surveys were either mailed back, picked up at various public school offices or they were hand carried by the individual to the New Mexico State University Branch College administration office.

Treatment and Analysis of Data

Upon completion of the data collection, the researcher and research assistants compiled the data using adding machines and calculators to determine totals and percentages needed to answer such questions as numbers presently employed, anticipated needs and employee characteristics desired. Since the study was largely descriptive in nature, involved statistical tests of significance were not deemed appropriate or needed. Dependence upon responses from present and prospective employers was acknowledged as the most reliable indicator of the nature and extent of vocational-technical needs. As these responses and those from adults and high school students were analysed, and the facilities and service potential of the Grants Branch were examined and reviewed, conclusions were then drawn as to the feasibility of implementing a training program. Guidelines for review, orientation and decision making were developed.

CHAPTER IV

PRESENTATION OF DATA

This chapter is a summarization of the findings of school enrollment characteristics, student surveys, adult surveys and over three hundred fifty personal interviews with owners or managers of business and industrial firms. Every business, large or small, which could be identified by the Grants-Western Valencia Chamber of Commerce, representatives of the telephone company, the utility companies, and the writer and his staff were included in this study.

The chapter is divided into four sections. The first deals with student population characteristics, historical enrollment data, enrollment projections and high school students vocational-technical education desires. The second section shows the nature and extent of adults desiring vocational-technical training in various occupational areas. Section three discloses the number of businesses in the population sample, number of persons employed, and the number of part-time and full-time workers. The fourth section reveals the characteristics of workers such as age, education, background and salary.

School Enrollment Population Characteristics

The public school enrollments of the Grants Municipal School District for a ten-year period, 1959-60 through 1969-70, are shown in Tables I, II and III.

Data in Table I indicate that the ten-year growth has been approximately five percent (4.95) for the entire school district (grades 1 through 12) with a net gain of 251 students over the school year 1959-60. However, the peak year of the uranium mining boom, 1960-61, show 5365 students enrolled. This is a net loss of 42 students when compared to the 1969-70 enrollment of 5323 students. When the low year of 1965-66 is compared to the peak year of 1960-61, a net loss of 714 students are shown. Since 1965-66 a steady growth has been experienced by the public schools which has recaptured nearly all of the student population losses.

TABLE I

GRANTS MUNICIPAL SCHOOL DISTRICT ENROLLMENT
1959-60 THROUGH 1969-70*

Year	Number
1959-60	5072
1960-61	5365
1961-62	5154
1962-63	5167
1963-64	5307
1964-65	4724
1965-66	4651
1966-67	4783
1967-68	5004
1968-69	5202
1969-70	5323

*Source: Division of Statistics, First 20 Day Report, State Department of Education, Santa Fe, New Mexico.

Data presented in Table II disclose a steady ten-year growth rate of 3.32 percent in the secondary school population. However, data in Table I show a loss in grades 1 to 12 during the years 1964-65 and 1965-66, but the loss of high school students was only slight during one year (1964-65) and show a gain each year to the present time. It should be noted that while the ten-year average growth rate is 3.32 percent, the growth rate for 1968-69 was 5.40 percent and for 1969-70 an 8.00 percent growth rate was registered.

TABLE II

GRANTS MUNICIPAL SCHOOL DISTRICT ENROLLMENT
GRADES 9 THROUGH 12*

Year	Number
1959-60	959
1960-61	1018
1961-62	1074
1962-63	1194
1963-64	1273
1964-65	1251
1965-66	1269
1966-67	1312
1967-68	1281
1968-69	1355
1969-70	1472

*Source: Division of Statistics, First 20 Day Report, State Department of Education, Santa Fe, New Mexico.

Data presented in Table III show that school enrollments dropped off in 1964-65 following the uranium mining boom years, but since that time there has been a steady growth in enrollments as a result of an

apparently sound economic growth in the area. The findings further reveal that approximately one student in three drops out of school between grade 9 and 12. The data also show that more students are staying in school during the recent years but the 30.20 percent attrition rate is still alarmingly high when contrasted with national average drop-out rates or the state-wide average of 20.00 percent.

TABLE III

ATTRITION RATE FOR GRANTS MUNICIPAL SCHOOLS*

Year	Enrollment 9th Grade	Year	Enrollment 12th Grade	Difference	Percent Attrition
1959-60	307	1962-63	178	-129	42.00
1960-61	336	1963-64	220	-116	34.52
1961-62	401	1964-65	262	-139	34.63
1962-63	412	1965-66	260	-152	36.89
1963-64	447	1966-67	298	-149	33.10
1964-65	348	1967-68	247	-101	29.00
1965-66	383	1968-69	250	-133	34.94
1966-67	437	1969-70	301	-136	31.12
			Average Last Eight Years		34.52
			Average Last Four Years		30.20

*Source: Grants Municipal School District Statistics.

Findings presented in Table IV exhibit five-year projections which are based on a ten-year historical average increase of 3.32 percent annually, however, it must be pointed out that the growth rate for the past two years (1968-69 and 1969-70) have more than doubled the historical rate. It must also be recognized that the attrition rate average for the past four years (1966-67 through 1969-70) is 4.32 percent lower than the ten-year historical average. This indicates that more students are staying in school and graduating and it also accounts in part for the doubled growth rate increase during the past two years. The lower attrition rate during the past four years coupled with more than doubled historical growth rates for the past two years may indicate that the projected five-year enrollments are too conservative for realistic program and facility planning.

TABLE IV

FIVE-YEAR PROJECTED ENROLLMENT
GRADES 9 THROUGH 12*

Year	Enrollment
1969-70	1,472
1970-71	1,520
1971-72	1,570
1972-73	1,621
1973-74	1,675
1974-75	1,731

*Historical Average Percentage Increase.

Student Survey

A total of four hundred eighty three (483) student surveys were completed by junior and senior students at both senior high schools in the Grants Municipal School District. Survey forms were administered and collected by the writer of the study, the assistant principals, and the counselors at each high school. The information was secured through the survey instrument which is reproduced in Appendix A.

Data presented in Table V show that there was a seventy-six percent response or four hundred eighty three (483) students completing the surveys from six hundred thirty five (635) juniors and seniors enrolled at both high schools.

Table V exhibits findings which tend to show a strong vocational interest, this accounting for approximately one-half (48.50%) of the students enrolled. Three hundred eight (308) students indicated they were interested in some type of vocational training program. One hundred fifty one (151) students (23.70%) indicated that they were going to attend college. Approximately four percent (3.80%) of the students claimed that they were not interested in attending college or any type of vocational education program.

A tabulation of findings presented in Table VI reveal that two hundred sixty eight (268) students would attend a vocational-technical facility if it were established as a part of New Mexico State University-Grants Branch and forty (40) students indicated they would not attend even though they indicated an interest in attending a vocational school.

One-third of the students (103) indicated that they would not leave home to attend school if one were not available to attend in their

county while two-thirds (205) said that they would go some other place to secure the type of training they desire.

TABLE V

SUMMARY OF STUDENT SURVEYS, TOTAL NUMBER OF JUNIORS AND SENIORS IN GRANTS AND LAGUNA-ACOMA HIGH SCHOOLS, NUMBER REPORTING, INTERESTS AND PERCENT OF STUDENTS REPORTING

High School	Total Juniors-Seniors	No Response	Number of Responses	College Bound	Vocational Interest	Not Interested
Laguna-Acoma	149	25	124	13	106	5
Grants	486	127	359	138	202	19
Totals	635	152	483	151	308	24
Percent of Totals	100.0	24.0	76.0	23.7	48.5	3.8

The responses of the three hundred eight (308) junior and senior high school students interested in vocational programs are presented in Tables VII, VIII, and IX.

The first two tables point out the interest by schools for Laguna-Acoma and Grants. Table IX, as a summarization presents a composite of both high schools in the Grants Municipal School District. The interest choices selected by the individual students from both high schools followed a similar pattern. More interest was indicated in the health occupations, business and office education, and the trade and industrial

education areas than in the areas of agricultural education, distributive education, or home economics education. Moderate interest was shown in technical education.

TABLE VI

SUMMARY OF 308 STUDENT RESPONSES AT GRANTS AND LAGUNA-ACOMA WHO INDICATED AN INTEREST IN ATTENDING A VOCATIONAL-TECHNICAL SCHOOL

High School	Would you go to a vocational-technical school if one were to be established as a part of NMSU-Grants Branch?		If no vocational-technical school were available in the county, would you go to some other place to secure the type of training you desire?	
	Yes	No	Yes	No
Laguna-Acoma	94	12	80	26
Grants	174	28	125	77
Total	268	40	205	103

TABLE VII

STUDENT SURVEY - LAGUNA-ACOMA HIGH SCHOOL

	Number Indicating Choice: 1st	2nd	3rd
I. Agricultural Education Areas			
1. Production Agriculture	-	-	-
2. Animal Husbandry	-	-	1
3. Fertilizer and Chemicals	-	-	-
4. Farm Equipment and Supplies	-	-	-
5. Farm Management	-	-	-
6. Horticulture	-	-	-
7. Agriculture Mechanics	-	-	-
8. Lawn & Garden Maintenance	-	-	-
9. Butcher & Meat Processing	3	1	2
10. Horseshoeing	-	1	1
II. Distributive Education			
11. Salesman - Retail-Wholesale	1	-	-
12. Display	-	-	1
13. Retail Merchandising	-	-	-
14. Advertising	1	-	-
III. Health Occupations Education			
15. Nurse-Aides	7	3	1
16. Licensed Practical Nurse	7	4	2
17. Psychiatric Aides	2	1	1
18. Dental Assistant	7	2	9
19. Medical Assistant	1	4	1
IV. Home Economics Education			
20. Waitress and/or Waiter Training	-	1	-
21. Night Clerks	-	1	1
22. Cooks and Cook's Helpers	-	-	2
23. Custodial Services	-	-	1
24. Housekeepers	-	-	-
25. Motel-Hotel Maids	-	-	-

TABLE VII (Continued)

		Number Indicating Choice:		
		1st	2nd	3rd
V.	Business and Office Education			
26.	Typing I and II	5	6	3
27.	Shorthand I and II	-	3	-
28.	Bookkeeping	5	8	5
29.	Accounting	2	2	6
30.	Office Machines	1	-	2
31.	Business Math	1	-	-
32.	Business Law	3	3	2
33.	Business Orientation	-	-	2
34.	Secretarial Arts	4	2	4
35.	Stenotypist	-	2	-
36.	Data Processing	6	6	8
37.	Electronic-Computer Programming	12	12	6
VI.	Trade and Industrial Education			
38.	Power Mechanics	5	2	-
39.	Basic Gasoline Engines	-	-	2
40.	Small Gas Engine Mechanics	-	-	-
41.	General Auto Mechanic	14	12	4
42.	Diesel Mechanic	4	3	1
43.	Oxy-Acetylene Welding	1	1	2
44.	Electric Arc Welding	2	8	4
45.	Blueprint Reading	1	3	1
46.	Auto Body & Fender Repair	-	4	2
47.	Air Conditioning Mechanic	1	-	1
48.	Home Appliance Repairman	1	-	-
49.	Carpenter	-	-	2
50.	Masonry Occupations	-	-	-
51.	Plumbing	1	-	-
52.	Upholstery	-	-	-
53.	Printing Trades	-	-	-
54.	Refrigeration Mechanic	-	1	-
55.	Truck Driver	1	2	3
56.	Heavy Equipment Operator	4	1	15
57.	Auto Service Station Attendant	-	-	1
58.	Policeman/Guard	-	2	1
59.	Boiler Operator and/or Environmental Control Specialist	-	-	-
60.	Partsman, Auto and Other	-	-	-

TABLE VII (Continued)

	Number Indicating Choice:		
	1st	2nd	3rd
VII. Technical Education			
61. Electronics (T-V and/or radio)	5	3	5
62. Drafting	-	5	2
63. Electricity (Wiring and repair)	2	1	1
64. Electronic Technology	2	4	6
65. Civil Technology	1	-	-
66. Electro-Mechanical Technology	1	1	1
67. Mechanical Technology	-	-	1
VIII. Basic Adult Education			
68. Reading	-	-	-
69. English	-	-	-
70. Basic Mathematics	-	-	1

TABLE VIII

STUDENT SURVEY - GRANTS HIGH SCHOOL

	Number Indicating Choice: 1st	2nd	3rd
I. Agricultural Education Areas			
1. Production Agriculture	3	1	-
2. Animal Husbandry	2	2	2
3. Fertilizer & Chemicals	-	-	-
4. Farm Equipment & Supplies	-	2	-
5. Farm Management	-	-	1
6. Horticulture	-	2	-
7. Agriculture Mechanics	-	-	-
8. Lawn & Garden Maintenance	-	-	-
9. Butcher & Meat Processing	1	2	3
10. Horseshoeing	2	4	2
II. Distributive Education			
11. Salesman - Retail-Wholesale	1	-	1
12. Display	-	1	-
13. Retail Merchandising	-	-	1
14. Advertising	8	2	1
III. Health Occupations Education			
15. Nurse-Aides	13	5	-
16. Licensed Practical Nurse	4	6	-
17. Psychiatric Aides	5	2	2
18. Dental Assistant	5	2	5
19. Medical Assistant	1	3	6
IV. Home Economics Education			
20. Waitress and/or Waiter Training	2	2	-
21. Night Clerks	-	-	-
22. Cooks and Cook's Helpers	-	-	-
23. Custodial Services	-	-	-
24. Housekeepers	2	-	3
25. Hotel-Motel Maids	-	1	-

TABLE VIII(Continued)

		Number Indicating Choice:		
		1st	2nd	3rd
V.	Business and Office Education			
26.	Typing I and II	10	6	6
27.	Shorthand I and II	6	10	2
28.	Bookkeeping	8	4	6
29.	Accounting	5	3	3
30.	Office Machines	5	8	9
31.	Business Math	-	3	1
32.	Business Law	4	1	3
33.	Business Orientation	-	1	1
34.	Secretarial Arts	19	10	11
35.	Stenotypist	2	2	5
36.	Data Processing	7	23	14
37.	Electronic-Computer Programming	14	11	14
VI.	Trade and Industrial Education			
38.	Power Mechanics	-	3	2
39.	Basic Gasoline Engines	2	-	-
40.	Small Gas Engine Mechanic	-	-	6
41.	General Auto Mechanic	14	15	4
42.	Diesel Mechanic	15	3	4
43.	Oxy-Acetylene Welding	6	7	3
44.	Electric Arc Welding	4	10	5
45.	Blueprint Reading	2	2	4
46.	Auto Body & Fender Repair	1	8	10
47.	Air Conditioning Mechanic	3	4	5
48.	Home Appliance Repairman	1	1	1
49.	Carpenter	1	-	4
50.	Masonry Occupations	-	-	-
51.	Plumbing	1	-	1
52.	Upholstery	-	2	2
53.	Printing Trades	-	2	2
54.	Refrigeration Mechanic	-	1	3
55.	Truck Driver	2	-	1
56.	Heavy Equipment Operator	-	1	3
57.	Auto Service Station Attendant	1	-	1
58.	Policeman/Guard	1	2	-
59.	Boiler Operator and/or Environmental Control Specialist	-	-	-
60.	Partsman, Auto and Other	-	-	2

TABLE VIII (Continued)

	Number Indicating Choice: 1st	2nd	3rd
VII. Technical Education			
61. Electronics (T-V and/or radio)	3	2	2
62. Drafting	5	5	3
63. Electricity (Wiring and repair)	2	1	2
64. Electronic Technology	5	6	5
65. Civil Technology	-	-	-
66. Electro-Mechanical Technology	3	4	1
67. Mechanical Technology	1	3	1
VIII. Basic Adult Education			
68. Reading	-	-	-
69. English	-	-	-
70. Basic Mathematics	-	-	1

TABLE IX

STUDENT SURVEY - GRANTS-LAGUNA-ACOMA COMPOSITE

		Number Indicating Choice:		
		1st	2nd	3rd
I.	Agricultural Education Areas			
1.	Production Agriculture	3	1	-
2.	Animal Husbandry	2	2	3
3.	Fertilizer & Chemicals	-	-	-
4.	Farm Equipment & Supplies	-	2	-
5.	Farm Management	-	-	1
6.	Horticulture	-	2	-
7.	Agriculture Mechanics	-	-	-
8.	Lawn & Garden Maintenance	-	-	-
9.	Butcher & Meat Processing	4	3	5
10.	Horseshoeing	2	5	3
II.	Distributive Education			
11.	Salesman - Retail-Wholesale	2	-	1
12.	Display	-	1	1
13.	Retail Merchandising	-	-	1
14.	Advertising	9	2	1
III.	Health Occupations Education			
15.	Nurse-Aides	20	8	1
16.	Licensed Practical Nurse	11	10	2
17.	Psychiatric Aides	7	3	3
18.	Dental Assistant	12	4	14
19.	Medical Assistant	2	7	7
IV.	Home Economics Education			
20.	Waitress and/or Waiter Training	2	3	-
21.	Night Clerks	-	1	1
22.	Cooks and Cook's Helpers	-	-	2
23.	Custodial Services	-	-	1
24.	Housekeepers	2	-	3
25.	Hotel-Motel Maids	-	1	-

TABLE IX (Continued)

		Number Indicating Choice: 1st	2nd	3rd
V.	Business and Office Education			
26.	Typing I and II	15	11	9
27.	Shorthand I and II	6	13	2
28.	Bookkeeping	13	12	11
29.	Accounting	7	5	9
30.	Office Machines	6	3	5
31.	Business Math	1	3	1
32.	Business Law	7	4	6
33.	Business Orientation	-	4	3
34.	Secretarial Arts	23	12	15
35.	Stenotypist	2	4	5
36.	Data Processing	13	29	22
37.	Electronic-Computer Programming	26	23	20
VI.	Trade and Industrial Education			
38.	Power Mechanics	5	5	2
39.	Basic Gasoline Engines	2	-	2
40.	Small Gas Engines	-	-	6
41.	General Auto Mechanics	28	27	8
42.	Diesel Mechanics	19	6	5
43.	Oxy-Acetylene Welding	7	8	5
44.	Electric Arc Welding	6	18	9
45.	Blueprint Reading	3	5	5
46.	Auto Body and Fender Repair	1	12	12
47.	Air Conditioning Mechanic	4	4	6
48.	Home Appliance Repair	2	1	-
49.	Carpenter	1	-	2
50.	Masonry Occupations	-	-	-
51.	Plumbing	2	-	1
52.	Upholstery	-	2	2
53.	Printing Trades	-	2	2
54.	Refrigeration Mechanic	-	2	3
55.	Truck Driver	3	2	4
56.	Heavy Equipment Operator	4	2	18
57.	Auto Service Station Attendant	1	-	2
58.	Policeman-Guard	1	4	1
59.	Boiler Operator and/or Environmental Control Specialist	-	-	-
60.	Partsman, Auto and Other	-	-	2

TABLE IX (Continued

	Number Indicating Choice: 1st	2nd	3rd
VII. Technical Education			
61. Electronics (T-V and/or radio)	8	5	7
62. Drafting	5	10	5
63. Electricity (Wiring and repair)	4	2	3
64. Electronic Technology	7	10	11
65. Civil Technology	1	-	-
66. Electro-Mechanical Technology	4	5	2
67. Mechanical Technology	1	3	2
VIII. Basic Adult Education			
68. Reading	-	-	-
69. English	-	-	-
70. Basic Mathematics	-	-	2

Adult Survey

The Vocational Education Act of 1963 (P. L. 88-210) and the 1968 Vocational Amendments Act (P. L. 90-576) emphasized the importance of providing training for all people. This legislation also specifies the importance of determining need for training prior to initiation of any new programs. To help accomplish this, the adults of the Grants-Milan area were surveyed in an effort to determine their needs and desires.

Three hundred one (301) adults completed and returned questionnaires which were mailed to all of the "Boxholders" and "Occupants" in Grants and outlying villages. (See Appendix B)

Based on the responses to this survey there would appear to be considerable adult interest in vocational-technical education in the branch college service area. Table X indicates that 90.33 percent of the adults responding to the survey expressed a vocational interest.

TABLE X

ADULT SURVEY GRANTS AREA

Total Responses	Vocational Training Interest	Not Interested
301	271	30
Percent	90.33	9.67

Findings presented in Table XI show the breakdown of the specific occupational choices of the two hundred seventy one (271) adults indicating vocational interest.

Business-Industry Survey

This section of the report deals with the findings of three hundred fifty two personal interviews with the owners, managers or some responsible person representing each of the business and industrial firms located in the college service area at the time the study was initiated. The figures presented in the following tables represent the total population working for the various businesses in the area.

In the course of the investigation, it was found that the job titles with the major mining companies varied and were not always consistent for basically the same services performed by the employees. This is attributed to the fact that some mining companies operate strip mines and others operate underground mines. Other firms operate both underground and strip mines. Some of the mining companies operate on an international basis while others are regional or local in nature. The fact that a part of the firms are unionized while others are not may also contribute to the difference in job titles. The data in this study show the job titles as reported by the business and industry firms.

Employment in Business and Industry

Data in Tables XII and XIII show that there are 5,921 full-time and part-time persons employed by sales, services, processing, government, education, manufacturing and mining firms in the Grants and

TABLE XI

ADULT SURVEY - GRANTS-MILAN-WESTERN VALENCIA COUNTY COMPOSITE

	Number Indicating Choice:		
	1st	2nd	3rd
I. Agricultural Education Areas			
1. Production Agriculture	1	-	1
2. Animal Husbandry	5	3	4
3. Fertilizer & Chemicals	1	2	-
4. Farm Equipment & Supplies	-	1	-
5. Farm Management	1	-	2
6. Horticulture	1	-	-
7. Agriculture Mechanics	1	1	1
8. Lawn & Garden Maintenance	1	1	2
9. Butcher & Meat Processing	2	2	1
10. Horseshoeing	3	1	2
II. Distributive Education			
11. Salesman - Retail-Wholesale	5	2	2
12. Display	-	1	1
13. Retail Merchandising	1	2	2
14. Advertising	4	5	5
III. Health Occupations Education			
15. Nurse-Aides	12	5	4
16. Licensed Practical Nurse	14	15	4
17. Psychiatric Aides	1	1	1
18. Dental Assistant	2	7	8
19. Medical Assistant	5	6	7
IV. Home Economics Education			
20. Waitress and/or Waiter Training	-	-	-
21. Night Clerks	3	-	1
22. Cooks and Cook's Helpers	-	3	2
23. Custodial Services	-	-	2
24. Housekeepers	-	-	1
25. Hotel-Motel Maids	-	1	1

TABLE XI (Continued)

		Number Indicating Choice: 1st	2nd	3rd
V.	Business and Office Education			
26.	Typing I and II	16	6	4
27.	Shorthand I and II	5	8	2
28.	Bookkeeping	6	11	12
29.	Accounting	7	3	6
30.	Office Machines	4	10	6
31.	Business Math	-	1	2
32.	Business Law	2	2	4
33.	Business Orientation	3	2	4
34.	Secretarial Arts	7	1	7
35.	Stenotypist	2	1	2
36.	Data Processing	11	8	6
37.	Electronic-Computer Programming	16	12	8
VI.	Trade and Industrial Education			
38.	Power Mechanics	-	-	1
39.	Basic Gasoline Engines	-	-	3
40.	Small Gas Engines	1	-	3
41.	General Auto Mechanics	24	15	11
42.	Diesel Mechanics	18	16	12
43.	Oxy-Acetylene Welding	10	14	11
44.	Electric Arc Welding	15	15	20
45.	Blueprint Reading	4	7	4
46.	Auto Body and Fender Repair	2	8	1
47.	Air Conditioning Mechanic	6	2	1
48.	Home Appliance Repair	3	7	5
49.	Carpenter	2	4	2
50.	Masonry Occupations	3	1	1
51.	Plumbing	3	2	4
52.	Upholstry	2	2	2
53.	Printing Trades	-	-	-
54.	Refrigeration Mechanic	2	3	7
55.	Truck Driver	1	4	3
56.	Heavy Equipment Operator	10	6	9
57.	Auto Service Station Attendant	1	1	1
58.	Policeman-Guard	4	2	2
59.	Boiler Operator and/or Environmental Control Specialist	-	-	-
60.	Partsman, Auto and Other	1	-	-

TABLE XI (Continued)

	Number Indicating Choice: 1st	2nd	3rd
VII. Technical Education			
61. Electronics (T-V and/or radio)	10	7	3
62. Drafting	5	8	4
63. Electricity (Wiring and repair)	4	4	4
64. Electronic Technology	5	5	2
65. Civil Technology	1	1	-
66. Electro-Mechanical Technology	2	3	3
67. Mechanical Technology	1	1	5
VIII. Basic Adult Education			
68. Reading	2	-	-
69. English	1	1	3
70. Basic Mathematics	-	1	3

Western Valencia County area. Approximately five per cent (4.83%) of the 5,921 employees are part-time workers which were found mostly in the sales and services areas of employment. These workers are primarily sales clerks and gasoline station attendants. Nearly one-half (46.24%) of the business-industry work force of the area are employed by the mining companies. Service and sales firms follow the mining companies with over one-third (34.23%) of the total employees. The balance of the labor force (19.53%) was found to be working in education, government, processing and manufacturing.

The turnover rate is extremely high in the mining and service industries. The data indicate that 3,845 workers will be needed as replacements in all job titles within the next five years. This represents approximately sixty-five percent (64.94%) in turnover in the next five years. The projected demand for 1,492 additional employees during the next five years indicates the healthy growth anticipated in the uranium mining industry.

Employment: Present and Projected Needs

The data in the following tables are presented according to the United States Office of Education job title groupings. There are five of these groupings utilized in this study with specific job titles listed under the following groups: (1) Agricultural Education, (2) Home Economics Education, (3) Distributive Education, (4) Office Education, and (5) Trade and Industrial Education.

Data in Tables XIV, XV, XVI, XVII, and XVIII show the number of males and females presently employed, the number of males and females needed to replace present workers in the next five year period for each

TABLE XII

TOTAL PERSONS EMPLOYED IN BUSINESS-INDUSTRY, PERCENT IN JOB AREAS, NUMBER NEEDED TO REPLACE PRESENT WORKERS IN NEXT FIVE YEARS, AND ADDITIONAL WORKERS NEEDED NEXT FIVE YEARS

Type of Business	Total Number Presently Employed	Percent of Labor Force	Total Number Needed to Replace Present Workers in Next Five Years	Additional Workers Needed in Next Five Years
Sales	762	12.87	632	95
Processing	97	1.64	69	17
Services	1,265	21.36	1,089	225
Education	573	9.68	136	120
Government (federal, state, local)	315	5.32	91	41
Marketing	0	0.00	0	0
Purchasing	0	0.00	0	0
Manufacturing	171	2.89	73	102
Mining	2,738	46.24	1,755	892
Other	0	0.00	0	0
Totals	5,921	100.00	3.845	1,492

TABLE XIII

TOTAL FULL-TIME AND PART-TIME EMPLOYEES IN BUSINESS-INDUSTRY, IN GRANTS-MILAN AREA

Type of Business	Full-time	Part-time
Sales	681	81
Processing	97	0
Services	1,090	175
Education	565	8
Government (federal, state, local)	297	18
Marketing	0	0
Purchasing	0	0
Manufacturing	167	4
Mining	2,738	0
Other	0	0
Totals	5,635	286

job title.

It must be noted that professional employees such as teachers and engineers are listed under the trade and industry grouping in Table XVIII. Medical doctors, lawyers, clergymen, librarians, dentists and certain other professionals are not included in this study. The agricultural sector composed of farming and ranching employees are also omitted from this study. It is estimated that agricultural workers and the professionals not included in the study account for approximately six hundred persons.

The greatest concentration of employees was found in the trade and industry job title areas with 4,247 out of the total work force of 5,921 persons. Only 38 workers were identified in business and industry under the agricultural education grouping. The balance of the workers were almost evenly distributed among the groups of distributive education, home economics education and office education with 520, 532, and 584 respectively.

Female employees represented slightly less than one-fourth (22.52%) of the total labor force with 1,334 workers. The largest group of females were found in the trade and industry group, however, it must be noted that teachers accounted for 225 of this total of 445.

Employment: Weekly Wage or Salary

Data in Tables XIX, XX, XXI, XXII, and XXIII reveal the number of employees in each weekly salary range for each job title found within the five groupings. It is interesting to note that only 459 workers were found to be earning less than $58.00 per week while 554 persons were earning over $211.00 per week. These 459 workers were found to be

TABLE XIV

EMPLOYMENT: PRESENT AND PROJECTED NEEDS
AGRICULTURAL EDUCATION

Job Title	Presently Employed			Additional Employees Expected in Next Five Years			
	Total	Males	Females	To Replace Males	To Replace Females	Additions Males	Additions Females
Butchers and Meat Cutters	13	12	1	8	0	5	1
Butchers' and Meat Cutters' Helpers	13	9	4	3	2	2	2
Buyers and Department Heads, Stores	1	1	0	0	0	0	0
Grounds Keepers	4	4	0	3	0	3	1
Packers, Wrappers and Craters	3	0	3	0	3	0	0
Retail Managers	4	4	0	2	0	0	0
Vocation Totals	38	30	8	16	5	10	4

TABLE XV

EMPLOYMENT: PRESENT AND PROJECTED NEEDS
HOME ECONOMICS EDUCATION

Job Title	Presently Employed			Additional Employees Expected in Next Five Years			
				To Replace		Additions	
	Total	Males	Females	Males	Females	Males	Females
Charwomen and Cleaners	60	17	43	3	55	0	12
Cooks	60	24	36	31	23	4	11
Kitchen Workers	116	19	97	26	104	0	15
Laundry and Cleaning Workers	49	7	42	5	34	0	25
Maids and Housemen	13	3	10	4	10	0	0
Medical Assistant	10	0	10	0	5	0	3
Nurses	12	0	12	0	9	0	5
Nurses' Aides	60	0	60	0	46	0	10
Retail Managers	30	20	10	4	1	1	0
Sales Clerks	82	23	59	16	54	4	12
Service Establishment Managers	28	21	7	5	3	0	0
Vocation Totals	520	134	386	94	344	9	93

TABLE XVI

EMPLOYMENT: PRESENT AND PROJECTED NEEDS
DISTRIBUTIVE EDUCATION

Job Title	Presently Employed			Additional Employees Expected in Next Five Years			
	Total	Males	Females	To Replace Males	To Replace Females	Additions Males	Additions Females
Buyers and Department Heads, Stores	6	6	0	2	0	0	0
Filling Station Attendants	175	173	2	281	2	39	5
Hotel and Restaurant Managers	17	14	3	3	2	0	1
Insurance Agents	3	3	0	0	0	0	0
Insurance Salesmen	5	4	1	2	0	1	0
Motel Managers	36	30	6	8	1	2	1
Newsboys	35	35	0	40	0	8	0
Purchasing Agents	30	22	8	13	4	4	7
Real Estate Salesmen	9	9	0	8	0	2	1
Retail Managers	28	25	3	4	1	0	0
Routemen	22	22	0	18	0	2	0
Sales Clerks	61	21	40	25	18	3	7
Sales Managers	13	13	0	2	0	0	0
Salesmen	38	28	10	18	7	10	3
Service Station Managers	25	25	0	7	0	1	0
Stock Boys	26	26	0	32	0	11	0
Wholesale Managers	3	3	0	0	0	0	0
Vocation Totals	532	459	73	463	35	83	25

TABLE XVII

EMPLOYMENT: PRESENT AND PROJECTED NEEDS
OFFICE EDUCATION

Job Title	Presently Employed			Additional Employees Expected in Next Five Years			
	Total	Males	Females	To Replace		Additions	
				Males	Females	Males	Females
Accounting Clerks	62	26	36	19	28	10	17
Bank Cashiers	5	4	1	1	1	0	1
Bookkeepers and Cashiers	25	5	20	1	12	1	6
Checkers	38	16	22	14	15	4	9
Credit Men	3	0	3	0	3	0	1
Desk Clerks	20	10	10	6	16	2	5
File Clerks	9	1	8	2	7	1	3
Financial Institution Managers	5	5	0	1	0	0	0
General Clerks	65	16	49	2	26	1	9
General Office Clerks	42	5	37	5	24	1	13
Office Machine Operators	23	6	17	4	11	4	7
Office Managers	56	39	17	13	14	4	4
Radio Dispatchers	10	7	3	4	2	0	1
Receptionists and Information Clerks	23	0	23	0	14	0	8
Secretaries	82	0	82	0	47	0	23
Stenographers and Typists	48	0	48	0	31	0	14
Stock Clerks	2	2	0	1	0	0	0
Technical Clerks	58	20	38	6	15	6	14
Tellers	8	0	8	0	4	0	2
Vocation Totals	584	162	422	79	270	34	137

TABLE XVIII

EMPLOYMENT: PRESENT AND PROJECTED NEEDS
TRADE AND INDUSTRY

Job Title	Presently Employed			Additional Employees Expected in Next Five Years			
	Total	Males	Females	To Replace		Additions	
				Males	Females	Males	Females
Barbers	15	15	0	6	0	2	0
Bartenders	17	13	4	7	3	3	1
Beauticians	22	0	22	0	16	0	5
Building Maintenance Men	17	17	0	5	0	2	0
Cabinetmakers	8	8	0	4	0	2	0
Cagers	20	20	0	20	0	10	0
Carpenters	60	60	0	35	0	18	0
Chemists	61	60	1	32	0	18	0
Chemists - Assistant	14	14	0	8	0	5	1
Compositors and Typesetters	6	3	3	3	3	1	1
Cone Men	7	7	0	4	0	2	0
Construction Machinery Operators	49	49	0	36	0	20	0
Construction Occupations Apprentices	18	18	0	15	0	7	0
Construction Superintendents	3	3	0	0	0	0	0
Contractors	4	4	0	2	0	0	0
Draftsmen	27	27	0	19	0	11	0
Drillers	21	21	0	17	0	8	0
Driller's Helpers	68	68	0	57	0	21	0
Drivers: Bus, Taxi, Truck	192	144	48	110	5	32	5
Editors	1	1	0	0	0	0	0
Electricians	57	57	0	41	0	16	1
Electricians' Apprentices	20	20	0	12	0	4	0
Electronic Equipment Installers and Repairman	63	63	0	34	0	19	0

TABLE XVIII (Continued)

Job Title	Presently Employed			Additional Employees Expected in Next Five Years			
				To Replace		Additions	
	Total	Males	Females	Males	Females	Males	Females
Electronics Assemblers	143	103	40	10	2	90	10
Electronics Technicians	116	113	3	106	7	15	0
Engineers-Mechanical	11	11	0	8	0	5	0
Engineers-Metallurgical	29	29	0	19	0	5	0
Engineers-Mining	96	96	0	30	0	17	0
Equipment Operators-Miscellaneous	176	176	0	104	0	45	0
Factory or Mill Maintenance Men	42	42	0	25	0	14	0
Firemen	9	9	0	6	0	2	0
Foremen-General	1	1	0	0	0	0	0
Foremen-Maintenance	16	16	0	4	0	1	0
Foremen-Manufacturing	40	40	0	11	0	7	0
Foremen-Mineral Extraction	19	19	0	13	0	4	0
Foremen-Miscellaneous	45	45	0	35	0	8	0
Foremen-Petroleum Production	2	2	0	1	0	0	0
Foremen-Transportation, Communication, and Utilities	22	22	0	7	0	4	0
Glass Glazers	2	2	0	2	0	1	0
Hoistmen	14	14	0	8	0	3	0
Household Appliance Repairman	4	4	0	4	0	1	0
Instrumental Musicians	1	0	1	0	0	0	0
Janitors	103	100	3	43	0	13	3
Jewelers and Watchmakers	3	2	1	1	1	1	0
Laborers-Construction	2	2	0	3	0	2	0
Laborers-General	177	177	0	102	0	24	0
Laborers-Mineral Extraction	204	204	0	159	0	68	0
Laborers-Nonferrous Metals Production	27	27	0	20	0	19	0
Laborers-Petroleum Products Production	8	8	0	0	0	0	0

TABLE XVIII (Continued)

Job Title	Presently Employed			Additional Employees Expected in Next Five Years			
				To Replace		Additions	
	Total	Males	Females	Males	Females	Males	Females
Laborers-Planing Mill	88	88	0	64	0	13	0
Laborers-Warehouse	35	35	0	15	0	10	0
Linemen and Servicemen, T&T	29	29	0	19	0	8	0
Locker-Room Attendants	5	5	0	12	0	0	0
Machinists	38	38	0	25	0	13	0
Mail Carriers	6	3	3	1	1	1	1
Managers-Branch	1	1	0	0	0	0	0
Managers-Industrial Organization	2	2	0	0	0	0	0
Managers-Production	3	3	0	0	0	0	0
Managers-Recreation Establishment	3	3	0	1	0	0	0
Managers-Service	2	2	0	0	1	0	0
Managers-Service Establishment	2	2	0	0	0	0	0
Managers-Warehouse	5	5	0	2	0	2	0
Mechanics-Automobile Body, Fender and Radiator	22	22	0	14	0	4	0
Mechanics-Automobile and Heavy Equipment	147	147	0	143	0	47	0
Mechanics-Maintenance	34	34	0	27	0	15	0
Medical Laboratory Technicians	17	12	5	7	6	5	2
Mill Operators	215	215	0	122	0	42	0
Mill Wrights	35	35	0	19	0	8	0
Mine & Mill Technicians	45	45	0	28	0	19	0
Mine & Mill Utilitymen (Semi-skilled)	231	231	0	69	0	31	0
Miners and Mining Machine Operators	415	415	0	243	0	122	0
Motormen	96	96	0	70	0	40	0
Movie Projectionists	3	3	0	0	0	0	0
Ore Dressing Occupations	18	18	0	9	0	5	0

TABLE XVIII (Continued)

Job Title	Presently Employed			Additional Employees Expected in Next Five Years			
				To Replace		Additions	
	Total	Males	Females	Males	Females	Males	Females
Ore-Storage-Drier Man	39	39	0	16	0	9	0
Painters	42	42	0	24	0	13	0
Photographers	1	1	0	1	0	1	0
Plumbers and Steamfitters	34	34	0	21	0	10	0
Plumbers' Helpers	2	2	0	2	0	0	0
Policemen	23	19	4	12	2	5	0
Postmasters	8	4	4	1	1	0	0
Power Plant Operators	9	9	0	5	0	2	0
Printers	2	2	0	2	0	1	0
Radio Broadcasting Occupations	8	7	1	5	1	3	1
Rubbermen	38	38	0	19	0	11	0
Sample Grinders	8	8	0	5	0	3	0
Sheet and Bar Rolling Occupations	2	2	0	0	0	0	0
Sheetmetal Workers	12	12	0	10	0	5	0
Shoe Repairman	2	2	0	2	0	1	0
Teachers	301	76	225	37	60	10	17
Teachers-Miscellaneous	4	0	4	0	0	0	0
Upholstery	3	3	0	1	1	2	1
Waiters and Waitresses	82	9	73	15	116	2	19
Welders	48	48	0	57	0	16	0
Vocation Totals	4,247	3,802	445	2,313	226	1,029	68

employed mostly in service or sales occupations which were not required by law to pay the $1.45 per hour minimum wage or they were employed on a part-time basis and did not work forty hours per week. Workers in the home economics group accounted for 215 of these 459 employees.

The greatest number of workers (1,802) were found to be earning a weekly salary in the $112.00 to $161.00 range; however, it should be noted that 1,899 employees were earning salaries above the $161.00 per week. Over sixty percent (62.50%) of the total business-industry work force were found to be earning above $112.00 per week. It must also be pointed out here that only 286 part-time workers were found in the total work force of 5,921 employees.

Employment: Minimum Education Job Entry Requirements

Data in Tables XXIV, XXV, XXVI, XXVII, and XXVIII show the minimum educational entry requirements for each job title within the five occupational groupings. Data from these tables reveal that over half (51.69%) of the job titles filled by employees required a high school diploma. Job titles which required more education than high school graduation accounted for more than one-fourth (27.67%) of the total work force of 5,921 persons.

Only 1,188 employees were found to be holding positions which called for less than twelve grades of education. The vast majority of these workers were found in the lower paying jobs such as common laborers, cleaning women, kitchen workers, filling station attendants, school bus drivers, janitors and sawmill laborers. Approximately one worker in five (20.64%) held these positions and it must be pointed out that most of the major mining companies now have a policy of not hiring

TABLE XIX

WEEKLY WAGE OR SALARY - AGRICULTURAL EDUCATION

Job Title	Under $58	$59-$85	$86-$111	$112-$161	$162-$186	$187-$211	Over $211
Butchers and Meat Cutters	0	0	0	3	7	1	2
Butchers' and Meat Cutters' Helpers	3	3	3	2	2	0	0
Buyers and Department Heads, Stores	0	0	0	0	0	1	0
Grounds Keepers	0	3	0	1	0	0	0
Packers, Wrappers and Craters	2	1	0	0	0	0	0
Retail Managers	0	0	0	1	2	0	1
Vocation Totals	5	7	3	7	11	2	3

TABLE XX

WEEKLY WAGE OR SALARY - HOME ECONOMICS EDUCATION

Job Title	Under $58	$59-$85	$86-$111	$112-$161	$162-$186	$187-$211	Over $211
Charwomen and Cleaners	38	22	0	0	0	0	0
Cooks	0	24	13	11	3	5	4
Kitchen Workers	87	29	0	0	0	0	0
Laundry and Cleaning Workers	32	14	3	0	0	0	0
Maids and Housemen	2	11	0	0	0	0	0
Medical Assistant	0	6	4	0	0	0	0
Nurses	0	0	0	5	6	1	0
Nurses' Aides	32	18	7	3	0	0	0
Retail Managers	0	2	5	8	3	5	7
Sales Clerks	24	51	7	0	0	0	0
Service Establishment Managers	0	3	7	3	1	6	8
Vocation Totals	215	180	46	30	13	17	19

TABLE XXI

WEEKLY WAGE OR SALARY - DISTRIBUTIVE EDUCATION

Job Title	Under $58	$59-$85	$86-$111	$112-$161	$162-$186	$187-$211	Over $211
Buyers and Department Heads, Stores	0	0	1	3	0	1	1
Filling Station Attendants	35	123	15	2	0	0	0
Hotel and Restaurant Managers	0	3	4	3	2	2	3
Insurance Agents	0	0	0	0	0	1	2
Insurance Salesmen	0	1	0	1	0	2	1
Motel Managers	0	6	5	10	12	1	2
Newsboys	35	0	0	0	0	0	0
Purchasing Agents	0	0	0	14	11	3	2
Real Estate Salesmen	0	0	1	1	3	3	1
Retail Managers	0	0	5	4	1	6	12
Routemen	1	3	7	7	2	0	2
Sales Clerks	18	24	17	2	0	0	0
Sales Managers	0	0	2	5	2	3	1
Salesmen	1	6	5	10	5	4	7
Service Station Managers	0	5	5	8	2	4	1
Stock Boys	10	16	0	0	0	0	0
Wholesale Managers	0	0	0	0	0	0	3
Vocation Totals	100	187	67	70	40	30	38

TABLE XXII

WEEKLY WAGE OR SALARY - OFFICE EDUCATION

Job Title	Under $58	$59-$85	$86-$111	$112-$161	$162-$186	$187-$211	Over $211
Accounting Clerks	0	2	21	24	10	4	1
Bank Cashiers	0	0	0	2	1	0	2
Bookkeepers and Cashiers	0	7	11	6	1	0	0
Checkers	0	6	21	6	4	1	0
Credit Men	0	2	0	1	0	0	0
Desk Clerks	2	6	8	4	0	0	0
File Clerks	2	5	2	0	0	0	0
Financial Institution Managers	0	0	0	0	0	0	5
General Clerks	4	30	14	15	2	0	0
General Office Clerks	3	20	16	3	0	0	0
Office Machine Operators	0	4	6	8	3	1	1
Office Managers	0	1	6	12	11	10	16
Radio Dispatchers	0	3	3	3	1	0	0
Receptionists and Information Clerks	10	11	2	0	0	0	0
Secretaries	6	25	36	8	3	3	1
Stenographers and Typists	23	22	3	0	0	0	0
Stock Clerks	2	0	0	0	0	0	0
Technical Clerks	5	18	22	8	5	0	0
Tellers	0	5	3	0	0	0	0
Vocation Totals	57	167	174	100	41	19	26

TABLE XXIII

WEEKLY WAGE OR SALARY - TRADE AND INDUSTRY

Job Title	Under $58	$59-$85	$86-$111	$112-$161	$162-$186	$187-$211	Over $211
Barbers	0	8	4	3	0	0	0
Bartenders	0	3	5	5	2	2	0
Beauticians	0	13	4	5	0	0	0
Building Maintenance Men	0	13	3	1	0	0	0
Cabinetmakers	0	2	3	2	1	0	0
Cagers	0	0	0	10	6	4	0
Carpenters	0	0	7	23	17	8	5
Chemists	0	0	0	0	0	16	45
Chemists-Assistant	0	0	0	3	8	2	1
Compositors and Typesetters	0	2	1	1	2	0	0
Cone Men	0	0	0	4	2	1	0
Construction Machinery Operators	0	1	8	17	11	6	6
Construction Occupations Apprentices	0	4	4	10	0	0	0
Construction Superintendents	0	0	0	0	1	0	2
Contractors	0	0	0	0	0	2	2
Draftsmen	0	0	0	9	7	8	3
Drillers	0	0	0	4	8	5	4
Driller's Helpers	0	10	16	39	3	0	0
Drivers: Bus, Taxi, Truck	0	45	28	68	28	20	3
Editors	0	0	0	0	0	0	1
Electricians	0	0	0	24	11	10	12
Electricians' Apprentices	0	3	3	14	0	0	0
Electronic Equipment Installers and Repairmen	0	2	13	20	13	13	2

TABLE XXIII (Continued)

Job Title	Under $58	$59-$85	$86-$111	$112-$161	$162-$186	$187-$211	Over $211
Electronics Assemblers	0	0	80	63	0	0	0
Electronics Technicians	0	3	34	33	22	14	10
Engineers-Mechanical	0	0	0	0	0	0	11
Engineers-Metallurgical	0	0	0	0	0	0	29
Engineers-Mining	0	0	0	0	0	2	94
Equipment Operators-Miscellaneous	0	0	45	65	42	10	14
Factory or Mill Maintenance Men	0	0	10	19	6	6	1
Firemen	0	5	1	1	2	0	0
Foremen-General	0	0	0	0	0	0	1
Foremen-Maintenance	0	0	0	3	6	7	0
Foremen-Manufacturing	0	0	0	0	8	16	16
Foremen-Mineral Extraction	0	0	0	0	11	5	3
Foremen-Miscellaneous	0	0	0	9	17	12	7
Foremen-Petroleum Production	0	0	0	2	0	0	0
Foremen-Transportation, Communication, and Utilities	0	0	0	2	7	6	7
Glass Glazers	0	0	2	0	0	0	0
Hoistmen	0	0	0	3	6	5	0
Household Appliance Repairmen	0	0	3	1	0	0	0
Instrumental Musicians	0	0	1	0	0	0	0
Janitors	30	57	6	10	0	0	0
Jewelers and Watchmakers	0	0	0	1	0	1	1
Laborers-Construction	0	0	1	1	0	0	0
Laborers-General	29	64	48	36	0	0	0
Laborers-Mineral Extraction	0	0	2	135	48	0	19
Laborers-Nonferrous Metals Production	0	0	22	3	2	0	0

TABLE XXIII (Continued)

Job Title	Under $58	$59-$85	$86-$111	$112-$161	$162-$186	$187-$211	Over $211
Laborers-Petroleum Products Production	0	0	0	5	1	1	1
Laborers-Planing Mill	0	49	28	9	2	0	0
Laborers-Warehouse	0	0	5	26	4	0	0
Linemen and Servicemen, T&T	0	0	5	12	6	5	0
Locker-Room Attendants	5	0	0	0	0	0	0
Machinists	0	0	0	5	13	9	11
Mail Carriers	0	6	0	0	0	0	0
Managers-Branch	0	0	0	0	0	0	1
Managers-Industrial Organization	0	0	0	0	0	0	2
Managers-Production	0	0	0	0	0	0	3
Managers-Recreation Establishment	0	0	1	2	0	0	0
Managers-Service	0	0	0	0	0	1	1
Managers-Service Establishment	0	1	0	0	0	1	0
Managers-Warehouse	0	0	0	0	0	3	2
Mechanics-Automobile Body, Fender and Radiator	0	5	3	8	6	0	0
Mechanics-Automobile and Heavy Equipment	0	2	25	51	43	16	10
Mechanics-Maintenance	0	1	6	20	6	1	0
Medical Laboratory Technician	0	0	3	4	7	2	1
Mill Operators	0	0	10	114	44	27	20
Millwrights	0	0	0	7	16	8	4
Mine & Mill Technicians	0	0	0	13	22	8	2
Mine & Mill Utilitymen (Semi-skilled)	0	0	57	118	44	8	4

TABLE XXIII (Continued)

Job Title	Under $58	$59-$85	$86-$111	$112-$161	$162-$186	$187-$211	Over $211
Miners and Mining-Machine Operators	0	0	0	285	56	17	57
Motormen	0	0	0	44	37	12	3
Movie Projectionists	0	0	3	0	0	0	0
Ore Dressing Occupations	0	0	3	11	2	2	0
Ore-Storage-Drier Man	0	0	10	19	8	2	0
Painters	0	0	8	28	6	0	0
Photographers	0	0	0	0	1	0	0
Plumbers and Steamfitters	0	0	1	5	10	11	7
Plumbers' Helpers	0	2	0	0	0	0	0
Policemen	0	14	6	3	0	0	0
Postmasters	0	0	1	0	5	1	1
Power Plant Operators	0	0	0	3	4	2	0
Printers	0	0	0	0	2	0	0
Radio Broadcasting Occupations	0	2	3	2	1	0	0
Rubberman	0	0	1	25	9	3	0
Sample Grinders	0	0	0	5	3	0	0
Sheet and Bar Rolling Occupations	0	0	0	0	0	2	0
Sheetmetal Workers	0	0	4	4	2	2	0
Shoe Repairman	0	1	1	0	0	0	0
Teachers	0	0	10	87	118	48	38
Teachers-Miscellaneous	0	0	2	2	0	0	0
Upholstery	0	0	1	2	0	0	0
Waiters and Waitresses	18	42	18	4	0	0	0
Welders	0	0	0	23	13	11	1
Vocation Totals	82	360	570	1,595	788	384	468

TABLE XXIV

MINIMUM EDUCATION ENTRY REQUIREMENTS
AGRICULTURAL EDUCATION

Job Title	Less Than 12th Grade	High School Diploma	Post High School or Technical Training	Some College Preferred	College Degree
Butchers and Meat Cutters	5	4	4	0	0
Butchers' and Meat Cutters' Helpers	8	5	0	0	0
Buyers and Department Heads, Stores	0	1	0	0	0
Grounds Keepers	2	2	0	0	0
Packers, Wrappers and Craters	2	1	0	0	0
Retail Managers	0	4	0	0	0
Vocational Totals	17	17	4	0	0

TABLE XXV

MINIMUM EDUCATION ENTRY REQUIREMENTS
HOME ECONOMICS EDUCATION

Job Title	Less Than 12th Grade	High School Diploma	Post High School or Technical Training	Some College Preferred	College Degree
Charwomen and Cleaners	60	0	0	0	0
Cooks	14	23	19	4	0
Kitchen Workers	79	37	0	0	0
Laundry and Cleaning Workers	30	9	10	0	0
Maids and Housemen	13	0	0	0	0
Medical Assistant	0	0	4	6	0
Nurses	0	0	5	0	7
Nurses' Aides	12	17	31	0	0
Retail Managers	0	10	9	7	4
Sales Clerks	27	40	7	8	0
Service Establishment Managers	0	12	8	5	3
Vocation Totals	235	148	93	30	14

TABLE XXVI

MINIMUM EDUCATION ENTRY REQUIREMENTS
DISTRIBUTIVE EDUCATION

Job Title	Less Than 12th Grade	High School Diploma	Post High School or Technical Training	Some College Preferred	College Degree
Buyers and Department Heads, Stores	0	2	2	2	0
Filling Station Attendants	50	125	0	0	0
Hotel and Restaurant Managers	0	13	4	0	0
Insurance Agents	0	1	0	1	1
Insurance Salesmen	0	3	0	2	0
Motel Managers	0	10	9	13	4
Newsboys	35	0	0	0	0
Purchasing Agents	0	7	5	10	8
Real Estate Salesmen	0	4	1	1	3
Retail Managers	4	14	5	3	2
Routemen	7	8	3	2	2
Sales Clerks	19	33	3	4	2
Sales Managers	0	6	0	4	3
Salesmen	9	21	3	2	3
Service Station Managers	4	12	5	2	1
Stock Boys	17	9	0	0	0
Wholesale Managers	0	2	0	1	0
Vocation Totals	146	270	40	47	29

TABLE XXVII

MINIMUM EDUCATION ENTRY REQUIREMENTS
OFFICE EDUCATION

Job Title	Less Than 12th Grade	High School Diploma	Post High School or Technical Training	Some College Preferred	College Degree
Accounting Clerks	0	62	0	0	0
Bank Cashiers	0	2	1	1	1
Bookkeepers and Cashiers	0	15	3	4	3
Checkers	0	38	0	0	0
Credit Men	0	3	0	0	0
Desk Clerks	0	20	0	0	0
File Clerks	0	9	0	0	0
Financial Institution Managers	0	0	0	3	2
General Office Clerks	0	42	0	0	0
General Clerks	0	65	0	0	0
Office Machine Operators	0	0	23	0	0
Office Managers	0	16	0	40	0
Radio Dispatchers	0	10	0	0	0
Receptionists and Information Clerks	0	23	0	0	0
Secretaries	0	12	29	36	5
Stenographers and Typists	0	48	0	0	0
Stock Clerks	0	2	0	0	0
Technical Clerks	0	0	31	27	0
Tellers	0	8	0	0	0
Vocation Totals	0	375	87	111	11

TABLE XXVIII

MINIMUM EDUCATION ENTRY REQUIREMENTS
TRADE AND INDUSTRY

Job Title	Less Than 12th Grade	High School Diploma	Post High School or Technical Training	Some College Preferred	College Degree
Barbers	0	0	15	0	0
Bartenders	9	8	0	0	0
Beauticians	0	0	22	0	0
Building Maintenanc Men	6	7	4	0	0
Cabinetmakers	3	3	2	0	0
Cagers	0	20	0	0	0
Carpenters	15	33	12	0	0
Chemists	0	0	0	10	51
Chemists-Assistant	0	0	0	14	0
Compositors and Typesetters	0	3	3	0	0
Cone Men	0	7	0	0	0
Construction Machinery Operators	16	25	8	0	0
Construction Occupations Apprentices	0	18	0	0	0
Construction Superintendents	0	2	0	1	0
Contractors	0	1	1	0	2
Draftsmen	0	2	18	7	0
Drillers	5	14	0	0	2
Driller's Helpers	15	53	0	0	0
Drivers: Bus, Taxi, Truck	81	111	0	0	0
Editors	0	0	0	1	0
Electricians	9	38	5	5	0
Electricians' Apprentices	0	20	0	0	0
Electronic Equipment Installers and Repairmen	0	0	43	15	5

TABLE XXVIII (Continued)

Job Title	Less Than 12th Grade	High School Diploma	Post High School or Technical Training	Some College Preferred	College Degree
Electronics Assemblers	32	104	7	0	0
Electronics Technicians	0	3	101	9	3
Engineers-Mechanical	0	0	0	3	8
Engineers-Metallurgical	0	0	0	0	29
Engineers-Mining	0	0	0	6	90
Equipment Operators-Miscellaneous	52	101	19	4	0
Factory or Mill Maintenance Men	5	32	5	0	0
Firemen	0	9	0	0	0
Foremen-General	0	1	0	0	0
Foremen-Maintenance	5	8	0	3	0
Foremen-Manufacturing	2	18	7	8	5
Foremen-Mineral Extraction	0	8	7	3	1
Foremen-Miscellaneous	13	26	0	6	0
Foremen-Petroleum Production	0	0	0	2	0
Foremen-Transportation, Communication and Utilities	4	9	3	6	0
Glass Glazers	1	1	0	0	0
Hoistmen	0	14	0	0	0
Household Appliance Repairman	2	2	0	0	0
Instrumental Musicians	0	1	0	0	0
Janitors	71	32	0	0	0
Jewelers and Watchmakers	0	0	3	0	0
Laborers-Construction	2	0	0	0	0
Laborers-General	56	121	0	0	0
Laborers-Mineral Extraction	21	183	0	0	0
Laborers-Nonferrous Metals Production	5	22	0	0	0
Laborers-Petroleum Products Production	0	8	0	0	0

TABLE XXVIII (Continued)

Job Title	Less Than 12th Grade	High School Diploma	Post High School or Technical Training	Some College Preferred	College Degree
Laborers-Planing Mill	46	42	0	0	0
Laborers-Warehouse	6	29	0	0	0
Linemen and Servicemen, T&T	0	29	0	0	0
Locker-Room Attendants	2	3	0	0	0
Machinists	3	4	31	0	0
Mail Carriers	0	6	0	0	0
Managers-Branch	0	0	0	1	0
Managers-Industrial Organization	0	2	0	0	0
Managers-Production	0	0	0	3	0
Managers-Recreation Establishment	2	1	0	0	0
Managers-Service	0	2	0	0	0
Managers-Service Establishment	0	0	0	2	0
Managers-Warehouse	0	3	0	2	0
Mechanics-Automobile Body, Fender and Radiator	7	8	6	0	1
Mechanics-Automobile and Heaby Equipment	61	44	42	0	0
Mechanics-Maintenance	8	12	11	3	0
Medical Laboratory Technicians	0	2	13	2	0
Mill Operators	6	161	32	13	3
Millwrights	6	27	2	0	0
Mine & Mill Technicians	0	31	10	4	0
Mine & Mill Utilitymen (Semi-skilled)	8	201	22	0	0
Miners and Mining-Machine Operators	79	299	37	0	0
Motormen	26	58	12	0	0
Movie Projectionists	0	3	0	0	0
Ore Dressing Occupations	0	18	0	0	0
Ore-Storage-Drier Men	6	33	0	0	0

TABLE XXVIII (Continued)

Job Title	Less Than 12th Grade	High School Diploma	Post High School or Technical Training	Some College Preferred	College Degree
Painters	13	29	0	0	0
Photographers	0	0	1	0	0
Plumbers and Steamfitters	4	0	30	0	0
Plumbers' Helpers	0	2	0	0	0
Policemen	7	9	7	0	0
Postmasters	0	8	0	0	0
Power Plant Operators	0	9	0	0	0
Printers	0	0	2	0	0
Radio Broadcasting Occupations	3	3	2	0	0
Rubberman	10	28	0	0	0
Sample Grinders	0	8	0	0	0
Sheet and Bar Rolling Occupations	0	0	2	0	0
Sheetmetal Workers	3	0	9	0	0
Shoe Repairman	2	0	0	0	0
Teachers	0	0	0	6	295
Teachers-Miscellaneous	0	0	0	4	0
Upholstery	1	2	0	0	0
Waiters and Waitresses	35	45	2	0	0
Welders	16	22	10	0	0
Vocation Totals	790	2,251	568	143	495

any person with less than high school graduation. Many of the older employees with the mining industry are long-time employees and were hired prior to this recent policy.

Employment: Residential Background Preference

The data presented in Tables XXIX, XXX, XXXI, XXXII and XXXIII show the residential background preference of employers for their employees. Business and industry employers were asked if they preferred workers with (1) a farm background, (2) a rural non-farm background, (3) urban background, or (4) if they had no preference. The employers were then asked if they preferred workers to be (1) local residents, (2) in-state residents, (3) out-of-state residents, or (4) if they had no preference.

Employers indicated that they had no preference as to farm, rural or urban background for 5,648 workers which accounted for 95.46 percent of the total labor force employed in the area. The employers indicated they had no preference for local, in-state or out-of-state employees in job titles which totaled 5,470 workers.

A preference for 76 workers with farm background in four job titles were given by three firms. Two of these same firms indicated a preference for 197 workers with farm or rural non-farm backgrounds in six job titles. The research team found that one firm operated an electronics assembly plant and the other firm operated open pit uranium mining on the Laguna Indian Reservation, and that their contracts with the Laguna Indian Tribe specified that they must work a certain percentage of Indians. These 197 employees living on the Laguna Indian Reservation would be expected to fall into the farm or

rural non-farm category.

A preference for 447 local resident workers was given by employers in seventeen different job titles. A majority of these local workers were the Indians described in the previous paragraph; however, it must be noted that a local preference was also exhibited for firemen, policemen, postmasters, mail carriers, persons in the radio broadcasting occupations, beauticians, grounds keepers, and school bus drivers.

The fact that nearly one-half (46.24%) of the total labor force is connected with the mining industry and that these firms must import skilled employees for specific job titles, is believed to be a major factor which contributed to the employers indicating the high no preference rate. Several of the mining companies also have operations in South Africa, Mexico, and South America. One Canadian company also operates in the Grants area. These firms have employees who are natives of many countries of the world as well as workers from all over the United States. The cosmopolitan make-up of these mining companies leads one to believe that this was another major factor for the employers stating the high no preference rate in residential background.

TABLE XXIX

RESIDENTIAL BACKGROUND PREFERENCE
AGRICULTURAL EDUCATION

Job Title	Rural Farm	Rural Non-Farm	Urban	No Preference	Local	In-State	Out-of State	No Preference
Butchers and Meat Cutters	0	0	0	13	0	0	0	13
Butchers' and Meat Cutters' Helpers	0	0	0	13	0	0	0	13
Buyers and Department Heads, Stores	1	0	0	0	0	0	0	1
Grounds Keepers	0	0	0	4	2	0	0	2
Packers, Wrappers and Craters	0	0	0	3	0	0	0	3
Retail Managers	0	0	0	4	0	0	0	4
Vocation Totals	1	0	0	37	2	0	0	36

TABLE XXX

RESIDENTIAL BACKGROUND PREFERENCE
HOME ECONOMICS EDUCATION

Job Title	Rural Farm	Rural Non-Farm	Urban	No Preference	Local	In-State	Out-of State	No Preference
Charwomen and Cleaners	0	0	0	60	0	0	0	60
Cooks	0	0	0	60	0	0	0	60
Kitchen Workers	0	0	0	116	0	0	0	116
Laundry and Cleaning Workers	0	0	0	49	0	0	0	49
Maids and Housemen	0	0	0	13	6	0	0	7
Medical Assistant	0	0	0	10	0	0	0	10
Nurses	0	0	0	12	0	0	0	12
Nurses' Aides	0	0	0	60	0	0	0	60
Retail Managers	0	0	0	30	0	0	0	30
Sales Clerks	0	0	0	82	0	0	0	82
Service Establishment Managers	0	0	0	28	0	0	0	28
Vocation Totals	0	0	0	520	6	0	0	514

TABLE XXXI

RESIDENTIAL BACKGROUND PREFERENCE
DISTRIBUTIVE EDUCATION

Job Title	Rural Farm	Rural Non-Farm	Urban	No Preference	Local	In-State	Out-of State	No Preference
Buyers and Department Heads, Stores	0	0	0	6	0	0	0	6
Filling Station Attendants	0	0	0	175	0	0	0	175
Hotel and Restaurant Managers	0	0	0	17	0	0	0	17
Insurance Agents	0	0	0	3	0	0	0	3
Insurance Salesmen	0	0	0	5	0	0	0	5
Motel Managers	0	0	0	36	0	0	0	36
Newsboys	0	0	0	35	35	0	0	0
Purchasing Agents	0	0	0	30	0	0	0	30
Real Estate Salesmen	0	0	0	9	0	0	0	9
Retail Managers	0	0	0	28	0	0	0	28
Routemen	0	0	0	22	0	0	0	22
Sales Clerks	0	0	0	61	0	0	0	61
Sales Managers	0	0	0	13	0	0	0	13
Salesmen	0	0	0	38	0	0	0	38
Service Station Managers	0	0	0	25	0	0	0	25
Stock Boys	0	0	0	26	0	0	0	26
Wholesale Managers	0	0	0	3	0	0	0	3
Vocation Totals	0	0	0	532	35	0	0	497

TABLE XXXII

RESIDENTIAL BACKGROUND PREFERENCE
OFFICE EDUCATION

Job Title	Rural Farm	Rural Non-Farm	Urban	No Preference	Local	In-State	Out-of State	No Preference
Accounting Clerks	0	0	0	62	0	0	0	62
Bank Cashiers	0	0	0	5	0	0	0	5
Bookkeepers and Cashiers	0	0	0	25	0	0	0	25
Checkers	0	0	0	38	0	0	0	38
Credit Men	0	0	0	3	0	0	0	3
Desk Clerks	0	0	0	20	0	0	0	20
File Clerks	0	0	0	9	0	0	0	9
Financial Institution Managers	0	0	0	5	0	0	0	5
General Clerks	0	0	0	65	0	0	0	65
General Office Clerks	0	0	0	42	0	0	0	42
Office Machine Operators	0	0	0	23	0	0	0	23
Office Managers	0	0	0	56	0	0	0	56
Radio Dispatchers	0	0	0	10	0	0	0	10
Receptionists and Information Clerks	0	0	0	23	0	0	0	23
Secretaries	0	0	0	82	0	0	0	82
Stenographers and Typists	0	0	0	48	0	0	0	48
Stock Clerks	0	0	0	2	0	0	0	2
Technical Clerks	0	0	0	58	0	0	0	58
Tellers	0	0	0	8	0	0	0	8
Vocation Totals	0	0	0	584	0	0	0	584

TABLE XXXIII

RESIDENTIAL BACKGROUND PREFERENCE
TRADE AND INDUSTRY

Job Title	Rural Farm	Rural Non-Farm	Urban	No Preference	Local	In-State	Out-of State	No Preference
Barbers	0	0	0	15	0	0	0	15
Bartenders	0	0	0	17	0	0	0	17
Beauticians	0	0	0	22	2	0	0	20
Building Maintenance Men	0	0	0	17	0	0	0	17
Cabinetmakers	0	0	0	8	0	0	0	8
Cagers	0	0	0	20	0	0	0	20
Carpenters	0	0	0	60	0	0	0	60
Chemists	0	0	0	61	0	0	0	61
Chemists-Assistant	0	0	0	14	0	0	0	14
Compositors and Typesetters	0	0	0	6	0	0	0	6
Cone Men	0	0	0	7	0	0	0	7
Construction Machinery Operators	0	0	0	49	0	0	0	49
Construction Occupations Apprentices	0	0	0	18	0	0	0	18
Construction Superintendents	0	0	0	3	0	0	0	3
Contractors	0	0	0	4	0	0	0	4
Draftsmen	0	0	0	27	0	0	0	27
Drillers	0	0	0	21	0	0	0	21
Driller's Helpers	0	0	0	68	0	0	0	68
Drivers: Bus, Taxi, Truck	0	0	0	192	41	0	0	151
Editors	0	0	0	1	0	0	0	1
Electricians	0	0	0	57	0	0	0	57
Electricians' Apprentices	0	0	0	20	0	0	0	20
Electronic Equipment Installers and Repairmen	0	0	0	63	0	0	0	63

TABLE XXXIII (Continued)

Job Title	Rural Farm	Rural Non-Farm	Urban	No Preference	Local	In-State	Out-of State	No Preference
Electronics Assemblers	57	86	0	0	143	0	0	0
Electronics Technicians	0	0	0	116	0	0	0	116
Engineers-Mechanical	0	0	0	11	0	0	0	11
Engineers-Metallurgical	0	0	0	29	0	0	0	29
Engineers-Mining	0	0	0	96	0	0	0	96
Equipment Operators-Miscellaneous	0	0	0	176	0	0	0	176
Factory or Mill Maintenance Men	0	0	0	42	0	0	0	42
Firemen	0	0	0	9	9	0	0	0
Foremen-General	0	0	0	1	0	0	0	1
Foremen-Maintenance	0	0	0	16	0	0	0	16
Foremen-Manufacturing	0	0	0	40	0	0	0	40
Foremen-Mineral Extraction	0	2	0	17	2	0	0	17
Foremen-Miscellaneous	0	0	0	45	0	0	0	45
Foremen-Petroleum Production	0	0	0	2	0	0	0	2
Foremen-Transportation, Communication and Utilities	0	0	0	22	0	0	0	22
Glass Glazers	0	0	0	2	0	0	0	2
Hoistmen	0	0	0	14	0	0	0	14
Household Appliance Repairmen	0	0	0	4	0	0	0	4
Instrumental Musicians	0	0	0	1	0	0	0	1
Janitors	0	0	0	103	0	0	0	103
Jewelers and Watchmakers	0	0	0	3	0	0	0	3
Laborers-Construction	0	0	0	2	0	0	0	2
Laborers-General	15	0	0	162	63	0	0	114
Laborers-Mineral Extraction	3	27	0	174	30	0	0	174
Laborers-Nonferrous Metals Production	0	0	0	27	0	0	0	27
Laborers-Petroleum Products Production	0	0	0	8	0	0	0	8
Laborers-Planing Mill	0	0	0	88	0	0	0	88

TABLE XXXIII (Continued)

Job Title	Rural Farm	Rural Non-Farm	Urban	No Preference	Local	In-State	Out-of State	No Preference
Laborers-Warehouse	0	0	0	35	0	0	0	35
Linemen and Servicemen, T&T	0	0	0	29	0	0	0	29
Locker-Room Attendants	0	0	0	5	0	0	0	5
Machinists	0	0	0	38	0	0	0	38
Mail Carriers	0	0	0	6	6	0	0	0
Managers-Branch	0	0	0	1	0	0	0	1
Managers-Industrial Organization	0	0	0	2	0	0	0	2
Managers-Production	0	0	0	3	0	0	0	3
Managers-Recreation Establishment	0	0	0	3	0	0	0	3
Managers-Service	0	0	0	2	0	0	0	2
Managers-Service Establishment	0	0	0	2	0	0	0	2
Managers-Warehouse	0	0	0	5	0	0	0	5
Mechanics-Automobile Body, Fender and Radiator	0	0	0	22	0	0	0	22
Mechanics-Automobile & Heavy Equipment	0	0	0	147	0	0	0	147
Mechanics-Maintenance	0	0	0	34	0	0	0	34
Medical Laboratory Technicians	0	0	0	17	0	0	0	17
Mill Operators	0	0	0	215	0	0	0	215
Millwrights	0	0	0	35	0	0	0	35
Mine & Mill Technicians	0	3	0	42	3	0	0	42
Mine & Mill Utilitymen (Semi-skilled)	0	32	0	199	32	0	0	199
Miners and Mining-Machine Operators	0	47	0	368	47	0	0	368
Motormen	0	0	0	96	0	0	0	96
Movie Projectionists	0	0	0	3	0	0	0	3
Ore Dressing Occupations	0	0	0	18	0	0	0	18
Ore-Storage-Drier Men	0	0	0	39	0	0	0	39
Painters	0	0	0	42	0	0	0	42
Photographers	0	0	0	1	0	0	0	1

TABLE XXIII (Continued)

Job Title	Rural Farm	Rural Non-Farm	Urban	No Preference	Local	In-State	Out-of State	No Preference
Plumbers and Steamfitters	0	0	0	34	0	0	0	34
Plumbers' Helpers	0	0	0	2	0	0	0	2
Policemen	0	0	0	23	15	0	0	8
Postmasters	0	0	0	8	8	0	0	0
Power Plant Operators	0	0	0	9	0	0	0	9
Printers	0	0	0	2	0	0	0	2
Radio Broadcasting Occupations	0	0	0	8	3	0	0	5
Rubbermen	0	0	0	38	0	0	0	38
Sample Grinders	0	0	0	8	0	0	0	8
Sheet and Bar Rolling Occupations	0	0	0	2	0	0	0	2
Sheetmetal Workers	0	0	0	12	0	0	0	12
Shoe Repairman	0	0	0	2	0	0	0	2
Teachers	0	0	0	301	0	0	0	301
Teachers-Miscellaneous	0	0	0	4	0	0	0	4
Upholstery	0	0	0	3	0	0	0	3
Waiters and Waitresses	0	0	0	82	0	0	0	82
Welders	0	0	0	48	0	0	0	48
Vocation Totals	75	197	0	3,975	404	0	0	3,843

Employment: Minimum Age for Job Entry

Data in Tables XXXIV, XXXV, XXXVI, XXXVII, and XXXVIII show the minimum age for entry into the various 144 job titles as reported by the 352 individual business and industry firms interviewed. All of the minimum job entry age requirements were listed as sixteen or older with the exception of newsboys. The job entry age for the job title of newsboys was listed as ten years old. Over one-half (54.86%) of the job titles had a minimum age requirement of eighteen for entry.

Two job titles required a minimum age of thirty for entry. These two job titles were those of contractors and general foremen. The job title of industrial organization managers listed the minimum entry age as thirty-five. For the job titles of production managers, construction superintendents, branch managers and financial institution managers the minimum entry age was listed as twenty-five.

A minimum age of sixteen was acceptable for entry into twelve job titles. These were mostly filling station attendants, kitchen workers, laundry workers, nurse-aides, sales clerks, stock boys, waitresses and other lower paying positions which generally required unskilled persons.

TABLE XXXIV

MINIMUM AGE TO ENTER EMPLOYMENT
AGRICULTURAL EDUCATION

Job Title	Minimum Age
Butchers and Meat Cutters	18
Butchers' and Meat Cutters' Helpers	16
Buyers and Department Heads, Stores	21
Grounds Keepers	16
Packers, Wrappers and Craters	16
Retail Managers	21

TABLE XXXV

MINIMUM AGE TO ENTER EMPLOYMENT
HOME ECONOMICS

Job Title	Minimum Age
Charwomen and Cleaners	21
Cooks	21
Kitchen Workers	16
Laundry and Cleaning Workers	16
Maids and Housemen	18
Medical Assistant	18
Nurses	20
Nurses' Aides	16
Retail Managers	21
Sales Clerks	16
Service Establishment Managers	21

TABLE XXXVI

MINIMUM AGE TO ENTER EMPLOYMENT
DISTRIBUTIVE EDUCATION

Job Title	Minimum Age
Buyers and Department Heads, Stores	21
Filling Station Attendants	16
Hotel and Restaurant Managers	21
Insurance Agents	18
Insurance Salesmen	18
Motel Managers	21
Newsboys	10
Purchasing Agents	21
Real Estate Salesmen	21
Retail Managers	21
Routemen	18
Sales Clerks	16
Sales Managers	20
Salesmen	18
Service Station Managers	18
Stock Boys	16
Wholesale Managers	21

TABLE XXXVII

MINIMUM AGE TO ENTER EMPLOYMENT
OFFICE EDUCATION

Job Title	Minimum Age
Accounting Clerks	18
Bank Cashiers	20
Bookkeepers and Cashiers	21
Checkers	18
Credit Men	18
Desk Clerks	18
File Clerks	18
Financial Institution Managers	25
General Clerks	18
General Office Clerks	18
Office Machine Operators	18
Office Managers	21
Radio Dispatchers	18
Receptionists and Information Clerks	18
Secretaries	18
Stenographers and Typists	18
Stock Clerks	18
Technical Clerks	21
Tellers	18

TABLE XXXVIII

MINIMUM AGE TO ENTER EMPLOYMENT
TRADE AND INDUSTRY

Job Title	Minimum Age
Barbers	18
Bartenders	21
Beauticians	18
Building Maintenance Men	18
Cabinetmakers	18
Cagers	18
Carpenters	18
Chemists	20
Chemists-Assistant	18
Compositors and Typesetters	18
Cone Men	18
Construction Machinery Operators	18
Construction Occupations Apprentices	18
Construction Superintendents	25
Contractors	30
Draftsmen	18
Drillers	21
Driller's Helpers	18
Drivers: Bus, Taxi, Truck	18
Editors	18
Electricians	18
Electricians' Apprentices	18

TABLE XXXVIII (Continued)

Job Title	Minimum Age
Electronic Equipment Installers and Repairmen	18
Electronics Assemblers	18
Electronics Technicians	18
Engineers - Mechanical	21
Engineers - Metallurgical	21
Engineers - Mining	21
Equipment Operators - Miscellaneous	18
Factory or Mill Maintenance Men	18
Firemen	21
Foremen - General	30
Foremen - Maintenance	21
Foremen - Manufacturing	24
Foremen - Mineral Extraction	21
Foremen - Miscellaneous	21
Foremen - Petroleum Production	21
Foremen - Transportation, Communication, and Utilities	21
Glass Glazers	18
Hoistmen	21
Household Appliance Repairmen	18
Instrumental Musicians	21
Janitors	18
Jewelers and Watchmakers	18
Laborers - Construction	18

TABLE XXXVIII (Continued)

Job Title	Minimum Age
Laborers - General	18
Laborers - Mineral Extraction	18
Laborers - Nonferrous Metals Production	18
Laborers - Petroleum Products Production	18
Laborers - Planing Mill	18
Laborers - Warehouse	18
Lineman and Servicemen, T & T	18
Locker-Room Attendants	18
Machinists	21
Mail Carriers	18
Managers - Branch	25
Managers - Industrial Organization	35
Managers - Production	25
Managers - Recreation Establishment	18
Managers - Service	21
Managers - Service Establishment	21
Managers - Warehouse	21
Mechanics - Automobile Body, Fender and Radiator	18
Mechanics - Automobile and Heavy Equipment	18
Mechanics - Maintenance	18
Medical Laboratory Technicians	18
Mill Operators	21
Millwrights	20

TABLE XXXVIII (Continued)

Job Title	Minimum Age
Mine & Mill Technicians	21
Mine & Mill Utilitymen (Semi-Skilled)	20
Miners and Mining - Machine Operators	18
Motormen	18
Movie Projectionists	18
Ore Dressing Occupations	18
Ore - Storage - Drier Men	18
Painters	18
Photographers	18
Plumbers and Steamfitters	21
Plumbers' Helpers	18
Policemen	21
Postmasters	21
Power Plant Operators	21
Printers	18
Radio Broadcasting Occupations	16
Rubbermen	18
Sample Grinders	18
Sheet and Bar Rolling Occupations	18
Sheetmetal Workers	18
Shoe Repairmen	18
Teachers	19
Teachers - Miscellaneous	19

TABLE XXXVIII (Continued)

Job Title	Minimum Age
Upholstery	18
Waiters and Waitresses	16
Welders	18

Employment: Source of Employees and Job Title Limitations

The following five tables present data concerning where employers will secure employees to fill job title vacancies when they occur, experience needed, and limitations or other requirements which go with the certain occupations.

Employers were asked the following questions concerning vacant positions: Where will you seek this person(s)? (1) advancement, (2) new, (3) from other departments, or (4) from other businesses. The employers were then asked if the position required experience or not. The final question posed to the employers was what limitations or other specific requirements were necessary to fulfill this position such as (1) must he belong to a labor union, (2) were there any labor law restrictions, (3) does the position require licenses or certificates, and (4) are there any other requirements?

It must be noted that the data in the following tables reflect all of the employees presently filling each job title and the questions posed to the employers were with the assumption that they were all vacant and had to be filled.

It was reported to the interviewers that 1,218 employees now filling certain job titles would be replaced by advancement of employees now on the company roster if they became vacant. The employers indicated that 3,146 employees now filling certain job titles would be replaced by new people if the jobs were open. Data show that 287 workers in certain job titles would be filled by employees now in other departments of the company if these positions became vacant. The interviewers were also told that 1,270 workers

now filling specific job titles would be recruited and replaced by experienced employees from other business and industry firms if they had to be replaced.

Data also revealed that 2,520 employees filling certain job titles were required to have experience and 3,401 workers now filling certain job titles could qualify for these positions without prior experience.

Figures in the following tables show that 1,461 employees filling certain job titles belong to unions and that 4,557 employees are covered by various aspects of labor laws. Employees who must hold license or certificates accounted for 650 persons filling various job titles. These people included teachers, plumbers, electricians, barbers, beauticians, bus drivers, real estate salesmen and nurses.

Data in Tables XXXIX, XL, XLI, XLII, and XLIII gives a more detailed breakdown on the source of replacement and new employees, experience required, and job limitations.

TABLE XXXIX

EMPLOYERS' RESPONSES TO: SOURCE OF EMPLOYEES, EXPERIENCES REQUIRED, AND JOB LIMITATIONS - AGRICULTURAL EDUCATION

Job Title	Where Will Seek Person(s)				Experience		Limitations for Job			
	Ad-vance-ment	New	Other Depart-ments	Other Busi-ness	Yes	No	Labor Union	Labor Law	License	Other
Butchers and Meat Cutters	8	5	0	0	10	3	0	13	0	0
Butchers' and Meat Cutters' Helpers	0	13	0	0	0	13	0	13	0	0
Buyers and Department Heads, Stores	1	0	0	0	1	0	0	0	0	0
Grounds Keepers	0	4	0	0	0	4	0	4	0	0
Packers, Wrappers and Craters	0	3	0	0	0	3	0	3	0	0
Retail Managers	0	4	0	0	4	0	0	0	0	0
Vocation Totals	9	29	0	0	15	23	0	33	0	0

TABLE XL

EMPLOYERS' RESPONSES TO: SOURCE OF EMPLOYEES, EXPERIENCES REQUIRED, AND JOB LIMITATIONS - HOME ECONOMICS EDUCATION

Job Title	Where Will Seek Person(s)				Experience		Limitations for Job			
	Ad-vance-ment	New	Other Depart-ments	Other Busi-ness	Yes	No	Labor Union	Labor Law	License	Other
Charwomen and Cleaners	0	36	0	24	0	60	0	12	0	0
Cooks	39	21	0	0	60	0	0	41	0	0
Kitchen Workers	0	101	0	15	0	116	0	30	0	0
Laundry and Cleaning Workers	0	32	0	17	19	30	0	12	0	0
Maids and Housemen	0	13	0	0	0	13	0	2	0	0
Medical Assistant	0	8	0	2	0	10	0	8	0	0
Nurses	0	9	0	3	0	12	0	6	12	0
Nurses' Aides	31	29	0	0	0	60	0	14	0	0
Retail Managers	12	5	6	7	30	0	0	0	0	0
Sales Clerks	15	50	0	17	23	59	0	60	0	0
Service Establishment Managers	17	11	0	0	28	0	0	11	0	0
Vocation Totals	114	315	6	85	160	360	0	196	12	0

TABLE XLI

EMPLOYERS' RESPONSES TO: SOURCE OF EMPLOYEES, EXPERIENCES REQUIRED, AND JOB LIMITATIONS - DISTRIBUTIVE EDUCATION

Job Title	Where Will Seek Person(s)				Experience		Limitations for Job			
	Ad-vance-ment	New	Other Depart-ments	Other Busi-ness	Yes	No	Labor Union	Labor Law	License	Other
Buyers and Department Heads, Store	6	0	0	0	6	0	0	3	0	0
Filling Station Attendants	0	175	0	0	35	140	0	32	0	0
Hotel and Restaurant Managers	0	17	0	0	17	0	0	8	0	0
Insurance Agents	0	2	0	1	0	3	0	0	0	0
Insurance Salesmen	3	2	0	0	0	5	0	2	0	0
Motel Managers	11	14	7	4	18	18	0	21	0	0
Newsboys	0	35	0	0	0	35	0	0	0	0
Purchasing Agents	12	7	6	5	30	0	0	22	0	0
Real Estate Salesmen	0	9	0	0	0	9	0	2	9	0
Retail Managers	0	28	0	0	24	4	0	18	0	0
Routemen	5	17	0	0	0	22	0	12	0	0
Sales Clerks	0	61	0	0	0	61	0	22	0	0
Sales Managers	7	6	0	0	13	0	0	8	0	0
Salesmen	11	27	0	0	15	23	0	25	0	0
Service Station Managers	13	12	0	0	25	0	0	6	0	0
Stock Boys	0	26	0	0	0	26	0	3	0	0
Wholesale Managers	2	1	0	0	3	0	0	1	0	0
Vocation Totals	70	439	13	10	186	346	0	185	9	0

TABLE XLII

EMPLOYERS' RESPONSES TO: SOURCE OF EMPLOYEES, EXPERIENCES REQUIRED, AND JOB LIMITATIONS - OFFICE EDUCATION

Job Title	Where Will Seek Person(s)				Experience		Limitations for Job			
	Ad-vance-ment	New	Other Depart-ments	Other Busi-ness	Yes	No	Labor Union	Labor Law	License	Other
Accounting Clerks	0	62	0	0	0	62	0	36	0	0
Bank Cashiers	3	1	0	1	5	0	0	5	0	0
Bookkeepers and Cashiers	0	25	0	0	0	25	0	18	0	0
Checkers	8	30	0	0	0	38	19	19	0	0
Credit Men	0	3	0	0	0	3	0	3	0	0
Desk Clerks	0	20	0	0	0	20	0	14	0	0
File Clerks	0	9	0	0	0	9	0	8	0	0
Financial Institution Managers	3	2	0	0	5	0	0	5	0	0
General Clerks	0	65	0	0	0	65	0	38	0	0
General Office Clerks	0	42	0	0	0	42	0	30	0	0
Office Machine Operators	0	23	0	0	0	23	0	19	0	0
Office Managers	35	0	11	10	56	0	0	33	0	0
Radio Dispatchers	0	10	0	0	0	10	0	10	0	0
Receptionists and Information Clerks	0	23	0	0	0	23	0	14	0	0
Secretaries	9	68	2	3	82	0	0	51	0	0
Stenographers and Typists	0	48	0	0	0	48	0	28	0	0
Stock Clerks	0	2	0	0	0	2	0	0	0	0
Technical Clerks	34	24	0	0	58	0	0	58	0	0
Tellers	8	0	0	0	8	0	0	8	0	0
Vocation Totals	100	457	13	14	214	370	19	397	0	0

TABLE XLIII

EMPLOYERS' RESPONSES TO: SOURCE OF EMPLOYEES, EXPERIENCES REQUIRED, AND JOB LIMITATIONS - TRADE AND INDUSTRY

Job Title	Where Will Seek Person(s)				Experience		Limitations for Job			
	Advancement	New	Other Departments	Other Business	Yes	No	Labor Union	Labor Law	License	Other
Barbers	0	15	0	0	0	15	7	7	15	0
Bartenders	7	5	0	5	9	8	8	8	0	0
Beauticians	0	22	0	0	0	22	0	3	22	0
Building Maintenance Men	0	10	0	7	12	5	5	7	0	0
Cabinetmakers	4	4	0	0	5	3	0	4	0	0
Cagers	0	13	0	7	10	10	10	20	0	0
Carpenters	16	30	5	9	45	15	35	38	0	0
Chemists	25	19	17	0	15	46	8	61	0	0
Chemists-Assistant	14	0	0	0	0	14	0	14	0	0
Compositors and Typesetters	3	3	0	0	6	0	6	6	0	0
Cone Men	4	3	0	0	3	4	3	7	0	0
Construction Machinery Operators	31	18	0	0	49	0	21	49	0	0
Construction Occupations Apprentices	0	18	0	0	0	18	0	18	0	0
Construction Superintendents	2	1	0	0	3	0	1	1	0	0
Contractors	1	2	0	1	4	0	0	1	4	0
Draftsmen	10	9	0	8	5	22	11	27	0	0
Drillers	16	5	0	0	21	0	5	17	0	0
Drillers' Helpers	0	45	0	23	0	68	10	68	0	0
Drivers: Bus, Taxi, Truck	0	105	0	87	192	0	65	85	192	0
Editors	1	0	0	0	1	0	0	0	0	0
Electricians	43	10	0	4	57	0	21	49	57	0
Electricians' Apprentices	0	20	0	0	0	20	0	20	0	0
Electronic Equipment Installers and Repairmen	17	26	4	16	39	24	16	51	0	0

TABLE XLIII (Continued)

Job Title	Where Will Seek Person(s)				Experience		Limitations for Job			
	Advancement	New	Other Departments	Other Business	Yes	No	Labor Union	Labor Law	License	Other
Electronics Assemblers	0	136	0	7	0	143	143	143	0	0
Electronics Technicians	9	56	12	39	45	71	33	98	0	0
Engineers-Mechanical	2	9	0	0	0	11	2	9	0	0
Engineers-Metallurgical	0	29	0	0	0	29	0	29	0	0
Engineers-Mining	19	30	11	36	48	48	0	96	0	0
Equipment Operators-Miscellaneous	26	79	22	49	116	60	133	115	0	0
Factory or Mill Maintenance Men	12	16	5	9	42	0	32	42	0	0
Firemen	0	5	4	0	0	9	0	9	0	0
Foremen-General	1	0	0	0	1	0	0	1	0	0
Foremen-Maintenance	5	3	2	6	16	0	7	13	0	0
Foremen-Manufacturing	12	5	7	16	38	2	21	40	0	0
Foremen-Mineral Extraction	4	6	2	7	13	6	8	19	0	0
Foremen-Miscellaneous	21	12	6	6	23	22	16	41	0	0
Foremen-Petroleum Production	0	0	0	2	2	0	0	2	0	0
Foremen-Transportation, Communication and Utilities	17	2	3	0	22	0	3	22	0	0
Glass Glazers	0	2	0	0	0	2	0	0	0	0
Hoistmen	5	3	2	4	14	0	11	14	0	0
Household Appliance Repairmen	0	3	0	1	0	4	0	0	0	0
Instrumental Musicians	0	1	0	0	0	1	0	0	0	0
Janitors	0	69	0	34	22	81	16	61	0	0
Jewelers and Watchmakers	0	3	0	0	0	3	0	0	0	0
Laborers-Construction	0	2	0	0	0	2	0	2	0	0
Laborers-General	0	106	0	71	15	162	80	156	0	0
Laborers-Mineral Extraction	0	115	0	89	10	194	103	204	0	0
Laborers-Nonferrous Metals Production	0	18	3	6	4	23	6	27	0	0

TABLE XLIII (Continued)

Job Title	Where Will Seek Person(s)				Experience		Limitations for Job			
	Advancement	New	Other Departments	Other Business	Yes	No	Labor Union	Labor Law	License	Other
Laborers-Petroleum Products Production	0	4	0	4	3	5	2	8	0	0
Laborers-Planing Mill	0	41	4	43	4	84	0	88	0	0
Laborers-Warehouse	0	18	3	14	3	32	4	35	0	0
Linemen and Servicemen, T&T	8	4	5	12	29	0	15	29	0	0
Locker-Room Attendants	0	5	0	0	0	5	0	1	0	0
Machinists	3	4	0	31	38	0	5	31	0	0
Mail Carriers	0	6	0	0	0	6	0	6	0	0
Managers-Branch	0	0	0	1	1	0	0	1	0	0
Managers-Industrial Organization	2	0	0	0	2	0	2	2	0	0
Managers-Production	2	1	0	0	3	0	1	3	0	0
Managers-Recreation Establishment	0	3	0	0	0	3	0	2	0	0
Managers-Service	2	0	0	0	2	0	0	2	0	0
Managers-Service Establishment	0	0	0	2	2	0	0	2	0	0
Managers-Warehouse	0	1	0	4	5	0	2	5	0	0
Mechanics-Automobile Body, Fender, and Radiator	6	8	0	8	0	22	0	17	0	0
Mechanics-Automobile and Heavy Equipment	57	45	11	34	147	0	38	121	0	0
Mechanics-Maintenance	6	12	3	13	17	17	11	27	0	0
Medical Laboratory Technicians	0	10	3	4	0	17	0	17	0	0
Mill Operators	80	65	23	47	115	100	115	215	0	0
Millwrights	11	14	7	3	35	0	11	35	0	0
Mine & Mill Technicians	18	16	0	11	45	0	14	45	0	0
Mine & Mill Utilitymen (Semi-skilled)	76	115	9	31	231	0	155	231	0	0
Miners and Mining-Machine Operators	215	85	38	77	155	260	106	415	0	0
Motormen	31	25	13	27	41	55	33	96	0	0

TABLE XLIII (Continued)

Job Title	Where Will Seek Person(s)				Experience		Limitations for Job			
	Advancement	New	Other Departments	Other Business	Yes	No	Labor Union	Labor Law	License	Other
Movie Projectionists	3	0	0	0	0	3	0	3	0	0
Ore Dressing Occupations	9	9	0	0	5	13	6	18	0	0
Ore-Storage-Drier Men	0	19	0	20	13	26	11	39	0	0
Painters	8	13	10	11	21	21	15	36	0	0
Photographers	0	1	0	0	1	0	0	0	0	0
Plumbers and Steamfitters	6	8	3	17	34	0	12	30	34	0
Plumbers' Helpers	0	2	0	0	0	2	0	0	0	0
Policemen	0	23	0	0	0	23	0	23	0	0
Postmasters	5	3	0	0	0	8	0	8	0	0
Power Plant Operators	9	0	0	0	9	0	3	9	0	0
Printers	0	2	0	0	0	2	2	2	0	0
Radio Broadcasting Occupations	0	8	0	0	0	8	0	5	0	0
Rubbermen	9	7	13	9	19	19	15	38	0	0
Sample Grinders	0	5	0	3	4	4	3	8	0	0
Sheet and Bar Rolling Occupations	0	2	0	0	2	0	0	2	0	0
Sheetmetal Workers	4	3	0	5	3	9	3	9	0	0
Shoe Repairmen	0	2	0	0	0	2	0	0	0	0
Teachers	0	150	0	151	0	301	0	301	301	0
Teachers-Miscellaneous	0	4	0	0	0	4	0	0	4	0
Upholstery	0	3	0	0	0	3	0	0	0	0
Waiters and Waitresses	15	47	0	20	25	57	0	36	0	0
Welders	13	20	5	10	24	24	12	41	0	0
Vocation Totals	925	1906	255	1161	1945	2302	1442	3746	629	0

Employment: Education Required for Advancement

Data presented in Tables XLIV, XLV, XLVI, XLVII, and XLVIII show the type of education required for the present employees to advance as preceived by the reporting business and industry firms. The employers were asked to respond to the following six types of training for each job title and indicate which was required for their employees to advance with the training to be provided by: (1) your business or the industry as a whole, (2) on-the-job training, (3) by the public schools, (4) area vocational-technical school, (5) community college, and (6) other types of education required.

It must be pointed out that findings shown in the following tables reflect the total employees presently working in all of the job titles identified and that the types of training required for advancement is meant for those people.

Data reveal that 418 employees are required to have training sponsored by the business of which they are employed or from the industry as a whole for advancement. A total of 4,292 workers were required to take on-the-job training for advancement. It was interesting to note that not any of the employers perceived the public schools as the agency to provide training to their employees for job advancement. The fact that the branch college has been established in the community may have influenced their decisions in regard to adult and vocational-technical education responsibilities. Employers indicated that 515 workers should be provided training by an area vocational school in order for them to advance in their specific job title. It should be noted that 143 of these 515 workers were in the office

education category which were recommended for training by an area vocational-technical school. Business and industrial firms also indicated that 231 workers in various job titles should be trained by a community college for advancement.

The employers revealed that 477 workers in various job titles should receive other types of training for advancement. Types of other training mentioned were workshops for school bus drivers, banking schools, specialized seminars for engineers and policemen. Teachers make up the bulk (301) of these employees and it would be normally expected that they would receive this training for advancement at a university. Since the teachers were the only employees recommended for training by a university this group was placed in the "other" category.

The following five tables give a detailed breakdown for education required for advancement in each job title.

TABLE XLIV

TYPE OF EDUCATION REQUIRED TO ADVANCE
AGRICULTURAL EDUCATION

Job Title	Your Business or the Industry as a Whole	On-the-Job Training	By Public Schools	Area Vocational-Technical School	Community College	Other
Butchers and Meat Cutters	0	8	0	5	0	0
Butchers' and Meat Cutters' Helpers	0	6	0	7	0	0
Buyers and Department Heads, Stores	0	1	0	0	0	0
Grounds Keepers	0	4	0	0	0	0
Packers, Wrappers and Craters	0	3	0	0	0	0
Retail Managers	0	4	0	0	0	0
Vocation Totals	0	26	0	12	0	0

TABLE XLV

TYPE OF EDUCATION REQUIRED TO ADVANCE
HOME ECONOMICS EDUCATION

Job Title	Your Business or the Industry as a Whole	On-the-Job Training	By Public Schools	Area Vocational-Technical School	Community College	Other
Charwomen and Cleaners	0	60	0	0	0	0
Cooks	0	38	0	16	6	0
Kitchen Workers	0	116	0	0	0	0
Laundry and Cleaning Workers	0	41	0	8	0	0
Maids and Housemen	0	13	0	0	0	0
Medical Assistants	0	4	0	4	0	2
Nurses	0	10	0	0	0	2
Nurses' Aides	0	34	0	18	8	0
Retail Managers	4	17	0	5	2	2
Sales Clerks	0	63	0	10	9	0
Service Establishment Managers	0	18	0	6	4	0
Vocation Totals	4	414	0	67	29	6

TABLE XLVI

TYPE OF EDUCATION REQUIRED TO ADVANCE
DISTRIBUTIVE EDUCATION

Job Title	Your Business or the Industry as a Whole	On-the-Job Training	By Public Schools	Area Vocational-Technical School	Community College	Other
Buyers and Department Heads, Stores	2	3	0	0	1	0
Filling Station Attendants	6	137	0	23	5	4
Hotel and Restaurant Managers	6	9	0	0	0	2
Insurance Agents	0	0	0	0	1	2
Insurance Salesmen	0	5	0	0	0	0
Motel Managers	0	27	0	0	4	5
Newsboys	0	35	0	0	0	0
Purchasing Agents	5	11	0	5	7	2
Real Estate Salesmen	0	6	0	0	0	3
Retail Managers	0	20	0	4	4	0
Routemen	0	22	0	0	0	0
Sales Clerks	0	41	0	11	7	2
Sales Managers	1	9	0	0	2	1
Salesmen	0	38	0	0	0	0
Service Station Managers	5	20	0	0	0	0
Stock Boys	0	26	0	0	0	0
Wholesale Managers	0	3	0	0	0	0
Vocation Totals	25	412	0	43	31	21

TABLE XLVII

TYPE OF EDUCATION REQUIRED TO ADVANCE
OFFICE EDUCATION

Job Title	Your Business or the Industry as a Whole	On-the-Job Training	By Public Schools	Area Vocational-Technical School	Community College	Other
Accounting Clerks	0	31	0	15	16	0
Bank Cashiers	0	2	0	0	2	1
Bookkeepers and Cashiers	0	15	0	10	0	0
Checkers	0	38	0	0	0	0
Credit Men	0	2	0	0	1	0
Desk Clerks	0	20	0	0	0	0
File Clerks	0	5	0	4	0	0
Financial Institution Managers	5	0	0	0	0	0
General Clerks	0	65	0	0	0	0
General Office Clerks	0	0	0	42	0	0
Office Machine Operators	0	0	0	23	0	0
Office Managers	19	19	0	0	18	0
Radio Dispatchers	0	0	0	10	0	0
Receptionists and Information Clerks	0	23	0	0	0	0
Secretaries	34	25	0	11	8	4
Stenographers and Typists	0	31	0	9	8	0
Stock Clerks	0	2	0	0	0	0
Technical Clerks	0	41	0	17	0	0
Tellers	0	0	0	2	6	0
Vocation Totals	58	319	0	143	59	5

TABLE XLVIII

TYPE OF EDUCATION REQUIRED TO ADVANCE
TRADE AND INDUSTRY

Job Title	Your Business or the Industry as a Whole	On-the-Job Training	By Public Schools	Area Vocational-Technical School	Community College	Other
Barbers	0	9	0	0	0	6
Bartenders	0	17	0	0	0	0
Beauticians	0	15	0	0	0	7
Building Maintenance Men	0	11	0	6	0	0
Cabinetmakers	0	6	0	2	0	0
Cagers	0	20	0	0	0	0
Carpenters	0	31	0	25	0	4
Chemists	0	40	0	0	0	21
Chemists-Assistant	0	7	0	0	7	0
Compositors and Typesetters	0	4	0	2	0	0
Cone Men	0	7	0	0	0	0
Construction Machinery Operators	0	41	0	8	0	0
Construction Occupations Apprentices	0	18	0	0	0	0
Construction Superintendents	0	3	0	0	0	0
Contractors	0	0	0	0	0	4
Draftsmen	0	20	0	4	0	3
Drillers	0	17	0	0	0	4
Drillers' Helpers	0	68	0	0	0	0
Drivers: Bus, Taxi, Truck	0	177	0	0	0	15
Editors	0	0	0	0	0	1
Electricians	0	57	0	0	0	0
Electricians' Apprentices	0	11	0	9	0	0
Electronic Equipment Installers and Repairmen	0	17	0	17	14	15

TABLE XLVIII (Continued)

Job Title	Your Business or the Industry as a Whole	On-the-Job Training	By Public Schools	Area Vocational-Technical School	Community College	Other
Electronics Assemblers	0	139	0	4	0	0
Electronics Technicians	0	75	0	22	19	0
Engineers-Mechanical	0	7	0	0	0	4
Engineers-Metallurgical	0	21	0	0	0	8
Engineers-Mining	0	70	0	0	0	26
Equipment Operators-Miscellaneous	26	121	0	15	6	8
Factory or Mill Maintenance Men	10	23	0	6	3	0
Firemen	3	6	0	0	0	0
Foremen-General	0	1	0	0	0	0
Foremen-Maintenance	2	9	0	2	3	0
Foremen-Manufacturing	12	15	0	7	6	0
Foremen-Mineral Extraction	5	10	0	2	2	0
Foremen-Miscellaneous	7	31	0	4	3	0
Foremen-Petroleum Production	0	2	0	0	0	0
Foremen-Transportation, Communication and Utilities	15	7	0	0	0	0
Glass Glazers	0	2	0	0	0	0
Hoistmen	3	11	0	0	0	0
Household Appliance Repairmen	0	2	0	2	0	0
Instrumental Musicians	0	1	0	0	0	0
Janitors	0	103	0	0	0	0
Jewelers and Watchmakers	0	3	0	0	0	0
Laborers-Construction	0	2	0	0	0	0
Laborers-General	0	177	0	0	0	0
Laborers-Mineral Extraction	0	204	0	0	0	0
Laborers-Nonferrous Metals Production	0	27	0	0	0	0
Laborers-Petroleum Products Production	0	8	0	0	0	0

TABLE XLVIII (Continued)

Job Title	Your Business or the Industry as a Whole	On-the-Job Training	By Public Schools	Area Vocational-Technical School	Community College	Other
Laborers-Planing Mill	0	88	0	0	0	0
Laborers-Warehouse	0	35	0	0	0	0
Linemen and Servicemen, T&T	10	10	0	4	5	0
Locker-Room Attendants	0	5	0	0	0	0
Machinists	0	31	0	7	0	0
Mail Carriers	0	6	0	0	0	0
Managers-Branch	0	0	0	0	0	1
Managers-Industrial Organization	0	2	0	0	0	0
Managers-Production	0	3	0	0	0	0
Managers-Recreation Establishment	0	3	0	0	0	0
Managers-Service	0	2	0	0	0	0
Managers-Service Establishment	0	2	0	0	0	0
Managers-Warehouse	0	5	0	0	0	0
Mechanics-Automobile Body, Fender and Radiator	0	15	0	7	0	0
Mechanics-Automobile and Heavy Equipment	12	101	0	34	0	0
Mechanics-Maintenance	11	12	0	6	5	0
Medical Laboratory Technicians	0	2	0	11	4	0
Mill Operators	40	135	0	22	18	0
Millwrights	0	28	0	5	0	2
Mine & Mill Technicians	10	22	0	8	5	0
Mine & Mill Utilitymen (Semi-skilled)	51	180	0	0	0	0
Miners and Mining-Machine Operators	55	360	0	0	0	0
Motormen	35	61	0	0	0	0
Movie Projectionists	0	3	0	0	0	0
Ore Dressing Occupations	0	18	0	0	0	0
Ore-Storage-Drier Men	0	39	0	0	0	0

TABLE XLVIII (Continued)

Job Title	Your Business or the Industry as a Whole	On-the-Job Training	By Public Schools	Area Vocational-Technical School	Community College	Other
Painters	0	42	0	0	0	0
Photographers	0	1	0	0	0	0
Plumbers and Steamfitters	0	30	0	4	0	0
Plumbers' Helpers	0	2	0	0	0	0
Policemen	12	0	0	0	0	11
Postmaster	0	8	0	0	0	0
Power Plant Operators	4	5	0	0	0	0
Printers	0	2	0	0	0	0
Radio Broadcasting Occupations	0	8	0	0	0	0
Rubbermen	0	38	0	0	0	0
Sample Grinders	0	8	0	0	0	0
Sheet and Bar Rolling Occupations	0	2	0	0	0	0
Sheetmetal Workers	0	12	0	0	0	0
Shoe Repairmen	0	2	0	0	0	0
Teachers	0	0	0	0	0	301
Teachers-Miscellaneous	0	0	0	0	0	4
Upholstery	0	3	0	0	0	0
Waiters and Waitresses	0	82	0	0	0	0
Welders	8	35	0	5	0	0
Vocation Totals	331	3,121	0	250	100	445

Data in Tables XLIX and L show economic data for Grants, Milan and Western Valencia County. These tables are presented for two purposes: (1) to give certain background information which does not appear elsewhere in this study, and (2) for comparison of numbers and percentages of employed workers in the various occupational areas against those found by the writer of this study.

Data in Table XLIX show forty-five percent and 2,995 employees connected with the mining industry. This research study found 2,738 employees or 46.24 percent (Table XII) of the work force in the mining industry. Data in Table XLIX show 6,656 as the total labor force in the area and this study found 5,921 workers in the total labor force; however, it should be noted that this study only included business and industrial firms in the survey and therefore, the agricultural sector of farming and ranching workers was omitted. Certain professional workers such as medical doctors, lawyers, dentists, clergymen and librarians were also omitted from this study. It is estimated that workers in the agricultural sector and the professional account for an additional 600 employees. When these 600 workers are added to the 5,921 employees identified in this study, the data in Table XLIX and Table XII compare favorably with each other.

Data in Table L show the estimated population of the trade area of Grants and certain economic financial data. The monthly payroll data show a healthy income for the total number of persons employed; however, this does not show the number of unskilled school drop-outs who are unemployed or underemployed. Neither does this economic data show the numbers of people drawing unemployment pay, welfare payments, or the number of unskilled and unemployed Indians living on several nearby

Indian reservations.

TABLE XLIX

ECONOMIC DATA FOR GRANTS, MILAN AND WESTERN VALENCIA COUNTY

Employment in Area	Percent	Total
Mining	45.00	2,995
Tourist Service	18.00	1,198
Retail and Wholesale	9.00	599
Exploration and Drilling	7.00	466
Ranching and Livestock	6.00	399
Government	5.00	333
Professional	4.00	266
Lumber	2.00	133
Utilities	2.00	133
Real Estate and Financing	1.00	67
Other	1.00	67
Totals	100.00	6,656

Source: Monthly Bulletin, Grants-West Valencia Chamber of Commerce, January 1, 1970.

TABLE L

ECONOMIC DATA FOR GRANTS, MILAN AND WESTERN VALENCIA COUNTY

Item		Total 1969
Population (Estimated)		24,000
Financial	1959	
Two Banks - Deposits	$8,595,683.27 $9,657,732.56	$12,495,718.15 $14,252,894.16
Payroll (Average Monthly - Estimated)		$ 3,000,000.00
Retail Sales (Grants and Milan - not including gasoline sales)		$22,980,624.68
Building Permits		$ 1,046,023.46

Source: Monthly Bulletin, Grants-West Valencia Chamber of Commerce, January 1, 1970.

CHAPTER V

SUMMARY AND CONCLUSIONS

Introduction

The major objective of the study was to identify and establish needs for vocational-technical instruction within the area served by the New Mexico State University - Grants Branch. Concurrently, the study attempted to cope with the problem of the feasibility of providing such needed instruction through and as a part of the on-going program of the New Mexico State University - Grants Branch. In order to do this, it was necessary to determine the needs and desires of the people, the needs and desires of business and industry and to determine what types of training programs will meet the needs of both groups. One of the central difficulties encountered was the lack of reliable information at a local level as to where jobs existed and the nature and extent of training necessary to prepare young people and unemployed adults for entry into these occupations.

Basically, the study consists of a summarization of the findings of the following three population surveys: (1) an adult population survey designed to indicate occupation training choices; (2) a junior and senior class student population survey at both senior high schools in the Grants Municipal School District which was designed to indicate vocational training interests and choice of occupational training areas; and (3) a business-industry survey which resulted in gaining three

hundred fifty two personal interviews of all types of business and industrial firms in the college service area.

Studies have been conducted in nearly every section of New Mexico where area vocational schools exist or have been proposed; however, most of these studies have concentrated upon the input (initial enrollment) potential and have only consisted of random samples of businesses and industry for possible placement of graduates. In nearly all instances, the studies have proven adequate for the job of projecting the input potential but this is the only study in New Mexico known to the investigator in which the total population of business-industry have been personally interviewed throughout a total five thousand square mile area.

The results of this study and studies in other locations of the state should give directions to local public school administrators, to New Mexico State University and to the State Department of Vocational Education in planning new and redesigning present programs.

Summary of Findings

Growth in the student population for the Grants Municipal School District in grades one through twelve has been 4.95 percent for the past ten years. The secondary school growth rate was 3.32 percent during this same period; however, during the past two years (1968-69 and 1969-70), they have experienced 5.40 percent and 8.00 percent growth rates. The attrition rates in grades nine through twelve have averaged 34.52 percent for the past eight years and 30.20 percent for the past four years (1966-1969). This attrition rate in high school compares to a state-wide average of twenty percent. Based upon

historical average percentage increase, the secondary school population will gain 259 students in the next four years (1974-75).

Results of student surveys of individuals making up high school junior and senior classes show 308 individuals are interested in receiving some type of vocational training. Two-thirds (205) of these students indicated they would go other places to receive the type of training they desired if it were not available to them locally. One-third (103) indicated they would not leave home for this training.

The greatest concentration of occupational choices for training were in the areas of health occupations, business and office education, and trade and industrial education. In the trade and industry area the heavy demand was for training as welders, auto and diesel mechanics and electronics.

Data show that 271 adults in the community expressed an interest for vocational-technical training. Less than ten percent (9.67%) of those responding to the survey instruments indicated they were not interested in vocational training. Occupational choices for training were similar to those of the high school students. The greatest concentration of interest was in health occupations, office education, and trade and industrial education.

Interviews with three hundred fifty two business and industrial firms revealed that 5,921 persons are employed in the Grants area. This does not include the agricultural sector or professional workers such as medical doctors, lawyers, dentists and certain other professional employees. Approximately five percent (4,83%) or 286 employees worked part-time. Nearly one-half (46.24%) of the total labor force were found to be employed by the uranium mining industry. It was also

found that the turnover rate is extremely high in the mining industry with indications that 3,845 employees will be needed in the next five years to replace present workers. There was also a projected need for 1,492 additional workers during the next five years in all job titles with 892 connected with the mining industry.

The business-industry surveys pointed out that over sixty percent (62.50%) of the total work force in the area were earning $112.00 or more per week and only 459 workers earned less than $58.00 per week. These 459 employees included part-time workers and persons employed as motel cleaning women, filling station attendants and sales clerks.

Data indicate that job entry educational levels require 4,733 employees from the total labor force to hold the high school diploma or higher education. Only 20.34 percent of the workers are indicated as requiring less than twelve grades of education to enter their present job.

Employers did indicate that they had no preference as to farm, rural or urban background for 5,648 workers which accounted for 95.46 percent of the total labor force in the area. They also indicated that it made no difference if the workers were local, in-state residents or out-of-state residents for 5,470 of their employees. Firms of business and industry reported the minimum age entry for 144 specific job titles as being sixteen years or older with the exception of newsboys who could begin work at age ten. Over one-half (54.86%) of the job titles required a minimum age of eighteen for entry.

Employers indicated that they would replace 3,146 employees now filling job titles with new people if their job became vacant; however, 1,270 of these workers would be experienced employees recruited from

other businesses and 287 of them would be advanced from other departments in their own companies.

Data reveal that the majority of the workers (4,292) were required to take on-the-job training for advancement. Employers indicated that 515 of their workers should be provided training by an area vocational school for advancement in their job titles. They also indicated that 231 workers should be trained by a community college.

Conclusions

The following conclusions rise from this study as being significantly important:

1. It is concluded that the secondary schools growth rate based upon historical averages (3.32%) has been steady but the average rates (6.70%) for the past two years (1968-69; 1969-70) have doubled the historical rate.
2. It is concluded that the attrition rates for grades nine through twelve show that approximately one student in three will drop out of school prior to graduation. This compares to one in five for a statewide average.
3. The high school projection rates based upon ten-year historical averages is too conservative for realistic facility and program planning. The average growth rate (6.70%) for the past two years would result in 2,042 secondary students by 1974-75 rather than the 1,731 projected by the use of ten-year historical averages. It is concluded that extreme caution should be used by school officials in budget and facility planning.

4. Data from the student surveys indicate the 268 juniors and graduating seniors would attend a vocational-technical facility if it were established as a part of New Mexico State University's Branch College at Grants. One hundred three students indicated that they would not or could not leave home to attend school if one were not available in their own area. It is concluded that these numbers could justify vocational programs at the branch college.
5. It was concluded that the greatest concentration of interest in occupational training was in the areas of health occupations, business and office education and trade and industrial education.
6. Surveys indicated 271 employed and unemployed adults in the community are interested in receiving vocational training either on a full-time or part-time basis. It is concluded that based on the responses to the adult survey sample there would be considerable interest in vocational-technical education training within the branch college service area to justify providing this training.
7. Data reveal that 46.24 percent of the entire labor force are employed by the mining companies which makes the economy of the area primarily dependent upon this industry for economic progress and development. It is concluded that the major growth of the services, sales, schools, financial institutions and all other supporting institutions must be partially geared to the mining industry for economic development.

8. It was concluded that the vast majority (92.25%) of the entire labor force are earning above the minimum hourly wage and that 62.50 percent of all the employees earn over $112.00 per week.

9. It was concluded that only one worker in five (20.64%) could enter and hold positions with less than twelve years of education. Recent policies with the major sources of employment (mining industry) indicate that fewer and fewer persons will be accepted with less than high school graduation or higher education in the future.

10. Due to the highly specialized nature of most of the job titles identified in this study, it is concluded that skilled workers are not available in the Grants area or in the State of New Mexico to supply the labor market. The employers are forced to hire workers with other than local backgrounds. It is further concluded that educational institutions and other training agencies of the Grants area and in the State of New Mexico are not geared up to meet the vocational education requirements of industry in this area.

11. Over one-half (79) of the job titles identified in this study required a minimum age of eighteen for entry. Job titles which required a minimum age of nineteen or over accounted for 36.11 percent of the total. It is therefore concluded that job titles which require specific skills or higher vocational educational levels require a more mature person to fill the position.

12. Employers indicated that over fifty percent (53.12%) of the total labor force would be replaced by new people if their jobs became vacant. It is concluded that new high school graduates and local unemployed persons could be trained to fill a great many of these positions.
13. Business and industrial firms of the area indicated that 746 of their employees should be trained by an area vocational school or a community college in order to advance in their positions. It is concluded that New Mexico State University at Grants should attempt to provide training for these persons.

Recommendations

The State of New Mexico has generally lagged far behind most other states in economic development and this same statement might well apply to the quantity and quality of programs in all types of vocational-technical education. There is an apparent lack of industrial development throughout the state and the percentage of people who are unemployed due to the lack of skills and job opportunities ranks high among the fifty states. The majority of industrial and manufacturing development is cnetered around Albuquerque which dominates the state's economic picture. Grants and Western Valencia County are in a unique position so far as vocational education potential is concerned because there are both the people available for training and job opportunities in the area. Few communities in New Mexico can boast this combination.

Based on the findings of this study and the related literature concerning vocational-technical education and economic development in

New Mexico, the researcher presents the following recommendations:

1. The study shows adequate population of students and adults with vocational interests for training. Business and industry data show needs and potential needs for trained people. The researcher recommends that the following programs be initiated at New Mexico State University in Grants:
   a. Diesel Mechanics and Heavy Equipment Operator's Training
   b. Auto Mechanics Training
   c. Nurses' Aide Training
   d. Electric Arc Welding
   e. Oxy-Acetylene Welding
   f. Secretarial and Office Education Training
   g. Basic Electricity-Electronics Training
2. In order to keep from duplicating programs, facilities and equipment the investigator recommends that selected high school students be admitted to vocational programs at the college for day classes.
3. The researcher recommends that a strong evening school in vocational-technical programs be initiated for adults who are employed or desire part-time training.
4. The researcher recommends appointing a vocational-technical advisory committee composed of university and public school leaders and members from business and industry. This committee can be most helpful in guiding the overall vocational education programs. It is further recommended that

sub-advisory committees be appointed to each technical program offered. Members of these sub-committees should be outstanding employees in their positions with business or industry.

5. The investigator recommends that New Mexico State University at Grants hire a director of vocational education to direct the planning of curriculum, facilities, and equipment needs. This person would coordinate all vocational-technical education programs with university administrators, public school administrators, the State Department of Education, and business and industry.

6. The researcher recommends that New Mexico State University officials and the Board of Education of the Grants Municipal School District review and take advantage of the Branch and Community College Amendment (Appendix F) passed by the State Legislature March 2, 1970. This law provides funds in the amount of $400.00 per full-time equivalent student in vocational-technical education programs. The law also provides for borrowing monies for construction, furnishing, remodeling, and equipping buildings.

7. The researcher recommends that university officials and the Grants Board of Education review other sources of funds for vocational-technical education with the Division of Vocational-Technical Education, State Department of Education. Possible sources for review are: The Manpower Development and Training Act (M.D.T.A.); The 1963 Vocational Education Act and subsequent amendments; Area Vocational School Act,

House Bill 50 (Appendix E); and the Economic Development Act.

8. The investigator recommends that Phase I priority be given to programs in diesel mechanics, heavy equipment operators, nurses' aides, and secretarial training at Grants. Phase II priority be given to programs in basic electricity-electronics, auto mechanics, electric arc welding, and oxy-acetylene arc welding. Phase III priority be given to programs in office education such as data processing, computer programming, and new innovative programs that meet the needs of the citizens and business and industry.
9. The investigator recommends that officials of New Mexico State University initiate vocational-technical education feasibility studies at the Carlsbad and Alamogordo Branch Campuses in order to determine the needs of the citizens in these two areas of New Mexico.
10. The researcher recommends that New Mexico State University establish a school of Adult and Occupational Education on the main campus at Las Cruces. It is further recommended that a Dean be employed who has an excellent background in vocational-technical education to coordinate all on-campus and branch college vocational technical education programs.
11. The investigator recommends that each branch college maintain and operate a placement office for vocational-technical graduates and that these efforts be coordinated with the Dean of Continuing Education and placement officials on the main campus at Las Cruces.

More information is still needed to guide university officials, state department supervisors, and teachers in program planning and placement of graduates. Further research is indicated in the following areas:

1. Procedures for keeping informed on current needs and opportunities in vocational-technical education.
2. Clear definitions of what should be taught at the various levels--high school, post high school, and college.
3. Legislative rewriting of vocational-technical education laws in New Mexico into one comprehensive law. (At the present time the laws are fragmented and not applicable in many situations.)
4. Continued research in curriculum planning and instructional methods.

In retrospect, the author of this study has some philosophy and thoughts about which he feels a need to express. The nine months spent gathering data from business and industry, high school students and the adults of the Grants and Western Valencia County area were most rewarding. The students and business leaders were most cooperative and vitally interested in helping the educational instituions become geared up to offer relevant education programs. They shared the opinion that a "good general education is the best vocational education;" however, it was felt that too many New Mexico educators have used this as a "crutch" and have offered no vocational education at all.

New Mexico as a state has a relatively low economic ranking when compared to the more industrially developed states and it is therefore

imperative that all of its resources must be fully utilized. The writer feels that with limited resources, available funds can be more wisely spent at the post-high school level in vocational-technical education. This statement is not meant to take away the importance of vocational education at the high school level because vocational education is very important at all levels; however, research studies have pointed out that many college juniors have yet to decide upon a definite major. With this thought in mind, it is not reasonable to expect high school students at age sixteen or seventeen to make intelligent occupational choices.

It is further asserted, by the investigator, that terminal vocational-technical programs should be placed in post-high school institutions and exploratory type programs at the high school and junior high school levels. Exploratory type programs can aid the younger students in helping them find areas of interest and ability in occupational areas which they may want to follow as their life's work. Terminal vocational-technical programs at the post-high school level can give the students salable skills at this more mature age.

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APPENDIX A

STUDENT SURVEY FORM

Student Survey

New Mexico State University - Grants Branch

You are taking part in a study to determine if there is a need for vocational or technical training in the Grants-Milan-Western Valencia County area. If such a need is shown, an area vocational school could be set up as a part of NMSU-Grants Branch to provide you with the type of training which would help you get a better job. Read over the list of seventy (70) job titles and list your three top choices below by writing the number and name listed.

	Number	Job Title
1st Choice:	_____	_____
2nd Choice:	_____	_____
3rd Choice:	_____	_____

If we did not list something which you are interested in, please write your suggestions on the following lines:

_____

_____

PLEASE RETURN THIS TO: _____

1. Do you plan to attend college? ____ Yes ____ No

If your answer to above is YES, do not answer the remainder of this questionnaire.

2. Would you go to a vocational-technical school if one were to be established as a part of NMSU-Grants Branch? ____ Yes ____ No

3. If no vocational-technical school were available in the county, would you go to some other place to secure the type of training you desire? ____ Yes ____ No

4. If you do not plan to go to any type of school or training program, mark the box at the right, and do not continue to answer this questionnaire. ☐ No

OCCUPATIONAL CHOICES

On the following page are several occupational areas with individual job choices listed below them. If you could choose the job in which you would like to train, what would be your 1st, 2nd, and 3rd choices? Fill in the number by your job or course choice and write in the job title. Make only three selections. If you change your mind, please erase the first mark carefully and completely.

AGRICULTURE AND RELATED OCCUPATIONS

1. Production Agriculture
2. Animal Husbandry
3. Fertilizer and Chemicals
4. Farm Equipment and Supplies
5. Farm Management
6. Horticulture
7. Agriculture Mechanics
8. Lawn and Garden Maintenance
9. Butcher and Meat Processing
10. Horseshoeing

DISTRIBUTIVE EDUCATION

11. Salesman - Retail and/or Wholesale
12. Display
13. Retail Merchandising
14. Advertising

HEALTH OCCUPATIONS

15. Nurse Aides
16. Licensed Practical Nurse
17. Psychiatric Aides
18. Dental Assistant
19. Medical Assistant

HOME ECONOMICS OCCUPATIONS

20. Waitress and/or Waiter Training
21. Night Clerks
22. Cooks and Cook's Helpers
23. Custodial Services
24. Housekeepers
25. Hotel-Motel Maids

BUSINESS AND OFFICE OCCUPATIONS

26. Typing I and II
27. Shorthand I and II
28. Bookkeeping
29. Accounting
30. Office Machines
31. Business Math
32. Business Law
33. Business Orientation
34. Secretarial Arts
35. Stenotypist
36. Data Processing
37. Electronic-Computer Programming

TRADE AND INDUSTRIAL OCCUPATIONS

38. Power Mechanics
39. Basic Gasoline Engines
40. Small Gas Engines Mechanic
41. General Auto Mechanic
42. Diesel Mechanic
43. Oxy-Acetylene Welding
44. Electric Arc Welding
45. Blueprint Reading
46. Auto Body and Fender Repair
47. Air Conditioning Mechanics
48. Home Appliance Repairman
49. Carpenter
50. Masonry Occupations
51. Plumbing
52. Upholstery
53. Printing Trades
54. Refrigeration Mechanic
55. Truck Driver
56. Heavy Equipment Operator
57. Auto Service Station Attendant
58. Policeman/Guard
59. Boiler Operator and/or Environmental Control Specialist
60. Partsman, Auto and Other

TECHNICAL EDUCATION

61. Electronics (T-V and/or radio)
62. Drafting
63. Electricity (Wiring and repair)
64. Electronic Technology
65. Civil Technology
66. Electro-Mechanical Technology
67. Mechanical Technology

BASIC ADULT EDUCATION

68. Reading
69. English
70. Basic Mathematics

If you did not find an area of interest in the above list, please suggest one on the line below.

_____

_____

THANK YOU FOR YOUR COOPERATION

APPENDIX B

ADULT SURVEY FORM

Adult Survey

New Mexico State University - Grants Branch

This is a study to determine if there is a need for vocational and technical training in the Grants-Milan and Western Valencia County area served by New Mexico State University. If such a need is shown, a vocational school could be set up to provide you with the type of training you feel you need.

On the following pages are several occupational areas with individual job titles or vocational courses listed below them. If you could choose the area in which you would like training, what would be your first, second and third choices? Read over the list of 70 job titles and list your three top choices below by writing the number and name listed.

	Number	Job Title
1st Choice:	_____	_____
2nd Choice:	_____	_____
3rd Choice:	_____	_____

If we did not list something which you are interested in, please write your suggestions on the following lines:

_____

_____

If you are not interested in any vocational training at the present time, please mark an "X" here: ☐

PLEASE RETURN THIS TO: _____

AGRICULTURE AND RELATED OCCUPATIONS

1. Production Agriculture
2. Animal Husbandry
3. Fertilizer and Chemicals
4. Farm Equipment and Supplies
5. Farm Management
6. Horticulture
7. Agriculture Mechanics
8. Lawn and Garden Maintenance
9. Butcher and Meat Processing
10. Horseshoeing

DISTRIBUTIVE EDUCATION

11. Salesman - Retail and/or Wholesale
12. Display
13. Retail Merchandising
14. Advertising

HEALTH OCCUPATIONS

15. Nurse Aides
16. Licensed Practical Nurse
17. Psychiatric Aides
18. Dental Assistant
19. Medical Assistant

HOME ECONOMICS OCCUPATIONS

20. Waitress and/or Waiter Training
21. Night Clerks
22. Cooks and Cook's Helpers
23. Custodial Services
24. Housekeepers
25. Hotel-Motel Maids

BUSINESS AND OFFICE OCCUPATIONS

26. Typing I and II
27. Shorthand I and II
28. Bookkeeping
29. Accounting
30. Office Machines
31. Business Math
32. Business Law
33. Business Orientation
34. Secretarial Arts
35. Stenotypist
36. Data Processing
37. Electronic-Computer Programming

TRADE AND INDUSTRIAL OCCUPATIONS

38. Power Mechanics
39. Basic Gasoline Engines
40. Small Gas Engines Mechanic
41. General Auto Mechanic
42. Diesel Mechanic
43. Oxy-Acetylene Welding
44. Electric Arc Welding
45. Blueprint Reading
46. Auto Body and Fender Repair
47. Air Conditioning Mechanics
48. Home Appliance Repairman
49. Carpenter
50. Masonry Occupations
51. Plumbing
52. Upholstery
53. Printing Trades
54. Refrigeration Mechanic
55. Truck Driver
56. Heavy Equipment Operator
57. Auto Service Station Attendant
58. Policeman/Guard
59. Boiler Operator and/or Environmental Control Specialist
60. Partsman, Auto and Other

TECHNICAL EDUCATION

61. Electronics (T-V and/or radio)
62. Drafting
63. Electricity (Wiring and repair)
64. Electronic Technology
65. Civil Technology
66. Electro-Mechanical Technology
67. Mechanical Technology

BASIC ADULT EDUCATION

68. Reading
69. English
70. Basic Mathematics

If you did not find an area of interest in the above list, please suggest one on the line below.

_____

_____

THANK YOU FOR YOUR COOPERATION

APPENDIX C 1

BUSINESS-INDUSTRY INTERVIEW - FORM I

NEW MEXICO STATE UNIVERSITY - GRANTS BRANCH
Grants, New Mexico

BUSINESS-INDUSTRY EMPLOYMENT
OPPORTUNITIES AND NEEDS

Date_____
Name of
Interviewer_____

FORM I

Type of Business _____

I. Company (firm, organization, agency or service)

A. Name of company _____

B. Address _____

C. Person interviewed _____

D. Position of person interviewed _____

E. Brief description of company _____

_____

_____

F. Main function(s) of company (check one or more)

_____ Sales	_____ Marketing
_____ Processing	_____ Purchasing
_____ Services	_____ Manufacturing
_____ Education	_____ Mining
_____ Government (federal, state, local)	_____ Other

G. Years company has been in business _____(in area)_____

II. Employees in the Business or Service

A. Total number of employees _____

	Job Title*	Number of Employees Full-time	Part-time
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
	Total		

*Fill out a separate Form II for each job title.

APPENDIX C 2

BUSINESS-INDUSTRY - FORM II

FORM II

Date_____
Person Interviewed_____
Interviewer_____

BUSINESS-INDUSTRY EMPLOYMENT OPPORTUNITIES AND NEEDS

Type of Business_____

I. Identification of Business and Job Title

A. Name of business, service or department_____

_____ Address_____

B. Job Title_____ *Classification____

_____

II. Employees in this Job Title

A.

Employment Status	Number of Persons Presently Employed		Additional Number Expected to be Employed in Next Five Years			
			**To Replace Present Workers		**In Addition to Present Workers	
	Male	Female	Male	Female	Male	Female
Full-time	_____	_____	_____	_____	_____	_____
Part-time	_____	_____	_____	_____	_____	_____

B.

Employment Status	Average Weeks Paid Per Year	Beginning Wage or Salary		Highest Wage or Salary	
		Per Hour	Per Week	Per Hour	Per Week
Full-time	_____	_____	_____	_____	_____
Part-time	_____	_____	_____	_____	_____

C. Activities and duties of persons with this job title

_____

_____

_____

*Classify according to this list:

Professional	Managers	Skilled
Technical	Clerical	Semi-skilled
Supervisor	Sales	Unskilled

**Where will you seek this person(s)? Advancement____ New____

From other departments____ Other business____

APPENDIX C 3

BUSINESS-INDUSTRY - FORM III

Business or Department_____

III. Characteristics desired in those who enter this job title.

A. Age: Minimum_____ Maximum_____

B. Educational level (check one only)

_____ 1. Less than high school graduation

_____ 2. High school graduation

_____ 3. Post high vocational-technical education

_____ 4. Some college education but less than a baccalaureate degree

_____ 5. College baccalaureate degree

C. Residential background preference

_____ 1. Farm background

_____ 2. Rural, non-farm background

_____ 3. Urban background

_____ 4. No preference

_____ 5. Local

_____ 6. In-state

_____ 7. Out-of-state

_____ 8. No preference

D. Experience required to enter this job title: Yes____ No____

IV. Limitations on entering this job title.

A. Labor union restrictions_____

B. Labor law restrictions_____

C. Licensing or certification_____

D. Other (specify)_____

V. Education required to advance in this job title.

A. Training to be provided by: (short courses or training)

_____ 1. Your business or the industry as a whole

_____ 2. On-the-job training

_____ 3. By public schools

_____ 4. Area Vocational-Technical School

_____ 5. Community College

_____ 6. University

B. Other types of education required_____

APPENDIX D

BRANCH AND COMMUNITY COLLEGE STATUTES

BRANCH AND COMMUNITY COLLEGE STATUTES

73-30-17. BRANCH COMMUNITY COLLEGE EDUCATIONAL LEVEL DEFINED.--Branch community college educational level for the purposes of sections 73-30-17 through 73-30-25 New Mexico Statutes Annotated, 1953 Compilation includes the first two (2) years of college education, covering the thirteenth and fourteenth year of education.

73-30-18. ESTABLISHMENT AUTHORIZED--BOARD--DETERMINATION OF NEED--AGREEMENT.--

A. A branch community college may be established in a school district upon the showing of need by the local board of education; or a branch community college may be established to include more than one school district, in which instance the boards of education shall act as a single board, and if the branch community college is established, shall continue to act as a single board. As used in sections 73-30-17 through 73-30-25 New Mexico Statutes Annotated, 1953 Compilation, "board" means the local board of education, or the combined local boards of education acting as a single board, of the school district.

B. The duties of the board are to:

(1) Initiate and conduct the survey;

(2) Select the parent institution;

(3) Request approval of the branch community college from the board of educational finance;

(4) Enter into written agreements with the board of regents of the parent institution selected;

(5) Act in an advisory capacity to the board of regents in all matters relating to the conduct of the branch college;

(6) Approve an annual budget for the branch community college for recommendation to the board of regents of the parent institution;

(7) Certify to the county commissioners the tax levy; and

(8) Conduct the election for tax levies for the branch community college.

C. Upon evidence of a demand for a branch community college the board shall cause a survey to be made. The board of educational finance shall develop criteria for the establishment of a branch community college and no branch community college shall be established without the written authorization of the board of educational finance.

D. If need is established, the board, in accordance with the board of educational finance criteria for initiating a branch community college program, shall consult with the board of regents of the higher education institution selected to be the parent institution, and, if the board and the board of regents agree to conduct a branch community college in the area, they shall transmit a proposal to establish a branch community college to the board of educational finance. The board of educational finance shall evaluate the need and shall notify the board and the board of regents of approval or disapproval of the proposal.

E. If the proposal is approved, the board and the board of regents shall then enter into a written agreement which shall include provisions for:

(1) The higher education institution to have full authority and re-

sponsibility in relation to all academic matters;
(2) The higher education institution to honor all credits earned by students as though they were earned on the parent campus;
(3) The course of study and program offered;
(4) The cooperative use of physical facilities and teaching staff;
(5) Provided that applications of local, qualified people shall be considered before employing teachers of the local school system; and
(6) The detailed agreement of financing and financial control of the branch community college.

F. The agreement shall be binding upon both the board and the board of regents; However, it may be terminated by either board by mutual consent, or it may be terminated by either board upon six (6) months notice.

73-30-19. AVAILABILITY OF SCHOOL FACILITIES--USE OF OTHER FACILITIES.--Upon establishment of a branch community college, public school facilities are to be made available to the college if needed, and in such manner as will not interfere with the regular program of instruction. No public school funds shall be expended in the program, and the branch community college shall pay a proper amount for utilities and custodian service. The board may arrange for the use of available facilities other than public school facilities if approved by the board of regents.

73-30-20. FINANCING OF BRANCH COMMUNITY COLLEGES.--Financing of branch community colleges shall be by tuition and fees, which shall be set by the board of regents, and by gifts and grants, and by other funds as may be made available, except as otherwise provided in sections 73-30-17 through 73-30-25 New Mexico Statutes Annotated, 1953 Compilation.

73-30-21. TAX LEVIES AUTHORIZED.--

A. The board may levy and collect a tax annually against the property in the school district or districts comprising the branch community college district, for the purpose of operating, maintaining and providing facilities for the branch community college. The annual amount levied shall not be in excess of one hundred dollars ($100) for a full time equivalent student.

B. For the first year of operation the board shall estimate the full time equivalent student population, thereafter the previous year's full time equivalent student population shall be used for taxing purposes.

C. In the event the amount necessary to be raised for such purposes exceeds in any year the constitutional limit of twenty (20) mills for all other purposes in the district, or districts, the question of levying additional taxes, over and above the limitation for the support of the branch community college shall be submitted to the electors and voted upon as a separate question at the next subsequent general election. The election upon the question shall be called, handled, conducted and canvassed in substantially the same manner as is provided by law.

73-30-22. ELECTION ON SPECIAL LEVY.--If the electors vote in favor of the special levy, it shall become effective in the following taxable year and each year thereafter unless the branch community college district is dissolved.

73-30-23. STATE SUPPORT.--The board of educational finance shall approve an appropriation request for the branch community college. The request shall be included in the budget request of the parent institution and shall be for the purpose of operating, maintaining and providing facilities for the branch community college. An amount not to exceed three hundred dollars ($300) for each full-time equivalent student may be budgeted for each branch community college. For the first year of operation, the board of regents shall estimate the full-time equivalent student population, thereafter the previous year's full-time equivalent student population shall be used.

73-30-24. APPLICABILITY OF OTHER LAWS.--Any law concerning public schools and any law concerning the higher education institution shall, when applicable, govern the operation and conduct of the branch community college.

73-30-25. DESIGNATION OF BRANCH COMMUNITY COLLEGE.--Any community college shall be designated as a branch of the respective higher education institution.

73-30-26. BRANCH COMMUNITY COLLEGE BONDS--INTEREST--FORM--PAYMENT.--
A. Any community college board may borrow money for the purpose of erecting and furnishing, constructing, purchasing, remodeling and equipping buildings and utility facilities or purchasing grounds, exclusive of dormitories and stadiums. To carry out the purposes of this section, the board may issue negotiable coupon general obligation bonds of the school district, if approved by the board of educational finance and then approved at an election by a majority of the qualified electors voting on the issue; Provided, however, no bonds shall be issued which shall create a total bonded indebtedness in the school district in excess of three percent (3%) of the assessed valuation of the taxable property within the school district as shown in the preceding general assessment, which debt limitation is to be in excess of other existing debt limitations. Bonds shall be sold at a price which does not result in an actual net interest cost to maturity, computed on the basis of standards of bond values, in excess of six percent (6%) a year. The bonds shall be sold and may be in such denominations as the board determines, and the bonds and the attached coupons shall be payable to the bearer but may also be made registrable as to principal, or registrable as to principal and interest.
B. The bonds shall be payable semiannually and shall be due and payable serially, either annually or semiannually, commencing not later than three (3) years from their date. Such bonds shall be issued for a term of not less than five (5) nor more than twenty (20) years. The form and terms of the bonds, including provisions for their payment and redemption shall be as determined by the board. If the board so determines, the bonds may be redeemable prior to maturity upon payment of a premium, not exceeding three percent (3%) of the principal thereof. The bonds shall be executed in the name of, and on behalf of, the

school district and signed by the chairman of the board, with the seal of the school district affixed thereto, and attested by the secretary of the board. Bonds may be executed and sealed in accordance with the provisions of the Uniform Facsimile Signature of Public Officials Act (5-9-1 to 5-9-6). Interest coupons shall bear the original or facsimile signature of the chairman of the school board.

C. To provide for the payment of the interest and principal of the bonds issued and sold pursuant to the provisions of this section, upon approval of such bonds at an election by a majority of the qualified electors in such school district who voted on the issue, the county commissioners shall annually make and levy, during each year in which any bonds are outstanding, an ad valorem tax on all taxable property in the school district in an amount sufficient to produce a sum equal to one (1) year's interest on all bonds then outstanding, together with an amount sufficient to pay the principal of all bonds as they mature. This levy shall not exceed five (5) mills; Provided, however, that this five-mill limitation may be exceeded in any year in which the valuation of the property within the school district declines to a level lower than the valuation of such property in the year in which the bonds were issued. The taxes authorized shall be levied, assessed and collected at the times and in the manner that ad valorem taxes for school districts are assessed, levied and collected and it shall be the duty of all tax officials and authorities to cause the taxes to be levied, assessed and collected.

D. The proceeds obtained from the issuance of the bonds shall not be diverted or expended for any purposes other than those provided herein; Provided that no building shall be built without prior approval of detailed plans by the board of educational finance, which shall have authority to approve, disapprove or decrease the amount of bonds which may be sold; and Provided further, that the expenses incurred in the preparation and sale of the bonds may be paid out of the proceeds from their sale.

E. Prior to the issuance and sale of bonds, the attorney general shall approve all bond transcripts and certify his approval or rejection thereof in the same manner as is required by law for the approval of school bonds. Unless otherwise specifically provided, the provisions of this section for the issuance of bonds shall be deemed exclusive of the provisions of all other laws.

73-30-27. PAYMENT OF BONDS--BONDS PROVISION.--

A. The principal of and interest on general obligation bonds herein authorized to be issued, and any prior redemption premiums shall be payable from the proceeds of general property taxes levied without limitation as to rate or amount, except to the extent other revenues are made available therefor. All bonds shall be the general obligations of the school district, and the full faith and credit of the district shall be pledged for the payments thereof.

B. It may be provided in any proceedings authorizing any bonds hereunder that a bond shall recite that it is issued under authority of this act (73-30-26 to 73-30-28). The recital shall conclusively impart full compliance with all of the provisions of this act and all bonds issued containing this recital shall be incontestable for any cause whatsoever after their delivery for value.

C. All bonds issued by a district shall be fully negotiable and constitute negotiable instruments within the meaning of and for all the purposes of the Uniform Commercial Code (50A-1-101 to 50A-9-507) as that law is now or may hereafter be in force in this state. If lost or completely destroyed, any bond may be reissued in the form and tenor of the lost or destroyed bond upon the owner furnishing to the satisfaction of the board:

(1) proof of ownership;
(2) proof of loss or destruction;
(3) a surety bond in twice the face amount of the bond and coupons; and
(4) payment of the cost of preparing and issuing the new bond and coupons.

D. Notwithstanding any other provision of law, the governing body may in any proceedings authorizing bonds hereunder provide for the initial issuance of one (1) or more bonds aggregating the amount of the entire issue and may make provision for installment payments of the principal amount of any bond as it may consider desirable and may provide for the making of any bond payable to bearer or otherwise, registrable as to principal or as to both principal and interest, and where interest accruing thereon is not represented by interest coupons, for the endorsing of payments of interest on the bond. The governing body may further make provisions in any resolution for the manner and circumstances in and under which any bond may in the future, at the request of the holder thereof, be converted into bonds of smaller denominations, which bonds of smaller denominations may in turn be either coupon bonds or bonds registrable as to principal or principal and interest.

73-30-28. TITLE TO PROPERTY ACQUIRED FROM PROCEEDS OF BOND ISSUE.--

All property acquired from the proceeds of a bond issue shall be taken in the name of the board of education of the school district in which the branch community college is situate. In the event an independent public college entity evolves from the branch community college, the property so held by the board of education shall be transferred and conveyed to the governing body of the new independent public college entity: Provided, however, no transfer or conveyance shall take place without the express approval of the board of educational finance.

HOUSE BILL NO. 228, 1967 - CHAPTER #104

AN ACT RELATING TO BRANCH COMMUNITY COLLEGES: AND AMENDING SECTION 73-30-17 NEW MEXICO STATUTES ANNOTATED, 1953 COMPILATION (BEING LAWS 1957, CHAPTER 143, SECTION 1, AS AMENDED).

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF NEW MEXICO:

Section 1. Section 73-30-17 New Mexico Statutes Annotated, 1953 Compilation (being Laws 1957, Chapter 143, Section 1, as amended) is amended to read:

"73-30-17. BRANCH COMMUNITY COLLEGE EDUCATIONAL PROGRAM AND ENROLLMENT DEFINED.--

Branch Community College Educational program for the purposes of Section 73-30-17 through 73-30-28 New Mexico Statutes Annotated, 1953 Compilation, includes the first two (2) years of college education and may include organized vocational and technical curricula of not more than two (2) years' duration designed to fit individuals for employment in recognized occupations.

The calculation of full-time equivalent student population for purposes of Sections 73-30-21 and 73-30-23 New Mexico Statutes Annotated, 1953 Compilation, shall include students enrolled in college-level courses and students enrolled in vocational and technical courses taught by a branch community college which is recognized by the state board of vocational education. Students enrolled in a course, the cost of which is totally reimbursed from federal, state or private sources, shall not be included in the calculation of full-time-equivalent student population. No student shall be included in the calculation if he is counted in the average daily membership of a public school district for the same time period."

APPENDIX E

AREA VOCATIONAL SCHOOL ACT

(House Bill No. 50, Chapter #177)

AREA VOCATIONAL SCHOOL ACT
(HOUSE BILL NO. 50, 1967 - CHAPTER #177)

AN ACT PROVIDING FOR AREA VOCATIONAL SCHOOLS: PRESCRIBING THE METHOD OF ESTABLISHING SUCH SCHOOLS; PRESCRIBING POWERS AND DUTIES OF THE STATE BOARD OF EDUCATION: AUTHORIZING TAX LEVIES OUTSIDE THE TWENTY-MILL LIMIT; AND PROVIDING FOR LIMITATIONS ON CERTAIN TAX LEVIES.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF NEW MEXICO:

Section 1. DECLARATION OF PURPOSE.--It is the intention of the legislature and the purpose of this act to provide means whereby the state of New Mexico in cooperation with school districts can provide facilities for training and preparation of students for productive employment as technicians and skilled workers, and to more nearly equalize educational opportunity. Further, it is the intention of the legislature that such facilities be developed only in those locations where the number of students will be sufficient to permit the offering of a broad program of vocational and technical education with reasonable economy.

Section 2. DEFINITIONS.--For the purpose of this act:

A. "school district" is one as defined in Section 77-1-2 New Mexico Statutes Annotated, 1953 Compilation;

B. "state board" means the state board of education; and

C. "area vocational school" is as defined by the state plan for vocational education pursuant to Public Law 88-210.

Section 3. SUBMISSION OF PLAN FOR ESTABLISHMENT OF AREA VOCATIONAL SCHOOLS.--

A. The local school board of a school district may develop and present a plan to the state board for the establishment and operation of an area vocational school.

B. The plan may include cooperative arrangements with junior colleges, branch community colleges, state educational institutions and other school districts.

C. The plan shall be prepared and presented to the state board on forms developed and provided by the state board, and shall include information required by the state plan for vocational education .

Section 4. DESIGNATION AS AN AREA VOCATIONAL SCHOOL BY THE STATE BOARD.--

A. Upon receipt and examination of the plan and supporting evidence, the state board shall conduct hearings, investigate records, and procure such other information relating to vocational training as it may deem necessary and appropriate.

B. If the state board finds that the plan will provide an adequate, broad vocational and technical educational program, will serve sufficient students for an economical operation, provide for adequate financing and sensible relate to a state-wide pattern for development of vocational and technical education, the state board may approve such plan.

C. Upon approval of the state board of education, each board of the school district or districts shall present the proposal for the creation

of an area vocational school district on a separate ballot at the time of the next school board election or at any separate election called for that purpose. If a majority of those qualified ad valorem tax paying electors who are not delinquent in the payment of their ad valorem tax voting in the election in each school district concerned vote in favor of establishing an area vocational school district, then the board of the school district or districts concerned shall declare the organization of the area vocational school district.

D. After approval by the state board of the plan, the school shall be designated by the state board officially as an area vocational school and shall be operated in accordance with provisions in the state plan for vocational education and shall meet all other requirements of an accredited school.

Section 5. QUALIFICATIONS OF STUDENTS.--

A. The local school board shall include qualified students, as defined in Section 77-6-2 New Mexico Statutes Annotated, 1953 Compilation with the average daily membership report to the department of education. The non-resident qualified student may enroll with the area vocational school district and be included with the district's average daily membership report to the department of education, provided that the student is not enrolled or reported for average daily membership purposes with both districts for the same reporting period.

C. The local school board may accept resident and non-resident non-qualified students for vocational and technical education on a tuition basis with approval from the state board. Non-qualified students shall not be included with the district's average daily membership report to the department of education for the purpose of receiving state basic support.

Section 6. FINANCING.--

A. Federal funds made available to the state for vocational training programs which are administered by the state board may be used in support of area vocational schools within the provision of federal legislation. School districts participating under the provisions of this act may submit application for federal funds to the state board in compliance with the state plan for vocational education.

B. State funds appropriated by the legislature and administered by the state board for vocational and technical education may be used to meet the expenses of an area vocational school. Such state funds shall be made available only upon application and approval of the state board.

C. Tuition and fees shall be established by the local school board and approved by the state board for non-resident qualified students not included in the average daily membership, and resident and non-resident non-qualified students who are enrolled in the area vocational school.

Section 7. TAX LEVY.--The local school board of any designated area vocational school district may submit at an election for approval or disapproval the question of a tax levy not to exceed five mills for the purpose of providing revenue to be used exclusively for the stablishment and operation of the area vocational school.

Section 8. IDENTIFICATION OF ELECTORATE.--In any election held under this act relating to the approval or disapproval of a tax levy for establishment and operation of an area vocational school, the persons qualified to vote shall be qualified electors residing within the school district.

Section 9. PUBLICATION.--If the question is submitted at a general election, the local school board shall publish notice thereof in the manner required for general elections except that such notice need not include the names of any election officials or the place where such election is to be held in each precinct and voting division and no posting shall be required. The local school board shall, not less than thirty days before the election, furnish to the county clerk of each county in which each affected school district is situated a certificate specifying the question to be submitted and the precincts and voting divisions included in the area vocational school district. The county clerk of each county shall include such question on the ballots and voting machines in the proper voting divisions. The election officials in such voting divisions shall execute separate certificates certifying the results of the voting on such questions and, upon receipt thereof, each county clerk shall deliver the same to the president of the local school board or his designated representative.

Section 10. SPECIAL ELECTION PROCEDURES.--If the local school board submits such question at a special election, the special election shall be called, held and conducted in the same manner as elections for members of the local school board, except that, if such special election is held at the same time as a bond election in the school district, the hours of voting shall be the same as may be provided by law for such bond election.

Section 11. CANVASSING.--Upon delivery of the certificates by the county clerk, in case the question is submitted at a general election, or upon receipt of the returns in case it is submitted at a special election called for that purpose, the vote shall be canvassed in the manner provided by law for canvassing elections of members of local school boards.

Section 12. CERTIFICATION OF LEVY.--In any election for the approval or disapproval of a tax levy if the levy is voted upon favorably by a majority of the electors of the district voting on the question, the president of the local school board shall certify that fact to the county commissioners of each county in which the district is situated and to the chief of the public school finance division of the department of finance and administration, and such levy shall become effective and be made for each of the ensuing four fiscal years. Proceeds of such levy shall be held by or distributed by the county treasurer to or for the credit of the school district in the bank or banks approved by the local school board provided the local school board is designated as a board of finance as prescribed in 77-6-42 New Mexico Statutes Annotated, 1953 Compilation. The local school board may direct at the time of annual budget hearing as provided in 77-6-6 New Mexico Statutes Annotated, 1953 Compilation, that such levy be decreased or not made for any year if, in its judgment, sufficient funds for such program are available or will be obtained from other sources.

Section 13. LEVY IN ADDITION TO OTHERS.--The levy provided in this act shall be exempt from the provisions of Section 72-4-11 New Mexico Statutes Annotated, 1953 Compilation, and in addition to the levies authorized in Section 77-6-38 New Mexico Statutes Annotated, 1953 Compilation. The levy provided in this act shall not be in addition to special tax levy for junior college operation Section 73-33-14 New Mexico Statutes Annotated, 1953 Compilation, or tax levy for technical

vocational institute Section 73-34-9 New Mexico Statutes Annotated, 1953 Compilation.

Section 14. BUDGETING, ACCOUNTABILITY AND REPORTING.--The local school board shall follow procedures as prescribed by the Public School Finance Act and any other provisions of law.

Section 15. APPLICATION OF ACT.--The provisions of this act shall not affect and shall be independent of the provisions of Sections 73-34-1 through 73-34-12 New Mexico Statutes Annotated, 1953 Compilation.

APPENDIX F

BRANCH AND COMMUNITY COLLEGE AMENDMENT

(House Bill No. 76, Approved March 2, 1970)

BRANCH AND COMMUNITY COLLEGE AMENDMENT
(House Bill No. 76, Approved March 2, 1970)

AN ACT RELATING TO BRANCH COMMUNITY COLLEGES: AND AMENDING SECTIONS 73-30-21, 73-30-26 and 73-30-28 NMSA 1953 (BEING LAWS 1963, CHAPTER 162, SECTION 5 AND LAWS 1965, CHAPTER 162, SECTIONS 1 AND 3, AS AMENDED).

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF NEW MEXICO:

Section 1. TAX LEVIES AUTHORIZED.--

A. The board may levy and collect a tax annually against the property in the school district or districts comprising the branch community college district, for the purpose of operating, maintaining and providing facilities for the branch community college. The annual amount levied shall not be in excess of one hundred dollars ($100) for a full-time equivalent student in the academic program or in excess of four hundred dollars ($400) for a full-time student in the vocational and technical program.

B. For the first year of operation the board shall estimate the full-time equivalent student population; thereafter the previous year's full-time equivalent student population shall be used for taxing purposes.

C. In the event the amount necessary to be raised for such purposes exceeds in any year the constitutional limit of twenty mills for all other purposes in the district, or districts, the question of levying additional taxes, over and above the limitations for the support of the branch community college shall be submitted to the electors and voted upon as a separate question at a special election or at the next subsequent general election. The election upon the question shall be called, hundled, conducted and convassed in substantially the same manner as is provided by law.

Section 2. BRANCH COMMUNITY COLLEGE BONDS--INTEREST--FORM--PAYMENT.--

A. Any community college board may borrow money for the purposes of erecting and furnishing, constructing, purchasing, remodeling, and equipping buildings and utility facilities or purchasing grounds, exclusive of dormitories and stadiums. To carry out the purposes of this section, the board may issue negotiable coupon general obligation bonds of the school district, if approved by the board of educational finance and then approved at an election by a majority of the qualified electors voting on the issue; provided, however, no bonds shall be issued which shall create a total bonded indebtedness in the school district in excess of three percent of the assessed valuation of the taxable property within the school district as shown in the preceding general assessment, which debt limitation is to be in excess of other existing debt limitations. Bonds shall be sold at a price which does not result in an actual net interest cost to maturity, computed on the basis of standards of bond values, in excess of six percent a year. The bonds shall be sold and may be in such denominations as the board determines, and the bonds and the attached coupons shall be payable to the bearer but may also be made registrable as to principal, or registrable as to principal and interest.

B. The bonds shall be payable semiannually and shall be due and payable serially, either annually or semiannually, commencing not later than three years from their date. Such bonds shall be issued for a term of not less than five nor more than twenty years. The form and terms of the bonds, including provisions for their payment and redemption shall be as determined by the board. If the board so determines, the bonds may be redeemable prior to maturity upon payment of a premium, not exceeding three percent of the principal thereof. The bonds shall be executed in the name of, and on behalf of, the school district and signed by the chairman of the board, with the seal of the school district affixed thereto, and attested by the secretary of the board. Bonds may be executed and sealed in accordance with the provisions of the Uniform Facsimile Signature of Public Officials Act. Interest coupons shall bear the original or facsimile signature of the chairman of the school board.

C. To provide for the payment of the interest and principal of the bonds issued and sold pursuant to the provisions of this section, upon approval of such bonds at an election by a majority of the qualified electors in such school district who voted on the issue, the county commissioners shall annually make and levy, during each year in which any bonds are outstanding, an ad valorem tax on all taxable property in the school district in an amount sufficient to produce a sum equal to one year's interest on all bonds then outstanding, together with an amount sufficient to pay the principal of all bonds as they mature. This levy shall not exceed five mills; provided, however, that this five-mill limitation may be exceeded in any year in which the valuation of the property within the school district declines to a level lower than the valuation of such property in the year in which the bonds were issued. The taxes authorized shall be levied, assessed and collected at the times and in the manner that ad valorem taxes for school districts are assessed, levied and collected and it shall be the duty of all tax officials and authorities to cause the taxes to be levied, assessed and collected.

D. The proceeds obtained from the issuance of the bonds may be used by the community college board for the purposes provided herein, or they may be turned over to the board of regents of the parent institution for the purposes provided herein, but the proceeds shall not be diverted or expended for any purposes other than those provided herein; provided that no building shall be built without prior approval of detailed plans by the board of educational finance, which shall have authority to approve, disapprove or decrease the amount of bonds which may be sold; and provided further, that the expenses incurred in the preparation and sale of the bonds may be paid out of the proceeds from their sale.

E. Prior to the issuance and sale of bonds, the attorney general shall approve all bond transcripts and certify his approval or rejection thereof in the same manner as is required by law for the approval of school bonds. Unless otherwise specifically provided, the provisions of this section for the issuance of bonds shall be deemed exclusive of the provisions of all other laws.

Section 3. TITLE TO PROPERTY ACQUIRED FROM PROCEEDS OF BOND ISSUE.--All property acquired from the proceeds of a bond issue shall be taken in the name of the board of education or the board of regents

of the parent institution. In the event an independent public college entity evolves from the branch community college, the property so held by the board of education or the board of regents of the parent institution shall be transferred and conveyed to the governing body of the new independent public college entity. No transfer or conveyance shall take place without the express approval of the board of educational finance.

APPENDIX G

FACILITIES AND EQUIPMENT AVAILABLE

FACILITIES AND EQUIPMENT AVAILABLE

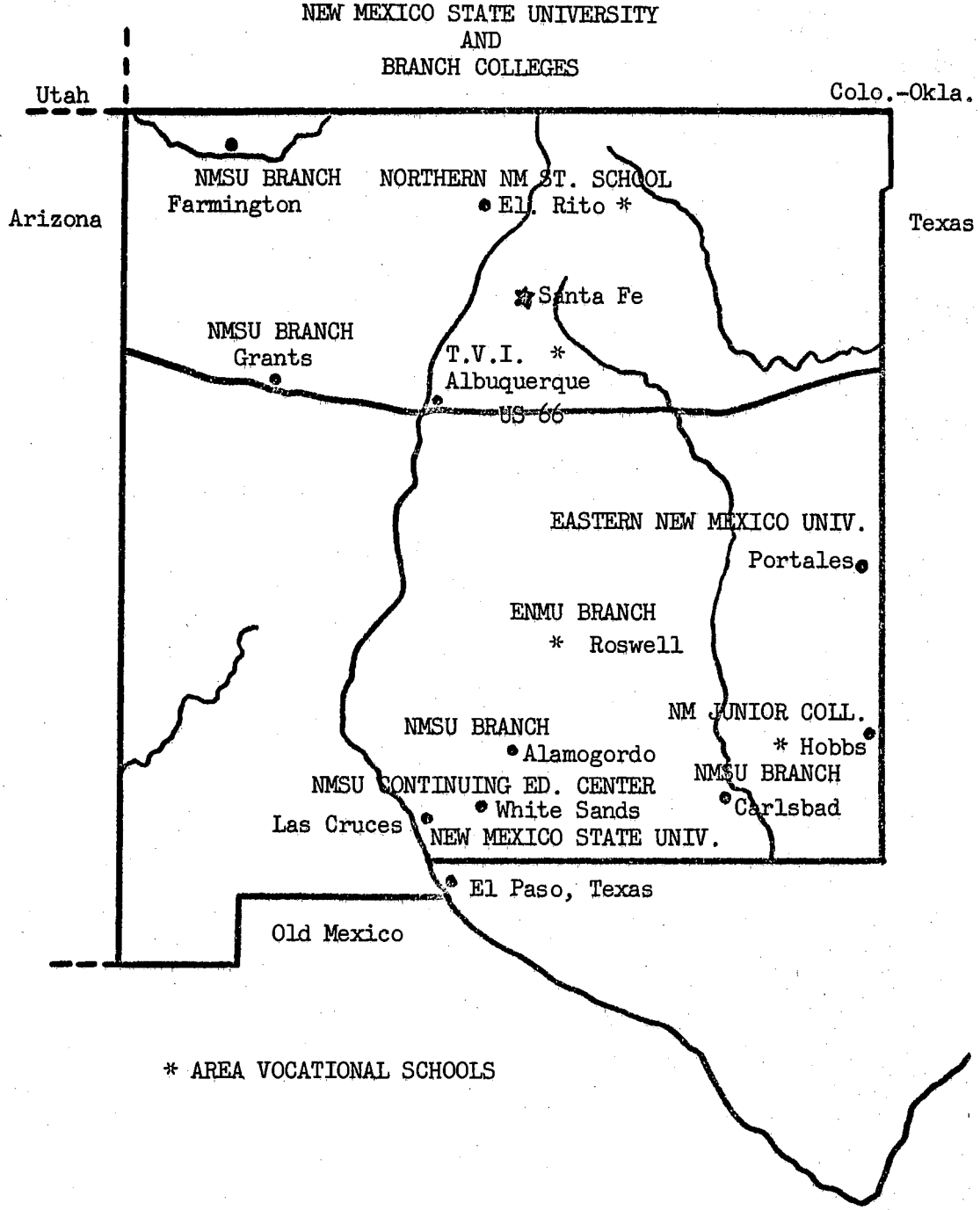
On August 19, 1969, the Job Corps Center at Grants, New Mexico was closed and the facility was transferred to New Mexico State University for its branch college campus. The facility consists of fourteen major buildings situated on forty acres of land adjacent to the City if Grants. An education building, administration building, gymnasium, six dormitories, cafeteria, dispensary, warehouse and a large 90' X 150" vocational shop building are located on the site along with outside tennis and basketball courts and a lighted baseball field. Thirteen vehicles including school buses, trucks and station wagons were also transferred to the college. Four catepillars, a road grader, a scraper and other miscellaneous heavy equipment, heavy equipment tools and instructional aids were also included in the inventory.

It is estimated that tools, equipment and facilities are on hand which could approximate seventy-five (75%) percent of the initial cost for the following programs: auto mechanics, diesel and heavy equipment and nurses' aides. The vocational shop facility is large enough to lend itself to five or six different programs. Supporting facilities such as administration, general education building, library, dorms and cafeteria can save the taxpayers of Grants and the State of New Mexico many thousands of dollars.

The Grants Municipal School District has recently constructed an auto mechanic shop and electronics lab for students at Grants High School.

APPENDIX H

NEW MEXICO AREA VOCATIONAL-TECHNICAL SCHOOLS
AND
NEW MEXICO STATE UNIVERSITY
AND
BRANCH COLLEGES



* AREA VOCATIONAL SCHOOLS

VITA

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Carl O. Westbrook

Candidate for the Degree of

Doctor of Education

Thesis: A FEASIBILITY STUDY FOR DEVELOPING A TECHNICAL-VOCATIONAL SCHOOL WITHIN THE NEW MEXICO STATE UNIVERSITY'S BRANCH COLLEGE AT GRANTS, NEW MEXICO, WITH GUIDELINE IMPLICATIONS FOR ALL BRANCH COLLEGES IN THE UNIVERSITY SYSTEM

Major Field: Agricultural Education

Biographical:

Personal Data: Born in Crockett, Texas, October 25, 1922, the son of Landon and Myrtle Lee Westbrook.

Education: Attended grade school in Lovelady, Texas; graduated from Marrs High School (Aldine), Houston, Texas, in May 1941; received the Bachelor of Science Degree from Sam Houston State College in 1948, with a major in Vocational Agriculture; received the Master of Education Degree from the University of Houston in 1950, with a major in Administrative Education; attended the University of California at Davis, during the Spring Semester of 1951; attended Texas Technological College in the Summer of 1952; received the Education Specialist Degree from New Mexico State University in 1964, with a major in School Administration; received the Doctor of Science Degree (Hon.) from the University of INCCA, Bogota, Colombia, S. A., in 1965; attended the University of Missouri at Columbia, during the Summer of 1966; attended Adams State College, Alamosa, Colorado, in the Fall Semester of 1967; completed requirements for the Doctor of Education Degree at Oklahoma State University in May, 1970.

Professional Experience: Served on active duty with the United States Navy during 1942 to 1946; taught Vocational Agriculture at Magnolia, Texas, 1948-49; taught Vocational Agriculture at Loop, Texas, 1951-55; Manager, Planters Gin Company, Seagraves, Texas, 1955-1960; taught Vocational Agriculture at Ysleta and Canutillo High Schools in El Paso, Texas, 1960-63; Principal, Canutillo High School, 1963-64; Agricultural and Vocational Education Specialist with the National Education

Association, Washington, D. C., on an assignment to the Ministry of Education, Republic of Colombia, South America, 1964-65; Graduate Assistant, Department of Agricultural Education, Oklahoma State University, 1965-66; Director Area Vocational School, Northern New Mexico State School, El Rito, 1966-68; now Head and Director, New Mexico State University-Branch College, Grants, New Mexico; Member of Alpha Tau Alpha; Phi Delta Kappa; Honorary State Farmer Degree, Texas Association of Future Farmers of America; Consultant to New Mexico State Department of Education; Consultant to U. S. Office of Education on Mexican-American Affairs; Who's Who in American College and University Administration.