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ABSTRACT

This master plan for vocational education in New Mexico is the result of a study conducted by professional education consultants. The following areas were examined during the study: (1) New Mexico's present manpower problems, (2) market trends of future industrial potential, (3) state resources capable of attracting new industry, (4) adequacy of existing programs and facilities in vocational education, (5) construction needs, and (6) financing. In response to the expected needs of both students and industry, the consultant recommended an emphasis on "basic learning skills" rather than on subject matter. Other recommendations include: (1) the establishment of a state-level occupational readiness group to help extend the short supply of guidance services throughout the State, (2) new installations to serve large areas and provide for possible post-secondary programs, and (3) state operational and financial responsibility for vocational education. (KH)

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U.S. DEPARTMENT OF COMMERCE/Economic Development Administration

A MASTER PLAN FOR THE DEVELOPMENT OF VOCATIONAL-TECHNICAL EDUCATION IN NEW MEXICO

prepared by

Sterling Institute
Washington, D.C.

for the

Economic Development Administration

This technical assistance study was accomplished by professional consultants under contract with the Economic Development Administration. The statements, findings, conclusions, recommendations, and other data in this report are solely those of the contractor and do not necessarily reflect the views of the Economic Development Administration.

September 1969

U.S. DEPARTMENT OF COMMERCE
Maurice H. Stans, Secretary

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for Economic Development

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF MAPS

I. INTRODUCTION TO THE PLAN

Purpose

The purpose of this study is to provide the State of New Mexico with the framework for a master plan for vocational education.

The following areas were examined in the process of the study:

1. New Mexico's present manpower problems
2. Market trends of future industrial potential
3. State resources capable of attracting new industry
4. Adequacy of existing facilities and programs
5. Construction needs for new facilities
6. Financing
7. Existing reports and studies
8. Need for additional facilities

Background

Approximately 43 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 about only 40 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 12 years previously. The mathematics are straightforward; approximately one student in 10 receives a college degree.[1]

Answering the above questions will obviously broaden the scope of vocational education far beyond its traditional limits. By recent legislation, the federal government has further expanded these limits by placing training for the handicapped and socio-economically deprived under the aegis of vocational education.

Paralleling this expansion of who is to be trained has been a broadening of the concept of what is to be taught.

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[1] (N.E.A.) Division of Statistics.
(New Mexico State Department of Education) Statistical Division.

Although programs in the traditional skills are still encouraged, growth emphasis is placed on occupationally oriented general education and programs which assist the student in relating to the industrial environment.

This concept is not confined to federal legislation, nor is it without precedent. Several states have successfully followed an expanded flexible pattern of vocational education for a number of years. Among them are Wisconsin, Ohio, North Carolina, South Carolina and New York. Other states such as Hawaii, Colorado and Texas, have similar programs in the planning and/or implementation stages.

New Mexico, also, has in recent years recognized the need for more comprehensive occupational training. The establishment of several post-secondary institutions since 1963 is indicative of this. However, there are also indications that an integrated, coordinated, price-performance oriented effort has not completely evolved.

Environmental Factors

All of the state programs mentioned above are characterized by the following:

1. Greater emphasis on general education and familiarization programs at the secondary level and below.
2. Postponement of specific skills training until the post-secondary level.

Vocational education cannot be considered in vacuo. The above characteristics are clearly in response to the rapidly changing environment in which we live and the increasing mobility of our society.

Speaking to the first point, Wilensky says, "If the average youth will hold a dozen jobs in a 46-year work life, many of them not now in existence, the school cannot train for specific careers; it should, instead, concentrate on its educational tasks. The best vocational education now, as before, is a good general education accenting basic literary, disciplined work habits and adaptability—and optimal base for life-time learning."[1]

[1]Harold L. Wilensky, "Careers Counseling and Curriculum," The Journal of Human Resources, Wintec, 1967, Vol. II, No. 1.

Leon Wagley of New Mexico State University, in discussing the second characteristic, states, "It's obvious that the complexities of the work involved in the technical occupations call for a relatively sophisticated preparation. As a result, technical and vocational education has more and more been moved into post high school institutions."[1]

In addition to global trends, many factors unique to New Mexico impinge on plans for vocational education. Foremost among these is the tri-cultural nature of the population. This situation has been studied for decades, and this report will add little to the volumes of anthropological and sociological data already available. However, the broadened scope of vocational education brings with it opportunities—and challenges—related to the question.

Welfare cost New Mexico $58,000,000 in 1968, a 10 percent increase over 1967. An additional $16,000,000 has been requested for next year.[2] While a direct relationship between welfare and vocational training could be tenuously contracted at best, it cannot be denied that a better educated populace is less prone to the problems which create welfare cases.

Vocational training also affects the local economy. The availability of a trained workforce is a major factor in economic growth. It is also a potential tool in attracting new industry. The degree to which New Mexico economy is growing and attracting new industry is a reflection in part of the skill level of its workforce. This, at present, is a matter of some concern.

Before moving on to examine the current status of vocational education, it must be stated that such an examination will provoke important questions in other areas, particularly those mentioned above. It is not within the purview of this report to comment on or suggest changes in these areas. However, where necessary to clarify the position of vocational education, alternatives will be identified. In some instances, these alternatives will be socio-economic in nature and contain elements of uncertainty. Regardless of the thoroughness of the recommendations for change, the people of New Mexico must make the important, and final, decisions.

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[1]Leon A. Wagley, Ed.D., "Vocational-Technical Education in Post-Secondary Schools in New Mexico." Written exclusively for this report.

[2]New Mexico Public Welfare Annual Report, December 8, 1968.

II. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Economic growth in New Mexico has not, thus far, kept pace with that of other states. In the face of not particularly optimistic economic indicators, New Mexico's educators and citizens alike have expressed their concern for and their willingness to support a comprehensive vocational education program.

Questions of "how?" and "where?" (and, of course, some "whys?") have naturally arisen. For purposes of this study the Occupational Training Activity has been broken into five general categories: Program or Curriculum, Occupational Preparation (guidance), Facilities, Finance, and Organization.

Briefly, recommendations in each area are as follows (please see complete recommendations in each area in Section VI—Conclusions and Recommendations).

Program

The researchers suggest that emphasis be placed on "basic learning skills" rather than on mastery of a fixed amount of subject matter. Likewise, problem-oriented courses should be developed which combine related academic subjects in a practical manner.

The State Board of Education should assist general education curriculum personnel in the following program areas:

- review of skills programs followed by updating to conform with current industry practice;
- adoption of the "cluster" concept of curriculum offering;
- arrangements for compatibility of programs offered at all educational facilities in the State, including approval of programs for reimbursement; and
- vertical articulation of the entire Vocational Education Program, with curriculum development personnel charged with responsibility for developing educational media and aids for vocational teaching in remote areas.

Occupational Preparation

Vocational counselors in New Mexico are in extremely short supply. Indeed, educators specially trained to help young people toward vocational choices are virtually non-existent in the State. To help alleviate this situation, it is recommended that:

- a State-level occupational readiness group be established; and
- this group, with the State Director of Guidance Services, draft a long-range vertically integrated plan to extend guidance services throughout the State.

Facilities

While it will not be necessary to spend great amounts of money to satisfy vocational needs at existing high schools, new installations are needed which will serve a large area, have post-secondary program capability, and sufficient flexibility to serve a wide segment of the population.

It is therefore recommended that:

- a Statewide system of Area Vocational Schools be established;
- the seven counties with the most severe economic and social problems—Sandoval, Rio Arriba, Taos, Mora, San Miguel, Guadalupe, and Torrance—be considered separately; and
- mobile units and other portable teaching aids be made available to schools as required.

Finance

For many reasons, the researchers conclude that the State should assume operational responsibility for vocational education, and with it financial responsibility. Three alternative methods for State participation are suggested. Briefly, they are:

1. The State could establish a limit of 20 percent of total costs which it will provide for matching funds.

2. It could establish a direct factor, based on need, to be used for calculating its contribution to matching funds; or
3. It could provide all matching funds from money raised by State-wide bonding authority.

Of the three, the last is recommended because it treats all localities similarly, while the first two have a much higher degree of specificity based on economic problems. Additional financial recommendations will be found in Section VI.

Organization

The tasks which New Mexico's educational structure is called upon to perform have expanded greatly. The following serves merely as a list of recommended functions, while descriptions of tasks within those functions my be found in Section VI.

. Area Coordination and Management
. Assistant Director for Support Operations
. Finance
. Occupational Preparation
. Curriculum
. Facilities
. Research and Statistical/New Program Development
. Coordination

The questions which will arise concerning the relationship between vocational education and other State Departments will, of course, need to be answered. There appear to be two possible ways of dealing with these questions and answers, depending upon what plan for vocational education is adopted. First, a separate board could be either elected or appointed by the Governor, or second, vocational education could come under the aegis of the Board of Educational Finance. A third, and obvious alternative is to leave the coordinating function where it is, with the Department of Vocational Education. While this arrangement has certain advantages, operating a variety of programs at all levels might be difficult from a traditional elementary-secondary school position. Considering the advantages and disadvantages of these three choices, the researchers recommend that the occupational training function be organized under a separate board.

III. DEFINITION, GOALS AND OBJECTIVES

The following definitions and objectives, developed in conjunction with Mr. Weldon Perrin, State Director of Vocational Education for New Mexico, will be used for purposes of this report.

Definition

"Vocational education is any secondary school, community college, technical school, basic or continuing education program that deals specifically in an organized and systematic manner with the acquisition of skills, understandings, attitudes and abilities that are necessary for entry into and successful progress within a specific occupation or job family."[1] For administrative purposes, it is limited to training for positions that do not by content or specification require a baccalaureate or higher degree.

Goals and End Objectives

Vocational education has a dual goal:

1. The satisfaction of the economic needs of society in terms of trained people, first locally, and, second, recognizing the increasing national mobility of all the nation's people.
2. Achievement, so far as possible, of the realization of the human potential of its students.

To reach this dual goal, certain general and specific end objectives must be achieved.

General End Objectives

One prevailing theory asserts that knowledge has a "half life of 10 years," intimating that half of today's knowledge will be obsolete in 10 years. The significance of this to vocational training is obvious. Not theory, but sound research, indicates that three of four boys graduating from high school change their career goals within one year of

[1] Samuel M. Burt, Industry & Vocational-Technical Education, New York: McGraw-Hill Book Co., 1967, p. IX.

graduation.[1] Additional studies reveal that only one man in five will remain in the same occupational skill category all his life.[2] These facts indicate that it is by no means enough that a vocational education program impart skills. It must do this, of course, but also a great deal more. It is imperative that the following general objectives be met:

- The student is provided with information including working conditions, employment opportunities and economic factors in a wide variety of occupational areas.
- The student is provided with exploratory experience in various areas of employment opportunity.
- The student is provided with a true picture of the industrial and occupational complexities of the world of work.
- The student understands procedures to follow in applying for a job, and that additional training and experience may be necessary for advancement.
- He understands the interrelationships of various occupations and industries in the economy.
- He has an understanding of business as an organization: The relationship between labor and management; the responsibilities of functional departments; and the concept of "value added."
- He understands the relationship of laws, taxes, social security and other governmental matters and is aware of the implications of non-job oriented responsibilities such as home ownership, property responsibility and installment purchasing.
- The student has a realistic evaluation of and confidence in his own ability and an awareness of how this ability relates to the needs of the world in terms of occupations to be pursued and their levels of entry.

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[1]John C. Flanagan and William Cooley, Project Talent One Year Follow-up Studies, (University of Pittsburgh School of Education, Cooperative Research Project Number 2333, 1966.)

[2]Harold L. Wilensky, "Careers Counseling and Curriculum," The Journal of Human Resources, Wintec, 1967, Vol. II, No. 1.

Specific End Objectives

Specific skill objectives will vary with each occupation. The following, however, are basic:

- The skill in any vocation must be current.
- The skill acquired must be consistent with the student's level of entry into an occupation.
- The skill must not be terminal. It must be capable of being built on to higher levels in the same occupational category or extended to other categories.
- The student must be capable of relating his acquired skill to the function of the job to which he aspires.

Internal Objectives

The achievement of the foregoing goals and terminal student-oriented objectives will require efforts in many areas internal to the vocational education system itself. These program objectives fall in three general areas.

Program Objectives

A parallel thrust for program development must be made in three areas.

- New, practical general education courses, such as combination curriculum featuring physics and mathematics with English in the form of communicative report writing are necessary.
- Courses which relate to the realities of society, in the context of the student being an aware contributor to society, must be developed and introduced at the earliest level possible.
- Finally, specific skill programs now in existence must be upgraded to conform to the current state of the technology, and new courses, prescribed by new technologies, must be taught.

Guidance

Vocational guidance is essential in all aspects of vocational education. Throughout an individual's lifetime there is need to establish and re-establish career objectives. Such decisions are very important to total happiness and are probably some of the most difficult decisions made during one's lifetime. Vocational guidance services assist students in determining their best interests, capacities and potentials; in selecting career goals based on valid occupational information and job opportunities, in selecting special vocational and technical courses and programs; in placement into and improvement on the job; and in follow-up education and advancement to more responsible positions.

Organization

The challenge of the goals and objectives previously stated, compounded by the increased number and complexity of statutes governing vocational education, dictates that the organization of vocational education be constantly reviewed. This should be done not only to maximize the efficiency of vocational education but to assure that every possible asset (federal, state and local) is utilized in the process. A systems approach must be utilized. The view of vocational education as a group of vaguely related entities and stratifications cannot be allowed to develop.

IV. THE ECONOMIC ENVIRONMENT FOR VOCATIONAL EDUCATION

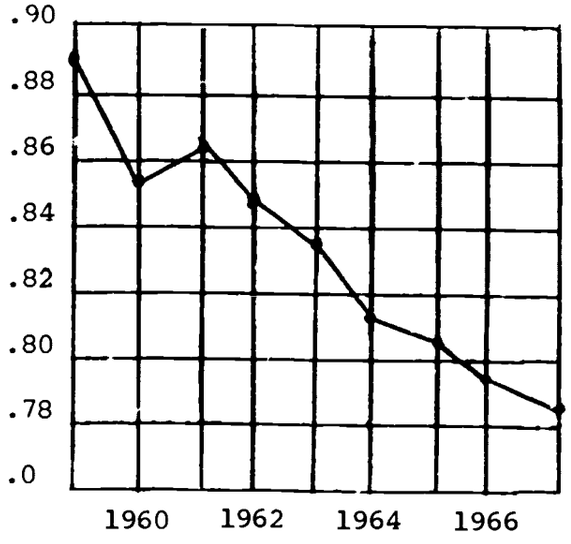
Satisfaction of the economic needs of society in terms of trained people was stated previously as one of the basic goals of vocational education. A brief look at the economy of New Mexico is therefore appropriate at thi. point.

The Economy of New Mexico—An Overview

In general, New Mexico's economy can be characterized as operating at a relatively low level, both nationally and regionally. It has failed to keep pace with both national and regional rates of growth. Between 1965 and 1967, estimates show a slight absolute decline in population. Total employment and total workforce also declined slightly during this period.[1] Total personal income for the State increased about five percent between 1966 and 1967, but the overall growth for the eight Rocky Mountain States for the same period was seven percent and for the whole nation 7.1 percent. Per capita income figures reflect the same trend. In 1959, New Mexico's

TABLE 1

RATIOS OF NEW MEXICO PER CAPITA PERSONAL INCOME TO U. S. PER CAPITA PERSONAL INCOME, 1959 - 1967*



*Source: Office of Business Economics, U. S. Department of Commerce

[1]New Mexico Progress, "1967 New Mexico Annual Business Survey," Volume XXXV, No. 2, April-June, 1968.

per capita income was 88.3 percent of the national figure. As shown on Table 1, this has declined steadily to about 78.1 percent for 1967.[1]

Without belaboring the point, it is apparent that, on balance, the economy of New Mexico is not keeping pace with the national economy. Two major factors contribute to this economic situation. They will be discussed separately below.

The Question of Balance

New Mexico's economy is significantly unbalanced when compared with the rest of the country. Over half of the State's civilian employment is in the three sectors of mining, services and government, as compared with only a third of the nation as a whole.

Manufacturing accounts for 28 percent of total U. S. employment but only about six percent of New Mexico's. New Mexico's personal income from manufacturing in 1967 ($123,000,000) was lower than every state in the U. S. except Wyoming. This difference in manufacturing employment is compensated for by the three previously mentioned sectors. The 22 percentage points by which New Mexico lags the U. S. in manufacturing employment is roughly offset by the 21 percentage points by which it exceeds the national ratios for mining, services and government.

The significance of this imbalance is that it is the manufacturing sector that has borne a large portion of the nation's growth. New Mexico, with a small manufacturing base, has naturally been foreclosed from full participation in this growth.

Another indication of New Mexico's economic imbalance is the contribution of its export trade to gross state product. According to the U.N.M. Input-Output Study, New Mexico's exports and "export-like" federal government expenditures, based on 1960 data, totaled $1.605 billion.[2] In the same year,

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[1]State of New Mexico, Planning Department - Source: Office of Business Economics, U. S. Department of Commerce.

[2]A Preview of the Input-Output Study, Bureau of Business Research, October, 1965. We have been assured by the Bureau of Business Research that the relative significance of these data are still accurate.

imports amounted to $1.515 billion. Hence, the net contribution to the State's gross product was negligible. The major quantitative reasons were: (a) exportation of cash crops and minerals with little or no value added and (b) the government Research and Development sector's impact is limited to wage payments. Purchases of in-state goods and service are low.[1]

The Albuquerque Phenomenon

As New Mexico's primary urban center, Albuquerque clearly dominates the State's economic picture. About one-third of the population live and work in Albuquerque. This is not by itself economically detrimental. On the contrary, it is generally accepted that economic growth normally accompanies urbanization. However, if the urban center is not growing, the effects on the surrounding region are likely to be pronounced. This apparently is happening in the case of Albuquerque.

Population increase in 1967 over 1966 was barely discernible, despite a birth rate three times the death rate. Total employment in the same period increased only about one percent—or 1,100 jobs. This is not a vigorous performance, and the reasons for it, again, are a matter of economic balance. With the obvious exceptions of agriculture and mining, Albuquerque's distribution of employment is very similar to the rest of the State. It does not provide the significant manufacturing base that Los Angeles provides the rest of California, for example, or that Atlanta provides Georgia and Houston provides Texas. Table 2 illustrates this fact.

TABLE 2

PERCENTAGE OF CIVILIAN EMPLOYMENT
1967 (MARCH ESTIMATE)*

	New Mexico	Albuquerque	New Mexico Less Albuquerque
Agriculture	6.7	0.04	9.8
Mining	4.9	0.01	7.2
Construction	4.8	5.1	4.6
Manufacturing	5.5	7.8	4.3
Trans. & Utilities	6.1	6.3	6.0
Trade	16.8	21.1	14.6
Fire	3.3	5.2	2.5
Service	14.7	21.0	11.6
Government	25.2	22.5	26.5
Other	12.1	10.6	12.9

*Source: New Mexico State Employment Services

[1] Summary Reports on New Mexico's Resources, State Planning Office, February, 1966.

The differences between Albuquerque and the rest of the State in agriculture and mining are made up in the expected areas of trade, F.I.R.E. (finance, insurance, real estate) and service. The difference in the manufacturing sector is not that marked. Albuquerque's impact on the New Mexico economy can perhaps best be seen by comparing column one of the foregoing table with column three. It becomes apparent that while Albuquerque is a large part of the overall economy, it is not much different from it. The striking differences between urban and non-urban segments of a vigorously growing economy are not present.

Population, Employment and the Workforce

Population

The overall population trend for New Mexico is downward. As Table 3 shows, although there was an absolute increase in population between 1960 and 1967, there was an inferred decline of nearly 10 percent.

Those counties which relied most heavily on an agrarian or mining economy were most affected by out-migration. Twenty-six of New Mexico's 32 counties experienced inferred out-migration during this period, and half of the counties saw an absolute decline in population. The counties experiencing the heaviest rate of emigration are also characterized for the most part by a heavy Spanish surname and Indian population. Additionally, despite the out-migration, they have unemployment rates twice to nearly four times the State average. Furthermore, five of these counties (Sandoval, Rio Arriba, Taos, Mora and San Miguel), though accounting for only 8.5 percent of the State's population, receive over 20 percent of the cash welfare payments.[1] These counties average 76.4 percent Spanish surname and Indian populations.

Employment

Unemployment in New Mexico was 5.6 percent of the workforce in October 1968, compared with a national average of 3.6 percent. Figures for 1967, the last complete year for which data are available, show a county high in Rio Arriba of 20.4 percent and a low of two percent predictably in Los Alamos. The proximity of these two counties underscores a unique

[1]New Mexico Public Welfare Annual Report, 1967, Table 2.

TABLE 3

POPULATION AND COMPONENTS OF CHANGE, NEW MEXICO COUNTIES, 1960-1967*

	Midyear Population 1960	July 1960-June 1967			Estimated Midyear Population 1967	Change 1960-1967		Inferred Migration 1960-1967	
		Births	Deaths	Natural Increase		Number	Percent	Number	Percent
Bernalillo	263,800	60,156	13,833	46,323	318,200	54,400	20.6	8,100	3.1
Catron	2,800	471	176	295	2,400	- 400	-14.3	- 700	25.0
Chaves	58,800	14,509	2,899	11,610	51,400	- 7,400	-12.6	-19,000	32.3
Colfax	13,800	2,582	1,035	1,547	12,400	- 1,400	-10.1	- 2,900	21.0
Curry	32,800	8,191	1,874	6,317	35,000	2,200	6.7	- 4,100	12.5
De Baca	3,000	480	252	228	2,400	- 600	-20.0	- 800	26.7
Dona Ana	60,100	15,215	2,729	12,486	73,200	13,100	21.8	600	1.0
Eddy	50,900	9,866	2,548	7,318	49,900	- 1,000	- 2.0	- 8,300	16.3
Grant	18,700	3,749	1,299	2,450	20,500	1,800	9.6	- 700	3.7
Guadalupe	5,600	1,415	433	982	5,600	0	0.0	- 1,000	17.9
Harding	1,900	288	155	133	1,600	- 300	15.8	- 400	21.1
Hidalgo	5,000	1,104	339	765	5,000	0	0.0	- 800	16.0
Lea	53,600	9,623	2,353	7,270	49,500	- 4,100	- 7.6	-11,400	21.3
Lincoln	7,700	1,441	603	838	7,800	100	1.3	- 700	9.1
Los Alamos	13,000	2,284	293	1,991	17,700	4,700	36.2	2,700	20.8
Luna	9,800	2,417	856	1,561	11,200	1,400	14.3	- 200	2.0
McKinley	37,300	12,149	2,432	9,717	42,500	5,200	13.9	- 4,500	12.1
Mora	6,000	1,289	457	832	5,600	- 400	- 6.7	- 1,200	20.0
Otero	37,000	8,677	1,516	7,161	36,100	- 900	- 2.4	- 8,100	21.9
Quay	12,300	2,320	1,028	1,292	11,900	- 400	- 3.3	- 1,700	13.8
Rio Arriba	24,200	6,960	1,716	5,244	23,000	- 1,200	- 5.0	- 6,400	26.4
Roosevelt	16,200	2,777	1,031	1,746	17,500	1,300	8.0	- 400	2.5
Sandoval	14,300	3,811	872	2,939	18,500	4,200	29.4	1,300	9.1
San Juan	53,200	12,883	2,312	10,571	48,000	- 5,200	- 9.8	-15,800	29.7
San Miguel	23,500	5,198	1,809	3,389	22,500	- 1,000	- 4.3	- 4,400	18.7
Santa Fe	45,100	10,800	2,772	8,028	54,000	8,900	19.7	900	2.0
Sierra	6,400	895	978	- 83	7,200	800	12.5	900	14.1
Socorro	10,200	2,487	737	1,750	11,300	1,100	10.8	- 700	6.9
Taos	15,900	3,812	1,137	2,675	17,000	1,100	6.9	- 1,600	10.1
Torrance	6,500	1,042	442	600	6,000	- 500	- 7.7	- 1,100	16.9
Union	6,100	1,026	546	480	5,700	- 400	- 6.6	- 900	14.8
Valencia	39,200	8,906	2,149	6,757	36,800	- 2,400	- 6.1	- 9,200	23.5
STATE	954,700	218,823	53,611	165,212	1,027,400	72,700	7.6	-92,500	9.7

*Source: Bureau of Business Research, UNM, Business Information Series, February, 1968, as adapted from New Mexico Department of Public Health, monthly reports of vital statistics.

situation. New Mexico's largest industrial education research area, a crescent running from Albuquerque through Santa Fe to Los Alamos, is surrounded by the State's most impacted concentration of unemployment and ethnic population. As indicated previously there is little difference in employment by industry from county to county. Also it would appear that the losses created by drops in mining and agricultural employment have been made up by the government and service sectors. Rio Arriba is a good example of this. To the extent these movements have not compensated for each other, there has been out-migration and/or increased unemployment.

The Workforce

The major characteristic of New Mexico's workforce is its youth. This parallels general population distribution. The State has the youngest population in the United States.[1] Unfortunately, this is reflected in the ranks of the unemployed as well. Over 40 percent of those seeking unemployment assistance in the 15-month period ending August 31, 1968, were 22 years of age or younger.[2] According to the Unemployment Service Research and Analysis Section, further statistical information regarding the unemployed would be virtually impossible to obtain by search, as the files are unmechanized and constantly changing. However, it is known that "New Mexico has been considered a labor supply surplus area for many years, principally for the less than professional or highly technical occupations.[3]

Conclusion

In conclusion, this is the economic picture in which a State plan for vocational education must be developed: Current unemployment is 55 percent above the national average, and two out of five of the unemployed are youth; deep culturally based economic problems which have been studied for literally decades are far from solved, per capita income is steadily

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[1] Selected Index of Labor Statistics, 1967, New Mexico Department of Employment Services.

[2] Occupational Demand in New Mexico, August, 1967-68, Employment Security Commission of New Mexico, p. 6.

[3] New Mexico Public Welfare Annual Report, December 8, 1968.

decreasing in relationship to the United States as a whole; and New Mexico lags significantly behind both its neighbors and the nation in personal income growth.

When seen in this light, it would appear that New Mexico cannot afford to view vocational education as anything less than a vital part of its economic development planning.

V. THE CURRENT STATUS OF VOCATIONAL EDUCATION

Prior to discussing recommendations for change, it is desirable to establish the status of vocational education as it is today. Existing programs, facilities and organizations will be examined, as well as other aspects, such as guidance counseling and finance. Additionally, federal programs, private training facilities and training by industry will be surveyed. Most importantly, the needs and perceptions of industry in terms of vocationally trained personnel will be explored and discussed.

Secondary School Vocational Education

Secondary school occupational training is particularly critical, since high school currently marks the end of formal education for many. For this reason, secondary school vocational education will be given special emphasis.

Programs

New Mexico offered 270 secondary level vocational education courses in 1967-1968. A breakdown of these courses by U. S. Office of Education Vocational Skill Categories is shown in Table 4. Further analysis of the program breakdown is shown in Table 5, which was developed to compare skill category concentration with current employment ratios. Concentration in Distributing and Marketing, Health, and Office Education appear to be more or less in line with jobs currently being offered. Agriculture and Trade, and Industrial appear out of balance.

From a distribution standpoint, the variety and number of vocational programs offered are better among the more populated school districts. This can be seen from Table 6.

School districts with 250 high school students or less comprise nearly 50 percent of the total number of school districts, yet had less than 22 percent of the total number of vocational education courses offered in the State. The smaller high schools sponsored a total of 58 programs, 46 of them in agriculture or home economics. Conversely, only one course each was offered in Trades and Industry and in Distributing and Marketing in the 44 school districts. School

TABLE 4

SECONDARY VOCATIONAL OFFERINGS 1967-1969*

Program	Number Programs	Enrollment
Agricultural Production	57	2,500
Off Farm	2	101
Dist. & Marketing	22	1,350
Health	10	221
Home Economics, Useful	75	8,902
Gainful	4	239
Office	46	5,328
Trades & Industry	54	1,707
Total	270	20,348

*Source: Office of Education, Division of Vocational Research

TABLE 5

RELATIONSHIP OF PROGRAMS OFFERED, STUDENTS ENROLLED AND FUNDS SPENT TO AVAILABLE JOBS*

Program	No. of Programs as a Percent of All Programs	Total No. Students as a Percent of all V.E. Students	Percent of Voc. Funds of Total Funds	Percent Employment 1967**
Agriculture	22.1	13.0	25.2	7.1
Dist. & Marketing	8.2	6.7	10.4	6.3
Health	3.2	1.1	2.2	1.8
Home Economics	29.3	44.9	23.7	2.6
Office	17.2	25.5	20.8	26.3
Technical				0.6
Trades & Industry	20.0	8.8	16.7	33.4

*Source: Office of Education, Division of Vocational Research

**24.9 percent unclassified or listed as other

TABLE 6

FEDERALLY FUNDED SECONDARY VOCATIONAL PROGRAMS BY SCHOOL DISTRICT, POPULATION AND NUMBER*

Program	(23)* 0-100	(21)* 101-250	(14)* 250-500	(12)* 501-1000	(19)* Over 1000	Total	Percent of Total
Agriculture	14	9	7	10	19	59	22.1
Dist. & Marketing		1	2	4	15	22	8.2
Health			1	6	3	10	3.2
Home Economics	11	12	8	16	22	79	29.3
Office	5	5	5	12	19	46	17.2
Trades & Industry		1	2	14	37	54	20.0
Total	30	28	25	62	125	270	100.0
Percent of Total	11.1	10.3	9.3	23.0	46.3		100.0

Source: New Mexico State Department of Education, Statistical Division (School size based on grades 9-12)
Figures based on first 20-day enrollment data, 1968-1969

*Number of School Districts

districts with 250-500 high school students appeared to offer a slightly wider variety of vocational programs but fared little better in number of programs.

It is only when the larger school districts are considered that significant diversification and number of programs can be seen. Even here, the overall emphasis on vocational education does not appear particularly strong. Albuquerque offers the widest variety of programs (nine). Yet, there are eight high schools in the district and, of the nine programs, not all are offered in every school.

From a depth standpoint, also, real job preparation is somewhat lacking. It is possible for a vocational student in some of the larger schools to put together enough courses in Office Education and some in Distributing and Marketing

to be reasonably well prepared for job entry. Indications are that this is much more the exception than the rule. Additionally, many schools offer three years of Vocational Agriculture.

Facilities

To determine adequacy of existing facilities for vocational education, a survey was conducted of each school district in the State. Generally speaking, persons concerned at the local level felt that space, buildings and equipment were adequate for existing programs at current levels. (See Results of Survey, Appendix B). This is the result of several local programs to remodel and build new facilities during the past year.[1]

Supplementing local activity in the facilities area in recent years was a state-federal construction equipment expenditure of $837,000 in 1967,[2] and another $300,000 in 1968.[3] In addition, 17 Title I projects in fiscal year 1967, 45 in 1968, and 38 in 1969, contributed to vocational education facilities and equipment throughout the State.

The important factor in this evaluation of facilities is the "for existing programs" qualification. As seen by the preceding analysis, many districts appear to need more programs. Unfortunately, facility capital outlay at the local level is very difficult for those districts that appear to need them most. The recent high level of interest in specially funded area vocational facilities is an indication that while the condition of exisiting buildings and equipment might be adequate for existing programs, the real need is in additional capacity for more programs.

Off-reservation training for the most part is administered by the BIA. Training on the reservation, or at facilities immediately contiguous to the reservation, is more likely to

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[1] New Mexico State Department of Education, Vocational Division Expenditures 1964-1968.

[2] Ibid.

[3] Ibid.

affect the State. At present, some of the tribes send students to State public schools. Here Indian students take part in secondary level vocational education programs. This is true in Gallup, where 322 Navajo students are enrolled in public schools, and in Farmington, where Navajo children comprise approximately 8-10 percent of the 1,400 student total enrollment.[1]

In addition to secondary level participation, other Indian training programs in New Mexico are as follows:[2]

1. Employment Training Center

   Roswell, New Mexico—Operated by Thiokol Chemical Corporation

2. On-the-Job Training Contracts

Company	Location/ Jurisdication	Present Enrollees
Fairchild Semiconductor	Shiprock	495
Navajo Forest Products Industries	Navajo	51
American Aspen Corporation	Albuquerque area	10
Amizuni Corporation	Albuquerque area (Zuni Pueblo)	30
Aspen Wood Products	Albuquerque area	0
Burnell and Company	Albuquerque area	51
Ditmore—Fresmith Corporation	Albuquerque area	2
Duke City Lumber Corporation	Albuquerque area	1
Elberline Instrument Corporation	Albuquerque	0

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[1] Title I, ESEA Service, November, 1968. New Mexico Department of Education.

[2] Data for Steering Committee Master Plan, S. Mark LaFollette, November, 1968.

Company	Location/ Jurisdication	Enrollees
Groves Archery Corporation	Albuquerque area	7
Jicarilla Lumber Corporation	Albuquerque area	7

Additionally, several federal programs at locations on or near the reservation serve the Indian.

The future relationship between State vocational education and the Indian is not at the moment clearly defined. Though the financial responsibility rests largely with the BIA, operational responsibility for Indian occupational training is fragmented at present.

Guidance

"Vocational counselors are, practically speaking, non-existent. Generally, counselors are college oriented, lack work experience, and suffer from a high student-to-counselor ratio." This statement was made by Mr. Kermitt Stuve, State Director of Guidance Services, in a study prepared for this report. There does not appear to be any conflicting evidence. Of the schools surveyed in the study, the large majority did devote their guidance efforts to the college bound. For example, only one school reported planning a "Career Night" similar to its "College Night," but this never materialized. On the other hand, a "College Day" or "Night" was mentioned several times. Only 10 percent of the schools surveyed reported any overt activity in securing outside people from business and industry. The typical pattern appears to be to "make information available," in the homerooms, to provide guidance in general, and then, if a student has a particular interest, he is free to contact the guidance department for help in obtaining detailed information. Determination of the interest is apparently something the student does on his own. Direct attention to the non-college bound student appears to be underemphasized.

There are, of course, exceptions. A few of the schools participating in the survey expressed a real concern for making non-degree granting post-secondary training known to the students. This was not widespread, however, and appeared somewhat hampered by a lack of guidance function and coordination between the various levels. Actual placement activities for

students terminating their education with high school were mentioned by only one district.

In summary, it would appear that Mr. Stuve's appraisal of the current situation in vocational guidance is accurate.

Financing

Financing of the regular secondary school vocational programs is done through a combination of local, state and federal funds. Table 7 illustrates the estimated breakdown for programs federally reimbursed in New Mexico in 1969.

TABLE 7

FIRST PROJECTION, DIVISION OF VOCATIONAL EDUCATION
FEDERALLY REIMBURSED PROGRAMS, 1969*

	Amount	Percentage
Federal	$ 592,602	27.2
State	183,066	8.6
Local	1,363,398	64.2
Total	2,139,066	100.0

*Projected Program Activities in Vocational Education, 1969

The figures above are for operating costs only and do not include construction outlays or vocational education expenditures by districts that are not federally reimbursed. The data are somewhat misleading from a source standpoint as well. The local contribution is from the general fund of the school district. The state contribution to district general funds averages approximately 80 percent statewide. Therefore, a large section of the "local" support comes ultimately from the State.

This expenditure in Table 7, approximately $95 per vocational student, represents only that portion of total "per student" expenditure which covers the strictly vocational

segment of his education. Overall average per student expenditure in New Mexico is $521. However, projections on actual reimbursements made for the first half of 1968-1969 show that reimbursement for approved programs from the funds administered by the State Director of Vocational Education will be only $37.71 per student.

Financial support for vocational programs stems also from other sources. The most productive of these recently has been Title I, as mentioned previously, even though the program does not specifically include vocational support. The coordination of funds sources will be discussed at length later. It is interesting to note here, however, that New Mexico's Title I program has strong and effective leadership at the State level. This suggests that persistent and creative State-level efforts could uncover other similar sources.

The financial discussion thus far has focused on those programs which are federally reimbursable. This is because data on these programs, out of reporting necessity, is readily available. Our studies indicate, however, that New Mexico has several non-reimbursable programs, many of them of high caliber.

Present accounting procedures preclude determination of comparable costs for these programs. From the standpoint of quality, however, at least three school districts stated that their non-reimbursed programs were at least on a par with programs for which federal funds were received. It should be noted that regulations required for reimbursement of federally funded programs should be examined carefully. As was pointed out by the three superintendents interviewed, local administrators might wish to examine carefully the return on the actual reimbursement received. Qualitative factors also enter the picture. It was noted that the three superintendents sought reimbursement for their vocational agricultural program only because they were under the impression that this was necessary to carry on a Future Farmers of America Chapter.

Conclusion

In conclusion, secondary vocational education in its present state does not appear adequate. There is considerable program dislocation from a cost-effectiveness and distribution standpoint. Program depth, or lack thereof, raises serious questions concerning appropriateness and degree of

preparation of students. Facilities, though adequate, must be viewed in the context of program availability. Vocational guidance for the non-college bound is lacking. It would appear, therefore, that the needs of the student who terminates his education at the 12th year receive less than adequate guidance services.

Details in the area of finance are overshadowed by a larger issue—"What are we getting from our money in vocational education?" Several points may be raised; however, one is whether or not a strong State-level coordinating body dealing with the federal government could not increase inflow of funds from that source. For example, in Fiscal 1969, $15 million will be available for "imaginative programs in vocational education."[1] Whether a school district would have the time and resources to develop and present such a program is doubtful. A State-level body, working with a district, would have a higher probability of success. These conclusions are not particularly encouraging. However, there are strong indications that viewing vocational education entirely within the conceptual framework of Smith-Hughes is no longer appropriate. Certain factors, alluded to earlier, suggest that curriculum planning outside the traditional vocational area may have a more profound effect on occupational training of the future.

Post-Secondary and Adult Vocational-Technical Training

Generalizations regarding post-secondary vocational education in New Mexico are difficult. Each institution was organized and set up differently to serve different needs. Furthermore, each institution was authorized by separate legislative acts as follows: (a) El Rito Northern New Mexico State School—Constitutional Instituion; (b) Eastern New Mexico University, Roswell Campus—Branch and Community College Statutes: 73-30-17; (c) Albuquerque Technical-Vocational Institute, Technical and Vocational Institute Act: 83-34-1; and (d) New Mexico Junior College, Hobbs, New Mexico, the Junior College Act: 77-33-1. Great differences still exist. One important common factor, however, is that individually and collectively they have had a significant impact on vocational education in a relatively short period.

There are four institutions offering post-secondary vocational training: New Mexico Junior College, Hobbs;

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[1] Vocational Amendment of 1968.

Eastern New Mexico University, Roswell Branch College; Northern New Mexico State School, El Rito; and the Technical-Vocational Institute (TVI), Albuquerque. They will be discussed individually and collectively here, as they relate to vocational education.

Programs

Programs offered vary greatly, both within an institution, and from one institution to another. For example, New Mexico Junior College, Hobbs, offers associate degree programs, primarily college transfer, as well as a complete spectrum of vocational programs, transfer and non-transfer, including MDTA courses. The Albuquerque's TVI is strictly vocational, awarding various completion documents and diplomas, depending on level of achievement and intensity of training. The variety involved is illustrated in Table 8.

TABLE 8

FUNCTIONS OF THE FOUR AREA VOCATIONAL SCHOOLS IN NEW MEXICO

	*Associate Degree	Voc. Transfer Credits	Voc. Non-Transfer Terminal	High School Diploma	"Short" Courses MDTA, Etc.	Adult Basic Education	Other Adult Education
Hobbs	X	X	X		X		X
Roswell	X	X	X		X		X
El Rito			X	X	X		
TVI			X		X	X	X

*Descriptive terms from the schools themselves

Post-secondary schools also reflect a general outward orientation and appropriateness apparently missing at the secondary level. Two examples are as follows:

a) A recent six-week "short" course for machine operators at TVI was followed by a further six-

week training period in an employer's plant. Students were provided instruction in basic fundamentals, and the training on a specific type machine. A specific industry was complete, a job was available, and the trainees could do it.

b) At the other end of the spectrum is the two-year course in data processing offered by New Mexico Junior College, Hobbs.

Despite the differences which do exist, it is interesting to note that all four schools offer both non-transfer vocational programs and "short" courses. Not all the short courses are MDTA funded. There are instances where direct liaison between industry and the schools has resulted in program development.

Facilities and Finance

The physical facilities, as well as the programs, vary greatly among the four area vocational schools in New Mexico. New Mexico Junior College, Hobbs, has the only totally new construction among the four schools. Eastern New Mexico University, Roswell Campus, uses the facilities that were formerly used by the Walker Air Force Base. New Mexico State School, El Rito, started with buildings already in existence. The facilities have been remodeled and some new construction has been done. The Technical-Vocational Institute at Albuquerque had some existing facilities available through the Albuquerque Public Schools. TVI has done extensive remodeling of existing facilities and has added a great deal of new construction.

Adequacy of facilities, in terms of physical condition, varies with age of the original buildings, though their condition was generally quite good. All have been done within the last five years. TVI, however, is rapidly running out of space. Four temporary buildings were added during the past few months and are already fully utilized.

It is significant that with the exception of Hobbs, all had some facilities available in the beginning. Roswell had complete facilities. This availability of facilities played a role in the decision-making process in determining institution locations. Authorization for construction and financing was also varied, as shown in Table 9.

TABLE 9

TYPE OF ORGANIZATION AND FUNDING OF CONSTRUCTION FOR EXISTING AREA VOCATIONAL SCHOOLS IN NEW MEXICO*

School	Enabling Legislation (State)	FINANCE			
		Local	State	Federal	Total
Hobbs	Jr. College Act Statute 73-23-1, 73-33-20	$254,765.42	$50,000.00	$217,751.00	$522,516.42
Roswell	Branch and Community College Act Statute 70-30-17	--	--	--	--
El Rito	Established by State Constitution	71,023.00	42,994.00	114,016.00	228,033.00
	TVI Act Statute 73-34-1	333,624.93	--	333,624.91	667,249.84

*Division of Vocational Education, State Department of Education

Operating finances are obtained from a number of sources. Though sources appear to vary significantly from school to school, they are in fact quite uniform, as shown in Table 10. The significant difference among the schools is El Rito, where local taxes and the Board of Educational Finance contributions are supplanted by State appropriation.

Organization and Operation

The four schools are organized and operated separately. The Board of Educational Finance overlaps to an extent, but there is no operational connection between the schools. Each has an independent governing board, either locally elected or appointed.

TABLE 10

FUNDING SOURCES FOR EXISTING AREA VOCATIONAL SCHOOLS IN NEW MEXICO*

School	Local	BEF $300 FTE	State and Federal Voc. Reimbursement	State Legislature Appropriation	Other Federal	State Reimbursement Board of Voc. Education
Hobbs	X	X	X		X	X
Roswell	X	X	X		X	X
El Rito			X	X	X	X
TVI	X	X	X		X	X

*Division of Vocational Education, State Department of Education

The governor appoints the Eastern New Mexico University Board which acts through the university administration to operate the Roswell Campus. The "first line" operating officer at Roswell is a dean reporting to the University off-campus dean, who in turn reports to the university president. The board at El Rito is also appointed by the governor. The members act directly through the superintendent in operating the school. Hobbs and TVI have locally elected boards which appoint a president as chief operating officer. In the case of TVI, a principal is also selected. TVI is also unique in that it is connected with the State Finance Department, Office of Public School Finance, for fiscal matters. The other three institutions, as noted, are under the Board of Educational Finance for financial affairs.

The State Department of Vocational Education is the only non-federal source of funds common to the four. The connection, however, does not appear to extend to operations.

All the institutions perform functions other than traditional vocational training. In fact, vocational training at Roswell and Hobbs is not the major activity. These are a branch and junior college respectively, and a considerable academic

program is carried out at both schools. Similarly, though vocational training is the major task of TVI and El Rito, both are active in other areas. TVI conducts an extensive adult basic education program, while at El Rito a high school diploma course of study and a basic adult education program are offered. There is no evidence that the vocational program at any of the institutions suffers from this. In fact, there are indications that moving from one curriculum to another does occur, and is functional.

In the case of the former two schools, vocational students have transferred to college programs in four year colleges. At El Rito and TVI, the high school diploma and adult basic education courses have been used to prepare people for the advanced vocational programs.

This overlapping of various segments of the educational continuum occurs apparently with very little difficulty. Transfer is a common operating factor of the four schools. There is also a related fiscal aspect. Under the expanded concept of vocational training contained in the Vocational Amendments Act of 1968, related courses which meet established criteria may be reimbursed on a vocational basis. According to Mr. Stuve's report, guidance in the post-secondary schools appears much stronger than in the high schools. This could partially explain the coordinating ability mentioned above. Students would be more aware of opportunities in industry and have access to perhaps more imaginative advice in charting a course to exploit them. Moreover, the advice is more accurately tailored to ability, rather than a preconceived "track" of courses.

In conclusion, it appears that the post-secondary institutions, though quite varied, are effectively performing an important training function. The variety offers a benefit, in that it provides many examples of how vocational training can be done, and a challenge in coordination. The latter is due in large part to the newness of the institutions. It would appear useful to address this point at this time, and, also developing relationships downward toward the secondary schools could be profitably pursued. This could yield a more aware and perhaps better prepared candidate.

Federal Government Training Programs

Basic Objectives

Federal training programs are primarily designed to alleviate an existing socio-economic problem. They do not—and are not—designed to overlap with local fundamental education programs. They are primarily aimed at the hard-core unemployed, and within that large group will, on a program-by-program basis, select certain segments of the hard-core unemployed thought to have special training needs. Job Corps aims at youth, for example, and the Rural Area Redevelopment Program deals with the rural unemployed.

Programs

The following federally funded training programs are now in operation or in a planning stage in New Mexico:

- Manpower Development and Training Act (MDTA)
- Rural Area Redevelopment Act (RAR)
- Concentrated Employment Program (CEP)
- Jobs for Progress, Operation SER (SER)
- Job Corps
- New Careers

Many of the programs above have specific geographic and/or demographic targets. These are described on the following page.

A complete breakdown of programs currently scheduled or proposed for 1968-1969 may be found in Appendix C. Many of the federal training programs are so new that their effect on vocational education in New Mexico is difficult to assess or project. This is further complicated by the fact that most of these programs are directed toward assisting the hard-core unemployed and disadvantaged groups. Experience has shown that there is a much higher percentage of these people who drop from training programs than from the traditional vocational programs. Placement of this group is more difficult and their ability to retain employment after placement is a problem.

The occupational training programs conducted jointly by the State Department of Vocational Education and the New Mexico Employment Security Commission under the provisions

Program	Target Area	Target Population
MDTA	Statewide (emphasizing non-RAR Counties)	Disadvantaged in general
*RAR	Indian reservations plus McKinley, Rio Arriba, Colfax, Union, Harding, Sandoval, San Miguel, Guadalupe, Torrance, Valencia, Socorro and Eddy Counties and Santa Fe	Rural poor
*CER	1) Albuquerque 2) Navajo reservations 3) Counties of Mora, Los Alamos, Rio Arriba, Sandoval, San Miguel, Santa Fe and Taos	Disadvantaged potential labor force participants
*Operation SER	Albuquerque	Spanish Americans
Job Corps	Statewide	Disadvantaged Youth
New Careers	Statewide (CEP areas largely)	Unemployed with outmoded skills (skill upgrading)

*Utilizes MDTA funds

of the Manpower Development and Training Act and Rural Area Redevelopment Act can be projected with some degree of accuracy. Table 11 shows the approximate number of trainees who were enrolled in MDTA and RAR institutional training programs funded in Fiscal Years 1967 and 1968.

On placement averages for fiscal 1967, 1968 and anticipated projects for 1969, and assuming that funding for these programs remains stable, it is assumed that the combined efforts of MDTA and RAR programs will supply approximately 340 trained workers per year. Approximately 80 percent of the trainees complete the programs. However, experience has shown that the success ratio is much higher. Many trainees find employment before completion of the program. This type of completion is not reflected, however, in the required records of the Employment Security Commission. Therefore, MDTA records and the Employment Security Commission records reflect different completion percentages.

TABLE 11

MDTA AND RAR INSTITUTIONAL TRAINING PROGRAMS
FUNDED IN 1967 AND 1968*

	MDTA		RAR			
Fiscal Year	Number Projects	Number Trainees	Number Projects	Number Trainees	Total Projects	Total Trainees
1967	14	435	3	81	17	516
1968	13	361	5	91	18	452

*New Mexico MDTA Office

The assumption is made that the programs mentioned above will supply approximately 340 trained workers per year. If it were assumed that MDTA training in SER and CEP remains at the present level, another 200 trained workers could be added to the 340

The Bureau of Work and Training Programs of the Department of Labor has 368 on-the-job positions for Fiscal 1969 in addition to those provided through other federally funded training programs. Under present funding, this figure could be used to project future numbers of on-the-job positions for BWTP.

Job Corps recruiters have a quota of 518 trainees to be sent to training sites in Fiscal 1969. Past experience has show that 50 percent of the trainees drop the program and return home before they attain skills that would assist them in finding employment. Of those remaining for the duration of the program, 51 percent find employment.

Organization and Operation

Most federal programs are characterized by a large infusion of federal funds coupled with utilization of local facilities and people. This arrangement stimulates local interest and involvement and brings local expertise to bear on

the problem. On the other hand, communications and coordination many be adversely affected.

According to Mr. Glen Gabehart, State MDTA Coordinator, there is no single directing agency for all of the varied training programs. Every agency involved tolerates no infringement upon its programs, and the net result is that each agency and each program, goes its own way without regard for cooperative efforts unless the legislation which created the program or agency makes cooperative effort mandatory. It is not believed that the federal government is putting too much money into training programs; but rather that there are too many programs with overlapping responsibilities. It is also believed that there are, in most instances, established agencies with trained personnel that could and would perform many of the functions the new programs are now trying to accomplish operating with untrained personnel. There is hardly a function or responsibility created in recent federally funded training programs that could not be delegated to existing agencies of the Department of Labor or the Department of Health, Education and Welfare. They need only to be directed to do the job and funded to the extent that the job can be done.

The Comprehensive Area Manpower Planning System, CAMPS, was established as an interagency coordinating committee to function at local, state, regional and national levels to achieve a cohesive working relationship in the administration of training programs which involve federal funds. In reality, this committee attempts to keep track of what each agency is doing and develop linkages between programs. CAMPS is a federal function, aimed at maximizing output per federal dollar. It is a new system, and its efficacy as well as its effect on State goals has yet to be seen.

Financing

One pertinent aspect of federal program financing is the amount and type of matching funds, if any, required from the State. Table 12 outlines matching requirements for current programs.

Another important financial aspect of federal programs is the amount of total funds received. This is not helped by the somewhat confusing criteria that frequently are applied and the amorphous mixture of federal and local responsibility for applying them. It is difficult to tell under these conditions if the State is receiving maximum allowable federal support.

TABLE 12

MATCHING REQUIREMENTS FOR CURRENT FEDERAL PROGRAMS*

Program	Percent Federal	Percent State (cash or in-kind)
**MDTA	90	10
RAR	100	--
CEP	90	10
SER	100	--
JOB CORPS	100	--
NEW CAREERS	90	10

*New Mexico MDTA Office

**Approximately $30,000 per year has been appropriated by the legislature but unused. In-kind matching has fulfilled the federal requirement to date.

Relationship to the State

The "marriage" of the U. S. Departments of Labor and Health, Education and Welfare to conduct training programs under the Manpower Development and Training Act of 1962 and the tremendous success of this arrangement for carrying out the provisions of that Act should be noted by all those who feel that existing agencies have not or cannot do the job of education and putting people to work. The State Department of Vocational Education carries the load so far as the training is concerned. But every state department of education has other divisions that could just as well assume the responsibility for all educational functions of all federally funded training programs. However, they are not charged with this responsibility nor are they funded to a level that even allows them to assist in this responsibility. The MDTA is unique in that a public educational agency was called upon to do a job of training and was provided with adequate funds to enable

it to do so. Within the MDTA, there is one organizational procedure which merits discussion.

The MDTA section of the Vocational Education Division of the State Department of Education is responsible only for the training aspect of the program. The selection of people to be trained and the finances are controlled by the State Employment Security Commission in conjunction with the U. S. Department of Labor. That State Board of Vocational Education has little or nothing to do with the financing of MDTA monies spent on State training programs in the State. While the financial arrangements may be difficult and possible undesirable to alter, closer coordination under any arrangement would be worth investigating.

Other federal programs reflect varying degrees of cohesiveness with State functions. RAR is similar to MDTA, and both "share" instructors with existing programs at area vocational schools. As mentioned above, however, closer coordination, even in these programs, could be promoted. The federal-state relationship within programs varies as well. CEP, for example, has several agencies and private organizations involved in its training function. According to Mr. Gabehart, only in rare instances are instructors selected from existing programs.

In conclusion, it is clear that federal programs offer excellent opportunities for assisting the State in its occupational training. They represent large infusions of money that can be brought to bear on the training problem. There is, however, some question as to whether (a) the State is receiving maximum federal aid in this area, and (b) whether closer coordination, both among federal programs and between federal and State programs, would not result in more efficient use of existing programs. State-level coordination could be initiated with little change in existing structure. Indications are that this should be undertaken.

Private Training Schools

Programs

Private vocational educational schools in New Mexico train students for a variety of occupations. A compendium of these institutions and courses offered may be found in

Appendix C. Of the many courses available, significant numbers occur in three areas: (a) cosmetology (18) (b) business secretarial (11), and (c) data processing (4).[1] Training in these three areas is also well provided by State institutions and federal programs, as relevant data in Appendix C show.

Evaluation of the programs offered is very difficult. There are no real standards against which they can be measured. Related information, such as dropout rates, also appears to be only marginally reliable. The acid test, of course, is placement results. By this criterion, the private schools appear to be successful. Those checked indicated a very high success ratio in placement.

State Accreditation and Relationship

The State requirements for accreditation are:

- the institution must request accreditation;
- the ability to post performance bond;
- qualifications of instructors;
- the adequacy of facilities and equipment; and
- the kinds and quality of student records.

We recommend that in addition to the above criteria more attention be given to program offerings. For example, if a program meets State criteria, it is possible that it would be more efficient to send interested students to the private schools rather than implement a similar program.

Potential

The latter point raises the question of whether or not private schools can accommodate additional students. Apparently they can. The major reason for seeking State accreditation is to establish eligibility for participation in federal programs. Though such participation is not widespread, the instances that have occurred demonstrate that many of the private schools can handle extraordinary influxes of large groups. Data gathered from the schools tend to substantiate this. The cosmetology schools surveyed in 1966 are operating at approximately 50 percent capacity. Also, the business schools stated they could expand operations by 25 to 35 percent within a 30-day period, if necessary.[2]

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[1] A survey of the Privately Owned Schools in New Mexico, A V C, Inc.

[2] Ibid.

Industry Views of Vocational Education

Familiarity with Vocational Education

To determine industry's views of vocational education, a questionnaire, reproduced as Appendix D, was sent to 1,000 representative businesses in New Mexico. It is felt that this portion of the study is most critical. As Governor David F. Cargo stated in his cover letter to the questionnaire:

> In developing a master plan for vocational training in the State of New Mexico, we are most anxious to give full recognition to the employer as the one who casts the key vote for or against a vocational program each time he considers the hiring of one of its graduates. His attitude toward this decision is the single most important measure of training success or failure.

The questionnaire, augmented by field interviews with employers, attempted to determine the following:

- the familiarity of employers with vocational education;
- the value the employer puts on vocational education programs;
- whether the employer emphasizes skills or attitudes in reaching an employment decision, and the related value he puts on each; and
- what preparatory training employers would like to see in future job applicants.

Each of these will be discussed in this portion of the report.

Instruction for Form "A" of the questionnaire, found in Appendix D, asked the employer to leave blank the blocks for any program about which he had no opinion. This was taken as an indication of the employer's unfamiliarity with that particular program. It is realized that this is not conclusive; however, the absence of one does strongly suggest the absence of the other. The percentage of returned questionnaires that were not completed for each type of program is shown on the next page. Partial completions were not counted.

Program	Percent Not Completed
High School	28.1
Post-High School (Public)	34.4
Post-High School (Private)	39.8
Federal	62.4
Military	48.4
Adult Education	47.3

The higher percentage of "No Opinions" for the reasonably well-publicized federal programs was somewhat of a surprise. This was substantiated by the interviews. One employer stated:

> We specifically set out to hire and train the hard-core. There is a proliferation of organizations here pushing these people. They are competing with each other to place their particular target group. I think there are something like nine organizations locally involved. It took us months to find out who they were and what each was/is doing. All we wanted was someone to provide us with the people. It was all very complicated. The big problem is how to establish contact with the potential employee.

If the foregoing is typical, it is no wonder few employers have bothered to become familiar with federal programs. Again, coordination is called for. Perhaps, these programs would do well to direct more of their public relations efforts at the potential employer.

The relative results of the other programs were less surprising. For example, military training and adult education (in this context) are not aimed specifically at preparing people for civilian jobs and may be expected to elicit little familiarity.

The generally high level of unfamiliarity with all programs is revealing. The high school program, by far the most widespread in terms of enrollees (nearly 11,500 in 1968), registered "No Opinion" with over 28 percent of the employer respondents. This was the lowest indication ercountered.

The rest range from 34.4 percent for public post-secondary schools, to the 62.4 percent for the federal programs discussed earlier.

Explanation of the high level of unfamiliarity is difficult to definitively explain. That it indicates indifference on the part of industry is not true. Despite the unfamiliarity with specifics suggested by the preceding data, many employers volunteered general comments and showed a high level of interest. This is shown by the fact that less than 6½ percent of the questionnaires were returned completely blank. Accenting this as an indication of interest, and offsetting it against the above data, it appears that there is considerably higher interest in industry than knowledge. A partial explanation might lie in industry's answers to Part III of the questionnaire. Part III, and the responses viewed, are reproduced below:

> Part III—Employer participation in vocational-technical training and counseling.
>
> Please check the statement which most closely describes your past relationship to those active in the field of vocational-technical education.
>
> A. I have previously had little or no contact with vocational-technical educators and guidance counselors.
> B. I have previously had occasional contact with vocational-technical educators and guidance counselors.
> C. I have had a good working relationship with at least one representative (instructor, administrator or counselor) of the vocational-technical education community.

Although industry may have an interest in vocational education, the foregoing would indicate room for more dialogue between education and industry. Information precipitates feedback. The feedback would tend to keep vocational training in line with reality. Of those who answered C to Part III, 12 specified the source of their contact. This breakdown is as follows:

Source	Number of Contacts
Post-Secondary School	7
Federal Programs (MDTA, Youth Corps)	2
High School Distributive Education	2
High School Counselor	1
	12

This is hardly a representative sample. However, relatively high frequency of contacts with the post-secondary schools, combined with other factors, is interesting. For example, 34.4 percent of respondents had "No Opinion" of state-supported post-secondary programs. Though higher by 6.3 percent that the comparable figure for high schools, these institutions had less than one-fifth vocational training enrollment. This would tend to substantiate the previous statement that the post-secondary institutions have had considerable impact.

In summary, industry awareness of vocational programs at all levels does not appear as high as it could be. While reasons for this are difficult to pinpoint, there are indications that vocational education would profit by more interaction between education and industry.

Perceived Value of Vocational-Technical Education

The major purpose of Form "A" of Appendix D was to elicit evaluations of the programs by the type of school from employers. Five desirable characteristics of vocational-technical trained job candidates as perceived by employers and educators are listed as follows:

- Candidate requires less on-the-job training.
- Candidate can be trained faster or more easily.
- Candidate is potentially more productive and/or promotable.
- Candidate possesses specific critical job knowledge and/or skills.
- Candidate has better work habits, attitudes and motivation.

Respondents were asked to indicate T (True) if they believed the statement to be generally true, Zero if they believed the statement to be generally of no effect, and F (False) if they believed the statement to be untrue. Tables 13 through 17 reflect the perception of employers of the vocational-technical trained job candidate (by percentage).

TABLE 13

CANDIDATE REQUIRES LESS ON-THE-JOB TRAINING*

	(2)	(4)	(2)	(6)	(1)	(5)**
Distribution by Program	PROGRAM					
	High School	Post-Sec. Public	Post-Sec. Private	Federal Programs	Military Programs	Adult Education
True	86	80	86	64	88	79
Zero	6	18	12	30	9	19
False	8	2	2	6	3	2

*A Survey of Industry (Appendix D)
**Percent and rank order that the characteristic is perceived by respondents

TABLE 14

CANDIDATE CAN BE TRAINED FASTER AND MORE EASILY*

	(3)	(1)	(3)	(6)	(5)	(2)**
Distribution by Program	PROGRAM					
	High School	Post-Sec. Public	Post-Sec. Private	Federal Programs	Military Programs	Adult Education
True	86	90	86	56	80	87
Zero	12	8	14	35	12	13
False	2	2		9	8	

*A Survey of Industry (Appendix D)
**Percent and rank order that the characteristic is perceived by respondents

TABLE 15

CANDIDATE IS POTENTIALLY MORE PRODUCTIVE AND/OR PROMOTABLE*

	(4)	(2)	(1)	(6)	(3)	(4)**
Distribution by Program	PROGRAM					
	High School	Post-Sec. Public	Post-Sec. Private	Federal Programs	Military Programs	Adult Education
True	65	71	73	41	66	65
Zero	28	27	21	45	25	30
False	7	2	6	14	9	5

*Survey of Industry (Appendix D)
**Percent and rank order that the characteristic is perceived by respondents

TABLE 16

CANDIDATE POSSESSES SPECIFIC CRITICAL JOB KNOWLEDGE AND/OR SKILLS*

	(5)	(3)	(1)	(6)	(1)	(4)**
Distribution by Program	PROGRAM					
	High School	Post-Sec. Public	Post-Sec. Private	Federal Programs	Military Programs	Adult Education
True	55	68	78	44	78	61
Zero	24	16	16	28	10	27
False	21	16	6	28	12	12

*A Survey of Industry (Appendix D)
**Percent and rank order that the characteristic is perceived by respondents

TABLE 17

CANDIDATE HAS BETTER WORK HABITS, ATTITUDES AND MOTIVATION*

	(5)	(3)	(1)	(6)	(4)	(2)**
Distribution by Program	PROGRAM					
	High School	Post-Sec. Public	Post-Sec. Private	Federal Programs	Military Programs	Adult Education
True	56	64	68	30	57	67
Zero	26	25	14	40	30	22
False	18	11	8	30	15	11

*A Survey of Industry (Appendix D)
**Percent and rank order that the characteristic is perceived by respondents

Tables 13 through 17 show a notable contrast between trainability and actual skill acquired by the vocational-technical trained job applicant. Table 14 further reinforces the employers' perception of trainability but minimizes the actual skills learned by the vocational-technical trained job candidate.

In addition, each perceived desirable characteristic of the vocational-technical trained candidate was perceived by employers to be more prevalent in all categories when federal programs (MDTA and others) were excluded. Since the federal programs are directed toward the hard-core unemployed the inference would be that the candidate begins his training generally with different levels of competence.

Overall, it would appear that industry definitely perceives the vocationally trained candidate as more trainable than non-vocationally trained candidates. Apparently, this by itself is not considered strong enough influence to have an overt effect on productivity and promotability. Finally, the possession of better work habits, attitudes and motivation was recognized in candidates who had participated in vocational programs by only 57 percent of the respondents.

Industry's general "you get what you pay for" attitude is reflected in the ranking of programs. (See Table 19.)

TABLE 18

SUMMARY OF INDUSTRY'S VIEW OF THE FIVE PERCEIVED DESIRABLE CHARACTERISTICS OF VOCATIONALLY TRAINED JOB CANDIDATES

	Federal Programs Included (Percent)	Federal Programs Excluded (Percent)
Candidate requires less on-the-job training (after participating in the program)	80.5	83.8
Candidate can be trained faster or more easily	80.8	85.8
Candidate is potentially more productive and/or promotable	63.5	68.0
Candidate possesses specific critical job knowledge and/or skills	64.0	68.0
Candidate has better work habits, attitudes and motivation	57.0	62.4

TABLE 19

INDUSTRY'S RANKING OF PERCEIVED DESIRABLE CHARACTERISTICS OF VOCATIONAL-TECHNICAL TRAINED JOB CANDIDATES*

Programs	Total Points
Post-Secondary—Private	27**
Post-Secondary—Public	22
Adult Education	21
Military	19
High School	16
Federal	5

*Survey of Industry (Appendix D)

**Weighting—six points for highest ranking, five points for second highest, four points for third highest, three points for fourth highest, two points for fifth highest, and one point for lowest ranking.

The inference is made that the relatively high ranking of private schools by industry is in part due to the fact that more private schools train for a specific skill. It is further inferred that these skills are Typing, Shorthand and Office Practice.[1] The rankings of the four organizations and variations among characteristics within any given program are of interest. These comments assume inclusion of federal program data.

High school programs were ranked above average in trainability, just above average for productivity and promotability, and below average for skills and attitudes. Public post-secondary programs ranked just below average, as far as required on-the-job training was concerned. It was ranked highest, however, for ease and speed of training second to private post-secondary programs in promotability and well above average for skills and attitudes acquisition. Military training was regarded highly from the standpoint of existing skills, and was rated highest in terms of requiring less on-the-job training and possessing critical skills. Military training was also felt to produce an above average product and was about average in speed and ease of training and attitudes.

Candidates from adult education programs were ranked second only to private post-secondary students in motivation. They were rated below average in training required but above average in trainability. Though below average in skills acquired, they were considered as average in productivity and promotability.

Any multi-dimensional set of data can be interpreted in a number of different ways. The foregoing analysis is far from exhaustive. However, it does suggest some conclusions. It is clear that industry perceives vocational programs as providing, first and foremost, a better candidate for further training. Elimination of federal program data from characteristics one and two yielded a reasonably close cluster of figures, averaging well above 80 percent for each characteristic. In the area of productivity and promotability (excluding federal programs), there appeared to be a reasonably close relationship among the other five programs. In the area of attitudes, work habits and motivation, secondary schools and military were ranked lower with private and adult education higher than average, though not to the same degree. The public post-secondary programs were perceived as average or slightly above in both instances.

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[1]Survey of State Private Schools, 1966.

What Employers Want

The question of what employers want was examined from two aspects. The first was an attempt to elicit specific skill requirements, by industry, relying mainly on Part II of the questionnaire. The second was to determine the relative importance given by employers to skills and basic attitudes of candidates.

As can be expected, answers to the implied question, "I would like to see more job applicants with training in the following vocations," related very much along industry lines. There were notable exceptions. Vocations found in Table 20 were mentioned by more than one industry. The information is valuable in that it indicates areas in which industry is seeking trained people. Unfortunately, it was not possible to define requirements in numerical terms. The trend, however, seems clear. Demand for higher level technically oriented skills appears to be the growth area. This was further substantiated in interviews and questionnaires from industry.

In addition to the significance of the skill categories mentioned above, there was definite trend in industry demands for personnel with advanced training. A representative of a medium-sized hospital stated, "....greater numbers of professionally trained personnel with qualifications in health care professions are the key to our present needs." A few representatives areas of the health care professions wherein acute national shortages exist are Medical Record Librarians, Laboratory Technicians and Physical Therapists.

Similarly, a machine shop operator in the uranium mining area stated:

> We look at a machinist as a mechanical engineer who works with his hands. An undereducated machinist cannot do the work here. We would be interested in graduates of a two-year technical school.

A welding shop owner stated in the same vein:

> The schools teach them <u>how</u> to weld. I can teach them that. What they do not teach is what to weld to what, layout, etc. That's what I really need.

TABLE 20

SKILLS REQUESTED BY NEW MEXICO INDUSTRIES OF VOCATIONALLY TRAINED CANDIDATES*

Skill	Industries
Data Processing	Finance/Insurance, Hospitals and Nursing Homes - Manufacturing
Heavy Equipment Operators	Wholesale Trade - Construction "Other Services" - Transportation and Communications
Heavy Equipment Repairmen	Wholesale Trade - Construction "Other Services" - Transportation and Communications
Technical Servicemen	Wholesale and Retail Trade - Finance/Insurance, "Other Services" - Hospitals and Nursing Homes
Welding	Mining - Manufacturing - Construction - Wholesale and Retail Trades
General Office	Hospitals and Nursing Homes - Transportation and Communications - Finance/Insurance - Mining
Machinist	Construction - Manufacturing - Mining
Mechanic	Wholesale/Retail Trade - Manufacturing - Construction - Mining - Hospitals and Nursing Homes
Instrumentation and Inspection	Manufacturing - Mining

*A survey of Industry (Appendix D,

The president of a Santa Fe construction firm stated:

> Please be informed that in the construction business there is a dearth of people who have no technical knowledge whatsoever. At the present time we have been forced to send a man to Akron, Ohio, to school, as we were unable to find a truck mechanic locally. Any truck drivers that we hire must go through a complete training program. People who can run bulldozers and earth-moving equipment must be trained by us. We would be very pleased to see a local school program of any kind that would teach a man how to weld, drive a truck, and/or do minor repairs.

This thought was conveyed in almost every industry. A mining concern wanted training for hydraulic technicians. One service company expressed a desire for training in selling intangibles. School-trained millwrights were sought by a construction firm, and a number of manufacturing companies sought formally trained layout men and pattern makers. In keeping with the desire for higher level technical skills was the real or implied assumption that this training would take place beyond high school. The statements from the hospital representative and machine shop manager are examples.

Just as specific skills were linked with post-high school training, attitudes were considered most important for the candidate entering the workforce from the secondary school. As the manager of a large variety store stated:

> We participated in the local distributive education program. We can only use so many graduates. All we really require is someone who is honest, intelligent, willing to work and willing to accept responsibility. Skills are not really as important as desire.

The training director of a major uranium mine said:

> We have some vocationally trained graduates and like to get them, but we still have to train them. The big problem is finding people with a willingness to work.

The personnel director of a large chain store offered the following example:

> Actually, we are more interested in their willingness and ability to learn than in their specific abilities. For example, right now we are training a non-high school graduate to be the baker for our baked goods counter and cafeteria. He was one of three bus boys who might have been selected and the only one who was not a high school graduate. The other two were doing just barely enough to get by, whereas this one was always on top of his job. He is doing very well in the training which is being conducted by the baker who is to retire the first of the year.

A respondent representing a large financial institution stated:

> If I were given the choice between two high school graduates—one with a general college prep diploma and the other with a DECA diploma—I guess I would give the DECA one a small edge provided motivation, test scores, etc., were about equal. But it would be a very small edge. We do not hire people at that age for jobs with broad responsibility. The problem with the trained applicant is that he expects something more than the other guy but is really not worth more to us as a beginner. The fact that he took that kind of course, however, can be interpreted as an indication of interest in the type of work.

Another respondent, summarizing the situation said:

> Vocational-technical training must stress loyalty, dependability and what a prospective employee can contribute to any organization.

These are only a few examples. Many others were encountered. Aside from considering attitutdes, much concern was shown for the quality of the general education received by vocational program graduates. Though the questionnaire contained no specific questions relating to this, over 20 percent of the respondents commented on it, particularly

at the secondary level. One respondent stated:

> Vocational training is a fast-rising phase of geneal education. I am happy about this, but am an old-fashioned stickler for minimal academics first, then how to work.

Another, more blunt, comment was:

> The high school (vocational) program should not be a "goof off" or "easy" course to skip the regular college prep work.

Specific areas mentioned in this regard were:

> Arithmetic measurement—they can't work real problems that they will face on the job where fractions and units are important. They need a better arithmetic background. They are lacking in basic shop math preparation.

> Spelling and verbal communication—typists and stenographers who can spell and type accurately—I have had too many who lack these skills despite high school vocational programs. Filing accuracy, typing accuracy. We have had others who have come out of DECA who know how to run a cash register, etc., but who will actually hide down behind the counter when they see a customer coming. One thing the vocational programs should do more of in training people for service-type jobs is in the area of customer relations.

The high frequency of unsolicited comments regarding general education found on the questionnaire was tested in interviews. The reaction was consistent and strongly substantiated the views of the questionnaire respondents.

What employers want is, again, critical to the success of any vocational education system. Additionally, as indicated by the foregoing, what New Mexico industry wants appears consistent with current progressive thinking in vocational education circles. Industry as a whole showed a high degree of interest in vocational education. This was accompanied by what can be interpreted as a rather strong and sincere

desire to become involved in vocational education. Involvement to date has not been strong. As one employer put it in the only comment of his questionnaire; "I think the above explains our situation." He was referring to his indication that he previously had no contact with vocational-technical educators.

In a more positive vein, industry has indicated some specific skill areas in which trained people are sought. They have indicated a general tendency toward more technical and higher level courses. This is reinforced, and given further direction, by what appears to be an assumption on industry's part, that this type of training is most appropriately carried out at post-secondary institutions. Industry tends to view participation in high school vocational programs more as an indication of interest than for skills acquisition. Because of the entry level of high school graduates regardless of preparation, attitudes and a sound general education are perceived as considerably more critical than skills.

Conclusions

What the Data Shows

Recapitulating the findings of various parts of this report yields the following conclusions regarding the current status of vocational education in New Mexico.

Overall, the secondary school program appears to need considerable revision. Guidance for the non-college bound is poor. Facilities appear adequate for existing programs, but questions of finances soon overshadow questions of overall program validity. Within the context of Smith-Hughes, cost effectiveness, distribution and depth of preparation by current programs are subject to question. However, these are somewhat mitigated by strong indications that Smith-Hughes, taken by itself, may not provide an adequate conceptual framework for vocational education. Attitude, general occupational readiness and a revitalization of basic general education for the non-college bound have eclipsed specific skill training in important areas. This is the more enlighted thinking within education today and is reflected in federal legislation. Moreover, there are strong indications that this view is endowed by the ultimate judge—New Mexico's industry.

Industry in New Mexico has also endorsed relatively young but vital post-secondary schools. These institutions, differing in many ways from each other, have nonetheless made an important impact on the total vocational education picture.

Though they are effective as separate entities, it is thought that their effectiveness could be multiplied, and their contribution to occupational preparation as a whole enhanced. This could be done with stronger formal coordination among the schools and between the post-secondary schools and the rest of the vocational education system.

Federal government and private programs have a potential contribution to make to the overall picture—the former in terms of money, the latter in terms of facilities and perceived quality (based on industry's high rating of private post-secondary education). In both instances, the need for action at the State level is indicated—more active involvement with regard to federal programs—both to assure receipt of maximum possible funds and to test for possibly closer relationships with State programs. Private school accreditation, with a more program-oriented approach, may open the possibility of State subscription to these facilities.

What the Educators Think

During the course of study, a brief questionnaire was prepared for and completed by school superintendents and board members during a meeting in Albuquerque. The complete results, some of which are discussed below, are reproduced in Appendix F.

The questionnaire sought to determine educators' opinions of their guidance and vocational programs, the perceived relationships between the two, and for what, generally, the secondary schools were preparing non-college bound students. The respondents remained anonymous. Nevertheless, the frankness of their replies was unexpected. For example, over one-third of the superintendents reponding indicated that the guidance and counseling program in their district was below average or poor. Also, a revealing 72.9 percent of the superintendents thought their vocational training programs to be below average or poor.

With regard to the relationship between guidance programs, nearly 32 percent of the superintendents stated their guidance programs were directed toward college-bound students. Fifty-

six percent described the relationship as "regular," and only 12.2 percent thought it was "good" or "strong."

When asked what non-college bound and non-vocationally trained graduates were prepared for, the largest number of superintendents, 45.7 percent, responded for further training. This is another clear indication in favor of post-secondary vocational schools. It is interesting here also that 20 percent felt they had prepared this group for immediate jobs, while the same number indicated "other." Examination of the "other" replies showed answers in three areas—"marriage, "don't know" or "nothing." The latter two were more frequent than the former by a two to one ratio.

Board members generally had a more favorable impression of these aspects of their systems. Only 17.8 percent, for example, felt their guidance program was below average or poor; while 47.1 percent had similar opinions of their vocational training. With regard to the relationship between the two, 17.2 percent of the board members felt the guidance program was directed toward the college bound. A much higher number, 40.5 percent, felt graduates were prepared for immediate jobs.

This section of the report has examined vocational education from the standpoints of the programs themselves, industry and educators. It has found a relatively high degree of congruence between the actual data and the perceptions of business and education. Several signs from industry indicate action in a number of areas, such as: curriculum changes at the secondary level and below, development of a workable guidance program, and institution of a post-secondary occupational job preparation system.

VI. CONCLUSIONS AND RECOMMENDATIONS

This section will present the conclusions of the research conducted for this report. Also provided in this section is a compilation of Sterling Institute's recommendations for vocational education in New Mexico.

Major conclusions and recommendations are presented under the five headings which comprise the Master Plan: Program or Curriculum, Occupational Preparation, Facilities, Finance, and Organization. Findings in these areas are preceded by a general statement of conclusions which establishes the future scope of vocational education in New Mexico. For a brief summary of these conclusions and recommendations, see Section II.

General

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.[1] Unemployment in October 1968, was 55 percent above the national figure.[2] Particularly critical is the fact that 40 percent of the unemployed are 22 years of age or younger.[3] Industrial growth, even in the urban center of Albuquerque, has been slow. This has tended to inhibit growth in the surrounding rural area as well. In fact, the seven counties which ring the Albuquerque-Santa Fe-Los Alamos crescent are the most economically blighted in the State. (See Map 1.) This is reflected in a comparison of certain selected economic indicators as shown on Map 1.

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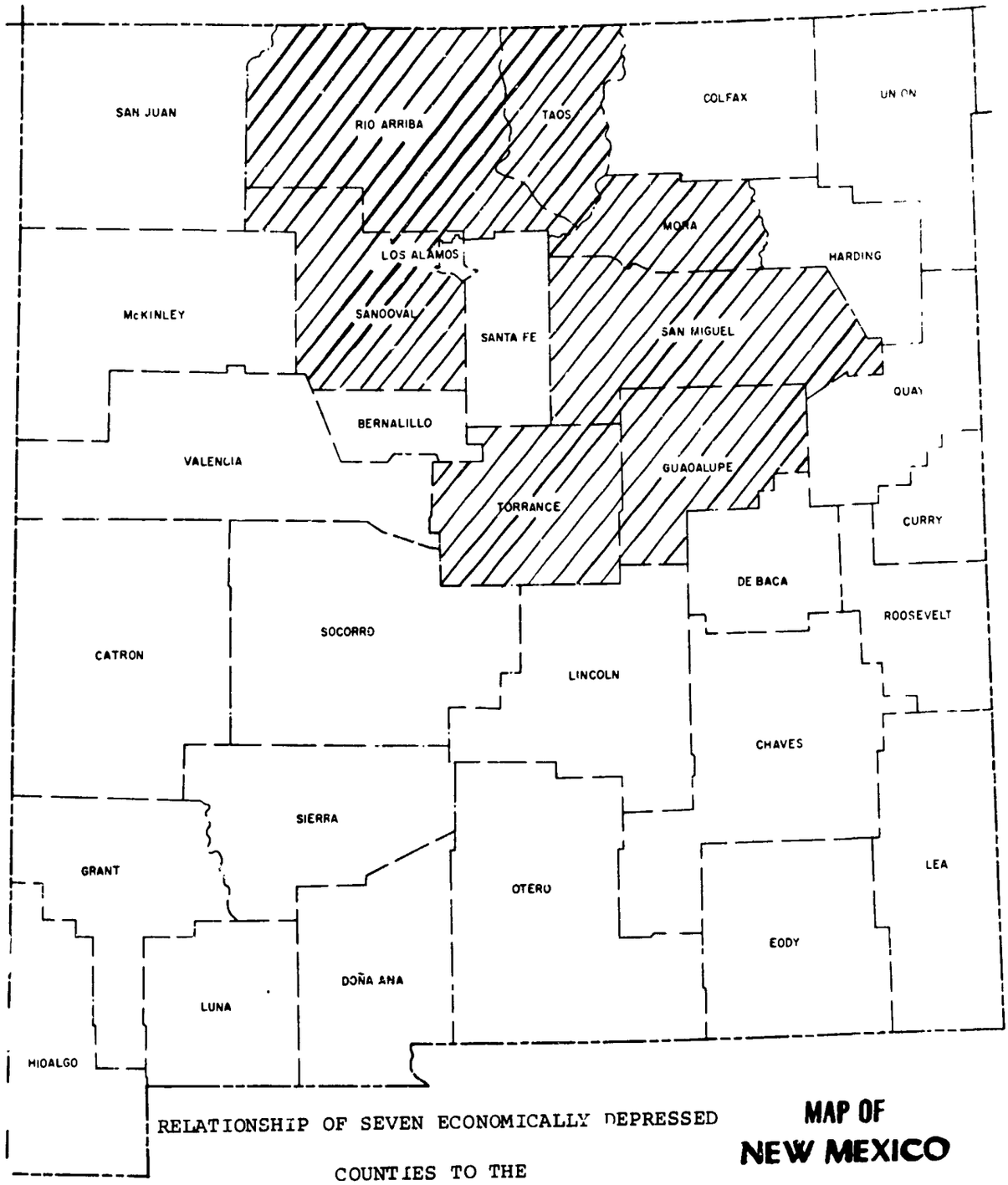
[1]From 88.3 percent in 1959 to 78.1 percent in 1967. Source: Preliminary Economic Development Plan for the State of New Mexico, State Planning Office, Santa Fe, December, 1969.

[2]New Mexico Labor Market Trends (Vol. VI, No. 10), Employment Security Commission of New Mexico, Santa Fe, November 30, 1968.

[3]Occupational Demands in New Mexico, August, 1967-1968. Employment Security Commission of New Mexico, Santa Fe, October, 1968.

MAP 1



RELATIONSHIP OF SEVEN ECONOMICALLY DEPRESSED COUNTIES TO THE ALBUQUERQUE-SANTA FE-LOS ALAMOS CRESCENT

MAP OF NEW MEXICO

Within the framework of educational, economic and cultural considerations this plan for vocational education in New Mexico is presented. One general assumption has been made in its development. The assumption is that New Mexico will choose to support a broad, comprehensive vocational education program. We believe that this assumption is justified not only by the information contained in this report, but by the genuine interest and concern found among the people of New Mexico during the preparation of this study.

Many organizational forms could be used for such a plan. For purposes of this report, the Occupational Training Activity was viewed as comprising five general areas: Program or Curriculum, Occupational Preparation (guidance), Facilities, Finance and Organization. In each area recommendations are made, with alternative courses of action cited where appropriate. Program and Occupational Preparation are necessarily treated in general terms. More specific courses of action are outlined in the three remaining areas.

TABLE 21

SELECTED ECONOMIC INDICATORS IN SEVEN-COUNTY AREA

County	% Unemployment Rate[1]	Per Capita Cash Welfare Expenditure[2]	% Children aged 5-17 years Eligible for Title I ESEA Grants[3]
Sandoval	9.9	$26.60	49.1
Rio Arriba	20.4	53.00	42.2
Taos	10.9	64.00	47.0
Mora	11.9	53.50	65.2
San Miguel	12.0	68.50	44.6
Guadalupe	7.3	46.50	40.6
Torrance	8.5	40.25	42.0
Seven-County Average	11.5	50.33	47.2
Statewide Average	5.1	22.00	18.2

[1]Source: Employment Security Commission of New Mexico
[2]Source: State of New Mexico, Public Welfare Annual Report, 1967
[3]Source: State Office, Title I, ESEA

It is in this seven-county area that economic and sociological considerations most dramatically overlap. Over 68 percent of the population are Indian or of Spanish descent.[1] It is reasonable to conclude that the relationship between poverty and the high ethnic content of the population is not coincidental. Moreover, there are indications that the existing educational system, though certainly not intentionally, is perpetuating the situation.

In one school district in the area, 27 out of 29 seventh grade students with achievement scores below fifth grade level were of Spanish surname. All 11 students in the same class who had previously repeated a grade or grades were of Spanish surname.

While students of Spanish descent and Indian students have special learning problems, it can generally be concluded that the education system is not adequately serving all students. As Mr. Robert Esparza states, "for the 55 to 57 percent (State average) that do not go to college our secondary schools are falling considerably short of our goal of comprehensiveness.[2] Research for this report substantiates this—perhaps nowhere more conclusively than in a survey of school district superintendents. When asked for what the non-college bound student was presently being prepared, only 20.9 percent indicated immediate entry into the job market. Over 45 percent stated the non-college bound graduates were prepared for further occupational training. Unfortunately, there are only four institutions in the State which are carrying out post-secondary vocational training. These are New Mexico State School, El Rito; New Mexico Junior College, Hobbs; Albuquerque Technical-Vocational Institute (TVI); and Eastern New Mexico University's Roswell Campus. Some technical training is also available at seven universities. These schools, to all appearances, are doing an excellent job. More facilities are clearly needed, however.

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[1]Source: General Population Characteristics: U.S. Department of Commerce, Bureau of the Census.

[2]A General Review of Secondary Education in New Mexico, Robert Esparza, Director of Secondary Education, New Mexico Department of Education, Santa Fe.

Vocational Education brings at least a partial solution to all these problems—economic, cultural, and educational—under its newly expanded concept. The 1968 amendments to the 1963 Vocational Act greatly expand the responsibility of vocational education to include training not only of the socio-economically deprived but also of the physically handicapped. The amendments re-emphasize the concept of Area Vocational Schools. These facilities 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 workforce and community interest in industrial planning. These are important factors in industrial plant site selection, and, therefore, industrial growth.[1] The Vocational Amendments also emphasize a broadening of the shape of vocational education programs to include occupationally oriented general education, and programs orienting students to the world of work. Courses in this area would be a significant contribution to the overall education system in meeting the needs of the non-college bound student. Additionally, these courses could be revised and used in training adult hard-core unemployed and other economically and/or socially deprived groups.

In conclusion, it is recommended that vocational education in New Mexico be recognized in its broadest scope so that it may be used fully and effectively in coping with the economic, social, and educational problems in the State.

Program

New Mexico's students are entitled to an alternative to the present college-oriented curriculum in the general school program. New patterns of learning should be tried. "These

[1] Manufacturing Plant Site Selection Factors Including the Implications of Vocational Education, Ernest H. Dean, Utah Technical College, Provo, Utah, May 31, 1968.

are characterized by student involvement in investigative learning for occupational goals and involve working with materials, systems and processes as the point of entry for both intellectual and manipulative development."[1] All of man's senses should be utilized to capacity in developing sufficient skills to play useful roles in society.

Basic general school curriculum revision is called for which will treat vocational-occupational education as an integral part of the common core of all education. Emphasis on "basic learning skills: is probably more important than mastery of a fixed amount of subject matter. The type of "basic learning skills" improvement which Title I, ESEA Programs aim for form part of the general program revision that should be carried out. The success of Title I is dramatically illustrated by Figure 1. Flexibility and freedom to experiment with "non-academic" programs should be encouraged. Some of the new vocational education should be part of the educational experience of <u>all</u> students and conversely some of the classical disciplinary education should be part of this experience. The concept of job clusters in fields such as housing, medicine, agriculture and mining should be introduced in the elementary grades and related to the total environment.

Education for vocational competence should build in flexibility and adaptability to produce transferable knowledge and skills. The Area Vocational School, with a large student base from which to draw, is an excellent institution to become a broadly conceived new type of "vocational school," since it can offer a variety of "in-depth" programs without losing sight of the overall objectives described above. Mobile units and modern media of instruction can vastly extend the effectiveness and comprehensiveness of the programs offered.

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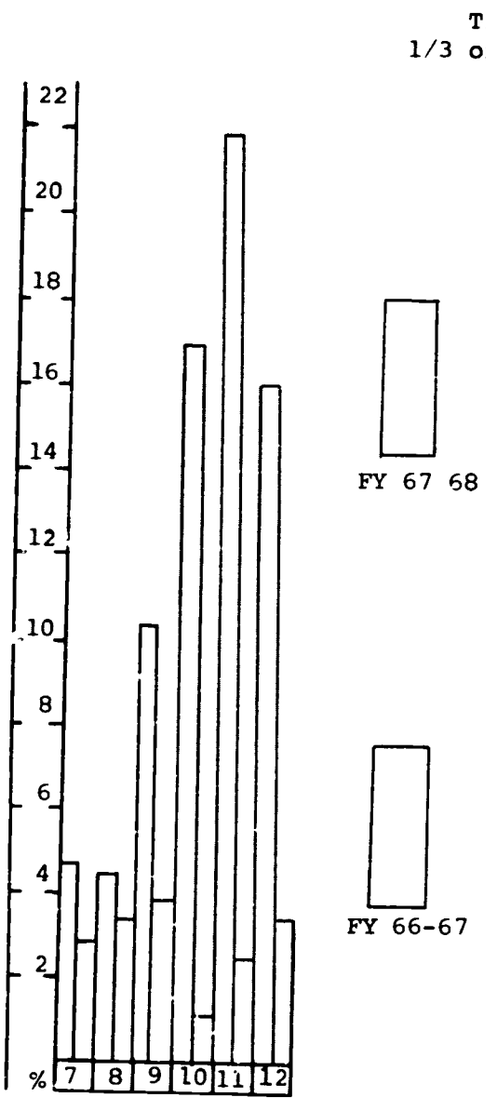
[1]Final report of the Summer Study on Occupational Vocational and Technical Education, Massachusetts Institute of Technology, July 6 through August 13, 1965.

FIGURE 1

COMPARATIVE DROPOUT RATES
GRADES 7-12



[1]Those schools in which one-third or more of the student enrollment participated in Title I programs.
Title I, State Department of Education.

Flexibility to accommodate local economic needs and the current achievement levels of the students is a necessity; however, the State should insist on vertical articulation from general elementary schools through Area Vocational Schools, Technical Institutes, and Community Colleges. Nor should articulation end here as the need exists for strengthened apprenticeship programs in labor, industry and government, as part of the larger program of continuing education. It is generally recommended that the State Board of Vocational Education actively support a general curriculum revision of the type described above for all students. In this regard, the following specific recommendations are made:

- The State Board of Vocational Education should assist general education curriculum personnel in development of occupationally oriented academic programs, more effective basic education programs for the non-academically inclined student and programs, starting at the elementary level, that assist the student in relating to the world of work. It is recommended that:
  - Skills programs be reviewed and updated to conform with current industry practice;
  - The "cluster" concept be adopted, and at least an effort to comply with this concept be a criterion for state and federal reimbursement. A proposed curriculum offering and course sequence is shown as Figure 2;
  - Local needs and vertical compatability with programs offered at the Area Vocational School also be considered in approval of programs for reimbursement;
  - Vertical articulation of the entire Vocational Program be undertaken. It is further recommended that this program be vertically integrated to the extent possible with the entire education system including higher education. A schematic diagram of this concept, from the State of Hawaii Master Plan for Vocational Education is shown as Figure 3; and
  - Curriculum development personnel charged with the responsibility of developing educational media and other teaching aids to be used in vocational programs in remote areas. Specifically, the development

FIGURE 2

A PROPOSED CURRICULUM OFFERING AND COURSE SEQUENCE

8. Arts and Crafts

9. Exploratory, One Hour

A. 6 Week
B. Option 9 Week (4)
   1. Auto Power Mech.
   2. Woods
   3. Electricity
   4. Metals
   5. Drafting
   6. Printing

10. Introductory, One Hour

A. Auto Mech. I
B. Woods I
C. Basic Elect. I
D. Metals I
E. Drafting I
F. Printing I
G. Agriculture I

11. I.A., One Hour

A. Auto Mech. II
B. Woods II
C. Electronics I
D. Metals II
E. Drafting II
F. Printing II
G. Agriculture II

12. Vocational Blocks, Ind. Co-op. Trng.—ICT

A. Auto Mech., 3 Hours
B. Printing, 2 Hours
C. Electricity, 2 Hours
D. Welding (Need), 2 Hours
E. Computer
F. Agriculture—Bus

↓ To Work

12. Senior-Terminal (Possible) One Hour

A. Woods III
B. Auto Mech. III Lab. Ass't.
C. Drafting
D. Elect. Math
E. Adv. Elect.
F. Computer Tech.
G. Agriculture

↓ 13-14. Technical (NMSU, ENMU, NMHU, NMJC)

12. Academic Pursuits

One Hour

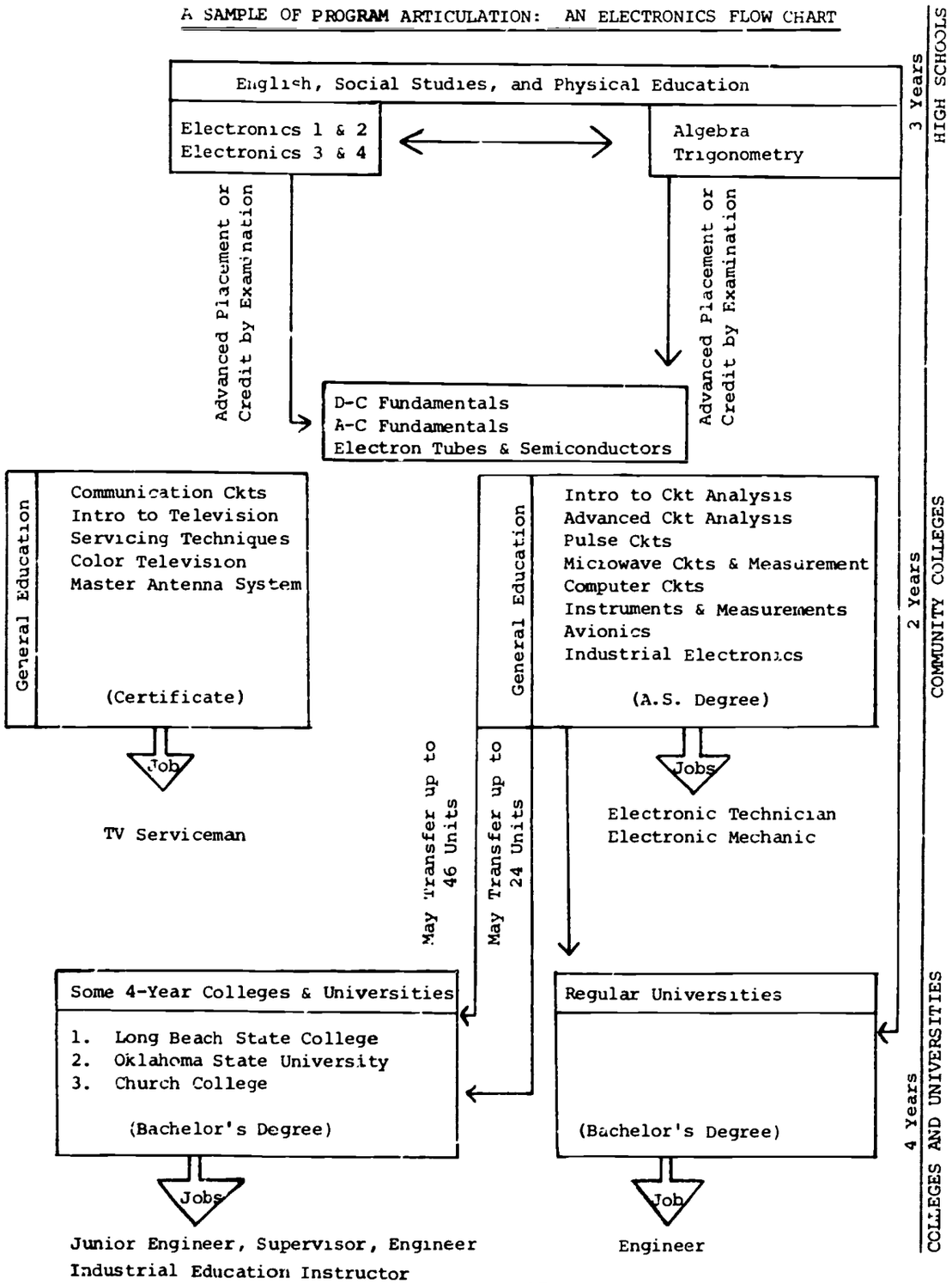
Individual Instruction Laboratory Combination

Teacher Aide or Senior Terminal

↓ To College or University

FIGURE 3

A SAMPLE OF PROGRAM ARTICULATION: AN ELECTRONICS FLOW CHART



and use of mobile units and educational television is needed.

Occupational Preparation

With very few exceptions, vocational counselors are non-existent in New Mexico. Guidance programs at most schools are oriented toward the college-bound. While guidance appears to be more effective in the post-secondary schools, the downward relationship to the high schools is generally weak. To strengthen this program, it is recommended that:

- A State-level occupational readiness group, reporting to the State Director of Vocational Education, and coordinating its efforts with the State Director of Guidance Services, be established; and
- The occupational readiness group, in conjunction with the State Director of Guidance Services, draft a long-range vertically integrated plan extending guidance services throughout the State. It is further recommended that this plan include heavy faculty involvement, and coordination with industry to assist in placement and post-graduation follow-up.

Facilities

According to a survey conducted for this report, extensive facility outlay for vocational needs at existing comprehensive high schools is not required. It can be concluded, however, that more installations are needed that will serve a relatively large area, possess post-secondary program capability, and sufficient flexibility to serve a wide segment of the population.

The overall need for occupational training, and the contribution it can make in the economic and social fields has been demonstrated. The Area Vocational School concept is clearly the most cost-effective way of filling the need. No state, including New Mexico, can afford the alternative of placing complete vocational facilities in every school district. Moreover, it is doubtful that post-secondary and other non-high school programs could be adequately supported by enrollment in all districts.

To establish economic areas within the State, county data in the following categories were compared with State averages.

- Unemployment rate
- Per capita cash welfare payments
- Percent of children 5-17 years eligible for Title I grants

The latter factor was significant not only as a leading index of economic activity. Many Title I programs, though not specifically designed for that purpose, are excellent preparation for occupational training.

Based on the results shown in Table 22, a seven-county area was designated Economic Area A. These counties are: Sandoval, Rio Arriba, Taos, Mora, San Miguel, Guadalupe and Torrance.

An arbitrary total multiple of five was established as the cutoff point for Area "A". Very few other counties were close to this cutoff point, however. The following example shows how the total multiple was determined:

Sandoval County

Unemployment	9.9%	Unemployment	
State Average	5.1%	Multiple	1.94
Welfare Payments	$26.60	Welfare	
State Average	22.00	Multiple	1.21
Title I	39.1%	Title I	
State Average	13.2%	Multiple	2.7
		TOTAL MULTIPLE	5.85

In reality, the two factors of local support and skills needed in the geographic region, plus any differences in availability of State and federal funds, are the only ones that must be reconciled. No matter where the vocational school is located, a rational plan must be developed, there must be someone to teach, questions of tuition and geographic area served and administrative structure must be resolved. Criteria for funding and program emphasis, therefore (because of an inherent shortage of jobs in some areas), must reflect the peculiar needs of the respective economic areas.

TABLE 22

ECONOMIC AREA A*

	Unemployment Percent	Per Capita Welfare Expenditure	Percent Children 5-17 Eligible for Title I
Statewide	5.1	$22.00	18.2
Sandoval	9.9	26.60	49.1
Rio Arriba	20.4	53.00	42.2
Taos	10.9	64.00	47.0
Mora	11.9	53.50	65.2
San Miguel	12.0	68.50	44.6
Guadalupe	7.3	46.50	40.6
Torrance	8.5	40.25	42.0
Average Area A	11.5	$50.33	47.2

*Source: Sterling Institute

- It is recommended that a Statewide system of Area Vocational Schools, coordinated and administered by the State Board of Vocational Education, be established.
- It is further recommended that, for purposes of Area School location, the seven counties mentioned earlier be considered separately. This area clearly has more severe economic and social problems than the State as a whole.
- It is recommended that the system be comprised of schools at the following locations, serving the school districts indicated. (See Map 2.)

Location	School Districts Served
Espanola (Federal Funds Available)	Espanola Pojoaque Penasco Jemez Mountains Los Alamos*

Las Vegas (Federal Funds Applied For)	Mora
	Wagon Mound
	Las Vegas (City)
	Las Vegas (West)
	Santa Rosa
	Pecos
Socorro	Los Lunas
	Belen
	Mountainair
	Socorro
	Magdalena
	Quemado
Farmington	Central
	Farmington
	Aztec
	Bloomfield
Gallup	Gallup-McKinley
	Grants
Silver City	Silver City
	Cobre
	Lordsburg
	Animas
	Deming**
Las Cruces	Truth or Consequences
	Hatch Valley
	Gadsden
	Deming**
Alamogordo	Carrizozo
	Capitan
	Hondo Valley
	Ruidoso
	Tularosa
	Cloudcroft
	Alamogordo
Hobbs (In Operation)	Tatum
	Lovington
	Hobbs
	Eunice
	Jal
	Loving
	Carlsbad

Roswell (In Operation)	Roswell Independent Dexter Hagerman Lake Arthur Artesia
Portales-Clovis (Technical Institute at Portales Now)	Tucumcari Grady House Melrose Clovis Texico Portales Causey Floyd Elida Dora Fort Sumner
Santa Fe (Federal Funds Available)	Santa Fe Los Alamos* Bernalillo*** Jemez Springs*** Cuba***
Albuquerque	Albuquerque Moriarty Estancia Bernalillo*** Jemez Springs*** Cuba***
El Rito (In Operation)	Dulce Chama Valley Ojo Caliente Taos County Taos+ Questa
Trinidad, Colorado Jr. College	Cimarron Raton Maxwell Des Moines

Mobile Service Recommendations

Socorro-Belen	Reserve
	Corona
	Encino
	Vaughn
Portales-Clovis	San Jon
	Logan
	Mosquero
	Roy
	Clayton++
	Springer++

* Served by Santa Fe or Espanola, depending on program.
** Served by Silver City or Las Cruces, depending on program.
*** Served by Santa Fe or Albuquerque, depending on program.
\+ Served with Las Vegas as a satellite.
++ Possible assistance from Las Vegas unit, if available.

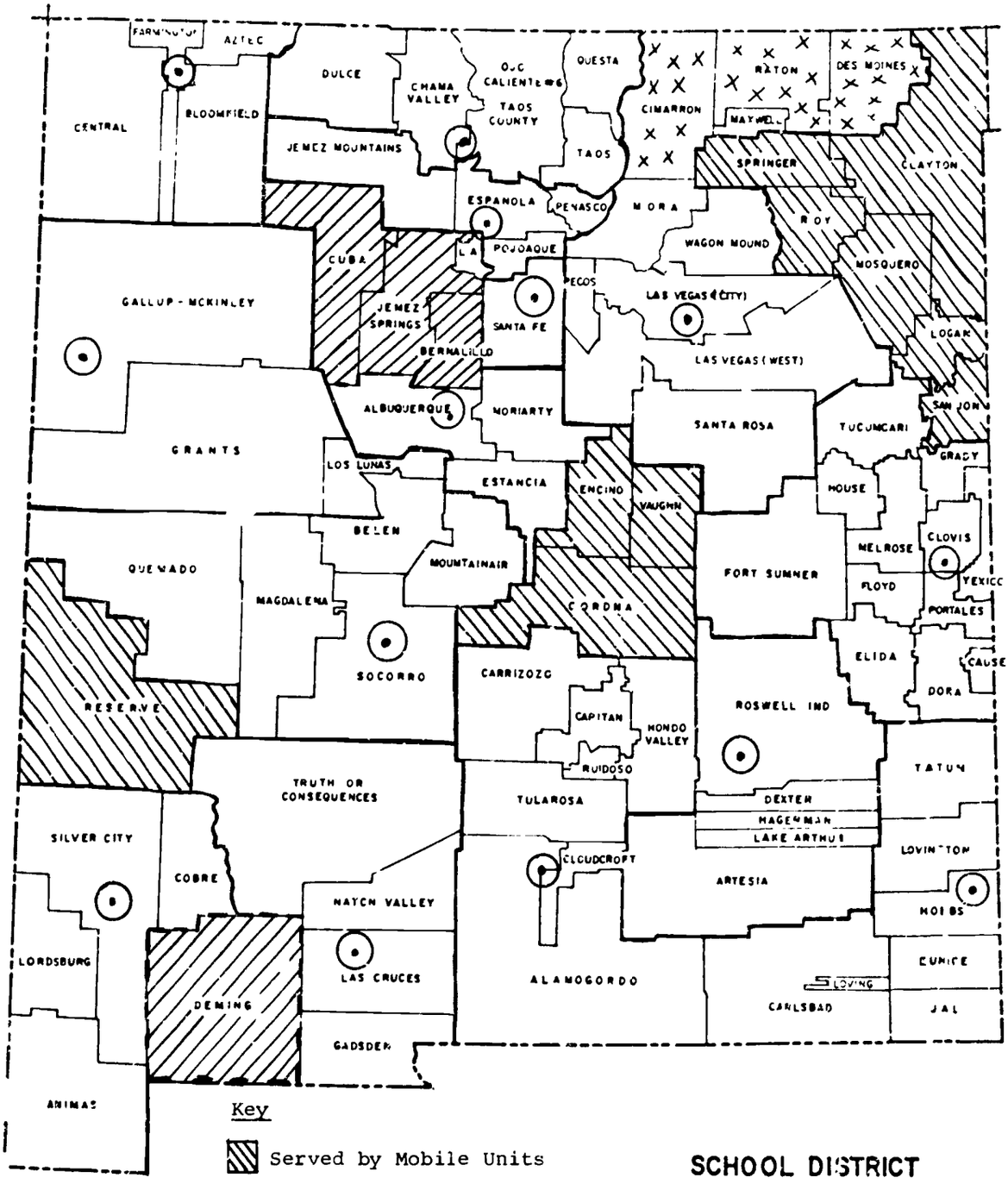
. In terms of priority, it is recommended that the schools serving districts in the seven-county area mentioned previously (Albuquerque, Espanola, Santa Fe, Las Vegas and Socorro) be given whatever preference is possible. Timing on other schools should depend on local incentive and federal funds. Need, based on immediate potential enrollment, would dictate construction in the following order:

Las Cruces
Clovis
Gallup
Farmington
Alamogordo
Silver City

. It is recommended that mobile units and other portable teaching aids be made available as required to the designated schools to adequately meet the needs of areas that will not be served by a school.

Determination of area to be served was done on a school district basis because, as the smallest practical administrative unit, it allowed maximum flexibility. Service areas are based on a maximum commuting distance of approximately 60

MAP 2 AREA VOCATIONAL SCHOOL SYSTEM, NEW MEXICO



Key

Served by Mobile Units

Served by Two Area Schools

Served by Trinity, Colo. Jr. College

Area School Location

SCHOOL DISTRICT MAP OF NEW MEXICO

miles over existing Federal Aid Primary and Secondary Highway System roads.[1]

Obviously, final decisions on areas to be served will depend on local interest and conditions. The above recommendations are made in an effort to provide a practical State-level planning tool. Except to acknowledge existing and funded installations, all schools are located in the population center of the area served.

Immediate and projected enrollment potential for the proposed schools may be found in Figure 4. Projections were not felt necessary for operating schools.

These projections may differ appreciably from those submitted with individual school applications. Different assumptions were no doubt made, and estimating such projections for one unit only, will naturally yield different figures than those developed when complete Statewide coverage by number of schools is assumed for purposes of this report.

No estimate of adults desiring and/or needing skill training or retraining was made. These program projections are essential in estimating intensity of facility use, but are difficult to use reliably in justifying installation or determining its size. This information should, however, be submitted with individual applications for Area Schools.

The estimated secondary school enrollment for the present was taken from State Department of Vocational Education data. A factor was then derived relating percent of participation in vocational programs to total average daily memberships (ADM). This percentage was applied to projected ADM in Appendix E6, and adjusted upward reflecting (1) a secular increase in vocational enrollment, and (2) an increase due to greater depth and variety of programs offered at the Area Schools.

One half of the full-time equivalent of students (FTE) per enrollee was assumed for secondary projections.

Potential post-secondary enrollment for the present is based on the actual number of graduates in the last two years,

[1] See figures 9-b and 9-c, Preliminary Economic Development Plan for the State of New Mexico, State Planning Office, Santa Fe, December, 1968.

FIGURE 4

ANNUAL FULL-TIME EQUIVALENT STUDENT ENROLLMENT PROJECTIONS,
PROPOSED AREA VOCATIONAL SCHOOLS

	Present			1975			1980		
	Secondary	Post-Secondary	Total	Secondary	Post-Secondary	Total	Secondary	Post-Secondary	Total
Espanola	126	162	288	146	194	340	179	224	403
Las Vegas	176	142	318	214	180	394	264	205	469
Socorro	248	157	405	324	198	522	420	235	655
Farmington	290	169	459	339	206	545	408	228	636
Gallup	298	187	485	371	287	658	465	329	794
Silver City	111	83	194	153	98	251	199	107	306
Las Cruces	230	361	591	308	476	784	402	569	971
Alamogordo	278	135	413	342	181	523	429	208	637
Portales-Clovis	404	174	578	480	231	711	548	251	799
Pe	193	176	369	258	265	523	357	326	683
Albuquerque	871	1136	2007	1198	1372	2570	1474	1568	3042
TVI Current Capacity			1000			1000			1000
New Requirement			1007			1570			2042
Totals	3225	2882	5107*	4133	3688	6821*	5145	4250	8395*

*Net of Albuquerque TVI

not of college enrollees. The base figure was adjusted upward to account for those desiring training, leaving college after one year or less, and for those leaving prior to completion of high school. A factor relating this figure to ADM was then determined for each district. This factor was applied to th population projections in Appendix E to determine futu enrollment estimates.

Finance

The most realistic way of determining appropriate sources of funds is to determine who is responsible for the function the funds are to support. The researchers conclude that the State, as it does with higher education, should assume one major responsibility for vocational training.

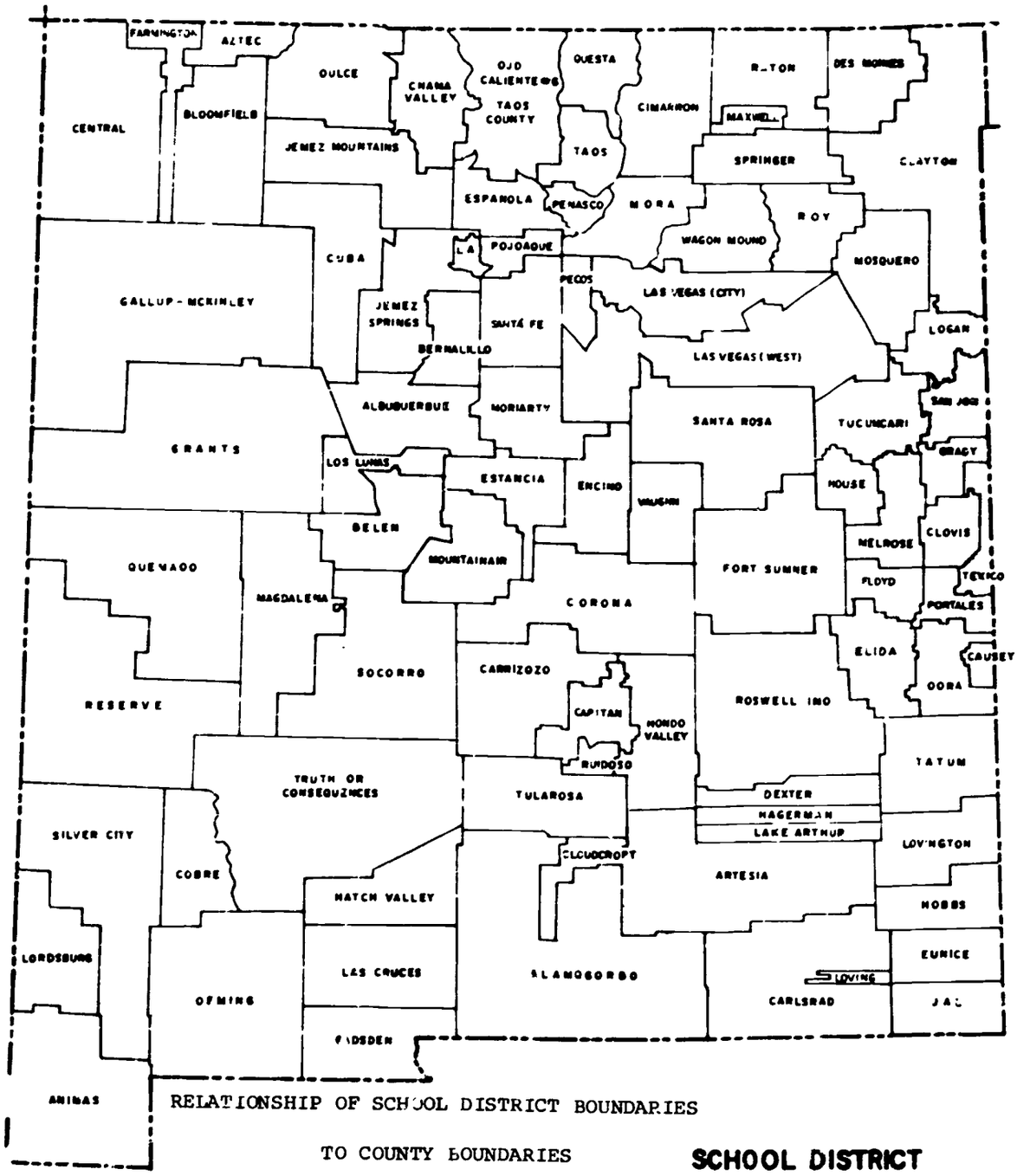
Many factors justify this recommendation. First, the State is now the agency for determining eligibility and disbursement of federal funds. Second, the emergence of the Area Centers, some serving many districts and counties, will require more coordination at the State level. This is further complicated by the fact that school district and county boundaries are not contiguous in all instances. (See Map 3.) Third, circumstances in other areas of State responsibility, such as Welfare and Industrial Development, strongly suggest State-level control of vocational education.

- It is recommended that the State assume this operational responsibility, and with it financial responsibility.

Construction funding comes from three sources: federal, local, and state. For all approved projects, federal matching funds of up to 50 percent of total costs are available. Additionally, areas with pronounced economic problems may be eligible for a larger portion of the costs. The Economic Development Administration (EDA), for example, can grant as much as 80 percent of total costs, in accordance with certain economic criteria.

- The critical issue is who supplies the balance. State participation to a large extent is recommended. As Figure 5 illustrates, technical ability to fund the schools when all needs are considered is in most instances limited. This is particularly true in the seven-county area.

MAP 3



RELATIONSHIP OF SCHOOL DISTRICT BOUNDARIES

TO COUNTY BOUNDARIES

IN NEW MEXICO

SCHOOL DISTRICT MAP OF NEW MEXICO

FIGURE 5

ESTIMATED CONSTRUCTION COSTS[1] OF AREA VOCATIONAL SCHOOLS VS.
BONDING POTENTIAL OF DISTRICTS TO BE SERVED

School	1969	1970	1975	1980
Espanola				
Estimated Construction Cost	842,400	903,474	1,233,180	1,697,436
Bonding Potential	544,650	572,331	1,662,251	2,708,252
Net Over/(Under)	(297,750)	(331,143)	429,071	1,010,816
Las Vegas				
Estimated Construction Cost	930,150	1,006,902	1,429,038	1,975,428
Bonding Potential	143,833	149,253	1,802,018	3,372,438
Net Over/(Under)	(786,317)	(857,649)	372,980	1,397,010
Socorro-Belen				
Estimated Construction Cost	1,184,625	1,292,850	1,893,294	2,758,860
Bonding Potential	933,385	969,997	3,260,414	5,424,271
Net Over/(Under)	(251,240)	(322,853)	1,367,120	2,665,411
Farmington				
Estimated Construction Cost	1,342,575	1,438,866	1,976,715	2,678,832
Bonding Potential	6,107,525	6,295,535	9,844,542	13,239,598
Net Over/(Under)	4,764,950	4,356,669	7,867,827	10,560,766
Gallup				
Estimated Construction Cost	1,418,625	1,511,874	2,386,566	3,344,328
Bonding Potential	1,976,849	2,029,104	5,509,209	8,797,885
Net Over/(Under)	558,224	517,230	3,122,643	5,453,557
Silver City				
Estimated Construction Cost	567,450	620,568	910,377	1,288,872
Bonding Potential	4,945,302	4,149,560	6,702,408	9,154,122
Net Over/(Under)	4,377,852	3,528,992	5,792,031	7,865,250
Las Cruces				
Estimated Construction Cost	1,728,675	1,895,166	2,843,568	4,089,852
Bonding Potential	2,968,880	3,131,837	8,550,868	13,612,107
Net Over/(Under)	1,240,205	1,236,671	5,707,300	9,522,255
Alamogordo				
Estimated Construction Cost	1,208.025	1,317,196	1,896,921	2,683,044
Bonding Potential	768,130	792,456	3,429,008	5,903,150
Net Over/(Under)	(439,895)	(524,730)	1,532,087	3,220,106
Portales-Clovis				
Estimated Construction Cost	1,690,650	1,825,200	2,578,797	3,365,388
Bonding Potential	4,068,881	4,249,635	8,757,827	13,038,762
Net Over/(Under)	2,378,231	2,424,435	6,179,030	9,673,374
Santa Fe				
Estimated Construction Cost	1,079,325	1,201,590	1,895,921	2,876,796
Bonding Potential	--	291,751	4,668,021	9,044,292
Net Over/(Under)	(1,079,325)	(909,839)	2,771,100	6,167,496
Albuquerque				
Estimated Construction Cost	2,945,475	3,574,350	5,694,390	8,600,904
Bonding Potential	17,342,450	18,208,183	38,261,400	57,317,625
Net Over/(Under)	14,396,975	14,633,833	32,567,010	48,716,721

[1]Construction costs were estimated as follows:
Building: 135 sq. ft. per FTEX @ $15 per sq. ft. = $2,025 per FTE
Equipment: $900 per FTE
Total: $2,925 per FTE
Inclination at four percent per year was assumed.

. Three alternative methods of State participation are recommended. They are as follows:

. The State could establish a limit of 20 percent of total costs that it will provide for matching funds. The amount of federal participation would automatically compensate for financial shortcomings of a locality. For example, Rio Arriba County is eligible for 80 percent federal funds under EDA. Under this proposal the State would supply the 20 percent balance.

In areas where no economic distress has been recognized, federal participation would be the standard 50 percent under the Vocational Acts. The State would again put up 20 percent, leaving 30 percent of total costs, a federal funds equivalent factor, to be raised locally.

. The State could establish a direct factor, based on need, used for calculating its contribution to matching funds. One method of determining this factor is a derivative of the multiple discussed in the preceding section.

Sandoval Multiple Factor	5.85
Statewide Factor	3.00
Bondable Base Equivalent Factor	2.85
Less: Local Base	1.00
State Bondable Base Factor	1.85

Therefore, for Sandoval County (in a matching situation), the State would provide funds in a 1.85 to one ratio with locally raised money.

. The State provides all matching funds from money raised by a Statewide bonding authority. This would alleviate any local burden and secure the best possible interest rate.

Of the three, the last is equitable in that it treats all localities similarly. The first two, on the other hand, have a much higher degree of specificity regarding economic problems. Also the last could be more expensive to the State. Choice among the three is clearly a local option, and depends on many factors outside vocational education.

The following additional recommendations regarding operating funds are also made:

- That a goal of at least 50 percent State-federal participation in operating costs for Area Schools be set. It is estimated that annual costs currently will approximate $800 per FTE, that of capital costs. Examination of the local resources available in Appendix E4 clearly indicates that the funds to support such a program must come from other sources.
- That the State standardize the financial support provided for area vocational students under the four bills which presently govern construction of Area Schools.
- That State funds be made available for those vocational activities that will become a part of the foundation program in the general education system to the extent necessary to maximize federal matching funds.
- That the local portion of Area Vocational Program costs be met to the maximum extent possible by a proportionate amount of general funds "following secondary" students to the Area School.
- That the State provide funds for board and lodging where required for students attending Area Schools beyond commuting distance from their place of residence.
- That funds be made available for the discretionary use of the State Director to operate short courses required by new employers to commence operation. The availability of such funds could be a positive factor in attracting industry.

Organization

When any organization undergoes a significant expansion of its responsibilities, a re-examination of the capability of its structure to cope with the new challenges should be undertaken. It is the conclusion of the researchers that our organizational alternative should be offered for vocational education in New Mexico. This is not in any way an indictment of the existing organization or personnel. It is realization that the tasks which they are called upon to perform have greatly increased.

With this in mind, the organization schematically shown in Figure 6 is recommended as an alternative to that which exists. A brief description of some recommended tasks for each function follows.

Area Coordination and Management

To most efficiently utilize all resources, and facilitate coordination between all levels and agencies, area management of field operations is recommended. The area coordinator, or manager, would have responsibility for all occupational training functions in his area. This would include secondary, post-secondary and special programs, and their support functions. Additionally, he would be responsible for relationships with other State agencies, federal government and industry. He would report to an Assistant Director of Occupational Training for Field Operations, who would be responsible for coordinating the various regions, and ascertaining their needs for support.

The areas suggested are the State Planning and Development Districts, slightly modified where necessary to conform to areas served by Area Vocational Schools.

Assistant Director for Support Operations

The Assistant Director for Support Operations would be responsible for coordinating the various elements reporting to him in accomplishing cross-functional goals, and for assuring that area coordinators were receiving maximum available support.

Finance

It is envisioned that the finance function will cover essentially two areas. Briefly stated, the first would be

funds acquisition. This would include the determination of New Mexico's share of vocational monies from other sources, primarily federal. It would also include investigation of other funding possibilities from other outside sources, such as foundations. In addition, it should be responsible for dealings involving possible State funds and preparation of budgets for legislative presentation.

The second financial function would involve the normal internal accounting for the vocational education system, including allocation of funds received by various institutions and programs.

Occupational Preparation

This function will be responsible for Statewide placement of vocational graduates, and for overall direction assistance and coordination of Occupational Guidance throughout the State.

Curriculum

Full responsibility for development of skills courses should rest with the curriculum groups. Additionally, it shall be responsible for acquisition and/or development of educational media for use when normal course offerings are not available. Assistance shall be available in curriculum development initiated at the local level. The curriculum function shall also have responsibility for advising the State Director of the efficacy of proposed programs. The group should also coordinate with other curriculum divisions of the Department of Education in development of the general and orientation programs discussed earlier.

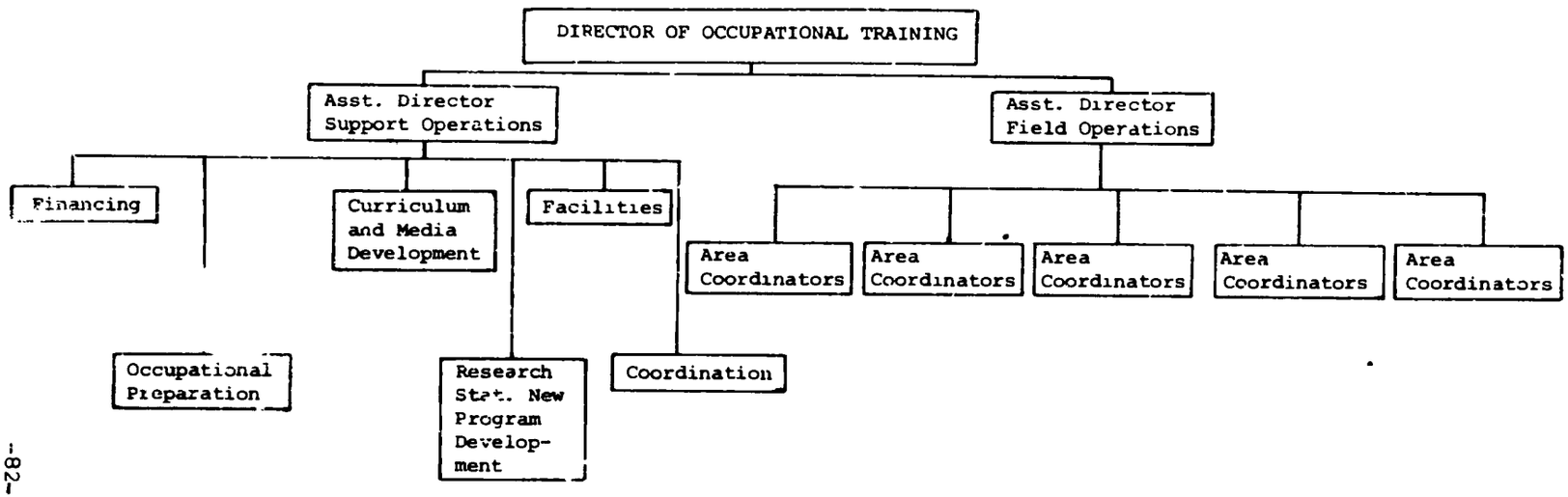
Facilities

This group will assist local schools and Area Schools in determination of facilities requirements, as well as provide technical assistance as needed for facilities design and construction.

Research and Statistical/New Program Development

It would be the responsibility of this group to (1) determine what information is required for effective implementation of this plan, (2) collect the information, and (3) maintain this information in readily retrievable and usable form.

FIGURE 6



RECOMMENDED ORGANIZATIONAL ALTERNATIVE, OCCUPATIONAL TRAINING

STATE OF NEW MEXICO

The "New Program Development" section of this group would be available at State level to pursue such special assignments as the State Director may assign.

Coordination

This group would have responsibility for the external affairs of the Vocational Education System, including regular liaison with the State Departments of Development and Welfare, and federal program personnel. It would, in particular, be responsible for keeping the Research/Statistical group informed of all industrial, federal and other training activities in the State, and coordinating cooperative work-study programs at the State level with industry and the Department of Development.

Another equally important aspect of the organization question deals with the position of vocational education vis-a-vis other State departments.

The most appropriate relationship with other State functions for occupational training is dependent to a large extent on the degree to which this plan is implemented, and what alternatives are taken to complete implementation. For example, the Statewide bond issue discussed previously would justify the creation of a separate board, either elected or appointed by the Governor. Both methods have their advantages.

A separate board would give occupational training parity in dealing with other State agencies, and indicate that the State recognized the importance of and fully supports occupational training.

Another possibility is to place occupational training under the Board of Educational Finance. This body now provides financial support for the post-secondary vocational schools. A drawback to this arrangement is that downward articulation to the secondary level may be difficult. Also because of the board's traditional relationship with higher education, a natural tendency to "upgrade" could occur. This is a positive factor for those already in the system, but could result in upgrading to the extinction of vocational education. In addition, if this plan is implemented, it would result in a large segment of the State's educational and overall expenditure under the control of one body.

Positive factors for this arrangement are that (1) it would preclude creation of another board, and (2) the Board of Educational Finance through its involvement in post-secondary schools, would continue to participate in vocational education.

A third and obvious alternative is to leave the organization where it is. This would be despite a definite increase in responsibility given vocational education. While certain coordinating functions would be facilitated, operating a variety of programs at all levels might be difficu from a traditional elementary-secondary school position.

All three alternatives pose advantages and disadvantages. Again, until this degree of implementation is determined, a final choice is difficult to make. All things considered, however, it is recommended that the occupational training function be organized under a separate board. It is the opinion of the researchers that, on balance, this is the best alternative. The method of selecting the board is clearly a State option.

APPENDICES

A MASTER PLAN FOR THE DEVELOPMENT OF VOCATIONAL-TECHNICAL EDUCATION IN NEW MEXICO

APPENDIX A

ERIC

EMPLOYMENT BY VOCATIONAL SKILL CATEGORY

	1967 ESTIMATED	1970 PROJECTED	1975 PROJECTED
AGRICULTURE	23449	20821	17542
DISTRIBUTION AND MARKETING	20734	22142	24919
HEALTH OCCUPATIONS	5806	6585	8217
HOME ECONOMICS	8444	9566	11914
OFFICE OCCUPATIONS	83615	90517	104894
TECHNICAL EDUCATION	1918	2021	2271
TRADE AND INDUSTRY	109913	114840	126792
OTHER	35570	39150	46694
UNCLASSIFIED	39997	40045	40373
TOTAL	329455	345694	383624

EMPLOYMENT BY INDUSTRY

	1960 ESTIMATED	1964 ESTIMATED	1967 ESTIMATED	1970 PROJECTED	1975 PROJECTED
AGRICULTURE, FISHERIES	31400	24800	22200	19077	15941
MINING	20110	17510	16109	14952	13550
CONSTRUCTION	18803	17202	15703	14937	14358
MANUFACTURING	16503	17134	18007	18798	20785
TRAN., COMM., AND P.U.	20017	19502	20005	19871	19790
WHOLESALE TRADE	8118	8677	9334	9913	11021
RETAIL TRADE	39982	42723	45966	48808	54246
FINANCE, INSURANCE	9406	11305	10872	12032	14401
OTHER SERVICES	36200	42800	48600	65361	69530
FEDERAL GOVERNMENT	20492	23081	26759	29747	35816
STATE AND LOCAL GOVT.	42808	48219	55892	62134	74815
OTHER	43300	45000	39998	40045	40373
TOTAL	307139	317953	329455	345694	373624

PERCENTAGE DISTRIBUTION OF EMPLOYMENT
CLASSIFIED BY VOCATIONAL SKILL REQUIREMENTS

	1960 ESTIMATED	1964 ESTIMATED	1967 ESTIMATED	1970 PROJECTED	1975 PROJECTED
AGRICULTURE	11.33	8.90	8.38	7.19	5.55
DISTRIBUTION AND MARKETING	5.70	5.97	6.04	6.13	6.19
HEALTH OCCUPATIONS	1.30	1.49	1.65	1.80	2.08
HOME ECONOMICS	1.89	2.17	2.39	2.61	3.00
OFFICE OCCUPATIONS	22.45	23.66	24.83	25.65	26.83
TECHNICAL EDUCATION	.58	.57	.59	.59	.60
TRADE AND INDUSTRY	33.37	33.04	33.30	33.17	32.97
OTHER	9.02	9.70	10.44	11.00	11.95
UNCLASSIFIED	14.37	14.51	12.39	11.87	10.85
TOTAL	100.00	100.00	100.00	100.00	100.00

PERCENTAGE DISTRIBUTION OF EMPLOYMENT BY INDUSTRY

	1960 ESTIMATED	1964 ESTIMATED	1967 ESTIMATED	1970 PROJECTED	1975 PROJECTED
AGRICULTURE, FISHERIES	11.40	8.73	8.12	6.79	4.96
MINING	7.47	6.62	5.89	5.36	4.58
CONSTRUCTION	5.94	5.26	4.58	4.18	3.50
MANUFACTURING	5.22	5.05	5.19	5.05	4.84
TRAN., COMM., AND P.U.	6.42	6.15	6.06	5.79	5.31
WHOLESALE TRADE	2.58	2.67	2.74	2.76	2.75
RETAIL TRADE	12.73	13.15	13.46	13.59	13.03
FINANCE, INSURANCE	2.82	3.29	3.03	3.22	3.48
OTHER SERVICES	10.64	12.29	13.67	15.06	17.52
FEDERAL GOVERNMENT	6.62	7.23	8.06	8.55	9.29
STATE AND LOCAL GOVT.	13.83	15.09	16.83	17.86	19.40
OTHER	14.37	14.51	12.39	11.87	10.85
TOTAL	100.00	100.00	100.00	100.00	100.00

PROJECTED CHANGES IN EMPLOYMENT
BY VOCATIONAL SKILL CATEGORY

	1967-1970	1967-1975
AGRICULTURE	- 2628	-5906
DISTRIBUTION AND MARKETING	1408	4185
HEALTH OCCUPATIONS	778	2409
HOME ECONOMICS	1121	3469
OFFICE OCCUPATIONS	6901	21277
TECHNICAL EDUCATION	102	352
TRADE AND INDUSTRY	4926	16878
OTHER	3578	11124
UNCLASSIFIED	48	376
TOTAL	16239	54169

APPENDIX B

KEY TO APPENDIX B

A. Number of buildings used exclusively for vocational education

B. Approximate number of square feet in vocational education buildings

C. Approximate square feet in general classroom buildings used for vocational education

D. Insurable value

E. Approximate cost of equipment

F. Adequacy of equipment

1. Adequate
2. Inadequate
3. Poor

APPENDIX B

Agriculture

School Districts	A	B	C	D	E	F1	F2	F3
Alamogordo								
Albuquerque								
Animas								
Artesia	1	3,000	-	[illegible]	35,000	X		
Aztec	2	6598	4198	42,600	7,000		✓	
Belen	[illegible]	11355	-	[illegible]	2,000	✓		
Bernalillo	[illegible]	1440	576	50,000	8,000	✓		
Bloomfield	—	—	—	—	—			
Carton	0	—	—	—	—			
Carlsbad	--	—	3,610	25,290	5,000			✓
Carrizozo	NOT	APPLICABLE						
Causey								
Central (Kirtland)	1	8500	900	70,000	20,000	✓		
Chama Valley								
Cimarron	1	2,400	0	$45,000	$15,000	✓		
Clayton								
Cloudcroft	2	2400	—	$28,000	$6,795	✓		
Clovis								
Cobre	1	Bran. 3,000 3,600	-	17,186	11,000	✓		
Corona	—	—	—	—	—			
Cuba								
Deming	—	—	—	—	—			
Des Moines	1	3,000	0	*	$8,000	✓		
Dexter								
Dora	1	4,000	0	[illegible]	$8,200	✓		
Dulce	3	600	4800	$123,000	$10,000	✓		

Home Economics

School Districts	A	B	C	D	E	F1	F2	F3
Alamogordo								
Albuquerque								
Animas								
Artesia	.	—	8,285	92,000	18,000	X		
Aztec	1	3471	3471	30,000	3,650	✓		
Belen	—	—	2360	50,000	2500	✓		
Bernalillo	-	--	—	—	—			
Bloomfield	—	—	—	—	—			
Carton	—	—	2,000	$20,000	$10,000	✓		
Carlsbad	—	—	4,800	57,600	8,000	✓		
Carrizozo	0	—	1400	$70,000	$20,000	✓		
Causey								
Central (Kirtland)	1	3500	0	45,000	19,000	✓		
Chama Valley								
Cimarron	1	2,000	0	$25,000	$8,000	✓		
Clayton								
Cloudcroft	—	—	—	—	—			
Clovis								
Cobre	0	-	5,717	59,000	19,600	✓		
Corona	—	—	900	$9,000	$3,000	✓		
Cuba								
Deming	0	0	3,500	$5,000	$22,000	✓		
Des Moines	not	vocational	✓					
Dexter								
Dora	0	0	1920	[illegible]	$35,000	✓		
Dulce	1*	2,400	2,400	$44,000	4,000	✓		

Distributive Education

School Districts	A	B	C	D	E	F1	F2	F3
Alamogordo								
Albuquerque								
Animas								
Artesia	—	—	1500	15,000	5,600	✓		
Aztec	—	—	—	—	—			
Belen	—	—	—	—	—			
Bernalillo	—	—	—	—	—			
Bloomfield	—	—	—	—	—			
Carton	—	—	—	—	—			
Carlsbad	—	—	1,300	16,600	3,000	✓		
Carrizozo	Not	Applicable						
Causey								
Central (Kirtland)	—	—	—	—	—			
Chama Valley								
Cimarron	—	—	—	—	—			
Clayton								
Cloudcroft	—	—	—	—	—			
Clovis								
Cobre	—	—	—	—	—			
Corona	—	—	—	—	—			
Cuba								
Deming	—	—	—	—	—			
Des Moines	—	—	—	—	—			
Dexter								
Dora	—	—	—	—	—			
Dulce	NOT	APPLICABLE						

Office Occupations

School Districts	A	B	C	D	E	F1	F2	F3
Alamogordo								
Albuquerque								
Animas								
Artesia	—	—	2000	30,000	25,000	✓		
Aztec	0	2728	2728	[illegible]	70,000	✓		
Belen	—	—	900	15000	8,000	✓		
Bernalillo	1	1,000	1,000	55,000	9,000	X		
Bloomfield	0	—	1,800	27,000	16,000	✓		
Carton	—	—	1,500	$15,000	$6,000	✓		
Carlsbad	—	—	2,700	30,400	25,000	✓		
Carrizozo	Not	Applicable						
Causey								
Central (Kirtland)	—	—	—	—	—			
Chama Valley								
Cimarron	—	—	—	—	—			
Clayton								
Cloudcroft	—	—	—	—	—			
Clovis								
Cobre	(Non-Voc) 0	-	1390 697	12,069	11,300	✓		
Corona	not 0	under 0	vocational 800	$1,000	program $3,000	✓		
Cuba								
Deming	—	—	—	—	—			
Des Moines	—	—	—	—	—			
Dexter								
Dora	—	—	—	—	—			
Dulce	1*	600	600	$15,000	$4,500	✓		

* - see questionnaire

Appendix B (continued)

Page I (cont)

Technical and Industrial A	B	C	D	E	F1	F2	F3	Industrial Arts A	B	C	D	E	F1	F2	F3	Health Occupations A	B	C	D	E	F1	F2	F3	Total Number of Buildings	Total Number of Square Feet	Total Insurable Value
																								—		
—	—	—	—	—				1	3000	250	$19,000	$24,500	✓			—	—	1,000	19,000	1000	✓			2	63,285	$430,000
1	3400	3400	$17,500	$[illegible]	✓			0	4400	4400	$4,[illegible]	$[illegible],300.00	✓			—	—	—	—	—				4	18,197	$16,107.00
1	5353	2400	$10000	$30000	✓			—	—	—	—	—				—	—	—	—	—				3	25,070	$266,200 –
—	—	—	—	—				—	—	—	—	—				1	750	750	$35,000	$1400	x			1	2,326	$140,000
—	—	—	—	—				—	—	—	—	—				—	—	—	—	—					1,800	
0	—	—	—	—				1	3,600	—	$30,000	$19,000	✓			0	—	—	—	—				—	—	—
—	6340	$76080	$13000		x			—	—	17,200	$12,400	$7,000	✓			—	—	—	—	—				—	36,450	$420,350
Not Applicable								1	2000	400	70,000	15,000	✓			Not Applicable								1	3400	$140,000.00
—	—	—	—	—				1	2400	0	$25,000	$7,000	✓			—	—	—	—	—				3	14,400	$140,000.00
—	—	—	—	—				0	0	550	$7000	2000				—	—	—	—	—				2	4,950	$67000.00
—	—	—	—	—				—	—	—	—	—				—	—	—	—	—				—	—	—
(Non-Voc) 1020	—	$ None	$10,000	$3400	$ ✓			2	(Non-Voc) 10,501		$67000	$[illegible]	✓				680		$10,000	$1,500	✓ *				(Non-Voc) 12,915 (Voc.) 12,680	$ 121,240 *
—	—	—	—	—				1	4,500	–	$25000	$12,000	✓			—	—	—	—	—				1 building / 1 House to [illegible]	5,400	$44,000
—	—	—	—	—				—	—	—	—	—				—	—	—	—	—				0	3,500	$65,000 Bldg + 23,000 Equipment
—	—	—	—	—				—	—	—	—	—				—	—	—	—	—				1	3,000 sq. ft.	$33,000.00
—	—	—	—	—				—	—	—	—	—				—	—	—	—	—				—	—	—
Not Applicable								1*	600	600	$15,000	$5,000	✓			Not Applicable								4	8400	$193,000.00

Appendix B (continued)

Page II

Agriculture

School Districts	A	B	C	D	E	F1	F2	F3
Elida	1	2,639	—	$500,000	$9,982.62	✓		
Encino	—	—	—	—	—			
Española								
Estancia	1	33,000	0	26,300	6,000	✓		
Eunice								
Farmington	0	*7,100	3,480	$104,962	*42,000	✓		
Floyd	1	2964	0	2,000	—	✓		
Ft Sumner	1/2	*5,136	0	84,000	8,400	✓		
Gadsen	1	8,700	—	14,000	11,750	✓		
Gallup	0	—	9,166	$128,678	$9,851	x		
Grady								
Grants	**	**	**	**	**			
Hagerman	0	0	423½	40,000	8,000	✓		
Hatch Valley	1	4,608	0	*62,764	*15,000	✓		
Hobbs								
Hondo Valley								
House								
Jal	—	—	—	—	—			
Jemez Mountain								
Jemez Springs	—	—	—	—	—			
Lake Arthur	1	3600	—	$50,000	$25,000	✓		
Las Cruces			3,264		6,500	✓		
Las Vegas City	1	2,400		$20,000	$5,400	✓		
Las Vegas West								
Logan	1	1832	—	$3,220	$5,232	✓		
Lordsburg	—	—	—	—	—			

Home Economics

School Districts	A	B	C	D	E	F1	F2	F3
Elida	1	1121	—	$7,500.00	$4,357.25	✓		
Encino	—	—	—	—	—			
Española								
Estancia	1	1,850	0	$8,800	$4,000	✓		
Eunice								
Farmington	1	5755	0	*61,530	*16,850	✓		
Floyd	1	2000	0	3,000	—	✓		
Ft Sumner	1	4295	0	45,000	5,300	✓		
Gadsen	—	—	4,700	$65,000	$8,000	✓		
Gallup	—	—	—	—	—			
Grady								
Grants	**	**	**	**	**			
Hagerman	1	1284	0	$10,000	$3,000	✓		
Hatch Valley	1	2,000	0	$45,000	*5,000	✓		
Hobbs								
Hondo Valley								
House								
Jal	—	—	—	—	—			
Jemez Mountain								
Jemez Springs	1	1,200	—	$10,000	$5,000	✓		
Lake Arthur	0	—	660	$20,000	$8,000	✓		
Las Cruces			21,068		*5,000	✓		
Las Vegas City	0		1,200	*3,000	*3,350	✓		
Las Vegas West								
Logan	1	1,000	—	$19,100	*4,516	✓		
Lordsburg	—	—	—	—	—			

Distributive Education

School Districts	A	B	C	D	E	F1	F2	F3
Elida	—	—	—	—	—			
Encino	—	—	—	—	—			
Española								
Estancia	—	—	—	—	—			
Eunice								
Farmington	—	—	—	—	—			
Floyd	—	—	—	—	—			
Ft Sumner	—	—	—	—	—			
Gadsen	—	—	—	—	—			
Gallup	0	—	768	7,700	466	x		
Grady								
Grants	**	**	**	**	**			
Hagerman	0	0	484	$3,000	$1,000	✓		
Hatch Valley	—	—	—	—	—			
Hobbs								
Hondo Valley								
House								
Jal	—	—	—	—	—			
Jemez Mountain								
Jemez Springs	—	—	—	—	—			
Lake Arthur	—	—	—	—	—			
Las Cruces			1848		*5,400	✓		
Las Vegas City	0		636	*12,000	*650	✓		
Las Vegas West								
Logan	—	—	—	—	—			
Lordsburg	—	—	—	—	—			

Office Occupations

School Districts	A	B	C	D	E	F1	F2	F3
Elida	—	—	—	—	—			
Encino	2	1,500	1,500	$228,600	$3,500	✓		
Española								
Estancia	—	—	—	—	—			
Eunice								
Farmington	0	0	448	*119,200	*58,000	✓		
Floyd	—	—	—	—	—			
Ft Sumner	—	—	—	—	—			
Gadsen	—	—	6,000	$72,000	22,000	✓		
Gallup	0	—	4,415	16,725	3,635	x		
Grady								
Grants	**	**	**	**	**			
Hagerman	0	0	901	$19,000	$7,000	✓		
Hatch Valley	—	—	—	—	—			
Hobbs								
Hondo Valley								
House								
Jal	0	—	1,000	?	$6,500	✓		
Jemez Mountain								
Jemez Springs	1	800	—	$15,000	$5,000	✓		
Lake Arthur	0	—	660	$12,000	$5,000	✓		
Las Cruces			9,444		*28,000	✓		
Las Vegas City	0		1,518	*25,000	*22,196	✓		
Las Vegas West								
Logan	—	—	—	—	—			
Lordsburg	—	—	—	—	—			

* - see questionnaire ** - see supplementary data sheet (for grants)

Appendix B (continued)

PAGE II (cont.)

Technical and Industrial						Industrial Arts						Health Occupations						Total Number of buildings	Total number of square feet	Total insurable value
A	B	C	D	E	✓	A	B	C	D	E	✓	A	B	C	D	E	✓			
—	—	—	—	—		—	—	—	—	—		—	—	—	—	—		2	3760	$19,000.00
—	—	—	—	—		1	1,200	—	228,600	3,500	✓	—	—	—	—	—		2	2,700	$16,000.00
—	—	—	—	—		—	—	—	—	—		—	—	—	—	—		2	34,850 sq ft	$35,100.00
1	1106	0	$6500	$15811	✓	0	7100	3620	104962	6250	✓	—	—	—	—	—		2	28,559	$342,204
—	—	—	—	—		—	—	—	—	—		—	—	—	—	—		—	—	—
—	—	—	—	—		1/2	5136	0	8400	8825		—	—	—	—	—		2	14,567	$129,000
3	18,700	900	$146,120	$58,750	✓	—	—	5400	$50,000	$10,000	✓	—	—	—	—	—		4	27,400	$220,120.00
1	19,645	1209	$384,653	$74,100	✓	—	—	—	—	—		—	—	—	—	—		1	19,948	$364,000
**	**	**	**	**		**	**	**	**	**		**	**	**	**	**		**	**	**
—	—	—	—	—		—	—	—	—	—		—	—	—	—	—		3	6,904 sq ft	$63,000.00
—	—	—	—	—		—	—	—	—	—		—	—	—	—	—		2	6,608	$108,011
—	—	—	—	—		—	—	—	—	—		—	—	—	—	—		—	—	—
—	—	—	—	—		1	1200	—	$8,000	$2,000	✓	—	—	—	—	—		3	3,[illegible]	$33,000.00
—	—	—	—	—		same as agricultural						—	—	—	—	—		1	3,[illegible] sq ft	$182,000.00
		13,816		$44,000	✓			18,147		$2,200	✓							6	62,588	
1 2,400	182	35,000	6,500		✓	1	21,388	1,340	$5,000	$9,200		0		1,000		1,000	**	3	30,044	122,000
—	—	—	—	—		—	—	—	—	—		—	—	—	—	—		2	2,832	$51,300
—	—	—	—	—		—	—	—	—	—		—	—	—	—	—		—	—	—

Appendix [illegible] (continued)

Page III

School Districts	Agriculture A	B	C	D	E	F1	F2	F3
Los Alamos	—	—	—	—	—			
Los Lunas								
Loving								
Lovington	1	5,124	0	*10,400	*15,22[illegible]	✓		
Magdalena	0	—	—	—	—			
Maxwell								
Melrose	1	*37,530	*9176	*	$4,125.50	*✓		
Mora								
Moriarity	1	2506	—	$11,000.00	$4000.00		✓	
Mosquero	—	—	—	—	—			
Mountainair								
Ojo Caliente								
Pecos	1	840	480	$4,500.00	$4,500.00	✓		
Peñasco	—	—	—	—	—			
Pojoaque								
Portales	1/2	5000	—	$2200.00	$850.00	✓		
Quemado	1	1,800	—	$8800.00	$4,000.00	✓		
Questa	1	2,100	900	*60,000	*500		✓	
Raton	1	3276	900	60,000	3,000		✓	
Reserve		-	-	-	-			
Roswell	1	4,000	—	*	$5,500	✓		
Roy	1	4,000	—	45,000	2,000		✓	
Ruidoso	-	-	-	-	-			
San Jon	1-3	2300	754	$2,000.00	$5,030.00		✓	
Santa Fe	—	—	—	—	—			
Santa Rosa								

School Districts	Home Economics A	B	C	D	E	F1	F2	F3
Los Alamos	—	—	—	—	—			
Los Lunas								
Loving								
Lovington	0	0	*1,514	138,168	$13,065	✓		
Magdalena	0	—	1424	19,300.00	2500.00	✓		
Maxwell								
Melrose	*2	*	1792	*	$3,867.04	✓		
Mora								
Moriarity	1	2526	—	40,000.00	12,000.00	✓		
Mosquero	—	—	—	—	—			
Mountainair								
Ojo Caliente								
Pecos	—	—	—	—	—			
Peñasco	—	—	—	—	—			
Pojoaque								
Portales	—	2,700	—	$27,000.00	4,273.94	✓		
Quemado	—	—	792	$5000.00	$4,600.00	✓		
Questa	1	1200	900	*60000	*5000	✓		
Raton	0	0	2352	50,000.	15,000	✓		
Reserve	N/A	N/A	450	*5,500	*5,500	✓		
Roswell	—	—	—	—	—			
Roy	1	1,000	—	$9,000	$1,500	✓		
Ruidoso	1	1,600	0	*30,000	*3,000	✓		
San Jon	1-4	1425	480	$5,000.00	$4,500.00	✓		
Santa Fe	—	—	—	—	—			
Santa Rosa								

School Districts	Distributive Education A	B	C	D	E	F1	F2	F3
Los Alamos	—	—	—	—	—			
Los Lunas								
Loving								
Lovington	—	—	—	—	—			
Magdalena	0	—	—	—	—			
Maxwell								
Melrose	NO PROGRAM							
Mora								
Moriarity	—	—	—	—	—			
Mosquero	—	—	—	—	—			
Mountainair								
Ojo Caliente								
Pecos	—	—	—	—	—			
Peñasco	—	—	—	—	—			
Pojoaque								
Portales	—	—	1,200	$1800.00	$2,151.95	✓		
Quemado	—	—	—	—	—			
Questa		—	—	—	—			
Raton	—	—	—	—	—			
Reserve		-	-	-	-			
Roswell	1	*900	1200	*	$4,200	✓		
Roy	—	—	—	—	—			
Ruidoso	—	—	—	—	—			
San Jon	—	—	—	—	—			
Santa Fe	—	—	1152	$24,520	$8500	✓		
Santa Rosa								

School Districts	Office Occupations A	B	C	D		F1	F2	F3
Los Alamos	0	—	2,000	$40,000	$12,[illegible]	✓		
Los Lunas								
Loving								
Lovington	—	—	—	—	—			
Magdalena	0	—	1042	10,920.00	3,000.00		✓	
Maxwell								
Melrose	1	*1158	*	*	$7,853.78	✓		
Mora								
Moriarity	—	—	—	—	—			
Mosquero	0	0	870	Blanket $20,915.00	$4,000		✓	
Mountainair								
Ojo Caliente								
Pecos	—	—	—	—	—			
Peñasco	—	—	—	—	—			
Pojoaque								
Portales	—	—	900	$13,500.00	$3,000.00	✓		
Quemado	non-vocational —	—	792	$5000.00	$4,000.00	✓		
Questa	—	—	—	—	—			
Raton	—	—	1430	50,000	9,000			✓
Reserve	—	—	—	—	—			
Roswell	—	—	2,700	*	$20,600	*✓		
Roy	NONE EXCEPT regular commercial courses							
Ruidoso	—	—	—	—	-			
San Jon	0	1400	660	$14,000.00	$7,695.00			✓
Santa Fe	2	10952	—	$170,520	$38,390	✓		
Santa Rosa								

* - see questionnaire

Appendix B (continued)

Page III (cont)

Technical and Industrial								Industrial Arts								Health Occupations								Total Number of buildings	Total Number of Square Feet	Total insurable value
A	B	C	D	E	F1	F2	F3	A	B	C	D	E	F1	F2	F3	A	B	C	D	E	F1	F2	F3			
—	—	—	—	—				—	—	—	—	—				—	—	—	—	—				—	2,000	$52,000
—	—	—	—	—				—	—	—	—	—				—	—	—	—	—				1	16,638	$242,168
—	—	—	—	—				1	1870	—	$18,700.00	$7,360.00	✓			—	—	—	—	—				2	4324	$43,340.00
NO PROGRAM								NO PROGRAM								NO PROGRAM								—	—	—
—	—	—	—	—				1	2500	—	$7500.00	$2,500.00	✓			—	—	—	—	—				—	—	—
—	—	—	—	—				1	2,400	400	$26,391.00	$3,526 [illegible]	✓			—	—	—	—	—				—	—	—
—	—	—	—	—				—	—	—	—	—				—	—	—	—	—				—	—	—
—	—	—	—	—				1	3,623	1,122	$90,000.00 [illegible]	$7,000.00 [illegible]	✓			—	—	—	—	—				—	—	—
1/2	5000	—	$37,000 [illegible]	$ [illegible]	✓			—	—	*	*	*	[illegible]			—	—	1,350	$22,000 [illegible]	$5,000.00	✓			1	3,394 sq ft.	$18,800.00
—	—	—	—	—				—	—	—	—	—				—	—	—	—	—						
—	—	—	—	—				1	1200	—	$3,000	6,000	✓			—	—	—	—	—				1	3,200	180,000
2	7328	—	$100,000	$28,000		✓		1	3,000	900	$75,000	15,000	✓			0	0	1680	$25,000	5,000		✓		6	20,866	$369,000
—	—	—	—	—				1	24,000		$15,000	$11,000	✓			—	—	—	—	—				1	$24,450	$30,500
1	4000	—	*	$8,000	✓			1	4000	—	[illegible]	$11,000	✓			—	—	—	—	—				3	16,800 sq ft	Construction $29,960 Contents $51,100
—	—	—	—	—				2 —	vocational agriculture 1 period							—	—	—	—	—				2	5,000	$52,000.00
* 0	0	840	—	$1,000			✓	—	—	—	—	—				—	—	—	—	—				1	1,600	$30,000.00
—	—	—	—	—				—	—	—	—	—				—	—	—	—	—				2	5,125	$52,000.00
*	6,201	—	$147,500	$19,000	✓			—	—	—	—	—				—	—	—	—	—				—	—	—

* - no questionnaire

Appendix B (continued)

PAGE IV

School Districts	Agriculture								Home Economics							
	A	B	C	D	E	F1	F2	F3	A	B	C	D	E	F1	F2	F3
Silver City	1	2,000	1,000	30,000	29,000			✓	1	2,000	0	29,000	12,000			✓
Socorro	1	6,500	[illegible]700	36,500	[illegible],000	✓			0	0	2800	37,804	9,210	✓		
Springer	0	—	3570	$26,000	$5,300.00	✓			—	0	1060	$41,360	—	✓		
Taos	—	—	—	—	—				—	—	1,878		5630	✓		
Tatum																
Texico	0	3444	950	$113,000	$6,500	✓			—	—	1,500	$215,200*	$6,000*	✓		
T. or C.																
Tucumcari	1	2400	—	31,200	8,000	✓			—	—	HS 3,150 JH 1815	65,325	HS 16,000 JH 9,000	✓		
Tularosa	1	4,000	—	3,500	4400		✓		—	3,000	—	13,500	6,000	✓		
Vaughn	Not Applicable								Not Applicable							
Wagon Mound	.	.	.	.	—				2	900	900	10,000	7,000	✓		

School Districts	Distributive Education								Office Occupations							
	A	B	C	D	E	F1	F2	F3	A	B	C	D	E	F1	F2	F3
Silver City	—	—	—	—	—				—	—	—	—	—			
Socorro	NA	—	—	—	—				0	0	1720	23,210	15,800	✓		
Springer	—	—	—	—	—				—	—	1180	—	$19,923	✓		
Taos	—	—	—	—	—				—	—	1,598	—	16,225	✓		
Tatum																
Texico	—	—	—	—	—				—	—	900	$25,200*	6,500	✓		
T. or C.																
Tucumcari	—	—	—	—	—				—	—	3,528	45,164	25,000	✓		
Tularosa	-	-	-	—	—				—	—	1,200	3,500	1,300	✓		
Vaughn	Not Applicable								1	988		25,000	6,000	✓		
Wagon Mound	—	—	—	—	—				—	—	—	—	—			

* - see questionnaire

Appendix B (continued)

PAGE IX (cont)

Technical and Industrial								Industrial Arts								Health Occupations								Total Number of buildings	Total Number of square feet	Total insurable value
A	B	C	D	E	F1	F2	F3	A	B	C	D	E	F1	F2	F3	A	B	C	D	E	F1	F2	F3			
—	—	—	—	—				1	2,000	0	$20,000	$15,000			✓	—	—	—	—	—				3	6,000 sq. ft	$70,000
NA	—	—	—	—				1	6,500	3,800	$5,500	$16,500	✓			NA	—	—	—	—				2	24,020	$149,020
—	—	—	—	—				—	—	—	—	—				—	—	—	—	—				—	—	—
2	5080	—	—	$15,278	✓			—	—	611	—	$3096	✓			—	—	—	—	—					9,173	$382,432
—	—	—	—	—				—	—	—	—	—				—	—	—	—	—				*	3350 sq. ft.	—
1	1500	—	12,500	3,500		✓		—	—	HS 2000 LR 2000	$62,400	RS 12,000 LR 12,000	✓			—	—	—	—	—				2	17,253	$224,219
—	—	—	—	—				2	4800	50,000	15000		✓			—	—	—	—	—				3	12,500	$123,500
1	1224	0	30000	5,000	✓			Not Applicable								Not Applicable										
—	—	—	—	—				1/2	1600	1600	8000	4000	✓			—	—	—	—	—				1	2500	$16,000

APPENDIX C

APPENDIX C

The following table reflects the numbers of trainees presently enrolled in training programs plus the number for which there are firm plans for enrollment in FY 69.
* Indicates that the trainees are scheduled for further training either institutionally or OJT of some type.

No. of Trainees	Program	Kind of Training	Purpose of Training	Location and Type of Facility(Public or Non-public)
20	MDTA	Medical Laboratory Assistant	Employment	Roswell-Public Facility
15	MDTA	Small Engine Mechanic	Employment	Santa Fe-Public Facility
20	MDTA	Office Machine Operator	Employment	Albuquerque-Public Facility
25	MDTA	Clerk Typists	Employment	Albuquerque-Public Facility
25	MDTA	Stenographers	Employment	Albuquerque-Public Facility
25	MDTA	Stenographer (Upgrading)	Employment	Albuquerque-Public Facility
15	MDTA	Stenographer (Refresher)	Employment	Farmington-Public Facility
35	MDTA	Stenographer	Employment	Santa Fe-Non-Public Facility
32	MDTA	Registered Nurse (Refresher)	Employment	Alb. & Hobbs-Non-Public Facility
20	MDTA	Electronics Mechanic	Employment	Roswell-Public Facility
20	MDTA	Cashier Checkers	Employment	Roswell-Public Facility
25	MDTA	Licensed Practical Nurse	Employment	Las Cruces-Non-Public Facility
25	MDTA	Licensed Practical Nurse	Employment	Albuquerque-Public Facility
15	MDTA	Cooks, Hotel-Resturant	Employment	Albuquerque-Public Facility
20	MDTA	Counterman, Auto Parts	Employment	Roswell-Public Facility
75	MDTA	Various, Individual Referrals	Employment	50% Public Facility, 50% Private Schools
*250	Navajo CEP	General Orientation (3 weeks)	Orientation	Coyote Canyon-BIA Facility
*230	Navajo CEP	Basic Education (8 weeks)	Upgrading	Coyote Canyon-BIA Facility (Contracted to ENMU)
20	Navajo CEP (MDTA)	Stenographer (Refresher)	Employment	Farmington-Public Facility
40	Navajo CEP (MDTA)	Sales Clerk	Employment	Gallup-Non-Public Facility

Appendix C (continued)

No. Of Trainees	Program	Kind of Training	Purpose of Training	Location and Type of Facility (Public or Non-Public)
(Cont)				
20	Navajo CEP (MDTA)	Auto Service Mechanic	Employment	Gallup-Non-Public Facility
170	Navajo CEP	Various Occupations On-The-Job Training (Largely for Electronics Assemblers for Employment at Fairchild Electronics Plant, Fort Defiance, Arizona)		
*563	North Central CEP	Orientation (1 week)	Orientation	Various ESC Offices, Northern N.M.
10	North Central CEP (MDTA)	Office Managers	Employment	Undetermined
20	North Central CEP (MDTA)	Building Maintenance Men	Employment	Undetermined
25	North Central CEP (MDTA)	Licensed Practical Nurse	Employment	Las Vegas-Non-Public Facility
485	North Central CEP	Various O-J-T contracts involving CEP paying the employer 80¢ per working hour and the employer paying the trainee $1.60 per hour. Purpose of training is employment. Contracts made in the target area.		
*1,490	Albuquerque CEP	Orientation and Job Conditioning	Upgrading	Both Public and Non-Public in the Albuquerque Area
*75	Albuquerque CEP	Literacy Training	Upgrading	Albuquerque-Public Facility
52	Albuquerque CEP	Home Improvement (Basic skills in carpentry, cement work, plastering and roofing)	Home improvement and skills development	Albuquerque Area, on site training
*75	Albuquerque CEP	Remedial Education and Orientation	Upgrading	Albuquerque-Public and Non-Public Facilities
20	Albuquerque CEP (MDTA)	Body and Fender Repair	Employment	Albuquerque-Public Facility
20	Albuquerque CEP (MDTA)	Small Engine Repair	Employment	Albuquerque-Public Facility
20	Albuquerque CEP (MDTA)	Clerk, General Office	Employment	Albuquerque-Public Facility
20	Albuquerque CEP (MDTA)	Cooks	Employment	Albuquerque-Public Facility
40	Albuquerque CEP (New Careers Funds)	Mental Health Aids and Mental Health Workers	Employment	Albuquerque-Public and Non-Public Facilities

Appendix C (continued)

No. of Trainees	Program	Kind of Training	Purpose of Training	Location and Type of Facility (Public or Non-public)
25	Albuquerque CEP (New Careers)	Social Service Worker	Employment	Albuquerque-Public & Non-public
50	Albuquerque CEP (New Careers)	School Aids	Employment	Albuquerque-Public & Non-public
15	RAR	Clerk, General Office	Employment	Albuquerque-Public & Non-public
15	RAR	Clerk, General Office	Employment	Farmington-Undetermined-Facility
15	RAR	Stenographer	Employment	Albuquerque-Non Public Facility
35	RAR	Farmer, General	Upgrading	Mora, Undetermined Facility
20	RAR	Various Individual Referral	Employment	Undetermined Location
25	RAR	Licensed Practical Nurse (Carlsbad)	Employment	Carlabad-Public Facilities
*120	SER	Orientation	Upgrading	Albuquerque- Non-Public
60	SER (MDTA)	Construction Worker	Employment	Albuquerque- Non Public
40	SER (MDTA)	Stenographer	Employment	Albuquerque - Public Facility
60	SER (MDTA)	Various, Individual Referral Project	Employment	Albuquerque- 50% Public-50% Non-public
518	Job Corp	Various	Employment & Re-entry into School	Out of State
850	BWTP-NYC Out-of-School Program	Various	Employment	Statewide
130	BWTP (Mainstream)	OJT-Truck Driving, Forrestry & Maintenance	Employment	Statewide-Forrest Service
368	BWTP	Clerical, Custodial, Medical, Maintenance (Slots for FY 69, does Not Include Carry over From FY 68)	Employment	Statewide-Non Public

APPENDIX D

STATE OF NEW MEXICO
OFFICE OF THE GOVERNOR
SANTA FE
87501

DAVID F. CARGO
GOVERNOR

December 4, 1968

Dear Sir:

Vocational training has many potential values, both to the trainee (social and economic) and to the employer (reduced training costs, improved productivity, and dependable manpower availability).

In developing a master plan for vocational training in the state of New Mexico, we are most anxious to give full recognition to the employer as the one who casts the key vote for or against a vocational program each time he considers the hiring of one of its graduates. His attitude toward this decision is the single most important measure of training success or failure.

We also are concerned about how well the supply of vocationally trained applicants matches the needs of employers. Certainly we cannot hope for full employment if we are producing too many people with unneeded skills and not enough with needed ones.

Your opinions in these areas are requested on the attached questionnaire. The recommendations that result from it must be formulated for consideration in the New Mexico Legislature early in January, 1969. Questionnaires returned after the 16th of December may be too late to be used.

Therefore, please be prompt in your reply. Thank you.

Sincerely,

David F. Cargo

DAVID F. CARGO
GOVERNOR

DFC:pdu:rw
Attachment

QUESTIONNAIRE

VOCATIONAL-TECHNICAL EDUCATION IN NEW MEXICO

Type of Business _____

Location (County) _____

Number of Employees _____

Part I - Employer attitudes toward effectiveness of available programs.

Statements (1) through (5) in the left hand column of Form A (attached) describe characteristics of vocationally trained job applicants that represent the major potential values to the employer of their training. Our purpose is to determine to what extent employers feel that these characteristics are present in vocationally trained applicants.

Across the top of the form are listed the various major types of vocational programs:

> High School Programs (generally taken by a student as the alternative to a straight academic college preparatory course.)
>
> Post High School Programs (offered to high school graduates by both public supported and private organizations.)
>
> Adult Education Courses (offered through the public school system in the evenings.)
>
> Federal Programs for those with special needs (including such programs as the Job Corps.)
>
> Military Programs (vocational technical training received in the course of military service.)

Please evaluate each statement with respect to programs about which you have an opinion by entering: T (true) if you feel the statement is generally true of applicants graduating from a program; 0 (zero) if you feel the program has little or no effect on the applicant characteristics described in the statement; or F (false) if you feel that program graduates are less likely to have the characteristics than applicants without such training.

Form A

EMPLOYER ATTITUDE TOWARD THE EFFECTIVENESS OF AVAILABLE VOCATIONAL EDUCATION PROGRAMS

Enter T(true), O(zero) or F(false) as it applies to each statement for each program with which you have had experience. (Note: If you have no opinion of a particular program, please leave blank.)

	High School Vocational Programs	Post High School Voc. Programs (Public Supported)	Post High School Programs (Private student pays fee)	Federal Programs for those with special needs	Military Voc/Tech. Programs	Adult Education Courses
1. Those who have had this type of training generally need less on-the-job training because of job knowledge and skills they already possess when hired.						
2. Those who have had this type of training generally can be trained faster or more easily when required to take the same instruction as others.						
3. Those who have had this type of training are potentially more productive and/or promotable.						
4. Those who have had this type of training are more likely to possess specific critical job knowledge and skills that you find difficult to obtain or costly to develop in your employees.						
5. Those who have had this type of training generally can be counted upon to have better work habits, attitudes and motivation.						
Jobs for which program graduates generally apply - please list						

Part II - Employer opinions of program availability

A. I would say that there is an oversupply of applicants with training in the following vocations.

B. I would like to see more applicants with training in the following vocations.

C. I would generally prefer to start with an applicant not trained in a specific skill and train him on the job in the following vocations.

Part III - Employer participation in vocational/technical training and counseling.

Please check the statement which most closely describes your past relationship to those active in the field of vocational/technical education.

☐ I have previously had little or no contact with vocational/technical educators and guidance counselors.

☐ I have previously had occasional contact with vocational/technical educators and guidance counselors.

☐ I have had a good working relationship with at least one representative (instructor, administrator or counselor) of the vocational/technical education community.

Please comment:

APPENDIX E1

PROJECTION OF SCHOOL DISTRICT BONDING POTENTIAL

Column 1 - Estimated Assessed Value 1969
All 1968 local assessed value, using assessment ratios applied to determine net 1968 local assessed values, were converted to 33 1/3%.

Example - A county certifying a 25% assessment ratio:

Local assessed value x 4 ÷ 3 = 33 1/3%
Corporate property and oil and gas were left the same as at present.
Cross county values were included in the school district as consolidated.

Column 2 - Is Column 1 multiplied by 6% constitutional debt limit for school bonding purposes.

Column 3 - Outstanding bonds at 6/30/68 plus bonds authorized but unsold up to constitutional limit.

Column 4 - Column 2 less Column 3.

Column 5 - A three year comparison of school district values and percentages of increase, discounting any above average increases during that period in the first several counties to complete re-appraisal. Where a district has consistently shown a slight decrease, no percentage was projected.

Column 6 - 1970 bonding potential is simply growth factor applied to 1969 bonding potential. No attempt was made to add back annual bonds maturing as this would have necessitated a specific date as the bonds mature at various times and in varying amounts by separate issue.

Column 7 - On the premise that few, if any, school bonds are now issued for more than 10 years, we have assumed one-half of the outstanding bonds (Column 3) will have matured by 1975. This column then represents growth factor to 1975 less adjusted outstanding bonds.

Column 8 - Using the above rationale on outstanding bonds, and assuming no new bonds have been issued, this column would reflect a 6% bonding potential with annual growth factor applied to 1980.

APPENDIX E2

PROJECTION OF SCHOOL DISTRICT BONDING POTENTIAL, NEW MEXICO

Projections based on maximum bonding capacity, bonding potential based on the historical growth pattern of assessed value.

	Est Assessed Value 1969 @ 33-1/3%	6%	Less Outstanding Bonded Dept	Bonding Potential 1969	Annual Est. Growth	Bonding Potential 1970	1975	1980
BERNALILLO								
Albuquerque #12	$ 604,888,929	36,293,336	19,110,000	17,183,336	5%	18,042,503	37,631,337	56,254,671
CATRON								
Reserve #1	2,363,891	141,833	66,000	75,833	5	79,625	151,383	219,841
Quemado #2	5,211,432	312,686	94,000	218,686	2	223,060	303,208	381,477
	7,575,323							
CHAVES								
Roswell Indep #1	86,679,781	5,200,787	642,000	4,558,787	5	4,786,726	6,440,023	8,061,220
Hagerman #6	5,765,489	345,929	282,000	63,929	2	65,208	246,440	422,033
Dexter #8	6,744,806	404,688	327,000	77,688	2	79,242	289,751	493,719
Lake Arthur #20	2,880,200	172,812	126,000	46,812	5	49,153	161,656	267,859
	102,070,276							
COLFAX								
Cimarron #3	8,335,836	500,150	102,000	398,150	10	437,965	749,240	1,050,315
Raton #11	12,853,344	771,201	289,000	482,201	2	491,845	719,245	940,865
Springer #2	5,431,599	325,896	303,000	22,896	2	23,354	213,504	397,593
Maxwell #26	1,920,780	115,247	758	114,489	2	116,779	129,077	140,601
	28,541,559							
CURRY								
Clovis #1	58,653,710	3,519,223	2,455,000	1,064,223	6	1,128,076	3,558,643	5,841,910
Texico #2	5,925,196	355,512	198,000	157,512	7	168,538	405,827	629,256
Melrose #12	6,787,546	407,253	133,000	274,253	2	279,738	389,623	496,849
Grady #6	3,108,702	186,522	47,000	139,522	2	142,312	185,405	227,557
	74,475,154							
DE BACA								
Fort Sumner #20	11,399,088	683,945	468,000	215,945	2	220,264	532,018	834,413
DONA ANA								
Las Cruces #2	77,750,304	4,665,018	3,777,000	888,018	8	959,059	5,015,727	8,770,234
Hatch #11	8,433,342	506,001	4,500	501,501	4	521,561	627,441	728,641
Gadsden #16	33,279,726	1,996,784	773,000	1,223,784	5	1,284,973	2,209,319	3,095,015
	119,463,372							
EDDY								
Carlsbad #C	99,859,287	5,991,557	2,865,000	3,126,557	3	3,220,354	5,637,537	7,968,771
Loving #10	3,746,742	224,805	105,549	119,256	2	121,641	199,007	274,262
Artesia #16	76,971,468	4,618,288	2,600,000	2,018,288	5	2,119,202	4,703,774	7,158,546
	180,577,497							

Appendix E2 (continued)

GRANT								
Silver City #1	26,087,732	1,565,264	866,000	699,264	6	741,220	1,695,759	2,598,338
Cobre Cons. #2	51,399,672	3,083,980	776,000	2,307,980	5	2,423,379	3,621,174	4,780,169
	77,487,404							
GUADALUPE								
Santa Rosa #8	11,006,530	660,392	618,000	42,392	8	45,783	668,380	1,241,537
Vaughn #33	5,389,841	323,390	230,000	93,390	4	97,126	286,004	465,682
	16,396,371							
HARDING								
Roy #3	1,624,737	97,484	97,000	484	1	489	54,833	108,207
Mosquero #5	2,310,309	138,619	131,000	7,619	2	7,771	89,753	169,115
	3,935,046							
HIDALGO								
Lordsburg #1	14,030,949	841,857	120,000	721,857	5	757,950	1,034,414	1,304,878
Animas #6	5,061,687	303,701	87,500	216,201	5	227,011	351,061	470,737
	19,092,636							
LEA								
Lovington #1	75,539,237	4,532,354	800,000	3,732,354	3	3,844,325	4,948,178	6,028,031
Eunice #8	42,985,700	2,579,142	720,000	1,859,142	-	1,859,142	2,219,142	2,579,142
Hobbs #16	101,518,689	6,091,121	200,000	5,891,121	4	6,126,766	7,552,990	8,771,214
Jal #19	37,232,618	2,233,957	648,000	1,585,957	5	1,665,255	2,580,144	3,462,633
Tatum #28	38,011,696	2,280,702	210,000	2,070,702	10	2,277,772	3,544,123	4,789,474
	295,287,940							
LINCOLN								
Ruidoso #3	7,374,697	442,482	184,400	248,082	2	253,044	398,380	539,828
Carrizozo #7	4,703,151	282,189	255,000	27,189	4	28,277	222,414	406,352
Corona #13	7,571,199	454,272	298,000	156,272	1	157,835	332,528	504,242
Hondo #20	3,685,867	221,152	52,500	168,652	1	170,339	208,171	245,479
Capitan #28	2,140,448	128,427	24,000	104,427	5	109,648	154,955	199,062
	25,475,362							
LOS ALAMOS								
Los Alamos	25,407,757	1,524,465	-0-	1,524,465	20	1,829,358	3,353,823	4,878,288
LUNA								
Deming #1	34,575,149	2,074,509	1,079,800	994,709	5	1,044,444	2,156,962	3,215,489
McKINLEY								
Gallup #1	67,690,301	4,061,418	3,190,500	870,918	6	923,173	3,928,278	6,741,954
MORA								
Mora #1	2,320,397	139,224	125,700	13,524	2	13,794	93,081	169,853
Wagon Mound #12	3,446,391	206,783	200,000	6,783	2	6,919	131,597	252,275
	5,766,788							

Appendix E2 (continued)

OTERO								
Alamogordo #1	39,214,366	2,352,862	2,350,000	2,862	6	3,034	2,024,892	3,905,751
Tularosa #4	4,245,960	254,758	175,000	79,758	2	81,353	197,829	310,805
Cloudcroft #11	2,786,007	167,160	30,000	137,160	7	146,761	222,567	295,873
	46,246,333							
SAN JUAN								
Aztec #2	18,519,725	1,111,183	606,000	505,183	4	525,390	1,074,867	1,600,104
Farmington #5	57,290,187	3,437,411	294,000	3,143,411	4	3,269,147	4,115,390	4,949,872
Bloomfield #6	38,099,370	2,285,962	1,685,000	600,962	7	643,029	2,403,566	4,046,153
Central Cons #22	44,057,824	2,643,469	785,500	1,857,969	-	1,857,969	2,250,719	2,643,469
	157,967,106							
SAN MIGUEL								
Las Vegas Town #1	7,999,571	479,974	472,500	7,474	2	7,623	301,321	585,568
Las Vegas City #2	13,593,796	815,628	775,000	40,628	2	41,441	526,003	995,066
Pecos #21	1,750,530	105,032	72,000	33,032	2	33,693	81,636	128,139
	23,343,897							
SANTA FE								
Santa Fe #C	97,250,450	5,835,027	5,835,027	-	5	291,751	4,668,021	9,044,292
Pojoaque #1	4,013,948	240,837	114,000	126,837	2	129,374	212,737	293,821
	101,264,398							
SIERRA								
Truth or Cons. #6	12,759,621	765,577	410,000	355,577	3	366,244	698,381	1,018,217
SOCORRO								
Socorro #1	10,772,073	646,324	595,000	51,324	3	52,864	465,162	859,611
Magdalena #12	3,498,452	209,907	-0-	209,907	4	218,303	260,285	302,266
	14,270,525							
TAOS								
Taos #1	7,408,451	444,507	369,182	75,325	5	79,091	393,268	688,986
Penasco #4	974,870	58,492	30,000	28,492	3	29,347	54,021	77,794
Ojo Caliente #6	10,059,513	603,571	487,000	116,571	4	121,234	504,928	869,142
Questa #9	12,666,150	759,969	603,650	156,319	5	164,135	686,135	1,177,952
	31,108,984							
TORRANCE								
Estancia #7	4,883,927	292,036	189,200	103,836	1	104,874	216,018	325,270
Moriarty #8	5,854,637	351,278	296,000	55,278	10	60,806	414,045	737,684
Mountainair #13	5,278,397	316,704	214,000	102,704	2	104,758	247,708	386,379
Encino #16	3,549,508	212,970	-0-	212,970	2	217,229	238,526	259,823
	19,566,469							

Appendix E2 (continued)

QUAY								
Tucumcari #1	20,237,209	1,214,233	405,000	809,233	4	841,602	1,303,149	1,748,496
House #19	2,382,128	142,928	92,000	50,928	2	51,947	114,079	174,372
Logan #32	2,571,664	154,300	54,000	100,300	2	102,306	145,816	188,246
San Jon #34	4,175,296	250,518	51,000	199,518	-	199,518	225,018	250,518
	29,366,297							
RIO ARRIBA								
Chama #19	3,878,890	232,733	234,000	(1,267)	3	5,715	157,625	309,535
Dulce #21	9,857,250	591,435	-0-	591,435	-	591,435	591,435	591,435
Espanola #45	10,867,421	652,045	322,000	330,045	7	353,148	764,904	1,154,120
Jemez Mountain #53	16,154,597	969,276	910,000	59,276	2	60,462	630,589	1,182,517
	40,758,158							
ROOSEVELT								
Portales #1	15,911,336	954,680	290,000	664,680	2	677,974	924,242	1,164,710
Elida #2	5,005,863	300,352	52,750	247,602	5	259,982	364,083	465,546
Floyd #5	2,412,076	144,725	60,000	84,725	2	86,420	132,092	176,564
Dora #39	9,408,238	564,494	248,000	316,494	10	348,143	779,190	1,185,437
Causey #40	1,279,399	76,764	33,000	43,764	2	44,639	69,476	93,652
	34,016,912							
SANDOVAL								
Bernalillo #1	6,842,955	410,577	304,600	105,977	5	111,276	381,450	636,394
Cuba #20	4,173,872	250,432	108,500	141,932	7	151,867	301,363	443,265
Jemez Springs #31	5,292,306	317,538	77,125	240,413	10	264,454	469,495	666,830
	16,309,133							
UNION								
Clayton #1	14,100,031	846,002	245,000	601,002	2	613,022	825,022	1,032,122
Des Moines #22	3,582,658	214,959	100,000	114,959	-	114,959	164,959	214,959
	17,682,689							
VALENCIA								
Los Lunas #1	9,713,591	582,815	503,000	79,815	5	83,806	506,160	903,363
Belen #2	26,015,811	1,560,949	1,290,000	270,949	6	287,206	1,477,891	2,591,175
Grants #3	34,265,522	2,055,931	950,000	1,105,931	-	1,105,931	1,580,931	2,055,931
	69,994,924							
	$2,314,761,400	138,885,681	68,409,241	70,476,440	5%	74,077,260	144,292,127	211,308,651

* O/S Bonds @ 6/30/68 plus Bonds Authorized to limit - unsold at 6/30/68.

**Assuming no bonds are issued

Prepared for The Sterling Institute
December 6, 1968
Dept. of Finance & Administration
Public School Finance Division

APPENDIX E3

PROJECTION OF POTENTIAL RESOURCES

Column 1 - Estimated Assessed Value 1969.

Column 2 - 1970 production from levy of .002225 mills on estimated assessed value of each school district.

Column 3 - 1970 production from levy of .006700 mills on estimated assessed county value and distributed to each school district by the percentage of the district's projected average daily membership to the total of all districts within the county.

Column 4 - Total of potential local resources from property taxes that will be available in 1970 for operation of the school district.

Column 5 - Percent of estimated annual growth of the assessed value of the property within the school district. Note: The growth percentage was not compounded annually.

Example: Estimated growth of 5%.
125% x present value = projected value

Columns 6, 7 & 8 - Same as Columns 2, 3 & 4 respectively.

Columns 9, 10 & 11 - Same as Columns 2, 3 & 4 respectively.

APPENDIX E4

PROJECTION OF POTENTIAL OPERATIONAL LOCAL RESOURCES

Production based on projected growth of assessed value of school districts. Application of present legal levy, and distributed on present basis, using projected average daily membership percentages on county levy.

Prepared for The Sterling Institute
December 6, 1968
Dept. of Finance & Administration
Public School Finance Division

Appendix B4 (continued)

County Administrative Unit		Est Assessed Value 1969 @ 33 1/3%	1970 Estimated Production Dist Levy 002225	1970 Estimated Production County Levy 006700	1970 Estimated Production Total Local Resources	Assessed Value Estimated Annual Growth	1975 Estimated Production Dist Levy 002225	1975 Estimated Production County Levy 006700	1975 Estimated Production Total Local Resources	1980 Estimated Production Dist Levy 002225	1980 Estimated Production County Levy 006700	1980 Estimated Production Total Local Resources
BERNALILLO												
Albuquerque #12	5%	$604,888,929	$1,345,878	$4,052,756	$5,398,634	5%	$1,682,348	$5,065,945	$6,748,293	$2,102,935	$6,332,431	$8,435,366
		604,888,929	1,345,878	4,052,756	5,398,634		1,682,348	5,065,945	6,748,293	2,102,935	6,332,431	8,435,366
CASTRON												
Reserve #1	4%	2,363,891	5,260	15,837	21,097	2	6,575	42,348	48,923	8,219	53,405	61,624
Quemado #2		5,211,432	11,595	34,925	46,520	2	12,755	18,558	31,313	14,031	19,682	33,713
		7,575,323	16,855	50,762	67,617		19,330	60,906	80,236	22,250	73,087	95,337
CHAVES												
Roswell Indep #1	4%	86,679,761	192,863	603,243	796,106	3%	241,079	735,298	976,377	301,349	897,129	1,198,478
Hagerman #6		5,765,489	12,828	25,175	41,003	2	14,111	27,081	41,192	15,522	25,407	40,929
Dexter #8		6,744,808	15,007	39,733	54,740	2	16,508	44,315	60,823	18,159	47,269	65,428
Lake Arthur #20		2,880,200	6,408	12,720	19,128	2%	7,010	13,951	21,961	10,013	14,969	24,982
		102,070,278	227,106	683,871	910,977		279,708	820,645	1,100,353	345,043	984,774	1,329,817
COLFAX												
Cimarron #3	6%	8,335,836	18,547	30,941	49,488	3	27,821	39,925	67,746	41,732	51,805	93,537
Raton #11		12,853,344	28,599	115,234	143,833	2%	31,439	155,572	187,031	34,605	205,798	240,403
Springer #24		5,431,599	12,085	35,243	47,328	2%	13,294	42,759	56,053	14,623	54,778	69,401
Maxwell #26		1,920,780	4,274	9,810	14,084	2%	4,701	10,341	15,042	5,171	10,795	15,966
		28,541,559	63,505	191,228	254,733		77,275	248,597	325,872	96,131	323,176	419,307
CURRY												
Clovis #1	4%	58,653,710	130,505	453,271	583,776	6%	169,657	547,345	717,002	220,556	662,849	883,403
Texico #2		5,925,196	13,184	22,404	35,588	7%	17,798	24,191	41,989	24,927	26,227	50,254
Melrose #12		6,787,546	15,102	14,371	29,473	2%	16,612	14,670	31,282	18,273	13,149	31,422
Grady #61		3,108,702	6,917	8,931	15,848	2%	7,609	12,574	20,183	8,570	16,311	24,881
		74,475,154	165,708	498,977	664,685		211,676	598,780	810,456	271,224	718,536	989,760
DE BACA												
Fort Sumner #20	2%	11,399,088	25,363	76,374	101,737	2%	27,899	84,011	111,910	30,689	92,412	123,101
		11,399,088	25,363	76,374	101,737		27,899	84,011	111,910	30,689	92,412	123,101
DONA ANA												
Las Cruces #2	7%	77,750,804	172,994	611,670	784,664	8%	242,192	843,690	1,085,882	339,069	1,169,907	1,508,976
Hatch #31		8,433,342	18,764	35,618	54,382	4%	22,517	41,817	64,334	27,020	46,096	73,116
Gadsden #16		33,279,726	74,047	153,117	227,164	5%	92,559	195,039	287,598	115,699	242,734	358,433
		119,463,872	265,805	800,405	1,066,210		357,268	1,080,546	1,437,814	481,788	1,458,737	1,940,525

Appendix E4 (continued)

EDDY												
Carlsbad #6	4	99,859,287	222,187	742,134	964,321	3%	255,515	926,276	1,181,791	293,842	1,119,720	1,413,562
Loving #10		3,746,742	8,336	44,402	52,738	2%	9,170	49,693	58,823	10,087	53,660	63,747
Artesia #16		76,971,468	171,262	423,333	594,595	3%	214,078	475,914	689,992	267,598	568,832	836,430
		$180,577,497	401,785	1,209,869	1,611,654		478,763	1,451,843	1,930,606	571,527	1,742,212	2,313,739
							3,134,267	9,411,273	12,545,540	3,921,587	11,725,365	15,646,952
GRANT	5%											
Silver City #1		26,087,732	58,045	270,849	328,894	6	75,459	359,003	434,462	98,097	495,073	593,170
Cobre Cons #2		51,399,672	114,364	248,817	362,681	3	142,955	289,954	432,909	178,694	316,123	494,817
		77,487,404	172,409	519,166	691,575		218,414	648,957	867,371	276,791	811,196	1,087,987
GUADALUPE												
Santa Rosa #8	7%	11,006,530	24,490	86,578	111,068	8%	34,286	125,896	160,182	48,000	180,651	228,651
Vaughn #33		5,389,841	11,992	23,278	35,270	4	14,390	22,409	36,799	17,268	19,561	36,829
		16,396,371	36,482	109,856	146,338		48,676	148,305	196,981	65,268	200,212	265,480
HARDING												
Rox #3	2%	1,624,737	3,615	15,627	19,242	1	3,796	15,350	19,146	3,986	15,462	19,448
Mosquero #5		2,310,309	5,140	10,738	15,878	2%	5,654	13,651	19,305	6,219	16,439	22,658
		3,935,046	8,755	26,365	35,120		9,450	29,001	38,451	10,205	31,901	42,106
HIDALGO												
Lordsburg #1	5%	14,030,949	31,219	104,409	135,628	3%	39,024	125,168	164,192	48,780	154,464	203,244
Animas #6		5,061,687	11,262	23,512	34,774	3%	14,078	32,733	46,811	17,598	45,412	3,010
		19,092,636	42,481	127,921	170,402		53,102	157,901	211,003	66,378	199,876	266,254
LEA												
Lovington #1	4%	75,539,237	168,075	459,391	627,466	3	193,268	507,823	701,091	222,258	563,520	785,778
Eunice #8		42,985,700	95,643	140,468	236,111	-	95,643	151,469	247,112	95,643	160,680	256,323
Hobbs #16		101,518,689	225,879	1,166,680	1,392,559	4	271,055	1,470,527	1,741,582	325,266	,846,112	2,171,378
Jal #19		37,232,618	82,843	142,447	225,290	5%	103,554	172,836	276,390	129,443	201,420	330,863
Tatum #28		38,011,696	84,576	69,443	154,019	10%	126,864	71,460	198,324	190,296	77,206	267,502
		295,287,940	657,016	1,978,429	2,635,445		790,384	2,374,115	3,164,499	962,906	2,848,938	3,811,844
LINCOLN												
Ruidoso #3	2%	7,374,697	16,409	70,834	87,243	2%	18,050	84,207	102,257	19,855	94,632	114,487
Carrizozo #7		4,703,151	10,465	38,131	48,596	4%	12,558	51,538	64,096	15,070	67,927	82,997
Corona #13		7,571,199	16,846	15,720	32,566	1%	17,688	17,179	34,867	18,372	16,564	35,136
Hondo #20		3,685,867	8,201	22,155	30,356	1%	8,611	17,837	26,448	9,042	14,519	23,561
Capitan #28		2,140,448	4,762	23,845	28,607	5%	5,953	16,992	22,945	7,441	12,887	20,328
		25,475,362	56,683	170,685	227,368		62,860	187,753	250,613	69,980	206,529	276,509

Appendix E4 (continued)

LOS ALAMOS											
Los Alamos	20%	25,407,757	56,532	170,232	226,764	20%	113,064	340,464	453,528	226,129	680,928	907,057
		25,407,757	56,532	170,232	226,764		113,064	340,464	453,528	226,129	680,928	907,057
LUNA												
Deming #1	5%	34,575,149	76,930	231,653	308,583	5%	96,163	289,566	385,729	120,203	361,959	482,162
		34,575,149	76,930	231,653	308,583		96,163	289,566	385,729	120,203	361,959	482,162
McKINLEY												
Gallup #1		67,690,301	150,611	453,525	604,136		195,794	589,583	785,377	254,532	766,457	1,020,989
		67,690,301	150,611	453,525	604,136		195,794	589,583	785,377	254,532	766,457	1,020,989
							1,587,907	4,765,645	6,353,552	2,052,392	6,107,996	8,160,388
MORA												
Mora #1	2%	2,320,397	5,163	31,033	36,196	2	5,679	35,960	41,639	6,247	41,384	47,631
Wagon Mound #12		3,446,391	7,668	7,604	15,272		8,435	6,541	14,976	9,279	5,367	14,646
		5,766,788	12,831	38,637	51,468		14,114	42,501	56,615	15,526	46,751	62,277
OTERO												
Alamogordo #1	5%	39,214,366	87,252	259,716	346,968	6%	113,428	322,748	436,176	147,456	402,902	550,358
Tularosa #4		4,245,960	9,447	39,847	49,294	2	10,392	53,217	63,609	11,431	67,441	78,872
Cloudcroft #11		2,786,007	6,199	10,287	16,486	7	8,369	11,348	19,717	11,298	13,798	25,096
		46,246,333	102,898	309,850	412,748		132,189	387,313	519,502	170,185	484,141	654,326
QUAY												
Tucumcari #1	3%	20,237,209	45,028	158,269	203,297	4%	54,034	177,801	231,835	64,841	197,861	262,702
House #19		2,382,128	5,300	7,713	13,013	2%	5,830	11,788	17,618	6,413	16,497	22,910
Logan #32		2,571,664	5,722	15,336	21,108	2%	6,294	19,957	26,251	6,923	27,946	34,869
San Jon #34		4,175,296	9,290	15,386	24,676	-	9,290	16,721	26,011	9,290	17,903	27,193
		29,366,297	65,340	196,754	262,094		75,448	226,267	301,715	87,467	260,207	347,674
RIO ARRIBA												
Chama #19	3%	3,878,890	8,631	36,757	45,388	3%	9,926	46,981	56,907	11,415	58,217	69,632
Dulce #21		9,857,250	21,932	24,686	46,618	-	21,932	22,611	44,543	21,932	23,258	45,190
Espanola #45		10,867,421	24,180	188,371	212,551	7%	32,643	217,757	250,400	44,068	246,628	290,696
Jemez Mountain #53		16,154,597	35,944	23,266	59,210	2%	39,538	26,693	66,231	32,492	33,045	65,537
		40,758,158	90,687	273,080	363,767		104,039	314,042	418,081	109,907	361,148	471,055
ROOSEVELT												
Portales #1	7%	15,911,336	35,403	181,715	217,118	2%	38,943	241,285	280,228	42,837	323,492	366,329
Elida #2		5,005,863	11,138	8,547	19,685	5%	13,923	14,799	28,722	17,404	21,558	38,962
Floyd #5		2,412,076	5,367	15,543	20,910	2%	5,904	23,292	29,196	6,494	32,648	39,142
Dora #39		9,408,238	20,933	14,655	35,588	10%	31,400	19,969	51,369	47,100	27,705	74,805
Causey #40		1,279,399	2,847	7,453	10,300	2%	3,132	8,338	11,470	3,445	9,969	13,414
		34,016,912	75,688	227,913	303,601		93,302	307,683	400,985	117,280	415,372	532,652

Appendix E4 (continued)

SANDOVAL												
Bernalillo #1	9%	5,842,955	15,226	71,376	86,602	5%	19,033	107,028	126,061	23,791	157,696	181,487
Cuba #20		4,173,872	9,287	22,062	31,349	7%	12,537	26,254	38,791	16,925	34,232	51,157
Jemez Springs #31		5,292,306	11,775	15,833	27,608	10%	17,663	25,161	42,824	26,495	37,815	64,310
		16,309,133	36,288	109,271	145,559		49,233	158,443	207,676	67,211	229,743	296,954
SAN JUAN												
Aztec #2	5%	18,519,725	41,206	150,502	191,708	4%	49,447	166,208	217,655	59,336	180,842	240,178
Farmington #5		57,290,187	127,471	516,172	643,643	4%	152,965	551,241	704,206	183,558	573,320	756,878
Bloomfield #6		39,099,370	84,771	128,503	213,364	7%	73,941	151,655	225,596	99 820	185,181	285,001
Central Cons #22		44,057,824	98,029	263,113	361,142	-	98,029	346 033	444,062	98,020	460,364	558,393
		157,967,106	351,477	1,058,380	1,409,857		374,382	1,217,137	1,591,519	440,743	1,399,707	1,840,450
SAN MIGUEL												
Las Vegas Town #1	2%	7,999,571	17,799	66,425	84,724	2	19,579	77,179	96,758	21,537	91,275	112,812
Las Vegas City #2		13,293,796	30,246	70,179	100,425	2	33,271	75,425	108,696	36,598	77,725	114,323
Pecos #21		1,750,530	3,895	19,300	23,195	2%	4,285	19,441	23,726	4,714	20,249	24,963
		23,343,897	51,940	156,404	208,345		57,135	172,045	229,180	62,849	189,249	252,098
SANTA FE												
Santa Fe #C	5%	97,250,450	216,382	618,698	835,080	5%	270,478	777,019	1,047,497	338,098	978,165	1,316,263
Pojoaque #1		4,013,948	8,931	59,773	68,704	2%	9,824	71,070	80,894	10,806	81,947	92,753
		101,264,398	225,313	678,471	903,784		280,302	848,089	1,128,391	348,904	1,060,112	1,409,016
SIERRA												
Truth or Cons #6	3%	12,759,621	28,390	85,489	113,879	3	32,649	98,312	130,961	37,546	113,060	150,606
		12,759,621	28,390	85,489	113,879		32,649	98,312	130,961	37,546	113,060	150,606
SOCORRO												
Socorro #1	3%	10,772,073	23,968	74,636	98,604	3%	27,563	83,103	110,666	31,697	93,040	124,737
Magdalena #12		3,498,452	7,784	20,977	28,761	4%	9,341	26,851	36,192	11,209	33,408	44,617
		14,270,525	31,752	95,613	127,365		36,904	109,954	146,858	42,906	126,448	169,354
TAOS												
Taos #1	5%	7,408,451	16,484	114,261	130,745	5%	20,605	145,953	166,558	25,756	185,600	211,356
Penasco #4		974,870	2,169	31,682	33,851	3%	2,494	34,547	37,041	2,868	34,912	37,780
Ojo Caliente #6		10,059,513	22,382	22,927	45,309	4%	26,858	22,172	49,030	32,230	21,690	53,920
Questa #9		12,666,150	28,182	39,560	67,742	6%	35,228	57,866	93,094	44,035	83,470	127,505
		31,108,484	69,217	208,430	277,647		85,185	260,538	345,723	104,889	325,672	430,561

Appendix E4 (continued)

TORRANCE												
Estancia #7	3%	4,883,927	10,867	40,692	51,559	17	11,410	44,504	55,914	11,980	47,262	59,242
Morlatt #8		5,554,637	13,027	45,018	58,045	16	19,541	58,389	77,930	29,312	78,764	108,076
Mountainair #13		5,278,397	11,744	33,495	45,239	2	12,916	35,474	48,392	14,210	34,969	49,179
Lincoln #16		3,549,508	7,898	11,890	19,788	2	8,684	12,393	21,081	9,557	12,379	21,936
		19,366,469	43,536	131,095	174,631		52,551	150,760	203,317	65,059	173,374	238,433
UNION												
Clayton #1	1%	14,100,031	31,373	100,347	131,721	27	34,510	105,241	139,751	37,961	110,816	148,777
Des Moines #22		3,582,658	7,971	18,127	26,098	-	7,971	19,157	27,128	7,971	19,802	27,773
		17,682,689	39,344	118,474	157,819		42,481	124,398	166,879	45,932	130,618	176,550
VALENCIA												
Los Lunas #1	8%	9,713,891	21,613	121,309	143,122	3	24,016	159,852	186,868	33,770	207,522	241,292
Belen #2		26,015,811	57,885	133,796	191,681	6	75,251	156,939	232,190	97,826	177,752	275,578
Grants #3		34,265,522	76,241	213,661	289,902		76,241	222,520	298,761	76,241	234,934	311,175
		69,994,924	155,739	468,966	624,705		178,508	539,311	717,819	207,837	620,208	828,045
		2,314,761,400	5,150,344	15,508,804	20,659,238		6,330,602	19,133,711	25,464,313	7,898,220	23,769,171	31,667,391
							765,721	2,303,407	3,069,128	915,922	2,738,741	3,654,663

APPENDIX E5

ENROLLMENT PROJECTIONS

Estimated average daily membership was projected on the percentage of change, historically, in each school district, based on the actual average daily membership of the years 1963-1967 Inclusive, except in the districts where we have pertinent information, which in our judgment, would cause the historical percentage of change to be invalid. In such instances we made projections on the basis of current information.

Columns 1 and 2 are the projected ADM for the years 1975 and 1980. The increase or decrease between the two columns will indicate the historical growth or decline of enrollment.

Columns 3 and 4 reflect each administrative units percentage of the projected ADM to the total of the county for the respective years.

ENROLLMENT PROJECTIONS BY DISTRICT
(Average Daily Membership)
New Mexico Public Schools

Administrative Unit	Estimated ADM 1975	Estimated ADM 1980	% ADM 1975	% ADM 1980
Bernalillo				
Albuquerque	88,486	100,918	100.00	100.00
	88,486	100,918	100.00	100.00
Catron				
Reserve	372	388	69.53	73.07
Quemado	163	143	30.47	26.93
	535	531		
Chaves				
Roswell	10,661	11,194	89.60	91.10
Hagerman	393	317	3.30	2.58
Dexter	643	590	5.40	4.80
Lake Arthur	202	187	1.70	1.52
	11,899	12,288		
Colfax				
Cimarron	490	489	16.06	16.03
Raton	1,910	1,943	62.58	63.68
Springer	525	517	17.20	16.95
Maxwell	127	102	4.16	3.34
	3,052	3,051		
Curry				
Clovis	9,531	10,872	91.41	92.25
Texico	421	430	4.04	3.65
Melrose	255	215	2.45	1.83
Grady	219	268	2.10	2.27
	10,426	11,785		
De Baca				
Fort Sumner	588	510	100.00	100.00
	588	510		
Dona Ana				
La Cruces	19,247	23,918	78.08	80.20
Hatch	955	941	3.87	3.16
Gadsden	4,449	4,963	18.05	16.64
	24,651	29,822		
Eddy				
Carlsbad	7,748	7,086	63.80	64.27
Loving	415	339	3.42	3.08
Artesia	3,981	3,600	32.78	32.65
	12,144	11,025		
Grant				
Silver City	3,702	4,865	55.32	61.03
Cobre Cons.	2,990	3,106	44.68	38.97
	6,692	7,971		
Guadalupe				
Santa Rosa	1,511	1,920	84.89	90.23
Vaughn	269	208	15.11	9.77
	1,780	2,128		

Appendix E6 (continued)

Harding				
Roy	217	190	52.93	48.47
Mosquero	193	202	47.07	51.53
	410	392		
Hidalgo				
Lordsburg	1,197	1,252	79.27	77.28
Animas	313	368	20.73	22.72
	1,510	1,620		
	162,173	182,041		
Lea				
Lovington	2,916	2,579	21.39	19.78
Eunice	870	735	6.38	5.64
Hobbs	8,445	8,448	61.94	64.80
Jal	993	922	7.28	7.07
Tatum	411	353	3.01	2.71
	13,635	13,037		
Lincoln				
Ruidoso	892	925	44 85	45 82
Carrizozo	546	664	27 45	32 89
Corona	182	162	9 15	8 02
Hondo	189	142	9 50	7 03
Capitan	180	126	9 05	6 24
	1,989	2,019		
Los Alamos				
Los Alamos	5,073	5,457	100 00	100 00
	55,073	5,457		
Luna				
Deming	3,882	4,161	100 00	100 00
	3,882	4,161		
McKinley				
Gallup	11,589	13,821	100.00	100 00
	11,58,	13,821		
Mora				
Mora	1,583	2,067	84.61	88 52
Wagon Mound	288	268	15.39	11 48
	1,871	2,335		
Otero				
Alamogardo	9,881	11,199	83 33	83 22
Tularosa	1,630	1,875	13 74	13 93
Cloudcroft	347	384	2 93	2 85
	11,858	13,458		
Quay				
Tucumcari	2,157	1,990	78.58	76 04
Hause	143	166	5 21	6.34
Logan	242	281	8.82	10 74
San Jon	203	180	7.39	6 88
	2,745	2,617		

Appendix E6 (continued)

Rio Arriba				
Chama	1,451	1,848	14 96	16.12
Dulce	698	739	7 20	6 44
Espanala	6,727	7,829	69 34	68 29
Jemez Mountains	825	1,049	8.50	9.15
	9,701	11,465		
San Juan				
Aztec	2,034	2,107	13 82	12 92
Farmington	6,667	6,681	45 29	40 96
Bloomfield	1,835	2,157	12 46	13 23
Central Cons	4,186	5,364	28 43	32 89
	14,722	16,309		
San Miguel				
Las Vegas Town	3,035	3,468	44 86	48 23
Las Vegas City	2,966	2 953	43 84	41 07
Pecos	765	769	11 30	10 70
	6,766	7,190		
Santa Fe				
Santa Fe	13,430	16,583	91 62	92.27
Pojoaque	1,228	1,389	8.38	7.73
	14,658	17,972		
Sierra				
Truth or Consequence	1,483	1,532	100.00	100 00
	1,483	1,532		
Socorro				
Socorro	2,337	2,609	75 58	73 58
Magdalena	755	937	24.42	26 42
	3,092	3,546		
Taos				
Taos	3,343	3,818	56 02	56 99
Penasco	791	718	13.26	10.72
Ojo Caliente	508	446	8 51	6 66
Questa	1,325	1,717	22.21	25 63
	5,967	6,699		
Torrance				
Estancia	542	504	29.52	27 26
Mariarty	711	840	38 73	45 43
Mountainair	432	373	23 53	20 17
Encina	151	132	8 22	7.14
	1,312	1,181		
	1,836	1,849		
Union				
Clayton	1,110	1,002	84 60	84 84
Des Moines	202	179	15 40	15 16
	1,312	1,181		
Valencia				
Las Lunas	3,772	4,878	29.64	33 46
Belen	3,703	4,178	29.10	28.66
Grants	5,251	5,521	41.26	37.88
	12,726	14,577		
TOTAL	295,698	331,007		
*Resoneli 5% increase each 5 period				
	7 34	11.94		

Appendix E6 (continued)

Roosevelt				
Partales	2,983	2,954	78.42	77.88
Elida	183	197	4 81	5.19
Floyd	288	298	7 57	7.86
Dora	247	253	6.49	6.67
Causen	103	91	2 71	2 40
	3,804	3 793		
Sandoval				
Bernalillo	3,253	4,083	67 55	68 64
Cuba	798	886	16.57	14 90
Gemez Springs	765	979	15.88	16 46
	4,816	5,948		
	70,963	7,811		

APPENDIX F

QUESTIONNAIRE

PLEASE CHECK THE APPROPRIATE BOX

[ ] SUPERINTENDENT

[X] BOARD MEMBER

I. PLEASE INDICATE WHICH WORD, IN YOUR OPINION, MOST ADEQUATELY DESCRIBES THE FOLLOWING:

#34 A. The Guidance/Counseling Program in my district is:

1.	Excellent	2.9%
2.	Above Average	41.1%
3.	Adequate	38.2%
4.	Below Average	8.9%
5.	Poor	8.9%

#34 B. The Vocational Training Program in my district is:

1.	Excellent	8.9%
2.	Above Average	17.6%
3.	Adequate	26.4%
4.	Below Average	38.2%
5.	Poor	8.9%

II. WHICH STATEMENT BELOW MOST ADEQUATELY DESCRIBES RELATIONSHIP BETWEEN THESE TWO PROGRAMS IN YOUR DISTRICT?

#35 A. Strong formal relationship - Guidance counseling overtly directed toward non college-bound students. 0.0%

B. Good relationship - Non college-bound students are encouraged to utilize the guidance program. 14.3%

C. Regular relationship - Counseling available to all students alike, and they are made aware of it. 68.5%

D. Guidance program directed toward college-bound students. 17.2%

III. RECORDS SHOW APPROXIMATELY 43% OF NEW MEXICO HIGH SCHOOL GRADUATES ENTER COLLEGE. APPROXIMATELY 17% GRADUATE FROM VOCATIONALLY-ORIENTED COURSES. PLEASE INDICATE WHAT YOU FEEL THE BALANCE OF 40% HAVE BEEN PREPARED FOR:

#37 A. Armed Forces 21.6%

B. Post-Secondary Job Training 24.3%

C. Immediate Jobs 40.5%

D. Other (Please Specify) 13.6%

QUESTIONNAIRE

PLEASE CHECK THE APPROPRIATE BOX [X] SUPERINTENDENT

[ ] BOARD MEMBER

I. PLEASE INDICATE WHICH WORD, IN YOUR OPINION, MOST ADEQUATELY DESCRIBES THE FOLLOWING:

#39 A. The Guidance/Counseling Program in my district is:

1.	Excellent	2.6%
2.	Above Average	26.0%
3.	Adequate	38.0%
4.	Below Average	23.2%
5.	Poor	10.2%

#37 B. The Vocational Training Program in my district is:

1.	Excellent	2.7%
2.	Above Average	5.4%
3.	Adequate	19.0%
4.	Below Average	62.0%
5.	Poor	10.9%

II. WHICH STATEMENT BELOW MOST ADEQUATELY DESCRIBES RELATIONSHIP BETWEEN THESE TWO PROGRAMS IN YOUR DISTRICT?

#41 A. Strong formal relationship - Guidance counseling overtly directed toward non college-bound students. 0.0%

B. Good relationship - Non college-bound students are encouraged to utilize the guidance program. 12.2%

C. Regular relationship - Counseling available to all students alike, and they are made aware of it. 56.1%

D. Guidance program directed toward college-bound students. 31.7%

III. RECORDS SHOW APPROXIMATELY 43% OF NEW MEXICO HIGH SCHOOL GRADUATES ENTER COLLEGE. APPROXIMATELY 17% GRADUATE FROM VOCATIONALLY-ORIENTED COURSES PLEASE INDICATE WHAT YOU FEEL THE BALANCE OF 40% HAVE BEEN PREPARED FOR:

#48 A. Armed Forces 12.5%

B. Post-Secondary Job Training 45.7%

C. Immediate Jobs 20.9%

D. Other (Please Specify) 20.9%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