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GRADUATE COLLEGE

PLANNING FOR ECONOMIC DEVELOPMENT OF RURAL
NORTHERN NEW MEXICO, WITH EMPHASIS ON
THE PENASCO VALLEY, TAOS COUNTY

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Norman, Oklahoma
1969

PLANNING FOR ECONOMIC DEVELOPMENT OF RURAL
NORTHERN NEW MEXICO, WITH EMPHASIS ON
THE PENASCO VALLEY, TAOS COUNTY

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PLANNING FOR ECONOMIC DEVELOPMENT OF RURAL
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THE PENASCO VALLEY, TAOS COUNTY

CHAPTER I

INTRODUCTION AND METHOD

Economic planning as a vehicle for the elimination of poverty has become a central theme for many international agencies, national governments and private organizations and individuals. In too many cases, however, politicians and planners have used planning and project implementation for personal gain. As a result, the economic development process is often identified with personal gratifications. Moreover, the magnitude of funds required to implement most developmental programs--both foreign and domestic--has led to an outpouring of contradictory literature designed to inflame public opinion as both proponents and opponents try to prove their beliefs. Since opponents are traditionally more vocal, the average American is familiar but wary of the planned economic development process.

One of the major tasks facing individuals concerned with economic development programs is to demonstrate that, in the long-run, the planning process may be beneficial and can lead to optimum utilization of economic resources. Economic planning in the United States is

primarily associated with developmental programs implemented through the leadership of the Office of Economic Opportunity (OEO) and the Economic Development Administration (EDA), U.S. Department of Commerce. These agencies were created in response to a large number of post-World War II studies showing that the United States is a paradoxical nation, having poverty in the midst of plenty.

Poverty groups appear to have one or more characteristics in common: under-educated; elderly; physically or mentally handicapped; female heads of households; residents of depressed geographic areas; and/or members of isolated, cultural ethnic groups.¹ Northern New Mexico residents possess most of these characteristics: the indigenous traditional culture provides seemingly insurmountable obstacles to development of a progressive monetary economy; two significant minority ethnic groups exist; there is a definite lack of natural resources; and employment is concentrated in nonmanufacturing, agricultural activities.

Of thirty-two counties in New Mexico, nine were designated as "redevelopment" counties by the U.S. Department of Commerce, Area Redevelopment Administration (ARA), in 1961. Replacing ARA in 1964, the Economic Development Administration (EDA) subsequently designated ten northern New Mexico counties (including the nine ARA counties) as "depressed" and eligible for various types of federal assistance. These contiguous counties comprise the core "poverty" area in the state, where

¹See Benjamin Higgins, Economic Development: Principles, Problems, and Policies (New York: W. W. Norton & Company, Inc., 1959), pp. 11-13, and John Kenneth Galbraith's The Affluent Society (Boston: Houghton Mifflin Company, 1960).

OEO, EDA and affiliated agencies have concentrated on implementing human resource development projects. These counties differ from the rest of the state inasmuch as their population is predominantly Spanish- and/or Indian-American: together, these two ethnic groups comprise about two-thirds of the total population of New Mexico's depressed counties.

Economic development programs in northern New Mexico, therefore, necessarily have to be oriented towards Spanish- and Indian-American groups. As conceived in this study, the major problem is to structure rural northern New Mexico economic development programs in such a way as to beneficially utilize progressive characteristics of the predominant ethnic cultures. The prime objective of these programs must be to offer alternative employment opportunities by: (1) providing skill and worker adaptation training sufficient to facilitate transition from a rural to an urban environment, and (2) developing a viable economic base which, in turn, will expand local employment opportunities.

The primary objective of this dissertation is to formulate an economic development model for rural northern New Mexico. In order to do so, the following areas will be examined:

1. Relative values of socioeconomic indicators in rural northern New Mexico in comparison with other areas of the state and, in some cases, with other areas of the United States;
2. Socioeconomic characteristics of rural northern New Mexico in an effort to determine if the area is poverty-stricken because of unique characteristics;
3. The economic planning apparatus currently applicable to rural northern New Mexico;
4. Human and natural resource utilization in comparison with the rest of the state and, when possible, with the United States in general.

The resultant rural northern New Mexico economic development model will focus on procedures necessary to stimulate economic growth within the existing sociocultural environment. Suggestions will be made as to changes that will be required to assure continued, accelerated growth.

This study is concerned with a problem that is generating increasing national attention. In a nation of over 200 million individuals, nearly 19 million live in poverty within the rural areas. Because of urban disturbances, national attention has focused on deplorable economic conditions existing in slums and ghettos of major cities. However, there is increasing evidence that urban and rural poverty are inextricably interwoven and that urban poverty in many cases can be traced directly to rural poverty.²

Large numbers of slum and ghetto residents have out-migrated from rural areas to seek better employment. Mobility of human resources is often cited as prerequisite in optimum utilization of economic resources. This implies that migrants are able to achieve greater productivity in new locales. Many rural-to-urban migrants, however, do not realize higher levels of productivity. Indeed, migration may result in retrogression from a status of underemployment to one of total unemployment. This may occur because of a great many factors, one of the most important being an inability to market antiquated skills in the more modern urban industrial economy.

²Orville Freeman, Secretary of Agriculture, U.S. Department of Agriculture, in his book, Communities of Tomorrow: Agriculture 2000 (Washington, D.C.: U.S. Department of Agriculture, November 1967), discusses the interrelationship between rural and urban poverty.

If rural out-migrants are to find employment in urban areas, they must be trained to meet industrial standards. This problem is not insurmountable. Training and education, however, require long-term planning. One of the most serious repercussions of the existing pattern of rural out-migration is that the most productive human resources-- individuals in the working age group, 18 to 45--are being depleted. This is evident in the highly skewed age distribution of the rural population. The school-aged and the elderly comprise a disproportionate share of the total rural population.

Planning for economic growth requires implementation of programs designed to stimulate productive employment of currently underemployed and unemployed human resources. Transferring of human resources from one geographic area into another without increasing their productivity, in the author's opinion, does not constitute economic development. The existing economic development programs for rural areas are relics of an earlier era. U.S. Department of Agriculture rural development programs have consisted of financial and technical assistance which too often have stimulated mechanization and consolidation of farms. This, of course, has been beneficial in increasing agricultural productivity.

One of the results of farm mechanization and consolidation has been that many agricultural workers have been deprived of employment. Moreover, the small farmer--the subsistence farmer--has failed to materially benefit. Improved agricultural techniques, therefore, have contributed to the increasingly severe and persistent poverty problems in rural areas.

Several small farmers interviewed by the author were unable to identify the technical services available from governmental agencies and/or believed that few services were available on a fee-free basis.³ This problem is acute in New Mexico where the U.S. Department of Agriculture's County Extension Agent may be assigned to service counties larger than most of the New England states. The problem is compounded by the fact that many small farmers in northern New Mexico are functionally literate only in Spanish. Residents of rural northern New Mexico are familiar with the U.S. Forest Service but have developed a deep feeling of resentment for this agency because of conservation methods implemented in National Forests and other public lands. These measures are viewed by the rural populace as unduly restrictive and as another vehicle for further deprivation of traditional grazing lands.

Rural New Mexico is beset by a series of interrelated social, cultural, and economic problems unique to the area. In the northern counties, agricultural and pastoral activities have been a way of life since at least 1598.⁴ New Mexico was a colony of Spain from 1540 to 1821 when Mexico gained its independence from Spain and what is now the State of New Mexico became a Mexican colony. In 1848, at the conclusion of the Mexican-United States war, New Mexico became a U.S. territory.

³During October 1967 to August 1968, the author was involved in assisting small farmers in rural northern New Mexico in the organization of agricultural cooperatives.

⁴A. David Sandoval's "An Economic Analysis of New Mexico History," New Mexico Business (Albuquerque: University of New Mexico, Bureau of Business Research, February 1967).

During the Spanish and Mexican administrations, significant amounts of lands were granted to individuals and/or communities for the promotion of permanent settlements. Upon U.S. acquisition of the New Mexico Territory, land titles had to be adjudicated in order to legally determine land ownership. Several New Mexico historians have attributed large-scale land losses of the indigenous population to inadequate federal controls over territorial officials and the failure to adequately recognize the inherited legal framework.⁵ Long distances from governmental seats, extensive kinship and fractional heirship systems, the lack of a legal framework for filing land claims, and relative isolation of most communities led to the recognition of land ownership through "trunk" deeds--unfiled land titles--in New Mexico under the Spanish and Mexican administrations.

As a result of "trunk" deeds, many individuals of the indigenous population were unable to provide proof of land ownership acceptable to U.S. legal standards. In such cases, the land reverted to the state and much of this land was subsequently made available to in-migrants. Land losses and subsequent transference of ownership resulted in many New Mexicans--primarily individuals of Spanish descent in northern New Mexico--developing a deep seated distrust for outsiders and the government. This feeling is currently being cultivated by a number of organizations and individuals in northern New Mexico.

⁵See Clark S. Knowlton, (ed.), Indian and Spanish-American Adjustments to Arid and Semi-Arid Environments, Contribution #7, the Committee on Desert and Arid Zone Research (Lubbock: Texas Technological College, 1964).

Isolation of the rural areas in New Mexico is still a serious and limiting problem. The harshness of rural life has also contributed to governmental inability to adequately effect acculturation of Spanish-speaking individuals in the out-lying areas. The rural New Mexico educational system has been unable to attract dedicated, qualified teachers. Education in these areas is further hampered by the predominance of individuals who consider Spanish to be their mother tongue. Children enter school with only a minimal understanding of English. This, of course, is one reason why New Mexico is the only state that is effectively bilingual.

Northern New Mexico exhibits cultural and economic characteristics that are uniquely different from the rest of the state and the United States. The southern portion of New Mexico closely resembles the panhandle areas of Texas and Oklahoma. Agriculture is primarily affiliated with livestock; farms and ranches are large relative to the small-plot farming of northern New Mexico. While northern New Mexico has remained relatively isolated, southern New Mexico was in the mainstream of America's frontier expansion. The early American settlers in southern New Mexico encountered a great deal of antagonism from the indigenous population, sparking the famous Lincoln County Wars and the legend of Billy the Kid. A large-scale exodus of the indigenous population from southern New Mexico occurred in the late 1800's.

Many Spanish-speaking inhabitants of southern New Mexico are recent immigrants and/or can readily trace their ancestry to Mexico. These individuals tend to identify with the "Mexican-American" elements in the United States. Northern New Mexico, where isolation resulted in insignificant

immigration during the late 1800's and early 1900's is drastically different in this respect. The northern New Mexican identifies with the colonial Spaniards and is insistent in being categorized as "Spanish-American." This isolation, moreover, is one reason for the economic stagnation evident in rural northern New Mexico. The northern New Mexican exhibits socioeconomic characteristics analogous to those found in the populations of developing countries, especially in Latin America.

The New Mexico State Planning Office, the U.S. Department of Commerce, through its Economic Development Administration, and various agencies and organizations are currently planning economic development programs that will affect rural northern New Mexico. These programs are to be coordinated with other state, regional and national programs. Community development efforts, however, have been delegated to OEO's Community Action Programs (CAPs). These CAPs are usually staffed with nonprofessionals and members of poverty groups. While these individuals may be able to diagnose the symptoms of poverty, the prognosis is usually ill-conceived on the basis of an inadequate or incorrect prescription. Proposed solutions do not usually take into consideration available human, natural, and financial resources.

The approach used in this dissertation is to concentrate on one community--the Penasco Valley, Taos County (a conglomerate of eleven communities)--as a pilot area for development of an economic growth model suitable for use in other small areas in rural northern New Mexico. Selection of the Penasco Valley for detailed analysis was based on a need criterion expressed by various agencies and organizations having economic development

responsibilities in rural northern New Mexico.⁶ Penasco and Taos County are located within the North Central New Mexico Economic Development District and the Four Corners Economic Development Region (see Chapter III). The Penasco Valley possesses most of the problems associated with the entire area: isolated, high mountain valley communities; a predominance of Spanish-Americans; a Pueblo Indian community and very few Anglo-Americans;⁷ and a traditional culture. It is believed, therefore, that the Penasco Valley is a suitable prototype of other communities in rural northern New Mexico. Moreover, the general consensus of individuals concerned with economic development programming for the area is that the Penasco Valley represents a "hard core" case. Initiation of economic growth in the Valley would mean that other communities should be able to take similar positive action.

It should also be noted, at this time, that economic development is often accompanied--and, more often is preceded--by cultural change. Many of the traditional cultural values need not be destroyed in the process of implementing developmental programs. In fact, the author believes that the tenacity for survival of rural northern New Mexico communities may be indicative of several cultural values that may be altered to become conducive for economic growth. Thus, this study does not seek to impose changes in traditional values. However, it does implicitly indicate the extent to which these values are compatible with the goals and methods

⁶Interviews with representatives of the several agencies and organizations listed in Chapter III during October 1967-August 1968.

⁷"Anglo-American" is a term used in the Southwest to identify individuals other than Indian-Americans, Spanish-surnamed people or Negroes.

of economic development. The analysis, therefore, is cast in terms of more efficient utilization of existing resources within the socioeconomic framework of rural New Mexico.

Socioeconomic information for the Penasco Valley was collected from a sample census survey (see Appendix A). The results of the sample census survey are compared with information currently available for the Penasco Valley (primarily found in the 1960 Census of Population, files of the New Mexico Employment Security Commission, and other federal, state, county, local and private agencies and organizations) and with similar information available for the ten "depressed" northern New Mexico counties.

CHAPTER II

NEW MEXICO'S RURAL POPULATION IN PERSPECTIVE

The Scope of Poverty in the United States

The rural population is defined by the U.S. Bureau of the Census as including all individuals who live in towns or communities with 2,500 people or less, or in open country. This population is further subdivided into rural farm and rural nonfarm segments:

The rural farm population includes persons living on 10 or more acres, if as much as \$50 worth of agricultural products were sold from the farm in the reporting year. It also includes persons living on less than 10 acres, if as much as \$250 worth of agricultural products were sold in the reporting year. The rural nonfarm population is that part of the rural population not included in the farm population. It includes persons living in institutions, summer camps, motels, tourist camps, and on rented places where no land is used for farming.¹

According to this classification, the rural population in the United States totaled 13,190,000 families (54,054,000 individuals) in 1960.² This population consisted of 9,847,000 nonfarm families (38,419,000

¹Alan R. Bird, U.S. Department of Agriculture, Resources Development Division, Economic Research Service, Poverty in Rural Areas of the United States, Agricultural Economic Report No. 63 (Washington, D.C.: U.S. Government Printing Office, November 1964), p. 1.

²U.S. Department of Agriculture, Economic Development Division, Economic Research Service, Rural People in the American Economy, Agricultural Economic Report No. 101 (Washington, D.C.: U.S. Government Printing Office, 1966), Table 14, p. 103.

individuals) and 3,343,000 farm families (15,635,000 individuals). Thus, the rural population comprised about 30 percent of the 45,150,000 families (179,323,000 individuals) living in the United States in 1960.

Although poverty has been defined in various ways by individuals, organizations and programs concerned with the problem, the following definition will be utilized throughout this study:

The poor are those whose level of living is inadequate--those whose basic needs exceed their means to satisfy them.... Persons considered to be in poverty are those families with net cash incomes of less than \$3,000 and unrelated individuals whose incomes are less than \$1,500 [persons living alone or in nonfamily units].³

This definition of poverty resulted in 9,651,000 families (41,300,000 individuals) being classified as poverty-stricken in the United States in 1960.⁴ Rural families represented a disproportionate 46 percent of these low income families--13,000,000 individuals in rural nonfarms and 5,700,000 in rural farms.

The geographical incidence of rural poverty is vividly portrayed in Table 1. The majority of the rural poor are located in 1,187 counties, of 3,081 counties in the United States. The Southeast and Southwest account for nearly 80 percent (942) of the rural poor counties. This, of course, explains the following ethnic distribution of the rural poor:

³Alan R. Bird, Poverty in Rural Areas of the United States, op. cit., p. 1.

⁴U.S. Department of Agriculture, Rural People in the American Economy, op. cit., Table 8, p. 42.

...a little over 12 million were white, (including 350,000 Spanish Americans), over 4 million were Negroes, and 250,000 were American Indians. Of the whites, 3 million lived in Appalachia. The Spanish Americans, representing 25 percent of farm migratory workers, lived primarily in Arizona, California, Colorado, New Mexico, and Texas.⁵

Bird provides the following description of the geographical incidence of rural poverty:

For decades, certain rural areas in this country have had many farm families with very low incomes. Poverty persists in many areas of the South and in parts of eastern Texas and Oklahoma northward to parts of Missouri and Appalachia. It also persists in scattered areas of the Northwest and some parts of the Southwest, such as Arizona and New Mexico, where isolated groups of Spanish Americans and Indians live....⁶

The Scope of Poverty in New Mexico

Table 2 shows the proportion of each county's total population that is rural, poor, Spanish-American, Indian and/or Negro. New Mexico is a highly rural state. Of 951,023 individuals in the state in 1960, 34.1 percent (325,000) were living in rural areas.⁷ The rural population was further divided into 253,000 rural nonfarm and 72,000 rural farm.

⁵Alan R. Bird, Poverty in the Rural Areas of the United States, op. cit., p. 3.

⁶Ibid., p. 3. Bird also states (p. 8) that "...there were 380,000 domestic migratory farmworkers [in 1962], or about 11 percent of all persons who had done some farm work that year. In that year, the average migratory worker was employed 120 days at wage work, 91 of which were spent in farm work. Daily earnings from farm work averaged \$7.50 [or \$691.50 for the 91 days of farm work]." Counties having a predominance of Indian poor were presumably excluded because the U.S. Bureau of Indian Affairs has primary jurisdiction over Indian Reservation areas.

⁷U.S. Department of Agriculture, Rural People in the American Economy, op. cit., Table 3, p. 22, and U.S. Bureau of the Census, 1960 Census of Population: New Mexico, Vol. 1, Part 33 (Washington, D.C.: U.S. Government Printing Office, 1961), Table 14, p. 16.

TABLE 1

NUMBER OF U.S. COUNTIES, BY STATE, HAVING
 MEDIAN CASH INCOMES OF ALL RURAL
 FAMILIES OF LESS THAN \$3,000
 1959

State	Total Counties	Rural Counties ¹	Poor Counties ²
Alabama	67	24	57
Alaska	4	4	3
Arizona	14	6	3
Arkansas	75	52	68
Colorado	63	42	7
Florida	67	43	23
Georgia	159	101	115
Illinois	102	44	18
Iowa	99	59	27
Kansas	105	80	15
Kentucky	120	91	92
Louisiana	64	25	38
Maine	16	14	1
Michigan	83	43	3
Minnesota	87	63	38
Mississippi	82	67	75
Missouri	115	83	77
Montana	57	44	2
Nebraska	93	77	28
New Mexico	32	25	10
North Carolina	100	62	72
North Dakota	53	47	17
Ohio	88	17	6
Oklahoma	77	49	30
Pennsylvania	67	17	1
South Carolina	46	17	39
South Dakota	67	60	37
Tennessee	95	59	78
Texas	254	115	115
Utah	29	16	1

State	Total Counties	Rural Counties ¹	Poor Counties ²
Vermont	14	13	2
Virginia	98	60	52
West Virginia	55	36	31
Wisconsin	71	38	6
Total	3,081	1,782	1,187

¹Isolated semirural and isolated rural.

²Counties where more than one-half of the families had incomes of less than \$3,000.

Sources: Alan R. Bird, Poverty in Rural Areas of the United States, op. cit., Table 4, pp. 9-10, and Lisle C. Carter, Jr., Department of Health, Education, and Welfare, "Effects of Federal Programs on Rural America," Hearings Before the Subcommittee on Rural Development of the Committee on Agriculture, House of Representatives, Ninetieth Congress, First Session (Washington, D.C.: U.S. Government Printing Office, 1967), pp. 328-336.

TABLE 2
PERCENTAGE DISTRIBUTION OF POPULATION, BY
RURAL, POVERTY, AND ETHNIC CLASSIFICATION,
NEW MEXICO, 1960

County	Total Families			Rural Families ¹		Spanish Ameri- cans	Indian	Negro
	No.	% Poor ²	% Rural	No.	% Poor ²			
Bernalillo	63392	15.3	6.4	4046	25.3	26.0	1.3	1.8
Catron	688	29.8	100.0	688	29.8	27.2	1.3	1.1
Chaves	14035	22.4	27.8	3908	27.2	13.5	0.2	3.6
Colfax ³	3372	32.5	40.8	1377	34.9	40.1	0.1	0.5
Curry	8280	24.3	24.3	2010	27.1	11.2	0.1	5.5
De Baca	757	43.7	100.0	757	43.7	25.0	---	0.1
Dona Ana	13136	25.4	40.6	5329	33.8	42.1	0.1	2.3
Eddy	12443	18.6	24.6	3059	25.3	22.1	0.1	2.1
Grant	4445	24.7	62.5	2779	25.1	47.2	---	0.5
Guadalupe ³	1242	45.5	100.0	1242	45.5	72.5	---	0.1

TABLE 2--Continued

County	Total Families			Rural Families ¹		Spanish-American	Indian	Negro
	No.	% Poor ²	% Rural	No.	% Poor ²			
Harding	453	43.7	100.0	453	43.7	26.5	---	---
Hidalgo	1208	28.5	31.5	380	33.4	40.6	---	0.2
Lea	13789	14.6	20.2	2788	16.4	4.8	0.1	4.9
Lincoln ³	1965	35.0	100.0	1965	35.0	28.9	0.6	0.2
Los Alamos	3100	2.1	3.8	117	---	11.2	0.3	0.3
Luna	2358	32.7	32.0	755	27.4	34.4	---	2.0
McKinley	6854	36.7	48.2	3305	56.1	12.2	56.7	0.9
Mora ³	1249	68.9	100.0	1249	68.9	85.4	---	---
Otero	8665	17.3	31.0	2689	29.3	15.9	3.2	3.9
Quay	3005	33.6	35.5	1067	39.2	29.4	1.1	---
Rio Arriba ³	5057	50.2	100.0	5057	50.2	69.6	9.7	0.2
Roosevelt	4166	31.3	40.6	1693	29.8	6.3	0.1	0.3
Sandoval ³	2701	58.3	80.4	2172	62.1	32.0	41.8	0.1
San Juan	12060	23.1	42.3	5099	40.9	6.8	26.7	0.8
San Miguel ³	4719	51.4	35.5	1674	63.1	62.5	0.2	0.3
Santa Fe	9886	26.3	23.0	2278	40.0	54.3	1.9	0.5
Sierra	1757	47.1	33.1	582	49.7	21.6	0.7	0.3
Socorro ³	2303	42.9	44.8	1032	56.6	46.8	6.1	0.5
Taos ³	3420	64.9	100.0	3420	64.9	69.1	6.2	0.3
Torrance ³	1490	41.3	100.0	1490	41.3	81.1	0.1	0.4
Union	1553	36.1	47.2	733	38.5	24.3	---	---
Valencia	8403	23.1	50.6	4250	31.4	35.9	13.0	0.3
New Mexico	221951	24.4	31.4	69442	35.6	28.3	5.9	1.8

¹As defined in page 13 of the text.

²Families having an income of less than \$3,000 per year.

³Counties included in the North Central New Mexico Economic Development District.

Source: U.S. Bureau of the Census, 1960 Census of Population: New Mexico (Washington, D.C.: U.S. Government Printing Office, 1961), Table 14, p. 16, and Table 65, p. 86, and U.S. Department of Agriculture, Rural People in the American Economy (Washington, D.C.: U.S. Government Printing Office, 1966), Tables 36 and 37.

Of 221,951 families in New Mexico in 1960, 54,180 (24.4 percent) were listed as having incomes of less than \$3,000.⁸ These families were distributed as follows: 27,437 (50.7 percent) in urban areas; 21,373 (39.4 percent) in rural nonfarms; and 5,370 (9.9 percent) in rural farms. Accounting for only 34.1 percent of the State's total population, rural areas included 49.3 percent of New Mexico's low income families in 1960.

The Population of New Mexico

According to the New Mexico State Planning Office, New Mexico is distinctly different from all other states:

The population of New Mexico is frequently described as representing a blend of three cultures--Indian, Spanish, and Anglo (or Western European). Actually, however, the most distinctive quality of "triculture" New Mexico is the fact that there has been and is so little blending. Whereas the population in many, if not most, areas of the United States represents a great variety of ethnic groups (sometimes a far greater variety than in New Mexico), in most such areas a much greater degree of acculturation has occurred than in New Mexico. Here the three principal groups have lived in close proximity for more than a century, with two of them having coexisted for three centuries, yet each managed to maintain a high degree of cultural isolation and identity--rather an unusual situation within the rim of the famous American "melting pot."⁹

The ethnic distribution portrayed in Table 2 indicates that individuals with Spanish-surnames reside in all counties. Figure 1,

⁸U.S. Bureau of the Census, 1960 Census of Population: New Mexico, op. cit., Table 14, p. 16, and Table 65, p. 86. With a population figure of 951,023 in 1960, these figures represent 4.285 individuals per family.

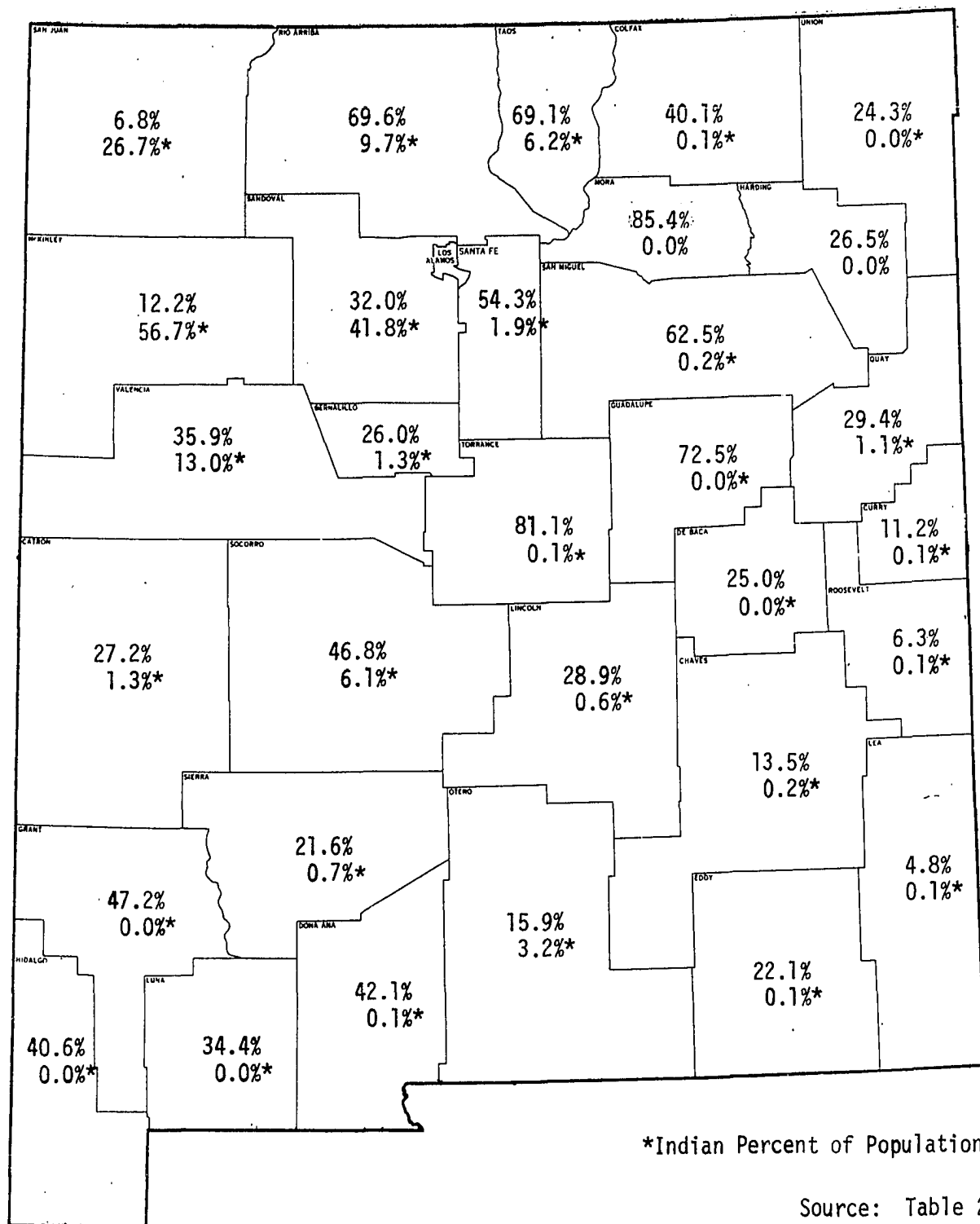
⁹State of New Mexico, "Frame of Reference for Evaluating New Mexico's Resources," Phase I, State Resources Development Plan, A Preliminary Draft (Santa Fe: New Mexico State Planning Office, 1965), p. 48.

however, shows that the Spanish-surname population is concentrated in northern New Mexico, comprising more than 40 percent of the population in eight of the ten EDA depressed counties (excluding Sandoval and Lincoln counties). Of the EDA counties, only Colfax, Sandoval, and San Miguel have an urban population. All other EDA counties are 100 percent rural. This would seem to indicate that the poverty-stricken Spanish-surname population is largely rural: 42.4 percent of the state's Spanish-surname population is located in rural area. This is a much greater proportion than the 34.1 percent attributed to New Mexico's population in general.

Whereas the minority groups represent less than 30 percent of Lincoln County's population, these groups account for almost three-fourths of the total population in Sandoval County. Indians represent more than 40 percent of the populations of McKinley and Sandoval Counties. Other counties with a substantial Indian population are: Otero (3.2 percent), Rio Arriba (9.70), San Juan (26.7), Socorro (6.1), Taos (6.2), and Valencia (13.0). Indian Reservations are located in each of these counties. Eight of the 32 counties did not register Indians among their population. For the state as a whole, 84.1 percent of all Indians lived in rural areas. Negroes reside in 28 of the state's 32 counties, but account for as much as 5.5 percent of the population only in Curry County. The aforementioned data indicate that Spanish and Indians make up the major portion of the total population of northern New Mexico, the area of concern in this dissertation.

FIGURE 1

SPANISH-SURNAME AND INDIAN POPULATION
as a Percent of each County's Total Population
1960



American Indians

Accounting for 6 percent of New Mexico's population in 1960, the Indian population was distributed among the following Tribes: Mescalero Apaches, 1,227; Jicarilla Apaches, 1,217; Navajos, 32,670; Pueblos, 17,795; and less than one dozen Utes.¹⁰ Table 3 shows the population increase for all Tribes except Navajos between 1960 and 1968 and land holdings of the various Tribes as of mid-1962. The only Indian Tribes in New Mexico not located in the North Central New Mexico Economic Development District are: Mescalero Apaches, Navajos, and Acoma, Isleta, Laguna and Zuni Pueblos. The Indian population located within the EDA counties increased from 8,338 in 1960 to 13,727 in 1968, registering a 64.6 percent increase for the seven-year period, or an annual increase of about 7.4 percent. This rate of increase is attributed to improved health and sanitary conditions.

The Pueblo Indians were the original inhabitants of what is now the State of New Mexico. Called Pueblo Indians by the Spaniards, who first encountered this group in 1539, because of their village-like compact, multichambered structures, Pueblo Indians have been living and cultivating river bottom lands, primarily along the main stem and tributaries of the Rio Grande, for centuries. These river bottom lands are in the same general vicinity of the original Spanish settlements dating to about 1598.

Coexistence with the white man, however, was on occasions turbulent. For example, the Pueblo Revolt of 1680 forced the Spanish

¹⁰Margaret Meaders, "The Indian Situation in New Mexico," New Mexico Business, reprint (Albuquerque: University of New Mexico, Bureau of Business Research, 1963), Table 3, p. 5.

settlers to retreat from northern New Mexico to near the present site of El Paso, Texas. Recapturing the Spanish settlements in 1692, the Spanish-Americans have been able to maintain a fairly amiable relationship with the Pueblo Indians to this day. Many of the Pueblo Indians, especially the older individuals, learned Spanish as their second language and still use it to communicate with non-Indians. The younger generation, however, is now picking up English instead of Spanish for their second language. The lands allocated to the Pueblo Indians, located in 19 grants with 17 within the EDA counties, were first recognized by the Spanish and Mexican governments and in 1924 by the U.S. Government. Today, overall administration of Pueblo Indians is vested in the United Pueblo Agency, U.S. Bureau of Indian Affairs, Albuquerque.

TABLE 3
NEW MEXICO INDIAN POPULATION
AND LAND HOLDINGS, BY TRIBE
(Population, 1960; Acreage, mid-1962)

Tribe	Population ¹			Acreage Reported			Total
	1960	1968	%Change	Tribal	Allotted ²	Govt. Owned	
Apaches							
Jicarilla	1217	1750	43.8	741974	322	7	742303
Mescalero	1227	1700	38.5	460074	---	100	460174
Navajos ³							
Reservation	30721	N/A	N/A	2383015	---	---	2383015
Off-Reservation	1949	N/A	N/A	342276	641533	75847	1059656
Pueblos							
Acoma	1414	2688	90.1	234085	320	9	234414
Cochiti	327	707	16.2	28134	---	3	28137
Isleta	1830	2449	33.8	209880	---	11	209891
Jemez	1065	1707	60.3	88380	---	7	88387
Laguna	3246	4996	53.9	406018	4958	1017	411993
Nambe	127	266	9.4	19113	---	2	19115

TABLE 3--Continued

Tribe	Population ¹			Acreage Reported			
	1960	1968	%Change	Tribal	Allotted ²	Govt. Owned	Total
Pueblos							
Picuris	100	167	67.0	14960	---	---	14960
Pojoaque	21	75	57.1	11599	---	---	11599
Sandia	122	248	103.3	22883	---	1	22884
San Felipe	976	1542	58.0	48853	71	6	48929
San Ildefonso	216	305	41.2	26191	---	1	26192
San Juan	638	1277	100.2	12232	---	2	12234
Santa Ana	350	448	28.0	42082	---	3	42083
Santa Clara	487	769	57.9	45741	---	4	45745
Santo Domingo	1375	2248	63.5	69259	---	---	69259
Taos	847	1471	73.7	47334	---	7	47341
Teseque	136	230	69.1	17024	---	2	17026
Zia	334	517	54.8	109838	---	429	110267
Zuni	4184	5300	26.7	398420	1933	---	400353
Utes	(4)	N/A	N/A	107520	---	---	107520
Other	(5)	N/A	N/A	379	---	---	379
Total	52909 ¹	N/A	N/A	5886885	649137	77836	6613858

¹Estimated population within tribal units and immediately adjacent to them. About 3,346 Indians lived outside such areas in 1960, bringing the total to 56,255. The 1968 population is as of January 1, 1968.

²Allocated to Indian tribal members.

³Includes the "Checkerboard Area" in Northwestern New Mexico and, therefore, not adjacent to the larger Navajo Reservation.

⁴There are fewer than a dozen Utes in New Mexico.

⁵Includes: Albuquerque Indian School, Magdalena Dormitory, and the Santa Fe Indian School.

Source: Margaret Meaders, "The Indian Situation in New Mexico," op. cit., and United Pueblo Agency, Albuquerque, New Mexico, mimeographed listing of age and sex breakdown for Pueblo Tribes and total population figures for each of Apache Tribes.

Current archaeological evidence indicates that the Navajos ranged into the Southwest about 1500 A.D. They were able to subdue and in many cases intermingled with the Pueblo Indians. In most cases, however, the Pueblo Indians were forced to migrate southward. The Navajos were named by the Pueblo people--from the Tewa word Návahúu, meaning cultivated field arroyo.¹¹ New Mexico's Navajo population is part of the over 100,000-member tribe located in northwestern New Mexico, southern Utah and Colorado and the northeast corner of Arizona. Administration of the largest Indian reservation in the United States is vested in the General Superintendent, Navajo Agency, Window Rock, Arizona. The Reservation is subdivided into five agencies, administered by a superintendent who, in turn, is responsible to the General Superintendent. In New Mexico, the Navajo administrative apparatus is located in Shiprock, near Farmington, New Mexico.

The Apache are best known for their warriors and military confrontations with the white man during New Mexico's frontier period. New Mexico is the homeland of two Apache groups--the Jicarillas, or "basket weavers" and the Mescaleros, or "eaters of mescal." The Jicarilla Apache Reservation is located in Rio Arriba County, in the extreme north-central part of the state. Located in Otero County, the Mescalero Reservation is the only Indian Reservation in southern New Mexico. While the Mescaleros are among the poorest in the nation, the Jicarillas have been fortunate in deriving large incomes from oil and gas leases.

The Utes in New Mexico comprise small groups that are actually members of the Southern Ute Tribe with headquarters in Ignacio, Colorado.

¹¹Bertha P. Dutton, (ed.), Pocket Handbook: Indians of the Southwest (Santa Fe: Southwestern Association on Indian Affairs, Inc., 1965), p. 11.

Due to the geographical location of New Mexico, the Indians in the state have had a somewhat different encounter with the white man than Indians in other parts of the United States. These Indians were in close contact with the Spanish and Mexican governments from 1539 until 1848. During the Spanish and Mexican government periods, the Indian and the colonial population were largely in peaceful coexistence. Confrontation between the Indians and what is now the U.S. Bureau of Indian Affairs did not occur until after 1848. Generally, United States Indian policy in New Mexico conformed to the following pattern.

In colonial periods, the BIA policy was essentially one of appeasement. As the balance of power shifted away from the Indian, the BIA became a land procurement agency. Displaced Indians were to be relocated and cared for, often through forced migration westward and placement in lands designated by the federal government. With this displacement, the land economies of the Indians were destroyed, resulting in the BIA becoming a dispenser of charity. From an autocratic phase, the BIA subsequently assumed a paternalistic role.¹²

During the period of paternalism, the BIA imposed uniform policies and programs without regard to individual tribal cultures. This policy continued until the passage of the Indian Reorganization Act of 1934 when Indians were given the right to establish tribal governments and make decisions with regard to their own economic well-being. The Act also provided that the Indians were to be informed and advised of proposed governmental actions and policies which might affect them. Modern

¹²U.S. Bureau of Indian Affairs, The United States Indian Service (Washington, D.C.: U.S. Government Printing Office, 1962), p. 596.

policies stress development of the reservation resources and diversification of the Indian economies. Recent legislation has been introduced providing for an Indian Bill of Rights.

Having been subjugated and isolated on reservations, the Indian New Mexicans have maintained the greatest degree of cultural isolation. As an ethnic group, the Indians account for a disproportionate share in the state's welfare rolls, have the highest mortality rate and incidence of disease and have attained the lowest educational levels.

Spanish-Americans

The predominant ethnic group in northern New Mexico is the population of Hispanic origin. New Mexico was traversed by Spanish conquistadors--Coronado, Chamuscado and Rodriguez, and Espejo--between 1539-1583.¹³ Ultimate conquest and settlement of the area was accomplished by Don Juan de Onate in 1598, establishing his governmental headquarters near San Juan Pueblo, about 30 miles north of Santa Fe. The Spanish settlements were destroyed by the Pueblo Revolt of 1680, resulting in the retreat of the settlers southward to what is now El Paso, Texas. The Spaniards, however, were able to reconquer the settlements in 1692 and many of the indigenous population easily trace their ancestry to these periods.

The 1960 Census of Population estimated the Spanish-surname population of the Southwest--Texas, New Mexico, Colorado, Arizona and

¹³Nancie L. Gonzales, "The Spanish Americans of New Mexico: A Distinctive Heritage," Mexican-American Study Project, Advance Report 9 (Los Angeles: University of California, Graduate School of Business Administration, Division of Research, September 1967), p. 2.

California--to be in excess of 3.5 million. This would indicate that the Spanish-surname population accounted for about 12 percent of the total population of the five states.¹⁴ Selected population characteristics for the five Southwestern states are listed in Table 4. As may have been expected from the number of urban areas in each state,

TABLE 4
SELECTED CHARACTERISTICS, TOTAL AND
SPANISH-SURNAME POPULATION
SOUTHWESTERN STATES, 1960
(thousands)

Population	Arizona	California	Colorado	New Mexico	Texas
Total Population	1,302	15,717	1,754	951	9,580
Urban	970	13,573	1,293	626	7,188
Rural	332	2,144	461	325	2,392
Nonfarm	258	1,681	381	253	1,586
Farm	74	463	143	72	806
Percent Rural	25.5%	13.6%	26.3%	34.2%	25.0%
Total Spanish-Surname	194	1,427	157	269	1,418
Urban	146	1,218	108	155	1,114
Rural	48	209	49	114	304
Nonfarm	37	154	40	99	212
Farm	11	55	9	15	92
Percent Rural	24.7%	14.6%	31.2%	42.4%	21.4%
Percent of Total Population	14.9%	9.1%	9.0%	28.9%	14.8%

Sources: U.S. Bureau of the Census, 1960 Census of Population, Vol. 1, "Characteristics of Population," Part A, "Number of Inhabitants," Table 19, pp. 1-28; and 1960 Census of Population: Persons of Spanish Surname, PC (2) 1B.

¹⁴Ibid.

the proportion of Spanish-surname population living in rural areas is lowest in California. As previously discussed and correlated in the table, New Mexico has the largest percentage, of the five states, of its total and Spanish-surname population living in rural areas.

The significantly greater proportion of poverty-stricken among the Spanish-surname and nonwhite ethnic groups in the five Southwestern states is illustrated in Table 5.¹⁵ Nonwhite poverty is much more severe in four of the five states. With the exception of California, the proportion of Spanish-surname population that is poverty-stricken is more than double the proportion of Anglo poor. New Mexico and Texas had the largest proportion of their Spanish-surname population among families with annual incomes of under \$3,000 in 1959, at 41.5 and 51.6 percent, respectively. In New Mexico, the large proportion of Spanish-surname population, as a percent of the total population in the state, results in 41.6 of all families within the poverty ranks being characterized by Spanish-surnames.

Table 6 provides further data on income and family size for the total population, Spanish-surname and nonwhite populations in the five Southwestern states. The significance of this table is that a very clear indication of income disparities for the various ethnic groups is portrayed. Median family income of Spanish-surname families is higher than for nonwhite families in every state except for Colorado.

¹⁵Frank G. Mittelback and Grace Marshall, "The Burden of Poverty," Mexican-American Study Project, Advance Report 5 (Los Angeles: University of California, Graduate School of Business Administration, Division of Research, July 1966), p. 21. As indicated previously, "non-white" in New Mexico is almost synonymous with Indian. This may also be the case in Arizona, but not in California, Colorado, and Texas.

TABLE 5
NUMBER AND PERCENT OF POOR FAMILIES IN
VARIOUS POPULATION GROUPS IN
FIVE SOUTHWEST STATES
1960

State and Population Group	All Families	Poor Families*	Percent of Poor in Each Group	Poor in Each Group as Percent of all Poor
<u>ARIZONA</u>				
White	287,836	52,467	18.2	79.1
Anglo	251,142	41,155	16.4	62.0
Spanish-Surname	36,694	11,312	30.8	17.1
Nonwhite	24,200	13,878	57.8	20.9
Total	312,036	66,345	21.3	100.0
<u>CALIFORNIA</u>				
White	3,715,033	494,105	13.3	87.8
Anglo	3,410,203	435,849	12.8	77.4
Spanish-Surname	304,830	58,256	19.1	10.4
Nonwhite	276,467	68,605	24.8	12.2
Total	3,991,500	562,710	14.1	100.0
<u>COLORADO</u>				
White	427,209	77,258	18.1	96.0
Anglo	395,444	66,141	16.7	82.2
Spanish-Surname	31,765	11,117	35.0	13.8
Nonwhite	11,606	3,197	27.5	4.0
Total	438,815	80,455	18.3	100.0
<u>NEW MEXICO</u>				
White	208,558	46,638	22.4	86.1
Anglo	154,258	24,083	15.6	44.5
Spanish-Surname	54,300	22,555	41.5	41.6
Nonwhite	13,393	7,542	56.3	13.9
Total	221,951	54,180	24.4	100.0
<u>TEXAS</u>				
White	2,127,731	535,261	25.2	77.8
Anglo	1,857,293	395,598	21.3	57.5
Spanish-Surname	270,438	139,663	51.6	20.3
Nonwhite	264,833	152,704	57.7	22.2
Total	2,392,564	687,965	28.8	100.0

*Families with annual income under \$3,000 in 1959.

Source: 1960 U. S. Census PC (2) 1B, Table 5; PC Vol. I, State Volumes (Washington, D.C.: U.S. Government Printing Office, 1961), Tables 65 and 109.

However, Spanish-surname families are larger, except in New Mexico, resulting in nonwhite families having a higher income per person than Spanish-surname families in three of the five states. In Arizona and New Mexico where the Spanish-surname population has a higher per capita income than nonwhites, the nonwhites comprise primarily Indians.

TABLE 6
MEDIAN FAMILY INCOME, MEDIAN FAMILY SIZE, AND
INCOME PER PERSON IN FIVE SOUTHWEST STATES
1960

State and Population Group	Median Family Income	Median Family Size	Income per Person in Family
ARIZONA			
Total Population	\$5,568	3.41	\$1,633
Spanish-Surname	4,183	4.56	917
Nonwhite	2,457	4.38	561
CALIFORNIA			
Total Population	6,726	3.19	2,108
Spanish-Surname	5,533	4.01	1,380
Nonwhite	4,971	3.46	1,437
COLORADO			
Total Population	5,780	3.33	1,736
Spanish-Surname	4,008	4.38	915
Nonwhite	4,531	3.44	1,317
NEW MEXICO			
Total Population	5,371	3.68	1,460
Spanish-Surname	3,594	4.37	832
Nonwhite	2,484	4.46	517
TEXAS			
Total Population	4,884	3.33	1,467
Spanish-Surname	2,914	4.63	629
Nonwhite	\$2,591	3.43	\$ 755

Source: 1960 Census of Population, State Volumes, Tables 65 and 110, and PC (2) 1B, Table 5; taken from Frank G. Mittelback and Grace Marshall, "The Burden of Poverty," Mexican-American Study Project, Advance Report 5 (Los Angeles: University of California, Graduate School of Business Administration, Division of Research, July 1966), Table 10, p. 39.

Anglo-Americans

With the exception of hunters, trappers, and freighters, Anglo-Americans did not settle in New Mexico in great numbers until after 1848 when New Mexico became part of the United States. As participants in the great migration westward, early Anglo-American settlers in New Mexico represented overflows from Colorado, Oklahoma, and Texas. The Anglo-American influx into New Mexico accelerated with the building of the first railroad in New Mexico, the Atchison, Topeka, and Santa Fe in 1879.¹⁶ Completion of the railroad into New Mexico brought about a significant increase in the livestock economy and an increased migration of the Anglo-Americans into the cattle country of southeastern New Mexico. Northern New Mexico was virtually untouched by this migration wave. As indicated above, the Anglo-American population in northern New Mexico is still in the minority. Table 7 presents the pattern of in- and out-migration from the State of New Mexico during 1935-40, 1949-50, and 1955-60.

Between 1935 and 1940, Texas, Oklahoma, and Colorado accounted for 65.6 percent of the in-migration into New Mexico. By 1949-50, these states accounted for only 49.0 percent of the inflow; the inflow from these states was sharply reduced to 39.6 percent in 1955-60. This would seem to indicate that the migrants into New Mexico were moving, in each succeeding period, for employment in governmental and defense-related jobs. According to A. David Sandoval, this is consistent with

¹⁶A. David Sandoval, "An Economic Analysis of New Mexico History," New Mexico Business (Albuquerque: University of New Mexico, Bureau of Business Research, February 1967), p. 11.

TABLE 7

PERCENTAGE DISTRIBUTION OF INTERSTATE MIGRANTS,
BY STATES OF ORIGIN-DESTINATION, NEW MEXICO
1935-40, 1949-50, and 1955-60

State	1955-1960		1949-1950		1935-1940	
	In	Out	In	Out	In	Out
Alabama	0.8	0.8	0.7	0.6	0.4	0.2
Arizona	4.4	6.7	7.2	6.8	5.5	12.5
Arkansas	1.8	1.4	2.3	1.9	2.5	1.5
California	10.1	22.3	12.5	12.3	4.3	23.2
Colorado	7.1	7.4	7.4	9.2	8.0	11.2
Connecticut	0.3	0.2	0.3	0.1	0.1	0.0
Delaware	0.1	0.1	-	-	0.0	0.0
Florida	1.4	2.1	0.9	0.9	0.3	0.3
Georgia	1.1	0.8	0.6	0.8	0.2	0.1
Idaho	0.6	0.6	0.4	0.4	0.3	0.8
Illinois	3.4	1.7	3.2	1.5	1.9	1.4
Indiana	1.8	0.9	1.6	1.1	0.6	0.6
Iowa	1.1	0.6	1.0	0.6	0.9	0.4
Kansas	3.5	1.7	2.6	2.0	4.3	1.4
Kentucky	0.7	0.5	0.5	0.6	0.5	0.3
Louisiana	1.4	1.3	1.4	1.0	0.8	0.6
Maine	0.2	0.4	0.3	0.1	0.0	0.0
Maryland	0.6	0.9	0.5	0.4	0.1	0.2
Massachusetts	0.8	0.8	0.7	0.4	0.2	0.1
Michigan	1.7	0.9	1.6	1.0	0.5	0.6
Minnesota	0.7	0.5	0.6	0.2	0.3	0.2
Mississippi	0.8	0.6	1.1	0.5	0.3	0.3
Missouri	2.3	1.5	2.2	1.7	2.7	1.6
Montana	0.7	0.4	0.3	0.3	0.3	0.4
Nebraska	1.3	0.7	0.8	0.9	0.8	0.4
Nevada	0.7	0.9	0.5	0.2	0.2	0.6
New Hampshire	0.1	0.8	0.3	0.0	0.0	0.0
New Jersey	0.9	0.7	0.8	0.5	0.2	0.1
New York	2.1	1.3	1.9	1.1	0.7	0.5
North Carolina	0.7	0.6	0.4	0.4	0.1	0.1
North Dakota	0.3	0.1	0.2	0.1	0.1	0.0
Ohio	2.5	1.4	1.9	1.3	0.9	0.5
Oklahoma	7.0	4.1	6.6	6.4	16.6	4.8
Oregon	0.9	1.0	1.1	1.3	0.3	1.9

TABLE 7--Continued

State	1955-1960		1949-1950		1935-1940	
	In	Out	In	Out	In	Out
Pennsylvania	1.7	0.9	1.2	0.7	0.5	0.3
Rhode Island	0.1	0.1	0.1	0.1	0.0	0.0
South Carolina	0.5	0.5	0.2	0.1	0.0	0.0
South Dakota	0.5	0.3	0.3	0.3	0.3	0.2
Tennessee	0.9	0.6	0.8	1.0	0.6	0.2
Texas	25.3	24.4	27.0	34.9	41.0	28.5
Utah	1.4	1.7	0.5	1.0	0.9	1.2
Vermont	0.1	0.1	0.1	0.1	0.0	0.0
Virginia	1.2	1.3	0.9	0.7	0.2	0.2
Washington	1.4	1.7	1.3	1.3	1.3	1.2
Washington, D.C.	0.3	0.2	0.4	0.3	0.3	0.4
West Virginia	0.8	0.2	0.4	0.1	0.2	0.1
Wisconsin	0.9	0.6	0.7	0.6	0.3	0.2
Wyoming	1.0	0.7	1.4	1.6	0.8	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Total Migrants	181328	138152	68688	54903	54010	42915

Source: David W. Varley, "Migration Patterns: New Mexico and Adjoining States," Phase I, State Resources Development Plan (Santa Fe: New Mexico State Planning Office, April 1967), Tables 17 and 18, pp. 17-19.

the arrival of the "nuclear" period in New Mexico and increasing employment of governmental personnel.¹⁷

Population changes for the state and its counties will be fully discussed in Chapter IV. However, Table 8 provides an indication of the state's pattern of migration during 1920-1960. The number of urban centers increased from 11 in 1940 to 33 in 1960, a 175 percent increase. Albuquerque was the largest city in both 1920 and 1960, with a population of 15,157 and 201,189, respectively. Population concentration is especially

¹⁷Ibid., p. 17.

indicated in the number of cities having a population of 25,000 or more; zero in 1920 and six in 1960. At the same time, the number of cities having 10,000 to 25,000 population increased from one to eight. The number having a population of 5,000 to 10,000 doubled from four to eight and the smaller towns having a population of 2,500 to 5,000 increased from six to eleven. The growth of urban areas resulted in their share of the population increasing from 18 to 61.7 percent during the forty-year period.

The number of incorporated rural communities did increase from 34 in 1920 to 51 in 1960, a 50 percent increase. However, these communities experienced a decline from 8.4 percent in 1920 to 5.0 percent in 1960 in their share of the state's total population. Although it is difficult to attempt to estimate the number of unincorporated communities, Table 8 does show their proportionate share of the state's population dropping from 73.6 percent in 1920 to 33.3 percent during the forty-year period. Unincorporated communities, therefore, were the large losers to the urban areas.

Summary

The average American has been introduced to and informed of the plight of the urban poor. The news media have extensively covered riots, demonstrations, and "war on poverty" programs in urban settings. Federal, state and local agencies have been established to attempt to combat urban poverty. With a few exceptions, the need to initiate similar programs in rural areas in the United States has not been so forcefully demonstrated. Public apathy with regard to rural poverty has intensified by an accelerated pace of migration which has been draining rural areas of a large percentage of the working group (18-45 years of age). This,

TABLE 8

NUMBER OF URBAN AND INCORPORATED RURAL SETTLEMENTS
AND PERCENT DISTRIBUTION OF STATE'S POPULATION,
BY SIZE OF SETTLEMENT, NEW MEXICO
1920, 1940, and 1960

Size of Place	1920		1940		1960	
	Places	%Pop.	Places	%Pop.	Places	%Pop.
Urban						
100,000 +	0	0	0	0	1	21.2
50-100,000	0	0	0	0	0	0
25-50,000	0	0	1	6.7	5	16.4
10-25,000	1	4.2	5	12.6	8	13.8
5-10,000	4	7.8	7	8.7	8	6.3
2,500-5,000	6	6.0	8	5.2	11	4.0
Subtotal	11	18.0	21	33.2	33	61.7
Rural*						
1,000-2,500	12	5.3	13	3.7	22	3.6
Under 1,000	22	3.1	28	3.0	29	1.4
Subtotal	34	8.4	41	6.7	51	5.0
Unincorporated	N/A	73.6	N/A	60.1	N/A	33.3
Total	45	100.0	62	100.0	84	100.0

*Defined to include only those places incorporated.

Source: Arthur A. Blumenfeld, "New Mexico's Population Since 1910," Business Information Series, No. 40 (Albuquerque: University of New Mexico, Bureau of Business Research, November 1962), Table VII, p. 7.

of course, has deprived the rural areas of a group which is likely to provide leadership in any program designed to elevate living standards. The school-age groups are likely to follow the migration path, further depleting the rural human resources.

Rural poverty is finally becoming a burning issue and gaining wider recognition and support. Several factors may explain the recent call for action and programs designed specifically for obliteration of rural

poverty, especially because of the apparent interrelationship between urban and rural poverty. The U.S. Department of Agriculture, at least in theory, has been responsible for initiating economic development programs in rural America. Rural poverty groups are increasingly questioning the responsiveness of this agency. In the Southwest, the U.S. Forest Service grazing policies are being criticized as being discriminatory against the small farmers. During the 1960's the U.S. Bureau of Indian Affairs finally started stressing Reservation economic development. The U.S. House of Representatives has conducted hearings on the "Effect of Federal Programs on Rural America."¹⁸ In addition, the Office of Economic Opportunity, the Department of Commerce and the Department of Labor have started emphasizing rural economic development. Preliminary planning for action programs is, therefore, currently being formulated.

The magnitude and extent of rural poverty are severe. In terms of population, rural America embraces about one-third of the nation. Of 3,081 counties in the United States, rural poverty has been identified in 1,187 counties, with a concentration of these counties in the Southeast and Southwest. Having 34.1 percent of its total population designated as rural, New Mexico is considered to be a highly rural state. Poverty in New Mexico is concentrated in rural northern New Mexico where the majority of the population is of Spanish-surname and/or Indian.

¹⁸U.S., Congress, House, Committee on Agriculture, Subcommittee on Rural Development, Hearings, Effects of Federal Programs on Rural America, 90th Congress, 1st Session, 1967.

Of 45,150,000 families in the United States in 1960, 9,651,000 were designated as poverty-stricken. Comprising only 30 percent of the total population, the rural poor accounted for a disproportionate 46 percent of all the poverty-stricken families. New Mexico's total population in 1960 numbered 54,180 families of which 21,373 were classified as poverty-stricken. With a rural population of 34.1 percent, the rural poor accounted for 49.3 percent of New Mexico's poor families.

Minority ethnic groups account for a much larger share of the poverty-stricken than their proportion of the population. In the Southwest, the nonwhite population adheres to the national trend in being the poorest in terms of family incomes. Except for New Mexico, the larger families associated with Spanish-surname population results in this group having the lowest per capita income in the southwestern states. In New Mexico, Spanish-Americans not only form the largest minority group but also comprise the largest ethnic group in northern New Mexico. As a result, this study will necessarily have to give heavy emphasis to this group.

In summation, Dr. Clark S. Knowlton's evaluation of the poverty situation in rural New Mexico should be noted.

The causes of the present tragic situation are easy to trace. They involve the following factors: (1) The continued and systematic shift of land from the Spanish Americans to the Anglo-Americans either by force and violence or by entrapment in a legal and tax system completely foreign and alien to the Spanish Americans. Since 1854, the Spanish Americans have lost over 2,000,000 acres of private lands, 1,700,000 acres of communal lands, 1,800,000 acres taken over by the state, and even more enormous acreages lost without remuneration to the Federal government. (2) The existence of cultural and linguistic intolerance and arrogance among the Anglo-Americans that alienated the Spanish Americans and created enormous problems of cultural prejudices, discrimination, social disorganization, acculturation, family breakdown, rural

poverty and other serious social problems. (3) The treatment of the Spanish Americans as a conquered people with little attention given to their traditional land and water usages. (4) The failure of private, state, and federal agencies, since the 1930's, to develop regional programs adjusted to the cultural values of the Spanish Americans and to their basic needs as defined by themselves. (5) The development of costly flood control and irrigation systems in New Mexico that have led to the massive displacement of Spanish American farmers. They have been the victims of almost every such large scale project in New Mexico. (6) The creation of a school system that in spite of heroic endeavors of teachers and administrators has failed to prepare Spanish Americans to adjust to the modern industrialized and urbanized Anglo-American civilization. Rather it has had the unique honor of graduating children illiterate in two languages, ashamed of themselves, their culture, and their people, and unprepared either for life in a large Anglo city or in a Spanish American rural village. (7) The persistence of inefficient and traditional farming practices. (8) The lack of development and even survey of the many natural resources of northern New Mexico. It is ironic that many of the mountainous segments of the United States with the same natural environment and resources as say Switzerland and Norway are so poverty stricken.¹⁹

¹⁹Clark S. Knowlton, "The Situation of the Spanish Americans of Northern New Mexico," in Hearings Before the Subcommittee on Rural Development of the Committee on Agriculture, House of Representatives, Ninetieth Congress, First Session (Washington, D.C.: U.S. Government Printing Office, 1967), pp. 208-209.

CHAPTER III

AGENCIES AND ORGANIZATIONS PLANNING FOR ECONOMIC DEVELOPMENT OF RURAL NORTHERN NEW MEXICO

Introduction

Planning for economic development of rural areas in the United States has taken several forms. In the formative period, economic development policies were designed to accelerate settlement of an expanding population in the frontier areas. Thus, the Homestead Act of 1862 and similar legislation was passed. As frontier areas became more densely populated, policies were formulated to facilitate the development of a transportation network. Economic development policies for rural America were later designed to insure income maintenance through controlled and selective agricultural production. Under the Merrill Act of 1863, land grant colleges and cooperative extension services were established. Rural economic development was almost entirely within the domain of the U.S. Department of Agriculture until the early 1960's.

Mechanization during the Twentieth Century has led to increasing agricultural productivity. This phenomenon has sharply curtailed agricultural employment. Thus, the impetus for technological advances provided by the government (primarily under the direction of the U.S.

Department of Agriculture) has mitigated against continued infusion of labor into rural areas. As a result of decreasing employment opportunities, growth of rural areas has been stymied and has led to a depletion of the mobile working age group (18 to 45 years of age). Migration from the rural areas also has contributed to the preponderant number of unemployable workers found in urban ghettos and slums.

Under the U.S. Department of Agriculture developmental policies, economic concern for the rural population has been based less on a policy of assisting small farmers in dire need, than on a policy of providing services primarily for the larger producers. Other federal agencies have been concerned with specific problems largely without regard to overall coordination of the planning effort. Subnational economic development planning has been almost entirely within the province of state and local authorities. However, these agencies have also concentrated on state-wide planning and/or coordination with regional and national planning groups. Little has been done to plan for small areas--i.e., counties and communities--and to coordinate these plans with the existing apparatus.

Federal Agencies

Planning for economic growth was initially confined to the utilization of natural resources. During the tenure of President Theodore Roosevelt, a White House Conference was called "...to enlist the cooperation of governors, state officials, and leaders of national organizations in the conservation of national resources."¹ The subjects of concern

¹Dorothy I. Cline and Joel V. Barrett, "An Analysis of Inter-governmental Relations in Natural Resources in New Mexico," Phase I, State Resources Development Plan, "Summary Reports on New Mexico's Resources" (Santa Fe: New Mexico State Planning Office, 1965), p. 9.

were: (1) mineral resources: ores and fuels; (2) land resources: stock raising, farming, forests, reclamation, parks, and scenic beauty; (3) water resources: power, transportation, navigation, water supply; and (4) wildlife and recreation. Human resources were given a cursory view.

The next attempt at planning was undertaken during the early depression period. Created by Executive Order in 1933, the National Planning Board--later designated the National Resources Board--"...undertook to inventory and assess the Nation's resources, formulate scientific and democratic planning concepts, and stimulate the creation of city, metropolitan, state, and regional planning bodies."² This endeavor was terminated in 1943. During World War II, the United States "...adopted centralized physical planning and controls over economic activity similar to those found in socialized economies."³

At the end of World War II, Congressional concern turned toward sustaining economic growth. The fear of economic retrogression (depression) stimulated passage of the Employment Act of 1946. Although this Act may not be properly termed as an authority permitting national economic planning, the creation of the Council of Economic Advisors has provided an impetus in the direction of comprehensive planning. The Employment Act of 1946 directs the Federal Government to implement economic policies designed to (1) provide for full employment, (2) stimulate economic growth, and (3) maintain purchasing power. In addition to

²Ibid.

³Albert Waterston, Development Planning: Lessons of Experience (Baltimore: The Johns Hopkins Press, 1965), p. 10.

these three economic goals, national attention, since 1958, has also been directed toward maintenance of a balance-of-payment equilibrium. These goals are not always mutually consistent and have required intensive planning in order to develop compatible economic policies. This, however, can hardly be considered comprehensive national economic planning.

The next attempt to develop some semblance of national planning occurred with the passage of the Area Redevelopment Act of 1961. This Act provided explicit recognition of the need for "redevelopment of distressed areas and improvements in quality of education and community facilities...[as]...a matter transcending local community interests...."⁴

The Area Redevelopment Act provided federal assistance to:

...qualified "redevelopment areas" in meeting the needs for new job opportunities and retraining the unemployed. The measure provided loans for the development of land and buildings for industrial purposes and for improvement of community facilities. Federal assistance for retraining unemployed individuals in qualified redevelopment areas and unemployment compensation during the retraining period....⁵

The next legislation having a specified impact on the attempt to alleviate the poverty problem was the Manpower Development and Training Act of 1962. This Act provides for "...occupational training administered through existing State vocational education agencies under the general supervision of the U.S. Department of Health, Education and Welfare."⁶

⁴U.S. Department of Agriculture, Economic Research Service, Rural People in the American Economy, Agricultural Economic Report No. 101 (Washington, D.C.: U.S. Government Printing Office, October 1966), p. 69.

⁵Ibid.

⁶Ibid.

With the passage of the Economic Opportunity Act in 1964, the foundation was established to commence a full-scale, frontal attack on domestic poverty. Under Title III of the Act, grants may be provided to:

...meet some of the special problems of rural poverty and thereby to raise and maintain the income and living standards of low-income rural families and migrant agricultural employees and their families.⁷

Moreover, Part B of Title III, Section 311, of the Act provides that:

The Director shall develop and implement as soon as practicable a program to assist the States, political subdivisions of states, public and non-profit agencies, institutions, organizations, farm associations, or individuals in establishing and operating programs of assistance for migrants and other seasonally employed agricultural employees and their families which programs shall be limited to housing, sanitation, education, and day care of children. Institutions, organizations, farm associations, or individuals shall be limited to direct loans.⁸

Under this authority, Title III-B programs in New Mexico are administered by the Home Education Livelihood Program (HELP). HELP is a nonprofit corporation serving as an auxiliary agency of the New Mexico Council of Churches, including the Roman Catholic Archdiocese of Santa Fe and affiliated Catholic Dioceses serving New Mexico.⁹ HELP also has been funded by OEO and the Ford Foundation to initiate a pilot program designed to rejuvenate rural economies through the infusion of capital and establishment of industries. Thus, HELP is currently authorized and equipped to provide adult education and otherwise initiate and

⁷Public Law 88-452, 88th Congress, S. 2642, August 20, 1964, p. 17.

⁸Ibid., p. 18.

⁹Home Education Livelihood Program, Home Education Livelihood Program for Underemployed Agricultural Workers in New Mexico (Albuquerque: n.d.), p. 1.

implement programs designed to elevate the living standards of migrant and seasonally employed agricultural workers.

The Public Works and Economic Development Act of 1965 was enacted in an effort to accelerate economic growth of areas having substantial or anticipated substantial unemployment. Administered through the Economic Development Administration of the U.S. Department of Commerce, this Act

...provides grants for public works and development facilities, as well as other financial assistance, planning, and coordination needed to restore the economic health of distressed areas and regions. Eligibility as "redevelopment areas" is based on the existence of substantial and persistent unemployment and loss of employment opportunity. Additional areas in which median family incomes are not more than 40 percent of the national median may also qualify.¹⁰

In addition, the Public Works and Economic Development Act of 1965 provides for the designation of economic development districts including "...at least two redevelopment areas, and usually comprising several counties."¹¹ On a larger scale, the Secretary of Commerce may designate multistate economic development regions.

The first multistate economic development region was approved by the Appalachian Regional Development Act of 1965. The Appalachian Regional Development area includes 370 counties in: Pennsylvania, Maryland, West Virginia, Alabama, Georgia, Kentucky, Tennessee, Virginia, North Carolina, New York, Ohio, and South Carolina. The Act is designed to stimulate highway construction, development of natural resources, and

¹⁰U.S. Department of Agriculture, Rural People in the American Economy, op. cit., p. 69. This Act supersedes the Area Redevelopment Act of 1961.

¹¹Ibid.

other improvements that may be necessary to make the region more attractive to industry, allow for the development of job opportunities, and otherwise elevate the living standards of the residents.

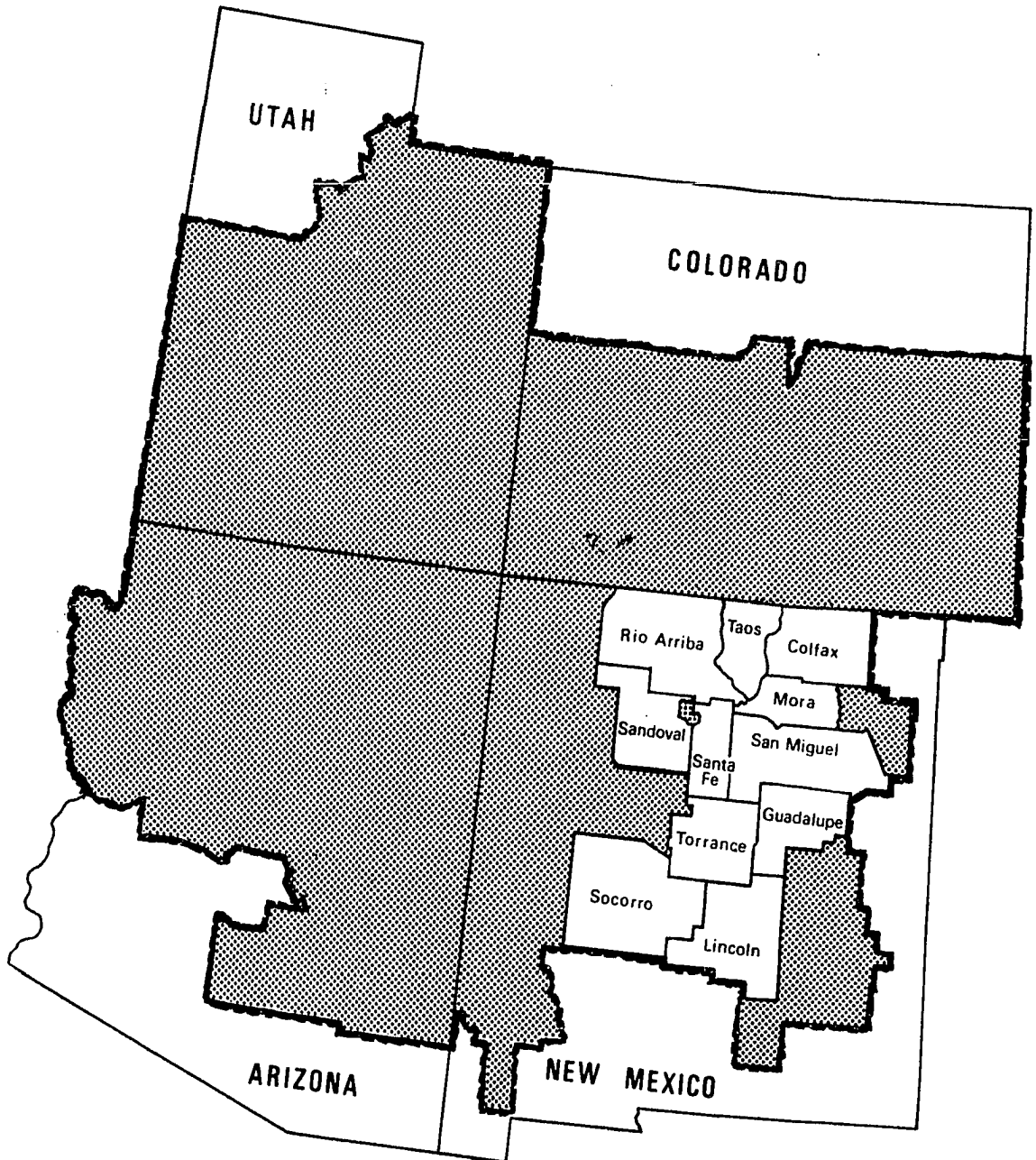
Under the Public Works and Economic Development Act of 1965, the Secretary of Commerce designated the Ozarks, Upper Great Lakes States, and the New England Economic Development Regions in 1966. The Ozark Economic Development Region comprises 134 counties in Arkansas, Kansas, Missouri, and Oklahoma. Under the Upper Great Lakes States Economic Development Region, 119 counties in Michigan, Wisconsin, and Minnesota have been designated as eligible for federal assistance from the Economic Development Administration. In the New England Economic Development Region, all or a portion of Rhode Island, Vermont, Massachusetts, Connecticut, New Hampshire, and Maine have been designated as "depressed."

Of more immediate concern to this study is the Four Corners Economic Development Region which was established in December 1966 with headquarters in Farmington, New Mexico. The region encompasses 92 counties in New Mexico, Arizona, Colorado, and Utah. Including the ten counties comprising the North Central New Mexico Economic Development District, the Four Corners Economic Development Region includes 22 of New Mexico's 32 counties.¹² Figure 2 shows the boundaries of both the Region and the District. Approved in mid-1967, the North Central New Mexico Economic Development District includes Rio Arriba, Taos, Torrance, Socorro, Guadalupe, Lincoln, Sandoval, Colfax, Mora, and San Miguel Counties--the counties identified as rural northern New Mexico in this

¹²The Governor of New Mexico has asked for expansion of Regional boundaries to include all of New Mexico.

Figure 2

Four Corners Economic Development Region
and
Northcentral New Mexico Economic Development District



Source: Four Corners Economic Development Regional Commission
Farmington, New Mexico, 1 October 1968.

study. The four states and all sub-planning areas' groups, in a coordinated fashion, are to assist the Region's Federal Coordinator in preparing economic development plans.

State Agencies

In conformance with governmental guidelines given from time to time with regard to specific programs, the State of New Mexico has undertaken some type of planning since 1934 when the Governor appointed a State Planning Board. In 1935, the State Legislature authorized creation of a planning board which:

...was empowered to formulate and adopt an official state master plan and make recommendations to state agencies and institutions engaged in acquiring, planning, or constructing any public buildings, public improvements, highways, or parks.¹³

This board continued to function in essentially the aforementioned manner through 1943. In 1944, the State Planning Board "...shifted from the analysis and planning of resources to business and industrial promotion."¹⁴ The New Mexico Department of Development was created in 1959. Under the State Planning Act, enacted in 1959 and amended in 1961, a State Planning Office was established. The State Planning Officer, appointed by and responsible to the Governor, is to

...collect and put into concise, understandable form all obtainable information about the physical, economic and human resources of New Mexico. The data...will be analyzed and applied against the possible alternative courses for the future development of the state. Estimates...will then be made of the economic and social

¹³Dorothy I. Cline and Joel V. Barrett, "An Analysis of Inter-governmental Relations in Natural Resources in New Mexico," Phase I, State Resources Development Plan, "Summary Reports on New Mexico's Resources" (Santa Fe: New Mexico State Planning Office, 1965), p. 9.

¹⁴Ibid.

benefits and costs accruing to the different development possibilities.¹⁵

The State Planning Office is currently preparing a State Development Plan which is as follows:

Through directions to existing agencies, provide for comprehensive studies of resources of the state...and shall work toward the preparation of comprehensive state-wide resource development plans relating to development potentials and needs of various resources to population, industry, agricultural and recreational growth and development, and indicating benefits to be derived from water development, including but not limited to irrigation, flood control, domestic and industrial water requirements and recreation.¹⁶

This "comprehensive State Plan" is to consist of the following phases:

Phase I involved collection of basic information in twenty-nine studies, i.e., population data, information on levels of economic activities, projections of population and economic activities, basic information on mining and minerals, forests, recreation, climate for business, availability of energy resources, etc.

Phase II will be devoted to the preparation of a Statement of Goals and Objectives for New Mexico and the development of Functional Area Plans.

Phase III will cover the development of long-range programs and plans for each of the various agencies. These...will... consist of four sections, e.g., a statement of agency goals and objectives, a section on program identification, a third section devoted to programs and to plans designed to solve the problems and a fourth section devoted to implementation activities.

Phase IV will be the actual implementation.

Phase V will involve the continuous review and updating of the State Resources Development Plan. This will also

¹⁵Ibid.

¹⁶State of New Mexico, A Design for Development Decisions (Santa Fe: New Mexico State Planning Office, 1962), p. 1.

cover additional research to gather the information necessary to deal with new problems as they develop.¹⁷

The State Planning Office is currently working in Phase II of the Plan: formulating goals, objectives, and alternatives. Thus, the State Planning Office envisions a coordinated economic development effort. The State Natural Resource Development Plan is to be a comprehensive program designed to provide guidance to all other state governmental subdivisions. County, multicounty, and local plans are to be incorporated into the state master plan. In turn, the State Plan is to be coordinated with multistate or regional plans.

The New Mexico State Office of Economic Opportunity was initially established in 1964 to act in a liaison capacity between the various Community Action Programs (CAPs) in the state and the national Office of Economic Opportunity. Initially sponsored and operated through the State Planning Office, the State OEO was reorganized in the year 1965 as an independent agency responsible to the Executive Office of the Governor.

In the summer of 1967, civil rights and land grant groups were extremely active in New Mexico.¹⁸ Their activities were apparently

¹⁷State of New Mexico, "Frame of Reference for Evaluating New Mexico's Resources," Phase I, State Resources Development Plan, A Preliminary Draft (Santa Fe: New Mexico State Planning Office, 1965), pp. 64-65.

¹⁸Nancie L. Gonzales, "The Spanish Americans of New Mexico: A Distinctive Heritage," Mexican-American Study Project, Advance Report 9 (Los Angeles: University of California, Graduate School of Business Administration, Division of Research, September 1967), pp. 68-77. Many newspapers in the Southwest have reported the activities of Reies Tijerina and his Alianza Federal de Mercedes, a group dedicated to the recovery of the original Spanish land grants for the Spanish-American people in New Mexico. Land grants were properties given by the Spanish and Mexican governments to individuals, groups of individuals, and/or communities as holdings in an effort to establish permanent settlements.

condoned by a sympathetic State OEO Director, a priest on leave of absence. At any rate, the resulting publicity and alleged involvement of State OEO personnel resulted in redelegation of the Agency to the State Planning Office and subsequent dismissal of the State OEO Director. The State OEO office today is, at best, a technical assistance agency without any type of specified jurisdiction or authority.

Private Agencies

The contribution of private agencies to planning for economic development of rural New Mexico is largely a by-product of state-wide and/or urban planning. Public utility companies, private financial institutions, chambers of commerce, religious organizations, and other agencies are primarily concerned with their own immediate areas of jurisdiction. In New Mexico, the New Mexico Council of Churches, through the Home Education Livelihood Program (HELP), is the only private agency adequately prepared and organized to provide state-wide economic development planning assistance.

The New Mexico Council of Churches was initially organized and incorporated on September 9, 1958.¹⁹ A Department of Migrant Ministry was established as part of the Corporation. In September 1964, the Department of Migrant Ministry was redesignated the Department of Cooperative Christian Concern. Under these organizations, and also prior to incorporation of the New Mexico Council of Churches, the United Church Women of New Mexico provided educational and health

¹⁹Home Education Livelihood Program, Home Education Livelihood Program for Underemployed Agricultural Workers in New Mexico (Albuquerque: n.d.), p. 1.

services to migrant families and seasonally employed agricultural workers, including braceros. With the founding of the Department of Migrant Ministry, the efforts of the United Church Women of New Mexico were supplemented and eventually absorbed. In a path-breaking move, the Archdiocese of Santa Fe joined the Department of Cooperative Christian Concern, New Mexico Council of Churches, in December 1964. The other Roman Catholic Dioceses in New Mexico joined the Department of Cooperative Concern on May 4, 1965.

When the Economic Opportunity Act of 1964 became effective, responsibility for OEO operations in New Mexico was delegated to the Governor's State Planning Office. The State Planning Office, at the direction of the Governor, in turn, delegated the responsibility for all OEO migrant and underemployed and unemployed seasonal agricultural worker programs-- Title III-B--to the New Mexico Council of Churches. The New Mexico Council of Churches became an affiliate of the Office of Economic Opportunity on June 30, 1965, with the approval of OEO Grant CAP #8523 for \$1,360,313. The Home Education Livelihood Program was incorporated on October 6, 1965. As of June 30, 1968, HELP had been funded as follows: (1) Administration and Education, \$5,315,619; (2) Self-Help Housing, \$49,884; and (3) Research and Demonstration, \$161,520. Thus, a total of \$5,527,023 will have been provided through the Office of Economic Opportunity for rural development in New Mexico. In addition, the Ford Foundation has provided \$453,450 for the Research and Demonstration Division (February 1968-January 1971).

Summary

Planning for economic development of rural areas has been primarily under the administrative jurisdiction of the U.S. Department of Agriculture. During the frontier period in the United States, developmental policies encouraged extensive agriculture. Stimulated in part by the U.S. Department of Agriculture, technological advances in agriculture have led to mechanization and consolidation of farms. Current agricultural policies dictate output restriction as a method of income maintenance. Critics of U.S. developmental policies claim that these policies were beneficial to large agricultural producers and detrimental to small farmers. At any rate, declining agricultural employment has, according to some critics, stymied rural economic development. A stagnant rural economy has limited employment expansion potential and has resulted in large-scale out-migration.

Inhabitants of rural areas are dominant among the poverty-stricken. As a result of migration, there is a disproportionate number of school-aged and elderly people, and, therefore, the rural areas do not possess the effective leadership necessary to initiate the economic planning required to stimulate economic growth.

The United States does not engage in comprehensive national economic planning of the nature prevalent in other countries. Under the Employment Act of 1946, the U.S. was committed to implementation of policies designed to: (1) provide full-employment; (2) stimulate economic growth; and (3) maintain purchasing power. A more recent national economic goal is to establish balance-of-payments equilibrium.

Established by authority of the Employment Act, the Council of Economic Advisors is the Administration's vehicle for development of economic guidelines necessary to achieve the four national economic goals. Recently, federal policies are being steered toward greater planning for economic growth. The Area Redevelopment Act of 1961 authorized the U.S. Department of Commerce to provide financial and technical assistance to industrial efforts generated in selected "redevelopment" areas. Under the Manpower Development and Training Act of 1962, federal assistance was provided for upgrading of human resources.

Economic development planning has been stimulated by the Economic Opportunity Act of 1964. Through projects implemented and funded by OEO, the general public is gaining greater understanding of the problems of the poverty-stricken. In cooperation with the Economic Development Administration, U.S. Department of Commerce, many poverty areas are attempting to prepare overall economic development plans. Having absorbed the duties of the Area Redevelopment Administration, the Economic Development Administration provides financial and technical assistance to groups and individuals who propose development of new entrepreneurial activities that will expand employment opportunities. Other governmental agencies have been instructed to coordinate efforts in the developmental programs.

The State of New Mexico has established a State Planning Office that is charged with the responsibility of preparing a state master plan for overall economic development. All state developmental efforts are to be coordinated through this office. Although several private organizations are active in promoting economic growth within the State

of New Mexico, the only comprehensive state-wide private program is operated by the Home Education Livelihood Program. HELP is a nonprofit corporation, affiliated with the New Mexico Council of Churches and funded by the Office of Economic Opportunity and the Ford Foundation.

Thus, planning for economic development of rural areas is currently being started. Previous efforts have failed to stimulate economic growth in rural areas of northern New Mexico. Part of the reason for this failure is that federal and state programs have been largely geared to the development of urban areas. Economic development planners are beginning to recognize the interdependence of the rural and urban poverty problems. In many cases, the urban poor are rural migrants. Solving the rural poverty problem will substantially assist in solving the urban poverty problems.

CHAPTER IV

THE PENASCO VALLEY ECONOMY

Description of the Area

Location

Northern New Mexico, defined in Chapter II as being synonymous with the North Central New Mexico Economic Development District, is composed of the following counties: (1) Colfax, (2) Guadalupe, (3) Lincoln, (4) Mora, (5) Rio Arriba, (6) Sandoval, (7) San Miguel, (8) Socorro, (9) Taos, and (10) Torrance (see Figure 2). The Penasco Valley is located in the extreme southeastern portion of Taos County, bordering Mora County on the east and Rio Arriba County on the south. For purposes of this study, the Penasco Valley is defined to include the following communities:

- | | |
|------------------------------|-------------------|
| 1. Chamisal | 7. Picuris Pueblo |
| 2. El Valle | 8. Placitas |
| 3. Las Trampas | 9. Rio Lucio |
| 4. Llano | 10. Rodarte |
| 5. Llano Largo | 11. Tres Ritos |
| 6. Penasco (trade
center) | 12. Vadito |

These communities comprise the Penasco and Picuris County Census Divisions, in the 1960 Census of Population, U.S. Bureau of the Census.¹

¹U.S. Bureau of the Census, 1960 Census of Population: New Mexico (Washington, D.C.: U.S. Government Printing Office, 1961), Tables 25 and 26, pp. 38 and 40.

Figure 3 shows the proximity of the various communities to each other and major highways through the Valley. The Penasco Valley is located relative to the other areas of the Southwest in Figure 4. Distances from the town of Penasco to selected cities in New Mexico and to other cities in the Southwest are indicated in Table 9.

TABLE 9
DISTANCES FROM PENASCO
TO SELECTED CITIES IN
NEW MEXICO AND THE SOUTHWEST

Cities	Miles	Cities	Miles
<u>New Mexico</u>		<u>Out-of-State</u>	
Taos	24	Amarillo, Texas	283
Albuquerque	123	Dallas, Texas	636
Clovis	204	El Paso, Texas	394
Espanola	36	Lubbock, Texas	303
Farmington	229	Denver, Colorado	317
Las Cruces	350	Salt Lake City, Utah	654
Las Vegas	64	Oklahoma City, Oklahoma	548
Los Alamos	58	Laramie, Wyoming	449
Roswell	258	Phoenix, Arizona	578
Santa Fe	63	Los Angeles, California	920
Santa Rosa	129	Wichita, Kansas	594

Topography and Climate

Topography.--Topography and vegetative zones of the Penasco Valley are portrayed in Figure 5. Altitudes in the Valley range from 7,400 feet as one enters the Valley on New Mexico Highway 75, near Rio Lucio,

Figure 3

THE PEÑASCO VALLEY

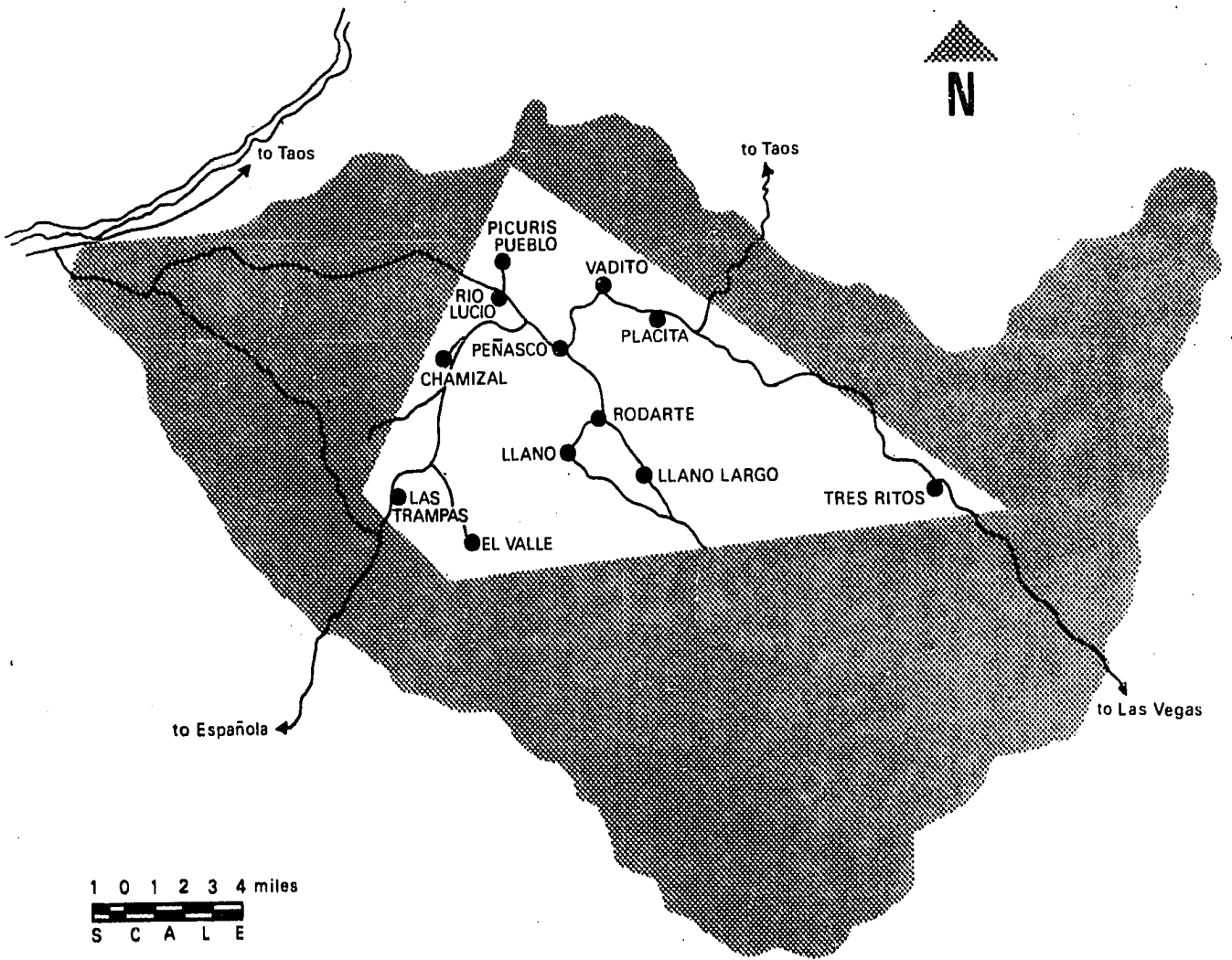
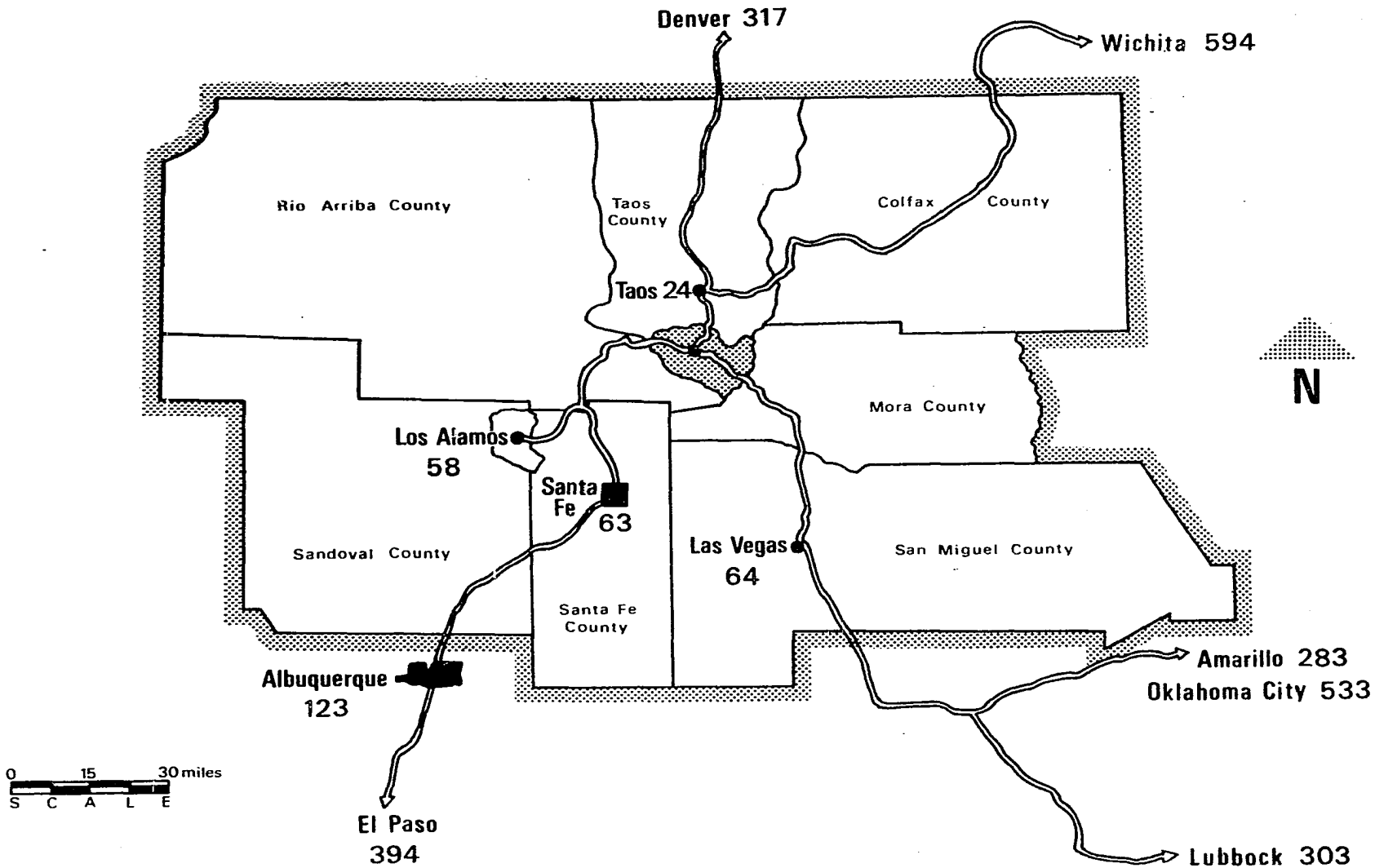


Figure 4

Mileage from Peñasco to Selected Cities



to over 12,000 feet in and near the Pecos Wilderness System.² The Northcentral part of the Valley is enclosed by the Picuris Mountain Range, a salient off the main Sangre de Cristo Mountain Range which surrounds the Valley on the other three sides. The Sangre de Cristo Mountain Range, including the Picuris Range, is a part of the southern Rocky Mountain Range. As shown in Figure 6 and Table 10, four types of vegetative zones, having different climatic characteristics, are evident in the Valley.

Climate.--The Penasco Valley has the distinction of being one of the better water-producing areas in the state. As an indication of its water-producing importance, only 12 percent of the total land area in New Mexico, Arizona, southern Utah, and southern Colorado yields one inch or more of surface runoff a year.³ Yet, over two-thirds of the Valley has this runoff capacity. Figure 6 shows the annual precipitation in the Penasco Valley.

Data given in Table 10 and Figures 5 and 6 are correlated in Figure 7 which shows the interrelationship between elevation, precipitation, and water yield. In the Penasco Valley, precipitation ranges from 14 to 40 inches, ascending in correlation to altitude. Most of the precipitation

²The Interagency Council for Area Development Planning and the New Mexico State Planning Office, Embudo: A Pilot Planning Project for the Embudo Watershed of New Mexico (Santa Fe: New Mexico State Planning Office, 1962), p. 7. The Pecos Wilderness System is one of 83 designated units which make up the National Forest Wilderness System. In these areas, primitive conditions are preserved, and there are no roads, no commercial timber cutting, no hotels, stores, resorts, developed campgrounds, or summer homes. The area is open to public hunting and fishing. Travel must be by foot or horseback, but not by automobile.

³Ibid.

Figure 5

Topography and Vegetation Zones of the Peñasco Valley

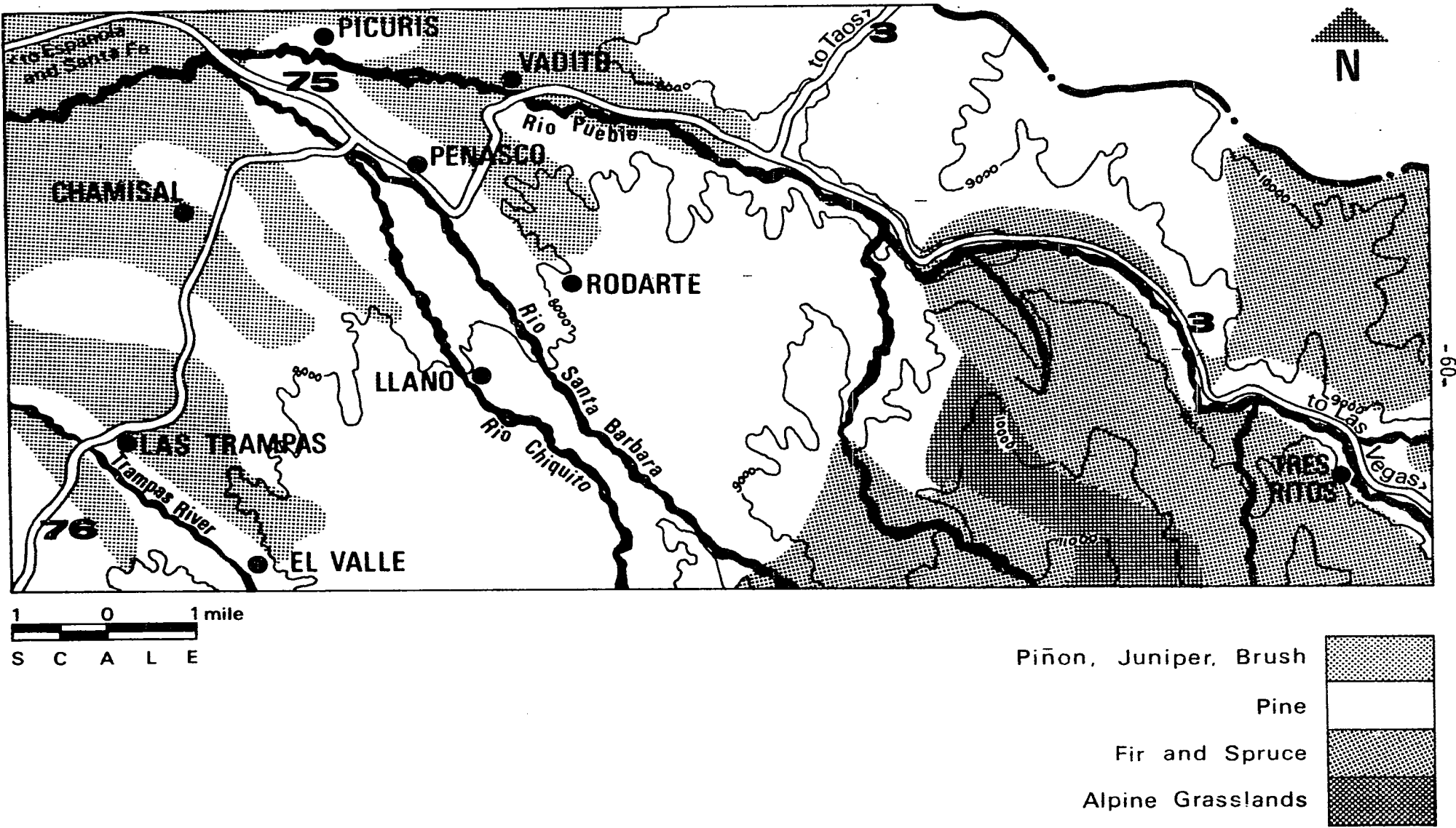
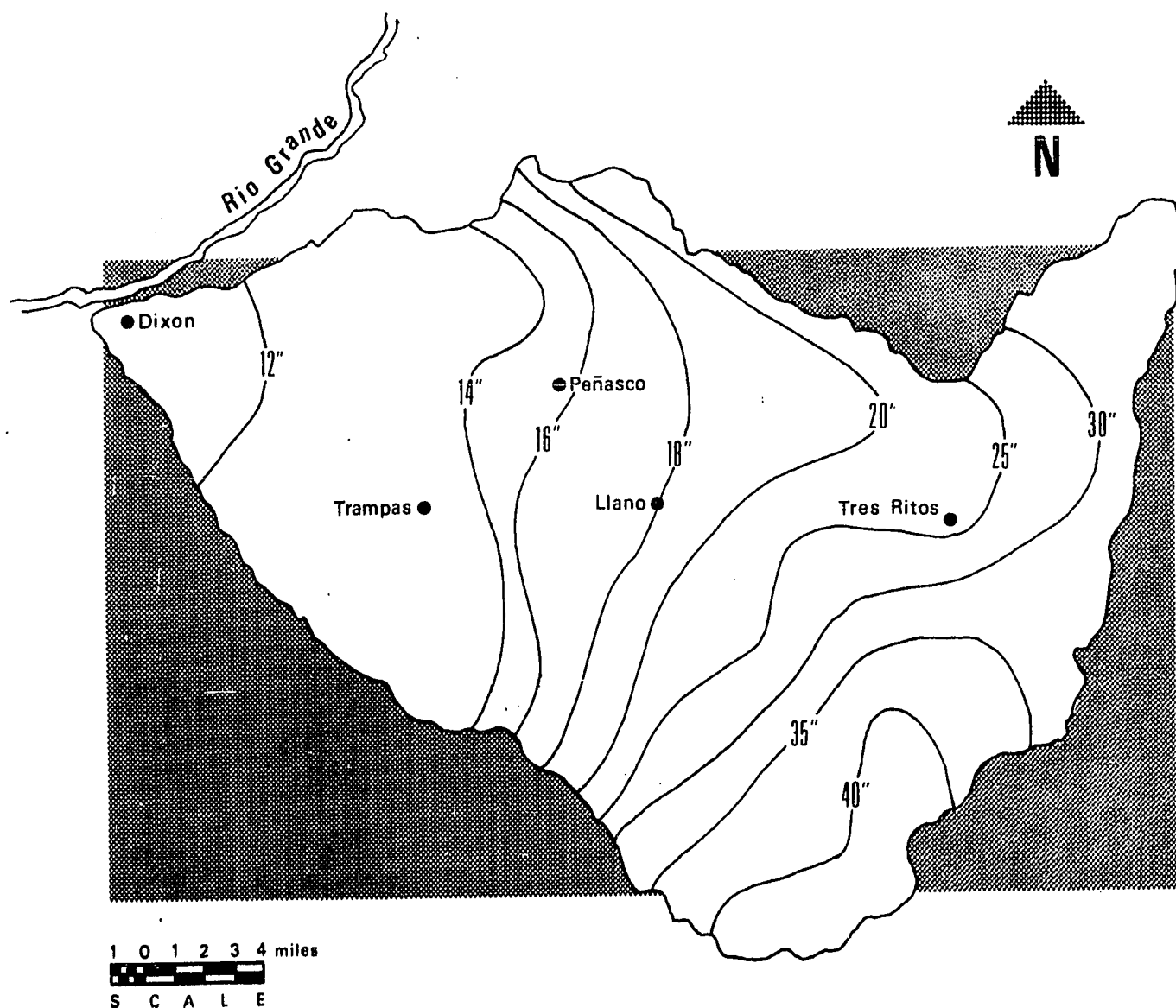


Figure 6

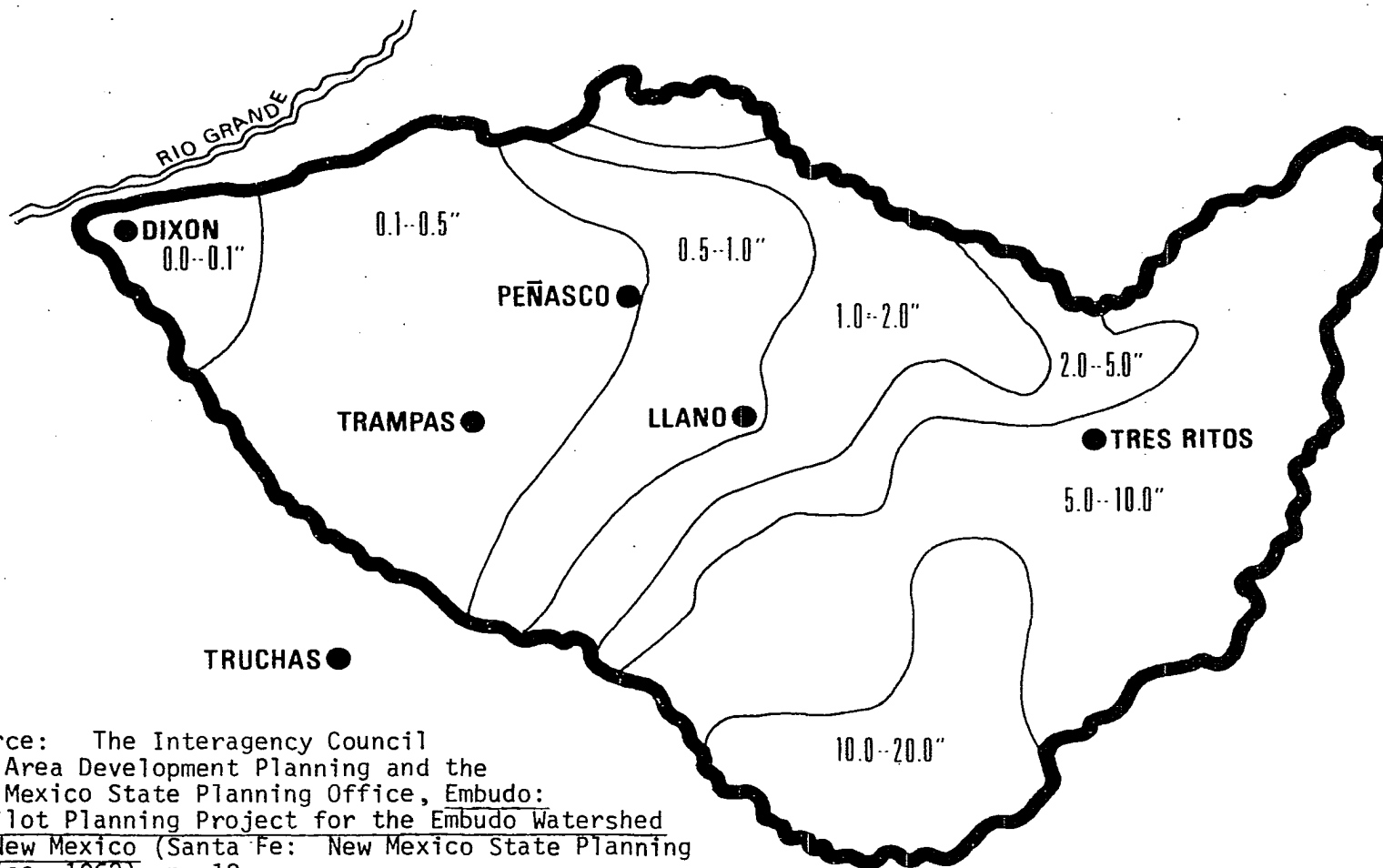
Average Annual Precipitation in the Peñasco Valley



Source: The Interagency Council for Area Development Planning and the New Mexico State Planning Office, Embudo: A Pilot Planning Project for the Embudo Watershed of New Mexico (Santa Fe: New Mexico State Planning Office, 1962), p. 11.

Figure 7

Average Annual Water Yields
in the Peñasco Valley



Source: The Interagency Council
for Area Development Planning and the
New Mexico State Planning Office, Embudo:
A Pilot Planning Project for the Embudo Watershed
of New Mexico (Santa Fe: New Mexico State Planning
Office, 1962), p. 10.

TABLE 10
CLIMATIC CHARACTERISTICS
VEGETATION ZONES, PENASCO VALLEY
(Mean Annual)

VEGETATION ZONES	Elevation (Feet)	Precipitation (Inches)	Temp (F°)	Precipitation as snow	GROWING Dates	SEASON Days
1. Pinon-Juni- per-Brush	6000-7500	13-16	48-50	25-35	5/17-10/3	139
2. Ponderosa Pine	7500-8500	16-20	45-48	35-45	5/28-9/26	121
3. Spruce-Fir- Aspen	8500-11000	20-30	43-45	45-60	6/3 -9/20	115
4. Alpine Grasslands	11000-13000	30-38	40-43	60-75	6/15-9/10	87

Source: Interagency for Area Development Planning and New Mexico State Planning Office,
Embudo: A Pilot Planning Project for the Embudo Watershed of New Mexico (Santa Fe: New Mexico
State Planning Office, 1962), Table 1, p. 7.

in the Valley is in the form of snow. As indicated in Table 10, precipitation as snow averages between 25 and 35 inches in the elevation between 6,000 and 7,500 feet and increases to 60-65 inches in the Pecos Wilderness area where elevation is 11,000 to 13,000 feet. This snow, in turn, provides 13 to 16 inches of precipitation in the lower valleys, increasing to 30 to 38 inches in the highest elevation. In terms of water yield, this translates into 0.1 to 0.5 inches at the lowest elevation and 10 to 20 inches at the highest elevation.

The melting snow water runoff occurs primarily during the months of May, June, and July. Rain, particularly at the lower elevations, occurs in the form of torrential storms of short duration during July and August. Mean annual evapo-transpiration--estimated potential amount of precipitation that may be lost through atmospheric evaporation and plant transpiration--averages 10 to 25 inches in any given year.⁴ Soil conservation personnel, U.S. Department of Agriculture, estimate that outmoded irrigation practices in the Valley, result in only an 85 percent water-use efficiency.⁵ Thus, better utilization of existing water runoff would allow expansion of agricultural production in the area.

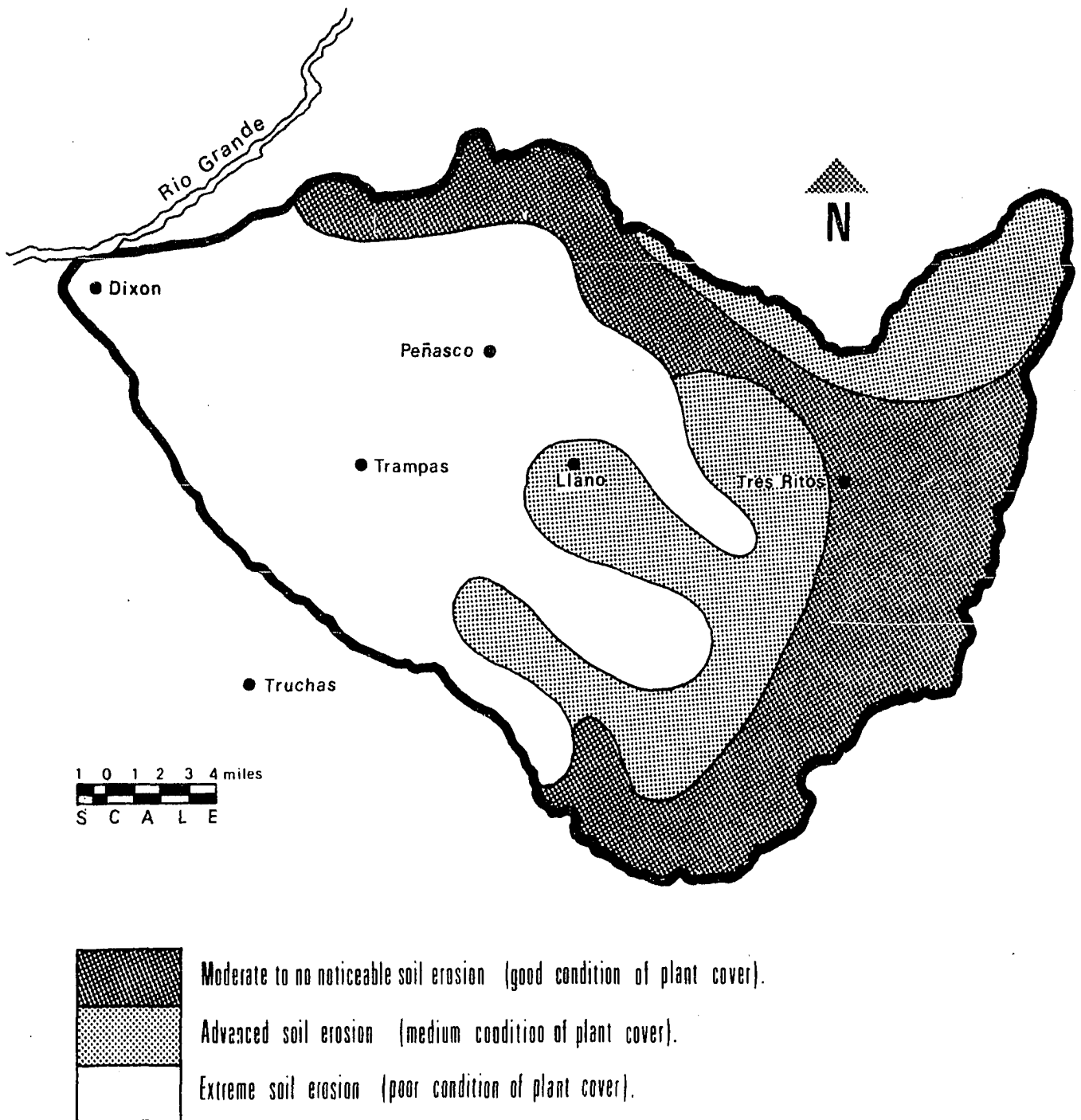
Torrential rainstorms cause considerable erosion and damaging sedimentation in the western part of the Valley where vegetation cover is sparse and soils erodible. Figure 8 shows soil erosion in relation

⁴The Interagency Council for Area Development Planning and the New Mexico State Planning Office, Embudo: A Pilot Planning Project for the Embudo Watershed of New Mexico (Santa Fe: New Mexico State Planning Office, 1962), p. 7.

⁵Conversation with Frank C. de Baca, Soil Conservation Service, U.S. Department of Agriculture, Taos, New Mexico, August 28, 1968.

Figure 8

Soil Erosion in Relation to Vegetative Cover
in the Peñasco Valley



Source: The Interagency Council for Area Development Planning and the New Mexico State Planning Office, Embudo: A Pilot Planning Project for the Embudo Watershed of New Mexico (Santa Fe: New Mexico State Planning Office, 1962), p. 13.

to vegetative cover. Advanced and extreme soil erosion is evident in areas of 6,000 to 7,500 feet and 7,500 to 8,500 feet elevation. As indicated below, the severely eroded portions of the Valley encompass most of the private lands in the area. This indicates, therefore, that sparsity of vegetative cover may be attributed to cultivation and stock grazing. These areas have been continuously inhabited and cultivated by Spanish-Americans since circa 1725.

Although Figures 9, 10, and 11 do not apply directly to the Penasco Valley, the interrelationship between elevation, average annual temperatures and growing season (Table 10) are portrayed. The data presented in these figures refer to the Mora Valley, Mora County. The Mora Valley comprises part of the same mountain range and is contiguous to the Penasco Valley. Figure 9 shows that temperature varies inversely with elevation; the higher the elevation, the lower is the mean annual temperature. As shown in Figure 10, the last killing frost in the higher elevations may occur during the summer months of June and July. The first killing frost in the higher elevations starts in September (see Figure 11). Consequently, as indicated in Table 10, the growing season in the 6,000 to 7,500 elevation level may be expected to be 139 days, decreasing progressively to 87 days in the elevation above 11,000 feet. This, of course, explains the types of vegetative cover listed in Table 10 and shown in Figure 5.

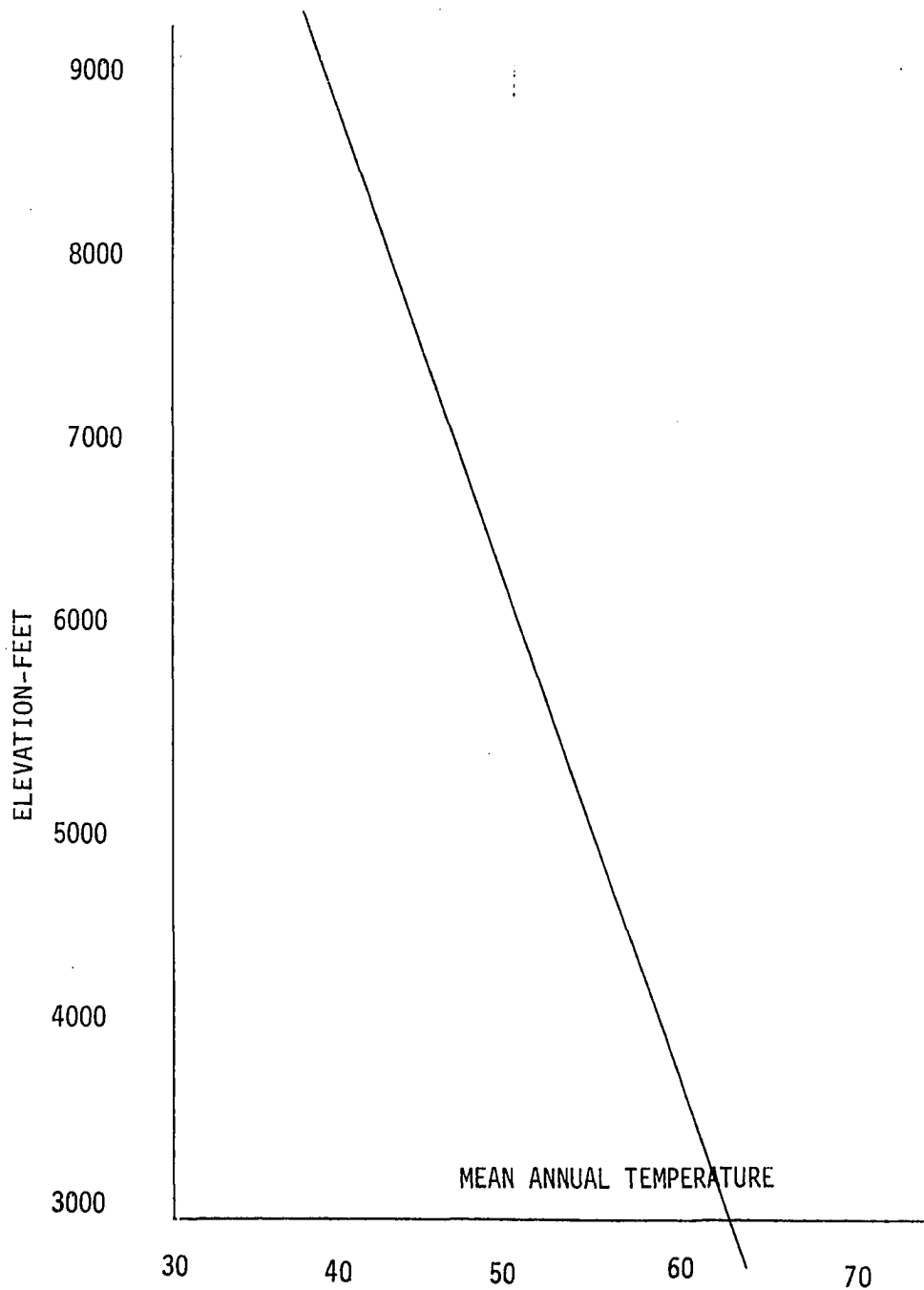
Settlement of the Area

The first European to reach the State of New Mexico was Don Francisco Vasquez de Coronado who reached the Rio Grande in the autumn

FIGURE 9

ELEVATION VERSUS MEAN ANNUAL TEMPERATURE

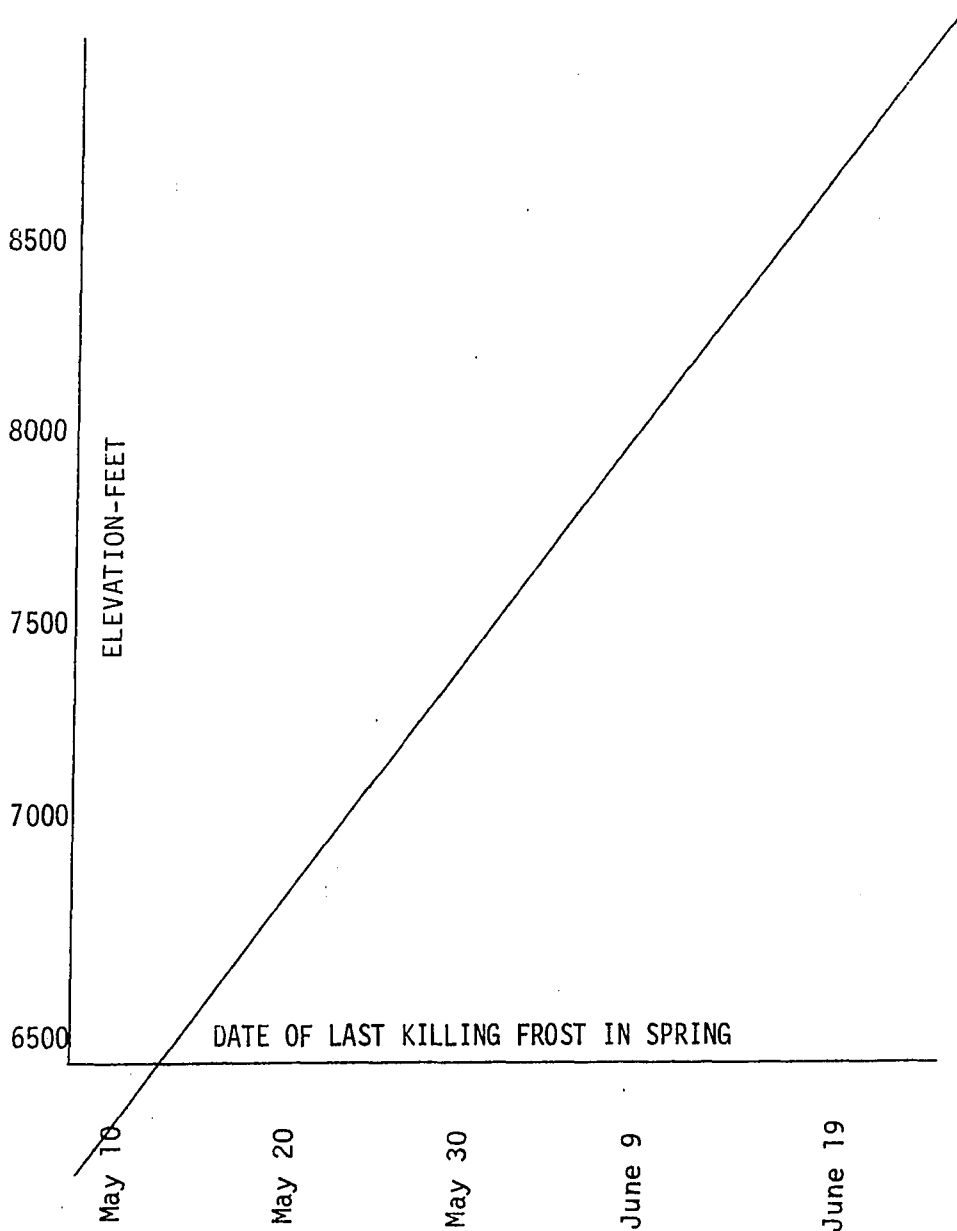
MORA PROJECT, NEW MEXICO, 1931-1960



Source: U.S. Department of Agriculture, Soil Conservation Service, Albuquerque, New Mexico, August 1968.

FIGURE 10

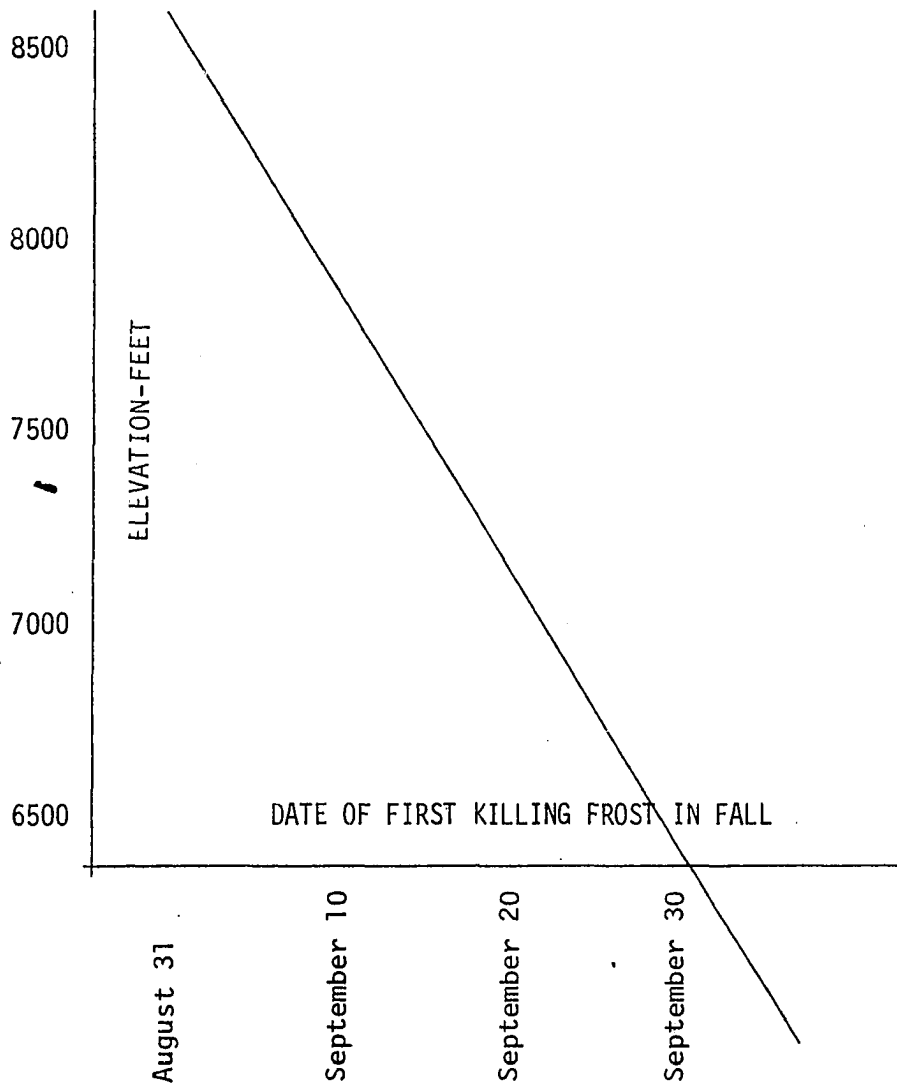
ELEVATION VERSUS DATE OF LAST KILLING FROST IN SPRING
MORA PROJECT, NEW MEXICO



Source: U.S. Department of Agriculture, Soil Conservation Service, Albuquerque, New Mexico, August 1968.

FIGURE 11

ELEVATION VERSUS DATE OF FIRST KILLING FROST IN FALL
MORA PROJECT, NEW MEXICO



Source: U.S. Department of Agriculture, Soil Conservation Service, Albuquerque, New Mexico, August 1968.

of 1540.⁶ Spanish expeditions into New Mexico were sporadic until January 1598 when Don Juan de Onate led a colonizing expedition from San Bartolome, Mexico, into northern New Mexico where a colonization site was established in August of the same year near San Juan Pueblo (Rio Arriba County).⁷ Thus, colonization of New Mexico was started approximately nine years before the settlement of Jamestown in 1607. The Spanish governmental seat was moved to the present state-capital city of Santa Fe in 1609.

Spanish colonization during 1598 to 1680 was confined largely to the main stem and tributaries of the Rio Grande in northern New Mexico (primarily in Rio Arriba, Sandoval, Santa Fe, and Taos Counties). Colonization activities were abruptly stopped in 1680 by the Pueblo Indian Revolt, forcing Spanish settlers to retreat into the El Paso, Texas, area. Led by Don Diego de Vargas, the Spaniards were able to recapture the northern New Mexico colonial settlements in 1692. After this period, Spanish settlements were founded in areas south of Santa Fe: Bernalillo (Sandoval County) in 1700; Albuquerque (Bernalillo County) in 1706; Las Lunas (Valencia County) in 1716; Belen (Valencia County) and La Joya (Socorro County) in 1740.⁸ Spanish settlements south of La Joya (60 miles south of Albuquerque) were not established until after 1800: Socorro (Socorro County) in 1817 and Las Cruces (Dona Ana

⁶Earl F. Sorenson and Dee Linford, "Settlement, Development, and Water Use [of the Rio Grande Basin]," in Water Resources of New Mexico: Occurrence, Development and Use (Santa Fe: New Mexico State Planning Office, 1967), p. 146.

⁷Marlowe M. Taylor, Rural People and Their Resources, North-Central New Mexico, Bulletin 448 (Las Cruces: New Mexico State University, Agricultural Experiment Station, October 1960), p. 2.

⁸Earl F. Sorenson and Dee Linford, "Settlement, Development, and Water Use," op. cit., p. 147.

County, 225 miles south of Albuquerque, bordering Mexico, and 44 miles north of El Paso, Texas) in 1848. Settlement after U.S. acquisition of New Mexico in 1848 has been discussed in Chapter II.

Spanish colonization of northern New Mexico occurred from 1598 to 1700. After this period, growth of the indigenous population accounted for most of the new communities established in the area. Following the settlement pattern of the original communities, these new communities were located in river bottom lands of the high mountain valleys.

Archaeological evidence indicates that the Penasco Valley (i.e., Picuris Pueblo) has been continuously inhabited since the late 1200's.⁹ In common with other Pueblo Indians of New Mexico, the Picuris were farmers utilizing river bottom lands for agricultural cultivation when the Spaniards arrived. Although designated a Catholic mission in 1621, the Spanish Franciscan Catholic Mission in Picuris Pueblo was not fully operational until 1628. Because they had been participants and leaders in the 1680 Pueblo Revolt, De Vargas' punitive expeditions forced the Picuris to flee into western Kansas where they established close relationships with the Cuartelejo Indians who subsequently merged with the Jicarilla Apaches of northern New Mexico.

Although the Picuris numbered more than 3,000 prior to the 1680 revolts, Juan de Ulbarri, a Spanish government official, was able to persuade only 62 tribal members to return to their Pueblo lands in 1706.¹⁰ The

⁹Herbert Dick, People of the Hidden Valley: A Guidebook to Picuris Pueblo, Taos County, New Mexico (n.p.d.), p. 10. Sometime between the years 1250 and 1300 A.D., the Picuris moved from a site occupied jointly with the Tewas (who had, circa 1100, split from the Isleta Pueblos) and Taos Pueblos to the present Picuris Pueblo location.

¹⁰Frances Swadesh, Museum of New Mexico, Santa Fe, New Mexico, personal conversation, January 12, 1969.

Picuris who returned were granted title to lands in cultivation.¹¹

Fray Atanasio Dominguez reported that the Picuris Pueblo population had increased to 223 by 1776.¹² Enumerated at 86 in the 1960 Census of Population, the Picuris population was estimated at 167 as of January 1, 1968.¹³ The Pueblo Reservation encompasses 14,960 acres.

Fray Atanasio Dominguez also reported that the town of Trampas, having a population of 278 individuals, was the closest Spanish settlement to the Picuris Pueblo in 1776. Spanish prospectors, however, were reported to have been working claims three leagues from Picuris Pueblo as early as 1740 and the town of Trampas was bequeathed a 46,461-acre land grant in 1751. Governor Fernando Chacon, in 1796, authorized a group of eleven settlers from the town of Trampas to secure the 30,638-acre Santa Barbara Land Grant in which the towns of Llano and Rodarte were established. It is also known that the town of Chamisal was in existence by 1799 when Juan Antonio Vargas requested that 46 additional Trampas settlers be allowed to settle in the Santa Barbara Land Grant.

As presently settled, a portion of the town of Chamisal and all of Penasco, Rio Lucio and Vadito encroach upon the initial Picuris

¹¹Interagency Council for Area Development Planning and the New Mexico State Planning Office, Embudo: A Pilot Planning Project for the Embudo Watershed of New Mexico, op. cit., p. 20. The Picuris Pueblo Indian Spanish land grant was 15 percent larger than the present reservation area defined by the Pueblo Lands Act of 1924.

¹²Frances Swadesh, see footnote 10; and Eleanor B. Adams and Fray Angelico Chavez, The Missions of New Mexico, 1776 (Albuquerque: University of New Mexico Press, 1956), pp. 98-99.

¹³U.S. Bureau of the Census, Special Table PH-1, "Taos County, New Mexico," and a listing provided by the United Pueblo Agency, U.S. Bureau of Indian Affairs, Albuquerque, New Mexico, as of January 1, 1968.

Pueblo Land Grant. The Picuris Pueblo Governor, in 1830 and 1929, complained to governmental authorities about these encroachments. Moreover, the Mora Land Grant, secured by Antoine Leroux in 1862, was defined to include the Picuris Pueblo Grant. As a result, a number of Spanish-American families settled in the original Picuris Pueblo Grant before the error was corrected. In addition, Indian agent Dolores Romero, in 1889, reported that the Picuris had sold several small patches to 150 white families who acquired twice as much land as purchased. When the Pueblo Lands Act was passed in 1924, 626 private claims totaling 2,494 acres were filed and subsequently allowed by decree of the U.S. District Court.

The land problems described above reflect the Spanish government's desire to establish permanent settlements, in addition to recognizing Indian holdings, by providing the following types of land grants to (1) communities of settlers, (2) influential individuals, and (3) land investors. The Mexican Government continued to honor and even establish additional land grants. Under the treaty of Guadalupe Hidalgo, the United States guaranteed existing land grants. A Court of Private Land Claims was established to review the legal status of existing land grants. According to Marlowe M. Taylor, the court

...confirmed most titles to homesites and farmed land, but titles to grazing land often were not upheld because the land was held in common. Often, these grants were not written as tightly from a legal standpoint as were English land deeds. As a result, most of the common grazing land was lost to Spanish-American communities in the land courts between 1850 and 1890. Furthermore, some of the community grant land was sold to Anglo-American settlers in the 1880's and 1890's. Consequently, the Spanish-American communities lost many of

their resources except for their homesites and irrigated land, which had never been more than subsistence units.¹⁴

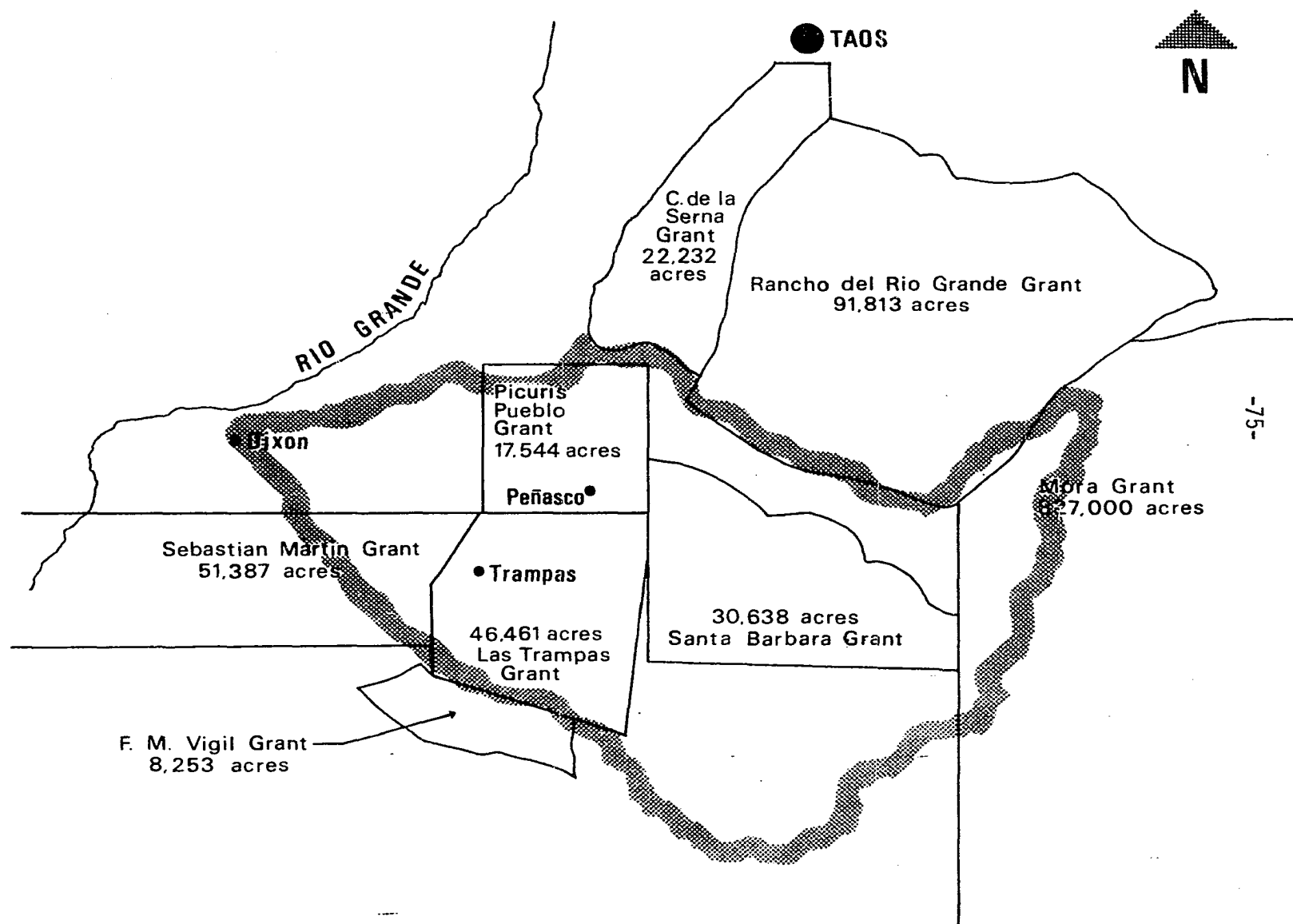
Figure 12 shows the Spanish land grants in and near the Penasco Valley. Final disposition of these land grants has been described as:

In the 1890's the Pecos wilderness portion of the public domain was withdrawn as forest reserves. In 1906, what is now the Carson National Forest was formed from all or parts of the Las Trampas, Santa Barbara, Mora, and F. M. Vigil grants. Thus, before the Twentieth Century was well under way, tax sales, forced sales of land to raise cash in the new-money economy, and commercial rather than subsistence use...[of lands]...had deprived the Spanish-Americans of

¹⁴Marlowe M. Taylor, Rural People and Their Resources, North-Central New Mexico, Bulletin 448, op. cit., p. 3. In addition, Earl F. Sorenson and Dee Linford, "Settlement, Development, and Water Use [of the Rio Grande Basin]," in Water Resources of New Mexico: Occurrence, Development and Use, op. cit., p. 147, state that during the land grant era, "...lands acquired by individuals were rather small, insofar as irrigated tracts were concerned. Seldom did a cultivated tract exceed 40 acres in size...." A. David Sandoval, in "An Economic Analysis of New Mexico History," a New Mexico Business article, op. cit., p. 9, corroborates this by stating that "Congress made the procedure for confirming New Mexico land grants so involved, prolonged, and expensive that many owners could not confirm their claims and eventually lost their land. American lawyers found it simple to take advantage of the natives' lack of understanding of English law and used this ignorance to gain control of or actually obtain ownership of the more important grants in the Territory. A second factor which made the natives easy prey for Yankee lawyers was that there had never been much money in circulation in the Territory. Since trade on the Santa Fe Trail had been carried on primarily by barter, a monetary economy had not developed; thus land was the only common method of payment available for obligatory legal services rendered. In addition, the most valuable estates were overrun by armies of squatters and homesteaders, who defied all efforts to be removed, even though the Mexican claimants had received confirmation of titles for their land. The coming of the railroads sped up the deterioration of Spanish land grants, as demagogues and anti-grant agitators thrived. Eventually, over 80 percent of the grants were lost by the original Hispanic settlers and owners.... Now, the patrons of once large encomiendas were forced to contract their operations or, in some cases, to resettle in less desirable land.... Their loss resulted in severe impoverishment and dislocation of much of the native population." This is also stated by Clark S. Knowlton (see Chapter II).

Figure 12

Spanish Land Grants in and near the Peñasco Valley



much of their traditional range and land resources. For the first time in centuries, many of the Spanish-Americans were forced to leave their native villages and become wage workers in other regions such as the beet fields of Colorado, the mines of Arizona, and the fruit orchards of California.¹⁵

As discussed in Chapter II, Anglo-American in-migration into the area has been primarily into the urban centers of northern New Mexico, with few moving into the rural areas. Those who have migrated into rural areas have usually been teachers, government employees, and/or entrepreneurs. Most of the larger rural towns with which the author is familiar have at least one Anglo-American entrepreneur who owns and operates the larger and more efficient ranching and retail operations. Also as noted in Chapter II, Anglo-American migration has been insufficient to change the ethnic balance of the area. Spanish- and Indian-Americans are still in the majority in northern New Mexico, especially in the rural areas.

Economic Problems of the Area

Isolation and Cultural Factors

Margaret Meade's Cultural Patterns and Technological Change describes the Spanish-Americans of New Mexico as living in cultural enclaves.¹⁶

¹⁵The Interagency Council for Area Development Planning and the New Mexico State Planning Office, Embudo: A Pilot Planning Project for the Embudo Watershed of New Mexico, op. cit., p. 23. Tax sales were due to: "...taxes levied against a grant as an entirety.... Because the rights to these grants were vested in a hundred or perhaps a thousand or more heirs of the original grantee, the often doubtful heir very often declined or was unable to pay his proportionate share."

¹⁶Margaret Meade, Cultural Patterns and Technological Change (New York: The New American Library, 1955), pp. 151-152.

According to Meade, Spanish-Americans are descendants of immigrants who had followed the Conquistadores from Mexico. The original colonizers settled in the borderlands along the Rio Grande and structured their communities so as to resemble their home communities in Spain, but altered them to reflect physiographic differences.

Due to geographical isolation, these settlements were largely self-sufficient with barter-trading among the various settlements. The original settlers maintained their cultural ties with Mexico and developed similar feudal types of institutions.¹⁷ The village cultural life centered around the chapel dedicated to a patron saint. Most of the villagers lived and tilled their small plots while working for the patron, often a wealthy relative who had been given a large land grant and, consequently, assumed a position of responsibility toward the poorer villagers, the peons.¹⁸

Cultural orientation toward the United States did not develop until the middle of the Nineteenth Century when the Santa Fe Trail was opened from Missouri. For the isolated villager, however, the peon-patron system was not greatly altered by the arrival of the rancho-trader-army American migrant. Meade states that the Anglo-American migrant had

¹⁷See A. David Sandoval, "An Economic Analysis of New Mexico History," New Mexico Business (Albuquerque: University of New Mexico, Bureau of Business Research, February 1967), and Carl Stephenson, Mediaeval Feudalism (New York: Cornell University Press, 1960), for a more extensive description of feudal systems.

¹⁸According to Frances Swadesh, Museum of New Mexico, Santa Fe, New Mexico, January 18, 1969, this is a generalization that is not applicable to many of the high mountain valleys, such as the Penasco Valley, where there is a limited amount of cultivable soil.

such selectively different goals that the two cultures continued to exist in isolation with little intimate contact between the two groups.¹⁹ The American migration pattern initially resulted in little friction or functional interrelationship between the northern New Mexicans and the Anglo-American settlers.

Meade's contention that there was little Anglo-American inter-relationship with the local population in most rural communities in northern New Mexico still can be observed. Political activist groups in these communities frequently blame Anglo-American entrepreneurs for depressed economic conditions. The Anglo-American is still regarded as an alien who must be kept continuously under observation. The foremost reason for this sense of distrust still revolves around the land grant problems discussed above. In addition, the Anglo-Americans represent the area's most successful entrepreneurs who own and operate the largest and most efficient ranching and retail establishments.

The Anglo-American rancher recruits agricultural laborers from the indigenous population, creating both a feeling of dependency and envy. In a few instances, importation of labor for public projects has also resulted in friction because the northern New Mexicans feel that they have been bypassed for the better paying jobs. Successful operation of ranching-retailing "empires" are considered by the indigenous population to represent Spanish-American exploitation by the Anglo-American entrepreneur.²⁰

¹⁹Margaret Meade, Cultural Patterns and Technological Change (New York: The New American Library, 1955), pp. 151-152.

²⁰Several instances of barn-burnings, fence-cuttings, cattle slaughters, and looting of large Anglo-American ranches in northern New Mexico have been reported in recent years. The press has attributed these incidents to militant "Mexican-American" land grant groups.

Under existing debtor-creditor arrangements, especially when the creditor is an Anglo-American, the debtor is beholden but suspicious of the creditor.²¹ The grocery-store owner is usually the dominant individual in community affairs. Several respondents told the author that Anglo-American entrepreneurs selectively apply credit withdrawal sanctions to effect domination of community affairs. The feeling of suspicion and distrust is reenforced by the large number of Anglo-Americans who appear to make no attempt to communicate in Spanish when dealing with northern New Mexicans.

Immigration from and commercial intercourse with Mexico and Spain, for all practical purposes, were terminated in 1848. Immigration into the United States left northern New Mexico relatively untouched since pre-World War II isolation was primarily enforced by the lack of adequate transportation facilities (still a critical problem). Under these adverse circumstances, the rural northern New Mexican subsisted in a predominantly land-based economy. Isolation brought about a cultural orientation, reenforced with legends and folklore, that was centered on the traditional patterns implanted by the original colonizers.

²¹According to Dr. Horacio Ulibarri, Professor of Education, University of New Mexico, Albuquerque, New Mexico (personal conversations, May 1968), this feeling of suspicion may be justified. Being from rural northern New Mexico, as is the author, Dr. Ulibarri has heard and personally observed several instances of Anglo-American profiteering: speculative land purchases subsequently sold at higher prices for public projects; purchases of mineral rights at a fraction of their true value; extension of credit contingent upon mailing, cashing, and spending of public assistance checks within the entrepreneurs' retail establishments; sale or payments-in-kind at substantial mark-ups (still prevalent in Indian trading posts).

Self-sufficiency in farming and pastoral activities were temporarily disrupted by losses of common grazing lands in the early 1920's.²² Unable to subsist in a reduced land economy, many rural northern New Mexicans were forced to migrate for employment. Untrained and uneducated, the migrants were forced to accept employment as sheep-herders and in other types of agricultural activities.

Large-scale out-migration since the 1940's has resulted in a population that is largely dependent, predominantly school-aged and elderly. Under these circumstances, northern New Mexico is characterized by the large number of individuals who are receiving public assistance and/or striving to survive on subsistence farming. Cultural isolation today can be largely attributed to the large number of elderly who have not been exposed to other segments of the American society. This, of course, is common to many rural areas of the United States.

Human Resources

The most recent data available for the Penasco Valley are those found in U.S. Bureau of the Census, Advance Tables for the Taos County Census Districts.²³ Taos County is divided into the following districts:

²²Frances Swadesh, Museum of New Mexico, Santa Fe, New Mexico, states that the fencing of common grazing lands in the Penasco Valley occurred in 1926 and "older people remember this data as the onset of impoverishment, as they saw changes in their material life."

²³U.S. Bureau of the Census, Special Tables PH-1, "Population and Housing Characteristics;" PH-6, "Age and Sex Distribution, Marital Status, Education, Employment Status, and Family Income in 1959;" PH-3, "Urban-Rural Population Distribution, Race and Origin, Married Couples and Children, School Enrollment, Years of School Completed Persons 25 Years and Over, Residence in 1955, and Family Income in 1959;" PH-4, "Employment Data;" and PH-8, "Housing Data;" and 1960 Census of Population: New Mexico (Washington, D.C.: U.S. Government Printing Office, 1961), Tables 25 and 26, pp. 38 and 40.

(1) Arroyo Hondo; (2) Penasco; (3) Picuris; (4) Questa; (5) Taos; (6) Taos Pueblo; and (7) Tres Piedras. Figure 13 shows the boundaries of the Penasco and Picuris County Census Division, the areas of emphasis in this report. Communities in these two County Census Divisions are listed below.

TABLE 11
COMMUNITIES INCLUDED IN THE PENASCO AND PICURIS
COUNTY CENSUS DIVISIONS, TAOS COUNTY
1960

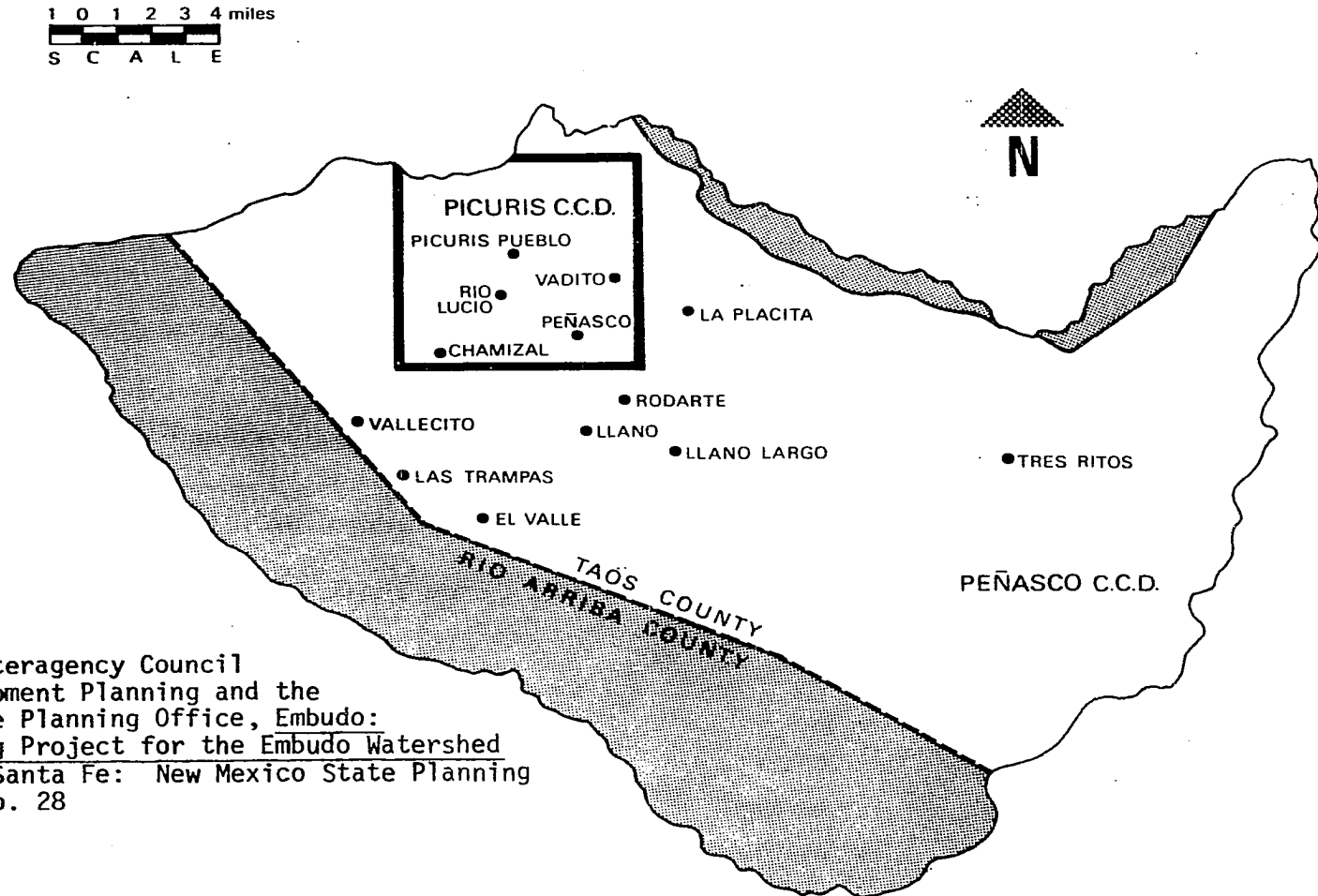
Penasco Census Division	Picuris Census Division
El Valle	Chamisal
La Placita	Penasco
Las Trampas	Picuris Pueblo
Llano	Rio Lucio
Llano Largo	Vadito
Rodarte	
Tres Ritos	
Vallecito	

Communications with other agencies and organizations normally expected to compile data on northern New Mexico indicates the tremendous lack of current socioeconomic data.²⁴ Most of the agencies and organizations contacted are still using the 1960 Census of Population.

²⁴Some of the agencies and organizations contacted were: New Mexico Department of Welfare, New Mexico Department of Education, New Mexico State Planning Office, the Penasco Independent School District, the North Central New Mexico Economic Development District, the Four Corners Economic Development Region, local Community Action Programs (Office of Economic Opportunity), the U.S. Department of Agriculture (Forest Service, Soil Conservation Service, County Extension Agents), and the U.S. Bureau of Indian Affairs.

Figure 13

Peñasco and Picuris Census Divisions --1960



Source: The Interagency Council
for Area Development Planning and the
New Mexico State Planning Office, Embudo:
A Pilot Planning Project for the Embudo Watershed
of New Mexico (Santa Fe: New Mexico State Planning
Office, 1962), p. 28

A sample census survey of the Penasco Valley was conducted on May 26, 1968, in an effort to obtain current data (see Appendix A). Data derived from this survey are incorporated into the following sections.

Total population.--While the North Central New Mexico Economic Development District counties encompass 34.8 percent of the state's land area, they accounted for only 13.4 percent of the state's total population in 1960. Distribution of the state's land area and population, 1920-1960, by county, are listed in Table 12. Figure 14 shows the 1940 and 1960 population densities for each county. The significance of these data is that the loss of population in the northern New Mexico counties, when viewed in terms of expected natural increases, is vividly portrayed. Thus, while the United States and the State of New Mexico experienced a rate of growth of 84.0 and 190.6 percent between 1910 and 1960, respectively, the northern New Mexico counties showed a 3.5 percent gain (4,269 individuals).

Population projections.--Population projections for the North Central New Mexico Economic Development District counties and for the State of New Mexico are given in Table 13. Percentage changes per decade and for 1920-1960 and 1920-2000, depicted in Table 14, portray the slow rate of population growth experienced and projected for the northern New Mexico counties. The methodology employed by Professor Ralph L. Edgel in determining the projections is explained in Appendix B. Basically, projections are derived by assuming that a certain level of economic activity will exist in New Mexico, correlated to the national level as projected in Resources

TABLE 12

POPULATION AND LAND AREA NUMERICAL
DISTRIBUTION BY COUNTY, NEW MEXICO
1920-1960

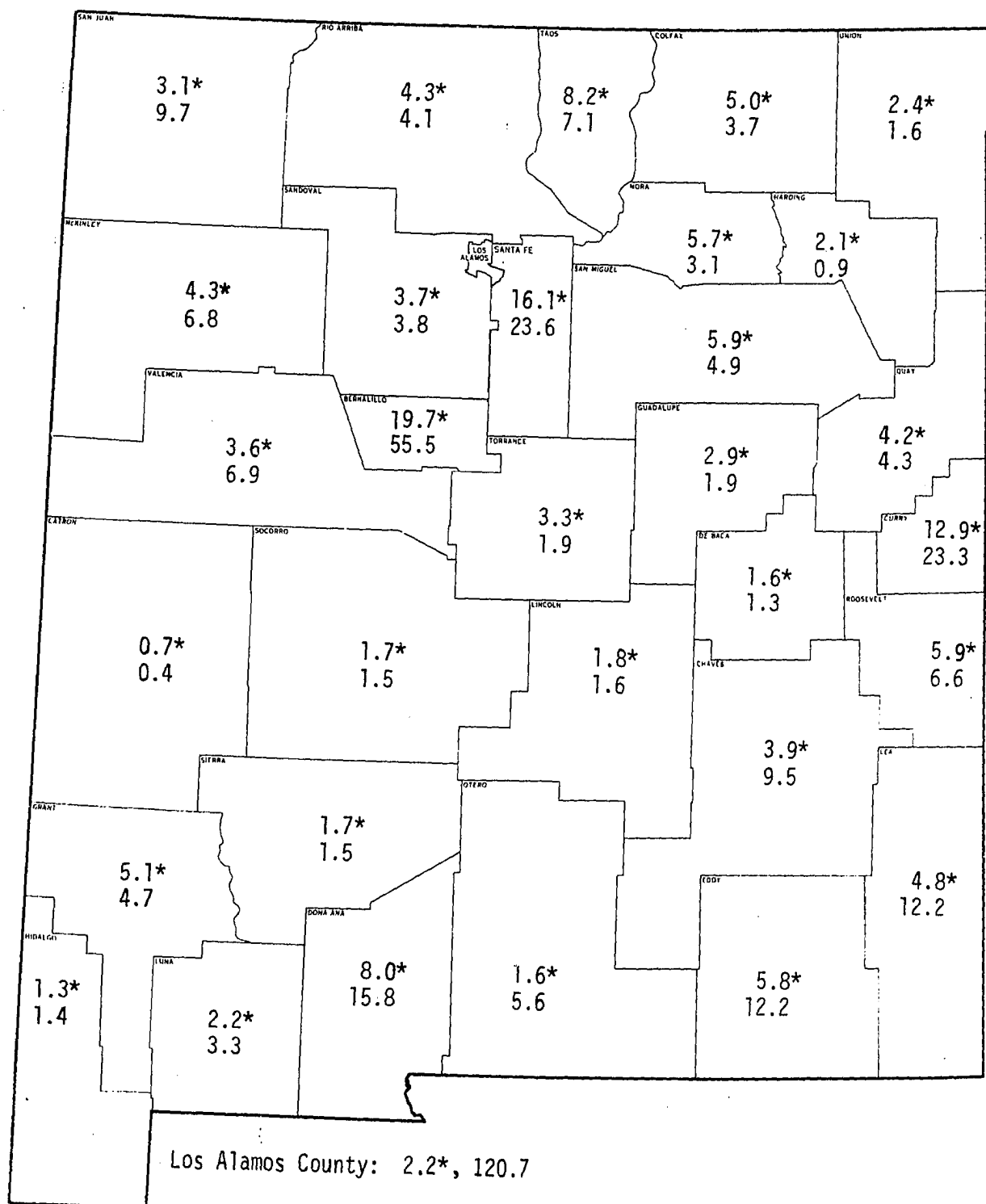
Counties	Area (Sq Miles)	Population				
		1920	1930	1940	1950	1960
Bernalillo	1,163	29,855	45,430	69,391	145,673	262,199
Catron	6,898	3,780	3,282	4,881	3,533	2,773
Chaves	6,094	12,075	19,549	23,980	40,605	57,649
Colfax*	3,764	21,550	19,157	18,718	16,761	13,806
Curry	1,403	11,236	15,809	18,159	23,351	32,691
DeBaca	2,358	3,196	2,893	3,725	3,464	2,991
Dona Ana	3,804	16,548	27,455	30,411	39,557	59,948
Eddy	4,163	9,116	15,842	24,311	40,640	50,783
Grant	3,970	21,939	19,050	20,050	21,649	18,700
Guadalupe*	2,998	8,015	7,026	8,646	6,772	5,610
Harding	2,136	5,390	4,421	4,374	3,013	1,874
Hidalgo	3,447	4,338	5,023	4,821	5,095	4,961
Lea	4,393	3,545	6,144	21,154	30,717	53,429
Lincoln*	4,859	7,823	7,198	8,557	7,409	7,744
Los Alamos	108	225	260	240	10,476	13,037
Luna	2,957	12,270	6,247	6,457	8,753	9,839
McKinley	5,456	13,731	20,643	23,641	27,451	37,209
Mora*	1,942	10,935	10,332	10,981	8,720	6,028
Otero	6,638	7,902	9,779	10,522	14,909	36,976
Quay	2,883	10,444	10,828	12,111	13,971	12,279
Rio Arriba*	5,877	19,552	21,381	25,352	24,997	24,193
Roosevelt	2,455	6,548	11,109	14,549	16,409	16,198
Sandoval*	3,717	8,739	10,994	13,778	12,438	14,201
San Juan	5,515	8,333	14,701	17,115	18,292	53,306
San Miguel*	4,749	22,867	23,636	27,910	26,512	23,468
Santa Fe	1,907	14,930	19,457	30,706	38,153	44,970
Sierra	4,179	4,619	5,184	6,962	7,186	6,409
Socorro*	6,607	10,280	9,611	11,422	9,670	10,168
Taos*	2,256	12,773	14,394	18,528	17,146	15,934
Torrance*	3,340	9,731	9,269	11,026	8,012	6,497
Union	3,817	14,271	11,036	9,095	7,372	6,068
Valencia	5,657	13,795	16,186	20,245	22,481	39,085
Total	121,510	360,350	423,317	531,818	681,187	951,023

*Counties included in the North Central New Mexico Economic Development District, Economic Development Administration, U.S. Department of Commerce.

Source: David W. Varley, "Migration Patterns: New Mexico and Adjoining States," Phase I, State Resources Development Plan (Santa Fe: New Mexico State Planning Office, April 1967), Appendix Table A, p. 29.

FIGURE 14

POPULATION DENSITY, BY COUNTY--NEW MEXICO, 1940 and 1960



*1940

Source: Table 12

TABLE 13

POPULATION ESTIMATES BY DECADE, SELECTED
COUNTIES AND NEW MEXICO
1960-2000

AREAS	1960	1970	1980	1990	2000
Colfax	13,806	15,500	18,000	21,500	26,400
Guadalupe	5,610	7,500	8,000	11,600	16,000
Lincoln	7,744	10,200	13,900	18,500	23,900
Mora	6,028	4,700	5,300	6,600	10,200
Rio Arriba	24,193	22,200	26,600	36,700	43,600
Sandoval	14,201	14,800	18,600	24,300	26,500
San Miguel	23,468	25,400	30,100	36,700	49,000
Socorro	10,168	10,500	12,700	15,700	21,200
Taos	15,934	18,600	24,800	31,800	37,900
Torrance	6,497	6,000	6,500	8,000	10,400
Ten Counties	127,649	135,500	168,500	211,400	265,100
New Mexico	951,023	1,208,000	1,630,000	2,111,000	2,778,000

Source: Ralph L. Edgel, "Projections of the Population of New Mexico and Its Counties to the Year 2000," New Mexico Business, reprint (Albuquerque: University of New Mexico, Bureau of Business Research, July and August, 1965), p. 14.

in America's Future: Patterns of Requirements and Availabilities, 1960-2000²⁵ and each county correlated to the state as a whole.

With the exception of Sandoval County, the other northern New Mexico counties experienced their greatest loss of population during 1940 to 1960, for a combined loss of 26,729. Mora, Rio Arriba, and Torrance Counties are expected to continue to lose population during

²⁵Hans H. Landsberg, Leonard L. Fischman, and Joseph L. Fisher, Resources in America's Future: Patterns of Requirements and Availabilities, 1960-2000 (Baltimore: Johns Hopkins Press, 1963).

1960 to 1970, with Mora not reaching the 1960 level until 1990 and Rio Arriba and Torrance in 1980. The other counties are expected to have a larger population in each decade. By 2000, the ten counties are projected as having a population of 265,100, more than double their 1960 population of 127,649. Although this reflects a 107.8 percent gain, New Mexico's population gain from 1960 to 2000 is projected at 192.1 percent.

Table 14 shows the information given in Tables 12 and 13 for the New Mexico counties and the State of New Mexico expressed in percentage terms. The only counties having a population gain during 1920-1960 were Taos, Rio Arriba, Sandoval, and San Miguel. At the same time that most of the northern New Mexico counties were experiencing population losses, New Mexico's population gain was greater than that of the United States in general. The ten county area had a lower rate than both the United States and New Mexico in each decade between 1920 and 1960, except for 1930-1940 when its rate exceeded the United States rate. After 1970, the ten county area is expected to grow at a much faster rate than the United States, although at a lower rate than New Mexico.

Table 15, again, portrays the increasingly depressing situation expected for the ten redevelopment counties through 2000 in relation to the rest of the state. This table shows that northern New Mexico is expected to encompass an increasingly smaller proportion of the state's total population, decreasing from 36.1 to 9.5 percent during the 80-year period. Table 16 again amplifies the expected situation. Except for Mora County, the population density will be increasing for the redevelopment counties so that their population density will be

TABLE 14
PERCENTAGE CHANGES IN POPULATION, BY DECADE
SELECTED COUNTIES AND NEW MEXICO
1920-2000

AREAS	1920- 1930	1930- 1940	1940- 1950	1950- 1960	1920- 1960	1960- 1970	1970- 1980	1980- 1990	1990- 2000	1920- 2000
Colfax	-11.1	- 2.3	-10.5	-17.6	-40.7	+12.3	+16.1	+19.4	+22.8	+ 22.5
Guadalupe	-12.3	+23.0	-21.7	-17.2	-30.0	+33.7	+ 6.7	+45.0	+37.9	+ 99.6
Lincoln	- 8.0	+18.9	-13.4	+ 4.5	- 1.0	+31.7	+36.3	+33.1	+29.2	+205.5
Mora	- 5.6	+ 6.4	-20.6	-30.9	-49.5	-22.0	+12.8	+24.5	+54.5	- 14.6
Rio Arriba	+ 9.4	+18.6	- 1.4	- 3.2	+23.7	- 8.2	+19.8	+38.0	+18.8	+123.0
Sandoval	+25.8	+25.3	- 9.7	+14.2	+62.5	+ 4.2	+25.7	+30.6	+ 9.1	+202.1
San Miguel	+ 3.4	+18.1	- 5.0	-11.5	+ 2.6	+ 8.2	+18.5	+21.9	+33.5	+114.2
Socorro	- 6.5	+18.8	-15.3	+ 5.1	- 9.8	+ 4.2	+19.8	+23.6	+35.0	+106.2
Taos	+12.7	+28.7	- 7.5	- 7.1	+25.5	+16.7	+33.3	+28.2	+19.2	+196.7
Torrance	- 4.7	+19.0	-27.3	-18.9	-33.2	- 7.6	+ 8.3	+23.1	+30.0	+ 6.9
Ten Counties	+ 2.1	+16.1	-10.5	- 7.8	- 2.1	+ 6.2	+24.4	+25.5	+25.4	+103.5
New Mexico	+17.5	+25.6	+28.1	+39.6	+235.2	+27.0	+34.9	+29.5	+31.6	+670.9

Source: Ralph L. Edgel, "Projections of the Population of New Mexico and Its Counties to the Year 2000," New Mexico Business, reprint (Albuquerque: University of New Mexico, Bureau of Business Research, July and August, 1965), p. 14.

greater in 2000 than in 1920. This increase, however, will only be from a ten county average of 3.2 individuals per square mile to 6.6. At the same time, the population density for the state is projected to increase from 3.0 in 1920 to 22.9 in 2000.

TABLE 15
PERCENTAGE OF TOTAL NEW MEXICO POPULATION,
BY DECADE, SELECTED COUNTIES
1920-2000

Counties	1920	1930	1940	1950	1960	1970	1980	1990	2000
Colfax	6.0	4.5	3.4	2.5	1.5	1.3	1.1	1.0	1.0
Guadalupe	2.2	1.7	1.6	1.0	0.6	0.6	0.5	0.5	0.6
Lincoln	2.2	1.7	1.6	1.1	0.8	0.8	0.9	0.9	0.9
Mora	3.0	2.4	2.1	1.3	0.6	0.4	0.3	0.3	0.4
Rio Arriba	4.9	5.1	4.8	3.7	2.5	1.8	1.6	1.7	1.6
Sandoval	2.4	2.6	2.6	1.8	1.5	1.2	1.1	1.2	1.0
San Miguel	6.3	5.6	5.2	3.9	2.5	2.1	1.8	1.7	1.8
Socorro	2.9	2.3	2.1	1.4	1.1	0.9	0.8	0.7	0.8
Taos	3.5	3.4	3.5	2.5	1.7	1.5	1.5	1.5	1.4
Torrance	2.7	2.3	2.1	1.2	0.7	0.5	0.4	0.4	0.4
Ten Counties	36.1	31.4	29.0	20.3	13.4	11.2	10.1	10.0	9.5

Source: Table 12. p. 84.

In Table 17 the inferred migration, by number and as a percent of the 1960 mid-year population, is given for each of the redevelopment counties and for New Mexico for 1960-1967. Of critical importance to economic planners is that, with the exception of Sandoval County (bordering Bernalillo County and within commuting distance of Albuquerque), all other counties in the redevelopment area had population losses when viewed in terms of natural increases. In sum, approximately

18,800 individuals are believed to have migrated from the northern New Mexico counties. This comprised about 14.6 percent of the population of these counties in 1960. Thus, although the ten county area had an estimated increase of 2,000 individuals over the seven (7) year period, the estimated natural increase was close to 20,800 individuals. This, then, is the reason for the slow rate of population change (1.6 percent between 1960 and 1967). It should also be noted that New Mexico during this period exported an estimated 92,500 individuals, 9.7 percent of its 1960 population. The natural increase estimate for New Mexico was 165,212 while its population only increased by 72,700 (thus, the estimated loss of 92,500).

TABLE 16
POPULATION DENSITY PER SQUARE MILE, BY DECADE,
SELECTED COUNTIES AND NEW MEXICO
1920-2000

AREA	Sq. Mi.	1920	1930	1940	1950	1960	1970	1980	1990	2000
Colfax	3764	5.7	5.2	4.8	4.5	3.7	4.1	4.8	5.7	7.0
Guadalupe	2998	2.7	2.3	2.9	2.3	1.9	2.5	2.7	3.9	5.3
Lincoln	4859	1.6	1.5	1.8	1.5	1.6	2.1	2.9	3.8	4.9
Mora	1942	5.6	5.3	5.7	4.5	3.1	2.4	2.7	3.4	5.3
Rio Arriba	5877	3.0	3.6	4.3	4.3	4.1	3.8	4.5	6.2	7.4
Sandoval	3717	2.4	3.0	3.7	3.4	3.8	4.0	5.0	6.5	7.1
San Miguel	4749	4.8	5.0	5.9	5.6	4.9	5.3	6.3	7.7	10.3
Socorro	6607	1.6	1.5	1.7	1.5	1.5	1.6	1.9	2.4	3.2
Taos	2256	5.7	6.4	8.2	7.6	7.1	8.2	11.0	14.1	16.8
Torrance	3340	2.9	2.8	3.3	2.4	1.9	1.8	1.9	2.4	3.1
Ten Counties	40109	3.2	3.3	3.8	3.5	3.2	3.4	4.1	5.3	6.6
New Mexico	121510	3.0	3.5	4.4	5.6	7.8	9.9	13.4	17.3	22.9

Source: Table 12, p. 84.

TABLE 17
INFERRED MIGRATION, SELECTED
COUNTIES AND NEW MEXICO
1960-1967

AREA	Mid-Year Population		July 1960-June 1967			Population Change		Inferred Migration	
	1960	1967	Births	Deaths	Natural Increase	No.	Percent	No.	Percent ^a
Colfax	13800	12400	2582	1035	1547	-1400	-10.1	- 2900	21.0
Guadalupe	5600	5600	1415	433	982	--	0.0	- 1000	17.9
Lincoln	7700	7800	1441	603	838	100	1.3	- 700	9.1
Mora	6000	5600	1289	457	832	- 400	- 3.3	- 1200	13.8
Rio Arriba	24200	23000	6960	1716	5244	-1200	- 5.0	- 6400	26.4
Sandoval	14300	18500	3811	872	2939	4200	29.4	1300	9.1
San Miguel	23500	22500	5198	1809	3389	-1000	- 4.3	- 4400	18.7
Socorro	10200	11300	2487	737	1750	1100	10.8	- 700	6.9
Taos	15900	17000	3812	1137	2675	1100	6.9	- 1600	10.1
Torrance	6500	6000	1042	442	600	- 500	- 7.7	- 1100	16.9
Total	127700	129700	30037	9241	20796	2000	1.6	-18700 ^b	14.6
New Mexico	954700	1027400	218873	53611	165212	72700	7.6	-92000	9.7

^aNumber Inferred Migration ÷ 1960 mid-year population.

^bDoes not exactly equal computed out-migration (18,796) because of rounding.

Source: Ralph L. Edgel, "Estimates of 1967 Population of New Mexico Counties," Business Information Series, Number 46 (Albuquerque: University of New Mexico, Bureau of Business Research, February 1968), Table 3, p. 3.

Table 18 shows the 1965-1985 population, by sex distribution, projected for the Penasco Valley, using the age and sex percentage distribution projected for the State of New Mexico by the U.S. Bureau of the Census and assuming that the rate of growth projected for Taos County (see Table 14) will also apply to the Penasco Valley.²⁶ The Penasco Valley is expected to have a population increase of 61.5 percent during the 15 year period. This compares with a 48.8 and a 96.6 percent rate of growth projected for the ten counties and the State of New Mexico, respectively, during the same period. A listing provided by

TABLE 18
POPULATION PROJECTION, BY SEX
AND TOTAL, PENASCO VALLEY
1960-1985

	1960	1965	1970	1975	1980	1985
Male	1,536	1,699	1,827	2,121	2,410	2,497
Female	1,588	1,686	1,819	2,129	2,450	2,548
Total	3,124	3,385	3,646	4,250	4,860	5,045
Rate of Growth	---	8.4	7.7	16.6	14.4	3.8

Source, Table 19, p. 94.

²⁶According to the Community and Area Development Institute, Feasibility and Justification Study for Developing a Technical-Vocational Facility at Espanola, New Mexico, as a Branch of the Northern New Mexico State School (Albuquerque: University of Albuquerque, January 1968), Table III, p. 13, the University of New Mexico, Bureau of Business Research, must have used the methodology employed in Table 19 to arrive at the same projection for 1970.

the Kit Carson Rural Electric Cooperative indicates that the population estimated for 1965 is approximately correct (see Appendix A). The estimated age and sex distribution for the Penasco Valley population, 1960-1985, is portrayed in Table 19.

Age and sex distribution.--Table 20 and Figure 15 show the age distribution for the combined Picuris and Penasco County Census Divisions (the Penasco Valley), Taos County, the combined population of the ten northern New Mexico counties, the State of New Mexico, and the United States. The age and sex distribution determined for the sample population in the Penasco Valley Census Survey (see Appendix A), May 26, 1968, is portrayed in Table 21 and also shown in Figure 15.

Percentage distributions of various age groups for the geographical areas indicated in Tables 20 and 21 are given in Table 22. This table provides information that is relevant for planning purposes. The under five age group's proportionate share of the total population, in each area, is less than for the State of New Mexico. However, for each area shown for northern New Mexico, the difference in the proportionate share of this group is less than one percentage point from New Mexico's figures. The important aspect of this figure is that all areas shown for New Mexico are 2 to 3 percentage points greater than for the United States. This indicates that the dependency group of children under five is much greater in New Mexico and northern New Mexico than in the United States, reflecting a higher birth rate and a greater number of children under five dependent upon the worker. School officials may also be given an indication of the expected number of children who will be entering schools.

TABLE 19
ESTIMATED AGE AND SEX DISTRIBUTION
PENASCO VALLEY, 1960-1985a

Sex and Age	1960 ^b		1965		1970		1975		1980		1985	
	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
Males												
Under 5	13.2	202	13.9	236	11.1	202	10.7	227	9.9	239	12.0	300
5-17	38.8	596	30.6	520	31.4	574	29.1	617	26.2	632	25.4	633
18-20	4.7	72	5.7	96	6.3	115	6.9	146	8.5	205	5.6	140
21-24	3.9	60	6.3	107	8.0	146	8.3	176	6.9	166	8.5	212
25-44	16.3	251	22.2	377	21.2	387	22.8	484	27.1	654	28.8	718
45-64	13.2	202	15.9	270	16.3	298	16.1	342	15.1	364	13.7	342
65 +	10.0	153	5.5	93	5.8	105	6.1	129	6.2	150	6.1	152
Total	100.1	1536	100.1	1699	100.1	1827	100.0	2121	99.9	2410	100.1	2497
18-64	38.1	585	50.0	850	51.8	946	54.2	1148	57.7	1388	56.6	1411
21-64	33.4	513	44.3	754	45.5	831	47.2	1002	49.2	1183	50.9	1271
Females												
Under 5	13.9	220	13.3	223	10.6	194	10.5	224	10.9	267	11.3	288
5-17	36.8	585	30.0	506	30.2	549	27.5	585	24.7	605	23.7	604
18-20	4.6	73	5.2	88	5.8	106	6.0	128	6.1	149	5.0	127
21-24	3.3	52	5.4	91	6.7	122	7.4	158	7.8	191	7.7	197
25-44	19.6	311	23.4	394	22.0	400	23.4	498	26.1	640	29.0	740
45-64	14.0	223	16.5	278	17.5	318	17.6	374	16.5	404	15.2	388
65 +	7.8	124	6.3	106	7.1	130	7.6	162	7.9	194	8.0	204
Total	100.0	1588	100.1	1686	99.9	1819	100.0	2129	100.0	2450	99.9	2548
18-64	41.5	659	50.4	853	48.3	946	54.4	1159	56.5	1384	56.9	1452
21-64	36.9	586	45.2	765	42.5	840	48.4	1031	50.4	1235	51.9	1325

^aAssumes that the age and sex distribution given for New Mexico in U.S. Bureau of the Census, "Revised Projections of the Population of States: 1970 to 1985," Current Population Reports: Population Estimates, Series P-25, No. 375 (Washington: U.S. Government Printing Office, Oct. 3, 1967), Series I-D, will prevail and that the population in the Penasco Valley will increase at the rate projected by the University of New Mexico, Bureau of Business Research, will apply.

^bU.S. Bureau of the Census, Special Table PH-1, "Taos County, New Mexico."

TABLE 20
AGE DISTRIBUTION, SELECTED AREAS,
UNITED STATES, 1960

Age Distribution	Penasco & Picuris CCDs ¹		Taos County		Ten No. N.M. Counties ²		New Mexico		United States (thousands)	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Under 5	422	13.4	2,122	13.3	17,474	13.7	136,160	14.3	20,321	11.3
5-9	472	15.1	2,124	13.9	16,405	12.9	121,067	12.7	18,692	10.4
10-14	493	15.8	2,232	14.0	16,035	12.6	103,462	10.9	16,773	9.3
15-19	316	10.1	1,519	9.5	12,210	9.7	76,236	8.0	13,219	7.4
20-24	157	5.0	832	5.2	7,706	6.0	67,887	7.1	10,801	6.0
25-29	139	4.4	757	4.8	6,705	5.3	66,538	7.0	10,869	6.1
30-34	155	5.0	804	5.0	6,611	5.2	65,874	6.9	11,949	6.7
35-39	159	5.1	841	5.3	6,722	5.3	64,088	6.7	12,481	7.0
40-44	119	3.8	730	4.6	6,256	4.9	54,883	5.8	11,600	6.5
45-49	122	3.8	797	5.0	6,381	5.0	48,432	5.1	10,879	6.1
50-54	120	3.8	691	4.3	5,738	4.5	39,093	4.1	9,606	5.4
55-59	97	3.1	566	3.6	5,173	4.1	32,123	3.4	8,430	4.7
60-64	86	2.8	486	3.1	3,978	3.1	23,920	2.5	7,142	4.0
65 +	277	8.8	1,343	8.4	10,255	8.0	51,270	5.4	16,560	9.2
Total	3,124	100.0	15,934	100.0	127,649	100.3	951,023	99.9	179,322	100.0

¹See Table 11, p. 81.

²North Central New Mexico Economic Development Counties: (1) Colfax, (2) Guadalupe, (3) Lincoln, (4) Mora, (5) Rio Arriba, (6) Sandoval, (7) San Miguel, (8) Socorro, (9) Taos, and (10) Torrance.

Source: U.S. Bureau of the Census, 1960 Census of Population: New Mexico (Washington, D.C.: U.S. Government Printing Office, 1961), pp. 41-48; and Edwin B. Cox, (ed.), Basic Tables in Business and Economics (New York: McGraw-Hill Book Company, 1967), p. 269.

FIGURE 15

AGE DISTRIBUTION, BY AGE GROUPS, SELECTED AREAS, UNITED STATES,
1960, AND PENASCO VALLEY CENSUS SURVEY, MAY 26, 1968
(percent)

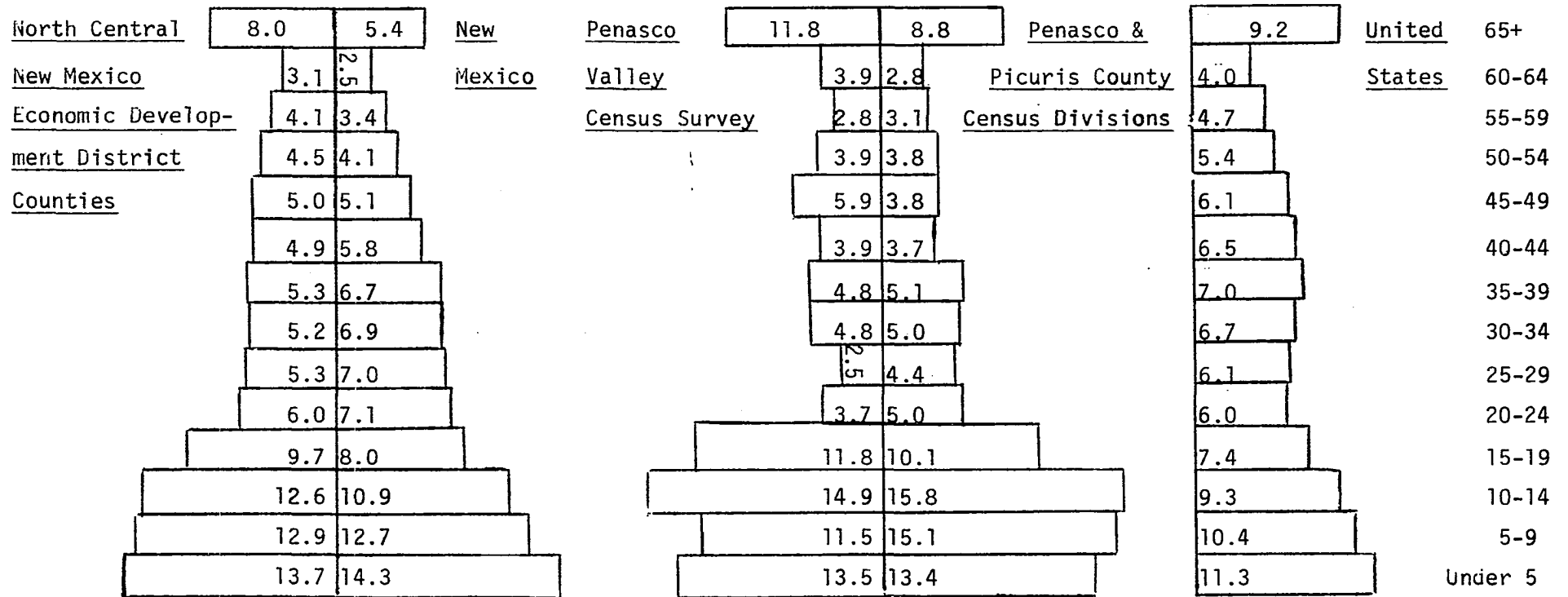


TABLE 21
AGE AND SEX DISTRIBUTION, PENASCO
VALLEY CENSUS SURVEY
MAY 26, 1968

Age Distribution	Male		Female		Total	
	No.	Percent	No.	Percent	No.	Percent
Under 5	25	13.9	23	13.1	48	13.5
5-9	19	10.6	22	12.6	41	11.5
10-14	28	15.6	25	14.3	53	14.9
15-19	22	12.2	20	11.4	42	11.8
20-24	6	3.3	7	4.0	13	3.7
25-29	6	3.3	3	1.7	9	2.5
30-34	8	4.4	9	5.1	17	4.8
35-39	10	5.6	7	4.0	17	4.8
40-44	8	4.4	6	3.4	14	3.9
45-49	7	3.9	14	8.0	21	5.9
50-54	4	2.2	10	5.7	14	3.9
55-59	7	3.9	3	1.7	10	2.8
60-64	7	3.9	7	4.0	14	3.9
65 +	23	12.8	19	10.9	42	11.8
Total	180	100.0	175	99.9	355	99.7

Source: See Appendix A. The sample survey included approximately 10 percent of the estimated households living in the Penasco Valley, Taos County, New Mexico.

TABLE 22

PERCENTAGE DISTRIBUTION OF POPULATION
BY AGE GROUPS, SELECTED AREAS,
UNITED STATES, 1960, AND PENASCO
VALLEY CENSUS SURVEY, MAY 26, 1968

Age Group	Penasco + Picuris CCD	Penasco Valley	Taos County	Ten Northern New Mexico Counties	New Mexico	United States
Under 5	13.4	13.5	13.3	13.7	14.3	11.3
5-19	41.0	38.2	37.4	35.2	31.6	27.3
20-64	36.8	36.2	40.9	43.4	48.6	52.3
65 +	8.8	11.8	8.4	8.0	5.4	9.2
Total	100.0	99.7	100.0	100.3	99.0	100.1

Traditionally, the 5-19 years-of-age group represents children in school, a group dependent upon the worker. While New Mexico's proportionate share of population in this group is only four percentage points greater than that of the United States, the ten northern counties' share is nearly eight percentage points greater. The proportionate distribution of the population in this age group, however, is 10 and 14 percentage points greater in Taos County and the Penasco Valley (11 for the Penasco Valley Sample Census Survey), respectively, than for the United States in general. Similarly, the percent of the population in this group is also significantly greater than for the State of New Mexico. Thus, individuals under age 20 comprise the following percentage of the total population of the areas under consideration:

- (1) Penasco and Picuris CCD's, 54.4; (2) Penasco Valley Census Survey, 52.1; (3) Taos County, 50.7; (4) ten northern New Mexico counties, 48.9; (5) New Mexico, 45.9; and (6) the United States, 38.6.

New Mexico's older group (aged 65 and over) is much smaller, as a percent of its population, than for the United States. Northern New Mexico, however, reflects a distribution much closer to that of the United States and about three percentage points (six in the Penasco Valley Census Survey) greater than that of New Mexico. The conclusion, therefore, is that New Mexico's dependent-worker ratio is greater than the United States average and that northern New Mexico's is even greater than the state's.

If the 20-64 years of age group is considered to be the worker group, the following worker relationship (per 100 persons) is derived: (1) Penasco and Picuris CCD's, 36.8; (2) Penasco Valley Census Survey, 36.2; (3) Taos County, 40.9; (4) ten northern New Mexico counties, 43.4; (5) New Mexico, 48.6; and (6) the United States, 52.3. This implies that if each individual aged 20-64 was working, the number of individuals (besides the worker) that each worker would have to support would be: (1) Penasco and Picuris CCD's, 1.7; (2) Penasco Valley Census Survey, 1.8; (3) Taos County, 1.4; (4) ten northern New Mexico counties, 1.3; (5) New Mexico, 1.1; and (6) the United States, 0.9.

This age group, however, is not completely in the labor force: many are students, housewives, in institutions, ill and/or handicapped, and some are simply not willing to work. These situations will be discussed fully in the labor force discussion. It should be noted that, and this was the purpose of the discussion above, simple age distribution, without further analysis, does give an indication of the minimum number of individuals under 20 and over 65 years of age to the number of potential workers. In a situation where jobs are scarce, this ratio

will be greater than in the more progressive areas experiencing economic growth.

Other Indicators of Well-Being

Personal income.--An indication of the extremely low income levels in the Penasco Valley and northern New Mexico is given in Table 23. The more significant statistics in Table 23 have been abstracted and comparisons between the Penasco Valley and northern New Mexico with the state and the United States are made in Table 24. While one in four families in New Mexico and one in five nationally were listed in the 1960 Census of Population as having an annual income of less than \$3,000, the ratio reported for the Penasco Valley was four of every five families.

In that year, the United States and New Mexico median family incomes were \$5,620 and \$5,371, respectively. Median income in the Penasco Valley was approximately \$1,500, or less than one-third of the state and/or national level. In northern New Mexico, median family incomes ranged from a low of 39 percent of the state's level in Mora County to a high of 80.5 percent in Colfax County.

The low family income levels in the Penasco Valley and in northern New Mexico may be attributed to the structure of the area's economy. This aspect is thoroughly discussed in Chapter V. Basically, low income levels result from the large number of individuals who are unemployed or underemployed most of the time, receive low wages, and/or attempt to survive by subsistence farming and odd jobs.

Chapter V shows that agricultural and governmental employment is predominant in the area. At the request of the author, the New Mexico

Employment Security Commission checked their files on 468 individuals from the Penasco Valley who were registered for work in 1967. Hourly earnings reported by the registrants are listed in Table 25. This table indicates that one in four of the registrants reported hourly earnings of \$1.50 or less.

TABLE 23
PERCENTAGE DISTRIBUTION OF FAMILIES, BY INCOME GROUPS,
SELECTED AREA, UNITED STATES, 1960,
AND PENASCO VALLEY, MAY 26, 1968

INCOME GROUPS	PENASCO VALLEY CENSUS SURVEY	PENASCO VALLEY	TAOS COUNTY	TEN COUNTIES	NEW MEXICO	U.S.
Under \$1,000	9.0	33.6	22.2	17.4	6.9	5.0
1,000-1,999	30.8	29.7	23.9	17.0	8.2	8.0
2,000-2,999	23.1	16.2	18.8	15.0	9.2	8.7
3,000-3,999	10.3	6.0	9.9	12.3	10.6	9.8
4,000-4,999	9.0	8.4	7.9	9.5	10.8	10.5
5,000-5,999	5.1	2.2	5.9	8.2	11.2	12.8
6,000-6,999	3.8	1.7	3.3	5.8	10.3	10.8
7,000-9,999	5.1	1.6	4.5	8.7	18.3	20.0
10,000-14,999	3.8	0	1.8	4.2	10.3	10.6
\$15,000 & Over	0	0.6	1.8	1.9	3.9	3.7
Total	100.0*	100.0	100.0	100.0	100.0	100.0

*Of 85 families surveyed, 78 responded to this question.

Source: U.S. Bureau of the Census, 1960 Census of Population: New Mexico, op. cit., Table 65, p. 87, and Table 86, pp. 128-130, and Special Table PH-3, and Statistical Abstract of the United States: 1967 (Washington, D.C.: U.S. Government Printing Office, 1967), Table 472, p. 33.

Hourly earnings data gains significance when it is recognized that the New Mexico Employment Security Commission may be reaching only about

TABLE 24

SELECTED CHARACTERISTICS OF INCOME LEVELS,
SELECTED AREAS, UNITED STATES, 1960

AREAS	Percent Under \$3,000	MEDIAN FAMILY INCOMES		
		Amount	Percent of N. M.	Percent of U. S.
Penasco County				
Census Division	81.2	\$1608	29.9	28.6
Picuris County				
Census Division	78.6	1486	27.7	26.4
Ten Northern N.M. Counties				
Colfax	32.5	4325	80.5	77.0
Guadalupe	24.7	3289	61.2	58.5
Lincoln	35.0	3912	72.8	69.6
Mora	68.9	2094	39.0	37.3
Rio Arriba	50.2	2984	55.6	53.1
Sandoval	58.3	2409	44.9	42.9
San Miguel	51.4	2905	54.1	51.7
Socorro	42.9	3529	65.7	62.8
Taos	64.9	2204	41.0	39.2
Torrance	41.3	3568	66.4	63.5
New Mexico	24.4	5371	--	95.6
United States	21.7	\$5620	104.6	--

Source: See Table 23, p. 101.

25 percent of the individuals who are actually looking for work in northern New Mexico.²⁷ Interviews by the author indicate that most of the individuals who bother to register with the Employment Security Commission do so in order to qualify for unemployment compensation. Those who have not worked under covered employment do not normally register for work with the Employment Security Commission. As indicated in

²⁷New Mexico Employment Security Commission, New Mexico State Employment Service, Smaller Communities Program, "Mora County, New Mexico," Manpower Resource Report, 1968, p. 17, reports that 74.2 percent of the individuals surveyed had never registered with the Employment Security Commission prior to the survey.

Chapter V, the number of individuals who are unemployed but not eligible for unemployment compensation in northern New Mexico may exceed the number of actual claimants.

TABLE 25
EARNINGS PER HOUR REPORTED, INDIVIDUALS
REGISTERED FOR WORK, NEW MEXICO
EMPLOYMENT SECURITY COMMISSION,
PENASCO VALLEY, 1967

HOURLY EARNINGS	Males		Females	
	No.	Percent	No.	Percent
Under \$0.50	1	0.3	5	3.2
0.50- 0.75	2	0.6	8	5.1
0.75- 1.00	4	1.3	11	7.1
1.00- 1.25	15	4.8	13	8.3
1.25- 1.50	28	9.0	13	8.3
1.50- 1.75	26	8.3	9	5.8
1.75- 2.00	21	6.7	7	4.5
2.00- 2.25	39	12.5	1	0.6
2.25- 2.50	25	8.0	0	0
2.50- 2.75	23	7.4	1	0.6
2.75- 3.00	12	3.8	1	0.6
3.00- 3.25	20	6.4	0	0
3.25- 3.50	8	2.6	0	0
\$3.50-\$4.00	10	3.2	0	0
Over \$4.00	8	2.6	0	0
Unable to Determine	71	22.8	87	55.8
Total	312	100.3	156	99.9

Source: New Mexico Employment Security Commission, Albuquerque, New Mexico, March 15, 1968.

Sources of income reported by the sample population in the Penasco Valley Census Survey are shown in Table 26. Two-thirds of the families surveyed indicated that the major portion of their income was derived from salary and wages while less than one-third admitted receiving governmental transfer payments. For the 49 families indicating salary

and wages, this represents an average of approximately \$3,440 per family. This average, however, included: (1) one HELP Area Director, \$9,000; (2) one librarian, \$6,800; (3) four teachers earning a total of \$30,666; (4) two miners earning a total of \$26,560; and (5) one accountant, \$7,500. These nine family heads earned a combined total of \$70,526. Thus, in terms of salary and wages, the remaining 40 families averaged \$2,450. Average family income was \$3,226. This is still substantially below the 1960 median family income of \$5,371 for New Mexico and \$5,620 for the United States as indicated in Table 24. As shown in the discussion on employment, about 83 percent of the Penasco Valley Census Survey respondents were employed in lower-paying jobs.

TABLE 26
FAMILY INCOME, BY SOURCE,
PENASCO VALLEY CENSUS SURVEY
MAY 26, 1968

SOURCE	Families*		Income	
	No.	Percent	Amount	Percent
Salary and Wages	49	62.8	\$168,515	67.0
Self-Agriculture	2	2.6	300	0.1
Self-Employment	2	2.6	5,200	2.1
Veterans' Compensation	8	10.3	12,356	4.9
Welfare	24	30.7	29,477	11.7
Social Security	24	30.7	25,186	10.0
Pensions	3	3.8	3,470	1.4
Unemployment Compensation	1	1.3	528	0.2
Other	7	9.0	6,643	2.6
Total Income	--	--	\$251,665	100.0

*Seventy-eight families. These columns will not total 100.0 percent and/or 78 families because many of the families reported income from several sources.

Table 27 shows the number of financial and food assistance cases reported for the Penasco Valley by the New Mexico Department of Welfare as of November 15, 1967. According to the County Director, these cases represent between one-third and one-half of all families in the Valley.²⁸

TABLE 27
FINANCIAL AND FOOD STAMP ASSISTANCE
CASES, PENASCO VALLEY,
NOVEMBER 15, 1967

TYPE	Number	Percent
Old Age Assistance	150	43.1
Aid to Families of Dependent Children	121	34.8
Aid to Needy Blind	10	2.9
Aid to Disabled	63	18.1
General Assistance	4	1.1
Total	348	100.0
Food Stamps*	169	

*Includes 102 families receiving financial assistance and 67 who do not receive financial assistance. According to the source, each food stamp case includes an average of 3.67 persons.

Source: Letter to Earl E. Hall, Dikewood Corporation, Albuquerque, New Mexico, dated November 15, 1967, from Mrs. Mary Alexander, Taos County Director, Department of Public Welfare, P. O. Box 1245, Taos, New Mexico.

The age and sex distribution of the Penasco Valley financial assistance recipients is portrayed in Table 28. Approximately 80 percent

²⁸Personal conversation, May 15, 1968. Table 28 shows that 708 individuals were receiving financial assistance, with almost one-half being 65 years of age and older. Thus, while 708 individuals represented approximately one-fourth of the Valley's population, the large number of one and two individual households among the aged gives credence to one-third to one-half of all households receiving financial assistance.

of the male recipients were either under 18 or 65 years of age and older. Females in these age-groups comprised 65 percent. It is not surprising that 35 percent of the female recipients were in the child-bearing age. Most of the male recipients in the middle-age brackets are reportedly either blind or disabled.

TABLE 28
AGE AND SEX DISTRIBUTION, INDIVIDUALS
RECEIVING PUBLIC ASSISTANCE,
PENASCO VALLEY, DECEMBER 21, 1967

AGE	Males		Females		Total	
	No.	Percent	No.	Percent	No.	Percent
0-18	177	57.3	178	44.6	355	50.1
18-30	7	2.3	23	5.8	30	4.2
30-45	20	6.5	45	11.3	65	9.2
45-65	32	10.4	67	16.8	99	14.0
65 and Over	73	23.6	86	21.6	159	22.5
Total	309	100.1	399	100.1	708	100.0

Source: Letter to Mardoqueo Chacon, Home Education Livelihood Program, Espanola, New Mexico, dated December 21, 1967, from Mrs. Mary Alexander, Taos County Director, New Mexico Department of Public Welfare, Taos, New Mexico.

Table 29 was calculated in an effort to demonstrate the importance of transfer payments as a source of income in northern New Mexico. Transfer payments accounted for about 15 percent of total income in the ten counties as compared to 7 percent for the state. The proportion contributed by unemployment compensation indicates that even individuals who work under covered employment are more susceptible to unemployment than the average worker in the state.

TABLE 29

SELECTED INCOME AND EMPLOYMENT FACTORS, SELECTED
AREAS, NEW MEXICO, 1960, 1962, 1964, AND 1966

ITEM	Ten Counties				New Mexico			
	1960	1962	1964	1966	1960	1962	1964	1966
Total Pers. Income (in 000's)	133206	139660	161806	207896	1739533	1891021	2063481	2440359
Transfer Payments (in 000's)	19281	20448	25905	32459	111100	131000	146600	185000
Percent of Total	14.5	14.6	16.0	15.6	6.4	6.9	7.1	7.6
Unemploy. Comp. (in 000's)	1817	1627	1727	1702	9800	9600	9200	6900
Percent of Total	1.4	1.2	1.1	0.8	0.6	0.5	0.4	0.3
Percent of Transfer Payments	9.4	8.0	6.7	5.2	8.8	7.3	6.3	3.7
Population	127700	129100	130700	129700	954700	984500	1023300	1033300
Employment	29410	29917	30380	32760	331700	333700	344000	352100
Percent of Pop.	23.0	23.2	23.2	25.3	34.7	33.9	33.6	34.1
Covered Workers	9790	9804	11251	12345 ^a	159785	161010	168762	172526 ^a
Percent of Employ.	33.3	32.8	37.0	(a)	48.2	48.2	49.1	(a)
U.I. Benefit Checks	6543	58010	61597	57137 ^a	256048	252349	247330	220808
Ave. Check Pymt.	28.15	28.05	28.04	(b)	28.65	28.57	28.97	29.21 ^a
Check/covered worker	6.6	5.9	5.5	4.6 ^a	1.6	1.6	1.5	1.3 ^a

^aFigures available only for 1965.

^bThe average unemployment check payment for the ten counties in 1966 was: (1) Colfax, \$28.50; (2) Guadalupe, \$26.93; (3) Lincoln, \$27.60; (4) Mora, \$27.26; (5) Rio Arriba, \$30.30; (6) Sandoval, \$30.25; (7) San Miguel, \$28.98; (8) Socorro, \$28.86; (9) Taos, \$28.47; and Torrance, \$29.71.

Sources: New Mexico Employment Security Commission, Facts and Figures: December 1966 and January-February 1967, and Ralph L. Edgel and Peter J. LaLonde, "Income and Employment in New Mexico: 1960-1964," New Mexico Studies in Business and Economics, No. 15 (Albuquerque: University of New Mexico, Bureau of Business Research, 1964), and Linda L. DeBerry and Ralph L. Edgel, "Income and Employment in New Mexico, 1965-1966," New Mexico Studies in Business and Economics, No. 16 (Albuquerque: University of New Mexico, Bureau of Business Research, February 1968).

The proportion of the northern New Mexico population listed as employed is approximately ten percentage points below the state's level. As a percent of total employment, covered employment in northern New Mexico accounts for about ten percentage points less than it does for the state. Perhaps the most devastating statistic presented in Table 29 is the average number of unemployment compensation checks issued per covered worker. Each check represents approximately one week of unemployment. Thus, the northern New Mexican covered employee experienced an average of four weeks more unemployment than his counterparts throughout the rest of the state.

Education.--The percentage distribution of individuals 25 years of age and older according to school grade completed for the sample population of the Penasco Valley Census Survey, the Penasco Valley (Penasco and Picuris County Census Divisions), the ten northern New Mexico counties, and the state is given in Table 30. The Penasco Valley Census Survey indicates that 7.9 individuals out of every 100 had not completed any school years. This is significantly different from the 1960 figure indicating a ratio of 12.7:100 for the same area. The Census Survey figure corresponds closely with the percent of individuals in this age group who had not completed any school grades in Taos County (7.3 percent) and in the combined ten northern New Mexico counties area (7.4 percent). Nevertheless, these figures are substantially higher than New Mexico's 4.4:100.

Both the Penasco Valley Census Survey and the Penasco Valley figures indicate, respectively, that 63 or 74 individuals out of one hundred completed eight grades or less. This compares with 59 in Taos

TABLE 30

PERCENTAGE DISTRIBUTION OF INDIVIDUALS 25 YEARS
OF AGE AND OLDER, BY SCHOOL GRADE COMPLETED,
SELECTED AREAS, NEW MEXICO, 1960, AND
PENASCO VALLEY CENSUS SURVEY,
MAY 26, 1968
(percent)

ITEM	Penasco Valley Survey	Penasco Valley	Taos County	Ten Counties	New Mexico
Population 25 +	158	1,423	6,920	57,568	444,503
No School Years	7.9	12.7	7.3	7.4	4.4
Elementary:					
1-4	20.1	22.4	17.8	16.2	7.7
5-7	20.1	26.0	21.4	19.9	12.1
8	14.6	12.9	12.7	14.0	12.2
High School:					
1-3	18.3	11.7	15.9	14.7	18.1
4	9.8	6.0	12.8	15.2	24.9
College: 1-3	4.3	3.2	5.6	6.1	10.8
4 or more	4.9	5.1	6.5	6.5	9.8
Total	100.0	100.0	100.0	100.0	100.0
Median School Years Com- pleted	7.0-8.0 ^a	(b)	(b)	(b)	11.2

^aFifteen individuals reported having completed the seventh grade while 24 reported completing the eighth grade.

^bThe median school years completed were: (1) Penasco Valley: Picuris County Census Division, 7.2, and Penasco County Census Division, 6.0; (2) Colfax, males, 9.1, females, 10.5; (3) Guadalupe, males, 7.7, females, 8.3; (4) Lincoln, males, 9.4, females, 11.0; (5) Mora, males, 7.2, females, 7.4; (6) Rio Arriba, males, 8.0, females, 8.2; (7) Sandoval, males and females, 8.1; (8) San Miguel, males, 8.2, females 8.1; (9) Socorro, males and females, 8.9; (10) Taos, males, 8.1, females, 8.4; and (11) Torrance, males, 8.5, and females, 8.9.

Source: U.S. Bureau of the Census, 1960 Census of Population: New Mexico, Vol. 1, Part 33 (Washington, D.C.: U.S. Government Printing Office, 1961), Table 47, p. 71, and Table 83, pp. 119-121 and Special Table PH-3.

County, 58 in the ten county area, and 36 for the state. Consequently, the percent of individuals in this age group who have attended high school and college follow the reverse pattern, with a 21:100 ratio for the state, 13:100 for the ten county area, 12:100 for Taos County, and only 8 to 9:100 for the Penasco Valley.

It is not surprising, therefore, that the median school years completed is between 6.0 and 7.2 (Penasco and Picuris County Census Divisions, respectively) in the Penasco Valley, in comparison with 8.1 to 8.4 for Taos County, clustering between 8 and 9 in the ten county area, and 11.2 for the state.

The educational attainment of individuals 25 years of age and older from the Penasco Valley who were registered with the New Mexico Employment Security Commission in 1967 is shown in Table 31. This table indicates that only one percent of these individuals reported no school years completed, as compared to the higher proportions listed above for the various areas. A plausible reason for the higher educational achievement of registrants is that it is the older generations who are grossly undereducated. These individuals, in all likelihood, are no longer a part of the active work force.

Table 31 shows that 48.2 percent of the registrants had completed one to four years of high school, compared to 28.1 percent of the Penasco Valley Census Survey respondents, 12.7 percent of the Penasco Valley residents as reported in the 1960 Census of Population, 28.7 and 29.9 percent for Taos County and the ten counties, respectively, and 42.8 percent for the state. Thus, the Penasco Valley resident who was registered for work with the New Mexico Employment Security Commission

in 1967 was more highly educated than the average Valley resident. It should also be noted that the female registrants reported higher educational attainments than their male counterparts, adhering to the general educational pattern.

TABLE 31

PERCENTAGE DISTRIBUTION OF INDIVIDUALS 25 YEARS OF AGE AND OLDER, BY SCHOOL GRADE COMPLETED, WHO WERE REGISTERED WITH THE NEW MEXICO EMPLOYMENT SECURITY COMMISSION, PENASCO VALLEY, 1968

Registrants & School Years Completed	Males	Females	Total
Number of Registrants	205	82	207
School Years Completed			
None	1.6	0	1.0
Elementary: 1-4	7.6	3.6	6.1
5-7	19.7	11.0	17.2
8	25.9	19.5	24.1
High School:			
1-3	27.1	30.5	27.9
4	16.6	29.3	20.3
College: 1-3	1.5	4.9	2.4
4 or More	0	1.2	1.0
Total	100.0	100.0	100.0

Source: New Mexico Employment Security Commission, Albuquerque, New Mexico, March 15, 1968.

Comparison of school achievements of individuals 25 years of age and older and individuals 15 to 24 years of age in the sample population of the Penasco Valley Census Survey dramatically shows the higher school grade achievements of the younger group. Of 55 individuals in the 15 to 24 years of age group, none had a school grade completion report of four years or less. Only 3.2 percent had completed between five and seven

grades, as compared to 20.1 percent for the older age group. While only 28.1 percent of the individuals 25 years of age and older had completed one to four years of high school, 87.2 percent of the younger age group had done so. This accomplishment is even more significant when it is realized that many individuals in the 15 to 24 years of age group are still students.

Table 32 shows the changing pattern of school enrollment in the Penasco Valley. This table seems to indicate a lesser number of students entering grade school while the larger high school classes reflect the phasing in of the grade school students. Although a definitive reason for this pattern cannot be ascertained, this occurrence appears to be in line with the declining national birth rate coupled with migration of family age groups (i.e., women of child bearing age). A continued decline in the number of children entering grade school--and, subsequently high school--could be, therefore, interpreted as an indication of economic deterioration, posing serious problems for school administrators.

Linguistic abilities reported by respondents aged 5 to 24 and 25 years of age and older in the Penasco Valley Census Survey are listed in Table 33. This listing is important in highlighting linguistic problems that must be recognized by planners attempting to formulate training and job development programs for the northern New Mexico rural poor. Individuals in the 25 years of age and older age group reported a greater linguistic ability in Spanish, although 100 percent of both groups indicated fluency in speaking Spanish. Individuals aged 5 to 24 years of age, however, show a much greater fluency in reading and writing

English. Thus, training programs and job creation programs must be formulated with the linguistic ability of the rural northern New Mexican in mind.

TABLE 32
AVERAGE DAILY ATTENDANCE,
PENASCO SCHOOL DISTRICT,
1960-1968

YEAR	Grades 1-8		Grades 9-12		Total	
	Number	% Change	Number	% Change	Number	% Change
1960-1961	638	--	229	--	867	--
1961-1962	624	- 2.2	274	+19.7	898	+3.6
1962-1963	670	+ 7.4	292	+ 6.6	962	+7.1
1963-1964	666	- 0.6	316	+ 8.2	982	+2.1
1964-1965	682	+ 2.4	319	+ 0.9	1001	+1.9
1965-1966	678	- 0.6	284	-11.0	962	-3.9
1966-1967	609	-10.2	281	- 1.1	890	-7.5
1967-1968	586	- 3.8	287	+ 2.1	873	-1.9
1960-1968	--	- 8.2	--	+25.3	--	+0.7

Source: New Mexico Public School Statistics, Division of Statistics, State Department of Education, Santa Fe, New Mexico.

Health.--Reliable statistics on the health and medical problems of the area are not available. Nevertheless, several studies have shown that infant mortality and related health problems are concentrated in relatively deprived socioeconomic groups and areas.²⁹ Illness is more prevalent among the poor, the undereducated, and the poorly housed.

²⁹See, for example, A. Taher Moustafa and Gertrud Weiss, "Health Status and Practices of Mexican-Americans," Mexican-American Study Project, Advanced Report 11 (Los Angeles: Graduate School of Business Administration, Division of Research, University of California, February 1968).

TABLE 33

LINGUISTIC ABILITY, INDIVIDUALS AGED 5 TO 24 AND
25 YEARS OF AGE AND OLDER, PENASCO VALLEY
CENSUS SURVEY, MAY 26, 1968
(percent)

Linguistic Ability	5 to 24	25 and Older
Sample Population	149	158
Spanish		
Speak	100.0	100.0
Read	38.9	82.9
Write	36.2	77.8
English		
Speak	91.9	77.8
Read	82.6	75.3
Write	82.6	73.4

Moustafa and Weiss give the following account of health problems among Mexican-Americans:

...certain psychological and cultural factors...tend to impose barriers between some of the Mexican-American people and the more modern health and medical techniques. For example, any ailment that seems minor at the outset is presumed to be a "natural" illness, which is subject first to home treatment with herb remedies, patent medicines, and prayers. If the patient fails to improve, he may seek the help of a folk curer or curandero. The professional physician may be consulted as a last resort, with the result that many Mexican-American patients come under physician's care only when there is less chance of being cured. There is also a lack of confidence among some Mexican-Americans in professional physicians and health workers, so that even while the patient is under the physician's care, his family will continue to appeal for divine aid and to use home remedies; and then, failure to restore the patient's health will be cited as evidence of the inefficiency of scientific medicine.³⁰

³⁰Ibid. There is a significant lack of health-care data with regard to Mexican-Americans. This report includes data from a single survey in California and continuing data for San Antonio, Texas, insufficient for generalization. Since northern New Mexico is largely Spanish-American, this type of data could have shed some light.

New Mexico had fewer physicians and dentists per 100,000 population in 1964 than any of the Southwestern states listed in Table 34 and the United States in general. Except for Texas, New Mexico's nurse-population ratio was also the lowest. Moreover, New Mexico's available civilian inpatient beds were the second lowest among these states. Inadequate incomes and medical resources may have contributed to New Mexico's mortality rate in the younger age groups having been higher than the national average in 1963 (Table 35).

TABLE 34
HEALTH MANPOWER AND GENERAL HOSPITAL ACCEPTABLE
CIVILIAN INPATIENT BEDS, SELECTED STATES AND
THE UNITED STATES, 1964
(per 100,000 population)

AREA	Physicians (M.D. & D.O.)	Dentists	Nurses	Acceptable Beds
New Mexico	97	29	213	2.55
Arizona	132	37	335	3.57
Colorado	176	58	370	3.37
Nevada	99	35	262	3.40
Oklahoma	148	75	348	4.06
Texas	113	35	172	3.33
California	177	58	324	2.12
United States	143	52	298	3.48

Source: U.S. Department of Health, Education and Welfare, Office of the Assistant Secretary for Program Coordination, State Data and State Rankings in Health, Education, Welfare (Washington, D.C.: U.S. Government Printing Office, 1965), pp. S-15 and S-27.

The situation in the Penasco Valley and northern New Mexico is worse. Large areas are served by only one or no physicians and few New

TABLE 35

DEATHS, BY AGE GROUPS, UNITED STATES
AND NEW MEXICO, 1963
(per 1,000 population in age group)

AGE	New Mexico	United States
Under 5	7.2	5.8
5-19	0.7	0.6
20-44	2.4	2.1
45-64	10.4	11.7
65 +	55.8	62.4
All Ages	6.7	9.6

Source: U.S. Department of Health, Education and Welfare, Office of the Assistant Secretary for Program Coordination, State Data and State Rankings in Health, Education, Welfare, op. cit., p. S-12.

Mexico Public Health Service personnel.³¹ The Embudo Presbyterian Hospital (an 11 physician and 25 general bed facility in Dixon, about 15 miles from the town of Penasco) provides clinical services in the Penasco Valley twice a week. The public schools employ a school nurse. Other types of medical assistance must be obtained in Taos (24 miles), Espanola (36 miles), Santa Fe (63 miles), Los Alamos (58 miles) or other larger cities. Espanola and Taos, for example, have the following medical personnel: seven physicians, one osteopath, one podiatrist, two optometrists, three chiropractors, and five dentists. Few medical personnel have established practices in the smaller communities of Taos and Rio Arriba Counties.

³¹A recent example of this problem was given in the Albuquerque Journal, August 31, 1968, p. B-10, when Santa Rosa, New Mexico, a town of 6,000, was going to lose its only physician. If this were to occur, the nearest physician would be located at a distance of 45 miles.

The meager use of medical personnel was highlighted in the Penasco Valley Census Survey. Of 85 heads of household respondents, one-third had not visited a doctor in 1967 (Table 36). However, 32.4 percent did indicate five or more visits. A check through the census survey questionnaire revealed that the individuals with five or more visits were the elderly who were receiving social security. As expected, two-thirds of the respondents reported zero visits to dentists. Dental services, however, were viewed as an extravagant expenditure of limited funds.

TABLE 36

PERCENT OF HOUSEHOLD HEADS, INDICATING NEED FOR
MEDICAL AND DENTAL SERVICES, PENASCO
VALLEY CENSUS SURVEY, MAY 26, 1968

Times Visited Doctor in 1967	Percent	Times Visited Dentist in 1967	Percent
None	33.9	None	65.9
One	16.2	One	15.3
Two	2.7	Two	8.2
Three	9.4	Three	5.9
Four	2.7	Four	0
Five or More	32.4	Five or More	3.5
No Response	2.7	No Response	1.2
Total	100.0	Total	100.0

The survey also indicated that 34 percent of the respondents believed they had some type of physical disabilities. The number of respondents reporting disabilities corresponded quite closely with the number of individuals who had indicated five or more visits to the doctor in 1967. The following percentage of the respondents indicated that they had been unable to obtain needed medical services: (1) doctors,

9.3 percent; (2) dentists, 4.7; and (3) optometrists, 10.6. Although a variety of reasons were given for their inability to obtain adequate medical services, the most prevalent reasons were lack of transportation and inability to pay for the required services. The interviewers reported that the most visible disabilities were loss of hearing and eyesight. These two problems have also been repeatedly reported by field personnel of the Home Education Livelihood Program.

Marital status and housing.--In addition to economic and socio-cultural factors, demographic characteristics of the northern New Mexico area are indicative of a stagnant and deteriorating economic situation. The proportion of the Penasco Valley's population 14 years of age and older that is single is substantially higher than the levels indicated for other areas in Table 37. Separation and widowed rates appear to be higher in the Penasco Valley than for the other areas while divorce rates appear to be lower. The northern New Mexico population 14 years of age and older that is single, in percentage terms, is lower than in the Penasco Valley but higher than in the State of New Mexico and the United States.

These ratios may be explained in terms of the age and sex distributions of the respective populations. As previously shown (Table 20), the proportionate share attributed to the under 18 and over 65 years of age groups are higher in the Penasco Valley and in northern New Mexico than in the state and the U.S. This would explain the single, married, and widowed ratios. The deviation of divorced and separation rates, however, are probably more closely associated with low incomes and sociocultural factors. Legal services are not readily available and court and other

costs cannot be easily absorbed by the majority of the northern New Mexico rural population. The predominance of Catholics in the area's population is probably an effective constraint on divorces.

TABLE 37

MARITAL STATUS, MALES AND FEMALES, 14 YEARS
OF AGE AND OLDER, SELECTED AREAS,
UNITED STATES, 1960, AND THE
PENASCO VALLEY CENSUS SURVEY
MAY 26, 1968

Marital Status (Individuals 14 +)	Penasco Valley Census Survey	Penasco Valley	Taos County	Ten Counties	New Mexico	United States
Males						
Single	42.0	37.3	31.8	33.5	25.9	25.3
Married	52.1	56.4	62.1	60.0	69.0	69.1
Separated	0	1.3	1.2	1.1	1.0	N/A
Widowed	5.9	4.6	4.5	4.8	2.7	3.7
Divorced	0	1.7	1.6	1.7	2.4	1.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
Females						
Single	30.7	29.4	26.9	25.4	18.7	19.0
Married	54.4	58.9	58.8	61.9	69.7	65.6
Separated	2.6	2.2	1.8	1.7	1.4	N/A
Widowed	10.5	10.2	10.6	10.3	8.6	12.8
Divorced	1.8	1.5	2.7	2.4	3.1	2.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: U.S. Bureau of the Census, Special Table PH-3, and 1960 Census of Population: New Mexico, op. cit., Table 13, p. 25, and Table 28, pp. 49-51, and Statistical Abstract of the United States: 1967 (Washington, D.C.: U.S. Government Printing Office, 1967), Table 32, p. 33.

According to the 1960 Census of Population, the Penasco and Picuris County Census Divisions--the Penasco Valley--encompassed a total

of 1,035 housing units.³² These units included 250 that were owner occupied, 94 that were rented, 5 that were vacant and available for sale and/or rent, and 340 that were simply vacant. The condition of these units was described as: (1) sound, 658; (2) deteriorating, 326; and (3) dilapidated, 51.

Excluding the dilapidated units, 182 had complete plumbing facilities, 8 lacked hot water, and 787 did not have private toilets, baths, and/or running water. This situation has changed considerably since 1960. All of the communities in the Valley have formed community water associations. Thus, while 80 percent of the housing units were listed as lacking water and/or private toilet and bath facilities in 1960, the Penasco Valley Census Survey in 1968 showed that only 35 percent of the households enumerated did not have running water. Fifty-four percent of the respondents reported complete plumbing facilities, as compared to 18 percent in 1960. Although the situation has improved, almost one-half of the respondents continue to live in homes lacking modern bathroom and toilet facilities.

Table 38 shows the percentage distribution of housing units according to the number of residents. Almost one-third of the units housed six or more residents.

Coupled with the percentage distribution of housing units according to number of rooms (Table 39), the 1960 Census of Population showed that: (1) 16.5 percent of the housing units had 0.50 persons or less per room; (2) 16.5 percent with 0.51 to 0.75 persons per room; (3) 20.5

³²U.S. Bureau of the Census, Special Table PH-1, "Taos County, New Mexico."

TABLE 38

PERCENTAGE DISTRIBUTION OF HOUSING UNITS
ACCORDING TO RESIDENT NUMBER OF
PERSONS, PENASCO VALLEY,
1960 AND 1968

Persons Per Room in Housing Unit	1960	1968
One	10.6	15.3
Two	18.6	12.9
Three	15.4	14.1
Four	12.0	20.0
Five	12.0	8.2
Six or More	31.4	27.1
No Response	--	2.4
Total	100.0	100.0

Source: U.S. Bureau of the Census, Special Table PH-1, "Taos County, New Mexico" and Penasco Valley Census Survey.

percent with 0.76 to 1.00; and (4) 46.5 percent with 1.01 persons or more per room.³³ Since family sizes and new home construction have not changed significantly during the last eight years, the density of population per housing unit is believed to be essentially unchanged.

The significant aspect of Table 40 is that it indicates that almost two-thirds of the homes were built prior to 1940. This would be expected in terms of the age and sex distribution of the population, with most of the family units being composed of elderly families. Since almost one-third of the housing units in the Valley are still vacant, new families can find housing if desired. Although the 1968 data do not allow determination of the distribution of housing units according to

³³Ibid.

monetary value, the 1960 data indicate: (1) 73.4 percent of the homes were valued at less than \$5,000; (2) 16.0 percent at \$5,000 to \$9,900; (3) 7.8 percent at \$10,000-\$14,900; and (4) 2.8 percent at over \$15,000. This is in sharp contrast to the urban home value situation.

TABLE 39
PERCENTAGE DISTRIBUTION, HOUSING UNITS
ACCORDING TO NUMBER OF ROOMS,
PENASCO VALLEY, 1960 AND 1968

Number of Rooms	1960	1968
One	5.3	4.7
Two	21.5	14.1
Three	26.7	31.8
Four	26.9	32.9
Five	10.3	9.1
Six	6.7	3.5
Seven or More	2.6	1.2
No Response	--	2.7
Total	100.0	100.0

Source: U.S. Bureau of the Census, Special Table PH-1, "Taos County, New Mexico" and Penasco Valley Census Survey.

Table 41 indicates selected household characteristics of the Penasco Valley Census Survey respondents. Natural gas not being available in the Valley, 69.4 percent of the households heat with wood and coal. This is a decrease from 96.9 percent in 1960. Nine out of every ten families interviewed had a washing machine. However, 94 percent indicated that they did not own a clothes dryer.

One-third of the Census Survey respondents indicated that they had never received or purchased newspapers, while 85 percent reported

TABLE 40

PERCENTAGE DISTRIBUTION OF HOMES
ACCORDING TO AGE, PENASCO VALLEY,
1960 AND 1968

Year Built	1960	1968
1960-1968	--	9.4
1950-1959	20.7	13.0
1940-1949	15.1	15.3
1939 or Earlier	64.3	62.8
No Response	--	9.5
Total	100.0	100.0

Source: U.S. Bureau of the Census, Special Table PH-1, "Taos County, New Mexico" and the Penasco Valley Census Survey.

ownership of one or more radios and four out of five households owned at least one television. While the 1960 Census of Population indicated that 65 percent of the Valley's population did not own an automobile, nonowners dropped to 27 percent in the Census Survey. Moreover, the Census Survey indicated 20 percent of the respondents owning two or more automobiles, as compared to only 4.7 in the 1960 data.

Social structure.--Formulation of a socioeconomic development model should seek to identify people who will most foster developmental policies. The author assisted Earl Hall and Andrew Durand of the Dikewood Corporation, a consulting organization, to formulate instruments designed to identify key people in developing economies. These instruments were tested in the Penasco Valley.

The first set of key resource people in the Penasco Valley were identified by the local and area personnel of the Home Education

TABLE 41

SELECTED INDICATORS OF WELL-BEING, PENASCO
VALLEY CENSUS SURVEY, MAY 26, 1968

ITEM	PERCENT	ITEM	PERCENT
HEATING		CLOTHES DRYER	
Butane	25.9	Gas	2.4
Oil	1.2	Electric	1.1
Other (Wood)	69.4	None	94.1
No Response	3.5	No Response	2.4
Total	100.0	Total	100.0
WASHING MACHINES		TELEVISION SETS	
Wringer	82.4	1 Black & White	41.2
Auto- Semi-Auto	7.1	2 or More B & W	35.2
None	9.4	Color	0
No Response	1.1	None	22.5
Total	100.0	No Response	1.1
		Total	100.0
RADIOS		RECEIVE AND/OR PUR- CHASE NEWSPAPER	
One	77.6	Daily	16.6
Two or More	4.7	Once a Week	12.9
None	15.3	Sometimes	31.8
No Response	2.4	Not at All	37.6
Total	100.0	No Response	1.1
CARS & PICKUPS		Total	100.0
One	47.0	TELEPHONES	
Two	17.6	Yes	24.7
Three or More	3.5	No	71.8
None	27.0	No Response	3.5
No Response	4.9	Total	100.0
Total	100.0		

Livelihood Program.³⁴ This listing was then correlated to a listing prepared by the HELP State Office personnel. HELP personnel were chosen to identify the first set of key resource people because it has been operating an adult basic education program in the Penasco Valley for

³⁴Key resource people are those who could be expected to foster socioeconomic change in the event that economic development programs were established.

more than three years. A second group of advisers was identified by the first set as being knowledgeable about community life. From the expanded listing, twelve key resource people were selected to be interviewed.

These interviews were conducted in English or Spanish, depending upon the specific linguistic ability demonstrated by the respondent. The interviewees consisted of one minister, two agricultural migrants, one New Mexico Department of Public Welfare employee, one housewife, one field employee of the Home Education Livelihood Program, one welfare case of husband and wife, two store owners, two teachers, and one bar-nightclub owner. The descriptive material collected, therefore, provided a wide diversity of community opinions and viewpoints.

The interview material was analyzed and a preliminary definition of the community's social stratification and group differentiation was formulated. To confirm, modify, or reject the preliminary definition of the social system, a Dikewood researcher performed the duties of a participant observer in the Valley.³⁵ The preliminary model indicated that the community differentiated its population into four social levels.

In the top level are those who are considered to be economically secure and to have a cosmopolitan knowledge and understanding of the functioning of a larger Anglo-American society (either through formal education or business experience with the outside world). The respondents believed that these individuals had political power and could distribute patronage jobs locally and state-wide.

³⁵Robert Haladay, who as a Peace Corps volunteer in Latin America had performed similar tasks, and his wife spent two weeks as vacationers, observing and conversing on a casual basis with Valley residents.

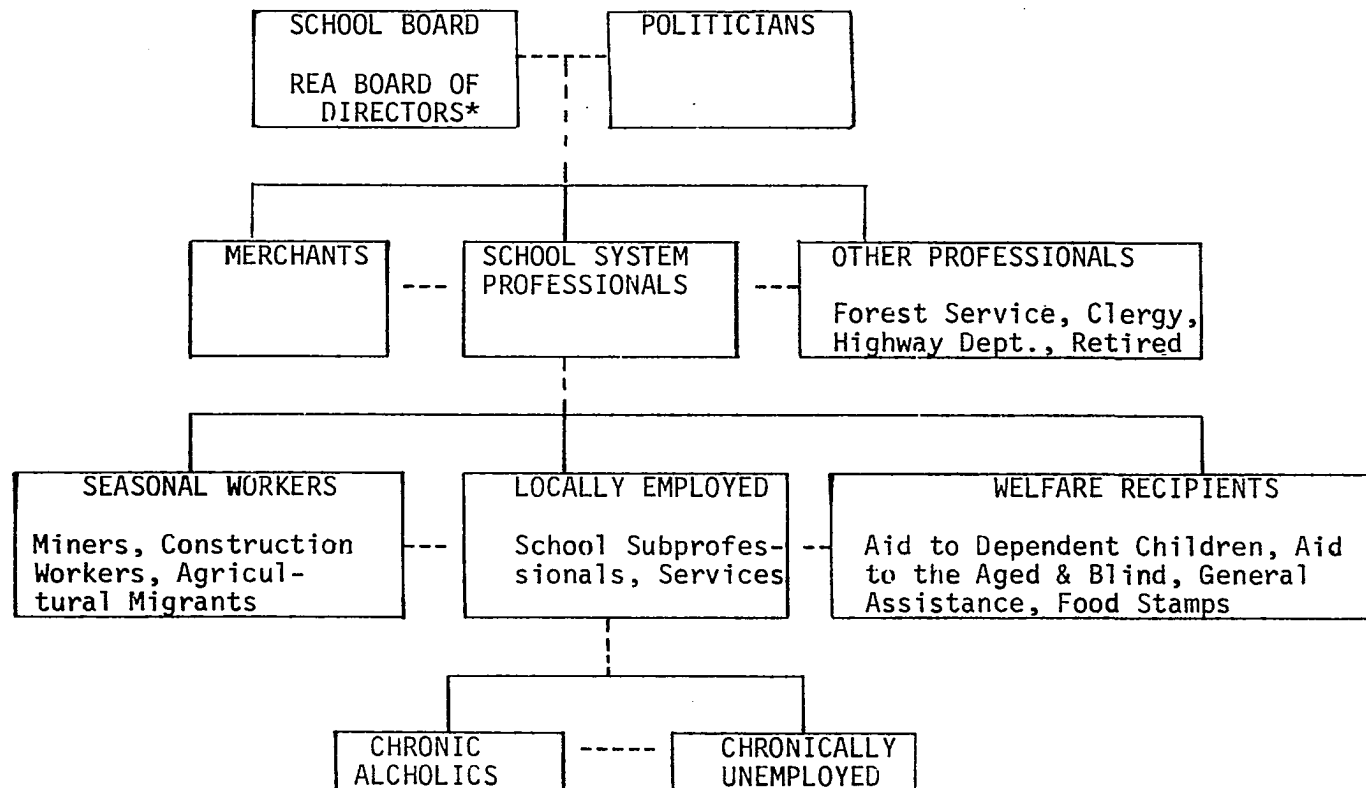
The second level was composed of individuals with some professional training or business experience who share "middle class" values, i.e., the values of contemporary Anglo-American society. They hold stable employment positions and earn a regular, above-average income.

The majority of the population was identified as being in the large third level, including seasonal and part-time employees and individuals who receive some form of public financial assistance. Members of this group are more often employed in the local rotating patronage jobs and/or migrate for employment. Members of this group generally have low and irregular incomes. Individuals in the first two group levels appear to make no distinction between the working and the idle poor. The working poor, however, distinguish between themselves and individuals who do not seek employment because of fear of losing their public assistance and who, in turn, become politically subordinated to local politicians.

In the bottom social level are alcoholics and chronically unemployed who receive no public assistance and who are considered "hopeless" by the rest of the community. The social stratification determined is portrayed in Figure 16.

The first group--the school board and politicians--were individuals who had for years dispensed patronage jobs and to whom people looked for advice. The interviewees were quite aware of the fact that, especially for subprofessional jobs with the school system and the county government, the limited number of jobs would be rotated at the start of the academic year. Thus, the current employees felt a certain degree of frustration and uncertainty regarding their employability at the end of the school year. The third group was found to be especially indebted

FIGURE 16
GROUP SOCIAL DIFFERENTIATION,
PENASCO VALLEY, 1968



*Kit Carson Rural Electric Association, Taos, New Mexico.

to the first group and aspired to become politicians, although few ever attempted this. The Home Education Livelihood Program was viewed by the first group as a threat to their survival because it was providing some employment and teaching parliamentary and organizational methods to many of the third group, the mainstay of the first group. Some of the third group, however, seemed to believe that HELP trainee positions were simply an additional source of patronage.

As compared to the first group, the second group was not considered to be a significant source of employment and influence for the third group. The reason for their placement in this group was that these individuals had achieved some degree of financial affluence. By-and-large, the large third group did not seek advice from this group, even from the teachers.

Merchants were respected primarily because they provided credit necessary to sustain individuals with irregular incomes. Two of the larger merchants in the Valley were Anglo-American. One of the two was quite cooperative (the bulk of the third group population realized this) and wished to provide as much assistance as possible. This merchant realized that a substantial portion of any increase in income would be channeled to purchases at his store. According to the interviewees, the other Anglo-American merchant was quite antagonistic and viewed the "war on poverty" as an attack on the free enterprise system and harmful to the self-made man (rugged individualism). The Spanish-surname merchants appeared to be cognizant of existing economic conditions and desired to assist if needed.

The biggest surprise, at least to the author, was the apparent low esteem accorded teachers. Interviewees indicated that teachers

exercised student discipline through threatened economic reprisals, such as reporting students and parents to the New Mexico Department of Public Welfare. In discussing this situation with Horacio Ulibarri, a possible reason for the degree of scorn showered on teachers seems to be that most of the teachers are originally from the area and through formal education have risen from the third to the second group.³⁶

Educational achievements of the teachers were attained through the G. I. Bill or scholarships, with the majority attending New Mexico Highlands University. This simply represented a transfer from one rural environment to another, with little widening of the sociocultural horizon. Thus, the teacher returned with the same cultural blinders and biases and did not instigate innovative practices. In moving up to the second group, the teachers lost contact with their former colleagues. Teachers were found to be the driving force behind social organizations such as the American Legion, the Fire Department, the Social Action Committee, and the T.V. Booster Committee. The third group viewed these activities as fraternal-social organizations primarily for the teachers' benefit. The other professionals appear to have little contact with the large third group.

The Home Education Livelihood Program's Adult Basic Education courses are changing this social structure. In its community life involvement phase, trainees are encouraged to discuss their problems and offer solutions. The result of these classes has been to provide training and experience in organized meetings. The third group is now

³⁶Horacio Ulibarri, Professor of Education, Albuquerque, New Mexico, personal conversation, August 1968.

increasingly participating in community affairs and has started to change the political structure of the area. A credit union and an agricultural cooperative have been organized.

The fourth group is considered by all groups to be hopeless. Several interviewees did indicate that expanded recreational facilities and employment opportunities would keep individuals who are near this level from continuing social decline. The conclusion of the preliminary model is that each group has key leaders and individuals who are dormant leaders. Overt leaders can be readily identified and categorized as being receptive or opposed to change. Political leaders appear to abhor any change. Economic development programming, however, will have to include recognition of potential dormant leaders, especially in the third and fourth groups.

The best method to provide stimulus, at least at the outset, appears to be to involve the merchants and other professionals. These are individuals who have been exposed to the outside world and who are aware of social benefits resulting from economic growth. Teachers appear to be increasingly aware of the possibility of displacing established leaders and providing change. At least one teacher has been able to become successfully involved in the political change process. As mentioned above, the large third group appears to be increasingly cognizant of potential change through organized activity.

Community facilities.--Telephone services in the Penasco Valley are provided by the Mountain States Telephone Company, with district offices in Santa Fe. The telephone company reports a total of 203 installations in the Valley, with 29 being identified as business and/or

governmental connections and 174 as individual listings. This implies about one telephone for every four families. This, however, is somewhat misleading inasmuch as most business telephones are actually available and often used by the entrepreneur's family. In addition, the author has been told that several families--primarily teachers--have unlisted numbers, indicating that the telephones per family may be closer to a 3:1 ratio.

Every community in the Valley has a Catholic Church, with at least two communities having an old and a new church. There are eight Protestant Churches. This number may appear unduly high in light of the traditional Catholic predominance of the area. In the Valley, however, there is also a tradition of Presbyterian mission activity. Thus, the Presbyterian denomination is the most prevalent of the Protestant religious affiliations.

A public library, started in 1962 by the Northern New Mexico State Library Service, has approximately 800 books and operates in a room provided by the Catholic School in Penasco. Mobile library services, provided by the State of New Mexico Library Service, is out of Espanola. Other libraries in the area are maintained by the school system and the Home Education Livelihood Program, with the HELP library being the only nonschool library open to the general public.

An elementary school is operated in Chamisal, with other communities having been consolidated with the Chamisal and/or Penasco elementary school system. A Junior High School and a High School are operated in the town of Penasco, with students in these grades being bussed into Penasco. Kindergarten services are provided in Chamisal, Vadito, and

Picuris Pueblo by the Office of Economic Opportunity Headstart Programs. Adult basic education has been provided by the Home Education Livelihood Program in Penasco since October 1966. In addition, the Catholic Church operates an elementary school in Penasco, taught by Dominican nuns living in a convent located in Penasco.

Financial institutions in the area include a credit union in Penasco. Espanola and Taos each have two banking facilities. Two savings and loan associations have offices in Espanola and one in Taos. Two finance companies maintain offices in both Taos and Espanola.

The lack of an adequate monetary sophistication on the part of Valley residents is indicated by the data shown in Table 42. Of the 85 households interviewed, only 27 percent reported having a checking account. While only 15 percent of the respondents reported owning a savings account, 40 percent indicated having borrowed from finance companies. The importance of grocery store credit is illustrated by one-fourth of the respondents who purchased groceries on credit.

Other professional services available include: three abstract companies in Taos and two in Espanola. Espanola and Taos both have one certified public accountant and one registered public accountant in residence. Espanola boasts four lawyers to Taos' eight. These lawyers normally have offices in both communities.

Electricity is provided by the Kit Carson Rural Electric Cooperative, with offices in Taos. As indicated in Appendix A, the Co-op membership is approximately 800. According to the New Mexico Department of Welfare, Kit Carson officials, and other public officials knowledgeable about the Penasco area, approximately 98 percent of all the

families in the area have homes wired for electricity. Since 1960, water associations have been completed in each of the communities in the Valley. Heating fuel must be obtained either from Taos or Espanola.

TABLE 42
FINANCIAL INDICATORS OF WELL-BEING
PENASCO VALLEY CENSUS SURVEY
MAY 26, 1968

Indicators	Percent of Household Heads
Have Checking Account	27.1
Have Savings Account	15.3
Majority of Purchases at Grocery Store on Credit	27.1
Ever Borrowed From Finance Company	40.0
Auto	21.2
Furniture	8.2
Durables	9.4
Television	1.2

The primary newspapers in the Penasco Valley are the Albuquerque Journal, the Santa Fe New Mexican, the Taos News, and the Espanola Rio Grande Sun. In addition, a weekly newspaper, the Penasquero, is published in Penasco. On occasions, copies of the Las Vegas Daily Optic are seen in the area. Radio reception is good from Las Vegas, Clayton, Raton, Taos, Los Alamos, Espanola, and Santa Fe, and a large number of radio stations broadcast in Spanish. Television reception in the Valley is poor, with Channel 4, Albuquerque, being the clearest and most dependable. A T.V. Booster Committee has recently been organized to finance better television relay.

Air transportation is available at the Santa Fe County Municipal Airport, with services from Continental Airlines, Frontier Airlines, and Trans-Texas Airways. In addition, Post Aviation and Sky Choppers Incorporated provide aircraft charter and rental services. In Taos, Shrike Enterprise, Inc. and Taos Air Taxi provide charter services from the Taos Municipal Airport. These services are also available from the Espanola Valley Flying Services, Inc. and Wayne's Aero Services in Espanola. Air cargo is available through the aforementioned airlines. Bus service is available from Santa Fe to Taos and/or Espanola by Continental Trailways Bus.

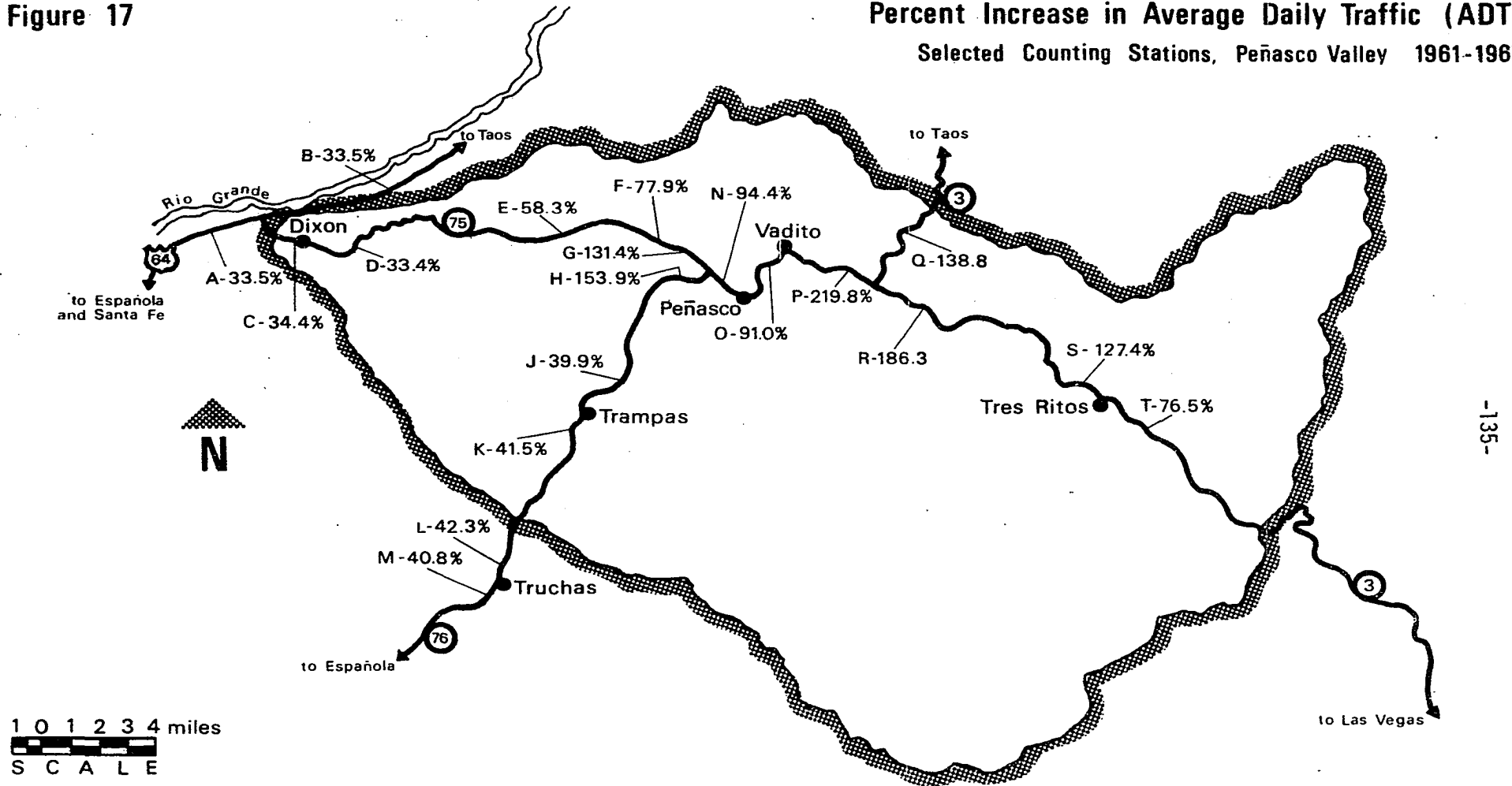
Regularly scheduled truck freight service is maintained by ICX-Illinois California Express and Red Ball Express, who have offices in Taos and Espanola.

Highway access.--As shown in Figure 17, the Penasco Valley is served by New Mexico State Highways: No. 3, intersecting with U.S. 64 near Taos and with U.S. 85 near Las Vegas; No. 75, intersecting with U.S. 64 near Dixon; and No. 76, intersecting with U.S. 64-84-285 near Espanola. The percentage increase in average daily traffic (ADT) at selected counting stations between 1961 and 1967 is also indicated in Figure 17. Yearly changes in ADT are shown in Tables 43 and 44.

Average daily traffic increased substantially during 1961-1967. The largest increases are reflected for 1962-1963, when most of the all-weather roads in the Valley were completed. In Table 45, the percentage changes in average daily vehicle miles of travel for the State of New Mexico and the northern New Mexico counties are listed. Taos County experienced the greatest rate of increase in average daily

Figure 17

Percent Increase in Average Daily Traffic (ADT)
Selected Counting Stations, Peñasco Valley 1961-1967



Source: Mr. E.J. Cantou, New Mexico State Highway Department, Santa Fe, New Mexico, 28 May 1968

vehicle miles of travel, at approximately three times the rate shown for the state and eight of the nine other northern New Mexico counties. Rio Arriba, adjacent to Taos County, is the only other area experiencing a comparable rate of increase in traffic. Total average daily vehicle mileage is useful in attempting to determine the feasibility of several projects, primarily those related to tourism.

TABLE 43
AVERAGE DAILY TRAFFIC (ADT), SELECTED
COUNTING STATIONS, PENASCO VALLEY,
1960-1967

Counting Station ^a	1960	1961	1962	1963	1964	1965	1966	1967 ^b
A	1930	1972	2130	2262	2382	2604	2599	2633
B	1600	1637	1768	1878	1978	2162	2158	2186
C	779	681	741	787	828	905	903	915
D	635	626	676	718	756	779	778	835
E	129	204	220	311	327	357	356	323
F	184	208	225	319	335	366	365	370
G	N/A	318	339	633	666	728	727	736
H	244	254	271	490	550	552	606	645
J	141	148	154	161	169	181	195	207
K	167	176	184	193	203	217	234	249
L	167	175	183	191	203	217	234	249
M	325	341	357	372	391	418	451	480
N	N/A	611	640	1012	1075	1175	1173	1188
O	640	409	435	665	707	773	771	781
P	N/A	222	236	610	642	702	701	710
Q	227	237	253	453	484	522	588	566
R	218	227	241	525	556	600	641	650
S	N/A	223	199	410	433	468	500	507
T	N/A	204	182	290	307	332	355	360

^aSee Figure 18.

^bPreliminary, subject to change.

Source: Mr. E. J. Cantou, New Mexico State Highway Department, Santa Fe, New Mexico, May 28, 1968.

TABLE 44

PERCENTAGE CHANGES, AVERAGE DAILY TRAFFIC (ADT),
SELECTED COUNTING STATIONS,
PENASCO VALLEY,
1961-1967

Counting Station	1961- 1962	1962- 1963	1963- 1964	1964- 1965	1965- 1966	1966- 1967	Annual Average 1961-1967
A	8.0	6.2	5.3	9.3	-0.2	1.3	4.92
B	8.0	6.2	5.3	9.3	-0.2	1.3	4.92
C	8.8	6.2	5.2	9.3	-0.2	1.3	5.05
D	8.0	6.2	5.3	3.0	-0.2	7.3	4.91
E	7.8	41.4	5.1	9.2	-0.2	-9.3	7.92
F	8.2	41.7	5.0	9.3	-0.2	1.4	10.08
G	6.6	86.7	5.2	9.3	-0.2	1.2	15.01
H	6.7	80.8	12.2	0.4	9.8	6.4	16.80
J	4.1	4.5	5.0	7.1	7.7	6.2	5.76
K	4.5	4.9	5.2	6.9	7.8	6.4	5.95
L	4.6	4.4	6.3	6.9	7.8	6.4	6.07
M	4.7	4.2	5.1	6.9	7.8	6.4	5.80
N	4.7	58.1	6.2	9.3	-0.2	1.3	11.72
O	6.3	52.9	6.3	9.3	-0.2	1.3	11.38
P	6.3	158.5	5.2	9.3	-0.2	1.3	21.35
Q	6.8	79.1	6.8	7.9	12.6	-3.7	15.60
R	6.2	117.8	5.9	7.9	6.8	1.4	19.16
S	-10.8	106.0	5.6	8.1	6.8	1.4	14.67
T	-10.8	59.3	5.9	8.1	6.9	1.4	9.93

Source: Mr. E. J. Cantou, New Mexico State Highway Department,
Santa Fe, New Mexico, May 28, 1968.

Economic activity.--A cursory view of the Valley indicates that physical location of business enterprises, interspersed among residential buildings on the highway frontage, does not adhere to any type of locational (zoning) planning. This, of course, is characteristic of rural areas where the lack of all-weather roads and population concentration dictate locating near major routes.

TABLE 45

PERCENTAGE CHANGE, AVERAGE DAILY VEHICLE-
MILES OF TRAVEL, NEW MEXICO AND
SELECTED COUNTIES, 1960-1966

Area	1960- 1961	1961- 1962	1962- 1963	1963- 1964	1964- 1965	1965- 1966	Annual Average 1960-1966
Mora	-1.4	-0.2	-1.0	3.0	2.5	4.9	1.29
Rio Arriba	0.9	3.6	5.4	3.4	12.7	7.3	5.51
Colfax	-3.3	-0.1	-2.3	4.0	-2.7	1.8	-0.4
Guadalupe	2.2	7.0	5.9	-0.3	2.2	0.5	2.86
Lincoln	-1.9	8.1	0.8	-2.9	22.8	-0.2	4.09
San Miguel	0.2	2.7	1.9	1.5	2.5	4.8	2.25
Sandoval	0.6	3.0	5.6	2.3	6.0	4.3	3.60
Socorro	5.4	-0.2	2.7	5.4	1.1	2.5	2.78
Taos	2.4	7.4	4.7	17.5	10.9	2.1	7.38
Torrance	0.8	4.0	2.8	3.4	4.6	1.4	2.98
New Mexico	2.0	2.5	2.2	3.7	3.5	2.8	2.86

Source: Mr. E. J. Cantou, New Mexico State Highway Department, Santa Fe, New Mexico, May 28, 1968.

Business enterprises in the Penasco Valley on June 1, 1968, are listed in Table 46. These establishments are largely service oriented, providing primarily for basic necessities. With the exception of Picuris Pueblo where there are no retail establishments, every community has at least one grocery store with Penasco having five. The same situation occurs with service stations, with Penasco's share being four. Bars are found in seven of the twelve communities. This entrepreneurial structure is characteristic of rural areas. One community, in this case the town of Penasco, encompasses the greater percentage of a natural community's (i.e., geographical valley's) population and serves as the area's trade center.

TABLE 46

BUSINESS ENTERPRISES IN THE
PENASCO VALLEY,
JUNE 1, 1968

Enterprises	Number	Enterprises	Number
Barber Shops	3	Lodges	5
Bars	11	Motels	2
Beauty Shops	2	Service Stations	16
Cafe	1	Ski Run*	1
Curio Shop*	1	Sporting Goods Shop*	1
Dance Halls	3	Theater	1
Garages	4	Tourist Cabins*	210
Grocery Stores	19	Trailer Park	1

*Located in Tres Ritos; 10 of 210 tourist cabins are located in the adjacent town of Llano Largo.

In most instances, the grocery stores have gasoline pumps. In reality, therefore, the number of service stations would be less than listed in Table 46. This is also true for garage-service station combinations. Dance halls are usually adjacent, or a part of, a bar. The cafe and theater are under one roof and ownership. One of the grocery stores, the curio shop, and the sporting goods shop are also located within one of the lodges in Tres Ritos. With the exception of ten tourist cabins in Llano Largo, all other cabins are located in the vicinity of Tres Ritos. Tres Ritos is the tourist area of the Valley and is located within the Carson National Forest.

In addition to these business enterprises, the Penasco Independent School District, the New Mexico Highway Department, the U.S. Forest

Service, the U.S. Postal Service, and the Home Education Livelihood Program provide employment opportunities in the Valley. It should also be noted that six of the twelve communities have post offices. Employment opportunities and patterns will be discussed in Chapter V.

Summary

A drive through the Penasco Valley will show a placid, slow-paced, and stagnating economy. This is indicative of the economic deterioration that has been occurring. Isolation in the Penasco Valley continues to be a problem. Entry into the Valley, however, has become easier since the construction of all-weather roads in the early 1960's.

There is very little home construction and repair. Newer homes are owned primarily by teachers, merchants, and government employees, although a few commuters (i.e., to work in Santa Fe or Los Alamos) do own newer homes. Large numbers of seemingly abandoned homes blight the area.

Although most homes are wired for electricity, modern conveniences are conspicuously absent. The community water systems are of relatively recent origin--since 1960--and individual wells and out-houses can still be seen. Sewer systems have not been constructed and only a few individuals possess septic tanks. Home heating is from butane, with many households still using firewood. Television sets are abundant, but the mountainous terrain impedes clear reception. Newspapers and magazines are usually not read. Recreation within the Valley is limited to a seasonal theater and occasional Saturday dances. There is only one eating establishment in the area, which closes around 5:00 P.M. Land

holdings are small; fences are in disrepair and there is woefully little cultivated land and livestock.

Most communities include an abandoned school--or several--as a result of school consolidation.³⁷ Individuals no longer in school generally have not attended school on a sustained basis and are literate only in Spanish. Almost everybody speaks Spanish, which severely handicaps children entering school for the first time. Radio and television programs in Spanish are beamed into the northern New Mexico area. In casual conversations, Spanish and English are indiscriminately interspersed. Scholars point out that the effects of isolation have been to retain an archaic form of the Spanish (of the type characteristic of the Sixteenth through the Eighteenth Centuries). Several studies have shown that there is a high school drop-out rate and that, for all practical purposes, most individuals in rural northern New Mexico are functionally illiterate in both Spanish and English.

The Penasco Valley is a rural, nonfarm area. Farming is of a subsistence type or subsidiary to other types of employment. Mercantile

³⁷The Interagency for Area Development Planning and the New Mexico State Planning Office, Embudo: A Pilot Planning Project for the Embudo Watershed of New Mexico (Santa Fe: New Mexico State Planning Office, 1962), p. 42. The Parochial-Public School system existed in New Mexico until 1951. Dixon, south of the town of Penasco, near the intersection of New Mexico 75 and U.S. 64, figured prominently in the legal battle in the "...teaching of sectarian religion, the use of Roman Catholic Sisters and Brothers as teachers, and the use of church-owned buildings in the tax-supported public school system." In *Zeller vs. Huff*, New Mexico Report 55-501, it was declared that church and state had to be completely separated. In most small towns in northern New Mexico, the public school system was required to build new schools and hire lay teachers. The Catholic Church was no longer able to support its parochial school system, and thus the large-scale parochial school abandonment. The Home Education Livelihood Program is now using many of these school buildings in its Adult Education Program at a token rate of \$1.00 a year.

enterprises are much too small to provide employment to other than family members, although a few people are employed by business enterprises. Most of the employment in the area is provided by governmental or quasi-governmental agencies--the schools, the U.S. Forest Service, the U.S. Postal Service, the New Mexico Highway Department, the Office of Economic Opportunity, and the Home Education Livelihood Program.

Many individuals commute--again, primarily for governmental jobs--or migrate for seasonal employment in construction and agriculture. Others have been able to find employment in Los Alamos--moving there or leaving their families in the area and returning on week-ends--while several are sheepherders in Wyoming. Many more subsist on public assistance. Large numbers have permanently migrated to California, Utah, and Colorado. Most of these individuals retain their homes--the seemingly abandoned homes--and return during vacations to visit and make repairs.

Retention of homes by migrants could be due to several factors: a desire to return when and if employment opportunities appear; retention for security in case of loss of current jobs; or lack of market demand. The labor force participation rate is exceedingly low, indicating the paucity of jobs for both males and females: many males have simply given up looking for employment in a situation where the opportunity is almost nil. The New Mexico Employment Security Commission is viewed as a source only for compensation payments. Lack of jobs is making welfare receipts fashionable and desirable and not degrading.

In an especially perceptive article, Margaret Meaders defines the problems of Mora County--an area similar to and adjacent to the Penasco Valley--as:

Welfare is a way of life; low incomes; few jobs; the "land problem:" (1) once-sizeable holdings fragmented in some areas through fractionated heirship traditional with Spanish-Americans, (2) in other areas fair-sized family farms sold to out-of-state ranchers and combined into commercial holdings, which have squeezed out small operators, and (3) a major element basic to the entire slow-paced economy--the lack of clear titles to many holdings of whatever size; substandard schools and poor roads; inadequate irrigation systems; and political interference in practically every phase of public programs and activities. Ranked according to importance, the problems are listed in various orders by various critics in and out of Mora, but, essentially, these seem to be the major handicaps just as they are the major characteristics of the County's economy. They are shared by most northern New Mexico counties, and, in some cases, by counties in other parts of the State.

.....
...Estimated average rate of unemployment in 1966, 15.8 percent; persons working in 1959 as a percentage of persons 14 and over, only 33 percent; Mora's covered and federal employment as a percentage of the State's total in 1966, 0.1 percent; percent of families living on less than \$2,000 a year in 1959 (the most recent year reported by the Bureau of the Census), 48 percent of families living on incomes under the "poverty line" of \$3,000 in 1959, 68.8; Welfare recipients as a percent of the County's population, 13.5 in January 1967; percent of adults (25 and older) with less than eighth-grade education, 57.2 in 1960; estimated per-capita income (1964), \$732 (New Mexico's \$2,006--both estimated by the Bureau of Business Research); and median family income (1959), \$2,094 (New Mexico's \$5,371).³⁸

³⁸Margaret Meaders, "The Economy of Mora County," New Mexico Business (Albuquerque: University of New Mexico, Bureau of Business Research, November 1967), p. 1.

CHAPTER V

THE STRUCTURE OF THE RURAL NORTHERN NEW MEXICO ECONOMY

Introduction

The structure of an economy is defined as the component employment and income sectors. According to the University of New Mexico, Bureau of Business Research, economic growth--as used to classify the state's counties--entails "...at least three consecutive annual increases in population, employment, personal income, and per capita income...."¹ In describing New Mexico's economic growth, however, the Bureau placed primary emphasis on per capita personal income:

...The State has not shared fully in the national prosperity, as is evidenced in the decline of New Mexico's per capita income relative to the Nation. In 1950 per capita income in New Mexico was 78.0 percent of the national average, having risen considerably from the 63.0 percent just prior to World War II. In 1959 per capita income had risen to nearly 85.0 percent, compared to the Nation's, but by 1966 it had declined to 80.4 percent of the national average. Preliminary estimates indicate that the figure declined to 75.1 percent in 1967.²

¹Ralph L. Edgel and Peter J. LaLonde, "Income and Employment in New Mexico, 1960-64," New Mexico Studies in Business and Economics, No. 15 (Albuquerque: University of New Mexico, Bureau of Business Research, 1964), p. 9.

²"The State's Economy in 1967," New Mexico Business (Albuquerque: University of New Mexico, Bureau of Business Research, March 1968), pp. 2-3.

As noted in Table 24 the median family incomes in northern New Mexico ranged from 26.4 to 77.0 percent of the national average in 1960. New Mexico's median family income in that year was only 95.6 percent of the national level of \$5,620. While one in five families nationally and one in four in New Mexico were reported as having an income of less than \$3,000, the poverty-stricken situation in northern New Mexico ranged from a low of one of four families in one county to a high of four of five families in the Penasco Valley. Table 47 depicts a similar situation with regard to per capita income.

Per capita income in northern New Mexico increased by a greater percent during 1960-1966 than either the state or national level. Northern New Mexico's per capita income also increased relative to the national level. This increase, however, is deceptive. Starting with a smaller base in 1960, the northern New Mexico counties actually fell behind in absolute terms. Rio Arriba County was the only New Mexico area to actually catch up, reducing its county-national differential from \$1,026 in 1960 to \$995 in 1966. The 1960 to 1966 change in per capita income for the areas listed in Table 47 is: (1) Colfax, \$649; (2) Guadalupe, \$381; (3) Lincoln, \$707; (4) Mora, \$328; (5) Rio Arriba, \$756; (6) Sandoval, \$346; (7) San Miguel, \$621; (8) Socorro, \$515; (9) Taos, \$444; (10) Torrance, \$726; (11) New Mexico, \$502; and (12) United States, \$725.

Sources of Income

One of the major reasons for New Mexico's lower than national average family and per capita income is that its work force is employed in occupations paying lower wages and salaries. This is particularly

TABLE 47

PER CAPITA INCOME, SELECTED AREAS,
UNITED STATES, 1960 AND 1966

AREA	1960		1966		Percent Change 1960-1966
	Income	% U.S.	Income	% U.S.	
Colfax	\$1,498	67.6	\$2,147	72.9	43.3
Guadalupe	995	43.9	1,376	46.8	38.3
Lincoln	1,362	61.5	2,069	70.4	51.9
Mora	746	33.7	1,074	36.5	44.0
Rio Arriba	1,189	53.7	1,945	63.6	63.6
Sandoval	684	30.9	1,030	35.0	50.6
San Miguel	932	42.1	1,553	52.8	66.6
Socorro	1,013	45.7	1,528	52.0	50.8
Taos	842	38.0	1,286	43.7	52.7
Torrance	1,203	54.3	1,929	65.6	60.3
New Mexico	1,821	82.2	2,323	79.0	27.6
United States	\$2,215	100.0	\$2,940	100.0	32.7

Source: Ralph L. Edgel and Peter J. LaLonde, "Income and Employment in New Mexico, 1960-64," New Mexico Studies in Business and Economics, No. 15 (Albuquerque: University of New Mexico, Bureau of Business Research, 1964); and Linda L. DeBerry and Ralph L. Edgel, "Income and Employment in New Mexico, 1965-66," New Mexico Studies in Business and Economics, No. 16 (Albuquerque: University of New Mexico, Bureau of Business Research, 1968).

true for northern New Mexico. Sources of personal income in New Mexico for 1960 and 1966 are listed in Table 48. Agriculture's share of total personal income dropped from 1.2 percent in 1960 to 0.8 percent in 1966. This is a trend that has been evident since at least 1940.³ The same trend

³Eldon G. Marr, "Agriculture in New Mexico," New Mexico Business (Albuquerque: University of New Mexico, Bureau of Business Research, October 1967).

has occurred in mining.⁴ While construction, manufacturing and transportation and utilities also showed declines, trade and finance, insurance and real estate retained their proportionate share during the period. Thus, services and miscellaneous and government accounted for increased shares in total personal income.

Of the other sources of income listed in Table 48, proprietors' income was the only major category to have registered a decline as a percent of total personal income. This was particularly true with regard to the contribution attributed to business and professionals. In the transfer-payments sector, unemployment compensation showed a thirty percent decline while social security benefits and other government transfers more than doubled. This table also shows that total personal income increased by one-third and that agriculture, mining, and unemployment compensation were the only sources showing absolute declines in dollar contributions to total personal income.

Comparisons of percentage contributions of the various sources of personal income between Taos County, the ten northern New Mexico counties, the state, and the United States are made in Table 49. The contribution of wages and salaries in northern New Mexico--including Taos County--is about 13 percentage points lower than that of the state's or nation's. In the ten county area, agricultural, mining (Taos County), and construction incomes account for a larger share than for the state or nation. The much smaller contribution attributed to manufacturing

⁴Eldon G. Marr, "Mining in New Mexico," New Mexico Business (Albuquerque; University of New Mexico, Bureau of Business Research, December 1967).

TABLE 48

PERSONAL INCOME, BY SOURCE,
NEW MEXICO, 1960 AND 1966
(in millions)

Industry	1960		1966		% Change 1960-1966
	Dollars	Percent	Dollars	Percent	
Personal Income	\$1801.0	100.0	\$2400.0	100.0	+33.3
Wages & Salaries	1232.0	68.4	1620.0	67.5	+31.5
Agriculture	21.1	1.2	20.5	0.8	- 2.8
Mining	127.1	7.1	115.2	4.8	- 9.4
Construction	96.2	5.3	109.6	4.6	+13.9
Manufacturing	87.1	4.8	107.6	4.5	+23.5
Trans. & Util.	111.1	6.2	129.1	5.4	+16.2
Trade	172.6	9.6	230.5	9.6	+33.5
FIRE ¹	43.0	2.4	58.0	2.4	+34.9
Svs. & Misc.	185.3	10.3	282.7	11.8	+52.6
Government	388.9	21.6	567.3	23.6	+45.9
Federal	261.0	14.5	350.2	14.6	+34.2
State	29.3	1.6	48.0	2.0	+63.9
County & City	26.4	1.5	40.9	1.7	+54.8
Schools & Colleges	72.2	4.0	128.2	5.3	+77.5
Other Labor Income ²	44.7	2.5	63.6	2.7	+42.3
Proprietors' Income	246.9	13.7	293.9	12.2	+19.0
Bus. & Prof.	162.6	9.0	168.5	7.0	+ 3.6
Farm	84.3	4.7	125.4	5.2	+48.7
Property Income	205.4	11.4	305.0	12.7	+48.5
Transfer Payments	111.1	6.2	185.0	7.7	+66.5
Unemploy. Comp.	9.8	0.5	6.9	0.3	-29.6
Soc. Sec. Benefits	30.2	1.7	65.6	2.7	+117.2
State Welfare Pymts.	23.1	1.3	30.1	1.3	+30.3
Veteran's Benefits	23.6	1.4	32.3	1.3	+36.9
Other Gov't Trans. ³	15.3	0.8	39.2	1.6	+156.2
Business Trans. ⁴	9.0	0.5	10.9	0.5	+21.1
Less: Soc. Sec. Contr.	-39.1	-2.2	-67.6	-2.8	+72.9

¹Finance, Insurance, and Real Estate.

²Employers' contributions to private pension and welfare plans, workmen's compensation, military-reserve pay, and other miscellaneous income.

³Railroad benefits, federal civilian pensions, life-insurance benefits to survivors of veterans, and miscellaneous state and local transfers.

⁴Corporation gifts to nonprofit institutions, consumer bad debts, and other business transfers.

TABLE 49

PERCENTAGE DISTRIBUTION OF PERSONAL INCOME,
BY SOURCE, SELECTED AREAS, UNITED STATES
1966

INDUSTRY	Taos County	Ten Counties	New Mexico	United States
Total Personal Income	100.0	100.0	100.0	100.0
Wages and Salaries	54.3	55.2	67.5	67.4
Agriculture	0.3	1.3	0.8	0.5
Mining	13.3	2.1	4.8	0.8
Construction	3.4	6.1	4.6	4.0
Manufacturing	1.8	5.2	4.5	22.1
Trans. and Utilities	2.1	4.3	5.4	5.1
Trade	8.3	6.6	9.6	11.1
Finance, Insurance and Real Estate	1.4	2.5	2.4	3.1
Services and Misc.	7.2	5.2	11.8	7.9
Government	16.5	21.9	23.6	12.8
Federal	3.9	7.1	14.6	5.4
State	3.3	5.0	9.0	7.4
County and City	1.0	1.6	--	--
Schools and Colleges	8.3	8.2	--	--
Other Labor Income	2.5	1.8	2.7	3.6
Proprietors' Income	9.1	15.6	12.2	10.2
Business and Prop.	6.8	6.2	7.0	7.4
Farm	2.3	9.4	5.2	2.8
Property Income	16.1	14.3	12.7	14.3
Transfer Payments	20.4	15.6	7.7	7.6
Less: Soc. Sec. Contr.	-2.4	-2.5	-2.8	-3.1

Source: Linda L. DeBerry and Ralph L. Edgel, "Income and Employment in New Mexico, 1965-1966," New Mexico Studies in Business and Economics, No. 16 (Albuquerque: University of New Mexico, Bureau of Business Research, 1968), Table 25, p. 15 and pp. 17-30.

is highlighted. With the exception of government, proprietors' income, property income, and transfer payments, the other sources listed contributed less to the total personal income of the northern New Mexico area than to that of the state and/or nation. The importance of government to the northern New Mexico economy becomes clear when it is realized

that almost one of every five dollars are from government sources compared to about one in eight for the nation. Transfer payments contribute 16 to 20 percent of the northern New Mexico personal income in comparison to approximately 8 percent for New Mexico and the United States.

Employment

Labor Force

Although the proportion of the total population aged 14 and older did not vary greatly among the areas listed in Table 50, the labor force participation rate did vary significantly from area to area. Thus, the male civilian labor force included the following percent of males aged 14 and older: (1) Penasco Valley, 33.1; (2) Taos County, 50.9; (3) ten counties, 58.6; and (4) New Mexico, 70.4. The percentage of females 14 and older reported as being in the labor force was: (1) Penasco Valley, 10.1; (2) Taos County, 18.4; (3) ten counties, 21.5; and (4) New Mexico, 30.3.

Of the males aged 14 and older in New Mexico who were not in the labor force, 43.7 percent were students, compared to 30.6 percent in the Valley, 34.9 percent in Taos County, and 36.7 percent in the ten county area. Female students aged 14 and older, reflected the opposite geographical ranking: (1) Penasco Valley, 23.5; (2) Taos County, 21.5; (3) ten counties, 17.9; and (4) New Mexico, 14.9. The 65 and older age group represented approximately the same proportion of the total population in all areas. Consequently, the proportion of the population aged 14 and older who were not students or elderly--i.e., the potential labor force--was greater in northern New Mexico when compared to the state.

TABLE 50
EMPLOYMENT DATA, SELECTED AREAS,
NEW MEXICO, 1960

Employment Data	<u>Penasco Valley¹</u>		<u>Taos County</u>		<u>Ten Counties</u>		<u>New Mexico</u>	
	Males	Females	Males	Females	Males	Females	Males	Females
Total Population	1536	1588	7707	8227	64409	63240	479770	471253
Aged 14 and Older	1008	1089	4672	5189	40493	39997	305080	301779
Percent of Total	65.6	68.6	60.6	63.1	62.8	63.2	63.6	64.0
Civilian Labor Force ²	334	110	2378	937	23725	8596	214771	91329
Percent of 14 +	33.1	10.1	50.9	18.4	58.6	21.5	70.4	30.3
Percent Unemployed	15.9	3.6	17.3	7.8	11.5	7.9	6.0	5.8
Not in Civilian Labor Force	674	979	2290	4151	16582	31401	68581	210270
Percent of 14 +	66.9	89.9	49.0	81.6	41.0	78.5	22.5	69.9
Percent in School	30.6	23.5	34.9	21.5	36.7	17.9	43.7	14.9
Percent Aged 65 and Older	20.3	13.8	22.3	15.3	23.4	12.8	24.0	10.6
Percent Under Age 65	49.1	62.7	42.8	63.2	39.9	69.3	32.3	74.5
Potential Labor Force ³	665	725	3358	3562	30527	30350	236913	248225
Labor Force as Percent of Potential	50.2	15.2	70.8	26.3	77.7	28.3	90.7	36.8

¹The Penasco & Picuris County Census Divisions.

²Civilian Labor Force + Individuals not in the Civilian Labor Force + Military = Population Aged 14 and Older.

³Individuals aged 14 and older who are not enrolled in school or over age 65.

Source: U.S. Bureau of the Census, Special Table PH-4, and 1960 Census of Population: New Mexico (Washington, D.C.: U.S. Government Printing Office, 1961), Tables 52 and 83, pp. 76 and 119-121.

The male labor force as a percent of potential was: (1) Penasco Valley, 50.2; (2) Taos County, 70.8; (3) ten counties, 77.7; and (4) New Mexico, 90.7. The female labor force as a percent of potential was even smaller at: (1) Penasco Valley, 15.2; (2) Taos County, 26.3; (3) ten counties, 28.3; and (4) New Mexico, 90.7.

The implication is that a greater percentage of northern New Mexico's population is idle. As a result, the number of individuals who theoretically must be supported by each worker is greater in northern New Mexico (Table 51).

TABLE 51
RATIO OF NONWORKERS TO WORKERS,
SELECTED AREAS, NEW MEXICO,
1960^a

Area	Ratio	Area	Ratio
Penasco Valley ^b	6.04	Sandoval	4.02
Colfax	1.98	San Miguel	2.76
Guadalupe	2.74	Socorro	2.37
Lincoln	1.67	Taos	3.80
Mora	5.05	Torrance	2.38
Rio Arriba	3.70	New Mexico	1.90

^aRatio of persons not in the labor force (including individuals under age 14) to persons in the labor force.

^bDerived: Population = 3,124; labor force = 444; nonlabor force = 2,680; nonlabor force divided by labor force = 6.04.

Source: U.S. Bureau of the Census, Special Table PH-1 and 1960 Census of Population: New Mexico (Washington, D.C.: U.S. Government Printing Office, 1961), Table 36, p. 65.

Sources of Employment

Percentage distribution of employment in Taos County, the ten northern New Mexico counties, New Mexico, and the United States is portrayed in Table 52. Six of the ten northern New Mexico counties realized positive gains in employment greater than the state's and/or nation's rate of increase. While Guadalupe and Colfax Counties showed a slower rate of increase, Mora and Torrance Counties experienced absolute declines in total employment.

Agricultural employment was reported as declining at approximately the same rate in the state and in northern New Mexico, but about 12 percentage points greater than the decline experienced nationally (Table 53). While the state's rate of increase of nonagricultural employment was less than nationally, seven of the ten northern New Mexico counties showed a greater rate of growth. Mora and Torrance Counties and the United States reported declines in self-employment. Guadalupe, Lincoln, Sandoval, and Taos Counties reported increases in self-employment that exceeded the rate reported in the state.

The rate of increase in wage and salary employment was higher than the state's average in eight of the ten counties. In the case of mining, only Colfax, Sandoval, and Taos Counties registered positive gains. Although construction activities declined in the state and Colfax County, all other areas reported increased employment. Manufacturing registered declines in eight of the ten counties. While transportation and utilities employment declined in the state and in seven of the ten counties, employment in the trade sector was positive and greater than the state's rate of growth in eight of the ten counties. Mora and Torrance Counties

TABLE 52

PERCENTAGE DISTRIBUTION OF EMPLOYMENT, BY
INDUSTRY, SELECTED AREAS, UNITED STATES,
1966

Source	Taos County	Ten Counties	New Mexico	United States
Agriculture	10.7	11.6	5.7	5.3
Non-Agriculture	89.3	88.4	94.3	94.7
Self-Employed	13.7	10.3	8.1	8.1
Wage & Salary	75.6	78.1	86.2	86.6
Mining	10.2	1.8 ^c	4.6	0.9
Construction	4.3	7.4 ^d	5.2	4.4
Manufacturing	3.2	4.9 ^e	5.2	25.3
Trans. & Util.	2.4	4.5 ^f	5.7	5.5
Trade	16.1	14.8	16.2	17.4
FIRE ^a	1.6	2.0 ^g	3.3	4.0
Servs. & Misc.	18.2	13.5	17.7	12.6
Government ^b	19.6	29.2	28.3	16.5
Federal	3.8	5.6	14.4	5.5
State & Local	15.8	23.6	13.9	11.0
Total	100.0	100.0	100.0	100.0

^aFinance, Insurance, and Real Estate.

^bIncludes military personnel stationed in New Mexico.

^cMora County was listed as not having any employment in mining, while Guadalupe, Lincoln, San Miguel, and Torrance Counties' employment was included in Services and Miscellaneous.

^dMora County included in Services and Miscellaneous.

^eTorrance County did not report and Guadalupe and Mora Counties' included in Services and Miscellaneous.

^fGuadalupe County included in Services and Miscellaneous.

^gTorrance County included in Services and Miscellaneous.

Source: Linda L. DeBerry and Ralph L. Edgel, "Income and Employment in New Mexico, 1965-1966," New Mexico Studies in Business and Economics, No. 16 (Albuquerque: University of New Mexico, Bureau of Business Research, 1968), Table 25, pp. 15 and 17-30.

TABLE 53

PERCENTAGE CHANGES OF EMPLOYMENT, BY INDUSTRY,
SELECTED AREAS, UNITED STATES, 1960-1966

Area	Total Empl.	Agri- culture	Non- Agri.	Self Empl.	Wage Sal.	Mining	Const.	Mfg.
Colfax	1.6	-39.4	8.7	1.9	9.8	8.3	-15.8	4.5
Guadalupe	0.7	-39.4	11.7	11.8	11.7	(a)	133.3	(a)
Lincoln	8.6	-39.4	25.4	5.1	30.7	(a)	44.4	-40.0
Mora	-20.7	-39.4	6.7	-14.3	10.5	--	(a)	(a)
Rio Arriba	16.7	-39.4	25.8	3.8	27.3	-66.7	62.2	-22.2
Sandoval	28.3	-39.4	40.3	13.9	43.9	50.0	144.4	100.0
San Miguel	19.7	-39.4	33.7	3.7	38.1	(a)	450.0	-10.3
Socorro	19.5	-39.4	40.5	--	51.4	-78.6	466.7	325.0
Taos	11.0	-39.4	23.3	13.3	25.3	245.5	45.5	-40.0
Torrance	-0.6	-39.4	22.1	-4.8	28.3	(a)	122.2	(a)
New Mexico	6.3	-39.7	11.4	4.4	12.1	-20.5	-1.6	10.8
United States	10.7	-27.1	14.0	-11.2	18.0	-12.2	14.1	14.2

Area	Trans. & Util.	Trade	FIRE ^b	Serv. & Misc.	Govern- ment	Fed- eral	State & Local
Colfax	-20.0	16.4	20.0	-5.0	52.5	100.0	50.0
Guadalupe	(a)	16.7	66.7	40.0	-25.7	100.0	-33.3
Lincoln	--	17.9	133.3	42.1	34.5	28.6	35.4
Mora	(a)	-20.0	(a)	-44.4	86.7	--	100.0
Rio Arriba	8.7	32.1	200.0	7.2	40.3	45.2	36.1
Sandoval	21.4	29.2	50.0	-7.5	58.5	-29.6	150.0
San Miguel	-9.1	17.7	75.0	-27.0	67.8	150.0	64.2
Socorro	-10.0	21.2	33.3	25.0	79.7	33.3	88.0
Taos	-35.7	33.3	50.0	13.3	21.7	--	28.3
Torrance	7.1	-3.4	(a)	42.9	36.4	100.0	22.2
New Mexico	-1.5	15.2	18.8	27.7	15.0	-2.3	40.8
United States	3.7	16.0	16.2	28.6	26.3	10.6	36.6

^aIncluded in Services and Miscellaneous.

^bFinance, Insurance and Real Estate.

Source: Linda L. DeBerry and Ralph L. Edgel, "Income and Employment in New Mexico, 1965-1966," New Mexico Studies in Business and Economics, No. 16 (Albuquerque: University of New Mexico, Bureau of Business Research, 1968), Table 25, pp. 15 and 17-30.

however, reported a decline in trade employment. Finance, Insurance, and Real Estate employment increased in eight counties. Services and miscellaneous employment was reported as increasing in six counties and declining in Mora County (44 percent), Colfax (5 percent), Sandoval (8 percent), and San Miguel (27 percent). Government employment decreased only in Guadalupe County.

The average annual rate of unemployment in the ten northern New Mexico counties is compared with the rate reported for the state in Table 54. The northern New Mexico unemployment rate has consistently exceeded the state's rate, with Rio Arriba and Taos Counties reporting unemployment

TABLE 54
AVERAGE ANNUAL UNEMPLOYMENT RATES,
SELECTED AREAS, NEW MEXICO, 1961-1967

AREA	1961	1962	1963	1964	1965	1966	1967
Colfax	15.0	10.6	12.7	11.1	7.7	7.3	6.8
Guadalupe	13.6	13.3	9.6	9.0	9.2	7.5	7.3
Lincoln	11.2	9.6	7.0	9.1	6.8	7.6	6.1
Mora	30.9	25.7	18.2	25.5	15.7	17.7	11.9
Rio Arriba	23.1	23.1	30.2	29.1	19.5	17.9	20.4
Sandoval	16.9	17.3	14.7	19.8	11.4	11.6	9.9
San Miguel	19.7	19.8	15.4	18.6	11.6	9.8	12.0
Socorro	10.6	12.5	7.7	11.3	9.3	6.0	6.5
Taos	30.0	27.0	24.6	27.4	13.6	13.2	10.9
Torrance	14.8	10.4	12.0	14.6	9.2	6.1	8.5
New Mexico	7.0	6.1	6.2	6.5	6.3	5.5	5.1
United States	6.7	5.5	5.7	5.2	4.5	3.8	3.8

Source: New Mexico Employment Security Commission, Albuquerque, New Mexico, August 15, 1968.

rates that were almost four times the state's rates in both 1965 and 1967. Colfax and Lincoln Counties appear to more closely approximate the state's employment level.

Northern New Mexico's excessive dependence on agriculture and related employment results in an excessively high unemployment rate during the winter months. Table 55 shows the 1965 and 1967 monthly average unemployment rate for Taos County and the ten county area.

TABLE 55
MONTHLY AVERAGE UNEMPLOYMENT RATES, SELECTED
AREAS, NEW MEXICO, 1965 AND 1967

Month	1965		1967	
	Taos County	Ten Counties	Taos County	Ten Counties
January	19.9	5.8	16.4	6.6
February	23.0	5.2	18.6	6.0
March	24.3	5.4	16.1	6.8
April	18.4	7.2	13.5	8.3
May	13.1	8.5	9.5	9.9
June	12.4	8.7	9.3	9.7
July	9.8	11.7	7.3	11.8
August	8.9	13.0	6.9	11.7
September	7.5	14.7	6.2	12.6
October	6.9	14.5	6.6	12.2
November	9.2	9.6	10.8	9.7
December	12.9	8.6	11.5	8.5

Source: New Mexico Employment Security Commission, Albuquerque, New Mexico, August 15, 1968.

The New Mexico Employment Security Commission confirms that January and February are peak months for receipt of claims for unemployment compensation.⁵ Claims (i.e., the level of unemployment) start declining in March and reach a low point in July, August, and September. Claims start increasing in October.

The percentage distribution of job applications by occupational groups illustrates northern New Mexico's lack of skilled personnel. As indicated in Table 56, the New Mexico Employment Security Commission's Albuquerque local office accounts for approximately 40 percent (6,528) of the 16,186 applications processed during January 1 to May 25, 1968, significantly higher than would be indicated by Bernalillo County's 28 percent share of the state's population. A probable reason for this occurrence is that Albuquerque functions as a labor market for outlying areas.

While northern New Mexico encompasses 13 percent of New Mexico's population (Table 13), the number of job applications processed through the local offices serving the area represented 19.0 percent (3,054) of the state's total. The most significant aspect of Table 56 is that it vividly shows that the less skilled workers in northern New Mexico do not use the services of the Employment Security Commission. Rather, less skilled workers tend to migrate for employment.

Technical and managerial, clerical and processing occupations are readily identifiable with higher income areas. Thus, most of the job applicants in the northern section of New Mexico seek employment in

⁵New Mexico Employment Security Commission, Albuquerque, New Mexico, Covered Employment and Wages, Quarterly Report: First Quarter, 1967, pp. 1-A and 1-B.

TABLE 56

PERCENTAGE DISTRIBUTION OF JOB APPLICANTS BY
OCCUPATIONAL GROUP, NEW MEXICO
EMPLOYMENT SECURITY COMMISSION,
SELECTED LOCAL OFFICES AND NEW MEXICO,
JANUARY 1-MAY 25, 1968

Occupational Group	Albuquerque		N. New Mexico*		N.M.
	Percent	% of N.M.	Percent	% of N.M.	Percent
Tech. & Managerial	5.5	49.6	3.1	13.2	4.4
Clerical	12.7	48.9	7.4	13.5	10.5
Sales	4.7	39.1	4.7	18.0	4.9
Domestic	4.8	46.3	3.4	15.5	4.2
Services, Except Domestic	9.9	35.5	12.4	21.0	11.2
Farming, Forestry	1.0	17.0	3.9	30.7	2.4
Processing	0.9	29.8	0.7	12.0	1.2
Machine Trades	2.7	37.2	3.8	24.8	2.9
Bench Work	2.4	39.5	4.7	36.3	2.5
Structural Work	10.9	29.3	28.1	35.5	15.0
Miscellaneous	7.0	29.2	12.4	24.3	9.7
Entry	37.5	48.6	15.4	9.4	31.1
Total	100.0	40.3	100.0	19.0	100.0

*Española, Las Vegas, Raton, Santa Fe and Taos local offices.

Source: New Mexico Employment Security Commission, New Mexico Labor Market Trends, Vol. VI, No. 5, June 29, 1968, p. 10.

farming and forestry, machine trades, bench work, structural work, and miscellaneous occupations. These are occupations for which there is a seasonal demand in northern New Mexico whenever governmental projects are being implemented.

Applicants seeking sales positions accounted for approximately the same proportionate share in all areas. The Employment Security Commission uses the entry occupational classification to identify individuals with no prior experience or training. The lesser number of job applicants

in the entry level in northern New Mexico seems to confirm the fact that most youngsters migrate upon completion of school. Thus, these rural northern New Mexico job applications are processed by local offices in the larger towns and cities.

The Penasco Valley

An exact enumeration of employment and occupation in the Penasco Valley was not undertaken. It is believed, however, that data provided by the Penasco Valley Census Survey is sufficient to indicate the level and pattern of employment.

Of 213 individuals aged 14 and older counted in the census survey, only 41 were reported as working during the census survey week. Forty individuals were seeking employment, of which 21 were registered with the Employment Security Commission. The consensus of the job seekers was that the Employment Service functioned primarily as a claims processing agency. Individuals registering for work seemed to do so in order to qualify for unemployment compensation.

Only 96 individuals aged 14 and older reported ever having been employed. The last date of employment reported was: (1) currently working, 41; (2) 1968, 7; (3) 1967, 22; (4) 1966, 1; (5) 1965, 3; (6) 1960-64, 6; and (7) prior to 1960, 17. Thus, 51 percent (49 individuals) had not worked during 1968. The elderly group is reflected by the 17 individuals who had not worked since before 1960. The 41 individuals employed reported the following occupations: (1) agriculture, 8; (2) construction, 7; (3) mining, 2; and (4) other, 24. Representative examples of individuals in the other category are: teachers, janitors, cooks, secretaries, accountants, and other services.

Table 57 shows the numerical and percentage distribution of the Penasco Valley's employment among the various industries. In comparing Table 57 with Table 52, it is to be noted that the Penasco Valley's agricultural employment was approximately 12 percentage points higher than the state's and about 7 percentage points higher than Taos County's. The number of individuals who are self-employed and/or wage and salary employees cannot be determined as specific categories because employees reported their industry of employment without regard to salary classification.

TABLE 57
DISTRIBUTION OF EMPLOYMENT, BY
INDUSTRY, PENASCO VALLEY, 1960

Industry	Number	Percent
Agriculture	69	17.8
Non-Agriculture ¹	318	82.2
Mining	0	0
Construction	19	4.9
Manufacturing ²	45	11.6
Trans. and Util.	8	2.0
Trade	62	16.1
Services and Miscellaneous	80	20.7
Government ³	104	26.9
Total	387	100.0

¹The source provided the following salary classification: (1) private wage and salary workers, 171 (44.2 percent); (2) government workers, 110 (28.4 percent); (3) self-employed, 106 (27.4 percent).

²Includes: furniture, lumber, and wood products manufacturing.

³Includes: educational services and public administration.

Source: U.S. Bureau of the Census, Special Table PH-4.

Nevertheless, manufacturing--furniture, lumber, and wood products--ranked about 7 percentage points above the Taos County and the state level. Since 1960, however, the sawmills have been relocated. Transportation and utilities ranked about 3.7 and 0.4 percentage points below the state and Taos County levels, respectively. Trade seemed to be consistent with the level indicated for both the state and Taos County. Government ranked about 7 percentage points above the Taos County level but 2.3 percentage points below the state's.

The various occupations listed in 1960 are shown in Table 58. In line with the industries of employment listed in Table 57, the occupational groupings show that approximately 40 percent were employed in

TABLE 58
EMPLOYMENT, BY OCCUPATION,
PENASCO VALLEY, 1960

Industry	Male		Female	
	Number	Percent	Number	Percent
Prof., Tech., & Kind. Wkrs.	49	17.4	33	31.1
Farmers & Farm Managers	60	21.5	0	0
Mgrs., Off., Prop., Excl. Farm	13	4.6	3	2.8
Clerical & Kindred Workers	4	1.4	9	8.5
Sales Workers	8	2.8	13	12.3
Craftsmen, Foremen, & Kind. Wkrs.	28	10.0	0	0
Operative & Kindred Workers	24	8.5	0	0
Private Household Workers	0	0	3	2.8
Serv. Wkrs., Exc. Priv. Household	19	6.8	15	14.2
Farm Laborers & Farm Foremen	9	3.2	0	0
Laborers, Exc. Farm & Mine	45	16.0	0	0
Occupation Not Reported	22	7.8	30	28.3
Total	281	100.0	106	100.0

Source: U.S. Bureau of the Census, Special Table PH-4.

professional, technical, and kindred work--primarily in education--and in agriculture. This table also illustrates the lack of skilled employment in the Penasco Valley. Table 59 lists the types of occupations reported by individuals from the Penasco Valley who were registered with the New Mexico Employment Security Commission during 1967.

TABLE 59
LAST WORK EXPERIENCE REPORTED, INDIVIDUALS
REGISTERED WITH THE NEW MEXICO
EMPLOYMENT SECURITY COMMISSION,
PENASCO VALLEY, 1967

Males			Females		
	Number	Percent		Number	Percent
Military	7	2.3	Clerical	26	16.7
Carpenter	15	4.8	Dishwasher	3	1.9
Construction	92	29.4	Kitchen Help	11	7.0
U.S. Forest			Maid	27	17.4
Service	18	5.8	Nurse Aide	11	7.0
Miner	27	8.6	Sales Clerk	5	3.2
Sawmill	56	17.9	Teacher ²	3	1.9
Truck Driver	11	3.5	Waitress	7	4.5
Other ¹	64	20.4	Other	5	3.2
None	23	7.5	None	58	37.2
Total	313	100.0	Total	156	100.0

¹Examples of occupations listed under other are: service station attendants, dishwashers, painters, farm tractor operators, cooks, sheepherders, clerical, janitor, salesmen, ranch hand, bus boy, musicians, laundry workers, handymen, porters, welders, auto mechanics, and roofers.

²Probably includes women employed by the Office of Economic Opportunity as Adult Basic Education Instructors.

Source: New Mexico Employment Security Commission, Albuquerque, New Mexico, March 15, 1968.

TABLE 60

RESIDENCE OF INDIVIDUALS 5 YEARS OF AGE AND
OLDER IN 1955, SELECTED AREAS, UNITED STATES
(percent)

Residence	Penasco Valley	Taos County	Ten Counties	New Mexico	United States
Same House as in 1960	88.7	75.9	60.4	41.5	49.8
Different House in U.S.	9.6	23.1	36.9	55.6	48.6
Same County	6.8	15.4	18.6	25.9	29.8
Different County	2.8	7.7	18.3	29.7	18.8*
Same State	0.7	3.2	6.0	7.3	*
Different State	2.1	4.5	12.3	22.4	*
Abroad	0	0.2	0.8	1.8	*
Residence in 1955					
Not Reported	1.7	0.8	1.9	1.1	1.6
Total	100.0	100.0	100.0	100.0	100.0

*All listed in "Different House, Different County."

Source: U.S. Bureau of the Census, Special Table PH-3 and 1960 Census of Population: New Mexico (Washington, D.C.: U.S. Government Printing Office, 1961), Table 82, pp. 116-118, and Table 42, p. 69, and Statistical Abstract of the U.S.: 1967 (Washington, D.C.: U.S. Government Printing Office, 1967), Table 34, p. 34.

The Penasco Valley resident was the least mobile of the individuals listed in Table 60. Indeed, almost nine out of every ten Valley residents had lived in the same house for at least five years (1955-1960) while the ratio for the other areas was: Taos County, 7.6:10.0; ten counties, 6.0:10.0; New Mexico, 4.6:10.0; and the United States, 5.0:10.0. The residence pattern portrayed in Table 60 shows that two-thirds of the Penasco Valley residents who had not lived in the same house during 1955-1960 had, nevertheless, lived within the same county. In the other areas, only about one-half of the residents who had not lived in the same house had lived within the same county. Of the remaining one-third of the

Penasco Valley residents who had not lived in the same house during the 1955-1960 period, almost all had lived in another state. In the other areas, however, almost twice as many people who had not lived in the same house and county had lived in the same state rather than in different states.

TABLE 61
RESIDENCE PATTERN, INDIVIDUALS AGED 14 AND OLDER,
PENASCO VALLEY CENSUS SURVEY, MAY 26, 1968

Percent of Life	Percent of Individuals Aged 14 and Older			
	House	Community	County	State
90-100	33.2	68.1	74.2	79.5
80-89	0.4	1.3	1.3	1.3
70-79	5.2	3.9	3.5	3.5
60-69	4.4	3.9	3.5	3.5
50-59	6.1	2.2	1.7	0.4
40-49	12.7	4.8	3.5	3.1
30-39	7.4	2.2	2.6	1.3
20-29	11.8	7.0	4.4	4.4
10-19	7.0	0.4	0	0
0-9	10.0	4.4	3.5	1.7
No Response	1.8	1.8	1.8	1.3
Total	100.0	100.0	100.0	100.0

Table 61 substantiates the immobility of the Penasco Valley resident. Although this table represents the mobility of individuals aged 14 and older, it is believed that inclusion of individuals aged 5 to 14 would simply increase the immobility factor. Table 61, therefore, only reflects the mobility pattern of the individuals who comprise the potential labor force. Almost 80 percent of these individuals had lived 90 to 100 percent of their lives within the State of New Mexico. Seventy-four percent had lived 90 to 100 percent of their lives within the same county,

while 68 percent had done so within the Penasco Valley. Moreover, approximately one-third of the Penasco Valley Census Survey respondents in the 14 years of age and older group had lived 90 to 100 percent of their lives within the same house.

Projections of the Penasco Valley labor force for 1965-1985 are given in Table 62. Critical assumptions used in deriving this table are: (1) that the Penasco Valley population will increase at the rate projected for Taos County (Table 14); (2) that the age and sex distribution projected for New Mexico will apply;⁶ (3) that the Penasco Valley labor force participation rate will approximate the national level by 1970; and (4) that unemployment will decline to 5.0 percent by 1970. Thus, these projections should be viewed as optimal.

Assuming that the 1960 situation was still applicable in 1965, 20 individuals would have been added to the labor force with only 18 finding employment. Between 1965 and 1970, however, the labor force would have to increase by 899 with employment increasing by 805 in order to approximate the expected national situation. The increasingly higher labor force participation rate, coupled with a continued low unemployment rate of 5.0 percent, would entail finding approximately 140 jobs every five years. At the same time, the larger labor force would result in unemployment doubling by 1985.

⁶U.S. Bureau of the Census, "Revised Projections of the Population of States, 1970 to 1985," Current Population Reports: Population Estimates, Series P-25, No. 375 (Washington, D.C.: U.S. Government Printing Office, October 3, 1967), Table 5, p. 57.

TABLE 62

LABOR FORCE PROJECTIONS,
PENASCO VALLEY,
1960-1985^a

Population	1960 ^b	1965	1970	1975	1980	1985
Total Projected ^c	3124	3385	3646	4250	4860	5045
Over Age 14	2097	2187	2370	2805	3256	3532
Percent of Total	67.1	64.6	65.0	66.0	67.0	70.0
Labor Force Participation Rate ^d	21.2	21.2	57.5	57.8	58.3	58.9
Labor Force	444	464	1363	1621	1895	2080
Unemployment Rate	12.8	12.8	5.0	5.0	5.0	5.0
Employed	387	405	1295	1540	1800	1976
Unemployed	57	59	68	81	95	104

^aThe format was presented by Professor Ralph L. Edgel in Albuquerque Area Economic, Population and Housing Characteristics: 1960-2000 (Albuquerque: City Planning Department, January 1968), Table III-C, p. 110.

^bU.S. Bureau of the Census, Special Table PH-4.

^cEstimates for 1965 and 1970 are exactly as computed by the University of New Mexico, Bureau of Business Research, for the University of Albuquerque, Community and Area Development Institute, Feasibility and Justification Study for Developing a Technical-Vocational Facility at Espanola, New Mexico, as a Branch of the Northern New Mexico State School, January 1968, Table III, p. 13.

^dLabor Force Participation rates projected by the U.S. Bureau of the Census, Statistical Abstract: 1967 (Washington, D.C.: U.S. Government Printing Office, 1967), Table 316, p. 222, are: (1) 1960; male, 79.7; female, 36.1; total 57.4; (2) 1965; male, 76.9; female, 37.5; total, 56.7; (3) 1970; male, 77.0; female, 39.1; total, 57.5; (4) 1975; male, 76.9; female, 39.9; total, 57.8; and (5) 1980; male, 77.2; female, 40.6; total, 58.3.

The situation depicted in Table 62 is admittedly unrealistic. Table 63, therefore, reflects a continuation of the 1960 labor force participation and unemployment rates. Population and age and sex distribution projections

presented in Table 62 apply. The existing economic conditions in the Penasco Valley would result in the labor force increasing by 305 during the fifteen-year period, as compared to 1636 in Table 62. The number of jobs required would decline from 1571 as shown in Table 62 to 266 and the number unemployed would increase by 29 compared to 57.

These two projections present polar situations and the actual economic conditions may be expected to reach a midpoint. It is imperative, nevertheless, to realize that these series highlight the following problems: (1) economic growth will have to occur in order to create the jobs that will be required; (2) a continued stagnant economy will result in an even lower labor force participation rate under conditions of minimal employment opportunities; and (3) migration and public assistance will accelerate under continued stagnant economic conditions.

TABLE 63
LABOR FORCE PROJECTIONS, ALTERNATIVE TWO,
PENASCO VALLEY, 1960-1985

Population	1960	1965	1970	1975	1980	1985
Over age 14	2097	2187	2370	2805	3256	3532
Labor Force Participation Rate	21.2	21.2	21.2	21.2	21.2	21.2
Labor Force	444	464	502	595	690	749
Unemployment Rate	12.8	12.8	12.8	12.8	12.8	12.8
Employed	387	405	438	519	602	653
Unemployed	57	59	64	76	88	96

Structure of Economy

The U.S. Department of Commerce, Office of Business Economics, contends that employment patterns in different counties, states, regions, and the nation may be the result of the following differential growth factors: (1) national growth, (2) industry-mix, and (3) regional growth share.⁷

The effect of national and regional growth and industry-mix on Taos County's rate of economic growth is shown in Tables 64 and 65. Columns A and B show the actual employment, by industry, for 1940, 1950, and 1960, respectively. Columns C, D, and E reflect the changes attributed to national growth, industrial mix, and regional growth during the 1940-1950 and 1950-1960 decades. Total change (column F) simply reflects the change in the number employed in the particular industry during 1940-1950 and 1950-1960. Relative change (column G) is the summation of changes related to industry-mix and regional shares.

In the case of Taos County, the national growth rate (column C) indicated an expected increase in agricultural employment of 382 between 1940 and 1950 and 236 between 1950 and 1960. The industry-mix component

⁷U.S. Department of Commerce, Office of Business Economics, Growth Patterns of Employment by Counties: 1940-1950 and 1950-1960, Vol. 6, "Southwest" (Washington, D.C.: U.S. Government Printing Office, 1965). The national growth rate is taken as the standard. Thus, if there were no difference in regional growth, all regions would grow at the same rate and each area would maintain its proportionate share of the national income. All regions, however, do not grow at the same rate primarily because of a different industry-mix. This depends upon the region's specialization on rapid or slow growth industries. If the region in which a state--and, therefore, a county--is located grows at a rate different from the national rate, it is assumed that regional growth will affect the smaller economy's growth rate.

TABLE 64
PATTERNS OF EMPLOYMENT, TAOS COUNTY, NEW MEXICO
1940-1950

Industry	1940-1950						
	Employment		Changes Related to			Total Change (F)	Relative Change (G)*
	1940 (A)	1950 (B)	National Growth (C)	Industrial Mix (D)	Regional Share (E)		
Agriculture	1433	1523	382	-639	347	90	-292
Forestry and fisheries	14	49	4	-1	33	36	32
Mining	122	76	33	-31	-48	-46	-79
Contract construction	172	243	46	70	-44	72	26
Food and kindred products mfg.	9	9	2	0	-3	-1	-3
Textile mills products mfg.	2	0	1	0	-2	-1	-2
Apparel mfg.	0	0	0	0	0	0	0
Lumber, wood prod., furniture mfg.	64	226	17	0	145	162	145
Printing and publishing mfg.	11	16	3	1	1	5	2
Chemicals and allied prod. mfg.	0	3	0	0	3	3	3
Elec. and other machinery mfg.	0	2	0	0	2	2	2
Motor vehicles and equip. mfg.	0	1	0	0	1	1	1
Other transportation equipment mfg.	0	1	0	0	1	1	6
Other and miscellaneous mfg.	7	25	2	0	16	18	16
Railroads and railway express	12	33	3	-1	18	20	17
Trucking and warehousing	14	14	4	2	-5	1	-3
Other transportation	7	23	2	2	12	16	14
Communications	7	14	2	4	1	7	5
Utilities and sanitary service	10	33	3	2	19	24	21
Wholesale trade	21	30	6	8	-4	10	4

TABLE 64--Continued

Industry	1940-1950						
	Employment		Changes Related to			Total Change (F)	Relative Change (G)*
	1940 (A)	1950 (B)	National Growth (C)	Industrial Mix (D)	Regional Share (E)		
Food and dairy products stores	94	80	25	-11	-20	-6	-31
Eating and drinking places	58	109	15	14	21	50	35
Other retail trade	166	224	44	20	-6	58	14
Fin., ins., and real estate	15	25	4	1	5	10	6
Hotels and other pers. services	106	92	28	-17	-25	-14	-42
Private households	134	146	36	-76	52	12	-24
Business and repair services	36	68	10	9	13	32	22
Entertainment, recreation services	11	8	3	0	-6	-3	-6
Medical, other professional servs.	271	415	72	47	25	144	72
Public Administration	83	113	22	35	-28	29	7
Armed Forces	0	5	0	0	5	5	5
Industry not reported	34	255	9	-2	214	221	212
Total	2913	3869	778	-563	743	958	180

*Column G equals sum of columns D and E.

Source: U.S. Department of Commerce, Office of Business Economics, Growth Patterns in Employment by County: 1940-1950 and 1950-1960, Vol. 6, "Southwest" (Washington, D.C.: U.S. Government Printing Office, 1965), Table 7(39) 27, pp. 7-120.

TABLE 65
PATTERNS OF EMPLOYMENT, TAOS COUNTY, NEW MEXICO
1950-1960

Industry	1950-1960						
	Employment		Changes Related to			Total Change (F)	Relative Change (G)*
	1950 (A)	1960 (B)	National Growth (C)	Industrial Mix (D)	Regional Share (E)		
Agriculture	1523	391	236	-822	-546	-1132	-1368
Forestry and fisheries	49	23	8	-20	-14	-26	-34
Mining	76	52	12	-34	-1	-23	-35
Contract construction	243	234	38	-12	-34	-8	-48
Food and kindred products mfg.	9	12	1	1	0	2	10
Textile mills products mfg.	0	0	0	0	0	0	0
Apparel mfg.	0	0	0	0	0	0	0
Lumber, wood prod., furniture mfg.	226	229	35	-58	26	3	-32
Printing and publishing mfg.	16	4	2	3	-17	-12	-14
Chemicals and allied prod. mfg.	3	0	0	0	-4	-4	-4
Elec. and other machinery mfg.	2	4	0	1	1	2	2
Motor vehicles and equipment mfg.	1	0	0	0	-1	-1	-1
Other trans. equipment mfg.	1	0	0	1	-2	-1	-1
Other and miscellaneous mfg.	25	21	4	1	-9	-4	-8
Railroads and railway express	33	4	5	-16	-18	-29	-34
Trucking and warehousing	14	20	2	2	2	6	4
Other transportation	23	21	4	-3	-2	-2	-6
Communications	14	4	2	0	-12	-10	-12
Utilities and sanitary service	33	52	5	0	14	19	14
Wholesale trade	30	23	5	-1	-10	-6	-10

TABLE 65--Continued

Industry	1950-1960						
	Employment		Changes Related to			Total Change (F)	Relative Change (G)*
	1950 (A)	1960 (B)	National Growth (C)	Industrial Mix (D)	Regional Share (E)		
Food and dairy products stores	88	45	14	-15	-41	-42	-56
Eating and drinking places	109	164	17	-10	48	55	38
Other retail trade	224	256	35	4	-7	32	-3
Fin., insurance, and real estate	25	41	4	6	6	16	12
Hotels and other pers. services	92	170	14	-10	74	78	64
Private households	146	127	23	2	-44	-19	-42
Business and repair services	68	77	11	5	-6	10	-1
Entertainment, recreation services	8	16	1	-1	8	8	7
Medical, other professional servs.	415	492	64	176	-164	76	12
Public Administration	113	187	17	13	43	73	56
Armed Forces	5	4	1	3	-4	0	-1
Industry not reported	255	162	39	495	-627	-93	-132
Total	3869	2835	599	-289	-1342	-1032	-1631

*Column G equals sum of columns D and E.

Source: See Table 64, p. 171.

was a negative factor during both decades. Economic growth of the Southwest region positively influenced Taos County's rate of growth in 1940-1950 but had an adverse affect in 1950-1960. Changes in agricultural employment attributed to national growth was sufficiently large (when correlated to positive regional growth) to offset the negative aspect of industry-mix, for a total gain of 90 in agricultural employment during the period. In 1950-1960, however, increase in agricultural growth influenced by national growth was insufficient to offset the decline in agricultural employment as influenced by regional share and industry-mix, resulting in a decline of 1,368 in total agricultural employment (from 1,523 in 1950 to 391 in 1960). Thus, agricultural employment declined during both decades because the industrial mix and regional share components were both negative and greater than the positive gain indicated by national growth in agriculture. The other industrial sectors can be analyzed in the same manner.

As a result of all the changes associated with the three factors of growth, total employment in Taos County increased by 958 (from 2,913 to 3,869) between 1940 and 1950. This was due to both national and regional share growth being greater than the decline attributed to industry-mix. Thus, in 1940-1950 the regional share growth was greater than the decline in industry-mix and, combined with a positive growth, led to an increase in over-all employment. In 1950-1960, however, total employment decreased by 1,032 (from 3,869 to 2,835). This was due to national growth being insufficient to offset the negative influence of industry-mix and regional share.

In sum, Table 66 shows the type of change and the particular components that influenced the magnitude and direction of change during 1940-1950 for each of the following industries:

(1) employment in agriculture, forestry and fisheries, railroads and railway express, private households, industry not reported and total employment increased because the growth of national and regional shares was positive and greater than the negative industry-mix;

(2) mining, food and dairy products, stores and hotels and other personal services declined in employment because the negative industry-mix and regional share growth were greater than the positive national growth;

(3) contract construction, trucking and warehousing, wholesale trade, other retail trade and public administration employment increased because positive national growth and industry-mix were greater than the negative regional share;

(4) printing and publishing manufacturing, transportation (other than listed above), communications, utilities and sanitary services, eating and drinking places, finance, insurance, and real estate, business and repair services and medical and other professional services experienced an increase in employment because all three components were positive;

(5) employment in manufacturing of chemicals and allied products, electrical equipment and motor vehicles, and other types of transportation equipment, as well as in the armed forces, increased solely because of growth in the regional share;

(6) employment in food and kindred products and textile products manufacturing declined because positive industry-mix and national growth were offset by a decline in regional share;

(7) lumber, wood products, furniture production and miscellaneous manufacturing showed an increase in employment because of a neutral industry-mix and a positive national and regional share growth;

(8) although industry-mix and national growth were positive, a decline in regional share resulted in a decrease in employment in entertainment and recreation services;

TABLE 66

CHANGES IN EMPLOYMENT, BY INDUSTRY, RELATED
TO ECONOMIC GROWTH COMPONENT CHANGES,
TAOS COUNTY, 1940-1950
AND 1950-1960*

Industry	1940-1950	1950-1960
Agriculture	G +	J -
Forestry and fisheries	G +	J -
Mining	J -	J -
Contract construction	H +	J -
Food and kindred products mfg.	K -	C +
Textile mill products mfg.	K M	F M
Apparel mfg.	F M	F M
Lumber, wood products, furniture mfg.	B +	G +
Printing and publishing mfg.	A +	I -
Chemicals and allied products mfg.	D +	I M
Electrical and other machinery mfg.	D +	E +
Motor vehicles and equipment mfg.	D +	I M
Other transportation and equipment mfg.	D +	I M
Other and miscellaneous mfg.	B +	I -
Railroads and railway express	G +	J -
Trucking and warehousing	H +	A +
Other transportation	A +	J -
Communications	A +	I -
Utilities and sanitary service	A +	B +
Wholesale trade	H +	J -
Food and dairy products stores	J -	J -
Eating and drinking places	A +	G +
Other retail trade	H +	H +
Finance, insurance and real estate	A +	A +
Hotels and other personal services	J -	G +
Private households	G +	I -
Business and repair services	A +	H +
Entertainment, recreation services	I -	G +

TABLE 66--Continued

Industry	1940-1950	1950-1960
Medical, other professional services	A +	H +
Public administration	H +	A +
Armed Forces	D +	L +
Industry not reported	G +	I -
Total	G +	J -

*The following notes refer to the letters in the table:

- A. Positive national growth, positive industry-mix, and positive regional share = positive total change.
- B. Positive national growth, neutral industry-mix, and positive regional share = positive total change.
- C. Positive national growth, positive industry-mix, and neutral regional share = positive total change.
- D. Neutral national growth and industry-mix and positive regional share = positive total change.
- E. Neutral national growth and positive industry-mix and positive regional share = positive total change.
- F. All three categories are neutral.
- G. Positive national growth, negative industry-mix, and positive regional share = positive growth.
- H. Positive national growth, positive industry-mix and negative regional share = positive growth.
- I. Positive national growth, positive industry-mix, and negative regional share = negative growth.
- J. Positive national growth, negative industry-mix, and regional share = negative growth.
- K. Positive national growth, neutral industry-mix and negative regional share = negative growth.
- L. Positive national growth and industry-mix and negative regional share = no growth.
- M. Zero employment at the end of the period.

The type of change and the particular components influencing change during 1950-1960 were:

(1) employment in lumber, wood products and furniture manufacturing and in eating and drinking places and hotels and in other personal services and entertainment and recreation services increased because national and regional share growth were larger than the negative industry-mix;

(2) agriculture, forestry and fisheries, mining, contract construction, railroads and railway express, transportation (other than listed above), wholesale trade, food and dairy products stores, and total employment decreased because of a negative regional share growth and industry-mix while national growth was positive;

(3) employment increased in other retail trades, business and repair services and medical and other professional services because of a positive national growth and industry-mix offset a negative regional share;

(4) trucking and warehousing, finance, insurance and real estate and public administration employment increased because all components were positive;

(5) utilities and sanitary services employment increased because a positive regional share and national growth offset a negative industry-mix;

(6) employment in manufacturing of printing and publishing products, chemicals and allied products, motor vehicles, and other types of transportation equipment, miscellaneous manufacturing, communications, private households, and industry not reported declined because a negative regional share growth was greater than the positive growth attributed to industry-mix and national growth;

(7) a positive national and regional share growth, while the industry-mix exerted no influence, led to increased employment in food and kindred products manufacturing;

(8) employment in electrical and other machinery manufacturing increased because national growth exerted no influence on a positive regional share growth and industry-mix;

(9) the increase in armed forces employment indicated that the negative regional share growth was offset by positive national growth and industry-mix influence;

During 1940 to 1950, employment in Taos County increased in total. The following industries, however, experienced a decline in employment: mining, manufacturing of food, textiles and kindred products production (dropping from 2 in 1940 to 0 in 1950), food and dairy products stores, hotel and other personal services and entertainment and recreation services. Total employment was listed as having advanced because of the great increase in the Southwest region's share in national employment. In 1950-1960, 14 of 32 industries registered increases in employment with 16 registering decreases--including electrical and other machinery manufacturing (dropping from 3 in 1950 to 0 in 1960), manufacturing of other types of transportation equipment (from 1 in 1950 to 0 in 1960), and miscellaneous manufacturing (from 1 in 1950 to 0 in 1960). Two industries--textile mills products and apparel manufacturing--were listed as having 0 employment both in 1950 and 1960. In 1960, total employment was categorized as having had strong losses because of both a declining regional share and a negative industry-mix.

Natural Resources

Table 67 shows land ownership distribution pattern for Taos County, the ten northern New Mexico counties, and the state. Private land holdings in Taos County encompass only 39.2 percent of the land area, while federal lands comprise 50.8 percent, Indian Reservations 4.3 percent, and state lands 5.7 percent. In the ten county area, federal lands account for 28.2 percent, and Indian and state lands for 5.6 and 10.7 percent, respectively. The New Mexico land ownership pattern is: (1) federal, 34.9 percent; (2) Indian, 8.8 percent; (3) state, 11.9 percent; and (4) private, 44.3 percent.

TABLE 67

DISTRIBUTION OF LAND OWNERSHIP, BY TYPE
OF OWNERSHIP, SELECTED AREAS,
NEW MEXICO, 1968

Ownership	Taos County	Ten Counties	New Mexico	Ten Counties as a percent of New Mexico
Total Land Area (acres)	1444840	25669752	77776040	33.0
Federal	734290	7239338	27150100	26.7
U.S. Forest Service	526466	3933424	9046789	43.5
Bur. of Land Mgmt.	207817	3197258	14316068	22.3
Park Service	0	31981	240932	13.3
Fish & Wildlife	0	57273	81815	70.0
Agri. Research Ser.	0	0	200580	0
Bur. of Reclamation	0	18751	180523	10.4
Bur. of Indian Aff.	7	657	77837	0.8
Atomic Energy Comm.	0	0	71150	0
Other Federal	0	0	2934406	0
Percent of Total	50.9	28.2	34.9	--
Indian	62294	1427676	6856401	20.8
Percent of Total	4.3	5.6	8.8	--
State	82996	2769405	9304209	29.8
Percent of Total	5.7	10.7	11.9	--
Private	565260	14233333	34465330	41.9
Percent of Total	39.2	55.5	44.3	--

Source: New Mexico Land Office, Santa Fe, New Mexico.

The land ownership pattern of northern New Mexico, as well as the state's, signals possible severe repercussions for the economic development process. First, the tax base has been limited by the large proportion of lands in public ownership. Secondly, the planning for economic growth must indicate possible uses for public lands. In certain areas, expansion of agricultural activities may necessitate contracting with public and Indian owners.

Agriculture

Agriculture, as an industry, has been experiencing a decline in employment. This has been due primarily to technology and mechanization resulting in consolidation of farms into larger and higher capitalization units. Table 68 dramatically shows this trend.

TABLE 68
AVERAGE ACREAGE AND VALUE OF LAND AND
BUILDINGS PER FARM, NEW MEXICO,
1930-1964

YEAR	Average Acres/ Farm	Percent Change	Average Value of Land and Bldg./Farm	Percent Change
1930	981.5	--	\$ 6,619	--
1935	831.5	-15.3	4,113	-37.9
1940	1,139.4	37.0	5,498	33.7
1945	1,670.6	46.6	11,004	100.1
1950	2,013.7	20.5	30,228	174.7
1954	2,347.0	16.6	50,078	65.7
1959	2,908.0	23.9	68,233	36.3
1964	3,354.0	15.3	\$117,042	71.5

Source: U.S. Bureau of the Census, Census of Agriculture, 1964: Statistics for the State and Counties, New Mexico (Washington, D.C.: U.S. Government Printing Office, 1967), Table 1, p. 229.

The low private-to-public land ownership ratio in Taos County has resulted in a lesser amount of land devoted to farming in comparison with the ten county area and the state. The average Taos County farm is 590 acres, or about one-fifth the size of the average New Mexico farm. Average farm sizes, however, are deceptive. Table 69 shows that 7.3 of every ten farms in Taos County were under 100 acres. The comparable ratio for the ten counties and New Mexico were 4.4:10.0 and 3.7:10.0, respectively.

TABLE 69
AGRICULTURAL LANDS, SELECTED AREAS,
NEW MEXICO, 1964

	Taos County		Ten Counties		New Mexico	
Land Area (acres)	1,443,840		25,670,000		77,766,400	
Land Area in Farms (acres) ¹	359,902		15,136,110		47,646,966	
Percent of Total Land Area	24.9		58.9		61.3	
Average Size of Farm	590.0		3,187.2		3,354.0	
Size of Farms (acres)	Number	Percent	Number	Percent	Number	Percent
Under 10 Acres	65	10.7	561	11.8	1,381	9.7
10-49	316	51.8	1,165	24.4	2,757	19.4
50-69	32	5.2	169	3.6	453	3.2
70-99	30	4.9	186	3.9	648	4.6
100-139	28	4.6	193	4.1	559	3.9
140-179	18	3.0	197	4.2	719	5.1
180-219	11	1.8	136	2.9	354	2.5
220-259	7	1.1	93	2.0	345	2.4
260-499	30	4.9	354	7.4	1,475	10.4
500-999	23	3.8	390	8.2	1,469	10.3
1,000-1,999	17	2.8	362	7.6	1,224	8.6
2,000 +	33	5.4	943	19.9	2,822	19.9
Total	610	100.0	4,749	100.0	14,206	100.0
Farmlands in:	Acres	Percent	Acres	Percent	Acres	Percent
Cropland Harvested	9,980	2.8	95,765	0.7	905,867	1.9
Cropland for Pasture	22,306	6.2	158,272	1.0	384,529	0.8
Idle Cropland ²	4,596	1.3	126,277	0.8	980,764	2.1
Woodland Pastured	72,787	20.2	1,717,213	11.4	3,231,740	6.8
Woodland not Pastured	5,917	1.6	94,027	0.6	224,624	0.5
Other Pasture	242,492	67.4	12,695,475	83.8	41,188,571	86.4
Other (house lots, roads, etc.)	1,824	0.5	249,081	1.7	730,871	1.5
Total	359,902	100.0	15,136,110	100.0	47,646,966	100.0

TABLE 69--Continued

	Taos County		Ten Counties			New Mexico	
Farmland Irrigated (acres)	13,275		107,255			812,723	
Percent of Total Land Area	3.7		0.7			1.7	
Value of Land & Bldgs. (dollars)	<u>Colfax</u>	<u>Guadalupe</u>	<u>Lincoln</u>	<u>Mora</u>	<u>Rio Arriba</u>	<u>Sandoval</u>	
Average Per Farm	180,234	142,793	153,380	60,963	37,243	57,793	
Average Per Acre	15.65	22.29	27.49	29.61	26.15	30.69	
	<u>San Miguel</u>	<u>Socorro</u>	<u>Taos</u>	<u>Torrance</u>	<u>New Mexico</u>		
Average Per Farm	100,522	124,255	34,557	96,395	117,042		
Average Per Acre	29.01	17.62	58.79	20.96	34.93		

¹Farms are defined as places of 10 acres or less in 1964 if estimated sales of agricultural products for that year amounted to at least \$250. Places having more than 10 acres were counted if sales were more than \$50. Places with sales of \$50-\$250 were counted if they could be expected to produce up to the aforementioned requirements.

²Cropland not harvested or used for pasture.

Source: U.S. Bureau of the Census, Census of Agriculture, 1964: Statistics for the State and Counties, New Mexico (Washington, D.C.: U.S. Government Printing Office, 1967), Table 1, pp. 229-231, and Table 3, pp. 234-237.

The small size of most farms in northern New Mexico reflects the Spanish-American custom of splitting lands among heirs. Having been continuously settled since the early 1700's, once sizeable land holdings have now been reduced to a pittance. Most of the self-contained ecological communities (natural communities) are characterized by the large number of farms, averaging ten acres or less.⁸ Moreover, the residents of the high valleys are plagued by the lack of legal-saleable land titles.⁹ In addition, individuals who migrate for employment--often lasting much longer than anticipated--keep their homes and property as a symbol of security. Lack of demand for small tracts having no clear title or the prospects for a high fee for title search also hampers the sale of lands in the high valleys.

As indicated in Table 68, higher capitalization of farms appears to be directly related to the larger size of farms. Except for Taos County, capitalization per farm acre in northern New Mexico is lower than for the state as a whole. This is associated with cattle and livestock operations characteristic of northern New Mexico. Cropland is more prevalent in Taos County, accounting for 10.3 percent of the farmland as compared to 2.5 and 4.8 percent in the ten counties and in the state, respectively. A factor explaining the larger proportion of cropland in Taos County is that 3.7 percent of the farmland is irrigated, as compared to 0.7 in the ten counties and 1.7 in the state.

⁸Reports from the Home Education Livelihood Program field staff.

⁹According to the legal staff of the Home Education Livelihood Program, clearance of titles would cost an average of \$1,200 per individual land holding.

The greater percentage of farmland devoted to crops in Taos County results in a nearly 50 percent greater capitalization per farm acre. Moreover, buildings, homes and minimal equipment results in higher per acre capitalization for smaller farms.

Table 70 lists the 1964 farm income, by source, for Taos County, the ten counties, and New Mexico. The proximity to the Carson National Forest and livestock grazing permitted thereon probably accounts for Taos County's greater proportion of income derived from livestock and livestock products than for the state as a whole. The ten counties, however, comprise New Mexico's cattle country. Smaller farms account for the lower average receipt per farm in Taos County, while the predominance of livestock operations in the ten counties yields a lesser income per farm than for the state's average farm.

More than 90 percent of the income derived from cropland in Taos County and in the state is from forage crops. The ten counties derive a higher proportion of their crop income from vegetable production than either the state or Taos County. The residual crop income derived from fruit, nuts, forest products, and horticultural products is also greater in the ten counties. Fruits and nuts provide a larger proportionate share of crop income in the ten counties primarily because of heavy orchard cultivation in Lincoln and Rio Arriba Counties. In the case of Taos County, fruit and nut crops production have decreased in recent years. Lack of vegetable production in the high valleys has been attributed by the U.S. Department of Agriculture to the relationship of altitude to the growing season. As will be discussed in Chapter VI, the author believes that vegetable production does have a good potential in the valleys and that marketing problems are not insurmountable.

TABLE 70

DISTRIBUTION OF AGRICULTURAL INCOME BY SOURCE,
SELECTED AREAS, NEW MEXICO, 1964

Sources of Agricultural Income	Taos County	Ten Counties	New Mexico
All Farm Products	\$882,226	\$28,623,683	\$226,676,034
Average per Farm	1,446	5,993	15,956
All Crops	229,760	4,002,514	90,546,338
Field Crops, excluding Vegetables, Fruits & Nuts	213,378	2,843,528	81,982,653
Vegetables	2,025	219,731	3,292,291
Fruits & Nuts	10,971	792,213	3,812,657
Forest Products & Horticultural Specialty Items	3,386	147,042	1,458,737
All Livestock & Livestock Products	644,566	24,484,910	135,815,269
Poultry & Poultry Products	6,213	77,310	4,133,114
Dairy Products	681	536,200	13,776,268
Livestock & Livestock Products Other than Poultry & Dairy	\$637,672	\$23,871,400	\$117,905,887
Livestock as Percent of Total Farm Income	73.7	85.9	60.0

Source: U.S. Bureau of the Census, Census of Agriculture, 1964: Statistics for the State and Counties, New Mexico (Washington, D.C.: U.S. Government Printing Office, 1967), Table 6, pp. 244-247.

Poultry and dairy products comprise a greater proportionate share of total income derived from livestock and livestock products in the state, followed by the ten counties and Taos County, respectively. This, again may reflect accessibility to markets, especially with regard to dairy products.

TABLE 71
PERCENTAGE DISTRIBUTION OF CROP ACREAGE, SELECTED CROPS,
SELECTED AREAS, NEW MEXICO, 1964

Selected Crops (Acres)	Taos County		Ten Counties		New Mexico	
	Acres	Percent	Acres	Percent	Acres	Percent
Corn	163	1.6	6,086	6.5	31,956	3.5
Sorghum	--	--	2,297	2.4	232,950	25.6
Peanuts	--	--	--	--	7,608	0.8
Wheat	199	2.0	5,806	6.2	141,025	15.5
Oats for Grain	441	4.4	1,341	1.4	4,007	0.4
Barley for Grain	797	8.0	1,526	1.6	12,831	1.4
Rye for Grain	21	0.2	353	0.4	2,018	0.2
Other Grains	6	0.1	83	--	2,061	0.2
Alfalfa & Alfalfa Mixture						
Cut for Hay & Dehydrating	5,521	55.7	38,271	40.7	172,418	19.0
Clover, Timothy, & Mixtures of Clover and Grass Cut for Hay	1,587	16.0	13,212	14.1	14,644	1.6
Oats, Wheat, Barley, Rye or Other Small Grains Cut for Hay	297	3.0	5,292	5.6	11,445	1.3
Wild Hay Cut	395	4.0	9,443	10.1	15,941	1.8
Other Hay Cut	18	0.2	3,295	3.5	10,082	1.1
Grass Silage made from Grasses, Alfalfa, Clover, or Small Grains	20	0.2	122	0.1	2,000	0.2
Alfalfa Seed	22	0.2	52	--	5,328	0.6
Irish Potatoes for Home Use or Sale	140	1.4	714	0.7	1,077	0.1
Sweet Potatoes for Home Use or Sale	--	--	--	--	548	--
Cotton	86	0.9	120	0.1	188,022	20.7
Dry Field & Seed Beans	28	0.3	873	0.9	4,305	0.5
Broomcorn	--	--	--	--	25,135	2.8

TABLE 71--Continued

Selected Crops (Acres)	Taos County		Ten Counties		New Mexico	
	Acres	Percent	Acres	Percent	Acres	Percent
Vegetables for Sale (Exc. Irish and Sweet Potatoes)	17	0.2	616	0.6	9,110	1.0
Tomatoes	--	--	14	--	1,126	0.1
Sweet Corn	4	--	109	0.1	314	--
Watermelons	--	--	9	--	401	--
Cantaloupes and Muskmelons	--	--	12	--	479	--
Hot Peppers	12	0.2	209	0.2	1,417	0.2
Dry Onions	--	--	2	--	2,438	0.3
Lettuce and Romaine	--	--	197	0.2	1,838	0.2
Land in Bearing and Nonbearing Fruit Orchards, Groves, Vineyards and Planted Nut Trees	159	1.6	4,437	4.7	13,984	1.5
Total	9,917	*	93,939	*	905,495	*

*May not add up to 100.0 percent because of rounding.

Source: U.S. Bureau of the Census, Census of Agriculture 1964: Statistics for the State and Counties, New Mexico (Washington, D.C.: U.S. Government Printing Office, 1967), Table 13, pp. 272-291.

Table 71 shows the percentage distribution by crop, for most of the land listed in Table 69 as "cropland harvested." From this table, it will be noted that most of the crops are forage crops. Most of the fruit crops (apples) are harvested in Lincoln and Rio Arriba Counties.

According to the Embudo Report, the Penasco Valley included 7,007 acres of irrigated arable land located in four drainage areas.¹⁰ This acreage was classified as 1,873 acres of cropland and 5,134 acres of grazing land. Table 72 shows the Penasco Valley land distribution according to drainage area shown in Figure 18 and between grazing and cropland areas.

TABLE 72

ACREAGE DISTRIBUTION,
CROP AND GRAZING LAND,
PENASCO VALLEY, 1962

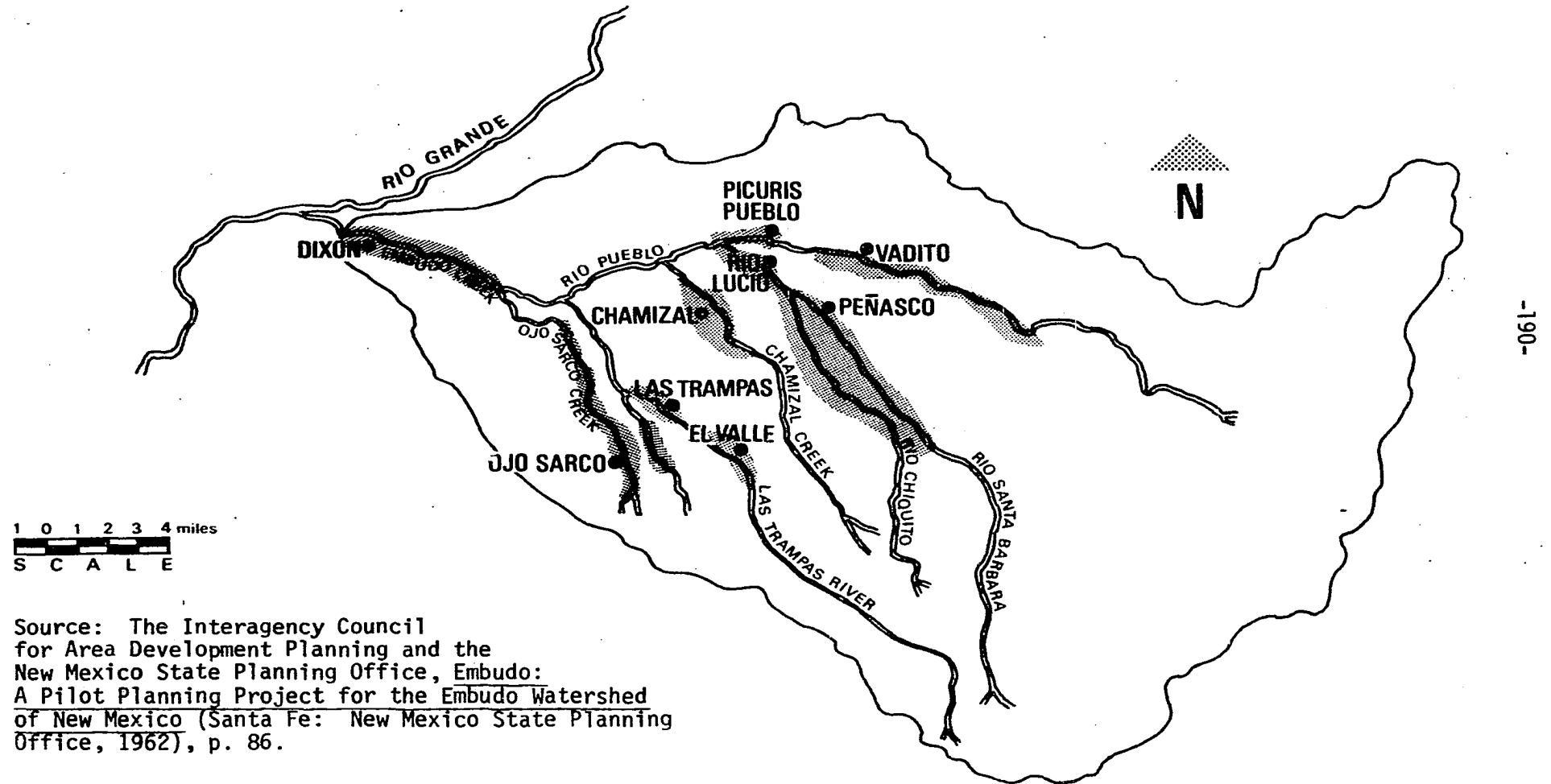
Drainage Area	Crop- land	Percent	Grazing	Percent	Total Arable Land
Rodarte-Penasco	661	15.5	3,626	74.5	4,287
Chamisal	238	30.7	540	69.3	778
Trampas River	156	28.1	402	71.9	558
Rio Pueblo	818	58.3	566	41.7	1,384
Total	1,873	26.7	5,134	73.3	7,007

Source: The Interagency Council for Area Development Planning and the New Mexico State Planning Office, Embudo: A Pilot Planning Project for the Embudo Watershed of New Mexico (Santa Fe: New Mexico State Planning Office, 1962), Table XI, p. 85.

¹⁰The Interagency Council for Area Development Planning and the New Mexico State Planning Office, Embudo: A Pilot Planning Project for the Embudo Watershed of New Mexico (Santa Fe: New Mexico State Planning Office, 1962), Table XI, p. 85.

Figure 18

Arable Land Under Irrigation, Peñasco Valley



Source: The Interagency Council
for Area Development Planning and the
New Mexico State Planning Office, Embudo:
A Pilot Planning Project for the Embudo Watershed
of New Mexico (Santa Fe: New Mexico State Planning
Office, 1962), p. 86.

Table 73 shows the predominance of small farm plots in the Penasco Valley. Seven heads of household interviewed in the Penasco Valley Census Survey did not own land (renters). Thirty-three respondents indicated ownership of one acre or less, primarily house lots. Only two individuals owned more than 100 acres (300 and 882 acres). Of the 44 individuals reporting land ownership of more than one acre, only 27 used their land for farming activities. Eleven of the 27 farmed one acre or less, mostly garden plots. An additional 10 individuals farmed one to four acres, with the largest farming operation being 20 to 24 acres. Thus,

TABLE 73
LAND OWNERSHIP LISTED BY HEADS OF HOUSEHOLDS,
PENASCO VALLEY CENSUS SURVEY
MAY 26, 1968

Acres	Own	Farm	Lease to Farm
None	7	57	82
One Acre or Less ¹	33	11	0
1-4	10	10	0
5-9	9	1	0
10-14	8	1	0
15-19	2	2	1
20-24	6	2	1
25-29	0	0	0
30-34	1	0	0
35-39	1	0	0
40-44	0	0	0
45-49	0	0	0
Fifty and Over ²	7	0	0
No Response	1	1	1
Total	85	85	85

¹Primarily house lots.

²Two, 55-59; two, 60-64; one, 80-84; one, 300; one, 882.

most respondents used their land for grazing or not at all. The author believes that the pattern evident in the Penasco Valley is characteristic of northern New Mexico.

Forest Resources

The current growth of commercial timber in New Mexico has been estimated at slightly in excess of 8 cubic feet per acre per year.¹¹ The annual yield potential of growing stock volume is estimated at approximately 38 cubic feet (1 cubic foot = 12 board feet) per acre per year.

TABLE 74
COMMERCIAL TIMBERLAND, SELECTED
COUNTIES, NEW MEXICO
1962 (acres)

County	U.S. Forest Service	Bureau of Land Management	Indian	State	Private	Total
Colfax	4,000	--	--	41,019	575,802	620,821
Guadalupe	--	--	--	--	--	--
Lincoln	260,500	--	--	2,220	21,988	284,708
Mora	34,900	--	--	8,610	192,240	235,750
Rio Arriba	589,000	8,310	144,795	2,670	244,837	989,612
Sandoval	110,300	11,710	19,600	100	119,181	260,891
San Miguel	121,000	--	--	1,640	84,200	206,840
Socorro	312,000	--	--	670	8,550	321,220
Taos	235,100	6,585	5,533	935	141,120	389,273
Torrance	74,300	--	5,000	--	14,325	93,625
Total	1,741,100	26,605	174,928	57,864	1,402,243	3,402,740
New Mexico	3,136,000	80,650	613,935	158,104	1,733,048	5,721,737

Source: Donald C. Henderson and H. R. Stucky, "Agriculture and Water in New Mexico," Phase I, State Resources Development Plan (Santa Fe: New Mexico State Planning Office, 1966), Table 20, p. 35.

¹¹Grover A. Choate, New Mexico Forest Resource, U.S. Forest Service Resource Bulletin INT-5 (Washington, D.C.: U.S. Department of Agriculture, 1966), p. 27.

Table 74 shows the commercial timberland available, by source, for each of the ten counties in the northern New Mexico redevelopment area.

According to Dean M. Earl, the following represents the expected volume of forest resources, in MMBM (million board measure): (1) Colfax, 2,525; (2) Guadalupe, 0; (3) Mora, 443; (4) Rio Arriba, 3,075; (5) Sandoval, 828; (6) San Miguel, 865; (7) Socorro, 436; (8) Taos, 1,301; (9) Torrance, 117; and (10) Lincoln, 686; for a total of 10,276 in 1970.¹² Of the state's total of 15,565 MMBM, the ten county area accounts for 66.0 percent. In 1970, the expected cut is 340,000 MBM (thousand board measure) as compared to 267,650 in 1965. This will represent about \$16,100,000 of total value attributed to timber products harvested. Adding of value in processing to final construction will result in total value of \$133,900,000 attributed to New Mexico's timber industry, an increase from \$115,060,000 in 1965.

According to Dean M. Earl, man-years of employment will increase from 15,620 to 18,160 between 1965 and 1970. Employment in forest management and harvesting and in primary and secondary manufacturing will increase from 3,620 man-years in 1965 to 5,370 in 1970.

Minerals¹³

Significant quantities of coal are found in Rio Arriba and Sandoval Counties. Torrance and Rio Arriba Counties are the primary natural gas

¹²Dean M. Earl, "Forest and Timber Resources of New Mexico," Phase I, State Resources Development Plan (Santa Fe: New Mexico State Planning Office, 1966), Table 3, p. 5.

¹³U.S. Congress, Mineral and Water Resources of New Mexico, 89th Congress, 1st. Session (Washington, D.C.: U.S. Government Printing Office, 1965).

producing areas in northern New Mexico. While natural gas occurrences have been found in exploratory wells in Colfax and San Miguel Counties, the following mineral deposits have been found in Taos County:

(1) copper; (2) iron; (3) beryllium; (4) various other types of pegmatite; (5) molybdenum (largest known reserves in the state); (6) tellurium; (7) tin; (8) tungsten; (9) fluorspar; (10) various types of gem materials; (11) staurolite; (12) optical calcite; (13) mica; (14) lithium; (15) pyrophyllite; (16) talcosa schist; (17) limestone and dolomite; (18) bismuth; (19) sand and gravel; and (20) perlite.

Summary

In analyzing economic growth of the various New Mexico counties, the Bureau of Business Research at the University of New Mexico defined economic growth as consisting of three consecutive annual increases in population, employment and personal per capita income. Economic growth in northern New Mexico, since at least 1940, has been negative.

New Mexico's economic growth rate exceeded the national average during 1940-1960, leading to a narrowing of the state-national personal per capita income differential to 15 percent. Since 1960, however, the national economic growth rate has been greater than the state's and the differential has widened to almost 20 percent.

The decline in New Mexico's economic growth rate is due primarily to a decline in governmental activities in central and southern New Mexico, coupled with the continuing economic decline of northern New Mexico. If the present economic structure is to be preserved, it will be necessary to initiate an accelerated rate of economic growth in

central and southern New Mexico in order to offset continued declines in the northern counties. In the author's opinion, however, a better method is not to attempt to balance economic growth in northern and southern New Mexico, but to arrest declining business activity in the north and actually initiate an upswing.

The lack of economic activity in northern New Mexico is illustrated by several labor force characteristics: (1) the labor force comprises a smaller percentage of the noninstitutionalized population aged 14 and older; (2) a higher unemployment rate; and (3) an excessive reliance on government and agriculture as a source of employment.

Residence patterns provide an indication of labor force mobility: the Penasco Valley residents show a high propensity to live 80 to 90 percent of their lives within the same state, county, community, and house. One reason for this is the age and sex distribution of the population--predominantly elderly and school-aged. Migration of recent high school graduates is indicated by the low proportionate share of job seekers who are listed in entry occupational levels by the New Mexico Employment Security Commission local offices serving the Penasco Valley in comparison with data reported by local offices in the more urban areas of the state.

Two alternative Penasco Valley labor force projections are presented. The first projection assumes continued economic conditions and the second equates the Valley's labor force participation and unemployment rates to projected national levels. In either case, employment opportunities are going to have to be created during the next 20 years in order to forestall continued economic declines.

The Taos County economic structure illustrates the many diverse influences affecting economic growth of the area. Positive national and regional economic growth fostered economic growth of the county. However, an unfavorable industrial mix has deterred economic growth, as defined by the Bureau of Business Research, University of New Mexico. It is the author's opinion that initiation of economic growth will greatly depend upon the choice of industrial mix for the area.

CHAPTER VI

A PLAN FOR ACCELERATION OF ECONOMIC GROWTH OF RURAL NORTHERN NEW MEXICO

Introduction

Many programs designed to accelerate economic growth of rural areas--such as the Manpower Development and Training Act, the Public Works and Economic Development Act and even some sections of the Economic Opportunity Act--are predicated on the needs of an urban society and thereby proscribe rural participation. Testing of potential vocational trainees, for example, almost automatically screen out individuals whose tested educational achievements are of less than six grades and whose cultural orientations and language ability (non-English speaking) do not fit the testing instrument. In addition, human resource development--vocational training--programs require a reasonable expectation of employment for trainees completing the course. This is a significant constraint in establishment of skills training programs in rural areas where employment possibilities are nonexistent or of an un- or semiskilled type. Thus, development of marketable rural human resources through improving skills has been almost negligible.

Few rural residents have been able to improve their living standards and most are not equipped to beneficially gain from migration into urban

areas. Rural out-migrants generally do not have the skills necessary to earn an adequate income and/or to adjust to an urban setting. Out-migration, therefore, often implies a continuation of poverty either through continued unemployment or retrogression from a status of under-employment to one of complete unemployment. Rural residents and migrant returnees are usually forced to migrate seasonally for farm work and/or other types of unskilled labor. Limited employment opportunities in rural communities result in subsistence incomes earned from low-wage nontechnical employment or public assistance.

Poverty-stricken people usually cannot accumulate enough capital resources to establish developmental projects. Thus, the target population is not in a position to dictate establishment of business enterprises which will provide them with optimum benefits. Current planning for more intensive utilization of natural resources in rural New Mexico, for example, emphasizes tourism and recreational services. This reflects a middle-class bias. Tourist and recreational entrepreneurial developments primarily benefit established and imported commercial interests.

Recreational and tourist business activities do not create opportunities for poverty-stricken families to earn an income equivalent to migrant wages. Even if the target population could acquire sufficient capital to prevent exportation of earnings, the poverty-stricken do not have technical and entrepreneurial skills and business contacts essential for organization and operation of successful tourist-recreational enterprises.

Existing sociocultural and economic conditions in rural northern New Mexico have not been conducive for acceleration of private,

profit-motivated business activities. The primary sources of capital injection and employment has been the governmental apparatus. Deliberate sociocultural and economic change has to be initiated in order to propagate conditions conducive to economic growth. Carefully nurtured development of entrepreneurial skills in rural areas, the author believes, will expand a seriously depressed economic base.

The Planning Function

In The Strategy of Economic Development, Albert O. Hirschman states:

...While we were at first discouraged by the long list of resources and circumstances whose presence has been shown to be needed for economic development, we now find that these resources and circumstances are not so scarce or so difficult to realize, provided, however, that economic development itself first raises its head [*italicized in text*].

...Development depends not so much on finding optimal combinations for given resources and factors of production as on calling forth and enlisting, for development purposes, resources and abilities that are hidden, scattered, or badly utilized....Just as an underdeveloped economy can mobilize vast hidden reserves of unskilled labor from its redundant peasantry, so it is able to make capital, entrepreneurship, and all the other "prerequisites" climb unexpectedly on the band-wagon of economic development once it has started to roll.¹

The author concurs with this assessment. Rural communities in northern New Mexico have proven their tenacity for survival under adverse circumstances. With proper planning, the rural areas of northern New Mexico need no longer be relegated to an economic limbo. Progress can be made with intensified attention and detailed analysis.

Efficient utilization of resources will require establishment of goals, policies and creation of an organizational structure designed to

¹Albert O. Hirschman, The Strategy of Economic Development (New Haven: Yale University Press, 1958), p. 5.

implement developmental programs. Economic policy is concerned with choosing between alternative courses of action suitable for attaining desired goals. Alternative courses of action lead to different patterns of resource utilization having varying degrees of efficiency.

For purposes of this dissertation, it is assumed that rural northern New Mexico economic development programs will seek to increase employment and per capita personal income. Most other economic goals are special cases within the general objectives of these two goals. Methods of increasing both employment and per capita personal incomes may not always be completely compatible. Increases in per capita personal income, for example, could occur through technological changes which, in turn, reduce employment. At relatively low levels of economic development, however, such conflicts are likely to be almost nonexistent. A more common conflict may be in choosing between labor and capital intensive investment opportunities. That is, labor intensive industries usually provide much needed employment opportunities at low wages while capital intensive industries provide lesser employment opportunities at higher wages. Also, in the process of choosing between developmental possibilities, another type of conflict may occur: short- versus long-run considerations.

The types of choices discussed above may appear irrelevant for an area characterized by extremely low per capita incomes and chronic unemployment and underemployment. But the fact that these problems exist and that only limited resources are available make these types of choices critical at all stages of economic development. Thus, the following analysis is concerned with specific policy areas that will

require increasing attention in order to achieve the twin goals of increased employment and per capita personal income. The focus is on human and natural resources and development of industry in both the short- and long-run.

Existing Retrogressive Factors

Retrogression of rural northern New Mexico economic growth may be attributed to geographical isolation and a paucity of natural and human resources. Geographical isolation is due to the pattern of population concentration and, therefore, little can be done in the short-run. In the long-run, improved transportation technology and dispersion of industry will result in geographical isolation being less of a retrogressive factor. Rural-to-urban migration is a manifestation of miniscule employment opportunities associated with declining economic activities in the rural areas.

Lack of employment opportunities and low per capita personal incomes have had severe repercussions. Old and dilapidated homes, lack of adequate plumbing and electrical power, and inadequate medical facilities have propagated hygienic problems and chronic illnesses. Clothing, diets, and recreational activities are minimal.² These inadequacies are compounded by the large number of occupants per dwelling unit.

²Benjamin E. Mays and Leslie W. Dunbar, (eds.), Hunger: U.S.A., a report by the Citizens' Board of Inquiry into Hunger and Malnutrition in the United States (Washington, D.C.: New Community Press, 1968), indicates that all of the northern New Mexico counties are chronic hunger counties.

Under these circumstances, the study environment and learning process tend to become deficient.³

The large proportion of land under public ownership, coupled with declining economic activity, has resulted in most northern New Mexico school districts having insufficient funds to maintain minimal, acceptable educational standards. Moreover, most northern New Mexico students learn Spanish or one of the various Indian languages as their mother tongue, starting school with little or no knowledge of English. Forced into an academic environment formulated for English-speaking, middle-class Americans, these students find themselves falling increasingly behind in scholastic achievement when measured by normal testing standards.

The New Mexico Department of Education and several governmental agencies are now urging teaching and testing in the vernacular of the area. Educators in rural areas of northern New Mexico have assumed a lesser role than expected as active instigators of sociocultural-economic change. This has been attributed to current recruiting methods.⁴ The majority of teachers in rural northern New Mexico are originally from the same area. Conceptually, recruitment of teachers familiar with indigenous sociocultural and economic problems is an excellent idea. This advantage, however, is eclipsed by professional and attitudinal disadvantages.

³Dr. Horacio Ulibarri, Professor of Education, University of New Mexico, Albuquerque, New Mexico, indicates that the northern New Mexico high school graduates have an equivalent of a tenth grade education. Thus, they are immediately at a competitive disadvantage vis-a-vis students from urban areas (personal conversation, August 15, 1968).

⁴College of Education, University of New Mexico, Albuquerque, New Mexico (personal conversations, 1967-1968).

The author conducted several interviews in the Penasco Valley in an effort to determine educational aspirations. It seems that the community has an established social stratum in which the teacher is classified immediately below the merchants and politicians. In this position, it appears that the teachers would exert dynamic leadership. Teachers, however, tend to huddle in educational-social fraternities that are but faintly aware of community problems.⁵

Parental educational ideals are severely limited. Parents hope that their children will receive an education adequate for securing a good job. An adequate education means completion of high school; an adequate job implies out-migration. Occupational categories are not too important. In sum, parents want their children to achieve a higher living standard but education usually ends with or before completion of high school and better employment must be secured elsewhere than in the northern New Mexico communities.

The author also attempted to determine materialistic motivations of Penasco Valley residents. Most of the respondents equated an improved living standard with teachers, merchants, and politicians. Economic aspirations included: paying off debts (especially to grocers); purchase of necessities on a continuing cash basis; and ownership of a late model automobile, a television set and a washing machine; and installation of telephone, plumbing, and electrical facilities. Most respondents also desired a steady job with sufficient wages to deter continued seasonal

⁵According to Dr. Horacio Ulibarri, Professor of Education, University of New Mexico, Albuquerque, New Mexico, this problem occurs because most rural northern New Mexico teachers attended New Mexico Highlands University located in Las Vegas in northern New Mexico. Thus, their college education continues in the same cultural value orientation as existed in their home communities.

migration of the family. Few individuals were able to conceptualize banking functions and a time orientation beyond one year.

Politics and patronage continue to predominate in rural northern New Mexico. In a situation where most employment and income is derived from governmental sources, politicians effectively employ intimidation tactics through threatened job and income reprisals. According to several respondents, members of the school and rural electric cooperative boards--the two most important employers in the area--are among the most powerful and prominent men in the area. In these positions, board members can dictate hiring, firing, and wage policies.

Short-Run Economic Development Planning

Planning for economic growth requires a short- and a long-run time perspective. Adequate preparation of a short-run developmental strategy will facilitate phasing and integrating of short-run projects into the total long-run developmental effort. This section, therefore, will be devoted to possible methods of accelerating short-run economic growth in rural northern New Mexico. Methods of phasing short-term into long-run efforts will be discussed in the following section.

Organizational Structure

Success of economic development projects in rural northern New Mexico will depend largely upon adaptability to the existing socio-cultural-economic structure. As indicated above, the economic structure of northern New Mexico is heavily skewed towards governmental, agricultural and trades employment. The volume of trade depends largely upon income generated in the other sectors of the economy, especially in

tourist-oriented activities. Government employment has reached a saturation point. Emphasis, therefore, will be given to the other sectors.

Private entrepreneurs are assigned an exorbitant amount of responsibility under the existing economic development apparatus in the State of New Mexico. An implicit assumption of state planning agencies appears to be that a simple human and natural resources inventory will suffice to entice industries into the state. State government developmental efforts are somewhat coordinated with other governmental units when training programs and other services are needed.

Cities throughout the country are realizing that desirable industries are sumptuously courted and that these industries are seeking the best total package including: availability, recruiting and training of personnel; favorable financing (including donations of plant, equipment, and land); and a progressive economic climate. In this situation, rural areas are at a disadvantage vis-a-vis urban areas. The author, therefore, proposes organization of a nonprofit rural economic development corporation. By-laws of the corporation should be broad and include major developmental functions such as: (1) educational training; (2) research and planning; (3) determination of feasibility of projects; (4) funding and management of projects; (5) sale of shares to community development corporations; (6) marketing at wholesale and retail levels; (7) financing social projects; and (8) contracting for technical services.

Funding.--Funds for organization and operation of the corporation may be derived from several sources: (1) Federal--Office of Economic

Opportunity, Department of Commerce (in particular, the Economic Development Administration), Department of Labor (i.e., Concentrated Employment Program), Department of Health, Education, and Welfare and other existing agencies or those that may be established in the future for developmental purposes; (2) State--Department of Development, State Planning Office, Department of Education, Department of Welfare, and others; (3) private--a consortium of businessmen and foundations. The author recommends private financing in order to provide program flexibility. Provisions should also be made for reinvestment of entrepreneurial profits.

Personnel.--The operational phase of the developmental program should include at least: (1) corporation officers; (2) a legal-management specialist; (3) an industrial development specialist; (4) an economist; (5) a marketing specialist; and (6) an agricultural specialist. These individuals should be experienced in development and organization of new industries and in marketing of resulting products. Moreover, personnel should include specialists who are to measure the impact of proposed projects. Technical and supporting personnel should be funded through contract arrangements with recipients (i.e., new enterprises started and small businessmen provided assistance) and/or through agencies and organizations currently budgeted for this type of personnel.

A Plan of Operation

In the short-run, a three-pronged approach appears to be the best method: (1) adult basic education; (2) economic development projects; and (3) vocational education geared to provide training in skills for

manpower needs of new enterprises and potential out-migrants. These phases must be conducted in a concurrent and concentrated, integrated manner in order to achieve maximum utilization of human and natural resources.

Human resource development.--The change-agent (i.e., the organization implementing economic development projects) must initially operate with life style constraints of the indigenous population. Although the retrogressive factors noted are important, the following positive factors operative in the communities should also be taken into consideration: (1) a shrewd tenacity to subsist under adverse circumstances--the combining of agricultural, pastoral and seasonal employment in order to survive; (2) a built-in social security arrangement, in addition to public assistance, whereby kinship groups and the nuclear family provide for each other; (3) physical adaptability and temperament conditioned to seasonal and intense exertion (i.e., during the agricultural season); and (4) group-ethnic cohesiveness. At the same time, it is also necessary to provide special attention to the following constraints: (1) educational and nutritional deficiencies; (2) lack of time-clock perception; (3) apathy resulting from continued failures; (4) lack of materialistic motivations; (5) lack of entrepreneurial skills; and (6) an almost complete dissociation with the mainstream of American life. It is believed that the program discussed below takes these factors into consideration.

The educational phase of the developmental program must continue to receive almost total support from public sources. This phase of the program is expected to have the utmost ramifications on success of the

total program. A properly operated educational program may be expected to induce a reorientation of the entire learning process. As indicated by the age and sex distribution of rural northern New Mexico, trainees in the adult basic education courses will be: (1) older individuals from the indigenous labor force; (2) recent high school graduates; and (3) migrant returnees. These individuals have had inadequate preparation for the learning process. In order to assure participation, a subsistence allowance for trainees will have to be paid. If adult basic education trainees become better prepared and, as a result, are able to find better jobs, this should have some repercussions on parental educational aspirations for their children.

The educational phase of the program should include at least the following: (1) teaching for literacy; (2) community life involvement discussions; (3) pre-vocational education; (4) placement and counseling; and (5) referral services. The literacy phase, of course, should include instruction in reading, writing and mechanics of mathematics correlated to industrial adaptation and/or to vocational skills. Community life involvement should include analytical sessions designed to determine individual, group and community problems and how these problems relate to each other, as well as a series of alternative methods of solution.⁶ Pre-vocational training should include: (1) methods of improving budget management; (2) possible means for attaining full-time

⁶Benefits to be derived from the community life involvement phase include: (1) changes required in the political structure of the community; (2) need for credit unions and consumer cooperatives; (3) recreational and social needs of the community; (4) methods of finding and keeping employment; (5) budgetary self-analysis; and (6) employment and industrial needs and methods of instigating economic development programs, such as agricultural cooperatives.

employment; and (3) courses required to qualify for additional vocational training. Trainees needing specialized medical attention, vocational rehabilitation, counseling on social security benefits and the like will be referred to the appropriate agencies.

A job placement component is needed to ascertain employment opportunities within a predetermined radius from the communities chosen for concentrated developmental efforts. The majority of the adult basic education trainees may be expected to become employable upon completion of the course. Referrals to the New Mexico Employment Security Commission should, of course, be part of the standard operating procedure. As previously discussed, however, the Employment Security Commission has been unable to function as a placement agency in rural northern New Mexico. A primary function of the job placement component will be to recruit personnel required by new enterprises established through the corporation. Since some of the trainees will choose to migrate, the job placement personnel will also need to develop employment opportunities in other areas of the state.

Natural resources development.--As currently structured, natural resources development in northern New Mexico is synonymous with tourism and recreational activity. This type of development does provide some employment in the form of guides, maids, and other services. The author's concern, however, is that the highly regarded tourist trade is suspect of capricious distribution of earnings with little filtering through to the local population. This has been demonstrated in the state's ski enterprises where entrepreneurs have been imported and, as a result, earnings are being exported.

The author does advocate one method of tourist development: aggregation of land resources through cooperative endeavors. This could be accomplished through formation of a community development corporation. Several types of enterprises appear to have potential: (1) hunting preserves; (2) summer camps; (3) arts and crafts; and (4) a combination of all three. These types of development are especially appropriate for land grants establishing a functional organization.⁷

Agricultural and pastoral activities have continued to constitute the mainstay of the rural northern New Mexico economy. These activities, per se, need not be destroyed. However, successful adaptation of agricultural-pastoral activities in order to provide a catalytic function in the overall development effort will require modernization. Pooling of funds, lands, equipment and crops produced will allow realization of economies of scale. Agricultural cooperatives provide the following additional advantages: (1) funds may be borrowed from or granted by governmental agencies; (2) commercial financing may be established without personal liabilities; (3) governmental agencies and private groups may provide technical assistance; and (4) volume production is more likely to open larger markets.

⁷See Chapter II for a detailed historical discussion of land grants. Briefly, land grants were large parcels of land given to individuals, groups and communities prior to 1848 by the Spanish and Mexican governments as a method of promoting permanent settlements. Although most of these lands were lost through technicalities when New Mexico became part of the United States, a few of the original grants were recognized and have remained intact. Heirs to these lands typically form a governing board.

While livestock production is economically sensible for large landowners, small farmers cannot possibly earn an adequate income from this source. A cooperative effort in livestock production, therefore, is another possible method of improving incomes for land grant heirs. In addition, other small farmers may be able to benefit through a cooperative effort.

Livestock raising by small growers has lacked proper planning for breeding, feeding and marketing. Calf-drop ratios (calves born from cows two years of age and older) are typically below the state average. According to cattle buyers in the area, only 70 percent of all calves born are actually marketed; lower calf-drop ratios imply a lesser number of calves sold. Cattle cooperatives could increase incomes of small farmers through lower feed prices, provision of stud and veterinary services and a greater number of calves from a given mother herd available for sale.

A logical extension of cattle cooperatives is expansion into the businesses of feeding and marketing. Cattle buyers in northern New Mexico contend that small growers have two disadvantages: (1) cattle and calves are sold to traveling buyers who normally underestimate weights; and (2) current breeding practices result in calf-drops at any time between January and June.⁸ Controlled calf-drop cycles and collective marketing would entice a greater number of buyers and thereby increase competition. Small growers would also receive a greater return at least by the amount of weight hedging by traveling buyers.

⁸Claude Lowery, Ojo Caliente, New Mexico, August 1968.

Reduced or eliminated transportation, yardage, insurance and commission costs would return a greater portion of the sales price to the cattle owner.

These steps indicate a method of increasing returns from a given mother herd. Periodic replacements from improved stock may be expected to yield better grade animals. Greater returns to the small growers, as well as cooperative feeding, may provide an avenue for increased herd sizes.

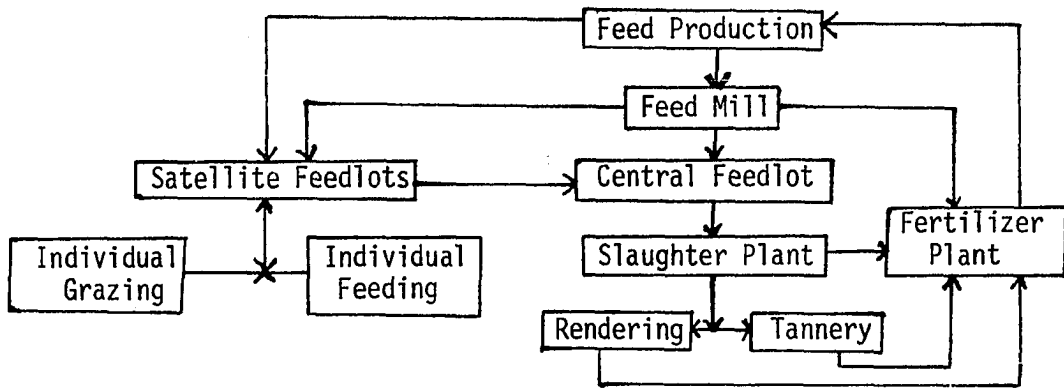
Industrial projects.--The author has submitted a proposal to the Ford Foundation that would develop the cattle industry in five southern Colorado and seven northern New Mexico counties.⁹ Local cattle cooperatives would evolve into satellite feedlots supplying a central feedlot. Development of the feedlot operations, in turn, would provide the basis for development of a slaughter plant, a fertilizer plant and processing of by-products. Cattle inventories and feed production in these counties may be expected to support a 30,000 head a year project. Cattle and feed are currently being shipped out-of-state for further processing (see Appendix C).

Actual location of the feedlots and related enterprises will depend primarily on: (1) transportation cost differentials between feed (southern Colorado) and cattle (northern New Mexico) shipments; (2) water requirements and availability; (3) effect of varying temperatures on

⁹Manuel A. Ferran, Northern New Mexico-Southern Colorado Cattle Feedlot and Slaughter Plant Project, a proposal submitted to the Ford Foundation (Albuquerque: Home Education Livelihood Program, September 18, 1968).

feed-to-beef conversion; and (4) technical and financial support from local, state and federal agencies. Figure 19 shows a possible organizational structure for an integrated northern New Mexico-southern Colorado livestock project.¹⁰

FIGURE 19
ORGANIZATIONAL STRUCTURE, CATTLE FEEDLOT AND
SLAUGHTER PLANT PROJECT, NORTHERN NEW MEXICO-
SOUTHERN COLORADO



Northern New Mexico calves are usually sold at 350 to 450 pounds. Local feed and marketing cooperatives could initiate satellite feedlot operations, feeding calves from 350 to 650 pounds at which time the heavier calves would be sold to a central "finishing" feedlot. The central feedlot, in turn, would sell calves weighing about 1,000 pounds to an adjacent slaughter plant.

¹⁰It may also be possible for this project to coordinate with livestock cooperatives currently being organized by the Office of Economic Opportunity in the southeastern states as well as with consumer cooperatives throughout the country. The author has been told that climatic conditions in the southeastern states (i.e., humidity and resulting sanitary and cattle mortality problems) restrict feedlot operations.

In order to minimize marketing problems, the author has recommended that the proposed slaughter plant be operated as a subsidiary of an established meat packing organization.¹¹ As discussed below in "Mechanics of Financing," adequate provisions must be made for ownership participation of cattle cooperative members in slaughter and by-products plants.

Production of vegetable and fruit crops in northern New Mexico has not fully developed primarily because of volume instability. Vegetable and fruit production has been characterized by small acreage per grower, lack of technology and capital, subservience to the area's livestock orientation and an addiction to diversified row-cropping associated with family gardening. Formation of agricultural cooperatives should lessen these constraints and allow for volume production of high value, high yield crops. Volume production would attract buyers and facilitate establishment of a processing plant in the area.

Forest products have a limited potential. This industry is in a transition stage whereby smaller units are being merged into larger units. In the process, sawmill and logging operations are being centralized. According to Grover A. Choate, the timber industry is plagued by:

Inadequate markets; a preponderance of old-growth timber that is risky to hold and expensive to protect; slow growth of trees; low volumes per acre and poor quality timber as compared with the west coast and other areas....Other adverse factors are an inadequate road system, a backlog of stand-improvement work and disinterest in timber management by most private owners

¹¹The author has been in contact with several tanneries and meat processing firms regarding possible participation in livestock projects.

with small holdings. The need for managing timber with regard to water, recreation, and other forest uses is still another problem--one that may well become the most important and the most difficult to solve.¹²

Additional employment opportunities may be developed in cooperation with the U.S. Forest Service and the Bureau of Land Management. These agencies are planning for thinning, pruning, reseeding and road-building operations required to improve productivity of commercial timber areas. Indigenous contractors have until recently been excluded from the bidding process. Size and capital requirements have now been lowered by a number of governmental agencies in order to solicit bids from local individuals. Contracting with governmental agencies, therefore, should be considered as a means of expanding employment opportunities in the short-run.¹³

Northern New Mexico is well-known for its handcrafted furniture, jewelry and woven items. These products are currently produced in the artisans' homes for individual and/or consignment sales. Lacking technical, managerial and marketing skills, the best possibility for a sustained and substantial increase in production--and, consequently, income--is to shift production into shops. The corporation could function in organizing production, construction of the plant, developing production techniques and marketing the products. At the same time, a series of arrangements could be worked out with other manufacturers

¹²Grover A. Choate, New Mexico's Forest Resource, U.S. Forest Service Resource Bulletin INT-5 (Washington, D.C.: U.S. Department of Agriculture, 1966), p. 31.

¹³For example, the Ojo Caliente (New Mexico) Craftsmen Cooperative was initially supported by manufacturing of wood items for the Headstart Program, Office of Economic Opportunity. A contract has recently been concluded to produce signs for the U.S. Forest Service. According to the Forest Service, these signs are superior to those produced in their own shops.

for sub-contract work in order to develop mass production items and capability. Development of mass produced items, in conjunction with hand-crafted items, will allow employment of highly skilled and less skilled craftsmen.

Plant locations and relocations should be solicited. In determining the types of industries that may be interested in locating in northern New Mexico, it becomes imperative to first determine the advantages available in the area, such as a surplus of manpower, financial and technical assistance available for "poverty" areas, a central location for different types of markets and assistance that may become available through the proposed corporation. These advantages may appeal to industries that have been experiencing a shift in markets from the east to the west coast, industries needing large land tracts and defense-related industries. At the same time, it is also important to determine disadvantages such as transportation and proximity to population centers. Once the particular type of industry to be courted has been determined, the development corporation should concentrate in relocating or locating these industries in pre-selected areas.

Mechanics of financing.--As discussed above, the economic development corporation would be funded from private subscriptions, governmental agencies and would be contracted with the recipients and governmental agencies for specific services. This funding would provide for technical staff, as well as for a limited amount of capital "seed" funds. Since the thrust of the developmental effort is to develop locally owned and operated enterprises, the corporation's capital funds

will be insufficient. The problem, therefore, is to expand the capital fund as industrial projects are established.

Several methods for multiplying initial capital "seed" funds are available. These funds could be used to solicit and match governmental funds for selected projects. Foundation funding is available in the form of social capital investment.¹⁴ The initial capital funds, in conjunction with governmental and foundation funding, could be used to negotiate commercial loans.

Commercial bank loans may be obtained as follows: (1) the corporation's entire funding may be placed in one bank or a consortium of banks with an understanding that the bank or banks will negotiate for loans as needed; (2) cooperating foundations may deposit funds and/or otherwise induce the bank or banks to establish a satisfactory working relationship with the corporation; (3) selected funds may be placed in the bank or banks for the specific purpose of negotiating further financial arrangements; and (4) local entrepreneurs may negotiate directly with financial institutions. Moreover, it may be possible to develop financial arrangements with the various governmental subdivisions, insurance companies, pension funds and other investors.

A typical commercial bank arrangement may be as follows: (1) deposit of operating funds in a checking account and capital "seed" funds in certificates of deposit or similar interest bearing instruments; (2) establishment of a specified credit line at one percent above the

¹⁴For example, the author has recently concluded negotiations with the Ford Foundation for approximately \$2 million in subordinated debentures on the condition that further local financing is obtained. These funds will become available for livestock and related enterprises.

New York prime rate; (3) utilization of capital funds and chattel mortgages in order to obtain three to four times the initial capital; and (4) guarantees provided by governmental units and foundations specifically for predetermined projects.

Banks will accept this method of financing if the credit line is used to establish a series of diversified projects.¹⁵ From the viewpoint of commercial bankers, diversification reduces the probability of total failure. Should one of the projects fail, the capital funds plus the chattel mortgage on the assets of the defunct project will assure collection of the debt. Moreover, the corporation should be able to absorb some losses through incomes earned from successful enterprises. Depositing capital funds in interest bearing instruments will reduce the effective rate of interest on borrowed capital.¹⁶

Development of local entrepreneurship.--Figure 20 shows the proposed corporation's spin-off process of successfully developed enterprises. As emphasized above, the primary purpose of the corporation is to accelerate economic growth in rural areas of northern New Mexico by developing locally owned enterprises. Thus, it will not be the policy of the nonprofit corporation to establish a series of wholly owned subsidiary enterprises but to eventually allow local individuals to

¹⁵The author was recently involved in a series of negotiations with several commercial bankers whereby a capital fund of \$50,000 resulted in a credit line of \$175,000.

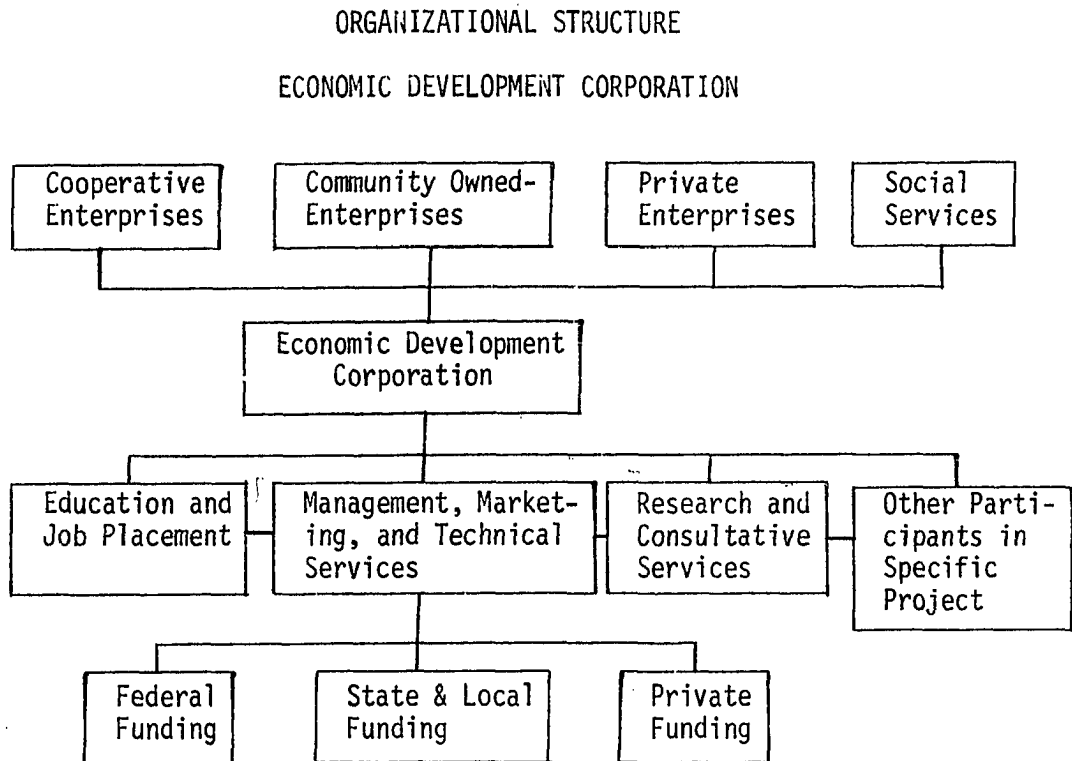
¹⁶See footnote 15 above. Since the credit line is not expected to be completely exhausted at any one time, the effective rate of interest on loans outstanding will average 4.55 percent. This rate of interest compares favorably with governmental financing and is superior to the terms currently available on commercial loans.

purchase the enterprises. It will be important, however, to continue to provide technical, managerial, marketing and research assistance to those enterprises initially established under the auspices of the corporation.

Retention of a small percentage of the shares of spun-off enterprises will assure the corporation's continued vested interest in success of the operation. Furthermore, it is hoped that funds derived from profitable enterprises will eventually be sufficient to defray technical assistance costs and provide additional capital funds. Thus, a self-sufficient economic development corporation may be developed. In addition, as indicated in Figure 20, one of the purposes of the corporation should be to provide social services from incomes earned.

The spin-off process will also free a portion of the corporation's capital invested in operating enterprises for implementation of additional projects. Ownership-sales provisions of newly established enterprises should provide preferential treatment for original local participants, especially employees. Subscriptions by employees and local individuals--with no single individual allowed to own more than ten percent of the shares allocated to the indigenous population--and bonds and commercial loans are probably the best capital sources for purchasing enterprises designated by the economic development corporation as ready to be spun-off. In some cases governmental financing may be obtained. Continued provision of technical services by the economic development corporation should be a condition of sale.

FIGURE 20



Long-Run Economic Development Planning

Planning for sustained economic growth will require changing some of the existing sociocultural and economic characteristics of the area under consideration. As noted throughout, the main retrogressive factors in northern New Mexico have been ecological imbalances, cultural differences, inadequate use of available human and natural resources and geographical isolation. Several methods of coping with these restraints and accelerating economic growth in the short-run were discussed above. It is imperative that long-run developmental plans encompass expected economic changes and possible repercussions brought about by enterprises established under short-run plans.

A total development effort will also require intensified coordination among planning and operational groups who will be involved in establishing developmental projects. Building of an adequate transportation network should facilitate a shift in the ecological and population distribution imbalances within the state.¹⁷ However, in the author's opinion, education and changes in sociocultural and economic orientations and abilities of the indigenous population are necessary if an economic climate conducive to success of new businesses is to develop. According to several researchers, the success of the initial enterprises will be determined largely by their compatibility with cultural traditions and expectations and will have to be structured in a way which will take full advantage of existing and potential local social organizations.¹⁸

Many of the needed changes will be brought about through the integrated approach presented above. Successful enterprises will improve the tax base resulting in better financing of state and local governmental units. Thus, social services should increase appreciably,

¹⁷According to the Four Corners Economic Development Region, Farmington, New Mexico, building of an expanded transportation network--as in other economic development regions of the United States--is of primary importance. The author disagrees with many of the reasons (especially to attract additional tourist and recreationists) given for placing transportation in a top priority position; expanded transportation facilities are only one of many interrelated projects needed to change the economic structure of the area.

¹⁸Frances Swadesh, Museum of New Mexico, Santa Fe, New Mexico, personal conversation, January 25, 1969, states that some industries--i.e., those connected to agriculture and handicrafts--are more highly valued than others and involve adaptation of existing skills which stand high in traditional prestige. The Home Education Livelihood Program is currently attempting to establish these types of industries (i.e., livestock, vegetable production, feeding, slaughter and rendering; and furniture production, sawmills, home construction and weaving).

especially in education. Betterment of the area's economic base should facilitate the return of rural migrants who are unable to fully adjust to new living and working environments. Ultimately, accelerated economic growth should also result in in-migration of individuals, from other areas, who are seeking employment. This, of course, is one argument for rural economic development. Stymied rural out-migration and urban-to-rural migration should be a method of decreasing urban overcrowding and unemployment problems.

Summary

Northern New Mexico's rural resources are extremely dispersed and ineffectively employed. Rural areas are plagued by a heritage of basic agricultural and pastoral skills, by a substantial and mounting acreage of relatively small agricultural plots that are currently unutilized or under-utilized, and by public land policies that have failed to assist the small farmer and other rural residents to eke out an adequate living. Manufacturing activities have been concentrated in traditional crafts which, in turn, have not benefited from modern marketing, managerial and research techniques. Farm-ranch-forest exploitation has not been conducive to secondary processing and manufacturing operations. However, entrepreneurial development and training geared to providing skilled manpower to new and potential enterprises should expand the industrial horizon.

In order to effectively and efficiently attack the economic problems of the area, a new developmental approach utilizing the existing environmental framework is required. An integrated, comprehensive, and

intensive effort to simultaneously solve related human problems within the environment in which they are being created and propagated will develop a climate conducive to economic growth. The economic development corporation model presented above includes the requisite developmental organizational structure.

Formation of an economic development corporation could provide for capital and other input infusion in selected and strategic projects. A three-pronged approach is required: (1) adult basic education--English as a second language and literacy; (2) pre-vocational skills--manual arts such as woodworking and auto mechanics; and (3) community living skills leading to social development and involvement in community affairs through group problem solving. This is an integrated rather than a compartmentalized approach to training. The educational program should be keyed to specific needs of the developmental projects.

Short-run developmental projects include agricultural, livestock and industrial projects. These projects conform to the life styles of the indigenous population. By being able to develop a work schedule compatible with these projects, some family heads may be able to achieve an adequate living standard through participation and employment in several of the projects whenever there is a seasonal or operational schedule compatibility. As the established projects increase, the larger number of family heads employed will certainly lead to secondary and tertiary development of employment opportunities. In the long-run, implementation of these projects will result in industrial adaptation of the indigenous population. The foremost problem in a long-run perspective is to provide for adequate phasing of short-run projects.

CHAPTER VII

SUMMARY AND CONCLUSIONS

Introduction and Method

An objective of this dissertation has been to show the need for and benefits that may be derived from planning for economic growth of small areas. Of thirty-two counties in New Mexico, ten have been designated as "poverty-stricken" and are eligible for a wide range of financial and technical assistance from the federal government. These ten counties comprise the North Central New Mexico Economic Development District of the Economic Development Administration, U.S. Department of Commerce.

Because Spanish- and Indian-Americans predominate in the poverty areas of northern New Mexico, economic development programs in the state have been oriented towards these two ethnic groups. Planning for accelerated economic growth of this area will require formulation of programs that will utilize progressive characteristics attributed to Spanish- and Indian-Americans. The developmental program must include skills and worker adaptation training that will be sufficient to facilitate transition of rural migrants into an urban environment and also to develop the indigenous economic base in order to expand local employment.

The history of continued settlement by Europeans in northern New Mexico is much longer than in any other similar geographical area in the

United States. Spanish colonization of northern New Mexico, dating back to about 1598, consisted of a conglomeration of communities along river bottom lands of the main stem and tributaries of the Rio Grande. Isolation from the seats of government--Spain, Mexico and the United States--resulted in the development of an intricate traditional culture dependent upon kinship groups and agricultural-pastoral economic activities. Until the late 1920's, most communities in northern New Mexico were self-sufficient and remained relatively untouched by changes occurring throughout the United States.

The original army-rancho-trader American immigrant into New Mexico had little need to develop any type of rapport with the local people. A pattern of large-scale land losses by the indigenous population, however, was being formed. The Spanish and Mexican governments had granted lands (a device that was more effectively employed by England in the New England states) to individuals, communities and groups as an inducement to establish permanent settlements. Many of these lands reverted to the United States Government as indigenous landowners failed to legally register land titles and/or pay property taxes.

Migration into New Mexico in the late 1800's and early 1900's is usually attributed to an overflow from neighboring states and tended to occur along railroad paths in the southern part of the state. Since northern New Mexico has never had an adequate transportation system, there never was much dilution of the Spanish- and Indian-American population. These factors explain the state's north-south ethnic and economic development imbalances. Northern New Mexico was abruptly drawn into the main stream of American life through large-scale military conscriptions

during World War II. Many of the young men who were in the military or employed in defense-related industries chose to settle in urban areas where family enclaves formed and to which recent northern New Mexico high school graduates and drop-outs migrate in search of employment. Large-scale population losses since World War II have depleted northern New Mexico of its mobile working age groups. The current age distribution is highly skewed towards the elderly and the school-aged.

Northern New Mexico's socioeconomic problems are somewhat divergent from the rest of the state and the Southwest. Educators are troubled by the large number of students entering school for the first time who speak Spanish or one of the Indian dialects as their mother tongue.¹ A 370-year history of splitting land parcels among the heirs has impeded consolidation of farms into larger and more efficient units. Furthermore, most of the land in the area is in the public domain. The population density in northern New Mexico is among the lowest in the state. As a result of the severely depressed economic and tax base, governmental services in northern New Mexico are extremely inadequate when compared to other parts of the state.

These conditions call for an economic development approach that must be somewhat different than methods previously employed and/or being applied in other parts of the United States. In order to fully demonstrate the intricacy of the developmental problems of northern New Mexico,

¹According to Frances Swadesh, Museum of New Mexico, Santa Fe, New Mexico, Spanish has long served as the lingua franca for several New Mexico Indian tribes but is now being replaced by English. This is somewhat lessening the area's language problems.

the Penasco Valley--a conglomerate of eleven communities located in Taos County--was selected for detailed study. The Penasco Valley is located in the heart of northern New Mexico and exhibits most of the retrogressive and progressive characteristics evident in the area.²

Data for the Penasco Valley was generated through a sample census survey (see Appendix A) and compiled from the 1960 Census of Population: New Mexico, as well as from Special Tables published by the U.S. Bureau of the Census, and from files of various governmental and private groups. The New Mexico Employment Security Commission provided data on file for individuals who were registered for work--in most cases simply to qualify for unemployment compensation--in the Espanola and Taos local offices during 1967. Data obtained in the sample census survey for public assistance recipients were verified by the New Mexico Department of Public Welfare. In addition, files of the Home Education Livelihood Program were screened and used when appropriate.

New Mexico's Rural Population in Perspective

Recent urban riots and disturbances have drawn attention to the economic plight of urban slum and ghetto residents. Federal, state and local programs have been established in an attempt to rectify this situation. However, with few exceptions, the need to initiate similar programs in rural areas has not been so forcefully demonstrated. Public

²The Penasco Valley is further hampered by Picuris Pueblo Indian ownership of the best idle farm land in the area. Thus, planning for long-term economic development of the area must encompass methods of encouraging the Spanish- and Indian-Americans--who possess many of the same problems and traditional cultural values--to cooperate in developmental programs for betterment of the entire area under consideration. The author feels that the Picuris must be incorporated into current and future educational and developmental efforts in order to draw them from their self-imposed social isolation.

apathy with regard to rural poverty has been compounded by an accelerated rate of migration from rural areas and the belief, on the part of many individuals, that this is an inevitable result of national economic growth. Migration from rural areas has deprived rural residents of their most vigorous leadership.

Rural poverty is now generating increasing concern on the part of individuals and groups who realize that rural and urban poverty problems are inextricably interwoven. Costs of rehabilitating high population density urban areas are exorbitant in comparison with rural developmental programs. The magnitude of rural poverty is much more severe than most people realize. While ten million families in the United States in 1960 --of a total of 45 million--were classified as poverty-stricken, rural families--accounting for 30 percent of the total population--comprised 46 percent of the poor families.³ Of 54 thousand families in New Mexico in 1960, 21 thousand were classified as poverty-stricken. Accounting for only 34 percent of the state's total population, rural families encompassed 49 percent of the New Mexico poor families.

More devastating than mere place of residence is the disproportionate number of ethnic minority families who in 1960 received an income that was below the poverty level. In New Mexico, most Spanish- and Indian-American families live in the poverty core areas of the northern part of the state.

Agencies and Organizations Planning for Economic Development
of Rural Northern New Mexico

The U.S. Department of Agriculture was responsible for rural economic development until the early 1960's when several congressional acts placed

³It must be noted that urban and rural poverty levels are based on comparable money incomes.

some of the responsibility on the Department of Commerce and the newly established Office of Economic Opportunity. Critics of domestic developmental policies claim that the Department of Agriculture geared its programs to provide services to large producers and has neglected small farmers.

Although the United States does not officially engage in comprehensive national economic planning, post-World War II policies sought to provide full-employment, stimulate economic growth, maintain purchasing power and establish a balance-of-payments equilibrium. Economic planning, however, is usually undertaken in connection with specific projects. The Economic Development Administration and the Office of Economic Opportunity, as well as other agencies administering manpower and technical assistance programs, require justification for implementation of programs requested.

It has been the author's experience that most northern New Mexico economic development programs have been drafted to meet requirements of the agency contemplating funding projects in the area and do not reflect an unbiased and professional evaluation of the target area's socioeconomic problems. Rather, these plans clearly show haste and an uncritical presentation of U.S. Bureau of the Census data. The New Mexico State Planning Office is now responsible for preparation of a state comprehensive economic development plan. Sequential phasing of the work schedule, however, precludes completion of the plan until the mid-1970's. The Home Education Livelihood Program is the only private organization in New Mexico that is attempting to develop a systematic economic development approach on a state-wide basis.

The Penasco Valley Economy

Located in Taos County, northcentral New Mexico, the Penasco Valley was first settled by Spanish missionaries in 1621. Spanish settlement of the area was encouraged by the Spanish government through provision of land grants to individuals, groups and communities. In addition to the various Spanish-American communities in the Valley, the Picuris Pueblo is now located on a portion of a land grant initially given to them by the Spaniards and subsequently recognized by the United States government.

The Valley is located in the Sangre de Cristo Mountain Range, with elevations ranging from 7,000 to more than 12,000 feet. At these elevations, the agricultural growing season is short and there is a high water yield from snow melt. Isolation of this high mountain valley became less of a retrogressive factor when all-weather roads were constructed in the early 1960's. Private lands have been subdivided to the point where only subsistence farming is possible. As in most of northern New Mexico, the U.S. Forest Service is the largest landowner.

Economic activity in the area is stagnant and employment is heavily concentrated in governmental and agricultural activities. Farming consists primarily of garden cultivation and livestock growing. Since arable land is limited, most cattle growers have to rely extensively on U.S. Forest Service grazing permits. Governmental employers include the schools, the New Mexico State Highway Department, the Office of Economic Opportunity (various programs) and the U.S. Forest Service. Seasonal migration for construction and agricultural employment has become a way of life. Some employment within the Valley is available in trades and

services (primarily for entrepreneurs and their families). A few individuals commute to nearby communities.

Welfare dependency rates in the Penasco Valley are higher than in Taos County and in the state in general. A high dependent-to-worker ratio exists and may be attributed to the unfavorable age distribution of the population. The lack of employment opportunities, coupled with the age distribution, has contributed to the area's exceedingly low living standards. Educational attainments are lower in the Valley than for the average individual in the surrounding areas. Homes are substandard, lacking most modern conveniences. Indicators of the degree of well-being substantiate the magnitude of poverty in the area.

The Structure of the Rural Northern New Mexico Economy

According to the University of New Mexico, Bureau of Business Research, economic activity has been declining in northern New Mexico since 1940. A reason for this, of course, is a net loss of population during the same period. Population losses, however, are partially due to meager employment opportunities.

Lack of economic activity in northern New Mexico is illustrated by several labor force characteristics: (1) the labor force participation rate--the number of individuals from the potential labor force who are actually in the labor force--is below the state's level; (2) unemployment rates, especially during the winter months, are substantially above the state and national rates; and (3) there is little industrial employment. Analysis of the Penasco Valley Census Survey respondents indicates a general lack of mobility. This, of course, shows that the aged and school-aged are not nearly as mobile as the extremely small working-age

group. The primary constraints in the initiation of economic growth of the area are a paucity of natural resources, isolation and a lack of an adequate transportation system.

A Plan for Acceleration of Economic Growth
of Rural Northern New Mexico

In order to effectively attack the economic problems of rural northern New Mexico, a new developmental approach is necessary. This approach has to be compatible with the life styles and resources of the area. The proposed economic development model utilizes indigenous resources and provides a catalytic agent.

A nonprofit economic development corporation will be used as the vehicle for implementation of projects designed to accelerate economic growth in selected areas. It is believed that concentration in selected developmental projects will expand the economic base of the target area sufficiently to sustain continued growth. A three-pronged approach is planned: (1) adult basic education; (2) entrepreneurial projects; and (3) planning and coordination with other agencies operating programs in the target area.

Several sources of funding are available: (1) contractual arrangements with governmental agencies currently performing economic development services in the project area; (2) philanthropic foundations willing to provide high-risk capital; (3) a consortium of concerned businesses; (4) negotiated commercial loans; and (5) local capital. A combination of sources is possible and may be desirable.

The corporation will seek to develop local enterprises and entrepreneurs by: (1) providing technical, marketing, managerial-legal and

research assistance to existing and newly established businesses in the target area; (2) generating capital funds through a variety of methods, including loan guarantees; (3) actual establishment of new enterprises which are to be initially owned and operated by the corporation and subsequently spun-off to employees and a local community development corporation; and (4) utilizing accrued profits to establish a continuing series of enterprises and ultimately social projects. The corporation is expected to continue to provide technical services to spun-off businesses.

The following short-run projects are suggested: (1) an integrated livestock project consisting of feedlots, a slaughter plant and by-products processing; (2) vegetable production and processing; (3) a project to manufacture furniture and handcrafted related items; and (4) recreational enterprises, especially in land grants. In the long-run, sustained economic growth will depend upon adequate introduction and phasing of short-run developmental projects, simultaneous operation of educational programs and aggressive recruitment of expanding industries.

Conclusions

Completion of a study always demands self-analysis to determine if the original objects were fulfilled, the quality of the work and the value and extent of contribution towards the betterment of the study discipline. The author feels that his objectives were substantially met. However, as the study progressed a real problem was the lack of fluidity of inter-related objectives. Questions also arose as to the value and timeliness of the original goals, especially when the author is involved in executing many of the ideas and concepts developed in writing the first draft.

Some of the concepts--i.e., the mechanics of financing developmental projects--were novel when first developed. Oral discussions with individuals working in similar projects, however, tend to quickly disseminate concepts that appear to have merit.

Implementation of new concepts developed in the process of writing the dissertation will quickly frustrate the author as his work schedule appears to fall increasingly behind the original target date. Moreover, the author has noted that current rural northern New Mexico economic development programs have been funded for unrealistic short time periods. In some cases the project period was proposed by the implementing agency, but more often funding restrictions forced the allotted time period. Project time schedules must be continuously reviewed and revised as short-run projects evolve into the total long-run effort. Time constraints are especially relevant when protracted community development efforts are required to change indigenous concepts and attitudes before livelihood circumstances can be altered.

The quality of a study is usually judged on its applicability to solution of the problems under consideration. A number of individuals have told the author that implementation of developmental projects in untouched areas run the risk of increasing aspirations and may lead to subsequent let-downs if the projects fail. This may be true. However, project failures are usually due to inadequate preparation and planning for alternative courses of action. If this dissertation has demonstrated the need for planning and action (action research), a major portion of the author's objectives will have been achieved. There is, nevertheless, a definite need to continue to assess developmental

approaches and to explore methods of attaining economic development goals in a more expedient, efficient and enduring manner.

A final question needs to be discussed: Is there a need to develop the economies of all rural areas? This, of course, is a valid and important question. In the author's opinion, solution of economic and related ills of even a small segment of the poverty-stricken population is a positive step towards a healthier and more economically sound national society. Failure to establish a workable economy and a more humane social environment in rural poverty areas will ultimately contribute to and exacerbate the economic and social problems of urban areas.

If innovative ideas suggested herein (and now in the process of execution) substantially succeed in one rural poverty area, much of what will be learned likely will be applicable to other situations--urban and rural--in which positive action must be taken to alleviate the desperate conditions of the poor. Many of the methods and projects suggested in this dissertation and currently being planned for implementation by the Home Education Livelihood Program will, after a short demonstration period, serve as a model for the poverty areas of Albuquerque, New Mexico, and other cities in the Southwest having concentrations of Spanish- and Indian-Americans. Moreover, several philanthropic foundations are now closely examining the approach suggested herein for possible use in the black ghettos and rural areas of the South.

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APPENDIX A

PENASCO VALLEY CENSUS SURVEY

The population under consideration was limited to residents of the following communities:

- | | |
|----------------|--------------|
| 1. Chamisal | 6. Penasco |
| 2. El Valle | 7. Placitas |
| 3. Las Trampas | 8. Rio Lucio |
| 4. Llano | 9. Rodarte |
| 5. Llano Largo | 10. Vadito |

In order to select a random sample of the population, it was necessary to compile the most complete list possible of households in the area. The Kit Carson Rural Electric Cooperative, Taos, New Mexico, possessed the most current listing of households in the area. However, since it was possible that the Kit Carson list did not contain the names of low income households, names of heads of households were checked against lists maintained by the various poverty programs in the area (i.e., the Home Education Livelihood Program, the New Mexico Department of Welfare, and the Office of Economic Opportunity's Community Action Program (CAPs) and Head Start Program). School records were also checked and personnel of the aforementioned agencies were asked to check the master list for omissions.

The final master list included 999 households: 741 in the communities within the Penasco Valley; 60 in Ojo Sarco, a community near but

outside the Penasco Valley; 12 Penasco Valley residents who were being billed for two meter accounts; 169 individuals with other mailing addresses (primarily owners of cabins in Tres Ritos); and 17 businesses.

It was determined that a 15 percent sample would provide reliable information. Thus, tables of random numbers were used to select 111 households from the 741 household master list. Of the 111 households selected, 85 responded. The questions asked were:

1. Name of interviewer
2. Name of respondent (last name first)
3. Community
4. Anglo-American, Spanish-American, Indian-American, Negro, Other
5. List of household members
6. Marital status
7. Sex
8. Date of birth
9. Relationship to household head
10. Number of children ever born to females 14 years of age and older
11. Place of birth
12. 1967 income (amount by source)
13. Number of years lived in home, community, county and state
14. Speak, read, write English
15. Speak, read, write Spanish
16. Highest grade of regular grade school completed
17. Highest grade of regular high school completed
18. Number of years attended parochial, public, private schools
19. Year graduated from high school

20. Number of years attended college
21. Attended vocational school: yes or no (if yes, explain)
22. Degrees, diplomas, certificates
23. Military service: yes or no
24. Draft status
25. Work for pay any time last week (including military): yes or no
26. If individual worked last week, type of work and place
27. If individual worked last week, number of hours worked
28. If not working, temporary layoff: yes or no
29. Looking for work: yes or no
30. If looking for work, registered with N.M Employment Service: yes or no
31. Last time worked for pay (including military): working, 1968, 1967, 1966, 1965, 1960-1964, prior to 1960
32. Weeks worked in 1967 (including military)
33. Most recent occupation
34. Types of work and places last five years (last job first)
35. Proportion of 1967 income earned from farm employment: none, very little, 1/4, 1/2, 3/4, all
36. Over one-half of 1967 income received from: salary, self-employment in agriculture, self-employment, veterans' compensation, welfare, social security, pension, unemployment compensation
37. Years worked over one-half of year outside home community: 1962, 1963, 1964, 1965, 1966, 1967, 1968
38. Way of transport to most recent job in 1967
39. Willing to move out-of-state for better job: permanent, temporary, not at all
40. Times visited medical doctor in 1967: none, one, two, three, four, five or more
41. Did you need medical services in 1967 but were unable to obtain: yes or no (if yes, explain)

42. Times visited dentist in 1967: none, one, two, three, four, five or more
43. Did you need dental services in 1967 but were unable to obtain: yes or no (if yes, explain)
44. Ever used services of attorney: yes or no (if yes, explain)
45. Did you ever need the services of an attorney but were unable to obtain: yes or no (if yes, explain)
46. Ever need the services of an optometrist but were unable to obtain: yes or no (if yes, explain)
47. Do you have disabilities: yes or no (if yes, explain)
48. Ever need services from hearing specialist but unable to obtain: yes or no (if yes, explain)
49. Approximate amount of money spent for food per month
50. Amount of money spent for food per month outside of home community
51. Majority of purchases for food at grocery store on credit: yes or no
52. Approximate amount of money spent for clothes per month
53. Amount of money spent for clothes per month outside of home community
54. Approximate amount of money spent for all purchases per month outside home community
55. Checking account: yes or no
56. Savings account: yes or no
57. Ever borrowed from a finance company: yes or no
58. Ever borrowed from a finance company to buy: none, automobile, television, furniture, durables (such as refrigerator, stove, washing machine)
59. Size of place: one acre or less, one to five acres, five to ten acres, more than ten acres
60. Land used for farming: no, yes but no sales, yes sales less than \$50, yes sales of \$50 to \$100, yes sales over \$100
61. Number of persons living in this house
62. Number of rooms in this house

63. Kitchen in this house: yes or no
64. Kitchen sink with drain in this house: yes or no
65. Cooking facilities in this house: yes for use of household only, yes but shared with others, none
66. Dining room in this house: yes or no
67. Number of bedrooms in this house: none, 1, 2, 3, 4, more than 4
68. Bathrooms with private flush toilet in this house: none, 1, 2 or more
69. Bathtub or shower in this house: yes for use of household only, yes but shared with others, none
70. Year house originally built: 1966-1968, 1962-1965, 1957-1961, 1950-1956, 1940-1949, 1930-1939, 1929 or earlier, trailer on permanent foundation, mobile trailer
71. Own, buying or renting house
72. If renting, monthly payments
73. If renting, do you pay: utilities, fuel, both, none
74. If buying, monthly payments
75. Hot and cold running water in house
76. House heated by: fireplace only, electric heat, gas heat, oil heat, other
77. House connected to: public sewer, septic tank or cesspool, none
78. Do you have clothes washing machine not shared by others: none, machine with wringer, automatic, semiautomatic
79. Do you have clothes dryer not shared by others: none, gas, electric
80. Television sets: none, 1 black and white, 1 color, 1 color and 1 or more black and white, 2 or more black and white but no color
81. Television channels watched last month: 5, 4, 7, 13, all
82. Receive or purchase newspaper: no, daily, sometime, once a week
83. Radios in house: one, two or more, none
84. Telephone in house: yes or no

- 85. Working cars and pickups owned or regularly used by persons of household: none, 1, 2, 3 or more, year and model
- 86. Own land: yes or no (if yes, how many acres)
- 87. Farm own land: yes or no (if yes, how many acres)
- 88. Lease land to farm: yes or no (if yes, how many acres)

Questions 1-23 were to be answered by all individuals in the household and questions 23-38 only by individuals 14 years of age and older.

The head of the household or spouse were to answer questions 39 to 88.

Interviewers were selected from the community in which they were to work and trained by two members of the Home Education Livelihood Program during a three-day session. Data were punched in cards and machine tabulated.

APPENDIX B

EMPLOYMENT-BASED POPULATION

PROJECTION APPROACH

The basic assumption used by Professor Ralph L. Edgel in deriving population projections for New Mexico and each of its counties is that the population of a given area is primarily a function of the number of jobs and the labor force participation and unemployment rates in the area.¹ Migration takes place in response to changes in the number of employment opportunities. Thus, in- and out-migration is a dependent variable in the employment-based population projection approach as compared to the migration approach where it is considered to be an independent variable.²

Calculation of migration-based population projections require computation or the use of assumed age-specific fertility and death rates

¹Ralph L. Edgel, "Projections of the Population of New Mexico and Its Counties to the Year 2000," New Mexico Business reprint (Albuquerque: University of New Mexico, Bureau of Business Research, July and August, 1965). Professor Edgel discusses and discards the migration and natural increase methods of projecting population as not suitable for economic development planning because they are implicitly based on employment within the given area.

²The basis for the migration-based population projection approach is that migration in the future will have some discernable relationship to migration in the past. Under this approach, employment opportunities are not explicitly considered: changes in population are related primarily to long-term shifts in concentrations of population.

(i.e., national fertility rates as given in Population Estimates, U.S. Bureau of the Census, and death rates provided in Vital Statistics of the United States, U.S. Department of Health, Education, and Welfare, Public Health Service, National Center for Health Statistics). Starting with a base-year population, the use of age-specific fertility and death rates allow computation of the natural increase without regard to migration. In order to calculate migration-based population projections, it is necessary to determine in- and out-migration rates for the given area.

Applying the computed migration rates--calculated annually for New Mexico and its counties by the University of New Mexico, Bureau of Business Research--to the base-year population will yield the number of in- and out-migrants. Out-migrants are deducted from the base-year population in proportion to age and sex groupings. The population that has not migrated is assumed to conform to the pre-determined age-specific fertility and death rates yielding the natural increase of nonmigrants. In-migrants less out-migrants yields net migrants. By assuming that migration occurs in a smooth and continuous manner and proportionately to the age and sex distribution of the base-year population, migrants are assigned age-specific fertility and death rates equal to one-half of the aforementioned pre-determined rates. Thus, natural increase of net migrants may be calculated and added (positive or negative) to the nonmigrant population plus the natural increase of nonmigrants. Finally, adding net migrants (positive or negative) yields the migration-based population projection at the end of the given time period. This is repeated for other time periods.

Migration-Based Population Projections

- (1). Base-Year Population X Out-Migration Rate = Out-Migrants
(1910) (1910-1915)
 - (2). Base-Year Population - Out-Migrants = Nonmigrants
(1910) (1910-1915)
 - (3). Nonmigrants X Natural Increase Rate = Natural Increase of
(1910-1915) (age-specific fertil- Nonmigrants (1910-
ity and death rates) 1915)
 - (4). Out-Migrants X One-Half Natural In- = Natural Increase of
(1910-1915) crease Rate of Non- Out-Migrants (1910-
migrants 1915)
 - (5). Base-Year Population X In-Migration Rate = In-Migrants
(1910) (1910-1915)
 - (6). In-Migrants X One-Half Natural In- = Natural Increase of
(1910-1915) crease Rate of Non- In-Migrants (1910-
migrants 1915)
 - (7). Base-Year Population + (3) + (4) + (6) + In-Migrants - Out-Migrants
(1910) (1910-1915) (1910-1915)
- = Migration-Based Population Projection (end of 1915)
-

Employment-Based Population Projections

	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
(1). <u>Employment</u> % of Labor Force ¹	95.5	95.0	95.0	95.0	95.0
(2). <u>Labor Force</u> Labor Force Parti- cipation Rate ²	58.1	60.8	58.1	55.0	52.8
(3). <u>Population 14+</u> % of Total Popula- tion ³	64.6	65.0	67.0	70.0	73.0

¹Assumes an unemployment rate of 4.5 percent in 1960 and 5.0 percent thereafter.

²Percent of population 14 years of age and older.

³From previously derived age and sex distribution data.

APPENDIX C

NORTHERN NEW MEXICO-SOUTHERN COLORADO
LIVESTOCK INVENTORY AND FEED PRODUCTION

TABLE C-1. LIVESTOCK INVENTORY,
SELECTED COUNTIES, NEW MEXICO
AND COLORADO, 1964-1967

TABLE C-2. FEED PRODUCTION,
SELECTED COUNTIES, NEW MEXICO (1967)
AND COLORADO (1966)

TABLE C-1

LIVESTOCK INVENTORY,
SELECTED COUNTIES, NEW MEXICO
AND COLORADO, 1964-1967

Counties	1964	1965	1966	1967
<u>Cattle and Calves</u>				
<u>New Mexico</u>				
Colfax	61,000	44,000	64,000	65,000
Mora	28,000	24,000	26,000	24,000
Rio Arriba	28,000	26,000	25,000	26,000
Sandoval	23,000	19,000	14,000	14,000
San Miguel	57,000	41,000	52,000	52,000
Santa Fe	19,000	16,000	24,000	26,000
Taos	12,000	9,000	10,000	10,000
Subtotal	228,000	179,000	215,000	217,000
<u>Colorado</u>				
Alamosa	18,400	17,000	17,400	21,600
Conejos	31,450	29,900	27,800	27,600
Costilla	8,900	8,600	8,300	7,200
Mineral	1,500	1,800	1,900	1,600
Rio Grande	17,250	17,000	21,700	27,700
Saguache	34,000	33,500	41,400	45,000
Subtotal	111,500	107,800	118,500	130,700
Total	339,500	286,800	333,500	347,700
<u>Sheep</u>				
<u>New Mexico</u>				
Colfax	6,500	6,500	4,500	4,500
Mora	15,000	15,000	14,000	12,700
Rio Arriba	56,000	63,000	67,000	65,100
Sandoval	5,000	4,000	5,000	10,000
San Miguel	10,000	5,000	4,000	3,500
Santa Fe	4,000	3,000	3,000	1,000
Taos	23,000	23,000	25,000	39,800
Subtotal	119,500	119,500	122,500	136,600

TABLE C-1--Continued

Counties	1964	1965	1966	1967
<u>Sheep, continued</u>				
<u>Colorado</u>				
Alamosa	28,000	24,000	27,500	33,500
Conejos	51,300	47,000	47,100	45,000
Costilla	14,000	13,000	15,600	19,000
Mineral	2,700	3,600	2,300	3,000
Rio Grande	64,000	54,000	61,500	59,000
Saguache	37,000	33,400	37,000	33,500
Subtotal	197,000	175,000	191,000	193,000
Total	316,500	294,500	313,500	329,600
<u>Hogs</u>				
<u>New Mexico</u>				
Colfax	2,000	2,000	500	600
Mora	500	500	130	140
Rio Arriba	1,100	1,100	400	420
Sandoval	400	400	320	350
San Miguel	500	500	280	300
Santa Fe	900	900	500	450
Taos	1,900	1,900	700	680
Subtotal	7,300	7,300	2,830	2,940
<u>Colorado</u>				
Alamosa	1,800	1,150	1,600	1,400
Conejos	2,900	2,450	2,600	2,500
Costilla	1,500	2,450	1,200	1,250
Rio Grande	5,400	5,900	4,800	4,500
Saguache	1,700	1,550	900	850
Subtotal	13,300	13,500	11,100	10,500
Total	20,600	20,800	13,930	13,440

Source: Joe Herman, Acting Director, U.S. Department of Agriculture, Statistical Reporting Service, Las Cruces, New Mexico, September 16, 1968, and Leslie S. Porter, Extension Agent, Extension Service, Colorado State University, La Jara, Colorado, August 29, 1968.

TABLE C-2

FEED PRODUCTION, SELECTED COUNTIES,
NEW MEXICO (1967) AND COLORADO (1966)

Counties	Barley	Corn (bushels)	Sorghum	Oats ¹	Alfalfa (tons)	Native Hay
<u>New Mexico²</u>						
Colfax	5150	32170	22000	5550	13570	6230
Mora	4500	110	4800	8200	5400	9780
Rio Arriba	6380	15000	--	6300	9280	6470
Sandoval	1420	31950	250	3600	12600	3000
San Miguel	1700	7100	4200	1400	3120	1650
Santa Fe	31500	55750	1340	4000	8800	800
Taos	24600	3450	700	14400	10540	1010
Total	75250	145530	33290	43450	63310	29020
<u>Colorado³</u>						
Alamosa	899000	N/A	N/A	89250	47500	17100
Conejos	624000	N/A	N/A	138750	34200	29260
Costilla	153000	N/A	N/A	62100	12920	1920
Rio Grande	1532300	N/A	N/A	139500	64090	22400
Saguache	895700	N/A	N/A	170400	31840	30000
Total	4104000	--	--	500000	190100	100680

¹1965 data for New Mexico.

²New Mexico figures excluding oats are for 1967.

³1966 data; 30 to 40 percent of the barley is for malting purposes, of which about 75 percent meets malting standards.

Source: Joe Herman, Acting Director, U.S. Department of Agriculture, Statistical Reporting Service, Las Cruces, New Mexico, September 16, 1968, and Leslie S. Porter, Extension Agent, Extension Service, Colorado State University, La Jara, Colorado, August 29, 1968.