

FACT SHEET

EMPLOYMENT CHANGES IN EXTENSION DISTRICT 13: 1970-1974

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Expansion of employment opportunities has long been a goal of rural Texas communities. To reach this goal, community leaders may find the abundant Texas employment data useful for tracing changes in employment and for planning a variety of economic development activities. The Texas Agricultural Experiment Station and the Texas Agricultural Extension Service have developed a series of reports which utilize a shift-share analytical method and Texas employment data to trace changes in local employment. This report provides the results of a shift-share analysis of Extension District 13 employment compared to statewide growth during 1970-74.

Shift-share analysis is essentially descriptive, but yields more information than normal trend analysis by identifying the contribution to district employment changes made by the region's specific industry mix. Hence, the analysis provides estimates of the district's employment compared to other districts and the state as a whole and indicates those industries for which the region may have competitive advantages.

Reasons for Employment Growth Differences Among Districts

Two major reasons explain why a district may grow at a different rate than the entire state or other regions within the state. First, a district is likely to have a different mix of economic activity. If the district is dominated by a variety of rapidly growing industries, it may have above average employment growth. Districts with predominantly slow growth industries may be expected to have below average employment growth.

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A second major reason for different employment growth among districts is more rapid growth of a specific industrial activity. While an industrial activity may experience statewide growth, decline or stagnation, that same industrial activity within a given district may manifest quite different local growth. For example, an industrial activity may be slow growing statewide but increase rapidly in a specific district because of locational advantages. Districts dominated by a local, rapidly-growing industrial activity may be expected to have an above-average employment growth (and vice versa).*

The Study Area

Extension District 13 consists of 19 counties in Southwest Texas with a total population of 1,037,434 in 1970 (Table 1). San Antonio, in Bexar County, is the only SMSA in the district. The population within Bexar County increased 20.9 percent from 1960 to 1970 (687,151 in 1960 compared to 830,460 in 1970). Nine of the remaining eighteen counties experienced population increases from 1960 to 1970 and the entire district population increased 17.8 percent during this period. The overall unemployment rate for District 13 in 1970 was significantly greater than state unemployment.

Employment Analysis for District 13

The employment data was provided by the Texas Employment Commission and was recorded by employee's place of employment rather than residence. Only employment covered by the Texas Unemployment Act was included. This excludes self-employed,

*Employment growth may not be reflected in rapidly growing industries where productivity increases are accompanied by declining employment such as agriculture. These industrial activities are "capital-intensive."

Table 1. District 13 Population and Employment by County

County	1970 ¹ Population	Percent Population ¹ Change 1960-1970	1970 ² Employment	Average Annual 1970 ² Rate of Unemployment
Atascosa	18,696	-0.7	6,905	3.4
Bandera	4,747	22.0	2,155	2.5
Bexar	830,460	20.9	272,990	4.6
Comal	24,165	21.8	9,995	2.0
Dimmit	9,039	-10.5	3,890	13.7
Edwards	2,107	-9.1	995	5.0
Frio	11,159	10.4	3,675	4.5
Kendall	6,964	18.3	3,140	1.7
Kerr	19,454	15.8	6,955	1.4
Kimble	3,904	-1.0	1,965	2.2
Kimmey	2,006	-18.2	1,065	6.2
LaSalle	5,014	-16.0	2,060	11.6
Maverick	18,093	24.7	5,295	14.5
Medina	20,249	7.1	8,720	2.5
Real	2,013	-3.2	955	7.3
Sutton	3,175	-15.1	1,610	1.5
Uvalde	17,348	3.2	6,800	4.2
Val Verde	27,471	12.3	7,945	10.1
Zavala	11,370	-10.4	4,185	17.0
District 13	1,037,434	17.8	351,260	5.2
Texas	11,196,730	16.9	4,584,455	3.7

¹Bureau of Census: Number of Inhabitants — Texas, Table 9.

²Texas Employment Labor Force Estimates for Texas Counties, April 1970.

unpaid family workers, employees covered by the Railroad Retirement Act and domestic service and farm workers.

Since broad economic trends are of interest, an analysis of the structure of the district's economy was considered at the Standard Industrial Classification Division level. Comparisons of the growth in the agriculture, forestry and fisheries division should be carefully reviewed because of the incomplete nature of this data. Also, it should be noted that the government division includes only federal employees.

Table 2 shows statewide employment growth rates for each employment division for the 1970-74 period. The agriculture, forestry and fisheries division and the services division grew fastest during this period, with rates of 121.9 percent and 83.9 percent respectively. Overall, the average growth rate for the Texas economy was 29.8 percent.

The growth rates shown in Table 2 provide a basis for comparison of growth of industrial divisions in District 13 with those throughout the state. If District 13 had exactly the same industrial composition as Texas and if each industry within the District had grown at the same rate as it did within Texas, employment in District 13 would have increased 29.8 percent. Thus, the growth rates shown in Table 2 can be considered expected growth rates for the District. However, the District 13 economy differed from the overall state economy and growth rates deviated from the statewide pattern during the 1970-74 period.

Column 2 of Table 3 shows the expected employment increase within each employment division for

District 13. These expected increases were computed by multiplying 1970 reported employment levels in the district by the Texas 1970-74 employment division growth rates. Column 3 identifies growth resulting from specific industries within the district and indicates the difference between reported 1974 employment and the sum of reported 1970 employment and the expected employment increases in each industrial division.

Given the 1970 industrial mix in District 13, the number of jobs within the district would have expanded by 61,942 if every employment division had grown at exactly the state average for that employment division. This would have resulted in an em-

Table 2. Texas Employment Growth Rates 1970-1974

Employment Division* (One-Digit S.I.C.)	Growth Rate 1970-1974
Agriculture, Forestry & Fisheries	121.9%
Mining	19.5%
Contract Construction	36.6%
Manufacturing	11.1%
Transportation, Communication & Utilities	19.2%
Wholesale and Retail Trade	29.2%
Finance, Insurance & Real Estate	37.8%
Services	83.9%
Government	.0%
Weighted Average	29.8%

*includes only employees covered by the Texas Unemployment Compensation Act. Agriculture, Forestry and Fisheries does not include owner-operators and their families or hired farm workers.

Table 3. District 13 Employment Shifts 1970-1974**

Employment Division (One-Digit S.I.C.)	(1) Reported 1970 Employment	+	(2) Expected Employment Increase	+	(3) Employment Due to Specific Industry Growth Within District	=	(4) Reported 1974 Employment
Agriculture, Forestry & Fisheries	384		465		-7		842
Mining	2,255		440		228		2,923
Contract Construction	14,961		5,630		2,973		23,565
Manufacturing	39,829		4,430		-2,743		41,516
Transportation, Communication & Utilities	11,203		2,148		123		13,474
Wholesale & Retail	68,006		19,866		-1,090		86,782
Financial, Insurance & Real Estate	15,726		5,940		-437		21,229
Services	26,725		22,424		5,166		54,315
Government	44,988		598		-2,810		42,776
Totals	224,077		61,942		1,403		287,422

**Rounding errors may effect row totals.

ployment growth rate in District 13 of 27.6 percent, significantly below the Texas overall average rate of 29.8 percent (66,774 jobs). In absolute terms, the district was expected to generate 4,832 fewer jobs by having an unfavorable mix of industrial activities.

However, the district generated 63,345 new jobs between 1970 and 1974 and actually grew at a rate of 28.2 percent rather than the expected 29.8 percent. The reason for this difference is that four of the seven employment divisions located in the district outpaced their counterparts throughout the state, especially services. The net result of this apparent gain in regional locational advantage relative to other districts was 1,403 more jobs than expected were generated in District 13.

Summary and Implications

Numerous factors determine location of industrial activity; sources of raw materials, availability of labor supply, nearness of product markets and transportation. Districts with a favorable industrial mix or a local, rapidly growing industrial activity have a "comparative advantage" — a relative efficiency in the production of these goods or services.

Shift-share analysis identifies employment

changes which result from the region's industrial mix and specific industry growth within the district. Causes of employment shifts are not identified. Further research is needed to identify actual causes of employment shifts in the five employment divisions which lag behind respective state growth. Unexpected employment increases realized in District 13 may be the result of deliberate or other management decisions based on a number of factors including new equipment, high labor productivity, geographic shifts in markets and adequate availability of finances.

Additional research should explore the reasons for the district's industrial mix — why particular industries have located within the district. Also, the district's ability to compete for new industry should be examined. Of particular interest should be the ability of local rapidly growing industries to maintain their growth and the district's ability to further exploit its comparative advantage in these industrial activities.

To enable the reader to explore the district's employment shifts in greater depth, a more detailed employment analysis has been developed and is presented in Table 4.* Analyses of employment shifts at the county level are available. Contact your local county Extension agent for further information.

*District totals may differ from those presented in Table 3 as a result of disaggregation problems.

Table 4. District 13 Employment Shifts 1970-1974**

Industrial Sector (One-Digit S.I.C.)	(1)	(2)	(3)	(4)
	Reported 1970 Employment	+ Expected Employment Increase	+ Employment Due to Specific Industry Growth Within District	= Reported 1974 Employment
Agriculture	384	457	0	842
Forestry	0	0	N/A	0
Fisheries	0	0	N/A	0
Metal Mining	0	0	N/A	0
Oil and Gas Extraction	1,486	311	440	2,237
Nonmetal Mining except Fuel	769	9	-93	686
Contract Construction	14,961	5,630	2,973	23,565
Food and Kindred Products	9,789	341	-742	9,388
Textile, Apparel	9,596	1,482	-1,938	9,139
Wood Products	1,875	225	100	2,200
Printing, Publishing	3,184	549	-11	3,722
Chemicals and Allied Products	743	21	185	949
Petroleum, Coal Products	331	6	39	376
Other Nondurable Manufacturing	3,115	864	-426	3,554
Metal Products	3,265	676	-282	3,659
Machinery Manufacturing	3,142	975	558	4,675
Transportation Equipment	3,387	-859	-322	2,207
Instruments and Related Products	697	67	-209	555
Miscellaneous Manufacturing	705	281	106	1,092
Railroad Transportation	0	0	N/A	0
Passenger Transit	986	-26	-8	951
Trucking, Warehousing	3,797	935	8	4,741
Other Transportation	975	243	220	1,438
Pipeline Transportation	0	0	N/A	0
Communication	4,580	865	-131	5,314
Utilities	865	129	37	1,030
Wholesale and Retail Trade	17,241	3,572	-616	20,197
Food Stores	8,923	2,567	928	12,418
Eating and Drinking Places	10,363	4,989	571	15,923
Retail Trade-General	31,479	9,076	-2,312	38,244
Financial, Insurance, Real Estate	15,726	5,940	-437	21,229
Lodging Places	3,525	1,019	298	4,843
Personal Services	6,156	408	-281	6,283
Miscellaneous Business Services	5,416	3,465	-679	8,202
Repair Services	2,364	1,251	229	3,844
Health Services	4,187	7,718	5,130	17,035
Legal Services	405	598	219	1,221
Educational Services	582	1,326	1,084	2,992
Entertainment	2,150	547	-32	2,665
Nonprofit Organizations	473	1,351	1,544	3,368
Private Household Services	0	0	N/A	0
Miscellaneous Services	1,467	994	1,401	3,862
State Government	0	0	N/A	0
Local Government	0	0	N/A	0
Federal Government	44,988	598	-2,810	42,776
Non-Classifiable	0	0	N/A	0
	224,077	58,602	4,743	287,422

**Rounding errors may effect row totals.

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