

The Texas Economy: Beyond the Boom and Bust

While public attention has focused on the Texas oil boom of the 1970s and the oil, construction and banking busts of the 1980s, less obvious phenomena have changed the structure of the Texas economy. Economic shocks get headlines, but beneath these disruptions are underlying forces that have continued to push the industrial structure and incomes in Texas to resemble those of the nation.

The Changing Industrial Structure: 1940-70

While the roots of the Texas economy lie in cattle, cotton and oil, the service sector has played an

increasingly important role both in Texas and in the nation. As Table 1 illustrates, from 1940 to 1970 the share of Texas employment in the service-producing sector increased from 52 percent to about 67 percent. Nationally, this share rose from 51 percent to 64 percent. Much of this shift resulted from technological changes in agriculture. The introduction of new machinery and chemicals to farming raised productivity and held down farm prices, allowing consumers to spend less of their incomes on food and more on services. These productivity changes also meant that farming would need fewer workers. Workers who would once have been farmers took jobs in the service industries.

Beginning in the 1960s, growth in the service sector started to cut into the employment share of goods-producing industries. One explanation of the declining share of goods-producing employment is that productivity gains in manufacturing allowed more production with fewer workers. Second, rising consumer incomes and increases in the number of working women pushed up the demand for such services as health care, child care and education, financial and recreational services. Finally, much of the shift toward service employment stemmed from an

increased demand for producer services, such as financial management and consulting.¹

The Boom-Bust Period: 1970-90

It is almost impossible to discuss Texas without mentioning the boom and bust economy of the 1970s and 1980s. Between mid-1973 and early 1981, inflation-adjusted oil prices more than tripled, and Texas saw a 40-percent increase in jobs. In 1980, near the peak in oil prices, a popular expression was "\$85 in '85," meaning that oil prices were likely to reach \$85 per barrel by 1985. But contrary to expectations, inflation-adjusted oil prices began to slide in 1981. By mid-1986, inflation-adjusted prices had returned to their pre-1974 levels. The pace of job losses in 1986 matched the pace of job gains during the height of the oil boom.

These swings in oil prices and their effects on employment played an important role in Texas' growth and industrial development. Yet, oil prices were not the only source of evolution and change. An undercurrent of forces in the state's economy continued to move Texas to an industrial structure more like the nation's.

Shown in Table 2 are the shares of some broad employment categories before and after the boom and

Table 1
Composition of Employment

Sector	Texas			
	1940	1950	1960	1970
Agriculture	30.2	16.4	9.2	4.7
Mining	2.9	3.3	3.1	2.5
Goods-Producing	15.3	22.4	24.9	26.1
Service-Producing	51.6	57.8	62.8	66.7
Sector	United States			
	1940	1950	1960	1970
Agriculture	19.1	12.7	7.0	3.7
Mining	2.1	1.7	1.1	0.8
Goods-Producing	28.4	32.6	34.4	31.8
Service-Producing	50.5	53.0	57.5	63.6

NOTE: Industries include private and government employment.
SOURCE: U.S. Bureau of the Census.

Table 2
Shares of Total Employment

Sector	1970		1990	
	United States	Texas	United States	Texas
Agriculture	3.72	4.66	1.37	1.27
Mining	0.83	2.51	0.66	2.60
Construction	5.82	7.46	4.85	5.23
Manufacturing	26.03	18.62	17.76	14.37
Transportation and Public Utilities	6.76	6.89	6.32	7.17
Wholesale and Retail Trade	20.14	22.33	23.93	24.83
Finance, Insurance and Real Estate	5.03	5.20	6.17	6.13
Services	26.08	26.74	32.98	33.94
Public Administration	5.59	5.59	5.96	4.46

NOTE: Industries include private and government employment.

SOURCE: 1970 data, U.S. Bureau of the Census. 1990 data, Covered Employment and Wages Program.

bust period. During the 1970s and early 1980s, the Texas economy moved swiftly to accommodate increased activity in the energy industry. The share of employment in mining then declined in the 1980s but remained at a level close to that of 1970.² The structure of Texas employment in other industries generally has followed U.S. trends for the period as a whole. This pattern has meant a rising share for the narrowly defined service sector and a decline in the shares for manufacturing and construction.

Changes in the manufacturing sector are particularly interesting. In the early 1970s, the share of employment in the manufacturing sector was significantly higher in the United States than in Texas (*Table 2*). Since that time, Texas' share of manufacturing employment has become more like the nation's, not by increasing, but by declining less rapidly than U.S. manufacturing employment. Two factors have contributed to this pattern. First, growing labor productivity in manufacturing industries relative to service industries has reduced the manufacturing sector's employment share. Second, relatively cheaper land and labor in the Sun Belt—the South and Southwest—have drawn industries from the older, wealthier Rust Belt of the North and Northeast.

That Texas has retained a good deal of the relative manufacturing share it gained in the 1970s, even after the tumultuous effects of the energy bust, reflects an earlier finding that much of the growth in the Texas manufacturing sector during the oil boom was independent of growth in energy.³

The shift of manufacturing industries from the Rust Belt to the Sun Belt as land and labor became relatively expensive in the wealthier regions illustrates an even more subtle trend occurring in Texas. Historically, per capita personal incomes in the Southwest have been lower than the national average. Over the past 100 years, however, per capita incomes in the Southwest

have been inching closer to the national average (*Chart 1*). The past two decades brought divergence in this pattern. But a recent study showed that after adjusting for the energy-sector shock, the long-run trend in income convergence with the national average continued.⁴

The 1990s and Beyond

States in the Southwest that have per capita personal incomes lower than the national average are likely to grow faster than the national average over the next 10 years. Texas, with a per capita personal income at 89 percent of the U.S. average, is likely to see income grow slightly faster than the U.S. average, approaching 91 percent of U.S. per capita income by the year 2000. States that are further below the national average will likely see more rapid income convergence.

Texas' industrial structure is also becoming more like the nation's. This trend is likely to continue over the next decade, especially in manufacturing and services. Energy, however, is and should continue to be important to the state, both in oil and gas extraction and in oil field equipment manufacturing, refining and petrochemicals.⁵

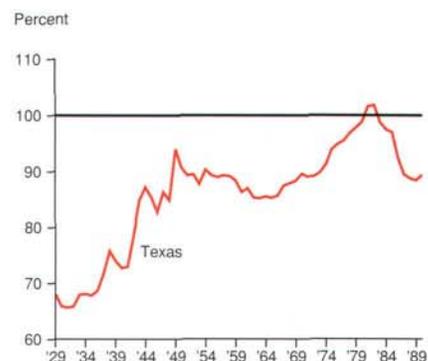
Long-term trends in the Texas economy recently have been overshadowed by shocks in the state's energy sector. But the long-term trends provide clues about where Texas is headed. They suggest that the state's industrial structure is likely to continue to evolve and its per capita income is likely to grow slightly faster than the national average.

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¹ Federal Reserve Bank of Dallas (1986), "The Growth of Services in the Texas Economy," *1985 Annual Report* (Dallas: Federal Reserve Bank of Dallas, 4–17).

² Employment in oil and gas extraction represents 95 percent of Texas mining employment.

Chart 1
Per Capita Personal Income as a Percent of U.S. Per Capita Personal Income



SOURCE: Bureau of Economic Analysis.

³ Hill, John K. (1986), "Energy's Contribution to the Growth of Employment in Texas," *Economic Review*, Federal Reserve Bank of Dallas (May): 11–8.

⁴ Barro, Robert J., and Xavier Sala-i-Martin (1991), "Convergence across Regions and States," *Brookings Papers on Economic Activity*, 1: 107–82. The authors show that, after adjusting for industrial structure, regional convergence in the United States occurred at a steady pace from 1880 to 1988.

⁵ For a discussion of the future growth of the energy industry in the Southwest, see Phillips, Keith R. (1989), "Energy and the Southwest Economy," *Southwest Economy*, Federal Reserve Bank of Dallas (November).

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