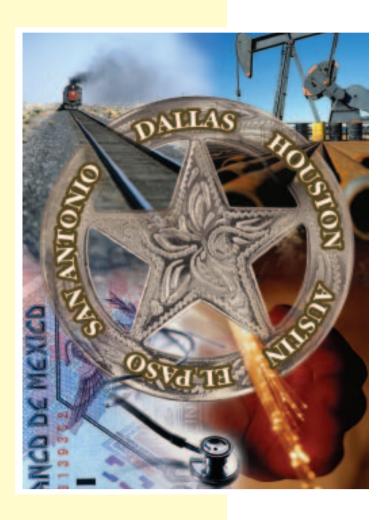
# Southwest Economy



## **Economic Recovery Under** Way in Major Texas Metros

Texas' major metropolitan areas account for almost 70 percent of the state's employment, so their fortunes determine the impact business cycles have on the state as a whole. When it comes to what makes their economies tick, Texas' major metros are different—a fact that partially explains why some boomed during the 1990s and others grew more moderately. These differences also determined, to some extent, each metro's fate during the recession of 2001 and, more recently, the recovery.

For instance, because of its central location, Dallas/Fort Worth serves as a trade center and distribution hub. With historic ties to oil and defense electronics, it has also become the state's telecommunications nexus. Austin's concentration of higher education and high-tech research has contributed to the city's thriving electronics manufacturing and semiconductor industries. Houston retains its strong ties to the oil and gas industry, but its port makes the metro an important player in international trade. San Antonio's economy relies on tourism and trade and is bolstered by a large military presence. Finally, El Paso's economy

(Continued on page 2)

INSIDE: Is Japan's Long Nightmare Finally Over?

## How Vulnerable Are Housing Prices?

In recent years, overall home prices have risen dramatically, by 37 percent since 1997 (26 percent when adjusted for inflation). Such increases have raised concerns that low interest rates have spawned a housing-price bubble. In such a case, previous increases in housing prices would leave them so far out of line with fundamentals that they would be vulnerable to falling.

If a national housing-price bubble has emerged, the pace of the current economic recovery could be affected in two ways. First, fears that housing prices could fall may deter families from buying new homes, which could slow home construction. Second, actual declines in housing prices could slow consumer spending by reducing housing wealth. This is important because, as emphasized by Federal Reserve Chairman Alan Greenspan, people have

(Continued on page 11)

is closely linked to that of Mexico and the maquiladora industry.

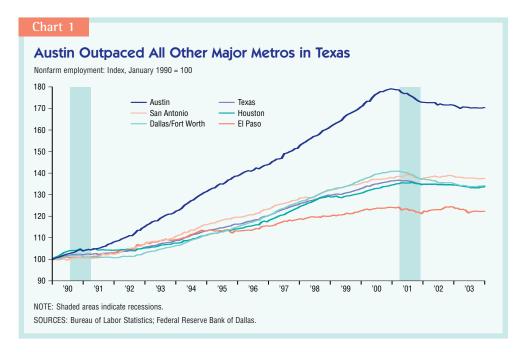
In the mid- to late 1990s, when the U.S. economy prospered, Texas performed better than the nation, in part because it had a large share of jobs in industries that were booming, especially in the high-tech sector. Along with high tech, almost every other sector of Texas' economy witnessed strong employment gains in the 1990s. Overall, Texas employment grew at an average annual rate of 3.3 percent during the decade, exceeding the nation's 2.1 percent.<sup>1</sup>

Of the major metros, Austin and Dallas/Fort Worth saw the most rapid employment gains in the 1990s; however, they also fell the hardest during the downturn. San Antonio, Houston and El Paso grew more modestly during the boom years; a smaller share of high tech sheltered them from large and sudden job losses during the recession (*Chart 1*).

Although the U.S. recovery officially began in December 2001, so far it has been mostly jobless in Texas just like the nation as a whole. While Texas indicators suggest the state's overall economy turned the corner at the beginning of 2003, job growth has remained meager (Chart 2). Despite this, the outlook is positive for employment growth in Texas and its metros in the coming years. A majority of economic indicators are looking up, including the Eleventh District Beige Book,2 the Texas Leading Index, U.S. factory orders for computers and communications equipment, and the Mexican economy. In addition, Texas and its metros possess an attractive combination of moderate wages, plentiful labor and low taxes that makes the long-term outlook positive.3

## Dallas/Fort Worth Attributes and Important Industries.

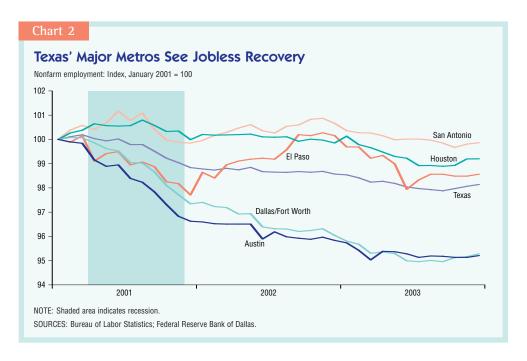
Because of its central location within the United States and Texas, the Dallas/Fort Worth metroplex boasts a reputation as a major trade center and transportation hub. The metroplex is home to D/FW International Airport, among the world's busiest; Alliance Airport, a purely industrial airport and one of the country's largest intermodal facilities; and American Airlines, the world's largest airline. Additionally, Southwest Airlines and Burlington Northern Sante Fe Corp. are headquartered in the metroplex.

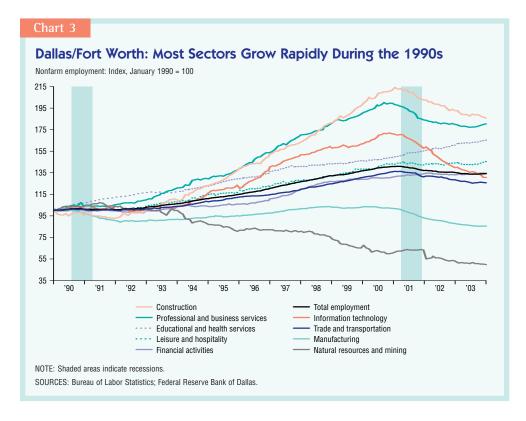


As a result, the trade and transportation sector (which includes wholesale and retail trade; air, rail and truck transportation; warehousing; and utilities) accounts for just over 20 percent of total employment in Dallas and almost 25 percent in Fort Worth. Compared with the state's overall industrial makeup, the D/FW metro area also has a relatively large share of employment in professional and business services (which includes accounting, legal, computer systems design, engineering and tech consulting), information technology employ-

ment (mainly telecommunications) and financial activities.<sup>4</sup>

Although the first microchip was invented at Texas Instruments in the 1950s, it wasn't until the 1990s that Dallas/Fort Worth matured into one of the country's largest telecommunications centers. D/FW's historic ties to oil and defense electronics were a catalyst for high-tech growth. Metroplex firms such as Texas Instruments, Bell Helicopter and Lockheed attracted scientists and engineers as well as skilled electronics and telecom workers.





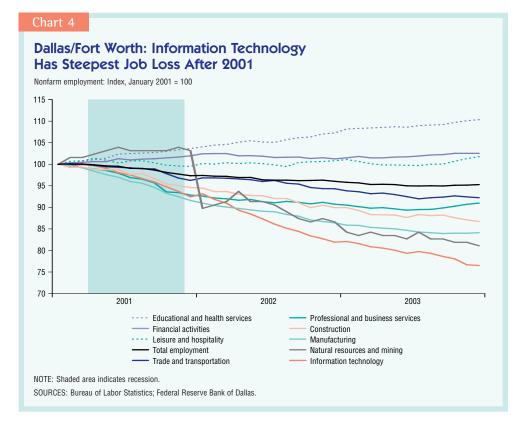
Because high-tech companies tend to cluster to share suppliers and a skilled workforce, many of these firms picked the Telecom Corridor as the site for operations. Located in Richardson, Texas, the corridor houses operations of telecom giants such as Nortel Networks, MCI, SBC Communications, Fujitsu, Cingular Wireless, Cisco Systems and Samsung. At the peak of the high-tech boom, Dallas/Fort Worth accounted for about 45 percent of the state's information technology employment. Despite the worldwide telecom bust, that percentage still stands at 42 percent. However, IT accounts for only 3.5 percent of the metroplex's total employment.

The 1990s. During the 1990s, Dallas/Fort Worth was the state's second-fastest-growing major metro in terms of employment. Like first-place Austin, much of D/FW's job growth was tied to the global technology boom. Dallas/Fort Worth's low costs, central location with access to global distribution, and specialized labor force were a magnet to high-tech firms and workers from other parts of the country. In the 1990s, IT jobs increased at a 6.6 percent pace, with growth in the telecom industry spilling over into other sectors such as professional and business services and con-

struction (*Chart 3*). Construction employment increased by more than 11 percent per year, reflecting the dramatic increase in population in the '90s, and professional and business services employment

rose by 8.6 percent. Interestingly, D/FW natural resources and mining employment declined during the decade as Texas' oil and gas industry consolidated in Houston.

**Recession**. The bursting of the tech bubble, combined with fallout from the September 11, 2001, terrorist attacks, had dire consequences for Dallas/Fort Worth. Many of the 1990s job gains were tied to the telecommunications industry, which took the brunt of the worldwide tech fallout. In addition, the metroplex's high share of employment in the air transportation industry made it vulnerable to the post-9/11 drop in demand for air travel. Dallas/Fort Worth lost roughly 132,300 jobs between the end of 2000 and December 2003. About 29,500 of these jobs came from the IT sector, while 48,300 were eliminated from trade and transportation (Chart 4). Other sectors that had benefited from the high-tech boom also witnessed rapid employment declines during the downturn, including professional and business services and manufacturing. In fact, D/FW's manufacturing sector, which includes computer and telecom equipment makers, fell from about 16.6 percent of the metro's total employment to 11 percent between 1990 and 2003 (Table 1).



#### **D/FW Employment Share** Percent 1990 2003 22.2 Trade and transportation 23.5 Manufacturing 16.6 11.0 Professional and 10.4 13.2 business services Educational and health 8.8 10.3 services Leisure and hospitality 8.5 9.3 Financial activities 7.9 8.0 Information technology 3.7 3.5 5.2 Construction 3.6 .4 Natural resources and 1.1 mining Other 15.9 16.9

Recovery and Outlook. Dallas/Fort Worth fell hard during the recession, and its recovery has been slower than most. Layoffs at IT firms continued throughout 2003, and the airlines have only recently begun to report increased traffic. Nevertheless, there are some signs of life in Dallas/Fort Worth's employment picture. At the same time that Texas employment started moving in a positive direction, D/FW began to witness slight job gains as well. Since July 2003, D/FW has added 8,000 jobs. It appears that manufacturing and professional and business services employment have bottomed out, while jobs continue to be added at a robust pace in the educational and health services, financial activities, and leisure and hospitality sectors. Further, despite a glut of office and apartment space, construction firms are busy again, mostly due to demand for new homes.

Dallas/Fort Worth's economy should pick up more strongly when the high-tech sector regains its footing. Currently, Beige Book contacts report increased orders for electronics and communications equipment and suggest another uptick in the second quarter. The strengths that served Dallas/Fort Worth in the rapidly growing 1990s should once again attract firms and labor to the area.

#### **Houston**

#### Attributes and Important Industries.

Houston is home to the second-busiest deepwater port in the United States; thus, the metro is a major player in international trade. Still, the metro's most important ties are to oil and gas. Despite having a more diverse economy than before the 1980s oil bust, Houston remains the world's energy capital. Oil producers, oil services and machinery companies, refineries and petrochemicals account for about half of all jobs, either directly or indirectly.<sup>5</sup>

Many of these oil- and gas-related jobs are found in industry categories other than natural resources and mining —which is mostly oil and gas extraction. As a result of this spillover, Houston has a higher than average share of jobs in manufacturing, construction, and professional and business services.6 The port of Houston has built up the importance of the trade and transportation sector, accounting for just under 21 percent of the metro's employment. Houston is also home to the Texas Medical Center-with more than 40 member institutions and 60,000 employees, one of the largest concentrations of medical facilities in the world. Educational and health services employment makes up about 11 percent of Houston's total.

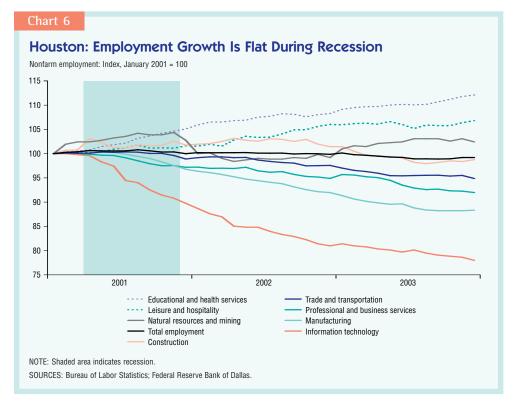
**The 1990s.** After a poor showing in the 1980s resulting from the oil bust, Houston's economy performed quite well during the 1990s (*Chart 5*). Early in

the '90s, widespread restructuring and downsizing by some of Houston's largest energy firms subdued overall job growth. Midway through the decade, however, a leaner and more productive energy industry helped boost Houston's economy as energy firms rang up huge profits. The job growth spilled over into other industries, such as professional and business services, which recorded average employment growth of roughly 6 percent per year between 1996 and 2000. Moreover, the expansion of Houston's large refining and petrochemical complex gave a boost to commercial construction, with employment in that sector also growing rapidly between 1996 and 2000.

Houston's non-oil-related sectors of trade and transportation, educational and health services, and leisure and hospitality benefited from the robust national economy, with most major sectors recording moderate to strong employment growth. The IT sector, including a large presence by Compaq Computer (now Hewlett-Packard), expanded vigorously.

Houston's energy industry suffered another blow in the last two years of the decade. A plunge in oil prices to \$11 per barrel, along with depressed natural gas prices, led to reduced drilling, layoffs and energy-firm consolidations. Houston





absorbed the hit with minimal damage to overall employment growth; however, the brunt of the downturn in oil was felt in allied sectors. Luckily, the downturn was short-lived, and world oil markets rebounded by 2000.

Recession. Houston weathered the recession better than most of Texas' major metros. From December 2000 to December 2003, Houston employment edged down 0.6 percent per year, while Texas employment fell at a 1.8 percent rate. Because Houston's dependence on high tech was much less than Austin's or Dallas', the effects of the tech bust were less drastic. Growth in other industries helped support the Houston economy during the recession, including educational and health services, with 4.2 percent growth on average, and leisure and hospitality, with 2.3 percent growth (Chart 6). In addition, oil prices remained at relatively high levels, benefiting the metro's energy-related sectors.

Houston did not come through the recession unscathed, however. The Enron scandal and the company's eventual bankruptcy reduced energy employment in 2002, left a prominent downtown sky-scraper vacant and damaged the city's morale. Moreover, a weak global economy and reduced demand for travel led to a loss of 48,200 jobs in the manufac-

turing and trade/transportation sectors. Finally, even though it plays a smaller role in Houston than other metros, IT employment declined by 10,200 jobs. Table 2 shows the declines in employment share for these sectors in Houston since 1990.

Recovery and Outlook. Recently Houston's economic prospects have brightened. Employment began picking up in October 2003 and has outpaced state employment growth since. Additionally, higher oil and natural gas prices, an elevated rig count and a

Table 2					
Houston Employment Share					
		Percent			
		1990	2003		
Trade and tra	insportation	23.0	20.9		
Professional business s		12.8	13.7		
Manufacturing		11.0	8.9		
Educational a services	and health	9.3	11.3		
Leisure and I	nospitality	7.7	8.6		
Construction		7.1	7.5		
Natural resou mining	irces and	3.8	3.0		
Information t	echnology	2.0	1.7		
Other		23.3	24.4		

strengthening global economy should spur Houston's employment growth in the coming year.<sup>7</sup>

#### San Antonio

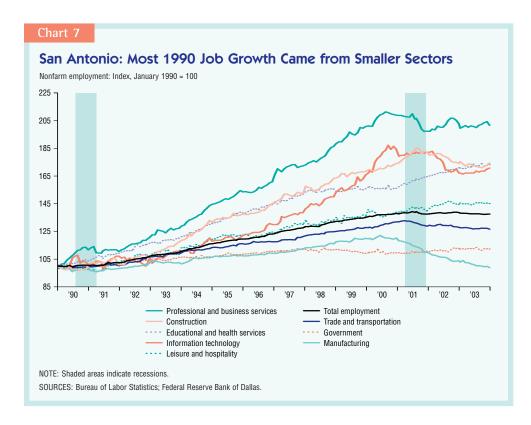
#### Attributes and Important Industries.

San Antonio is best known for its tourism industry. The Alamo, River Walk and SeaWorld Texas, along with numerous other attractions, make San Antonio the state's most popular tourist destination and explain the metro's large leisure/ hospitality and trade/transportation sectors. Because of a large military presence, government is also a big part of San Antonio's economy, accounting for 18.7 percent of total employment despite downsizing and the closing of Kelly Air Force Base. Other military installations in San Antonio-including Fort Sam Houston, Lackland Air Force Base's 37th Training Wing, and Randolph and Brooks Air Force bases—are some of the metro's largest employers. In addition, the educational and health services industry is important to San Antonio's economy; the metro is home to the University of Texas Health Science Center and numerous other health care organizations, many of which serve South Texas.

The 1990s. During the 1990s, the traditional industries that support the San Antonio economy fared well. The leisure and hospitality sector added jobs at a 4.1 percent annual rate, while educational and health services employment rose at 5 percent. Trade and transportation, one of San Antonio's largest sectors, added jobs at a healthy 3.3 percent (Chart 7), partly because of increased trade with Mexico and a boost in retail sales by Mexican shoppers. The government sector rose more modestly (1 percent per year on average) due to the impending shutdown of Kelly Air Force Base, which eliminated 17,000 jobs from the mid-1990s through 2001.

Growth in the traditional sectors of San Antonio's economy spilled over into other sectors, namely professional and business services and construction. While San Antonio also experienced strong growth in IT during the 1990s, the share of high-tech employment remained significantly lower than in Dallas/Fort Worth (*Table 3*).

**Recession.** Because of its traditional industry mix, San Antonio resisted major



employment losses during the recession, with job growth remaining flat from 2001 through December 2003 (*Chart 8*). The expansion of some of San Antonio's key sectors during the state's downturn mitigated job losses in other sectors. Between 2001 and 2003, educational and health services employment increased by about 3.7 percent per year, while leisure and hospitality jobs rose modestly despite the national slowdown brought on by 9/11. Still, rapid declines in manufacturing, military downsizing, and the contraction of trade and transportation suppressed overall employment growth.

Recovery and Outlook. Although San Antonio did not experience a major setback during the recession, as did other Texas major metros, its rebound has been mild as well (down 0.8 percent in 2003). Continued weakness in trade and transportation is a concern; yet improvements in this industry at the state level are encouraging. This sector should benefit from positive spillovers of a stronger Mexican economy through international trade and retail sales to Mexican shoppers. Fortunately, manufacturing does present a more promising future in San Antonio than in some other major metros, given the recent groundbreaking for Toyota's new \$800 million plant. Additionally, an increased focus on health care and biotech should maintain solid job growth in the educational and health services sector.

In general, current conditions in most of San Antonio's sectors suggest a

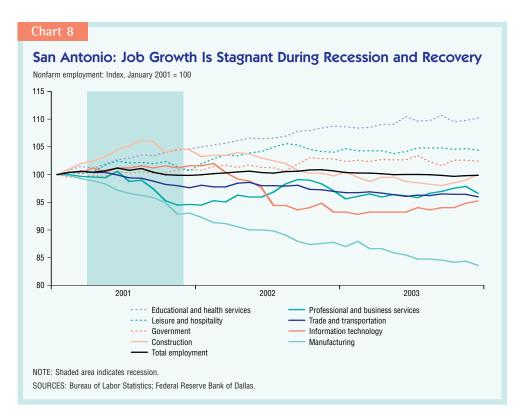
Table 3					
San Antonio Employment Share					
	Percent				
	1990	2003			
Government	22.6	18.7			
Trade and transportation	19.1	17.9			
Educational and health services	11.1	13.4			
Leisure and hospitality	10.3	11.1			
Professional and business services	9.1	11.9			
Manufacturing	8.3	6.1			
Construction	4.2	5.6			
Information technology	2.7	3.3			
Other	12.6	12.0			

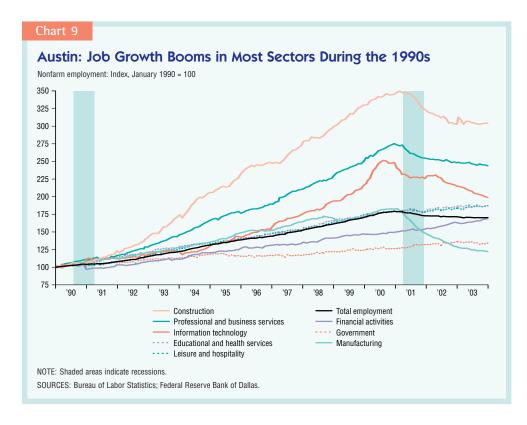
healthy outlook, especially as the Texas and U.S. economies pick up steam.

#### **Austin**

### Attributes and Important Industries.

Austin is the state capital and home to the main campus of the University of Texas, the largest university in the country. Thus, Austin has a high proportion of government-sector jobs. Although manufacturing's importance has declined since the high-tech bust, Austin relied heavily on high-tech manufacturing for





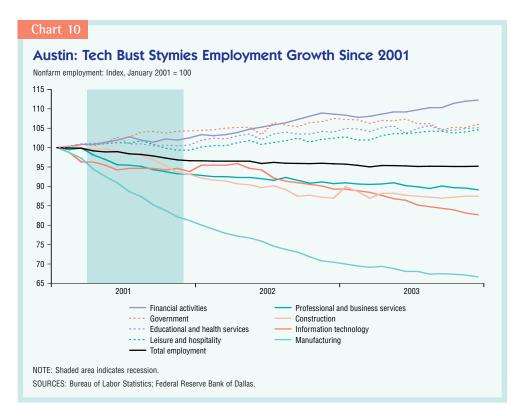
its expansion during the '90s. Computer giant Dell and chip maker Advanced Micro Devices make Austin their home, along with major operations of tech manufacturing giants Motorola and IBM Corp. Austin claims roughly 30 percent of the state's high-tech jobs.

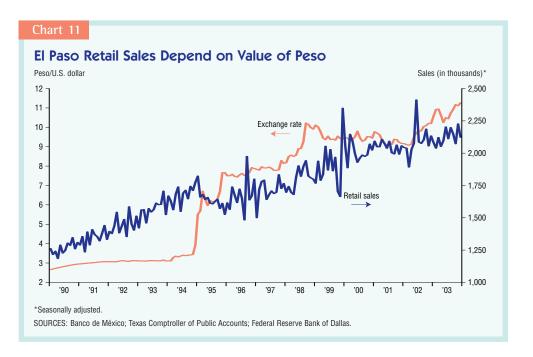
The 1990s. Austin was one of the country's fastest-growing metros during the 1990s, with job growth rising 7 percent per year (Chart 9). Austin attracted firms and workers alike with its natural amenities, relatively low costs of living compared with other high-tech areas, and ties to university-sponsored hightech research. The Austin unemployment rate fell from about 5 percent in 1990 to less than 2 percent in December 2000; the rapidly increasing working-age population couldn't keep up with the tremendous labor demand fueled by the tech boom. Computer and parts, semiconductor and electronic components manufacturers made up a large portion of Austin's manufacturing sector, which added jobs at an average annual pace of 7.2 percent during the decade. IT employment increased by almost 14 percent a year in the 1990s. Professional and business services jobs, such as programming, systems design, software development and technical consulting, rose 14.9 percent per year. The high-tech boom directly affected most other sectors of Austin's economy as well. For instance, construction jobs climbed by an astonishing 23 percent per year as companies expanded, high-tech manufacturers built

Government 28.5 23 Manufacturing 12.3 4 Professional and business services Educational and health services Leisure and hospitality 9.0 4 Financial activities 6.2 6 Construction 3.1	Austin Employment Share				
Government 28.5 23  Manufacturing 12.3 3  Professional and 9.6 13  business services  Educational and health services  Leisure and hospitality 9.0 9  Financial activities 6.2 Construction 3.1	Adodiii Ei	ipioyine			
Manufacturing 12.3 Professional and 9.6 13 business services Educational and health services Leisure and hospitality 9.0 Financial activities 6.2 Construction 3.1			1990	2003	
Professional and business services  Educational and health services  Leisure and hospitality 9.0  Financial activities 6.2  Construction 3.1	Government		28.5	22.3	
business services  Educational and health 9.4 10 services  Leisure and hospitality 9.0 9.1 Financial activities 6.2 Construction 3.1	Manufacturing		12.3	8.7	
services Leisure and hospitality 9.0 9.1 Financial activities 6.2 9.1 Construction 3.1			9.6	13.0	
Financial activities 6.2 Construction 3.1		nd health	9.4	10.1	
Construction 3.1	Leisure and h	ospitality	9.0	9.9	
	Financial acti	rities	6.2	6.2	
Information technology 2.6	Construction		3.1	5.5	
	Information t	chnology	2.6	3.1	
Other 19.3 2	Other		19.3	21.2	

plants and record numbers of people moved to the metro.

**Recession.** The technology bust hit Austin hard (*Chart 10*). The manufacturing sector lost almost 28,000 jobs from the end of 2000 through December 2003, shrinking in importance from 12.3 percent of total employment to 8.7 percent (*Table 4*). Construction ground to a halt as migration to Austin ceased and firms began cutting employees. While telecommunication services played a lesser role in Austin's economy than in Dallas/Fort Worth's, Austin was the dot.com





El Paso's poor economic performance since 1990 has largely been a product of its transition from producing goods to providing services.

center of Texas, and layoffs still occurred in the IT sector (5,000) and professional and business services sector (10,900).

Recovery and Outlook. Several growing industries helped stem some of Austin's high-tech-related job losses during the recession, including educational and health services, leisure and hospitality, and government. In fact, along with the smaller sector of financial activities, these industries are currently leading the metro toward the beginnings of a recovery. While the recent uptick in Texas employment eluded Austin for most of 2003, the city's economy appears to have turned the corner at year's end. After dropping off in 2001 and 2002, construction jobs are rising again, as low interest rates boost demand for new housing. Further, it appears the tech sector is starting to stabilize, with job declines in professional and business services and manufacturing showing signs of bottoming out. Finally, reports of a rebound in worldwide semiconductor demand and rising computer orders bode well for Austin's technology firms. In fact, Advanced Micro Devices reported in February that it was leasing additional office space in Austin and planning to add more engineers this year, the company's first Austin expansion in two years.

#### **El Paso**

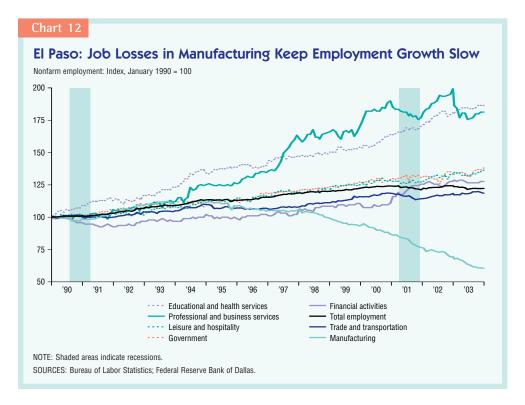
#### Attributes and Important Industries.

Location plays an important role in a city's economic structure and corresponding

business cycles. So it is with the border city of El Paso. El Paso's economy is affected by economic fluctuations in Mexico, which in turn are driven largely by industrial production in the United States. The growth of the maquiladora industry in neighboring Ciudad Juárez, as well as passage of the North American Free Trade Agreement, played a significant role in shaping El Paso's economy. Traditionally, El Paso's economic base has been highly dependent on a few industries, namely manufacturing and trade and transportation. More recently, El Paso's industry mix has diversified and is now more in line with the national and Texas economies.

The 1990s. In El Paso, the trade and transportation sector accounts for 21.7 percent of total employment. El Paso's retailers depend heavily on Mexican consumers who shop for better deals on the U.S. side. The link was apparent in 1995, when retail sales in El Paso took a sharp downturn as the Mexican peso crisis traversed the border (Chart 11). Because Mexican shoppers account for a sizable portion of El Paso's local retail sales,8 the peso devaluation caused a retail sales slump. Partly because of this, the trade and transportation sector grew only modestly during the 1990s, at 1.7 percent per year (Chart 12).

After NAFTA's implementation in 1994, the Mexican maquiladora industry flourished. This was particularly true in



Ciudad Juárez, which leads all other Mexican cities in concentration of maquiladora employment. The impact on El Paso's economy was mixed. While growth in maquiladora employment in Ciudad Juárez boosted El Paso's servicesector employment (most notably professional and business services, educational and health services, and government), Mexico absorbed much of El Paso's manufacturing jobs—especially in apparel and textiles—as plants relocated a few miles south to take advantage of lower production costs. As a result, manufacturing employment fell at a 3.6 percent annual pace from 1994 through 2000. Overall, El Paso's employment grew 1.6 percent yearly—low compared with other Texas border cities-during the maquiladora boom from December 1994 through 2000.

**Recession.** When the national recession began in 2001, the maquiladora industry further distressed El Paso's economy (*Chart 13*). As Ciudad Juárez lost nearly 20 percent of its maquiladora jobs and 9/11 shut down the border for several days, El Paso started to feel the repercussions of the manufacturing-led recession. Trade and transportation in El Paso also bore the burden of decreased crossings from Mexico because of tightened security measures imposed after 9/11. Employment

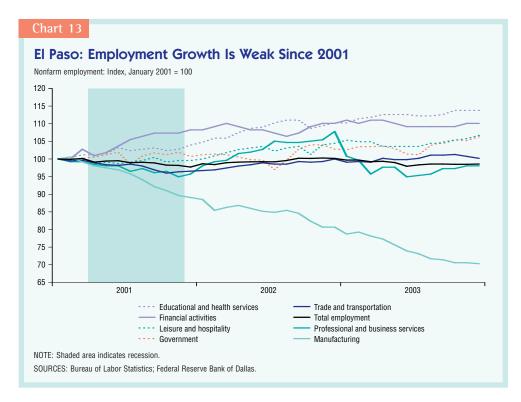
growth in the sector has essentially remained flat. Aside from 9/11, the setback in this sector is largely a consequence of the maquiladora industry decline.

Although difficult, the recession moved El Paso toward a more serviceoriented economy, and the metro's new economic mix should provide the basis

Table 5				
El Paso Employment Share				
	Percent			
	1990	2003		
Trade and transportation	22.4	21.7		
Government	21.2	24.0		
Manufacturing	19.2	9.9		
Leisure and hospitality	8.6	9.5		
Educational and health services	7.9	11.4		
Professional and business services	6.8	9.9		
Financial activities	4.3	4.7		
Other	9.6	8.9		

for recovery. Throughout the recession and weak recovery, government employment buoyed the local economy because of increased border enforcement after 9/11. Also helping minimize overall job losses was rapid job growth in educational and health services, leisure and hospitality, and financial activities.

Recovery and Outlook. While recovery has eluded El Paso's economy for the most part, current conditions should provide a much-needed boost in the coming year. El Paso's poor economic performance since 1990 has largely been a product of its transition from producing goods to providing services. Manufactur-



ing, which accounted for about 19.2 percent of El Paso's total employment in 1990, accounts for just half that today, near the state average of 9 percent (*Table 5*). In addition, the shift in manufacturing from a stand-alone industry to more of an intermediate goods supplier for the maquiladoras provides a more promising future for this sector.

Given the peso's strength against the dollar in recent years, economic support from Mexican consumers should continue. Moreover, recent economic improvements at the state and national levels have strengthened both the Mexican economy and the maquiladora industry, which in turn should provide a boost to neighboring El Paso. Although there are no safeguards against events such as 9/11, developments in more efficient border processing over time should increase border crossings.

El Paso's economy should benefit from its more diversified economic base and the strengthening of its surrounding economies. Most promising is a more skilled labor force as a result of a more service-oriented economy and greater access to higher education.

#### **Summary**

Texas' five major metropolitan areas fared differently during the boom of the 1990s and the recession that began in 2001. Austin and Dallas/Fort Worth, the metros that benefited most from the national high-tech expansion, fell the hardest during the downturn. While San Antonio, Houston and El Paso, with lower concentrations of high-tech employment, did not grow as rapidly in the '90s, they performed better during the recession.

As the recovery takes hold, Texas should benefit as the national and global economies gain steam. Texas' economy is more closely tied to that of the United States than it once was, with oil and gas accounting for about 7 percent of the economy today, versus about 20 percent in 1981. Additionally, while the high-tech sector was important in Texas' recent boom and bust—at 3.1 percent of total state employment, slightly higher than the national average of 2.6 percent—it does not dominate the overall economy.

Although Texas' recovery so far has been mostly jobless, just like that of the nation, there are signs of a recent strengthening that should spur employment growth in the coming year. The Eleventh District Beige Book notes an acceleration in economic activity in 2004, and the Texas Leading Index has been rising since mid-2003. Worldwide semiconductor and computer orders are up, and growth in Texas venture capital spending has once again moved into positive territory, which will benefit the region's high-tech sectors. The recovery of Mexico's economy is boosting retail sales along the border, and high oil and natural gas prices should lift employment growth in Texas' energy-related sectors.

While their different economic structures ensure that Texas' metros will continue to recover at varied paces, all will benefit from unique attributes that have served them well in the past. In addition, Texas has an attractive combination of low costs and favorable government policies that will continue to attract workers and firms to the state in the long run.

—D'Ann Petersen Priscilla Caputo

Petersen is an associate economist and Caputo an economic analyst in the Research Department of the Federal Reserve Bank of Dallas.

#### **Notes**

The authors would like to thank Stephen P. A. Brown, Pia Orrenius and Richard Alm for helpful comments and suggestions.

- <sup>1</sup> All growth rates are average annualized rates unless otherwise noted
- <sup>2</sup> The Beige Book is a survey of firms in each Federal Reserve District. For more information on the Beige Book or to obtain a copy, visit www.dallasfed.org. For information on how well the Beige Book predicts economic activity, see Nathan Balke and D'Ann Petersen, "How Well Does the Beige Book Reflect Economic Activity? Evaluating Qualitative Information Quantitatively," *Journal of Money, Credit and Banking* 34, February 2002, pp. 114–36.
- <sup>3</sup> For more information about what makes Texas metros attractive to labor and firms, see Stephen P. A. Brown and Lori L. Taylor, "What Wages and Property Values Say About Texas Cities," Federal Reserve Bank of Dallas Southwest Economy, Issue 2, March/April 2003, pp. 1–4.
- <sup>4</sup> The North American Industry Classification System (NAICS) classifies major industrial sectors into 11 super sectors. These are natural resources and mining; construction; manufacturing; information; trade, transportation and utilities; financial activities; professional and business services; educational and health services; leisure and hospitality; other services; and government. In this article, the authors chose to refer to the trade, transportation and utilities sector as "trade and transportation" due to space considerations. The authors also refer to the information sector as "information technology" because most industries in this category are technology-related.

Some of the larger super sectors contain many industries. For example, the trade, transportation and utilities super sector includes all types of wholesale trade; retail trade; transportation by air, rail and

- truck; warehousing; and utilities. The professional and business services super sector includes scientific and technology services, legal services, accounting, architect services, computer systems design, management of companies and temporary services, among others. For more information, see Bureau of the Census at www.census.gov/epcd/www.naics.html or Bureau of Labor Statistics at www.bls.gov/bls/naics.html.
- <sup>5</sup> See Bill Gilmer, "The Simple Economics of the Texas Triangle," Federal Reserve Bank of Dallas Houston Business, January 2004.
- Many other jobs besides those in the natural resources and mining sector are tied to the energy industry. For example, energy firm management is included in the professional and business services sector, as are engineers, scientists and oil field services. Petrochemical production, refining and energy equipment manufacturing show up in the manufacturing sector. Finally, petrochemical plant construction is included in the construction industry. In sum, energy jobs are dispersed throughout Houston's economy.
- <sup>7</sup> See Timothy K. Hopper, "Houston's Job Growth Will Strengthen in 2004," Federal Reserve Bank of Dallas *Houston Business*, March 2004.
- See Jesus Cañas, Robert W. Gilmer and Keith Phillips, "Composite Index: A New Measure of El Paso's Economy," Federal Reserve Bank of Dallas Business Frontier, Issue 1, 2003.