

W 2250.6 L113 2002/11

INDICATORS

TEXAS

LABOR MARKET REVIEW

Government Publications
Texas State Documents

FEB 01 2003

Depository
Dallas Public Library

Texas Nonagricultural Wage and Salary Employment
(Seasonally Adjusted)

Texas Unemployment Rate		
Actual Series		
October 2002		5.8%
September 2002		6.2%
October 2001		5.0%
Seasonally Adjusted		
October 2002		6.2%
September 2002		6.2%
October 2001		5.4%
U.S. Unemployment Rate		
Actual Series		
October 2002		5.3%
September 2002		5.4%
October 2001		5.0%
Seasonally Adjusted		
October 2002		5.7%
September 2002		5.6%
October 2001		5.4%
Texas Nonagricultural Wage & Salary Employment		
Actual Series		
	9,453,000	
OTM Change	9,200	
OTY Change	-47,900	
Seasonally Adjusted		
	9,415,000	
OTM Change	-7,300	
OTY Change	-47,700	
Initial Claims for Unemployment Benefits		
October 2002	101,668	
September 2002	88,175	
October 2001	111,582	

Total Nonagricultural Employment in Texas fell by 7,300 positions in October. Government employment showed the largest increase over the month, while Construction, Manufacturing and Services experienced the largest employment losses. The annual growth rate for Total Nonagricultural Employment improved for the third consecutive month, climbing from -0.8 percent in September to -0.5 percent in October.

of job losses. Employment in *General Building Contractors* remained unchanged over the month.

Government employment grew for the third straight month in October with a gain of 5,600 jobs. *Federal Government* led the way with the addition of 3,200 jobs, its largest monthly employment gain since May 2000 and its largest October gain in over a decade. *Local Government* followed with an increase of 1,900 jobs, while *State Government* contributed 500 jobs.

Manufacturing continued to see employment reductions in October with a loss of 3,400 jobs. This industry has not experienced an over-the-month job gain in almost two years. *Durable Goods Manufacturing* lost 2,200 positions, while *Nondurable Goods* employment fell by 1,200. Within *Durable Goods* losses were widespread, while the loss in *Nondurable Goods* was centered in *Apparel & Other Textiles*. The garment industry was hit once again with plant closures and layoffs within the cities along the Texas-Mexico border. A total of 37,900 jobs have been shed in Manufacturing since October 2001, reflecting an annual growth rate of -3.7 percent.

Construction employment fell by 4,300 jobs in October, the largest monthly loss this year. *Special Trade Contractors* was responsible for the bulk of the decline with a loss of 3,400 positions, its largest over-the-month decline in a decade. Employment in *Heavy Construction* fell by 900 jobs in October, its fourth consecutive month

The Services industry experienced a loss of 2,400 jobs in October. *Business Services* and *Membership Organization Services* displayed the largest drops, while *Engineering & Management Services* and *Amusement & Recreation Services* posted the largest gains seen within the industry. The annual growth rate for Services was 0.1 percent, the first positive over-the-year change in 2002.

IN THIS ISSUE

Texas & U.S. Unemployment Rates	2
Nonagricultural Wage & Salary Employment - Seasonally Adjusted	2
Featured Article: <i>How Does Unemployment Insurance Affect You?</i>	3
Highlights of Local Area Unemployment Statistics	5
County Unemployment Rates	6
City Unemployment Rates	7
Nonagricultural Wage & Salary Employment - Actual	8
MSA Nonagricultural Wage & Salary Employment	9
Ask the Expert	10
Map of Average Weekly Wages by County	12

Metropolitan Statistical Area (MSA) Employment
(Non-Seasonally Adjusted)

Total Nonagricultural Employment in the MSAs grew by 12,200 positions, marking the largest October gain since 1999. Most of the new jobs came from the Government sector as schools continued to add staff for the fall term.

decline in this industry with a decrease of 1,300 jobs, while the Dallas and Houston MSAs lost a combined 1,100 positions.

While the majority of the 19,600 Government jobs added in the MSAs were due to seasonal increases in *State* and *Local Government*, 2,700 *Federal Government* jobs were created as well. The Fort Worth-Arlington and Houston MSAs gained 1,100 and 800 Federal positions respectively, most of which were due to the federalization of airport security.

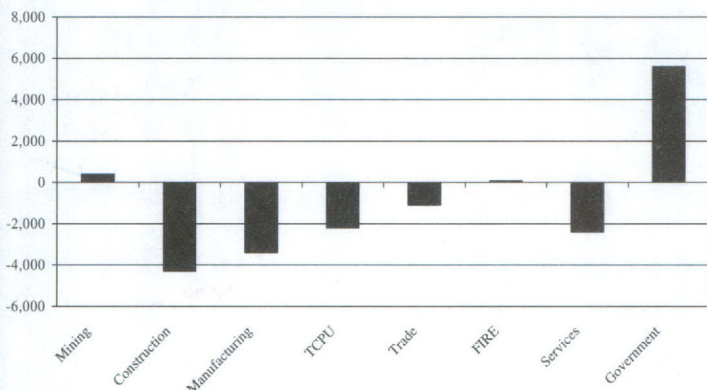
Manufacturing employment in the MSAs fell by 2,300 positions in October, with ten of the twenty-seven MSAs showing job losses in this industry. The Dallas MSA posted the largest over-the-month drop at 500 jobs. The Austin-San Marcos MSA has lost 4,200 Manufacturing jobs since the beginning of the year—the largest year-to-date decline in this industry for any MSA.

Inclement weather contributed to a 3,000-job loss in the Construction industry for the MSAs. The Fort Worth-Arlington MSA experienced the largest employment

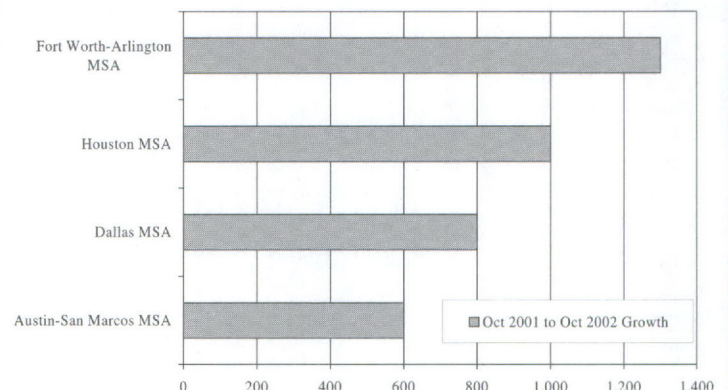
Mining employment in the Houston MSA grew for only the second month this year following a gain of 600 positions in October. The Houston MSA has lost 2,000 Mining jobs since the beginning of the year and 2,100 jobs since October 2001.



Government Outperforms Other Industries in October
(Statewide Seasonally Adjusted)



Federalization of Airport Security Drives Over-the-Year Growth in Federal Government Employment



TEXAS AND U.S. CIVILIAN LABOR FORCE ESTIMATES

TEXAS*					UNITED STATES**				
Actual		CLF	Employment	Unemp.	Rate	CLF	Employment	Unemp.	Rate
October	'02	10,772,600	10,145,900	626,700	5.8	142,878,000	135,237,000	7,640,000	5.3
September	'02	10,747,800	10,080,600	667,200	6.2	142,745,000	135,063,000	7,683,000	5.4
October	'01	10,529,600	10,001,200	528,400	5.0	142,004,000	134,898,000	7,106,000	5.0
Seas. Adjusted		CLF	Employment	Unemp.	Rate	CLF	Employment	Unemp.	Rate
October	'02	10,760,600	10,095,400	665,200	6.2	143,123,000	134,914,000	8,209,000	5.7
September	'02	10,741,900	10,080,600	661,300	6.2	143,277,000	135,185,000	8,092,000	5.6
October	'01	10,513,000	9,949,900	563,100	5.4	142,280,000	134,615,000	7,665,000	5.4

Note: Only the actual series estimates for Texas and the U.S. are comparable to sub-state estimates. Current month estimates for Texas are preliminary. All estimates are subject to revision. In seasonally adjusted estimates all elements of seasonality are factored out to achieve an estimate which reflects the basic underlying trend.

*Source - Labor Market Information Department, Texas Workforce Commission (model-based methodology)

**Source - Bureau of Labor Statistics, U.S. Department of Labor (Current Population Survey)

TEXAS NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
SEASONALLY ADJUSTED⁺

INDUSTRY TITLE	Oct. 2002*	Sep. 2002	Oct. 2001	Sep. '02 to Oct. '02		Oct. '01 to Oct. '02	
				Absolute Change	Percent Change	Absolute Change	Percent Change
TOTAL NONAG. W&S EMPLOYMENT	9,415,000	9,422,300	9,462,700	-7,300	-0.1	-47,700	-0.5
GOODS PRODUCING	1,704,900	1,712,200	1,754,600	-7,300	-0.4	-49,700	-2.8
Mining	156,400	156,000	163,000	400	0.3	-6,600	-4.0
Construction	552,900	557,200	558,100	-4,300	-0.8	-5,200	-0.9
Manufacturing	995,600	999,000	1,033,500	-3,400	-0.3	-37,900	-3.7
Durable Goods	602,500	604,700	629,300	-2,200	-0.4	-26,800	-4.3
Nondurable Goods	393,100	394,300	404,200	-1,200	-0.3	-11,100	-2.7
SERVICE PRODUCING	7,710,100	7,710,100	7,708,100	0	0.0	2,000	0.0
Transportation, Comm., Utilities	571,200	573,400	587,400	-2,200	-0.4	-16,200	-2.8
Trade	2,236,400	2,237,500	2,252,400	-1,100	0.0	-16,000	-0.7
Wholesale Trade	521,400	521,900	528,500	-500	-0.1	-7,100	-1.3
Retail Trade	1,715,000	1,715,600	1,723,900	-600	0.0	-8,900	-0.5
Finance, Insurance, & Real Estate	530,000	529,900	534,200	100	0.0	-4,200	-0.8
Services	2,739,300	2,741,700	2,737,900	-2,400	-0.1	1,400	0.1
Government	1,633,200	1,627,600	1,596,200	5,600	0.3	37,000	2.3

Note: The number of nonagricultural jobs in Texas is without reference to place of residence of workers.

*Estimates for the current month are preliminary. All estimates are subject to revision.

⁺All elements of seasonality are factored out to achieve an estimate which reflects the basic underlying trend.

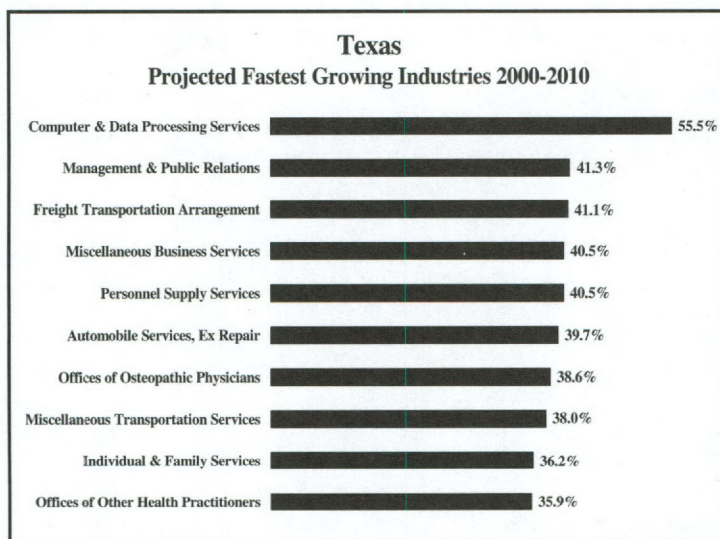
The Goods Producing Sector and Wholesale Trade estimates are probability-based. (See text box on page 9 for more information)

The Texas Economy: What's Next? Industry Projections 2000-2010

by Rene Cantu

Texas' economy has recently undergone many changes and is expected to continue to change. With evolving business practices and technological advances, Texans and Texas businesses will have to meet the new employment uncertainty by being informed. The business cycle has done its impression of a roller coaster by taking the economy as high as it has ever been then bringing it back down. Since the late 1990s and early 2000, the economy has "bobbed and weaved" like a prizefighter doing more bobbing than weaving. Texas plays a major role in the national economy, ranking second in population and labor force. Where will Texas' employment be ten years from now? What industries will be responsible for the most job growth? The Texas Labor Market Information Department recently completed its 2000-2010 employment projections, the results of which should help answer some of these important questions.

Employment in Texas is projected to increase from 9.7 million to 11.5 million over the 2000-2010 period. The growth (18.2 percent) is slower than that experienced during the previous decade of 22.5 percent. Texas, once again, is expected to outpace the projected national annual average of 1.4 percent, increasing by an average of 176,146 jobs per year for the projection period. While Texas is still adding jobs, the rate at which it is doing so has been declining since September 1997.



Continuing the 1990-2000 historical trend, virtually all non-farm wage and salary employment growth will be generated by the Service Producing Sector. The Services industry division represents the strongest growth within this sector, both in terms of absolute and percent change. The Services industries will account for more than half of all new jobs from 2000-2010, which is a continuation of the 1990-2000 share of employment growth. Employment in the Services industry is projected to increase from 3.6 million jobs in 2000 to 4.5 million jobs in 2010, for the highest annual growth rate for any industry division at 2.7 percent. *Business Services*, *Health Services*, and *Educational Services* will account for over 70 percent of this growth.

Within *Business Services*, *Personnel Supply Services* is projected to add the greatest number of jobs, 103,960, a growth rate of over 40 percent. Staffing services will be responsible for the majority of this industry's growth, as businesses endeavor to become more responsive to changes in market demand. As companies also strive to reduce costs by contracting out their preliminary employment screening tasks, this sector's employment agency portion will experience growth as well.

Computer & Data Processing Services and *Miscellaneous Business Services* are projected to experience some of the largest growth among all industries, with growth rates of over 55 percent and over 40 percent, respectively. The persistent evolution of technology and business' constant efforts to absorb and integrate these resources in order to enhance their productivity and expand their market opportunities will be the growth catalysts in *Computer & Data Processing Services*. *Miscellaneous Business Services* provides a wide variety of services ranging from credit reporting and collection agencies to photocopying, graphic design, and paralegal services.

The *Health Services* sector is projected to add 191,050 jobs, a growth of over 25 percent by 2010. Workers in *Hospitals, Public & Private, Offices & Clinics of Medical Doctors*, and *Home Health Care Services* will continue to be needed to address the healthcare needs of an aging "baby boomer" population. Further advances in medical technology will also necessitate the need for new workers in these industries.

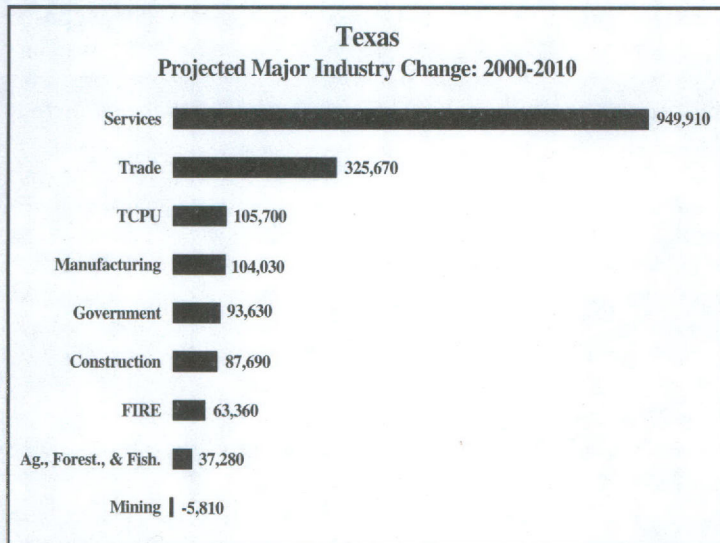
The Trade industry is projected to increase by over 325,600 jobs. The largest gains in *Wholesale Trade* are expected to be in *Groceries & Related Products* and *Professional & Commercial Equipment*, adding just over 11,900 jobs and 10,680 jobs respectively. In *Retail Trade*, *Department Stores* and *Grocery Stores* are expected to add almost 150,600 jobs during the projection period. Employment in *Eating and Drinking Places* is projected to increase by 125,790 positions as Texans continue to dine out. Demographic factors such as increases in population, personal incomes, leisure time, and dual-income families will contribute to the expected employment gains in this industry. However, the rate of growth in the Trade industry is expected to be limited by consolidations and advancements in productivity-enhancing technology such as e-commerce.

Employment in the Transportation & Public Utilities industry is projected to grow by 105,700, a 16.5 percent increase by 2010. This is the second fastest employment growth, by industry, behind the Services industries. *Transportation* will contribute 71,160 of these jobs. Nearly 70 percent of these positions are anticipated in *Trucking & Warehousing* and *Transportation by Air*. The effect of electronic commerce and expansion into logistical services such as computer inventory management and just-in-time shipping has been the driving force for growth in these industries. As manufacturers improve supply chain efficiencies by outsourcing their distribution needs, the trucking and warehouse industries will have an even more visible roles in the economy. *Telephone Communications* is projected to dominate the *Communications* industry as strong residential and business demand

Continued on page 4

Continued from page 3

for improved wireline and wireless systems will ensure this industry's prolonged growth. Technology and competition are expected to continue working concurrently to lower prices, increase demand, and spur new innovations. Gains in *Telephone Communications* are predicted to account for 83 percent of the growth, or 25,230 jobs, in *Communications*.



The Manufacturing industry is expected to add 104,030 jobs, a growth of nearly 10 percent for the projection period. Most of the expected growth is due to gains made in industries that manufacture durable goods. The *Durable Goods* industry is predicted to increase 1.0 percent a year from 2000 to 2010. *Industrial Machinery & Equipment*, *Fabricated Metal Products*, and *Electronic & Other Electrical Equipment* lead the way by adding 47,480 jobs by 2010. This is driven by the demand for computers, electronic components, and communication equipment. Electronic components will continue to perform a vital function in nearly any new technology developed within the next decade. Its end products are used as components in the aggressively growing communications and computer industries. Over the next ten years, employment in the *Nondurable Goods Manufacturing* industry is expected to increase as well. The industry is predicted to add 31,800 jobs by 2010, increasing by 7.5 percent. The industries adding to the increase in *Nondurable Goods* are *Chemicals & Allied Products* and *Rubber & Miscellaneous Plastics Products*, adding a combined 16,170 jobs during the projection period. *Chemicals & Allied Products* is driven by the *Drugs* and *Plastics Materials & Synthetics* sectors. The *Drugs* industry benefits from a growing population demanding illness prevention products; the development of new lifestyle drugs aimed at enhancing ones self-confidence and physical appearance; and longer life expectancies. *Plastics Materials & Synthetics* is aided by advanced polymers and plastics that are being utilized for commodities production ranging from durable automobile body panels to prosthetic limbs. *Printing & Publishing* and *Food & Kindred Products* also contribute to the growth in *Nondurable Goods*. *Commercial Printing* drives the *Printing & Publishing* sector, with an expected increase of 4,750 jobs by 2010. *Meat Products* dominates the *Food & Kindred Products* sector with a predicted increase of 5,240 jobs, for a growth rate of 14.7 percent by 2010.

The public sector is expected to add 93,630 jobs by 2010, an increase of 15.4 percent. Growth in this sector is driven by *State and Local Government, Excluding Education & Hospitals* which is predicted to gain 91,580 jobs. *Federal Government, Excluding Postal Services* is projected to grow by 1.6 percent, or 2,050 jobs. This is the slowest growth rate expected for any of the three government sectors and is due to potential budgetary constraints, the growing use of private contractors and the transfer of some functions to state and local governments.

The Construction industry is predicted to experience the third fastest growth rate of 15.8 percent, adding approximately 87,690 jobs to the labor market by the year 2010. The *Special Trade Contractors* sector will lead the way with a projected job growth of nearly 59,000, an 18 percent increase by 2010. *Electrical Work and Plumbing, Heating, & Air Conditioning* are expected to add over 14,740 and 11,310 jobs respectively. *General Contractors, Excluding Buildings* will add over 16,300 jobs, a growth rate of 12.8 percent. Within *General Building Contractors, Residential and Nonresidential Building Construction* is expected to add 12,070 jobs by 2010. *Residential Construction* is expected to benefit from the baby boomers in the 45-64 age cohort, whose demand for upgraded homes, second homes, and assisted living housing will increase. *Nonresidential Construction* can look forward to the current absorption of the 1980s excess industrial plant capacity, in addition to the need to replace or upgrade these existing facilities, boding well for its future growth.

Finance, Insurance, and Real Estate industries are projected to grow at a moderate rate of just over 12 percent from 2000-2010. This reflects an annual growth rate of 1.2 percent, which is slower than the total nonfarm employment increase of 1.8 percent. The industry's anticipated growth will result, in part, because of deregulation, industry consolidation, heightened competition, and technology-driven productivity gains. *Nondepository Institutions* and *Real Estate* contribute over 25,000 jobs. The *Real Estate* industry will continue to see productivity and efficiency increases as agents use the Internet to disseminate housing, credit, and payment information, along with wireless products that can transmit data on site.

Mining is the only major industry predicted to experience a decline in Texas by 2010. This industry is expected to lose 5,810 jobs, at a rate of -0.4 percent per year for the projection period. Losses are expected due to the use of more efficient and automated production methods that require fewer on-site workers. Stringent environmental regulations that mandate the reduction of sulfur emissions from coal combustion are also expected to dampen demand for the Mining industry's output. *Crude Petroleum & Natural Gas* is projected to shed 8,870 jobs by 2010. Fluctuations in global oil and gas prices, potential access to Federal lands, strict environmental regulations that require cleaner burning fuels, foreign competition, as well as new technology and extraction techniques, will significantly effect this industry. Accounting for the majority of this sector's employment, the *Oil & Gas Field Services* industry will be responsible for 71,820 jobs in 2010, roughly the same amount that existed in 2000.

To view the complete list of 2000-2010 employment projections, go to www.texasworkforce.org/lmi/lfs/type/projections/projectionshome.html or contact the LMI Department.

Highlights of Local Area Unemployment Statistics (Not Seasonally Adjusted)

The Texas actual (non-seasonally adjusted) unemployment rate declined for the fourth consecutive month, falling by four-tenths of a percentage point from September's rate of 6.2 percent to 5.8 percent in October. October's rate is the highest Texas has encountered for the month since 1993 when it reached 6.5 percent. Though the rate is eight-tenths of a percentage point higher than last October's 5.0 percent, this year's monthly decrease matches the average four-tenths of a percentage point reduction typically seen between September and October. The U.S. unemployment rate dipped for a third straight month, slipping by one-tenth of a percentage point to 5.3 percent in October. Since May, the state rate has been higher than the national rate by an average of six-tenths of a percentage point.

✚ Labor force employment grew for the second month in October, rising by 65,300 statewide. This gain boosted September's employment level of 10,080,600 to 10,145,900 in October. October's addition was aided by an increase in demand for seasonal workers for the upcoming holiday season. The monthly increase was slightly higher than the typical gain of 56,400 seen between September and October. This October's employment level was 144,700 higher than last October's 10,001,200. Since 1996, September-to-October employment gains have been occurring at a decreasing rate, falling from 85,100 to 51,200 in 2001. Much of this can be attributed to the ever tightening labor market Texas experienced during the 1990s. This October's larger than expected increase may indicate that the labor market is entering a more stable growth pattern.

✚ The number of unemployed Texans decreased for the fourth consecutive month, declining by 40,500 from 667,200 in September to 626,700 in October. Typically, unemployment falls by an average of 30,500 in October. Though October's unemployment level was the highest reported for the month since 1992, it also represented the largest reduction for the month since 1998. Even with October's larger than anticipated reduction, the overall level was still 98,300 higher than last year's level of 528,400.

✚ The number of claims for unemployment benefits without earnings fell for the third straight month, with October claims dipping by 5,600 from 161,900 in September to 156,300 in October. During 2001, claims increased for ten out of the twelve months of the year. This year, claims activity has decreased, with six months of the year experiencing over-the-month reductions in reported claims – signaling a possible slowing of layoff activity across the state. Year to date, claims have fallen by 33,000 and are at their lowest level since October of 2001. Despite this year-to-date decline, claims levels in October were 9,600 higher than last year's level of 146,700.

Civilian Labor Force Estimates for Texas Metropolitan Statistical Areas (In Thousands)

	October 2002*				September 2002				October 2001			
	C.L.F.	Emp.	Unemp.	Rate	C.L.F.	Emp.	Unemp.	Rate	C.L.F.	Emp.	Unemp.	Rate
State of Texas	10,772.6	10,145.9	626.7	5.8	10,747.8	10,080.6	667.2	6.2	10,529.6	10,001.2	528.4	5.0
Abilene	56.5	54.3	2.2	3.8	56.7	54.3	2.4	4.2	57.2	55.2	2.0	3.5
Amarillo	113.2	109.2	4.0	3.6	112.8	108.5	4.3	3.8	112.4	108.9	3.5	3.1
Austin-San Marcos	777.6	738.2	39.4	5.1	773.0	730.5	42.5	5.5	761.2	725.7	35.5	4.7
Beaumont-Port Arthur	178.9	165.3	13.6	7.6	178.8	164.0	14.8	8.3	176.3	162.9	13.4	7.6
Brazoria	110.7	103.2	7.5	6.8	111.2	102.7	8.5	7.7	108.0	101.9	6.1	5.6
Brownsville-Harlingen	136.5	122.6	13.9	10.2	136.2	121.8	14.4	10.6	133.4	120.7	12.7	9.5
Bryan-College Station	79.5	78.1	1.4	1.7	78.2	76.8	1.4	1.8	80.4	79.2	1.2	1.5
Corpus Christi	178.4	168.2	10.2	5.7	177.9	166.9	11.0	6.2	173.2	163.9	9.3	5.4
Dallas	2,065.2	1,931.1	134.1	6.5	2,059.6	1,916.8	142.8	6.9	2,025.1	1,911.9	113.2	5.6
El Paso	288.2	263.9	24.3	8.4	286.5	262.6	23.9	8.4	284.3	261.1	23.2	8.1
Fort Worth-Arlington	956.2	902.7	53.5	5.6	953.8	897.0	56.8	6.0	934.9	892.3	42.6	4.6
Galveston-Texas City	119.9	111.5	8.4	7.0	119.9	110.5	9.4	7.8	117.5	110.4	7.1	6.0
Houston	2,274.4	2,147.6	126.8	5.6	2,275.6	2,140.4	135.2	5.9	2,221.2	2,123.5	97.7	4.4
Killeen-Temple	118.9	113.0	5.9	5.0	118.4	112.4	6.0	5.1	117.2	112.0	5.2	4.4
Laredo	78.0	73.0	5.0	6.4	77.8	72.5	5.3	6.8	75.3	70.7	4.6	6.1
Longview-Marshall	104.3	97.9	6.4	6.1	103.6	96.6	7.0	6.8	102.9	97.4	5.5	5.3
Lubbock	133.1	129.7	3.4	2.6	129.6	125.9	3.7	2.8	129.0	126.3	2.7	2.1
McAllen-Edinburg-Mission	215.1	190.1	25.0	11.6	213.2	186.2	27.0	12.7	203.5	180.9	22.6	11.1
Odessa-Midland	123.9	116.9	7.0	5.6	124.4	116.7	7.7	6.2	121.4	116.8	4.6	3.8
San Angelo	51.7	49.9	1.8	3.6	51.7	49.8	1.9	3.8	50.1	48.7	1.4	2.9
San Antonio	814.6	774.9	39.7	4.9	813.9	772.1	41.8	5.1	795.8	761.9	33.9	4.3
Sherman-Denison	49.5	46.6	2.9	5.9	49.9	46.7	3.2	6.5	50.0	46.8	3.2	6.4
Texarkana	56.6	53.9	2.7	4.7	56.4	53.5	2.9	5.1	55.3	53.0	2.3	4.2
Tyler	95.5	91.7	3.8	4.0	95.3	91.1	4.2	4.4	93.9	88.8	5.1	5.4
Victoria	45.3	43.1	2.2	4.8	45.1	42.7	2.4	5.3	44.0	42.3	1.7	3.9
Waco	102.4	98.2	4.2	4.1	102.2	97.6	4.6	4.5	101.7	97.8	3.9	3.8
Wichita Falls	65.1	61.5	3.6	5.5	64.8	60.9	3.9	6.0	63.4	61.4	2.0	3.2

*Estimates for the current month are preliminary. All estimates are subject to revision. Estimates reflect actual (not seasonally adjusted) data. Civilian Labor Force (C.L.F.) includes wage and salary workers, self-employed, unpaid family, domestics in private households, agricultural workers, workers involved in labor disputes and the unemployed, all by place of residence. Employment and Unemployment data are first rounded then added together to derive the rounded CLF total. Because of this rounding technique, this rounded total of the CLF may not agree with a rounding of the CLF total itself. Percent Unemployed is based upon unrounded Labor Force, Employment and Unemployment numbers. Estimates of the TWC are in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.

Employment and Unemployment Estimates for Texas Counties - October 2002

County	Emp.	Unemp.	Rate	County	Emp.	Unemp.	Rate	County	Emp.	Unemp.	Rate	County	Emp.	Unemp.	Rate
Anderson	19,327	924	4.6	Donley	1,599	49	3.0	Kaufman	33,391	2,918	8.0	Real	1,293	49	3.7
Andrews	4,864	253	4.9	Duval	5,113	504	9.0	Kendall	16,756	504	2.9	Red River	4,869	340	6.5
Angelina	34,901	2,159	5.8	Eastland	9,464	326	3.3	Kenedy	228	5	2.1	Reeves	5,339	1,240	18.8
Aransas	10,363	572	5.2	Ector	57,260	4,361	7.1	Kent	375	9	2.3	Refugio	2,356	110	4.5
Archer	3,954	134	3.3	Edwards	769	35	4.4	Kerr	18,074	570	3.1	Roberts	390	5	1.3
Armstrong	1,086	14	1.3	Ellis	56,209	3,190	5.4	Kimble	2,350	42	1.8	Robertson	6,407	338	5.0
Atascosa	19,222	1,001	4.9	El Paso	263,889	24,296	8.4	King	175	5	2.8	Rockwall	23,077	1,320	5.4
Austin	14,511	535	3.6	Erath	17,009	387	2.2	Kinney	1,099	52	4.5	Runnels	4,796	169	3.4
Bailey	3,553	148	4.0	Falls	7,450	256	3.3	Kleberg	12,448	680	5.2	Rusk	21,266	1,179	5.3
Bandera	7,476	248	3.2	Fannin	12,523	1,027	7.6	Knox	2,146	77	3.5	Sabine	3,723	427	10.3
Bastrop	29,272	1,728	5.6	Fayette	11,240	314	2.7	Lamar	20,707	1,325	6.0	San Augustine	3,122	216	6.5
Baylor	1,591	73	4.4	Fisher	1,803	75	4.0	Lamb	6,420	288	4.3	San Jacinto	9,852	436	4.2
Bee	9,924	560	5.3	Floyd	3,132	195	5.9	Lampasas	9,824	316	3.1	San Patricio	28,762	1,680	5.5
Bell	92,102	4,914	5.1	Foard	683	45	6.2	La Salle	2,508	169	6.3	San Saba	2,689	73	2.6
Bexar	674,870	34,311	4.8	Fort Bend	190,509	8,802	4.4	Lavaca	7,989	162	2.0	Schleicher	1,598	42	2.6
Blanco	3,705	155	4.0	Franklin	4,728	156	3.2	Lee	6,404	265	4.0	Scurry	7,075	300	4.1
Borden	417	4	1.0	Freestone	8,461	389	4.4	Leon	6,649	422	6.0	Shackelford	1,365	61	4.3
Bosque	6,281	316	4.8	Frio	5,300	459	8.0	Liberty	28,545	2,398	7.7	Shelby	8,504	607	6.7
Bowie	37,055	2,014	5.2	Gaines	6,424	244	3.7	Limestone	9,890	413	4.0	Sherman	1,979	26	1.3
Brazoria	103,228	7,490	6.8	Galveston	111,521	8,369	7.0	Lipscomb	1,491	35	2.3	Smith	91,714	3,819	4.0
Brazos	78,143	1,381	1.7	Garza	2,784	96	3.3	Live Oak	4,474	131	2.8	Somervell	2,231	155	6.5
Brewster	5,889	127	2.1	Gillespie	9,991	220	2.2	Llano	5,399	237	4.2	Starr	17,679	3,223	15.4
Briscoe	836	35	4.0	Glasscock	690	16	2.3	Loving	52	2	3.7	Stephens	3,500	295	7.8
Brooks	3,643	267	6.8	Goliad	2,634	138	5.0	Lubbock	129,723	3,416	2.6	Sterling	581	21	3.5
Brown	17,124	914	5.1	Gonzales	7,568	394	4.9	Lynn	2,507	101	3.9	Stonewall	548	19	3.4
Burleson	7,276	349	4.6	Gray	8,336	429	4.9	Mc Culloch	3,175	120	3.6	Sutton	2,077	52	2.4
Burnet	14,978	741	4.7	Grayson	46,615	2,912	5.9	Mc Lennan	98,210	4,187	4.1	Swisher	3,377	110	3.2
Caldwell	16,682	1,070	6.0	Gregg	55,524	3,869	6.5	Mc Mullen	292	9	3.0	Tarrant	779,944	46,668	5.6
Calhoun	9,190	685	6.9	Grimes	8,090	652	7.5	Madison	4,426	150	3.3	Taylor	54,313	2,166	3.8
Callahan	6,922	267	3.7	Guadalupe	43,824	2,304	5.0	Marion	3,094	223	6.7	Terrell	648	21	3.1
Cameron	122,603	13,923	10.2	Hale	16,618	760	4.4	Martin	2,026	70	3.3	Terry	5,445	234	4.1
Camp	5,445	327	5.7	Hall	2,008	75	3.6	Mason	1,458	30	2.0	Throckmorton	712	23	3.1
Carson	3,121	110	3.4	Hamilton	4,489	94	2.1	Matagorda	14,451	1,622	10.1	Titus	12,903	665	4.9
Cass	13,923	921	6.2	Hansford	2,480	49	1.9	Maverick	14,127	3,324	19.0	Tom Green	49,882	1,843	3.6
Castro	3,169	117	3.6	Hardeman	1,843	89	4.6	Medina	14,970	696	4.4	Travis	481,994	26,421	5.2
Chambers	11,762	601	4.9	Hardin	21,667	1,680	7.2	Menard	896	23	2.5	Trinity	4,566	260	5.4
Cherokee	18,224	844	4.4	Harris	1,758,661	107,486	5.8	Midland	59,650	2,609	4.2	Tyler	6,081	687	10.2
Childress	3,110	87	2.7	Harrison	26,113	1,643	5.9	Milam	9,178	570	5.8	Upton	16,218	867	5.1
Clay	5,447	244	4.3	Hartley	2,983	29	1.0	Mills	2,474	54	2.1	Uvalde	1,594	63	3.8
Cochran	1,195	115	8.8	Haskell	3,430	113	3.2	Mitchell	3,261	134	3.9	Uvalde	9,855	903	8.4
Coke	1,441	42	2.8	Hays	54,884	2,964	5.1	Montague	6,553	396	5.7	Val Verde	17,605	1,001	5.4
Coleman	2,869	220	7.1	Hemphill	1,920	30	1.5	Montgomery	145,357	6,645	4.4	Van Zandt	20,571	1,008	4.7
Collin	285,210	18,717	6.2	Henderson	30,453	1,553	4.9	Moore	9,379	314	3.2	Victoria	43,093	2,154	4.8
Collingsworth	1,915	19	1.0	Hidalgo	190,054	25,021	11.6	Morris	6,098	467	7.1	Walker	22,169	593	2.6
Colorado	8,076	288	3.4	Hill	14,869	778	5.0	Motley	614	9	1.4	Waller	12,761	847	6.2
Comal	40,271	2,458	5.8	Hockley	11,508	391	3.3	Nacogdoches	27,285	980	3.5	Ward	3,495	312	8.2
Comanche	6,291	190	2.9	Hood	17,326	974	5.3	Navarro	21,573	1,235	5.4	Washington	14,756	391	2.6
Concho	1,623	28	1.7	Hopkins	14,008	670	4.6	Newton	4,829	980	16.9	Webb	72,951	4,996	6.4
Cooke	17,812	722	3.9	Houston	10,197	413	3.9	Nolan	6,643	288	4.2	Wharton	18,548	1,008	5.2
Coryell	20,911	994	4.5	Howard	13,984	777	5.3	Nueces	139,395	8,473	5.7	Wheeler	2,613	89	3.3
Cottle	864	23	2.6	Hudspeth	1,434	73	4.8	Ochiltree	4,786	108	2.2	Wichita	57,503	3,434	5.6
Crane	1,278	216	14.5	Hunt	36,337	2,148	5.6	Oldham	1,229	21	1.7	Wilbarger	7,585	239	3.1
Crockett	1,703	61	3.5	Hutchinson	8,728	638	6.8	Orange	37,176	3,526	8.7	Willacy	4,971	865	14.8
Crosby	3,040	113	3.6	Irion	815	19	2.3	Palo Pinto	11,328	593	5.0	Williamson	155,338	7,249	4.5
Culberson	936	89	8.7	Jack	3,041	105	3.3	Panola	7,833	532	6.4	Wilson	15,889	606	3.7
Dallam	3,577	88	2.4	Jackson	8,107	314	3.7	Parker	43,088	2,046	4.5	Winkler	2,691	324	10.7
Dallas	1,210,354	92,423	7.1	Jasper	12,405	1,545	11.1	Parmer	4,370	80	1.8	Wise	25,974	1,083	4.0
Dawson	6,325	279	4.2	Jeff Davis	1,217	28	2.2	Pecos	5,543	406	6.8	Wood	13,912	701	4.8
Deaf Smith	6,974	368	5.0	Jefferson	106,413	8,431	7.3	Polk	13,663	849	5.9	Yoakum	3,002	131	4.2
Delta	2,395	127	5.0	Jim Hogg	1,965	145	6.9	Potter	52,215	3,197	5.8	Young	7,747	406	5.0
Denton	256,036	11,786	4.4	Jim Wells	18,196	1,280	6.6	Presidio	2,622	753	22.3	Zapata	4,699	382	7.5
De Witt	8,476	345	3.9	Johnson	62,303	3,795	5.7	Rains	3,667	190	4.9	Zavala	3,492	481	12.1
Dickens	667	19	2.8	Jones	8,891	331	3.6	Randall	56,970	826	1.4				
Dimmit	3,282	356	9.8	Karnes	5,793	298	4.9	Reagan	1,668	47	2.7				

Estimates reflect actual (not seasonally adjusted) data. Estimates are preliminary and subject to revision. To obtain the civilian labor force, add total employment to total unemployment. Estimates of the TWC are in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.

Employment and Unemployment Estimates for Texas Cities - October 2002

City	Emp	Unemp	Rate	City	Emp	Unemp	Rate	City	Emp	Unemp	Rate	City	Emp	Unemp	Rate
Abilene	47,968	2,010	4.0	Denton	56,939	3,851	6.3	La Joya	1,107	233	17.4	Quanah	1,148	64	5.3
Addison	8,043	460	5.4	Diboll	1,677	211	11.2	La Marque	6,645	727	9.9	Rankin	359	20	5.3
Alamo	2,500	249	9.1	Dickinson	4,857	442	8.3	La Porte	17,417	787	4.3	Raymondville	2,478	461	15.7
Alamo Heights	4,269	109	2.5	Donna	5,754	1,003	14.8	Lago Vista	1,533	94	5.8	Rendon	4,852	238	4.7
Aldine	6,096	450	6.9	Dripping Springs	836	24	2.8	Lake Jackson	13,752	629	4.4	Richardson	55,813	2,992	5.1
Alice	9,612	666	6.5	Dumas	6,838	235	3.3	Lakeway	2,947	84	2.8	Richland Hills	4,986	210	4.0
Allen	19,697	1,186	5.7	Duncanville	23,906	1,303	5.2	Lamesa	4,669	249	5.1	Richmond	7,379	725	8.9
Alton	1,404	219	13.5	Eagle Pass	8,394	1,739	17.2	Lampasas	4,255	181	4.1	Rio Grande City	4,942	669	11.9
Alvarado	1,599	53	3.2	Edcouch	1,155	274	19.2	Lancaster	14,048	912	6.1	River Oaks	3,670	297	7.5
Alvin	10,827	698	6.1	Edinburg	16,649	1,910	10.3	Laredo	68,385	4,545	6.2	Roanoke	1,439	66	4.4
Amarillo	90,937	3,629	3.8	El Campo	4,729	295	5.9	League City	18,018	580	3.1	Robert Lee	541	16	2.9
Anderson Mill	10,929	567	4.9	El Paso	237,999	20,932	8.1	Leander	3,609	107	2.9	Robinson	4,330	82	1.9
Andrews	3,581	196	5.2	Eldorado	1,003	35	3.4	Leon Valley	6,542	214	3.2	Robstown	4,496	413	8.4
Angleton	9,596	712	6.9	Electra	1,297	87	6.3	Levelland	6,731	218	3.1	Rockdale	1,907	112	5.5
Arlington	190,546	9,905	4.9	Elgin	3,243	265	7.6	Lewisville	45,644	1,868	3.9	Rockwall	9,446	697	6.9
Athens	6,042	317	5.0	Elsa	2,426	298	10.9	Liberty	4,166	547	11.6	Rosenberg	15,935	935	5.5
Atlanta	3,035	160	5.0	Ennis	8,545	553	6.1	Linden	1,082	61	5.3	Round Rock	35,469	1,530	4.1
Austin	389,728	22,820	5.5	Eules	30,111	1,280	4.1	Littlefield	2,741	128	4.5	Rowlett	16,819	619	3.5
Azle	5,779	340	5.6	Everman	3,432	350	9.3	Live Oak	6,841	185	2.6	Saginaw	5,623	458	7.5
Balch Springs	10,727	666	5.8	Fabens	1,971	266	11.9	Llano	1,730	97	5.3	San Angelo	42,229	1,668	3.8
Bastrop	2,927	262	8.2	Fairfield	1,688	57	3.3	Lockhart	5,564	422	7.0	San Antonio	529,051	29,335	5.3
Bay City	7,279	827	10.2	Falfurrias	2,450	94	3.7	Longview	37,549	2,699	6.7	San Benito	9,361	1,116	10.7
Baytown	34,954	2,460	6.6	Farmers Branch	16,698	1,082	6.1	Lubbock	109,569	2,903	2.6	San Juan	5,432	657	10.8
Beaumont	52,470	4,020	7.1	First Colony	15,691	338	2.1	Lufkin	15,370	904	5.6	San Marcos	22,934	1,829	7.4
Bedford	34,388	1,238	3.5	Flower Mound	13,908	534	3.7	Lumberton	4,092	191	4.5	Santa Fe	4,463	249	5.3
Beeville	5,449	362	6.2	Forest Hill	7,028	443	5.9	Mc Allen	49,219	4,437	8.3	Schertz	7,473	377	4.8
Bellaire	9,982	227	2.2	Fort Stockton	3,262	271	7.7	Mc Gregor	2,292	85	3.6	Seabrook	5,457	227	4.0
Bellmead	4,115	148	3.5	Fort Worth	269,512	21,611	7.4	Mc Kinney	18,983	2,228	10.5	Seagoville	4,768	411	7.9
Belton	6,368	330	4.9	Fredericksburg	3,709	82	2.2	Mansfield	9,945	538	5.1	Seguin	11,184	819	6.8
Benbrook	13,907	520	3.6	Freeport	5,359	763	12.5	Marble Falls	2,981	104	3.4	Seminole	3,195	87	2.7
Bertram	519	45	8.0	Friendswood	14,268	517	3.5	Marlin	2,631	119	4.3	Sherman	15,705	1,083	6.5
Big Lake	1,298	43	3.2	Frisco	6,291	494	7.3	Marshall	10,324	658	6.0	Silsbee	3,208	292	8.3
Big Spring	9,568	597	5.9	Gainesville	7,654	368	4.6	Marshall Creek	232	17	6.8	Sinton	2,372	167	6.6
Blanco	701	39	5.3	Galena Park	4,885	362	6.9	Mason	802	29	3.5	Smithville	2,075	139	6.3
Bonham	2,959	337	10.2	Galveston	28,967	2,879	9.0	Mathis	2,015	205	9.2	Snyder	4,731	217	4.4
Borger	5,356	458	7.9	Garland	123,623	7,231	5.5	Memphis	1,230	56	4.4	Socorro	9,088	1,423	13.5
Bowie	1,825	125	6.4	Gatesville	3,371	139	4.0	Menard	616	23	3.6	Sonora	1,383	33	2.3
Brady	1,982	85	4.1	Georgetown	14,766	845	5.4	Mercedes	5,690	944	14.2	South Houston	7,379	541	6.8
Brenham	6,323	196	3.0	Gladewater	2,786	237	7.8	Merkel	1,108	66	5.6	South Padre Island	1,287	43	3.2
Bridge City	3,760	321	7.9	Glen Rose	629	79	11.2	Mertzon	364	8	2.2	Southlake	5,054	157	3.0
Bridgeport	2,379	104	4.2	Graham	3,835	205	5.1	Mesquite	68,420	3,868	5.4	Spring	22,027	846	3.7
Brownsville	45,295	6,048	11.8	Granbury	2,430	97	3.8	Mexia	3,153	149	4.5	Stafford	7,543	347	4.4
Brownwood	8,727	549	5.9	Grand Prairie	64,336	4,528	6.6	Midland	50,301	2,176	4.1	Stanton	1,045	42	3.9
Bryan	37,082	665	1.8	Grapevine	21,752	684	3.0	Midlothian	3,450	199	5.5	Stephenville	8,333	230	2.7
Buda	1,589	55	3.3	Greenville	12,918	759	5.5	Mineral Wells	6,359	415	6.1	Sterling City	433	21	4.6
Burkburnett	5,080	358	6.6	Gregory	1,295	84	6.1	Mission Bend	19,914	677	3.3	Sugar Land	21,533	818	3.7
Burleson	10,718	639	5.6	Groesbeck	1,472	66	4.3	Mission	13,785	1,501	9.8	Sulphur Springs	6,674	386	5.5
Cameron	2,159	173	7.4	Groves	7,204	338	4.5	Missouri City	33,036	989	2.9	Sweetwater	4,694	231	4.7
Canyon	7,010	125	1.8	Haltom City	21,113	1,232	5.5	Monahans	2,177	201	8.5	Taylor	10,490	861	7.6
Canyon Lake	7,334	623	7.8	Harker Heights	6,571	215	3.2	Mount Pleasant	6,587	237	3.5	Temple	27,101	1,051	3.7
Carrollton	71,705	3,019	4.0	Harlingen	26,022	2,056	7.3	Mount Vernon	1,252	61	4.6	Terrell	7,145	926	11.5
Carthage	2,304	157	6.4	Haslet	587	23	3.8	Nacogdoches	15,323	645	4.0	Texasarkana	13,583	885	6.1
Cedar Hill	13,033	557	4.1	Henderson	5,502	287	5.0	Navasota	2,909	191	6.2	Texas City	19,712	1,756	8.2
Cedar Park	5,575	365	6.1	Henrietta	1,561	90	5.5	Nederland	8,284	299	3.5	The Colony	19,425	956	4.7
Channelview	14,809	921	5.9	Hereford	5,265	345	6.1	New Braunfels	20,390	1,218	5.6	The Woodlands	24,059	660	2.7
Clarksville	1,486	130	8.0	Hewitt	5,940	82	1.4	Nocona	1,083	62	5.4	Trophy Club	3,649	118	3.1
Cleburne	12,762	1,065	7.7	Hidalgo	1,348	138	9.3	N Richland Hills	33,215	1,500	4.3	Tyler	45,506	2,252	4.7
Clifton	1,275	56	4.2	Highland Park	4,836	125	2.5	Odessa	44,005	3,293	7.0	Universal City	7,963	278	3.4
Cloverleaf	10,836	766	6.6	Highland Village	6,195	232	3.6	Olney	1,263	77	5.7	University Park	13,456	440	3.2
Clute	5,118	340	6.2	Hillsboro	3,565	238	6.3	Orange	8,139	824	9.2	Uvalde	6,006	643	9.7
College Station	31,088	579	1.8	Houston	1,009,651	74,050	6.8	Ozona	1,359	55	3.9	Vernon	5,773	195	3.3
Colleyville	8,693	275	3.1	Humble	8,265	369	4.3	Paducah	664	22	3.2	Victoria	31,957	1,697	5.0
Columbus	1,412	44	3.0	Huntsville	11,907	377	3.1	Paint Rock	152	2	1.3	Vidor	5,095	392	7.1
Commerce	3,549	322	8.3	Hurst	23,841	1,354	5.4	Palacios	1,518	298	16.4	Waco	49,327	2,782	5.3
Conroe	21,906	1,061	4.6	Iowa Park	3,030	162	5.1	Palestine	8,939	439	4.7	Waller	810	36	4.3
Converse	5,614	198	3.4	Irving	114,958	7,214	5.9	Pampa	6,956	348	4.8	Watauga	13,810	458	3.2
Cooper	933	98	9.5	Jacinto City	4,456	510	10.3	Paris	10,939	784	6.7	Waxahachie	11,379	807	6.6
Coppell	12,451	329	2.6	Jacksonville	5,642	304	5.1	Pasadena	69,264	4,540	6.2	Weatherford	9,162	408	4.3
Copperas Cove	10,383	548	5.0	Jasper	2,907	268	8.4	Pearland	11,966	514	4.1	Webster	3,711	93	2.4
Corpus Christi	125,343	7,557	5.7	Johnson City	528	34	6.0	Pearsall	2,605	305	10.5	Wells Branch	7,799	195	2.4
Corsicana	12,389	763	5.8	Jonestown	991	80	7.5	Pecan Grove	8,452	224	2.6	Weslaco	10,700	1,804	14.4
Cotulla	1,758	115	6.1	Junction	1,423	34	2.3	Pecos	4,119	1,110	21.2	West Odessa	7,342	574	7.3
Crane	982	176	15.2	Katy	4,969	159	3.1	Perryton	3,983	98	2.4	West University Pl	8,320	115	1.4
Crockett	3,446	183	5.0	Keller	9,549	280	2.8	Pflugerville	3,905	114	2.8	Wharton	3,872	298	7.1
Crowley	4,533	264	5.5	Kennedale	2,675	93	3.4	Pharr	14,677	2,367	13.9	White Settlement	9,169	549	5.6
Cuero	2,825	142	4.8	Kermit	2,072	275	11.7	Plainview	10,621	466	4.2	Wichita Falls	44,430	2,715	5.8
Dalhart	4,388	94	2.1	Kerrville	8,093	293	3.5	Plano	140,648	7,867	5.3	Wink	403	27	6.3
Dallas	660,609	59,665	8.3	Kilgore	5,870	380	6.1	Pleasanton	4,760	259	5.2	Woodway	5,453	58	1.1
Daingerfield	1,150	97	7.8	Killeen	26,465	2,337	8.1	Port Arthur	22,209	2,938	11.7	Wylie	8,527	648	7.1
De Soto	21,450	1,045	4.6	Kingsville	10,534	585	5.3	Port Isabel	2,557	184	6.7	Yoakum	2,419	80	3.2
Deer Park	17,439	800	4.4	Kingwood	23,099	473	2.0	Port Lavaca	5,172	486	8.6				
Del Rio	14,559	866	5.6	Kirby	5,162	302	5.5	Port Neches	6,417	358	5.3				
Denison	10,076	703	6.5	Kyle	1,537	127	7.6	Portland	7,450	240	3.1				

Estimates reflect actual (not seasonally adjusted) data. Estimates are preliminary and subject to revision. To obtain the civilian labor force, add total employment to total unemployment. Estimates of the TWC are in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.

Texas Nonagricultural Wage and Salary Employment

				Sept. '02 to Oct. '02		Oct. '01 to Oct. '02	
	Oct. '02	Sept. '02	Oct. '01	Change	% Change	Change	% Change
TOTAL NONAG. W & S EMPLOYMENT	9,453,000	9,443,800	9,500,900	9,200	0.1	-47,900	-0.5
GOODS PRODUCING	1,711,700	1,718,100	1,761,600	-6,400	-0.4	-49,900	-2.8
Mining	156,900	156,300	163,600	600	0.4	-6,700	-4.1
<i>Oil & Gas Extraction</i>	148,100	147,500	154,600	600	0.4	-6,500	-4.2
Construction	556,400	560,500	561,800	-4,100	-0.7	-5,400	-1.0
Manufacturing	998,400	1,001,300	1,036,200	-2,900	-0.3	-37,800	-3.6
Durable Goods	603,300	605,800	630,100	-2,500	-0.4	-26,800	-4.3
Lumber & Wood Products	44,700	45,000	45,500	-300	-0.7	-800	-1.8
<i>Lumber Camps, Sawmills, Planing Mills</i>	6,300	6,400	6,900	-100	-1.6	-600	-8.7
Furniture & Fixtures	19,500	19,700	20,100	-200	-1.0	-600	-3.0
Stone, Clay, & Glass Products	46,100	46,100	46,900	0	0.0	-800	-1.7
Concrete, Gypsum, & Plaster Products	24,700	24,700	24,800	0	0.0	-100	-0.4
Primary Metal Industries	28,500	29,000	30,800	-500	-1.7	-2,300	-7.5
Fabricated Metal Industries	98,300	98,700	101,900	-400	-0.4	-3,600	-3.5
Fabricated Structural Metal Products	52,900	53,100	54,100	-200	-0.4	-1,200	-2.2
Industrial Machinery & Equipment	128,900	129,100	134,300	-200	-0.2	-5,400	-4.0
Oil & Gas Field Machinery	30,400	30,600	31,400	-200	-0.7	-1,000	-3.2
Electronic & Other Electrical Equipment	113,300	113,500	122,600	-200	-0.2	-9,300	-7.6
Transportation Equipment	71,800	72,600	74,200	-800	-1.1	-2,400	-3.2
Aircraft & Parts	37,900	38,200	39,700	-300	-0.8	-1,800	-4.5
Instruments & Related Products	33,500	33,400	34,400	100	0.3	-900	-2.6
Miscellaneous Manufacturing	18,700	18,700	19,400	0	0.0	-700	-3.6
Nondurable Goods	395,100	395,500	406,100	-400	-0.1	-11,000	-2.7
Food & Kindred Products	99,500	99,000	99,900	500	0.5	-400	-0.4
Meat Products	37,000	37,100	36,500	-100	-0.3	500	1.4
Dairy Products	5,200	5,200	5,200	0	0.0	0	0.0
Bakery Products	9,600	9,500	9,500	100	1.1	100	1.1
Malt Beverages	1,700	1,700	1,800	0	0.0	-100	-5.6
Textile Mill Products	4,000	3,900	4,000	100	2.6	0	0.0
Apparel & Other Finished Textile Products	29,800	30,800	35,000	-1,000	-3.2	-5,200	-14.9
Paper & Allied Products	26,600	26,300	27,400	300	1.1	-800	-2.9
Printing & Publishing	72,800	73,000	73,500	-200	-0.3	-700	-1.0
Newspapers, Periodicals, Books, & Miscellaneous	35,000	34,900	34,600	100	0.3	400	1.2
Chemicals & Allied Products	81,000	80,900	81,500	100	0.1	-500	-0.6
Petroleum & Coal Products	24,900	24,800	24,900	100	0.4	0	0.0
Petroleum Refining	21,200	21,100	21,100	100	0.5	100	0.5
Rubber & Miscellaneous Plastics	52,000	52,300	54,600	-300	-0.6	-2,600	-4.8
Leather & Leather Products	4,500	4,500	5,300	0	0.0	-800	-15.1
SERVICE PRODUCING	7,741,300	7,725,700	7,739,300	15,600	0.2	2,000	0.0
Transportation, Communications, Utilities	572,900	574,000	588,800	-1,100	-0.2	-15,900	-2.7
Transportation	356,200	356,900	360,800	-700	-0.2	-4,600	-1.3
Railroad Transportation	15,700	15,700	16,100	0	0.0	-400	-2.5
Transportation by Air	116,000	116,400	120,400	-400	-0.3	-4,400	-3.7
Communications	142,300	142,600	149,800	-300	-0.2	-7,500	-5.0
Electric, Gas, & Sanitary Services	74,400	74,500	78,200	-100	-0.1	-3,800	-4.9
Electric Services	35,500	35,600	35,600	-100	-0.3	-100	-0.3
Gas Production & Distribution	21,400	21,500	25,300	-100	-0.5	-3,900	-15.4
Trade	2,237,900	2,237,300	2,253,900	600	0.0	-16,000	-0.7
Wholesale Trade	522,000	522,200	529,100	-200	0.0	-7,100	-1.3
Retail Trade	1,715,900	1,715,100	1,724,800	800	0.0	-8,900	-0.5
Building Materials & Gardening Supplies	68,000	68,000	65,400	0	0.0	2,600	4.0
General Merchandise Stores	224,200	219,700	232,000	4,500	2.0	-7,800	-3.4
Food Stores	242,000	242,300	250,900	-300	-0.1	-8,900	-3.5
Automotive Dealers & Service Stations	179,400	181,100	179,200	-1,700	-0.9	200	0.1
Apparel & Accessory Stores	81,400	80,200	83,500	1,200	1.5	-2,100	-2.5
Home Furniture, Furnishings, & Equipment Stores	83,600	82,600	83,900	1,000	1.2	-300	-0.4
Eating & Drinking Places	649,900	657,700	638,300	-7,800	-1.2	11,600	1.8
Other Retail Trade	187,400	183,500	191,600	3,900	2.1	-4,200	-2.2
Finance, Insurance, & Real Estate	530,200	530,900	534,400	-700	-0.1	-4,200	-0.8
Depository Institutions including Banks	132,100	132,300	132,600	-200	-0.2	-500	-0.4
Insurance Carriers, Agents, Brokers, & Service	164,900	165,200	165,400	-300	-0.2	-500	-0.3
Other Finance Insurance & Real Estate	233,200	233,400	236,400	-200	-0.1	-3,200	-1.4
Services	2,746,600	2,752,600	2,745,100	-6,000	-0.2	1,500	0.1
Hotel & Other Lodging Places	93,800	94,800	93,500	-1,000	-1.1	300	0.3
Personal Services	92,200	91,900	92,800	300	0.3	-600	-0.6
Business Services	665,200	668,400	692,200	-3,200	-0.5	-27,000	-3.9
Auto Repair Services	95,600	96,400	95,400	-800	-0.8	200	0.2
Miscellaneous Repair Services	33,900	33,500	34,400	400	1.2	-500	-1.5
Amusement & Recreation, including Motion Pictures	117,600	120,600	119,300	-3,000	-2.5	-1,700	-1.4
Health Services	742,500	741,900	726,200	600	0.1	16,300	2.2
Legal Services	71,400	70,900	71,500	500	0.7	-100	-0.1
Educational Services	129,400	128,100	127,000	1,300	1.0	2,400	1.9
Social Services	208,100	208,000	203,000	100	0.0	5,100	2.5
Membership Organizations	144,300	144,700	144,400	-400	-0.3	-100	-0.1
Engineering & Management Services	270,300	269,300	268,000	1,000	0.4	2,300	0.9
Agricultural Services	61,900	63,500	59,900	-1,600	-2.5	2,000	3.3
Government	1,653,700	1,630,900	1,617,100	22,800	1.4	36,600	2.3
Federal	183,800	181,200	179,000	2,600	1.4	4,800	2.7
State	345,900	337,600	341,300	8,300	2.5	4,600	1.3
Local	1,124,000	1,112,100	1,096,800	11,900	1.1	27,200	2.5

*Estimates for the current month are preliminary. All estimates are subject to revision. The number of nonagricultural jobs in Texas is without reference to place of residence of workers. Estimates of the TWC are in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor. Wholesale Trade estimates are probability-based. (See text box on page 9 for more information)

Texas Metropolitan Statistical Areas Nonagricultural Wage and Salary Employment
(In Thousands)

INDUSTRY	ABILENE			AMARILLO			AUSTIN-SAN MARCOS			BMT.-PT. ARTHUR			BRAZORIA		
	Oct. '02	Sept. '02	Oct. '01	Oct. '02	Sept. '02	Oct. '01	Oct. '02	Sept. '02	Oct. '01	Oct. '02	Sept. '02	Oct. '01	Oct. '02	Sept. '02	Oct. '01
TOTAL	53.3	53.4	54.4	97.7	97.5	98.6	676.1	672.8	673.8	158.1	157.8	158.1	78.8	78.5	78.6
Mining	1.0	0.9	0.9	0.7	0.7	0.7	1.7	1.7	1.8	0.8	0.8	0.8	1.6	1.5	1.6
Construction	2.3	2.4	2.3	4.8	4.9	5.2	39.6	39.7	40.4	16.0	15.9	15.8	11.5	11.3	11.5
Manufacturing-Dur.	1.4	1.5	1.6	3.2	3.2	3.3	55.5	55.8	61.7	7.5	7.6	7.8	3.3	3.3	3.7
Manufacturing-Nondur.	1.5	1.5	1.6	5.9	5.9	5.7	13.1	13.1	13.0	13.8	13.7	14.2	10.2	10.2	10.4
Trans., Comm. & Util.	2.3	2.3	2.4	4.8	4.8	4.9	20.6	20.4	21.1	8.3	8.1	8.4	3.0	3.0	2.9
Wholesale Trade	2.6	2.6	2.7	5.9	5.9	5.9	38.0	37.8	37.2	4.8	4.7	4.8	2.6	2.6	2.4
Retail Trade	11.2	11.2	11.5	21.3	21.5	21.2	116.8	116.2	116.8	31.0	31.2	30.5	13.3	13.3	13.7
Fin., Ins., & Real Est.	2.5	2.5	2.5	5.1	5.2	5.3	34.3	34.4	34.0	5.1	5.2	5.2	2.1	2.1	2.0
Services	19.0	19.0	19.4	29.0	29.0	28.6	203.7	203.1	202.8	44.0	44.2	43.0	16.0	16.0	15.4
Federal Government	1.2	1.2	1.2	1.8	1.8	1.9	10.1	10.0	9.5	2.9	2.9	3.0	0.5	0.5	0.5
State Government	2.0	2.0	2.1	4.6	4.4	4.6	71.9	70.3	68.7	6.0	5.7	6.0	2.9	3.0	2.8
Local Government	6.3	6.3	6.2	10.6	10.2	11.3	70.8	70.3	66.8	17.9	17.8	18.6	11.8	11.7	11.7
INDUSTRY	BROWNSVILLE-HARL.			BRYAN-COLL. STA.			CORPUS CHRISTI			DALLAS			EL PASO		
TOTAL	111.6	111.6	111.1	77.8	77.1	80.0	161.2	161.0	159.5	1983.7	1980.4	1990.2	254.7	254.4	255.0
Mining	**	**	**	0.9	0.9	0.9	2.3	2.3	2.3	9.1	9.1	9.1	**	**	**
Construction	4.5	4.5	4.5	3.6	3.6	3.6	14.2	14.3	13.0	106.1	106.6	106.8	12.3	12.2	11.8
Manufacturing-Dur.	5.5	5.5	5.5	2.8	2.8	2.9	5.0	5.0	5.0	154.4	154.9	159.3	14.2	14.3	14.7
Manufacturing-Nondur.	4.8	5.1	5.7	2.4	2.4	2.5	7.9	7.9	8.0	75.5	75.5	74.6	18.4	18.6	19.9
Trans., Comm. & Util.	5.4	5.4	5.5	1.2	1.2	1.3	8.1	8.0	7.9	137.6	138.3	139.9	14.1	14.1	14.9
Wholesale Trade	4.5	4.5	4.3	1.6	1.6	1.5	5.8	5.8	5.9	144.2	144.2	149.3	11.7	11.7	11.7
Retail Trade	22.9	22.9	22.0	14.5	14.4	14.7	30.2	30.2	30.0	343.4	343.0	344.3	49.4	49.2	48.6
Fin., Ins., & Real Est.	3.9	3.9	3.9	2.8	2.8	2.7	6.3	6.4	6.4	157.2	156.9	158.2	11.3	11.3	11.2
Services	33.3	33.3	32.6	16.8	17.3	17.5	49.8	49.8	50.0	624.0	622.9	621.6	62.3	62.4	62.9
Federal Government	2.3	2.3	2.3	1.0	1.0	1.0	6.0	6.1	6.0	31.9	31.7	31.1	8.8	8.8	8.7
State Government	4.0	3.8	4.1	23.1	22.1	24.3	5.3	5.1	4.6	28.6	27.0	28.1	9.3	9.3	9.0
Local Government	20.5	20.4	20.7	7.1	7.0	7.1	20.3	20.1	20.4	171.7	170.3	167.9	42.9	42.5	41.6
INDUSTRY	FT. WORTH-ARL.			GALVESTON-TX. CITY			HOUSTON			KILLEEN-TEMPLE			LAREDO		
TOTAL	792.8	793.9	795.6	86.3	86.2	86.8	2123.1	2122.5	2123.4	103.4	103.3	103.8	72.1	71.8	70.7
Mining	4.6	4.6	4.4	0.4	0.4	0.5	66.9	66.3	69.0	**	**	**	1.2	1.2	1.3
Construction	45.0	46.3	45.0	4.0	4.1	4.0	161.1	161.7	159.7	4.6	4.7	4.7	2.2	2.3	2.3
Manufacturing-Dur.	69.0	69.2	71.9	2.4	2.4	2.5	129.6	130.0	131.2	3.9	3.9	4.0	0.9	0.9	0.9
Manufacturing-Nondur.	35.9	35.9	35.5	5.0	5.0	5.2	80.7	80.6	82.2	4.8	4.7	4.9	0.5	0.5	0.6
Trans., Comm. & Util.	78.9	79.0	79.6	3.7	3.7	3.7	145.0	145.3	153.8	3.9	3.8	3.7	12.0	12.0	12.2
Wholesale Trade	43.0	42.7	42.8	1.8	1.8	1.8	123.9	124.8	124.5	3.8	3.8	3.9	2.8	2.8	2.9
Retail Trade	151.3	152.5	154.1	18.0	18.1	17.8	356.5	354.5	352.6	21.3	21.4	21.3	16.2	16.1	15.2
Fin., Ins., & Real Est.	41.5	41.5	41.4	5.3	5.3	5.5	115.5	115.7	115.8	4.3	4.3	4.3	3.0	3.0	2.9
Services	217.9	218.2	216.7	20.0	20.1	19.9	664.4	665.9	659.0	28.4	28.6	28.3	15.7	15.8	15.5
Federal Government	15.5	14.4	14.2	0.9	0.9	0.9	27.1	26.3	26.1	7.9	7.9	8.0	2.2	2.1	2.1
State Government	9.2	9.2	9.6	11.7	11.7	11.9	51.1	51.1	49.5	3.7	3.7	3.7	1.6	1.5	1.5
Local Government	81.0	80.4	80.4	13.1	12.7	13.1	201.3	200.3	200.0	16.8	16.5	17.0	13.8	13.6	13.3
INDUSTRY	LONGVIEW-MARSHALL			LUBBOCK			MCALLEN-EDIN.-MIS.			ODESSA-MIDLAND			SAN ANGELO		
TOTAL	91.9	91.5	93.0	126.4	124.1	125.2	167.3	166.6	162.2	105.2	105.2	106.5	45.4	45.5	44.6
Mining	4.0	4.1	4.2	0.1	0.1	0.1	1.6	1.6	1.6	12.4	12.5	12.6	1.1	1.0	0.9
Construction	4.8	4.8	4.6	5.0	5.0	5.0	8.6	8.6	8.2	5.4	5.5	5.7	2.1	2.1	2.2
Manufacturing-Dur.	11.0	11.1	11.4	4.0	4.0	4.0	3.3	3.4	3.5	5.3	5.3	5.2	2.5	2.5	2.5
Manufacturing-Nondur.	4.6	4.6	4.8	3.0	3.0	3.0	6.6	6.8	7.5	1.6	1.6	1.9	2.3	2.3	2.1
Trans., Comm. & Util.	4.3	4.1	4.2	8.4	8.4	8.5	6.5	6.6	6.3	5.1	5.1	5.3	2.3	2.3	2.5
Wholesale Trade	4.1	4.1	4.1	7.4	7.4	7.4	6.7	6.5	6.9	7.1	6.9	7.0	1.8	1.8	1.8
Retail Trade	19.7	19.7	20.0	26.6	26.3	26.1	36.3	36.6	35.3	20.5	20.5	20.9	8.4	8.5	8.5
Fin., Ins., & Real Est.	3.6	3.6	3.6	6.5	6.5	6.5	6.0	6.0	5.8	4.1	4.1	4.1	1.8	1.8	1.8
Services	23.6	23.5	23.7	37.2	37.0	37.1	47.3	47.2	44.2	25.2	25.4	25.3	13.2	13.3	13.0
Federal Government	0.5	0.5	0.5	1.3	1.1	1.3	2.7	2.7	2.7	0.8	0.7	0.8	1.4	1.4	1.3
State Government	0.9	0.8	0.8	14.7	13.4	13.8	4.9	4.8	4.9	2.0	2.0	1.9	2.6	2.6	2.6
Local Government	10.8	10.6	11.1	12.2	11.9	12.4	36.8	35.8	35.3	15.7	15.6	15.8	5.9	5.9	5.4
INDUSTRY	SAN ANTONIO			SHERMAN-DENISON			TEXARKANA			TYLER			VICTORIA		
TOTAL	734.3	734.0	730.2	43.4	43.4	44.3	52.7	52.7	53.1	86.7	86.7	84.9	37.4	37.2	37.5
Mining	2.4	2.4	2.3	**	**	**	**	**	**	1.4	1.4	1.4	2.4	2.4	2.4
Construction	44.2	44.3	41.6	2.8	2.8	2.8	2.8	2.8	2.8	3.4	3.4	3.3	2.1	2.1	2.0
Manufacturing-Dur.	29.4	29.4	29.7	5.5	5.5	6.1	2.8	2.8	2.8	8.9	8.9	7.7	1.0	1.0	1.1
Manufacturing-Nondur.	23.5	23.5	23.8	1.9	1.8	2.0	2.9	2.9	3.0	3.3	3.4	3.6	2.0	2.0	2.0
Trans., Comm. & Util.	34.1	34.4	35.6	2.0	2.0	1.9	2.8	2.8	3.0	3.4	3.5	3.6	1.7	1.7	1.7
Wholesale Trade	31.5	31.4	31.4	1.1	1.1	1.1	2.7	2.7	2.8	3.9	3.9	3.9	1.8	1.8	1.8
Retail Trade	143.4	143.8	146.1	8.3	8.4	8.6	10.8	10.8	11.0	18.9	19.1	19.0	7.6	7.6	7.9
Fin., Ins., & Real Est.	51.7	51.7	52.0	3.0	3.0	2.9	1.9	1.9	1.8	4.4	4.4	4.3	1.6	1.6	1.6
Services	236.5	237.4	234.0	12.6	12.7	12.7	14.5	14.6	14.7	26.7	26.8	26.2	10.2	10.2	10.2
Federal Government	28.8	28.8	28.5	0.4	0.3	0.4	3.3	3.3	3.3	1.1	1.0	1.0	0.2	0.2	0.2
State Government	15.5	15.4	15.3	0.2	0.2	0.2	1.8	1.8	1.7	3.1	3.0	3.0	0.5	0.5	0.5
Local Government	93.3	91.5	89.9	5.6	5.6	5.6	6.4	6.3	6.2	8.2	7.9	7.9	6.3	6.1	6.1
INDUSTRY	WACO			WICHITA FALLS			In accordance with Bureau of Labor Statistics (BLS) procedures, estimates produced for the Goods Producing sector and Wholesale Trade industry, beginning with the release of the 2001 Benchmark data, will incorporate a new probability-based sample design for the payroll survey. The areas affected by this change include: Statewide, Austin-San Marcos MSA, Beaumont-Port Arthur MSA, Corpus Christi MSA, Dallas MSA, El Paso MSA, Fort Worth-Arlington MSA, Houston MSA, Odessa-Midland MSA, San Antonio MSA, Tyler MSA and the Waco MSA.								
TOTAL	100.0	100.1	100.9	59.4	59.4	60.2									
Mining	**	**	**	1.0	1.0	1.0									
Construction	5.6	5.7	5.5	2.0	2.0	2.0									
Manufacturing-Dur.	7.7	7.7	8.0	5.9	5.9	6.4									
Manufacturing-Nondur.	6.3	6.3	6.5	1.6	1.6	1.6									
Trans., Comm. & Util.	4.4	4.4	4.5	2.6	2.6	2.6									
Wholesale Trade	4.5	4.5	4.5	2.2	2.3	2.2									
Retail Trade	18.1	18.1	18.0	11.8	11.7	12.0									
Fin., Ins., & Real Est.	6.3	6.4	6.3	2.3	2.3	2.3									
Services	29.7	29.9	30.8	17.1	17.1	16.7									
Federal Government	3.5	3.5	3.4	2.6	2.6	2.6									
State Government	2.7	2.6	2.6	3.4	3.4	3.5									
Local Government	11.2	11.0	10.8	6.9	6.9	7.3									

*Estimates for the current month are preliminary. All estimates are subject to revision. The number of nonagricultural jobs in the MSAs is without reference to place of residence of workers.
**Mining estimates are included in Construction estimates for these MSAs. Estimates of the TWC are in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.

ASK THE EXPERT

“What is the relationship between price inflation and the unemployment rate?”

by Sarah Rummery, Ph.D.

Let's begin by defining both the unemployment rate and price inflation, and then move on to examine possible theoretical explanations for a relationship between these two economic indicators.

First, the unemployment rate; to be counted as unemployed in the United States you must have been actively involved in job search in the previous four weeks. This would include sending out resumes, going to job interviews and registering with an employment agency. You would also count as unemployed if you had been laid off temporarily, and were awaiting recall.

You would not be counted as unemployed if you had become discouraged in your search for a job, and had therefore stopped looking, or if you were not available to work, perhaps for medical reasons, should a job be offered to you.

The unemployment figures also do not account for under-employment - that is, when people are working part time but would prefer full time, or would simply prefer to be employed for more hours.

The unemployment rate is calculated monthly by the Bureau of Labor Statistics (hereafter BLS). It is the number of people unemployed, divided by the number of people in the labor force. For example, in October 2002, the BLS estimated that there were 8,209,000 Americans unemployed and 134,914,000 Americans employed. This makes the October 2002 labor force (the number of people working or actively looking for work) equal to 143,123,000 and the unemployment rate equal to:

$$\frac{8,209,000}{143,123,000} = 5.73\%$$

Economists consider there to be three major categories of unemployment; frictional, structural and cyclical. Regardless of the state of the economy there will always be frictional and structural unemployment. Frictional unemployment includes people who have been fired from their job, quit their job voluntarily, have graduated from high school or college and are looking for a job, or someone returning to the labor force and looking for a job. Structural unemployment is caused by "structural" changes, such as the loss of manufacturing companies to overseas locations, which leaves many domestic workers unemployed, and perhaps with skills that are no longer in demand. These two types of unemployment together make up the "natural rate of unemployment", that is, the unemployment that would be expected even in a full employment economy.

Deviations from this rate are attributed to cyclical variations (or business cycle factors). For example, if the economy moves into recession, aggregate demand for business output falls, and as a consequence the demand for labor falls creating an excess supply of labor and cyclical unemployment. This would cause the unemployment rate to exceed the natural rate. On the other hand if the economy experiences an economic expansion, aggregate demand for business

output increases, as does the demand for labor, creating an excess demand or shortage of labor, and an unemployment rate below the natural rate. Unemployment in the labor market clearly depends on demand in the product markets.

Now let's define price inflation so that we can consider possible connections between the rate of unemployment and price inflation.

The general consensus amongst economists is that price inflation is triggered as the economy moves towards or possibly exceeds the "full employment" level of production, which causes the unemployment rate to fall below the natural rate. Why? As the economy approaches full employment output, businesses are operating at close to full capacity, the labor market is tight meaning there is very little, if any excess supply of labor, and this starts to put upward pressure on resource prices (such as wages) which businesses may pass on to consumers in the form of higher prices. This explanation of inflation ties it directly to the labor market. Inflation therefore measures the rate of increase in the general price level. How is the general price level defined? The BLS enlists up to 30,000 American households to participate in the tracking and recording of consumer prices for a range of some eighty thousand goods and services. A certain number of these households keep detailed diaries of all their expenditures so that the BLS can construct a "market basket" of typical household purchases. BLS employees then track the prices of these typical goods every month and the rate of change in these price levels is used to calculate a weighted average rate of inflation. This means that not all price changes are of equal weight in the inflation calculation. Those goods on which typical households spend more income, count more than those goods on which the typical household spends less.

For example, in the six months ending September 2002, the BLS reported that the price of tobacco and smoking products increased 25.6%, the price of tuition, school fees and childcare increased by 7.4%, the price of personal computers decreased 16.6%, the price of fuel oil increased 17.7%, the price of meat, poultry fish and eggs decreased 2.1%, the price of household furnishings decreased 1.2%, the price of new vehicles decreased 0.3%, the price of sugar and sweets

Continued on page 11

Have a question for us?

If you have a question regarding labor markets, the economy, or anything related, please let us hear from you. All questions will be answered, with selected questions being featured in this section of the *Texas Labor Market Review*. Depending on the topic, questions will be answered by LMI staff or by guest "experts" from academia or government who have graciously volunteered their expertise.

Continued from page 10

increased 3.5%, the price of take-out food increased 2.4% and prices of piped gas increased 2.6%. These are just a few examples of the many categories of goods whose prices are tracked on a monthly basis. The weighted average inflation rate for the six months ending September 2002 was 2.5%.

Conventional economic wisdom hypothesizes a connection between what is happening in product markets and therefore price levels and what is happening in labor markets and therefore unemployment. These two markets, product and labor, are interdependent. To put it in very simple terms, low unemployment, below the natural rate, is an indicator of a strong economy experiencing significant rates of economic growth. Consumer demand for all types of products and services is high and this translates to a high demand for labor (which is derived from the demand for goods and services which it is used to produce). In this type of economy where businesses are competing for workers, wages of the scarcest and most sought after workers will start to rise causing prices to rise in these same industries. If this happens in many industries and occupations across the economic landscape, then an increase in the general price level will most likely follow. In economic theory this is known as a wage-price spiral. It indicates that labor market pressures can lead to inflationary pressures in product markets.

Naturally the reverse scenario applies equally well. Unemployment that is above the natural rate is a symptom of a weaker economy, an economy experiencing lower than average or lower than expected rates of economic growth. Consumer confidence and demand for all types of goods and services begins to decline, and with it the demand for labor. In this type of environment there is much less pressure to increase wages, and less pressure on price levels.

It seems therefore, that there may be reason to think that the unemployment rate in the labor market should be negatively or inversely correlated with the level of price inflation in product markets.

A New Zealand Economist by the name of A.W. Phillips actually verified this relationship (or something close to it) in 1958.¹ Using data from the United Kingdom covering the time period 1861-1957 he found a statistically significant inverse correlation between the unemployment rate and the rate of wage inflation. His research became known as the Phillips Curve. Wage inflation is strongly correlated with price inflation so the Phillips Curve analysis was easily extended to the relationship between unemployment and price inflation. As such, Central banks and Politicians could use this tradeoff when designing Monetary and Fiscal policy. If, for example, the goal of public policy were to reduce price inflation by a certain number of percentage points, the known tradeoff would be a certain increase in the unemployment rate, and vice versa.

The Phillips Curve relationship appeared quite robust until the 1970's when the U.S. experienced stagflation, which is a combination of high unemployment and high inflation. This was due to the 1973 Arab oil embargo against the U.S., which led to a dramatic and sudden increase in the cost of oil. This had many consequences, not the least of which was a big spike in the inflation rate. Oil is a necessary input for many businesses such as electricity generation, oil and gas refining

and production and transportation and delivery of all kinds. Operating costs increased very substantially for many U.S. businesses. Prices of many goods and services increased at a rapid rate. The Federal Reserve Bank acted to counter the rising rate of inflation by implementing a tight monetary policy that saw interest rates rise. At the same time there was a lot of uncertainty and consumer and business confidence plummeted. Consumer demand fell, business investment fell and quite naturally demand for labor fell, so unemployment increased. The U.S. economy moved into a severe recession. This was compounded by further oil shocks in 1979 with the Iranian Revolution and 1980 with the Iran-Iraq war.

In 1980 the price of a barrel of crude oil was \$67 (in today's prices) and a gallon of gas cost \$2.57 (in today's prices).²

So was the Phillips Curve analysis redundant? Did the 1970's experience with stagflation contradict the Phillips Curve, or did it suggest that the economy was now operating on a new Phillips Curve, above and to the right of the old, comprised of higher inflation and unemployment combinations?

The Phillips Curve also does not explain the eight years of economic expansion during the 1990's, when the U.S. economy experienced historically low unemployment and low price inflation, simultaneously! Is this another contradiction of the Phillips Curve, or does it suggest the Phillips Curve has shifted yet again, this time to the left, and now comprised of lower inflation and unemployment combinations?

Many economists now believe that the Phillips Curve characterization of the relationship between unemployment and price inflation is too simplistic to explain what is evidently a more complex interdependence. The Phillips Curve may still be useful in a short run context, but is not sufficient to explain the long run dynamics of the relationship, and shifts in the entire function over time. Much work has been done since 1958 to extend the analysis of A.W. Phillips to take account of such factors.^{3,4}

Despite the shortcomings of the original Phillips Curve, it is still considered a seminal work in Economics and a major contribution to our understanding of the relationship between unemployment and price inflation.

¹ A.W. Phillips, "The Relationship Between Unemployment and the Rate of Change of Money Wages in the United Kingdom, 1861-1957," *Economica* 25 (November 1958):283-299.

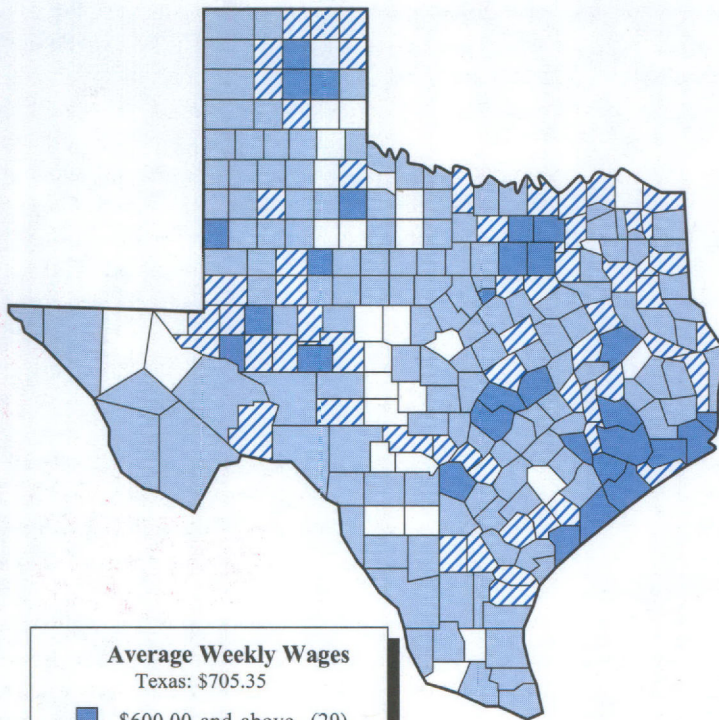
² J.W. Anderson, "The Surge in Oil Prices – Anatomy of a Non-Crisis" Resources for the Future, Spring 2000.

³ Milton Friedman, "The Role of Monetary Policy," *American Economic Review* 58 (March 1968):1-17.

⁴ Edmund S. Phelps, "Money Wage Dynamics and Labor Market Equilibrium," *Journal of Political Economy*, July-August 1967, pp678-711.

Dr. Rummery is an Assistant Professor of Economics in the Department of Economics and Finance at Stephen F. Austin State University. Contact Dr. Rummery at rrummery@sfasu.edu or by phone at (936) 468-1783.

**Average Weekly Wage of Workers
in Covered Employment by County
First Quarter 2002**



Average Weekly Wages	
Texas: \$705.35	
■	\$600.00 and above (29)
▨	\$500.00 to \$599.99 (61)
■	\$400.00 to \$499.99 (133)
□	\$399.99 and below (31)

Source: Covered Employment Records (Includes Federal Government)

Texas Labor Market Review
Labor Market Information



The Texas Labor Market Review (TLMR) is published monthly by the Labor Market Information Department of the Texas Workforce Commission. Material in the TLMR is not copyrighted and may be reproduced. The TWC would appreciate credit for the material used and a copy of the reprint. For a free subscription to the TLMR, or to change your mailing address, contact the LMI Department.

Phone (512) 491-4922 Toll Free 1-866-938-4444
 Fax (512) 491-4904
 Website www.texasworkforce.org/lmi
 E-mail lmi@twc.state.tx.us
 Fax-on-demand system (512) 491-4939

View the TLMR on-line at:
www.texasworkforce.org/lmi/publications/tlmr/tlmrhome.html

James Barnes, LMI Director

TLMR Staff:

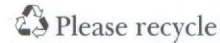
Clayton Griffis, Editor

Rachel Tello Sanchez, Layout and Design

Contributors: Phil Arnold, Bryce Bayles, Honor Byrd, Robert Crawley, Spencer Franklin, Becky Frye, Larbi Hanni, Sonia Haque, Jeff Navarro, and David Veselka.

Copies of this publication have been distributed in compliance with the State Depository Law, and are available for public use through the Texas State Publication Depository Program at the Texas State Library and other state depository libraries.

Equal Opportunity Employer/Programs. Auxiliary aids and services are available, on request, to individuals with disabilities.
 Contact Relay Texas @ 7-1-1



LMI DEPARTMENT
 TEXAS WORKFORCE COMMISSION
 101 E 15TH ST STE 103 A2
 AUSTIN TX 78778-0001

OFFICIAL BUSINESS
 PENALTY FOR PRIVATE USE \$300

ADDRESS SERVICE REQUESTED

PRSRT STD
 Postage and Fees Paid
 Texas Workforce Commission
 Permit No. G-12