

# Southwest Economy

2014

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### Texas to Remain a Top State for Job Growth in 2014

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▶ In total, the state gained 272,300 jobs in 2013, a 2.5 percent annual growth rate that outpaced the national average by 0.8 percentage points.

Following the Civil War, Gen. Philip Sheridan commanded an army in Texas and famously quipped, “If I owned Texas and hell, I would rent Texas and live in hell.” My hunch is that were Sheridan around today, he might be of a different opinion and would move to Texas, as so many other Americans have, to take advantage of the strong growth prospects here.

With output totaling approximately \$1.4 trillion, the Texas gross domestic product roughly equals that of Spain or Australia. And Texas remains a top state for job growth, as Keith Phillips and Christopher Slijk discuss in this issue of *Southwest Economy*.

Employment here has expanded at twice the pace of the nation as a whole since 1990. Over that nearly quarter-century, the number of jobs in Texas is up 60 percent, compared with 18 percent in California and less than 8 percent in New York. Unlike the nation as a whole, Texas bounced back relatively strongly following the recession, regaining its prerecession employment levels by late 2011 and expanding another 6 percent since then. And despite what the critics contend, Texas is creating more high-paying than low-paying jobs, as Melissa LoPalo and Pia Orrenius explain in another *Southwest Economy* article.

Diverse industries have contributed to the state’s economic expansion. While the oil and gas extraction and mining support sectors added an outsized 13,200 jobs last year, seven other sectors created far more. In total, the state gained 272,300 jobs in 2013, a 2.5 percent annual growth rate that outpaced the national average by 0.8 percentage points.

I encourage you to read the reports from Keith and Christopher and Melissa and Pia for more insights into the trajectory and breadth of the Texas economic expansion. The state is in a strong position for continued growth. Had Gen. Sheridan acquired Texas, his return on investment would have been astronomical, as the stock of the state keeps rising.

A handwritten signature in black ink that reads "Richard W. Fisher". The signature is fluid and cursive, with a large, sweeping initial 'R'.

Richard W. Fisher  
President and CEO  
Federal Reserve Bank of Dallas



# Texas to Remain a Top State for Job Growth in 2014

By Keith R. Phillips and Christopher Slijk

▶ *The economy continued to expand broadly, with employment in oil and gas, leisure and hospitality, professional and business services, and construction growing strongly.*

**T**he Texas economy in 2014 is well positioned to continue expanding and will likely remain among the nation's fastest growing. Employment grew 2.5 percent last year, down from 3.3 percent in 2012 but 0.7 percentage points above the national average.

Weakness in manufacturing and cuts in federal spending contributed to the state's job growth slowdown. Still, the economy continued to expand broadly, with employment in oil and gas, leisure and hospitality, professional and business services, and construction growing strongly.

Even with slower job expansion, Texas remained the third-fastest-growing state in 2013, trailing only North Dakota and Florida (*Chart 1*). Oil- and gas-producing states—leaders in the early years of the U.S. recovery—no longer predominated. This reflects the energy sector's slowing expansion, although two states with the strongest shale activity, Texas and North Dakota, remained near the top. Meanwhile, several Sunbelt states hit hard by the housing crisis—Florida,

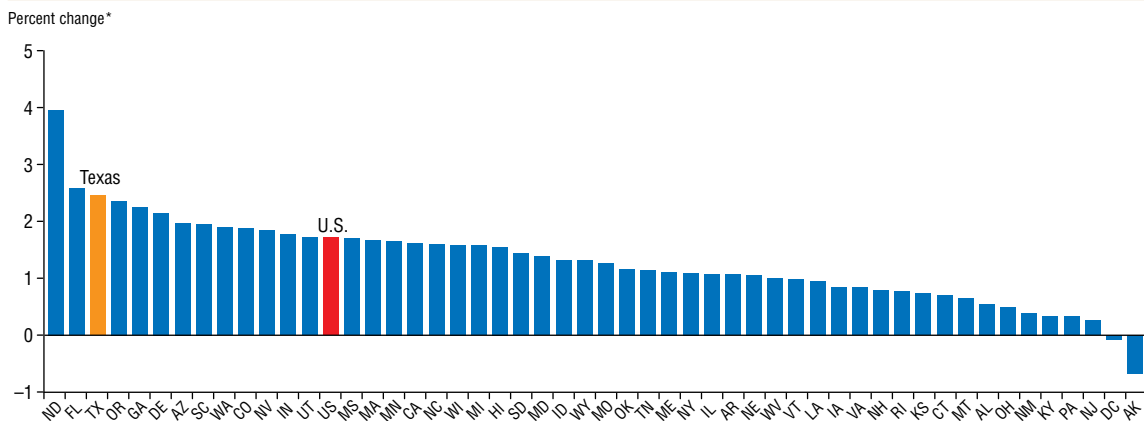
Georgia and Arizona, for instance—are beginning to bounce back. In these states, employment remains significantly below the prerecession peak; in Texas, it is significantly above.

While Texas jobs grew at a healthy pace, the unemployment rate changed little overall, dropping to 6 percent in December 2013 from 6.2 percent at the end of 2012. The unemployment rate rose through May 2013 because new entrants to the workforce outpaced new jobs created by 0.4 percentage points.

As job growth continued in the latter half of the year and labor force expansion leveled, the unemployment rate fell steadily. As a result, the Texas unemployment rate in December remained below the 6.7 percent nationwide figure. Real gross domestic product in Texas also outpaced the nation, growing 3.8 percent on a year-over-year basis through third quarter 2013 compared with 2 percent for the nation (*see box, page 5*).

This year Texas will likely continue growing at a moderate, above-average pace and will outpace most U.S. states. Headwinds from cuts in federal gov-

**Chart 1** | Texas Posts Third-Fastest Job Growth Among States in 2013



\*December-over-December change; seasonally adjusted.  
SOURCES: Bureau of Labor Statistics; Federal Reserve Bank of Dallas.

ernment spending should dissipate, while manufacturing sector expansion is expected to increase as U.S. and world economies improve. Energy and construction are anticipated to remain strong. Recent increases in leading indicators suggest that Texas nonfarm employment should pick up 2.5 to 3.5 percent in 2014.

### Texas' Expansion Continues

Economic growth in Texas, unlike the nation, bounced back relatively strongly following the recession. Texas reached prerecession employment levels

by late 2011, and jobs have since expanded 6.3 percent. Meanwhile, the nation is still 0.7 percent (1 million jobs) below its peak reached in January 2008 (*Chart 2*). Though the Texas recovery has been robust, the sources of strength have differed from past recoveries, which typically have been led by housing and consumer spending. Instead, growth in the early years of the recent recovery was driven more by gains in energy and exports.

Growth in most industries in Texas moderated last year (*Chart 3*). Although construction expanded at a healthy 3 percent in 2013, this was a bit less than

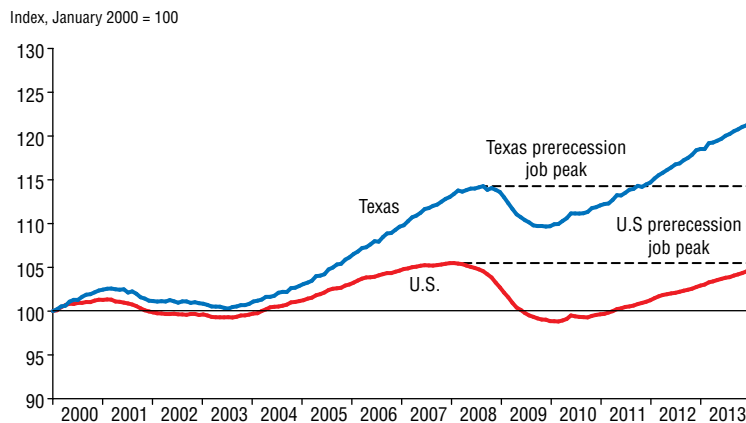
half the previous year's rate. Similarly, energy continued to decelerate from peak expansion in 2011, and sectors such as financial, business and health services experienced weaker growth.

The information services sector was the only area where growth significantly accelerated last year. Print publishing, which had declined sharply in previous years, accounted for much of the leveling off, along with a strong increase in data processing and telecommunications services.

Fiscal uncertainty was a constant throughout 2013, from federal budget sequestration cuts in the spring to furloughs in the summer and the federal government shutdown in October. This led to declines in federal government jobs, and even more importantly, to reduced economic growth among private contractors that provide goods and services to the federal government.

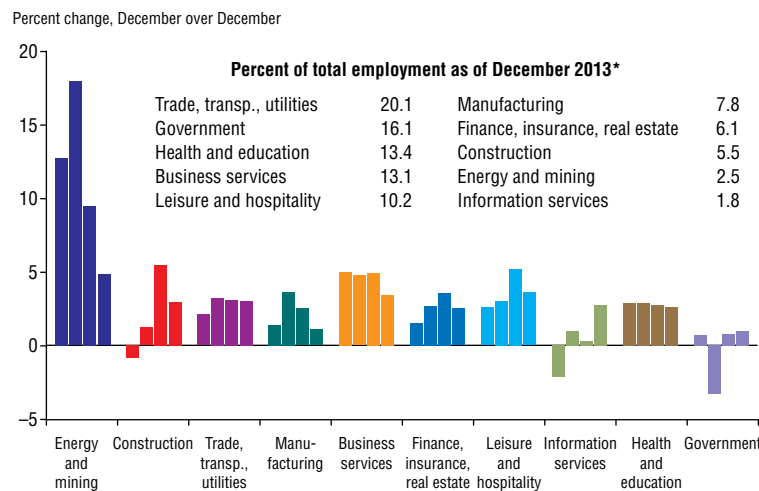
Nationally, on-budget federal outlays fell 11.3 percent from 2012 levels, which likely impacted Texas about as much as other states, as year-over-year federal government employment in December 2013 declined 2.7 percent in Texas and 2.8 percent nationally. State and local government jobs, on the other hand, which make up nearly 90 percent of total government employment in Texas, increased slightly, growing at an annual 1.4 percent rate through December.

**Chart 2** Texas Jobs Continue to Grow Beyond 2008 Peak



SOURCES: Bureau of Labor Statistics; Federal Reserve Bank of Dallas.

**Chart 3** Most Texas Industries Slowed in 2013 (Annual job growth by year, 2010–13)



\*Not all industries included; percentages do not total 100.  
SOURCES: Bureau of Labor Statistics; Federal Reserve Bank of Dallas.

### Manufacturing Year-End Pickup

Manufacturing experienced very sluggish growth during 2013, with a moderate pickup toward year-end. Until October, sector employment was virtually unchanged. Jobs in manufacturing of durable goods fell slightly, while those involved in nondurable goods remained flat. Much of this is attributable to flat exports, a consequence of continued weakness of the world economy. In particular, the Mexican economy, which accounts for more than one-third of Texas exports, contracted 2.7 percent in the second quarter.

However, exports picked up in the second half of 2013, rising by an annualized 16.6 percent. Much of this growth came from Latin America and the European Union, where exports grew at a



six-month annualized rate of 9.2 percent and 75.4 percent, respectively. This was closely related to an increase in Texas manufacturing employment, which expanded at a 4.9 percent annualized rate from September through December. Additionally, the Federal Reserve Bank of Dallas' Texas Manufacturing Outlook Survey employment index was consistently positive beginning in June 2013. If current trends hold and Texas exports maintain strong growth, manufacturing employment should continue expanding during 2014.

### Energy Remains Strong

Measures of the energy industry suggest that, even while moderating in 2013, the sector remained strong. Job growth in energy extraction slowed to 4.9 percent in 2013 from a 9.5 percent rise in 2012 (see Chart 3). Oil and gas prices were higher in 2013 than in 2012, but the rig count was generally flat after declining in the second half of 2012 (Chart 4). Even though natural gas prices increased 35.4 percent to an average of \$3.75 per million British thermal units (mmBtu), prices remained near historical lows. As a result, much of the drilling activity was concentrated in oil-producing areas, such as the Eagle Ford Shale in south central Texas and the Permian Basin in West Texas, and was less focused on natural gas regions, such as the Barnett Shale in north central Texas.

Abnormally cold weather and the resulting high heating-related demand have spiked natural gas prices this winter. However, prices are expected to return to previous levels as the weather warms up.

Average monthly drilling permits issued increased 6.6 percent in 2013 in the Eagle Ford Shale, reaching a new high, while in the Barnett Shale, permits fell 20.5 percent and were off 76.9 percent from their 2008 peak.

Drilling permits in the Permian Basin peaked in 2012 and declined in 2013. Because the region is experiencing a shift from traditional drilling to more expensive and productive horizontal hydraulic fracturing, the drop isn't likely representative of the value and production of drilling, which probably increased.

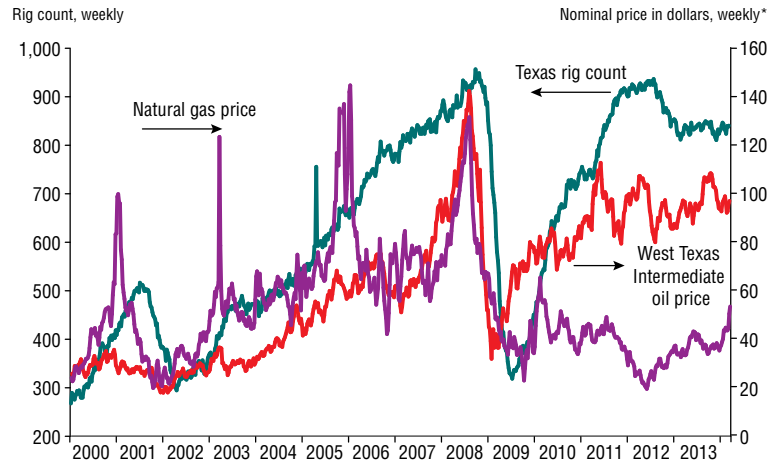
The energy sector should remain

strong in 2014, with job growth the same as or slightly slower than in 2013. While oil and gas prices increased at the end of 2013, oil prices for benchmark West

Texas Intermediate (WTI) crude have been generally stable at close to \$100 per barrel. Natural gas was near \$4 per mmBtu before winter demand pushed it

## Chart 4

### Rig Count Flat, Oil and Gas Prices Up From 2012 Levels



\*Oil price is in dollars per barrel; natural gas price is in dollars per mmBtu and is multiplied by 10.  
SOURCES: Baker Hughes; Wall Street Journal; Haver Analytics.

## Addressing How Real GDP Is Measured for Texas

Real gross domestic product (RGDP) estimates produced by the U.S. Bureau of Economic Analysis (BEA) are an important data source for state economies. While not very timely, RGDP is a comprehensive measure of the value added of goods and services produced in a state.

In the estimates for Texas, the portion attributable to oil and gas extraction is puzzling. It is strongly negatively correlated with oil prices and with factors of production such as energy employment and the drilling rig count. For example, as energy prices collapsed in 2008–09, Texas energy employment slipped 12.8 percent, the rig count fell 73 percent and oil and gas production dropped. Nonetheless, the BEA's estimate of RGDP from oil and gas extraction grew 24.6 percent, calling into question the accuracy of the estimates for the sector.

A recent Dallas Fed working paper explores several potential alternatives to the official BEA estimates.<sup>1</sup> Several approximations of RGDP in oil and gas extraction are used to see which might be a good substitute for BEA-produced estimates. A measure based on changes in Texas' physical production of oil and gas generates an estimate that appears more reasonable and is positively correlated with energy employment and the rig count. Also, substituting this alternative measure yields an estimate of total RGDP that is more highly correlated with Texas job growth.

### Note

<sup>1</sup> See "A Closer Look at Potential Distortions in State RGDP: The Case of the Texas Energy Sector," by Keith Phillips, Raul Hernandez and Benjamin Scheiner, Federal Reserve Bank of Dallas, Research Department Working Paper no. 1308, October 2013.

past \$5. If prices remain near their 2013 levels, the rig count is likely to stay near the high levels of 2013, and the overall pace of activity will be similar to last year.

However, with the increased production observed last year and a lack of corresponding growth in pipeline and refining capacity, 2014 will likely see further increases in the midstream (transport and marketing) and downstream (refining and processing) sectors. This expansion will bolster overall economic growth. Still, the U.S. Energy Information Administration estimates that the price difference between WTI and the costlier Brent crude (the European light, sweet crude benchmark), which averaged \$13 per barrel in January, will persist throughout 2014.

### Construction Moderates

Construction job growth slowed from a very strong 5.5 percent in 2012 to a healthy but more moderate 3 percent last year (see Chart 3). The deceleration was concentrated in residential construction. While average monthly residential contract values rose 12.8 percent in 2013, that was down from a 27 percent increase in 2012. This year, residential construction is likely to continue expanding but at a slower pace. Mortgage rates increased during 2013, ending the year at 4.5 percent for 30-year fixed obligations, compared with 3.4 percent at the beginning of the year. The rise in mortgage rates as well as increasing home prices means that potential buyers could face more difficulty qualifying for mortgages. This is likely why seasonally adjusted single-family building permits fell 1.2 percent in the three months ended in December from the previous three-month period.

Meanwhile, a pickup in nonresidential construction is probable. The aggregated office vacancy rate for the Houston, Dallas, Fort Worth, Austin and San Antonio office markets fell below 16 percent in first quarter 2013 and remained there for the year, closing at 15.4 percent in the fourth quarter (Chart 5). In the past, growth in office-market construction occurred when vacancy rates fell below 16 percent. Given expected state economic expansion and tightness

in office vacancies, construction should continue growing strongly in 2014.

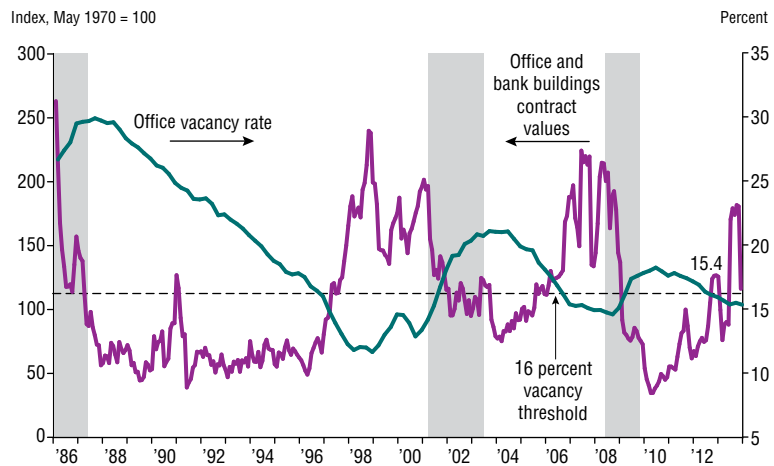
### Mixed Government Results

Government job growth in 2013 in Texas varied widely: While federal jobs fell 2.7 percent, state government saw no net change, and local government employment increased nearly 2 percent. Federal budget cuts led to a persistent decline in federal employment through much of 2013. This drag extended beyond the immediate sector, as industries that rely heavily on federal revenue experienced difficulty as well. Cuts to

private-sector contractors and research organizations account for some of the weaker growth seen in other industries.

Federal government contracts are more likely concentrated in areas with larger numbers of federal jobs. El Paso, San Antonio and the Mexico border region (McAllen–Edinburg–Mission, Brownsville–Harlingen and Laredo) have more than twice the average share of federal government employment as the state average and, with the exception of Laredo, all grew more slowly than the state in 2013 (Chart 6). These areas also have a higher proportion of jobs in health

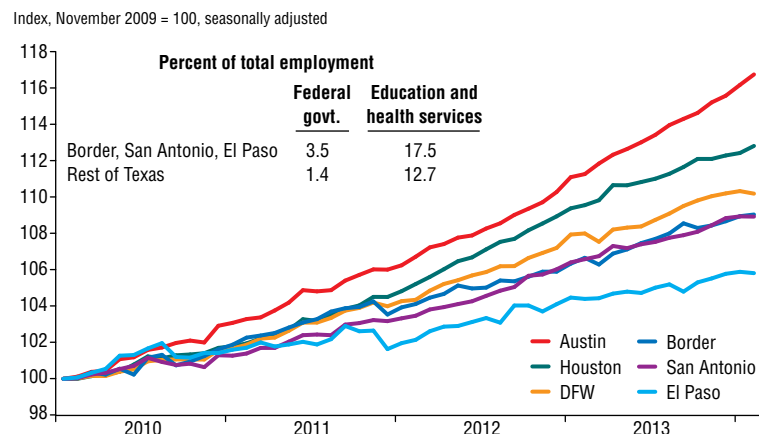
**Chart 5** Low Vacancy Rate Suggests Further Growth in Office Construction



NOTE: Shading represents Texas recessions.

SOURCES: CBRE Commercial Real Estate Resources; McGraw-Hill Construction ([www.construction.com/dodge/dodge-market-research.asp](http://www.construction.com/dodge/dodge-market-research.asp)).

**Chart 6** Areas With Large Federal Presence Grow More Slowly



SOURCES: Bureau of Labor Statistics; Texas Workforce Commission.

care, which was negatively impacted last year by declining federal government grants and contracts.

Meanwhile, employment at state universities and public schools increased 1.9 percent, buoying overall government job growth. Although state and local government jobs expanded, they remain 1.6 percent below their peak in November 2010. The state budget is in good shape as 2014 unfolds, and net revenues (excluding trust funds) have increased 4.6 percent since the 2012 fiscal year. Continued state economic expansion, along with gains in property values, suggests that state and local tax revenues and jobs will continue growing at a healthy pace in 2014.

### Indexes Pointing Higher

The Texas Leading Index combines movements in key state economic indicators and is used to forecast Texas job growth. Movements in the index's components in the three months ended in December have been positive, with the exceptions of slightly lower oil prices and somewhat higher unemployment claims, which result in a negative contribution (Chart 7). The strongest of the index's components was a three-month increase in help-wanted advertising in the state as measured by the Conference Board. Despite the slight increase in initial claims for unemployment insurance, this reflects an overall positive job outlook.

The gain in the U.S. leading index suggests that the national economy will improve this year, boosting demand for products and services produced in Texas. The stock prices of companies with a large presence in Texas also rose, indicating encouraging prospects for earnings growth and potential gains in employment and capital spending. An increase in average weekly hours worked in manufacturing and a slight decrease in the Texas export-weighted real Value of the Dollar are positive signs for Texas manufacturing.<sup>1</sup> Leading indicators of the energy sector were mixed, with drilling well permits up and oil prices down.

Movements in the Texas Leading Index are consistent with changes in Texas business outlooks measured by the Dallas Fed's Texas manufacturing, service

sector and retail outlook surveys. The business outlook index reading is the difference between the percentage of firms reporting an improved versus worsened company outlook. The manufacturing, service sector and retail outlook indexes all increased in the final two months of the year, with manufacturing and retail outlooks the strongest since February 2012. Overall, all three suggest optimism about additional economic activity this year.

### Positive Outlook for 2014

The Texas economy decelerated somewhat in 2013 from its strong performance in 2012. Slowing export growth and reduced federal government expenditures played important roles; moderate slowing was broad-based across most sectors. Despite that, Texas job growth maintained its ranking as the third-fastest in the nation.

2014 should be another good year. With many forecasters expecting improvement in world and U.S. economic activity, Texas should benefit as demand for its products and services increases. Federal government spending is unlikely to decline as much as in 2013. Recent increases in the Texas Leading Index have been strong and broad-based. Index gains along with a pickup in job growth suggest that 2014 employment will increase by 2.5 to 3.5 percent. Texas will

likely continue growing faster than the national average and most other states.

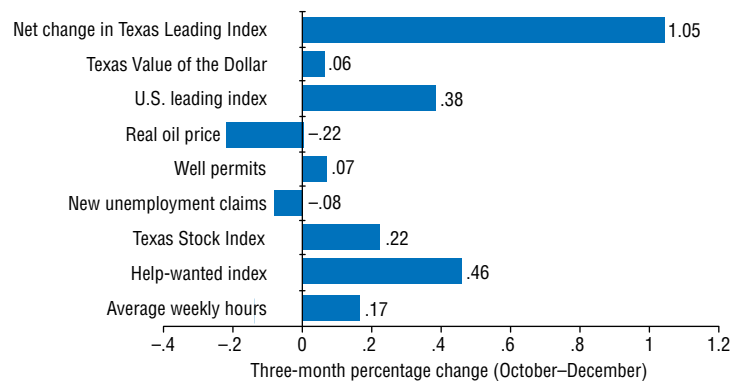
*Phillips is a research officer and senior economist and Slijk is a research assistant at the San Antonio Branch of the Federal Reserve Bank of Dallas.*

#### Note

<sup>1</sup> A decline in the Texas export-weighted real Value of the Dollar results in a positive contribution to the Texas Leading Index since a fall in the dollar makes Texas exports cheaper.

## Chart 7

### Texas Leading Index Components Point to Growth



NOTE: Overall index, 1987 = 100; December 2013 = 128.6.

SOURCES: Federal Reserve Bank of Dallas; Conference Board; *Wall Street Journal*; Texas Railroad Commission; Texas Workforce Commission; Bloomberg; Bureau of Labor Statistics; authors' calculations.

*A Conversation with Gary Richardson*

## Federal Reserve Historian Seeks to Expand Access to Central Bank Records

*Gary Richardson was named historian of the Federal Reserve System in 2012, in advance of the central bank's centennial. An economics scholar specializing in the Great Depression, Richardson discusses his job and how long-secret records can aid policymaking.*

### Q. What does the Federal Reserve historian do?

Initially, I'm helping with the centennial and working on projects relating to education, public information and research for the centennial. After the centennial will come the second phase: recommending policies regarding the preservation, organization and dissemination of historical materials.

An organization like the Fed needs a historian because it responds to events that are infrequent but very severe. An example would be the financial crisis that began in 2008. The job of the historian is to make sure that after these events occur, you retain the information you need for people to study them. It might take 10, 20, 50 years before you really understand what could have been done, what should have been done and what we should do the next time one of these rare events occurs.

After 2008, we see a big pattern where we've had periods of great success and stability that have ended in big

financial crises. We really want to figure out what's going on so the next time we get to a period of great success and great stability, we'll be aware of what the trigger signs are, and we will have a better understanding of how decisions that led to great success could also contribute to the buildup of risk.

### Q. What theme from the Fed's first 100 years resonates most with you?

People should recognize how successful the Federal Reserve has been. It's an institution that people don't think about most of the time. That's because it's successful. The payments system works, interest rates are smooth, people can get credit. Financial institutions have plenty of liquidity. Crises come along like 9/11, and the financial system keeps working. This is something people should be amazed by.

The attack on 9/11 was a deliberate attempt by al-Qaida and its leaders to bring down the U.S. financial system. By destroying the World Trade Center, they were hoping to disrupt the operations of financial institutions. The attack failed to have its intended effect in large part because of the courage of the American citizens, the people who lived and worked in New York. It in large part was also through the efforts of the Federal Reserve System and the Federal Reserve Bank of New York, which told people, "We're open, we're operating," and told financial institutions, "We expect you to keep operating. If you have a problem, bring it to us and we'll solve it."

### Q. The Fed as an institution is difficult for many people to understand. Its proceedings aren't open to the public. What is the purpose of this opacity, and what challenges does it pose?

The secrecy that we used to think made our policies effective created uncertainty in the long run. And businesses have to react and prepare for that uncertainty. We've learned that by reducing uncertainty in policy, we'll get less volatility, less inflation and better outcomes.

But we still need to keep some things secret. The decisions of the FOMC [the interest rate-setting Federal Open Market Committee] can have a big effect on markets and can redistribute wealth. Financial institutions place big bets—we're talking billion-dollar bets—on the decisions of financial leaders. There's a huge incentive for institutions to get this information. There's a potential for them to earn vast profits; these will be profits that they will be earning at the expense of other financiers. That would really distort the financial system. When we release financial information, we want to do it in a way that creates a level playing field and has the most salient effect on the financial system.

The other side of the Fed is financial regulation and bank supervision. Here opacity is important because we gather information from firms about their financial positions, about their financial strategies and about the state of the economy. This is private information that these firms depend on. To ensure that we get the most accurate information, we have to provide privacy. We have to guarantee that they will not suffer some kind of loss or disadvantage because they provide us with information.

### Q. Economist Allan Meltzer's voluminous *A History of the Federal Reserve* is regarded as the definitive work on Fed history. Where do you pick up the story and how do you bring something new?

The Federal Reserve Board of Governors and the System as a whole have over the last 20 years done a great job of opening the archival materials from the







FOMC to researchers. If the goal of the System is just to help Allan Meltzer and other people to do this, then we don't need an economic historian.

You don't have nearly the same amount of historical study of the Federal Reserve Bank of Dallas or the Federal Reserve Bank of San Francisco. This is largely because these Banks have not opened their archives to scholars. The reason that you appoint a historian is that there are important histories that haven't been written, and there are important issues that you want to study more, and the current system isn't allowing those histories to be written.

**Q. What are the main contributions of the Federal Reserve Bank of Dallas to the Fed's story? What has distinguished the Dallas Fed from its peers over the last 100 years?**

During the 1920s and 30s, there was a lending boom here and in the district to the north, Kansas City, that was focused on agricultural credit. It ended in the 1930s in the Dust Bowl. It seems more relevant today because we did a repeat of this pattern in the 1990s and the 2000s.

Around 1915, the U.S. government began to sponsor quasi-government entities—the Federal Land Bank and the Federal Intermediate Credit Banks. These organizations issued bonds on eastern financial markets to raise funds to make mortgage loans. The mortgage loans were bundled into packages of securities. Mortgage-backed security lending was really big in this district in the 1920s and up until the 1930s, when there was a big collapse.

▶ *"An organization like the Fed needs a historian because it responds to events that are infrequent but very severe. The job is to retain the information you need for people to study them."*

The Dallas Federal Reserve District also has a unique history in the 1970s and the 1980s. Due to high inflation and interest rate caps imposed by the Federal Reserve Board, a lot of depositors pulled out their money from local banks and sought higher returns elsewhere. Some of this money sloshed up to New England and then, we know, some of it sloshed back down to the Dallas Federal Reserve District. There were big booms here in lending that ended in a big mess in the 1980s. That's really an important issue; we probably should do more short-run studies to understand exactly what happened and how the Fed's policies contributed to the problem and how they ameliorated it.

**Q. From the perspective of a historian and economist, how do you think your successors will evaluate policymakers' response to the recent financial crisis?**

I'm spending a lot of time reading recent accounts of the financial crisis written by the leading practitioners, critics and scholars. I'm looking at the questions that they are posing and making sure that the System is going to retain the information so that scholars and reporters can answer these questions in the future. Alan Blinder in his book *After the Music Stopped* said there is a key historical question about the financial crisis that historians and economists will argue about for decades: Should the Federal Reserve Board have intervened to prevent Lehman Brothers from failing?

It's not clear how you would answer this question. We see that after Lehman Brothers failed, there was a cascade that swept through its counterparties. There was this massive panic in financial markets. If we had bailed out Lehman Brothers, some other firm could have failed. Or the trigger for the cascade might have been put off a week. It might have been put off a month.

You have to think about all these possible counterfactual scenarios. Decisions were made in a very short period of time in a big pressure cooker and they are all related in very complicated ways.

**Q. You've written extensively about the Great Depression. How much of the Fed as an institution reflects that period?**

The structure and the powers of the Federal Reserve today strongly reflect amendments to the Federal Reserve Act in the 1930s. You couldn't have had quantitative easing policies without the changes to the structure of the System in the 1930s. You couldn't have had the emergency response in 2008, you couldn't have had a rescue of Bear Stearns, you couldn't have had a rescue of AIG [insurer American International Group] or of Reserve Primary [a money market fund] if you didn't have the reform acts in the 1930s.

Congress gave similar powers to the Federal Reserve that it gives to officers in the armed forces. If you're a general or an admiral, you're under civilian control—you have to follow the rules that the civilian government sets. When we send you out to battle, you're in charge—you have a mission, things are going to happen and your job is to succeed.

When I look at the actions that the Federal Reserve took during the financial crisis, the people who looked really good were decision-makers in the Federal Reserve, the Treasury and other central banks around the world. But I think there was also a lot of foresight by the [Depression-era] Congress, which understood how to craft a decision-making structure for the Federal Reserve that could handle crises.

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*Hear excerpts of the interview at:*  
[www.dallasfed.org/research/swe/2014/swe1401c.cfm](http://www.dallasfed.org/research/swe/2014/swe1401c.cfm)

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# Texas Leads Nation in Creation of Jobs at All Pay Levels

By Melissa LoPalo and Pia M. Orrenius

▶ *Even while the state is adding a disproportionate share of jobs, its record of robust employment growth has been clouded by questions concerning the quality of the new positions.*

**T**exas was among the first states to emerge from the 2007–09 Great Recession, surpassing its prerecession employment peak in late 2011. Meanwhile, the nation as a whole has yet to regain the jobs lost in the recession—as of December 2013, the U.S. remained over a million jobs short of its prerecession high.

Even while the state is adding a disproportionate share of jobs, its record of robust employment growth has been clouded by questions concerning the quality of the new positions. Echoing what appears to be a common perception, one Texas state representative quipped in 2011, “If you want a bad job, go to Texas.”<sup>1</sup>

There are several reasons casual observers conclude that Texas creates “bad jobs.” Average wages have historically been lower in Texas, along with median household income. The state also has a large share of workers earning the federal minimum wage. According to the Bureau of Labor Statistics, 7.5 percent of hourly workers in Texas in 2012 were paid at or below the federal minimum wage, compared with 4.9 percent nationally.<sup>2</sup>

Texas’ share was second only to Idaho’s, at 7.7 percent.

Furthermore, Texas has the ninth highest Gini coefficient—a common measure of income inequality<sup>3</sup>—and the highest share of residents without health insurance in the U.S.<sup>4</sup>

Given this mixed record on wages and income, it might seem surprising that household survey data indicate Texas creates more high-wage than low-wage jobs and that average wages have risen slightly in real (inflation-adjusted) terms since 2000. The nation’s record is markedly less positive and points to labor market polarization, described by labor economists as a long-run trend that erodes job opportunities for those in the middle of the wage distribution.

## Job Growth by Wage Group

There are many ways to measure the quality of a job. Wage rate is one way; fringe benefits and hours worked are two others. Jobs can also be evaluated on working conditions and opportunities for advancement. This analysis focuses on hourly wages (for salaried jobs, weekly earnings divided by hours worked) and uses the Bureau of Labor Statistics’ Current Population Survey (CPS) data to measure hourly wages among workers age 16 and older.<sup>5</sup> Wages were ranked in ascending order, and the resulting U.S. wage distribution was divided into quartiles for the base year (2000) (*Table 1*). Employment changes between 2000 and 2013 were then calculated for each quartile.

Texas experienced stronger job growth than the rest of the nation in all four wage quartiles from 2000 to 2013, even in the middle two wage quartiles, where growth in the rest of the nation was negative and zero, respectively (*Chart 1*).<sup>6</sup> In Texas, the two upper wage quartiles grew at 28 and 36 percent,

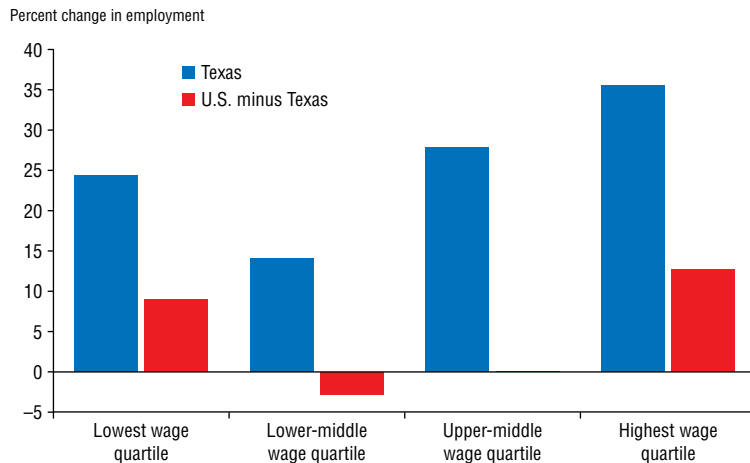
**Table 1**  
**1** | Employment Change by Wage Group Since 2000

Wage quartile	Hourly wages	Change in employment (thousands of jobs)	
		Texas	U.S. minus Texas
Lowest	Less than 11.42	627.9	2,329.6
Lower-middle	11.42–16.92	298.2	–731.4
Upper-middle	16.93–26.04	512.7	11.4
Highest	Above 26.04	618.3	3,398.5
<b>Total</b>		<b>2,057.1</b>	<b>5,008.2</b>
<b>Total percent change</b>		<b>24.9</b>	<b>4.7</b>

NOTE: Wages are in real December 2013 dollars.

SOURCE: Authors’ tabulations of Current Population Survey Merged Outgoing Rotation Groups 2000, 2013.

**Chart 1** | Texas Creates Jobs Across the Wage Distribution  
(Job growth by wage quartile, 2000–13)



SOURCE: Current Population Survey Merged Outgoing Rotation Groups 2000, 2013.

▶ The data show Texas has experienced far greater growth of ‘good’ jobs than the rest of the nation has since 2000.

respectively, over the 13-year period, corresponding to average annual rates of 2.1 and 2.7 percent. The 13-year figures for the rest of the nation were 0 and 13 percent, corresponding to average annual rates of 0 and 1 percent. In sum, the data show Texas has experienced far greater growth of “good” jobs than the rest of the nation has since 2000.

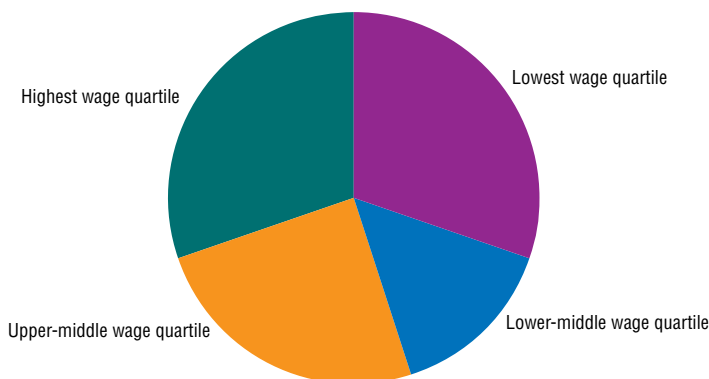
Texas has also created more “good” than “bad” jobs. Jobs in the top half of the wage distribution experienced disproportionate growth (Chart 2). The two upper wage quartiles were responsible for 55 percent of net new jobs. A similar

pie chart cannot be made for the rest of the U.S., which lost jobs in the lower-middle quartile over the period. Between 2000 and 2013, Texas household survey employment overall grew 24.9 percent, while employment in the rest of the U.S. expanded just 4.7 percent.<sup>7</sup>

**Labor Market Polarization**

Job growth trends in Texas break with the national pattern. Texas has succeeded in producing broad-based job growth in the context of job and wage polarization nationally. According to the Massachusetts Institute of Technology’s

**Chart 2** | Upper Wage Quartiles Account for Over Half of New Texas Jobs



SOURCE: Current Population Survey Merged Outgoing Rotation Groups 2000, 2013.

David Autor and other leading labor economists, the American middle class has been “hollowed out” over the past three decades because job growth is increasingly concentrated at the high and low ends of the wage distribution.<sup>8</sup>

The prospects of those at the upper end of the skill distribution continue to improve, while growth in menial, low-paying positions has remained steady. Meanwhile, middle-income job opportunities are shrinking. Explanations for this phenomenon include globalization and technological change, leading to the outsourcing and automating of routine, middle-income jobs<sup>9</sup> as well as a deceleration in the supply of educated workers, driving an increase in the wage premium for high-skilled workers.<sup>10</sup> Studies suggest that the situation is not limited to the U.S., but is also present in Europe and other advanced countries.<sup>11</sup>

### Worker Characteristics

In Texas, as in the rest of the U.S., workers on the lower end of the wage distribution have much different demographic characteristics than their highly paid counterparts. Those in the lower-income quartiles are much younger, especially in the lowest wage quartile, where nearly a third of workers in Texas were under the age of 26 in 2013 (*Chart 3*). This suggests that many workers in the lowest wage quartile in Texas as

well as the rest of the nation are just getting their start in the labor market and may subsequently move up as they gain experience.

Low-wage workers in Texas also have low educational attainment, though many of them may not yet have completed their educations, given their age. However, workers in the lowest wage quartile in the U.S., excluding Texas, are more educated on average than their Texan peers; 28 percent of Texas workers in the lowest wage quartile lacked a high school diploma or GED in 2013, compared with 19 percent in the rest of the U.S.

In contrast, Texans in the highest wage quartile have more similar educational attainment to their counterparts in the rest of the nation; over 60 percent of workers at the top of the wage distribution hold a bachelor’s or postgraduate degree.

Those in the highest wage quartile in Texas and the rest of the nation are concentrated in jobs requiring extensive training, such as management and legal occupations, while workers in the lowest wage quartile primarily occupy positions in labor-intensive jobs such as food preparation.

Workers in the middle two quartiles in the state and nationally are concentrated in office, administrative support and sales jobs. However, in Texas,

they are much more likely to work in construction and oil and gas extraction than their counterparts in the rest of the nation, indicative of Texas’ expansive energy industry.

### Finding the ‘Good Jobs’

Most Texas economic sectors contributed to the expanding numbers of “good jobs” since 2000. Employment growth in sectors paying above the median wage reflects the state’s expanding population and need for more schools and hospitals, the recent strength of the energy sector and the diversification of the Texas economy.

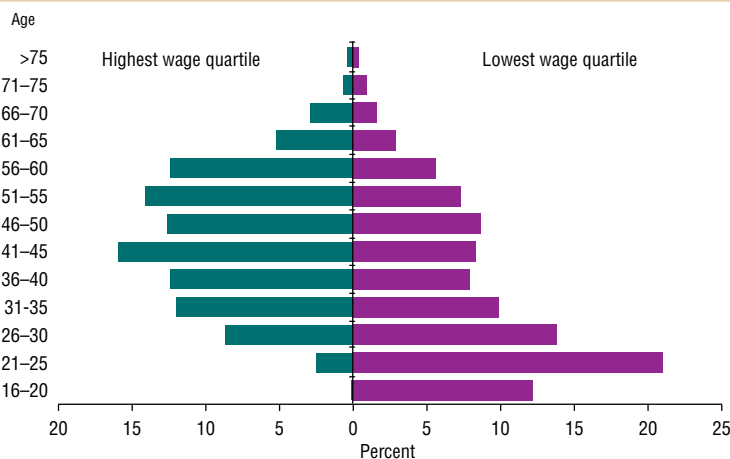
Education and health services contributed 42 percent of net new high-wage jobs due to growing demand for teachers, doctors, nurses and other positions requiring a college degree (*Chart 4*). The mining industry, which in Texas consists mainly of oil and gas extraction and support activities, also contributed strongly (15 percent) to expansion in the top half of the wage distribution between 2000 and 2013. Payroll employment in oil and gas extraction and support activities for mining in Texas more than doubled between 2000 and 2013, according to the Bureau of Labor Statistics’ Current Employment Statistics. Interestingly, the oil and gas sector pays above-average wages although many oil and gas jobs do not require a college degree.

The category of finance, insurance and real estate together with the professional and business services sector are ranked third and fourth in contributing to high-wage job growth in Texas since 2000. They include jobs in high-paying service sector occupations such as consulting, banking, accounting, legal and engineering. They serve the booming construction and housing industries and support energy activity and expanding health and high-tech industries.

### Lessons Learned

Critics of the Texas economic model often contend that Texas’ exceptional job growth has not produced a high standard of living for its residents due to the low quality of the new positions. However, Texas’ job growth since 2000 has been much more proportional than in the rest

**Chart 3** Low-Wage Texas Workers Much Younger Than High-Wage Counterparts

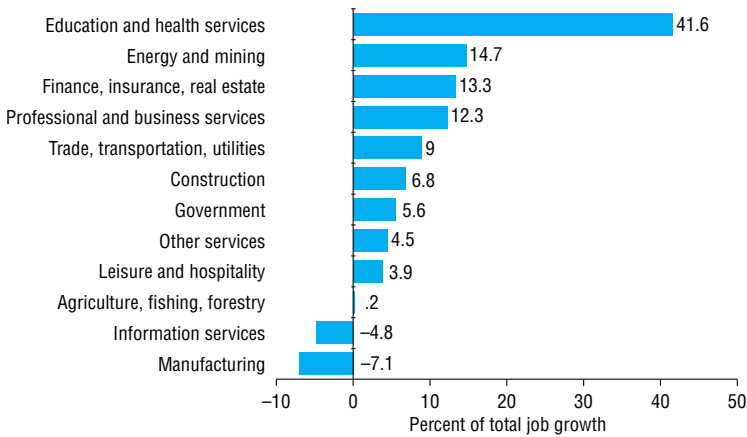


NOTE: Quartiles based on 2000 U.S. wage distribution.  
SOURCE: Current Population Survey Merged Outgoing Rotation Groups 2013.



**Chart**  
**4**

**High-Wage Texas Employment Growth Is Broad-Based**  
(Contribution to job growth above the median wage by sector, 2000–13)



NOTE: Quartiles based on 2000 U.S. wage distribution.  
SOURCE: Current Population Survey Merged Outgoing Rotation Groups 2000, 2013.

of the nation, where net new jobs have been concentrated at the bottom and top of the wage distribution and the middle has shrunk further.

Texas still has a high share of minimum wage jobs, partly due to the state’s relatively low minimum wage (set equal to the federal minimum wage). A low minimum wage and plenty of low-skilled workers ensure that Texas will have a high share of minimum wage jobs. On the other hand, a relatively low cost of living in Texas ensures that workers’ earnings here will go further than in other large states.

Texas has produced hundreds of thousands of well-paying jobs across most industries since 2000, making Texas the top destination for domestic migrants since 2006.<sup>12</sup> That said, the same broad trends—globalization, technological change, a slowdown in educational attainment—that are causing the national labor market to polarize are also present in Texas. Until now, a combination of other factors has prevailed, and the state has outperformed the rest of the nation in every category of employment growth.

To the extent that these “other factors” include some growth engines that may sputter in the future, however, the state would do well to make the changes now—such as investing in higher education—that will bolster economic opportunity down the road.

*LoPalo is a research analyst and Orrenius is a vice president and senior economist in the Research Department at the Federal Reserve Bank of Dallas.*

**Notes**

The authors thank Madeline Zavodny, professor at Agnes Scott College, for her comments on an earlier draft of this article.

<sup>1</sup> Rep. Garnet Coleman in an interview with the *Huffington Post*. See “Rick Perry’s ‘Texas Miracle’ Includes Crowded Homeless Shelters, Low-Wage Jobs, Worker Deaths,” by Jason Cherkis, *Huffington Post*, Aug. 8, 2011.

<sup>2</sup> See “Characteristics of Minimum Wage Workers: 2012,” U.S. Bureau of Labor Statistics, Feb. 26, 2013.

<sup>3</sup> See “Pulling Apart: A State-by-State Analysis of Income Trends,” by Jared Bernstein, Elizabeth McNichol and Karen Lyons, Center on Budget and Policy Priorities, Washington, D.C., January 2006.

<sup>4</sup> See “Income, Poverty, and Health Insurance Coverage in the United States: 2012,” by Carmen DeNavas-Walt, Bernadette D. Proctor and Jessica C. Smith, U.S. Census Bureau, Current Population Reports, P60-245, September 2013.

<sup>5</sup> We use the monthly outgoing rotation group extracts from the National Bureau of Economic Research. The Bureau of Labor Statistics (BLS) interviews 50,000–60,000 households monthly, and every household is interviewed for four months, dropped for eight months, and then interviewed for another four months. The monthly outgoing rotation group data capture households leaving the survey after the first and second four months of interviews.

<sup>6</sup> The results are robust to using the 2013 distribution to create cutoffs and to eliminating outliers in the wage distribution. The calculations are conditional on being employed with positive wages and exclude the self-employed.

<sup>7</sup> Payroll employment grew 21.9 percent in Texas and 4.8 percent in the U.S. from December 1999 to December 2013.

<sup>8</sup> See “The Polarization of the U.S. Labor Market,” by David H. Autor, Lawrence F. Katz and Melissa S. Kearney, *American Economic Review*, vol. 96, no. 2, 2006, pp. 189–94.

<sup>9</sup> See “The Polarization of Job Opportunities in the U.S. Labor Market: Implications for Employment and Earnings,” by David Autor, Brookings Institution’s the Hamilton Project and Center for American Progress, April 2010.

<sup>10</sup> See *The Race Between Education and Technology*, by Claudia Goldin and Lawrence F. Katz, Cambridge, Mass.: Belknap Press of Harvard University Press, 2008.

<sup>11</sup> See “Job Polarization in Europe,” by Maarten Goos, Alan Manning and Anna Salomons, *American Economic Review*, vol. 99, no. 2, 2009, pp. 58–63.

<sup>12</sup> See “Gone to Texas: Immigration and the Transformation of the Texas Economy,” by Pia Orrenius, Madeline Zavodny and Melissa LoPalo, Federal Reserve Bank of Dallas, November 2013.



## ENERGY: Finding New Estimators of Oil and Gas Production

**F**or decades, rig counts have provided a good measure of domestic oil and gas production. However, new drilling and production technologies—especially horizontal drilling and hydraulic fracturing—have weakened this traditional relationship and generated the need for different ways to estimate production levels.

Recent growth in domestic oil and natural gas production has been driven mainly by greater drilling efficiency and new well productivity, not by rig count increases, according to reports from the Energy Information Administration (EIA).

Estimates of total U.S. oil production averaged 7.9 million barrels per day in fourth quarter 2013, up more than 17 percent over fourth quarter 2012, EIA data show. During that same period, the U.S. rig count fell almost 3 percent, according to Baker Hughes, a Houston-based oilfield services company.

Drilling efficiency—the number of wells drilled per rig—and well productivity can be combined with rig counts to better estimate production levels. The ratio of wells to rigs explains how production can increase when the number of rigs in use falls. Wells drilled per rig in the U.S. averaged 5.34 in fourth quarter 2013, up from 4.92 in fourth quarter 2012, Baker Hughes said.

—Amy Jordan



## HEALTH INSURANCE: Texas Leads States in Medical Coverage Gap

**A** segment of the poor population in Texas is missing out on health insurance assistance provided for under terms of the Affordable Care Act (ACA). Texas is one of 25 states that chose not to expand Medicaid coverage in 2014 to everyone earning less than 138 percent of the federal poverty level (FPL), or \$31,809 for a family of four.

This decision creates a coverage gap for individuals who are in poverty but earn too much to qualify for Medicaid, the existing health program for the very poor. More Texans fall into this gap than residents of any other state—over 1 million adults out of 4.8 million nationwide, according to a Kaiser Family Foundation report. Texas' outsized share of the coverage gap is largely due to the state's use of one of the country's lowest Medicaid eligibility thresholds—19 percent of the FPL—and its above-average poverty rate.

Bridging the gap would require raising Medicaid recipient numbers from 4.6 million (in 2011) to 5.6 million, according to the Texas Health and Human Services Commission. Texas would pay 7 percent of the additional cost through 2022, with the federal government picking up the rest. State officials question the reliability of federal funding for a program they view as an intrusion into local governance. Without the expansion, 91 percent of Texas adults in poverty will remain uninsured—the highest rate in the U.S.

—Christina English



## FEDERAL TAXES: Texans Lose Popular Deduction for Sales Taxes

**M**any Texans face a bigger federal tax bill now that Congress has failed to renew a temporary tax break that allowed the deduction of state and local sales taxes. Unless lawmakers act to retroactively restore the break, filing in 2015 could be more expensive for those who itemize deductions.

The law allowed taxpayers to deduct either state income taxes—which Texas and six other states don't impose—or sales taxes. Deductibility for income, real estate and personal property taxes remains.

Texas ranked third among the states in the proportion of tax filers claiming the sales tax deduction, at 20.2 percent in 2011, according to Pew Charitable Trusts. Washington at 28.8 percent was No. 1, followed by Nevada at 23 percent.

The deduction is especially useful for people making large purchases, and the prospect that it wouldn't be renewed prompted a spate of new car purchases in Texas at year-end. Congress originally abolished the deduction in 1986. It was brought back in 2004 and extended annually until 2013.

Deductions like the ones for sales taxes, homeownership and charitable giving are collectively known as “tax expenditures”—items reducing monies that the federal government would otherwise collect. They totaled \$1.1 trillion in fiscal 2013, according to Pew.

—Michael Weiss

# Health Coverage Misses Many in DFW, Texas

By Jason Saving and Michael Weiss

**T**he Dallas–Fort Worth metro area has a higher median income than Texas and a slightly higher median income than the U.S. as a whole (*see chart*). It recently ranked among the nation’s most attractive areas for job seekers. It even features prominently on lists of upper-income amenities such as shopping malls, spas and cosmetic-surgery expenditures per capita. Yet both Dallas and Tarrant counties feature uninsured rates that would rank among the top 10 states in the nation, with Dallas County’s 30.5 percent nearly double the national average.

This situation does not stem from a lack of large corporations—which typically offer health insurance plans as part of their benefits packages—in the region. Were the metropolitan area a state, its 18 Fortune 500 listed companies would rank it 10th in the nation, behind leaders California and New York but ahead of Connecticut and Florida. Put another way, there were 54 locally based publicly held companies with more than \$1 billion in annual revenue, according to a May 2013 *Dallas Morning News* compilation.

Nor does it stem from subpar growth in DFW or Texas. State employment has risen at the second-fastest rate in the nation since the recession ended in mid-2009, moving past prerecession job totals in 2011 and attracting people from the outside in search of employment. New car registrations, providing one measure of those coming to Texas, rose 9 percent from 2006 to 2011, National Highway Administration data show. The greater DFW metropolitan area population grew 9 percent to 6.6 million residents from 2006 to 2011, according to Bureau of Labor Statistics estimates.

A key factor that *does* affect rates of uninsured is the 18 percent foreign-born share of the DFW population, who typically have more-limited access to private insurance and government support. Although many foreign-born residents are high-skilled, the foreign born disproportionately work at low-wage jobs

where health insurance is not provided. Moreover, the Affordable Care Act (ACA) excludes some of the foreign born, specifically undocumented immigrants, from the subsidized coverage available to other residents, almost guaranteeing that areas such as DFW will have high rates of uninsured under ACA rules.

High rates of small-business formation in the region may also play a role. A National Bureau of Economic Research study found that 55 percent of firms nationwide with fewer than 10 employees don’t offer health insurance.<sup>1</sup> And based on data from software manager Intuit, Texas small-business employment growth has exceeded overall growth in the region since October 2009, which may have the side effect of perpetuating high uninsured rates, though the ACA’s exchanges may eventually reduce this phenomenon.

State decisions figure in DFW’s high uninsured rate, most significantly through the Medicaid program. While Medicaid is jointly funded by states and the federal government, states have historically had the power to choose the income threshold below which Medicaid benefits will be received. Texas’ chosen threshold of 19 percent of the federal poverty line places it among the bottom five states, which means poor people who

would be covered by Medicaid in other states go without insurance in Texas.

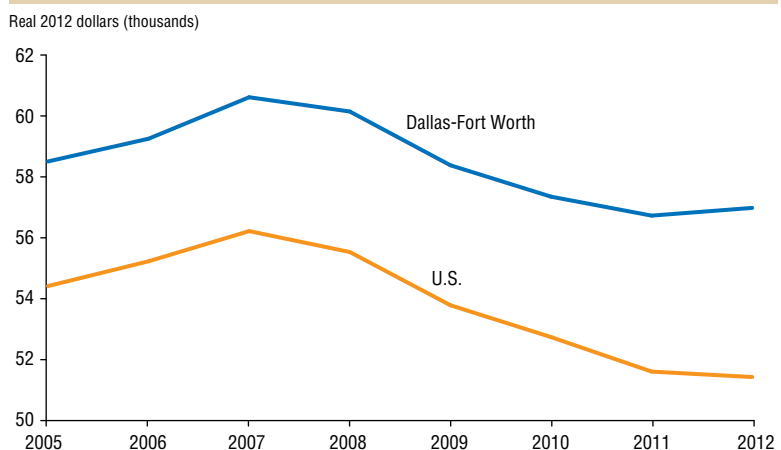
Medicaid would have been extended to those at or below 138 percent of the federal poverty line under the Affordable Care Act, but Texas has elected not to participate in the expansion. (*See Noteworthy, page 14.*) Another issue that affects both DFW and Texas is the future of uncompensated (charity) care in Texas. After all, residents without insurance typically have access to medical care at public hospitals.

The ACA imposed a cumulative \$18.1 billion reduction in “disproportionate share hospital” subsidies (uncompensated care) across the U.S. through 2020 under the assumption that a 50-state Medicaid expansion would lower the overall amount of uncompensated care in the U.S. Because the original intention was that every state would participate in the expansion, no provision was made to restore full funding to providers whose states opt out, likely putting greater fiscal strain on hospitals that provide a disproportionate amount of uncompensated care.

## Note

<sup>1</sup> See “Covering the Uninsured in the U.S.,” by Jonathan Gruber, National Bureau of Economic Research, NBER Working Paper no. 13758, January 2008.

Median Household Income in Dallas–Fort Worth Exceeds That in Nation



SOURCE: American Community Survey.

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## SNAPSHOT

## Two Conferences to Mark Dallas Fed Centennial

**A**s the Federal Reserve Bank of Dallas commemorates its centennial, its Research Department is planning a pair of conferences that will highlight the evolution of the Federal Reserve and the region's economy.

"A Historical Perspective on the Federal Reserve System in a Globalized World," sponsored by the department's Globalization and Monetary Policy Institute, is scheduled for Sept. 18–19. "100 Years of Economic Growth and Change in the Eleventh District," a project of the department's regional group, is planned for Nov. 7.

Dallas might have been a mere footnote in Federal Reserve history if negotiations over the site of the Eleventh District headquarters had gone differently. Dallas prevailed, besting New Orleans for the distinction, following establishment of the central bank system under terms of the Federal Reserve Act of 1913.

*Dallas Morning News* publisher George B. Dealey and Dallas Clearinghouse representative J. Howard Ardrey led a spirited campaign to influence the secretaries of Treasury and Agriculture along with the comptroller of the currency,

who were to make the location decision. Dealey received word in April 1914 that Dallas had won out, owing to the growth of its banking business, which had more than doubled during the prior decade while New Orleans' had remained stable.

Dallas Fed directors met for the first time on Oct. 16, 1914, at City National Bank of Dallas. In 1921, the Dallas Fed moved into what would become its home for more than 70 years at 400 S. Akard St. It relocated to its current headquarters at 2200 N. Pearl St. in 1992.

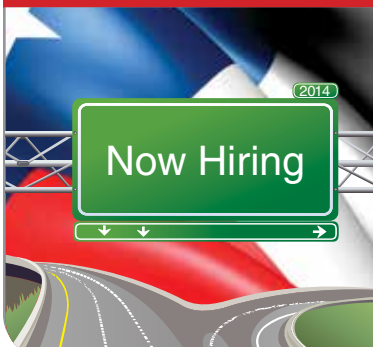
The Eleventh District covers all of Texas, northwestern Louisiana and southeastern New Mexico. After its unsuccessful attempt to become the headquarters, New Orleans became a branch of the Federal Reserve Bank of Atlanta.

—Michael Weiss



Federal Reserve Bank of Dallas, 400 S. Akard St.

## DALLAS FED



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