

AFTER THE BOOM

Texas Economy Downshifts in Energy Bust | Annual Report 2015

Energy Bust Bad News for Job and Wage Growth

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Texas labor markets logged remarkable gains during the 2005–14 shale oil and gas boom but are beginning to buckle under an intensifying oil bust.

The state unemployment rate stood at 4.6 percent in December 2015, up from a low of 4.4 percent four months prior. Job growth slowed to 1.3 percent in 2015, less than half its 2014 rate of 3.7 percent and below national job growth, something that hasn't happened since 2003. The Dallas Fed is forecasting less than 1 percent job growth in 2016, well below Texas' long-run trend and a figure likely to be revised down if oil prices slide further.

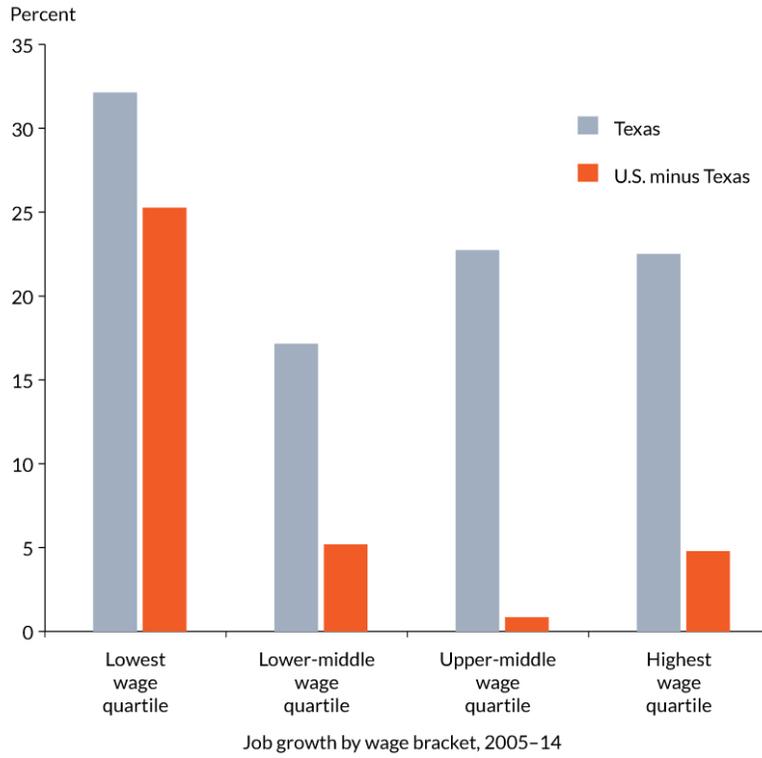
With the oil-driven boom came plenty of jobs, both low- and high-paying. Texas employment grew fastest (32 percent) in the bottom pay quartile—jobs paying \$10 per hour or less—followed by 23 percent growth in the top two quartiles—jobs paying over \$16 and \$26 per hour, respectively (*see gray bars in Chart 1A*).¹ Second-quartile jobs—which pay between \$10 and \$16 per hour—grew the slowest, expanding 17 percent.

Texas job growth looks truly remarkable when compared with growth in the rest of the country over the same period (*see orange bars in Chart 1A*). Despite widespread claims that Texas created primarily low-wage jobs, this was actually

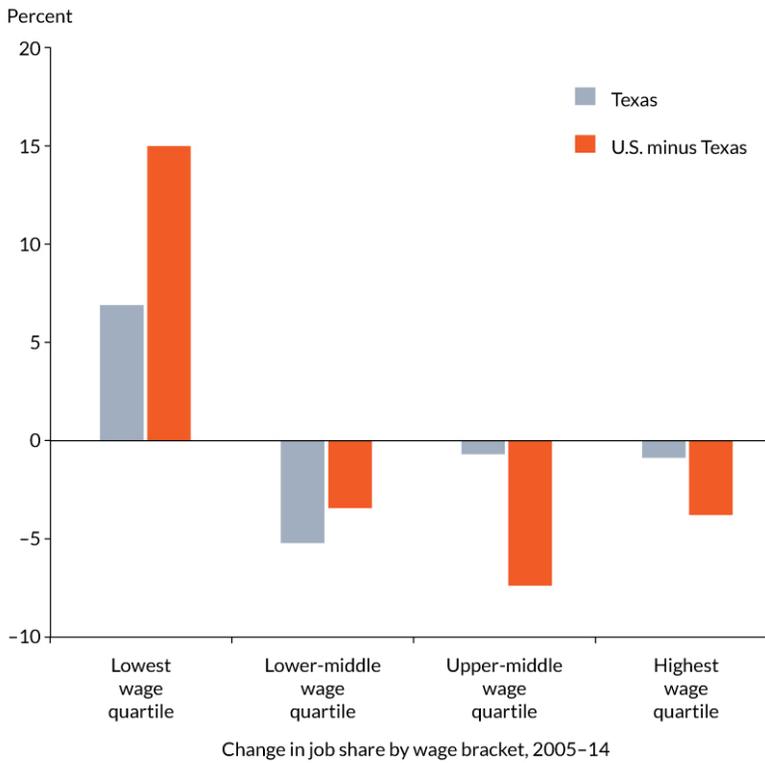
more the case in the rest of the U.S. rather than in the state over this period.²

Chart 1: Oil Boom Recharges Employment in Texas

A. Industry Revival Helps Fuel Job Growth Across Wage Groups



B. Labor Demand Mitigates Shrinking Share of High-Wage Jobs



NOTES: Calculations include workers over age 15 but exclude the self-employed. Wage quartiles and employment growth based on the Texas and U.S. wage distributions from the 2005 and 2014 American Community Survey (ACS).
SOURCE: American Community Survey, 2005 and 2014.

While the causes driving such broad-based job growth in Texas are many and varied, the shale oil and gas boom likely played an important role.³ The fastest-growing sectors from 2005 to 2014 also paid the highest hourly wages. Oil and gas employment grew at an 8.1 percent annual rate and, in 2014, paid an average hourly wage of \$31.

Professional and business services averaged 3.1 percent annual growth and paid \$29 per hour in 2014. Construction expanded at a 1.8 percent annual rate and, in 2014, paid an average hourly wage of \$27. In 2015, when oil prices fell to below half their 2014 levels, employment gains became concentrated in industries with lower average wages—leisure and hospitality, paying roughly \$14 per hour, and education and health, \$25 per hour.

Strong growth in high-paying sectors during the shale oil boom likely lent stability to the Texas wage distribution; in contrast, the middle and upper wage quartiles shrank markedly in the rest of the nation. Chart 1B shows the change in the share of employment represented by each wage quartile. Whereas each wage quartile accounted for 25 percent of employment in 2005, the two middle quartiles shrank over time by 3 percent and 7 percent, respectively, in the U.S. By 2014, they accounted for just 47 percent of employment. The top U.S. quartile contracted by 4 percent. The bottom quartile, meanwhile, grew by 15 percent and accounted for more than 28 percent of jobs by 2014. The changes in Texas were similar in direction but of lesser magnitude.

Absent the shale boom, cyclical dynamics and secular trends helped account for the concentration of national job growth in the lowest wage quartile over the period. The Great Recession wreaked havoc on the U.S. job market, destroying both blue- and white-collar jobs. However, low-wage jobs recovered faster than high-wage jobs after the recession, accounting for some of the patterns observed in the data and implying the high-skill labor market will continue to improve.⁴

The most pronounced of the secular trends is labor market polarization, the hollowing out of the wage distribution as job opportunities grow disproportionately at the extremes. The loss of middle-class jobs—defined here as

the one-half of all jobs that are in the middle of the wage distribution—remains ongoing.

Labor economist David Autor of the Massachusetts Institute of Technology documented the polarization trend in a 2010 study.⁵ He showed that, since 1980, the share of jobs in the middle of the skill distribution has been declining, while the shares at the bottom and top have been growing. The media refer to this phenomenon as the “shrinking middle class.” The drivers of polarization include technology and globalization. With advances in technology, routine tasks have been automated. With globalization, some work is now performed in countries with access to cheaper labor.

A primary reason energy booms may defy polarization trends is that they create well-paying jobs that cannot be offshored and do not require college degrees. Blue-collar booms, thus, temporarily restore some of the jobs lost due to automation (technological change) and globalization. For the time being, that counteractive force has gone the way of oil prices, and we can expect recent Texas labor market trends to look a little more like those in the nation as the energy sector continues to decline.

NOTES

1. Wage quartiles are constructed at the beginning of the period by dividing all workers into quartiles based on their hourly wage. In Texas, the first quartile includes jobs paying less than \$9.96; the second, \$16.23; the third, \$26.37; and the fourth, above \$26.37. The wage cutoffs are slightly higher for the remainder of the U.S. (\$11.46, \$18.03 and \$28.71). Once the quartiles are constructed, overall job growth is measured by quartile, and the percent change in the quartile's share of employment is plotted.
2. See "Employment Growth and Labor Market Polarization in the United States and Texas," by Melissa LoPalo and Pia M. Orrenius, in *Ten Gallon Economy: Sizing Up Economic Growth in Texas*, by Orrenius, Jesus Cañas and Michael Weiss, eds., New York: Palgrave Macmillan, 2015.
3. Texas typically grows about twice as fast as the nation; favorable factors include rapid population growth, strategically located land and seaports, low taxes and light business regulation.
4. See "[The Low Wage Recovery: Industry Employment and Wages Four Years into the Recovery](#)," National Employment Law Project data brief, April 2014.
5. See "The Polarization of Job Opportunities in the U.S. Labor Market: Implications for Employment and Earnings," by David Autor, Center for American Progress and the Hamilton Project, 2010.