

*Oklahoma*

# Oklahoma Business Employment Dynamics

4th Quarter 2013

Oklahoma Employment  
Security Commission  
Economic Research and  
Analysis Division

# OKLAHOMA BUSINESS EMPLOYMENT DYNAMICS: 4th Quarter 2013

Oklahoma Employment Security Commission  
Richard McPherson, Executive Director

Economic Research and Analysis Division  
Lynn Gray, Director & Chief Economist

*Prepared by*  
Monty Evans, Senior Economist

Will Rogers Memorial Office Building  
Labor Market Information Unit, 4th Floor N  
P.O. Box 52003  
Oklahoma City, OK 73152-2003  
Phone: (405) 557-5369  
Fax: (405) 525-0139  
Email: [lmi1@oesc.state.ok.us](mailto:lmi1@oesc.state.ok.us)

## August 2014

Equal Opportunity Employer/Program  
Auxiliary aids and services are available upon request for individuals with disabilities

# TABLE OF CONTENTS

Overview .....	2
Gross Job Gains and Gross Job Losses: 4th Quarter 2013. ....	3
Gross Job Gains and Losses: Openings vs. Closings and Expansions vs. Contractions .....	4
Gross Job Gains and Gross Job Losses: Percent of Total Private Sector Employment .....	6
BED Comparisons Between States.....	7
More Information .....	9
Technical Note .....	9
Table 1. Oklahoma: Private sector gross job gains and job losses.....	16
Table 2. Oklahoma: Private sector gross job gains and losses, as a percent of employment .....	18
Table 3. Oklahoma: Private sector establishment births and deaths.....	20
Table 4. Oklahoma: Rates of private sector establishment births and deaths.....	22

## OKLAHOMA BUSINESS EMPLOYMENT DYNAMICS: 4th Quarter 2013

### Overview

The economy is in a constant state of change; individual businesses are starting, stopping, growing, and declining. The Business Employment Dynamics (BED) data series are designed to explain these dynamic changes in business establishments and employment over time through expansions, contractions, openings, and closings.

Business Employment Dynamics consist of a quarterly series of statistics on gross job gains and gross job losses. Gross job gains and gross job losses reveal some aspects of business dynamics, including establishment openings and closings and establishment expansions and contractions. These data track changes in employment at the establishment level, and thus provide a picture of the dynamics underlying aggregate net employment growth statistics.<sup>1</sup>

BED data measure the net change in employment at the establishment level. These changes come about in one of four ways. A net increase in employment can come from either *opening establishments* or *expanding establishments*.<sup>2</sup> A net decrease in employment can come from either *closing establishments* or *contracting establishments*.<sup>3</sup> *Gross job gains* include the sum of all jobs added at either opening or expanding establishments. *Gross job losses* include the sum of all jobs lost in either closing or contracting establishments. The net change in employment is the difference between gross job gains and gross job losses.

As the BED quarterly time series grow longer, their value in assessing the business cycle, the level of labor market volatility, and the effect of establishment employment changes on aggregate employment will increase. These data will be particularly useful in highlighting the forces behind the net changes in employment. For instance, a large decrease in employment stemming mostly from a decrease in gross job gains will have far different business cycle implications than a decrease due mostly to an increase in gross job losses. In addition, these data will highlight the importance of job changes at opening and closing establishments relative to changes at existing establishments.

These data can help economists, policymakers, and the business community develop a more complete understanding of the dynamics of employment over the business cycle. Specifically, it will enable

---

<sup>1</sup> The microdata used to construct the gross job gains and gross job losses statistics are from the Quarterly Census of Employment and Wages (QCEW), or ES-202, program. These data include all establishments subject to State unemployment insurance (UI) laws and Federal agencies subject to the Unemployment Compensation for Federal Employees program. Each quarter, the State agencies edit and process the data and send the information to BLS in Washington, DC. The data cover approximately 98 percent of all employment; the major exclusions from UI coverage are the self-employed and certain nonprofit organizations. Establishments report employment for the pay period including the 12th of the month. The job flow estimates report employment changes between the third month of each quarter.

<sup>2</sup> Openings refer to establishments with positive third month employment for the first time in the current quarter, with no links to the prior quarter, or with positive third month employment in the current quarter following zero employment in the previous quarter. Expansions refer to establishments with positive employment in the third month in both the previous and current quarters, with a net increase in employment over this period.

<sup>3</sup> Closings refer to establishments with positive third month employment in the previous quarter, with no positive employment reported in the current quarter, or with positive third month employment in the previous quarter followed by zero employment in the current quarter. Contractions refer to establishments with positive employment in the third month in both the previous and current quarters, with a net decrease in employment over this period.

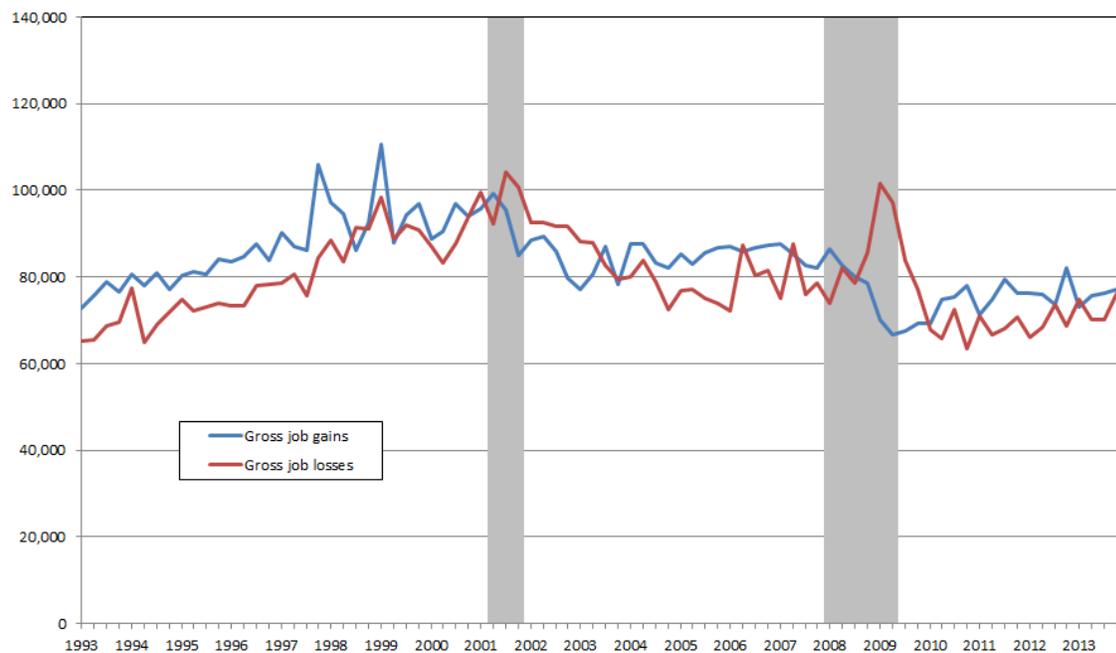
researchers to examine the relationship between the pace of gross job gains and gross job losses and the net employment changes observed over the business cycle.

### Gross Job Gains and Gross Job Losses: 4th Quarter 2013

State gross job gain and gross job loss statistics highlight the forces behind job growth. From September 2013 to December 2013, the number of gross job gains from opening and expanding private sector establishments was 77,182, an increase of 786 jobs from the previous quarter, according to the Oklahoma Employment Security Commission, Labor Market Information Division, and the U.S. Bureau of Labor Statistics. After edging down in the previous quarter, the number of gross job losses at private sector closing and contracting establishments totaled 76,346, an increase of 6,150 jobs compared to the previous quarter (see Chart 1, below).

**Chart 1**

Private sector gross job gains and gross job losses in Oklahoma  
March 1993 - December 2013, seasonally adjusted



Source: U.S. Bureau of Labor Statistics  
Note: Shaded areas represent NBER defined recession periods.

The difference between the number of gross job gains and the number of gross job losses yielded a “net” employment gain of 836 jobs in the private sector during the 4th quarter of 2013, representing the third consecutive quarter of net job growth, based upon BED measures. In the past 16 quarters there has been only one quarter with negative net employment, occurring in the 1st quarter of 2013.

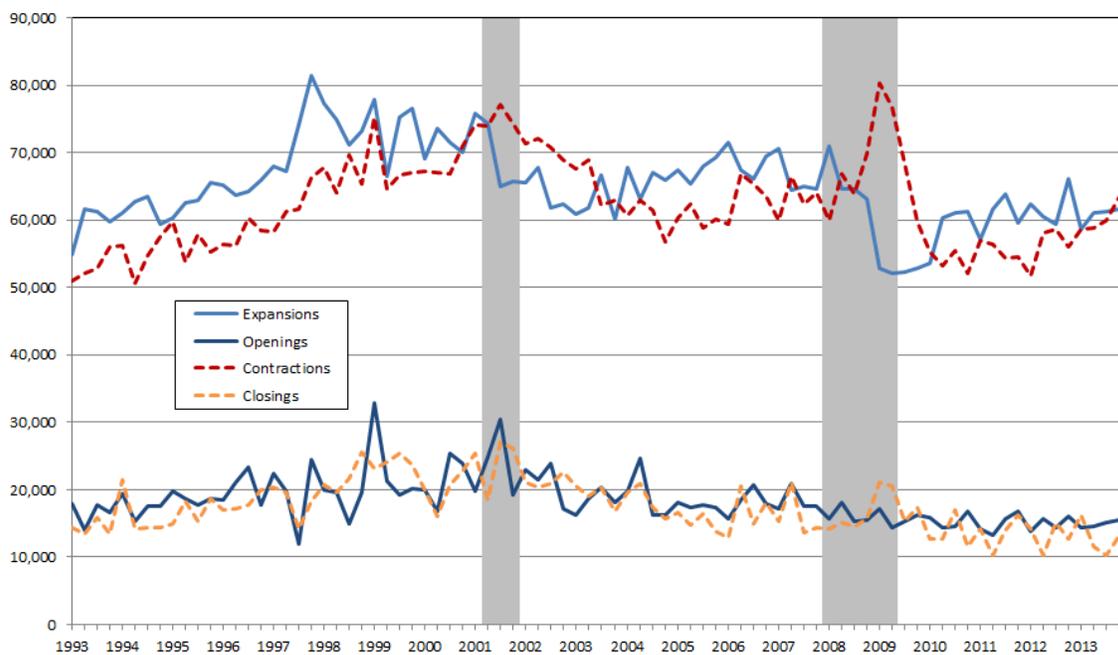
BED data can also be used in highlighting state labor markets over the course of the business cycle, as well as measuring the importance of job changes at opening and closing establishments relative to changes at existing establishments. The change in the number of jobs over time is the net result of increases and decreases in employment that occur in all businesses in the economy. During times of

overall economic growth, gross job gains exceed gross job losses. For example, in Oklahoma during the 2004-2008 timeframe, net job growth was realized in every quarter but two. At the height of Oklahoma’s economic expansion, net job growth peaked at 14,873 the in 1st quarter of 2006.

Conversely, when the economy stagnates or contracts, the reverse is typically true. During the ‘Great Recession’,<sup>4</sup> gross job gains plummeted and gross job losses spiked. In Oklahoma, from 4th quarter 2008 to 4th quarter 2009, net job losses were realized in every quarter. Net quarterly job losses exceeded 30,000 per quarter in 1st and 2nd quarters of 2009.

## Chart 2

Components of private sector gross job gains and losses in Oklahoma  
March 1993 - December 2013, seasonally adjusted



Source: U.S. Bureau of Labor Statistics  
Note: Shaded areas represent NBER defined recession periods.

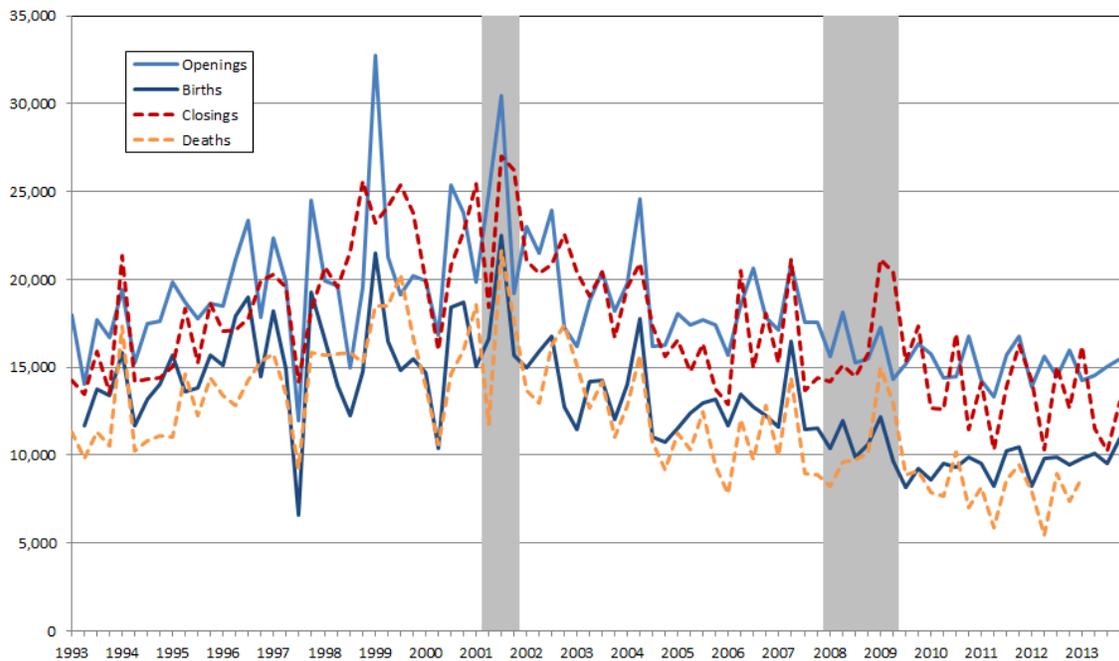
### Gross Job Gains and Losses: Openings vs. Closings and Expansions vs. Contractions

**Expanding** establishments in Oklahoma gained 61,708 jobs in the 4th quarter of 2013, an increase of 375 jobs compared to the previous quarter. **Opening** establishments gained 15,474 jobs during 4th quarter 2013, an increase of 411 more new jobs than in 3rd quarter 2013. **Contracting** establishments lost 63,331 jobs in the 4th quarter of 2013, representing 3,396 more jobs lost than the previous quarter. **Closing** establishments lost 13,015 jobs from September 2013 to December 2013, an increase 2,754 more jobs lost since the prior quarter (see Chart 2, above).

<sup>4</sup> The ‘Great Recession’ began in December 2007 and ended in June 2009, lasting 18 months and making it the longest of any recession since World War II, according to the National Bureau of Economic Research (NBER).

### Chart 3

Employment from private sector openings, closings, births and deaths in Oklahoma  
March 1993 - December 2013, seasonally adjusted



Source: U.S. Bureau of Labor Statistics  
Note: Shaded areas represent NBER defined recession periods.

In Oklahoma, the number of establishment births<sup>5</sup> (a subset of the openings data) decreased by 78 to 2,267 in the 4th quarter of 2013. These new establishments accounted for 10,933 jobs—an increase of 1,384 from the previous quarter. Data for establishment deaths<sup>6</sup> (a subset of the closings data) are now available through the 1st quarter of 2013, when 8,722 jobs were lost at 2,481 establishments. In the prior quarter, 7,407 jobs were lost at 1,790 establishments (see Chart 3, above).

Over the long term, it appears that the short recession occurring from March to November in 2001 had a fairly substantial impact on employment levels from private sector establishment openings, closings, births, and deaths in Oklahoma. While job gains from openings and births spiked up in September 2001 so did job losses from closings and deaths. From the 3rd quarter of 2001, Oklahoma saw eight consecutive quarters of net job losses until the 3rd quarter of 2003 with the heaviest net job losses occurring in 4th quarter 2002 and 1st quarter 2003 (-11,864 and -11,094 respectively). It looks as if the recession of 2001 had more lingering negative effects on job growth in Oklahoma than the Great Recession.

<sup>5</sup> Births refer to establishments that appear in the longitudinal database for the first time with positive employment in the third month of a quarter, or showed four consecutive quarters of zero employment in the third month followed by a quarter in which it shows positive employment in the third month.

<sup>6</sup> Deaths refer to establishments that either drop out of the longitudinal database or an establishment that had positive employment in the third month of a given quarter followed by four consecutive quarters of showing zero employment in the third month.

## Gross Job Gains and Gross Job Losses: Percent of Total Private Sector Employment

As stated earlier, the difference between the number of gross jobs gained and the number of gross jobs lost yielded a **net employment change** of 836 jobs in the private sector for the 4th quarter of 2013.

**Gross job gains** represented 6.1 percent of 4th quarter 2013 total private sector employment in Oklahoma with expansions accounting for 4.9 percent and openings contributing 1.2 percent. **Gross job losses** represented 6.1 percent of 4th quarter 2013 total private sector employment with contractions accounting for 5.1 percent and closings adding another 1 percent<sup>7</sup> (see Chart 4, below and Table 1, page 7).

**Chart 4**

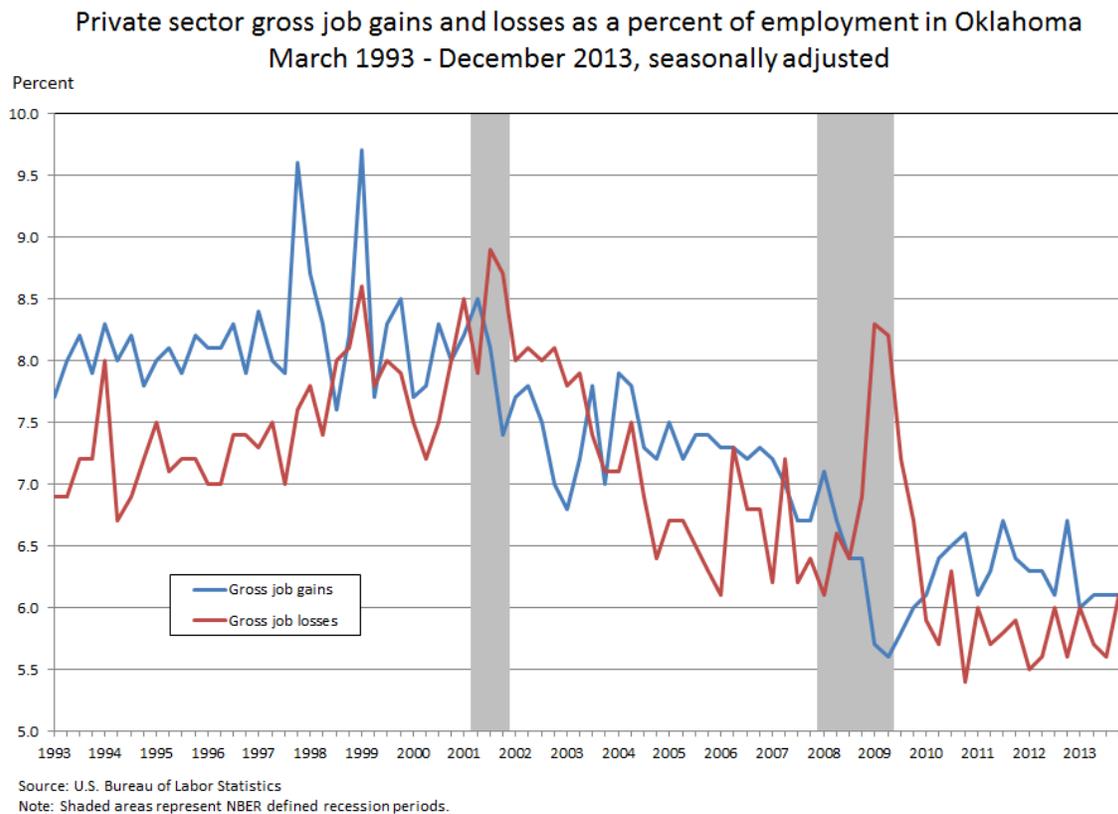


Chart 4 illustrates how, over the past 20 years in Oklahoma, both gross job gains and gross losses as a share of total private sector employment has steadily declined. Gross job gains as a percent of total private sector employment averaged 8.2 percent of total private sector employment from September 1992 up to the recession beginning March 2001 but the average dropped to 7.3 percent after that recession (from 1st quarter 2002 to 4th quarter 2007) and fell to an average of 6.3 percent following the Great Recession (from 3rd 2009 to 4th quarter 2013). Likewise, gross job losses share of private sector

<sup>7</sup> Gross job gains and gross job losses are expressed as rates by dividing their levels by the average of total private employment in the current and previous quarters. This provides a symmetric growth rate. The rates are calculated for the components of gross job gains and gross job losses and then summed to form their respective totals. These rates can be added and subtracted just as their levels can. For instance, the difference between the gross job gains rate and the gross job loss rate is the net growth rate.

employment averaged 7.5 percent prior to the 2001 recession but dropped to 7.1 following that recession and fell even more to 5.9 percent after the Great Recession.

<b>Table 1. Oklahoma: Three-month private sector gross job gains and losses, seasonally adjusted</b>					
Category	3 months ended				
	Dec 2012	Mar 2013	June 2013	Sep 2013	Dec 2013
Levels					
Gross job gains.....	<b>82,091</b>	<b>72,957</b>	<b>75,621</b>	<b>76,396</b>	<b>77,182</b>
Expanding establishments	66,115	58,675	61,087	61,333	61,708
Opening establishments	15,976	14,282	14,534	15,063	15,474
Gross job losses.....	<b>68,685</b>	<b>74,768</b>	<b>70,293</b>	<b>70,196</b>	<b>76,346</b>
Contracting establishments	56,005	58,601	58,792	59,935	63,331
Closing establishments	12,680	16,167	11,501	10,261	13,015
Net employment change <sup>1</sup>	13,406	-1,811	5,328	6,200	836
Rates (percent)					
Gross job gains.....	<b>6.7</b>	<b>6.0</b>	<b>6.1</b>	<b>6.1</b>	<b>6.1</b>
Expanding establishments	5.4	4.8	4.9	4.9	4.9
Opening establishments	1.3	1.2	1.2	1.2	1.2
Gross job losses.....	<b>5.6</b>	<b>6.0</b>	<b>5.7</b>	<b>5.6</b>	<b>6.1</b>
Contracting establishments	4.6	4.7	4.8	4.8	5.1
Closing establishments	1.0	1.3	0.9	0.8	1.0
Net employment change <sup>1</sup>	1.1	0.0	0.4	0.5	0.0
Source: Bureau of Labor Statistics					
<sup>1</sup> Net employment change is the difference between total gross job gains and total gross job losses.					

### **BED Comparisons between States**

BED data at the state level can also be used to help identify how one state's rate of gross job gains or gross job losses compares to another state's. For example, in Table 2, the five states in the BLS Southwest Region, (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas), are ranked by net employment change from September 2013 to December 2013 and in Table 3 by gross job gains and losses as a percent of total employment for the same time period.

From September 2013 to December 2013,, Oklahoma ranked last among the five states in the BLS Southwest Region in net employment change, with an overall employment increase of 836 (see Table 2, below).

<b>Table 2. Private sector net employment change by southwestern state, seasonally adjusted</b>		
Southwestern States	Rank	December 2013
Texas	1	81,451
Louisiana	2	7,816
Arkansas	3	3,255
New Mexico	4	2,781
<b>Oklahoma</b>	<b>5</b>	<b>836</b>
Source: Bureau of Labor Statistics		

In the 4th quarter of 2013, Oklahoma ranked 4th in the BLS Southwest Region in gross job gains as a percentage of total employment and 3rd in gross job losses as a percentage of total employment. Oklahoma's share of gross job gains and gross job losses accounted for 6.1 percent of total private sector employment in the 4th quarter of 2013 (see Table 3, below).

<b>Table 3. Private sector gross job gains and losses as a percent of total employment by southwestern states, seasonally adjusted</b>					
3 months ended					
Gross job gains as a percent of employment			Gross job losses as a percent of employment		
Southwestern States	Rank	December 2013	Southwestern States	Rank	December 2013
New Mexico	1	6.7	New Mexico	1	6.2
Louisiana	2	6.6	Louisiana	2	6.1
Texas	3	6.1	<b>Oklahoma</b>	<b>3</b>	<b>6.1</b>
<b>Oklahoma</b>	<b>4</b>	<b>6.1</b>	Arkansas	4	5.4
Arkansas	5	5.7	Texas	5	5.1
Source: U.S. Bureau of Labor Statistics					

## **More Information**

Additional information on gross job gains and gross job losses are available online at <http://www.bls.gov/bdm>. This information includes national data on the levels and rates of gross job gains and gross job losses by firm size, the not seasonally adjusted data and other seasonally adjusted time series not presented in this release, charts of gross job gains and gross job losses by industry and firm size, and frequently asked questions on firm-size data. Additional information about the Business Employment Dynamics data can be found in the Technical Note of this release or may be obtained at <http://data.bls.gov/cgi-bin/forms/bdm>.

## **Technical Note**

The Business Employment Dynamics (BED) data are a product of a federal-state cooperative program known as Quarterly Census of Employment and Wages (QCEW), or the ES-202 program. The BED data are compiled from existing quarterly QCEW records. The QCEW reports are sent by the State Employment Security Agencies (SESAs) to BLS and form the basis of the Bureau's QCEW program and establishment universe sampling frame. These reports are also used to produce the QCEW data on total employment and wages. Other important Bureau uses of the QCEW reports are in the Current Employment Statistics (CES) program. The CES program produces monthly estimates of employment, net changes, and earnings by detailed industry.

In the BED program, the QCEW records are linked across quarters to provide a longitudinal history for each establishment. The linkage process allows the tracking of net employment changes at the establishment level, which in turn allows the estimation of jobs gained at opening and expanding establishments and jobs lost at closing and contracting establishments.

The change in the number of jobs over time is the net result of increases and decreases in employment that occur at all businesses in the economy. BED statistics track these changes in employment at private business establishments from the third month of one quarter to the third month of the next. Gross job gains are the sum of increases in employment from expansions at existing establishments and the addition of new jobs at opening establishments. Gross job losses are the result of contractions in employment at existing establishments and the loss of jobs at closing establishments. The difference between the number of gross jobs gained and the number of gross jobs lost is the net change in employment.

Gross job gains and gross job losses are expressed as rates by dividing their levels by the average of employment in the current and previous quarters. The rates are calculated for the components of gross job gains and gross job losses and then summed to form their respective totals. These rates can be added and subtracted just as their levels can. For instance, the difference between the gross job gains rate and the gross job losses rate is the net growth rate.

## **Differences between QCEW, BED, and CES Employment Measures**

The Bureau publishes three different establishment-based employment measures for any given quarter. Each of these measures -- QCEW, BED, and CES--makes use of the quarterly UI employment reports in producing data; however, each measure has a somewhat different universe coverage, estimation procedure, and publication product.

Differences in coverage and estimation methods can result in somewhat different measures of over-the-quarter employment change. It is important to understand program differences and the intended uses of the program products. (See table below.)

Additional information on each program can be obtained from the program web sites shown in the table below.

### Summary of Major Differences between QCEW, BED, and CES Employment Measures

	QCEW	BED	CES
<b>Source</b>	– Count of UI administrative records submitted by 9.2 million employers	– Count of longitudinally-linked UI administrative records submitted by 7.3 million private sector employers	– Sample survey: 557,000 establishments
<b>Coverage</b>	– UI and UCFE cover age: all employers subject to state and federal UI Laws	– UI Coverage, excluding government, private households, and establishments with zero employment	Nonfarm wage and salary jobs: – UI Coverage, excluding: agriculture, private households, and self-employed; including: railroads, religious organizations, and other non-UI-covered jobs
<b>Publication frequency</b>	Quarterly – 6 months after the end of each quarter	Quarterly – 7 months after the end of each quarter	Monthly – First Friday of following month
<b>Use of UI file</b>	Directly summarizes and publishes each new quarter of UI data	Links each new UI quarter to longitudinal database and directly summarizes gross job gains and losses	Uses UI file as a sampling frame and annually realigns (benchmarks) sample estimates to first quarter UI levels
<b>Principal products</b>	– Provides a quarterly and annual universe count of establishments, employment, and wages at the county, MSA, State, and national levels by detailed industry	– Provides Quarterly employer dynamics data on establishment openings, closings, expansions, and contractions at the national level by NAICS supersectors, 3-digit NAICS, and by size of firm, and at the state total level private-sector – Future expansions will include data at the county and MSA level	– Provides current monthly estimates of employment, hours, and earnings at the MSA, state, and national level by industry
<b>Principal uses</b>	– Major uses include: · Detailed locality data · Periodic universe counts for benchmarking sample survey estimates · Sample frame for BLS establishment surveys	– Major uses include: · Business cycle analysis · Analysis of employer dynamics underlying economic expansions and contractions · Analysis of employment expansion and contraction by size of firm	– Major uses include: · Principal national economic indicator · Official time series for employment change measures · Input into other major economic indicators
<b>Program Web sites</b>	<a href="http://www.bls.gov/cew/">www.bls.gov/cew/</a>	<a href="http://www.bls.gov/bdm/">www.bls.gov/bdm/</a>	<a href="http://www.bls.gov/ces/">www.bls.gov/ces/</a>

### Coverage

Employment and wage data for workers covered by state UI and Unemployment Compensation for Federal Employees (UCFE) laws are compiled from quarterly contribution reports submitted to the SESAs by employers. In addition to the quarterly contribution reports, employers who operate multiple establishments within a state complete a questionnaire, called the "Multiple Worksite Report," which provides detailed information on the location of their establishments.

These reports are based on place of employment rather than place of residence. UI and UCFE coverage is broad and basically comparable from state to state.

Major exclusions from UI coverage are self-employed workers, religious organizations, most agricultural workers on small farms, all members of the Armed Forces, elected officials in most states, most employees of railroads, some domestic workers, most student workers at schools, and employees of certain small nonprofit organizations.

Gross job gains and gross job losses in this release are derived from longitudinal histories of 7.3 million private sector employer reports out of 9.2 million total reports of employment and wages submitted by states to BLS in the first quarter of 2013. Gross job gains and gross job losses data in this release do not report estimates for government employees or private households (NAICS 814110), and do not include establishments with zero employment in both previous and current quarters.

### **Unit of Analysis**

Establishments are used in the tabulation of the BED statistics by industry and firms are used in the tabulation of the BED size class statistics. An establishment is defined as an economic unit that produces goods or services, usually at a single physical location, and engages in one or predominantly one activity. A firm is a legal business, either corporate or otherwise, and may consist of several establishments. Firm-level data are compiled based on an aggregation of establishments under common ownership by a corporate parent using employer tax identification numbers. The firm level aggregation which is consistent with the role of corporations as the economic decision makers are used for the measurement of the BED data elements by size class.

Because of the difference in the unit of analysis, total gross job gains and gross job losses by size class are lower than total gross job gains and gross job losses by industry, as some establishment gains and losses within a firm are offset during the aggregation process. However, the total net changes in employment are the same for not seasonally adjusted data and are similar for seasonally adjusted data.

### **Concepts and Methodology**

The Business Employment Dynamics data measure the net change in employment at the establishment or firm level. These changes come about in one of four ways. A net increase in employment can come from either opening units or expanding units. A net decrease in employment can come from either closing units or contracting units. Gross job gains include the sum of all jobs added at either opening or expanding units. Gross job losses include the sum of all jobs lost in either closing or contracting units. The net change in employment is the difference between gross job gains and gross job losses.

The formal definitions of employment changes are as follows:

*Openings.* These are either establishments with positive third month employment for the first time in the current quarter, with no links to the prior quarter, or with positive third month employment in the current quarter following zero employment in the previous quarter.

*Expansions.* These are establishments with positive employment in the third month in both the previous and current quarters, with a net increase in employment over this period.

*Closings.* These are either establishments with positive third month employment in the previous quarter, with no employment or zero employment reported in the current quarter.

*Contractions.* These are establishments with positive employment in the third month in both the previous and current quarters, with a net decrease in employment over this period.

*Births.* These are units with positive third month employment for the first time in the current quarter with no links to the prior quarter, or units with positive third month employment in the current quarter

and zero employment in the third month of the previous four quarters. Births are a subset of openings not including re-openings of seasonal businesses.

*Deaths.* These are units with no employment or zero employment reported in the third month of four consecutive quarters following the last quarter with positive employment. Deaths are a subset of closings not including temporary shutdowns of seasonal businesses. A unit that closes during the quarter may be a death, but we wait three quarters to determine whether it is a permanent closing or a temporary shutdown. Therefore, there is always a lag of three quarters for the publication of death statistics.

All employment changes are measured from the third month of the previous quarter to the third month of the current quarter. Not all establishments and firms change their employment levels. Units with no change in employment count towards estimates of total employment, but not for levels of gross job gains and gross job losses.

Gross job gains and gross job losses are expressed as rates by dividing their levels by the average of employment in the current and previous quarters. This provides a symmetric growth rate. The rates are calculated for the components of gross job gains and gross job losses and then summed to form their respective totals. These rates can be added and subtracted just as their levels can. For instance, the difference between the gross job gains rate and the gross job losses rate is the net growth rate.

### **Establishment Births and Deaths**

For the purpose of BED statistics, births are defined as establishments that appear in the longitudinal database for the first time with positive employment in the third month of a quarter, or showed four consecutive quarters of zero employment in the third month followed by a quarter in which it shows positive employment in the third month. Similarly, deaths are defined as establishments that either drop out of the longitudinal database or an establishment that had positive employment in the third month of a given quarter followed by four consecutive quarters of showing zero employment in the third month. Although the data for establishment births and deaths are tabulated independently from the data for openings and closings, the concepts are not mutually exclusive. An establishment that is defined as a birth in a given quarter is necessarily an opening as well, and an establishment defined as a death in a quarter must also be a closing. Since openings include seasonal and other re-openings and closings include temporary shutdowns, the not seasonally adjusted values for births and deaths must be less than those for openings and closings.

However, because some BED series do not have many re-openings or temporary shutdowns, as well as the fact that births and deaths are independently seasonally adjusted from openings and closings, there may be instances in which the seasonally adjusted value of the former is greater than the latter.

### **Linkage Methodology**

Prior to the measurement of gross job gains and gross job losses, QCEW records are linked across two quarters. The linkage process matches establishments' unique SESA identification numbers (SESA-ID). Between 95 to 97 percent of establishments identified as continuous from quarter to quarter are matched by SESA-ID. The rest are linked in one of three ways. The first method uses predecessor and successor information, identified by the States, which relates records with different SESA-IDs across quarters. Predecessor and successor relations can come about for a variety of reasons, including a

change in ownership, a firm restructuring, or a UI account restructuring. If a match cannot be attained in this manner, a probability-based match is used. This match attempts to identify two establishments with different SESA-IDs as continuous. The match is based upon comparisons such as the same name, address, and phone number. Third, an analyst examines unmatched records individually and makes a possible match.

In order to ensure the highest possible quality of data, SESAs verify with employers and update, if necessary, the industry, location, and ownership classification of all establishments on a 4-year cycle. Changes in establishment classification codes resulting from the verification process are introduced with the data reported for the first quarter of the year. Changes resulting from improved employer reporting also are introduced in the first quarter.

### **Sizing Methodology**

The method of dynamic sizing is used in calculations for the BED size class data series. Dynamic sizing allocates each firm's employment gain or loss during a quarter to each respective size class in which the change occurred. For example, if a firm grew from 2 employees in quarter 1 to 38 employees in quarter 2, then, of the 36-employee increase, 2 would be allocated to the first size class, 5 to the size class 5 to 9, 10 to size class 10 to 19, and 19 to size class 20 to 49.

Dynamic sizing provides symmetrical firm size estimates and eliminates any systematic effects which may be caused by the transitory and reverting changes in firms' sizes over time. Additionally, it allocates each job gain or loss to the actual size class where it occurred.

### **Annual Data**

The annual gross job gains and gross job losses measure the net change in employment at the establishment level from the third month of a quarter in the previous year to the third month of the same quarter in the current year. The BLS publishes annual BED data based on March-to-March changes once a year with the release of the first quarter BED data. The annual data based on over-the-year changes for other quarters of the year are available upon request. The definitions and methodology in measuring annual gross job gains and gross job losses are similar to the quarterly measures. The linkage method considers all predecessor and successor relations that may come about due to changes in ownership and corporate restructuring over the entire year. At the establishment level, some of the quarterly job gains and job losses are offset during the estimation over the year. Therefore, the sum of four quarters of gross job gains and gross job losses are not equal to annual gross job gains and gross job losses. The net change in employment over the year, however, is equal to the sum of four quarterly net changes on a not seasonally adjusted basis.

### **Seasonal Adjustment**

Over the course of a year, the levels of employment and the associated job flows undergo sharp fluctuations due to such seasonal events as changes in the weather, reduced or expanded production, harvests, major holidays, and the opening and closing of schools. The effect of such seasonal variation can be very large.

Because these seasonal events follow a more or less regular pattern each year, their influence can be eliminated by adjusting these statistics from quarter to quarter. These adjustments make nonseasonal developments, such as declines in economic activity, easier to recognize. For example, the large number

of youths taking summer jobs is likely to obscure other changes that have taken place in June relative to March, making it difficult to determine if the level of economic activity has risen or declined. However, because the effect of students finishing school in previous years is known, the statistics for the current year can be adjusted to allow for a comparable change. The adjusted figures provide a more useful tool with which to analyze changes in economic activity.

The employment data series for opening, expanding, closing, and contracting units are independently seasonally adjusted; net changes are calculated based on the difference between gross job gains and gross job losses. Similarly, for industry data, the establishment counts data series for opening, expanding, closing, and contracting establishments are independently adjusted, and the net changes are calculated based on the difference between the number of opening and closing establishments. Additionally establishment and employment levels are independently seasonally adjusted to calculate the seasonally adjusted rates. Concurrent seasonal adjustment is run using X-12 ARIMA. Seasonally adjusted data series for total private are the sum of seasonally adjusted data of all sectors including the unclassified sector, which is not separately published.

The net over-the-quarter change derived by summing the BED component series will differ from the net employment change estimated from the seasonally adjusted total private employment series from the CES program. The intended use of BED statistics is to show the dynamic labor market changes that underlie the net employment change statistic. As such, data users interested particularly in the net employment change and not in the gross job flows underlying this change should refer to CES data for over-the-quarter net employment changes.

### **Reliability of the Data**

Since the data series on Business Employment Dynamics are based on administrative rather than sample data, there are no issues related to sampling error. Nonsampling error, however, still exists. Nonsampling errors can occur for many reasons, such as the employer submitting corrected employment data after the end of the quarter or typographical errors made by businesses when providing information. Such errors, however, are likely to be distributed randomly throughout the dataset.

Changes in administrative data sometimes create complications for the linkage process. This can result in overstating openings and closings while understating expansions and contractions. The BLS continues to refine methods for improving the linkage process to alleviate the effects of these complications.

The BED data series are subject to periodic minor changes based on corrections in QCEW records, updates on predecessors and successors information, and seasonal adjustment revisions.

Annual revisions are published each year with the release of the first quarter data. These revisions cover the last four quarters of not seasonally adjusted data and 5 years of seasonally adjusted data.

### **Additional Statistics and Other Information**

Several other programs within BLS produce closely related information. The QCEW program provides both quarterly and annual estimates of employment by state, county, and detailed industry. News releases on quarterly county employment and wages and an annual bulletin: Employment and Wages Annual Averages, are available upon request from the Division of Administrative Statistics and Labor

Turnover, Bureau of Labor Statistics, U.S. Department of Labor, Washington, DC 20212; telephone 202-691-6567; (<http://www.bls.gov/cew/>); (e-mail: [QCEWInfo@bls.gov](mailto:QCEWInfo@bls.gov)).

The CES program produces monthly estimates of employment, its net change, and earnings by detailed industry. These estimates are part of the Employment Situation report put out monthly by BLS.

The Job Openings and Labor Turnover Survey (JOLTS) program provides monthly measures of job openings, as well as employee hires and separations.

**Table 1. Oklahoma: Private sector gross job gains and job losses, seasonally adjusted**

Year	3 months ended	Net change <sup>1</sup>	Gross job gains			Gross job losses		
			Total	Expanding establishments	Opening establishment	Total	Contracting establishments	Closing establishments
1993	March	7,532	72,820	54,861	17,959	65,288	51,010	14,278
	June	10,144	75,673	61,637	14,036	65,529	52,048	13,481
	September	10,167	78,869	61,162	17,707	68,702	52,781	15,921
	December	6,846	76,445	59,753	16,692	69,599	56,088	13,511
1994	March	3,014	80,518	61,114	19,404	77,504	56,130	21,374
	June	13,175	78,022	62,789	15,233	64,847	50,692	14,155
	September	11,811	80,894	63,434	17,460	69,083	54,755	14,328
	December	5,138	77,068	59,440	17,628	71,930	57,500	14,430
1995	March	5,442	80,216	60,373	19,843	74,774	59,763	15,011
	June	9,198	81,344	62,634	18,710	72,146	53,778	18,368
	September	7,411	80,614	62,870	17,744	73,203	57,971	15,232
	December	10,348	84,206	65,604	18,602	73,858	55,230	18,628
1996	March	10,118	83,609	65,099	18,510	73,491	56,444	17,047
	June	11,416	84,785	63,679	21,106	73,369	56,251	17,118
	September	9,439	87,592	64,206	23,386	78,153	60,371	17,782
	December	5,474	83,767	65,957	17,810	78,293	58,382	19,911
1997	March	11,808	90,290	67,955	22,335	78,482	58,210	20,272
	June	6,372	87,137	67,269	19,868	80,765	61,223	19,542
	September	10,371	86,184	74,220	11,964	75,813	61,647	14,166
	December	21,344	105,872	81,386	24,486	84,528	66,308	18,220
1998	March	8,833	97,237	77,348	19,889	88,404	67,710	20,694
	June	10,817	94,481	74,836	19,645	83,664	64,078	19,586
	September	-5,229	86,068	71,112	14,956	91,297	69,723	21,574
	December	1,720	92,708	73,140	19,568	90,988	65,398	25,590
1999	March	12,109	110,575	77,800	32,775	98,466	75,280	23,186
	June	-985	87,841	66,546	21,295	88,826	64,700	24,126
	September	2,307	94,350	75,205	19,145	92,043	66,698	25,345
	December	5,958	96,806	76,598	20,208	90,848	67,068	23,780
2000	March	1,770	88,929	69,016	19,913	87,159	67,254	19,905
	June	7,293	90,427	73,607	16,820	83,134	67,121	16,013
	September	9,261	96,897	71,507	25,390	87,636	66,883	20,753
	December	94	93,885	70,084	23,801	93,791	71,053	22,738
2001	March	-3,883	95,768	75,901	19,867	99,651	74,225	25,426
	June	6,954	99,323	74,408	24,915	92,369	73,921	18,448
	September	-8,771	95,412	64,984	30,428	104,183	77,142	27,041
	December	-15,737	84,878	65,695	19,183	100,615	74,407	26,208
2002	March	-3,974	88,512	65,489	23,023	92,486	71,394	21,092
	June	-3,055	89,388	67,862	21,526	92,443	72,067	20,376
	September	-5,837	85,739	61,787	23,952	91,576	70,705	20,871
	December	-11,864	79,717	62,463	17,254	91,581	68,993	22,588
2003	March	-11,094	77,023	60,822	16,201	88,117	67,671	20,446
	June	-7,415	80,532	61,790	18,742	87,947	68,872	19,075
	September	4,468	87,172	66,757	20,415	82,704	62,274	20,430
	December	-1,341	78,263	60,071	18,192	79,604	62,876	16,728

**Table 1. Oklahoma: Private sector gross job gains and job losses, seasonally adjusted (cont.)**

Year	3 months ended	Net change <sup>1</sup>	Gross job gains			Gross job losses		
			Total	Expanding establishments	Opening establishment	Total	Contracting establishments	Closing establishments
2004	March	7,395	87,576	67,808	19,768	80,181	60,607	19,574
	June	3,865	87,747	63,138	24,609	83,882	62,975	20,907
	September	4,397	83,189	66,986	16,203	78,792	61,436	17,356
	December	9,691	82,152	65,864	16,288	72,461	56,828	15,633
2005	March	8,548	85,417	67,336	18,081	76,869	60,302	16,567
	June	5,781	82,826	65,439	17,387	77,045	62,304	14,741
	September	10,576	85,645	67,939	17,706	75,069	58,733	16,336
	December	12,915	86,793	69,363	17,430	73,878	60,095	13,783
2006	March	14,873	87,132	71,473	15,659	72,259	59,360	12,899
	June	-1,330	85,969	67,401	18,568	87,299	66,769	20,530
	September	6,413	86,723	66,080	20,643	80,310	65,345	14,965
	December	5,744	87,305	69,442	17,863	81,561	63,520	18,041
2007	March	12,455	87,617	70,507	17,110	75,162	59,905	15,257
	June	-2,413	85,281	64,454	20,827	87,694	66,538	21,156
	September	6,560	82,570	65,023	17,547	76,010	62,316	13,694
	December	3,587	82,112	64,546	17,566	78,525	64,110	14,415
2008	March	12,433	86,505	70,909	15,596	74,072	59,880	14,192
	June	648	82,647	64,531	18,116	81,999	66,879	15,120
	September	1,529	79,995	64,698	15,297	78,466	63,958	14,508
	December	-7,035	78,559	63,053	15,506	85,594	69,839	15,755
2009	March	-31,344	70,126	52,865	17,261	101,470	80,346	21,124
	June	-30,783	66,515	52,189	14,326	97,298	76,847	20,451
	September	-16,356	67,408	52,198	15,210	83,764	68,425	15,339
	December	-7,984	69,173	52,869	16,304	77,157	59,797	17,360
2010	March	1,438	69,334	53,554	15,780	67,896	55,198	12,698
	June	8,889	74,699	60,278	14,421	65,810	53,176	12,634
	September	3,118	75,524	61,040	14,484	72,406	55,461	16,945
	December	14,430	78,004	61,227	16,777	63,574	52,082	11,492
2011	March	437	71,433	57,205	14,228	70,996	56,873	14,123
	June	8,095	74,885	61,559	13,326	66,790	56,450	10,340
	September	11,258	79,470	63,786	15,684	68,212	54,288	13,924
	December	5,535	76,372	59,623	16,749	70,837	54,589	16,248
2012	March	10,217	76,212	62,348	13,864	65,995	51,726	14,269
	June	7,748	76,079	60,478	15,601	68,331	58,032	10,299
	September	146	73,753	59,293	14,460	73,607	58,563	15,044
	December	13,406	82,091	66,115	15,976	68,685	56,005	12,680
2013	March	-1,811	72,957	58,675	14,282	74,768	58,601	16,167
	June	5,328	75,621	61,087	14,534	70,293	58,792	11,501
	September	6,200	76,396	61,333	15,063	70,196	59,935	10,261
	December	836	77,182	61,708	15,474	76,346	63,331	13,015

<sup>1</sup>Net change is the difference between total gross job gains and total gross job losses.

**Table 2. Oklahoma: Private sector gross job gains and losses, as a percent of employment,<sup>1</sup> seasonally adjusted**

			Gross job gains			Gross job losses		
Year	3 months ended	Net change <sup>2</sup>	Total	Expanding establishments	Opening establishments	Total	Contracting establishments	Closing establishments
1993	March	0.8	7.7	5.8	1.9	6.9	5.4	1.5
	June	1.1	8.0	6.5	1.5	6.9	5.5	1.4
	September	1.0	8.2	6.4	1.8	7.2	5.5	1.7
	December	0.7	7.9	6.2	1.7	7.2	5.8	1.4
1994	March	0.3	8.3	6.3	2.0	8.0	5.8	2.2
	June	1.3	8.0	6.4	1.6	6.7	5.2	1.5
	September	1.3	8.2	6.4	1.8	6.9	5.5	1.4
	December	0.6	7.8	6.0	1.8	7.2	5.8	1.4
1995	March	0.5	8.0	6.0	2.0	7.5	6.0	1.5
	June	1.0	8.1	6.2	1.9	7.1	5.3	1.8
	September	0.7	7.9	6.2	1.7	7.2	5.7	1.5
	December	1.0	8.2	6.4	1.8	7.2	5.4	1.8
1996	March	1.1	8.1	6.3	1.8	7.0	5.4	1.6
	June	1.1	8.1	6.1	2.0	7.0	5.4	1.6
	September	0.9	8.3	6.1	2.2	7.4	5.7	1.7
	December	0.5	7.9	6.2	1.7	7.4	5.5	1.9
1997	March	1.1	8.4	6.3	2.1	7.3	5.4	1.9
	June	0.5	8.0	6.2	1.8	7.5	5.7	1.8
	September	0.9	7.9	6.8	1.1	7.0	5.7	1.3
	December	2.0	9.6	7.4	2.2	7.6	6.0	1.6
1998	March	0.9	8.7	6.9	1.8	7.8	6.0	1.8
	June	0.9	8.3	6.6	1.7	7.4	5.7	1.7
	September	-0.4	7.6	6.3	1.3	8.0	6.1	1.9
	December	0.1	8.2	6.5	1.7	8.1	5.8	2.3
1999	March	1.1	9.7	6.8	2.9	8.6	6.6	2.0
	June	-0.1	7.7	5.8	1.9	7.8	5.7	2.1
	September	0.3	8.3	6.6	1.7	8.0	5.8	2.2
	December	0.6	8.5	6.7	1.8	7.9	5.8	2.1
2000	March	0.2	7.7	6.0	1.7	7.5	5.8	1.7
	June	0.6	7.8	6.3	1.5	7.2	5.8	1.4
	September	0.8	8.3	6.1	2.2	7.5	5.7	1.8
	December	0.0	8.0	6.0	2.0	8.0	6.1	1.9
2001	March	-0.3	8.2	6.5	1.7	8.5	6.3	2.2
	June	0.6	8.5	6.4	2.1	7.9	6.3	1.6
	September	-0.8	8.1	5.5	2.6	8.9	6.6	2.3
	December	-1.3	7.4	5.7	1.7	8.7	6.4	2.3
2002	March	-0.3	7.7	5.7	2.0	8.0	6.2	1.8
	June	-0.3	7.8	5.9	1.9	8.1	6.3	1.8
	September	-0.5	7.5	5.4	2.1	8.0	6.2	1.8
	December	-1.1	7.0	5.5	1.5	8.1	6.1	2.0
2003	March	-1.0	6.8	5.4	1.4	7.8	6.0	1.8
	June	-0.7	7.2	5.5	1.7	7.9	6.2	1.7
	September	0.4	7.8	6.0	1.8	7.4	5.6	1.8
	December	-0.1	7.0	5.4	1.6	7.1	5.6	1.5

**Table 2. Oklahoma: Private sector gross job gains and losses, as a percent of employment,<sup>1</sup> seasonally adjusted (cont.)**

Year	3 months ended	Net change <sup>2</sup>	Gross job gains			Gross job losses		
			Total	Expanding establishments	Opening establishments	Total	Contracting establishments	Closing establishments
2004	March	0.8	7.9	6.1	1.8	7.1	5.4	1.7
	June	0.3	7.8	5.6	2.2	7.5	5.6	1.9
	September	0.4	7.3	5.9	1.4	6.9	5.4	1.5
	December	0.8	7.2	5.8	1.4	6.4	5.0	1.4
2005	March	0.8	7.5	5.9	1.6	6.7	5.3	1.4
	June	0.5	7.2	5.7	1.5	6.7	5.4	1.3
	September	0.9	7.4	5.9	1.5	6.5	5.1	1.4
	December	1.1	7.4	5.9	1.5	6.3	5.1	1.2
2006	March	1.2	7.3	6.0	1.3	6.1	5.0	1.1
	June	0.0	7.3	5.7	1.6	7.3	5.6	1.7
	September	0.4	7.2	5.5	1.7	6.8	5.5	1.3
	December	0.5	7.3	5.8	1.5	6.8	5.3	1.5
2007	March	1.0	7.2	5.8	1.4	6.2	4.9	1.3
	June	-0.2	7.0	5.3	1.7	7.2	5.5	1.7
	September	0.5	6.7	5.3	1.4	6.2	5.1	1.1
	December	0.3	6.7	5.3	1.4	6.4	5.2	1.2
2008	March	1.0	7.1	5.8	1.3	6.1	4.9	1.2
	June	0.1	6.7	5.2	1.5	6.6	5.4	1.2
	September	0.0	6.4	5.2	1.2	6.4	5.2	1.2
	December	-0.5	6.4	5.1	1.3	6.9	5.6	1.3
2009	March	-2.6	5.7	4.3	1.4	8.3	6.6	1.7
	June	-2.6	5.6	4.4	1.2	8.2	6.5	1.7
	September	-1.4	5.8	4.5	1.3	7.2	5.9	1.3
	December	-0.7	6.0	4.6	1.4	6.7	5.2	1.5
2010	March	0.2	6.1	4.7	1.4	5.9	4.8	1.1
	June	0.7	6.4	5.2	1.2	5.7	4.6	1.1
	September	0.2	6.5	5.3	1.2	6.3	4.8	1.5
	December	1.2	6.6	5.2	1.4	5.4	4.4	1.0
2011	March	0.1	6.1	4.9	1.2	6.0	4.8	1.2
	June	0.6	6.3	5.2	1.1	5.7	4.8	0.9
	September	0.9	6.7	5.4	1.3	5.8	4.6	1.2
	December	0.5	6.4	5.0	1.4	5.9	4.5	1.4
2012	March	0.8	6.3	5.2	1.1	5.5	4.3	1.2
	June	0.7	6.3	5.0	1.3	5.6	4.8	0.8
	September	0.1	6.1	4.9	1.2	6.0	4.8	1.2
	December	1.1	6.7	5.4	1.3	5.6	4.6	1.0
2013	March	0.0	6.0	4.8	1.2	6.0	4.7	1.3
	June	0.4	6.1	4.9	1.2	5.7	4.8	0.9
	September	0.5	6.1	4.9	1.2	5.6	4.8	0.8
	December	0.0	6.1	4.9	1.2	6.1	5.1	1.0

<sup>1</sup>The rates measure gross job gains and job losses as a percentage of the average of the previous and current employment levels.<sup>2</sup>Net change is the difference between total gross job gains and total gross job losses.

<b>Table 3. Oklahoma: Private sector establishment births and deaths, seasonally adjusted</b>					
		<b>Births<sup>1</sup></b>		<b>Deaths<sup>2</sup></b>	
<b>Year</b>	<b>3 months ended</b>	<b>Establishments</b>	<b>Employment</b>	<b>Establishments</b>	<b>Employment</b>
1993	March	N/A	N/A	1,957	11,344
	June	2,320	11,646	1,887	9,826
	September	2,528	13,771	1,963	11,353
	December	2,324	13,402	1,988	10,516
1994	March	2,307	15,857	2,082	17,357
	June	2,122	11,680	1,950	10,265
	September	2,433	13,180	1,994	10,835
	December	2,377	14,047	2,126	11,123
1995	March	2,245	15,658	2,134	10,998
	June	2,159	13,583	2,063	14,589
	September	2,356	13,811	1,928	12,244
	December	2,390	15,718	2,276	14,430
1996	March	2,010	15,153	2,121	13,401
	June	2,482	17,948	2,245	12,824
	September	2,513	18,959	2,141	14,248
	December	2,176	14,446	2,349	15,357
1997	March	2,581	18,175	2,216	15,777
	June	2,547	14,887	1,787	13,480
	September	1,116	6,581	981	9,263
	December	3,559	19,272	1,519	15,828
1998	March	2,293	16,559	2,427	15,685
	June	2,002	14,001	1,877	15,767
	September	2,140	12,228	2,011	15,841
	December	1,789	14,741	2,309	15,229
1999	March	3,154	21,495	2,427	18,497
	June	2,151	16,503	3,096	18,458
	September	2,226	14,810	2,638	20,301
	December	2,356	15,507	2,454	16,673
2000	March	2,297	14,719	2,438	13,877
	June	1,757	10,404	1,929	10,622
	September	2,489	18,426	2,322	14,649
	December	2,240	18,711	2,100	15,972
2001	March	2,030	15,052	2,207	18,594
	June	1,935	16,659	2,141	11,781
	September	3,524	22,466	2,886	21,670
	December	2,069	15,703	2,376	17,726
2002	March	2,320	14,975	2,063	13,664
	June	2,121	15,882	2,074	13,003
	September	2,250	16,756	2,145	16,260
	December	2,360	12,743	2,529	17,425
2003	March	2,003	11,484	2,226	15,093
	June	2,141	14,171	1,953	12,709
	September	2,242	14,268	2,303	14,197
	December	2,072	12,059	1,726	11,052

<b>Table 3. Oklahoma: Private sector establishment births and deaths, seasonally adjusted</b>					
		<b>Births<sup>1</sup></b>		<b>Deaths<sup>2</sup></b>	
<b>Year</b>	<b>3 months ended</b>	<b>Establishments</b>	<b>Employment</b>	<b>Establishments</b>	<b>Employment</b>
2004	March	2,356	14,044	2,002	12,843
	June	2,635	17,739	2,689	15,712
	September	2,188	11,039	1,953	10,730
	December	2,107	10,736	1,664	9,199
2005	March	2,193	11,559	1,894	11,245
	June	2,369	12,363	1,980	10,313
	September	2,368	12,992	1,976	12,449
	December	2,578	13,164	2,206	9,413
2006	March	2,569	11,660	1,945	7,792
	June	2,623	13,499	2,313	12,004
	September	2,455	12,765	2,083	9,771
	December	2,471	12,224	2,143	12,822
2007	March	2,103	11,576	2,157	9,938
	June	2,714	16,455	2,908	14,433
	September	2,363	11,446	1,736	8,920
	December	2,203	11,520	1,906	8,867
2008	March	2,164	10,361	2,046	8,207
	June	2,621	11,998	2,163	9,594
	September	2,006	9,864	2,171	9,708
	December	2,296	10,594	2,509	10,115
2009	March	2,546	12,193	2,632	14,963
	June	1,805	9,639	3,223	12,945
	September	1,679	8,168	2,107	8,854
	December	2,341	9,268	2,165	9,090
2010	March	2,230	8,565	1,830	7,883
	June	2,207	9,498	1,928	7,662
	September	2,177	9,304	2,650	10,208
	December	2,371	9,918	1,873	7,004
2011	March	2,128	9,530	2,413	8,171
	June	2,056	8,254	1,631	5,851
	September	2,216	10,261	2,120	8,631
	December	2,404	10,433	2,006	9,473
2012	March	2,103	8,219	2,216	7,945
	June	2,174	9,848	1,562	5,464
	September	2,376	9,855	2,253	8,982
	December	1,968	9,440	1,790	7,407
2013	March	2,310	9,812	N/A	N/A
	June	2,105	10,068	N/A	N/A
	September	2,345	9,549	N/A	N/A
	December	2,267	10,933	N/A	N/A

<sup>1</sup>Values for birth s are not available for the first three quarters of the time series by definition.

<sup>2</sup>Values for death s are not available for the most recent three quarters by definition.

<b>Table 4. Oklahoma: Rates<sup>1</sup> of private sector establishment births and deaths, seasonally adjusted</b>					
		<b>Births<sup>2</sup></b>		<b>Deaths<sup>3</sup></b>	
<b>Year</b>	<b>3 months ended</b>	<b>Establishments</b>	<b>Employment</b>	<b>Establishments</b>	<b>Employment</b>
1993	March	N/A	N/A	3.0	1.2
	June	3.5	1.2	2.8	1.0
	September	3.8	1.4	2.9	1.2
	December	3.4	1.4	2.9	1.1
1994	March	3.4	1.6	3.1	1.8
	June	3.1	1.2	2.9	1.1
	September	3.5	1.3	2.9	1.1
	December	3.4	1.4	3.1	1.1
1995	March	3.3	1.6	3.1	1.1
	June	3.1	1.3	3.0	1.4
	September	3.4	1.4	2.8	1.2
	December	3.4	1.5	3.3	1.4
1996	March	2.9	1.5	3.0	1.3
	June	3.6	1.7	3.2	1.2
	September	3.6	1.8	3.1	1.3
	December	3.1	1.4	3.4	1.4
1997	March	3.7	1.7	3.2	1.5
	June	3.6	1.4	2.5	1.2
	September	1.6	0.6	1.4	0.8
	December	4.9	1.7	2.1	1.4
1998	March	3.1	1.5	3.3	1.4
	June	2.7	1.2	2.5	1.4
	September	2.9	1.1	2.7	1.4
	December	2.5	1.3	3.2	1.3
1999	March	4.3	1.9	3.3	1.6
	June	2.9	1.4	4.2	1.6
	September	3.0	1.3	3.6	1.8
	December	3.2	1.3	3.4	1.4
2000	March	3.2	1.3	3.4	1.2
	June	2.4	0.9	2.7	0.9
	September	3.4	1.6	3.2	1.3
	December	3.1	1.6	2.9	1.4
2001	March	2.8	1.3	3.0	1.6
	June	2.7	1.4	2.9	1.0
	September	4.8	1.9	3.9	1.8
	December	2.8	1.4	3.3	1.5
2002	March	3.2	1.3	2.8	1.2
	June	2.9	1.4	2.8	1.1
	September	3.0	1.5	2.9	1.4
	December	3.2	1.1	3.4	1.5
2003	March	2.7	1.0	3.0	1.3
	June	2.9	1.3	2.6	1.1
	September	3.0	1.3	3.1	1.3
	December	2.8	1.1	2.3	1.0

<b>Table 4. Oklahoma: Rates<sup>1</sup> of private sector establishment births and deaths, seasonally adjusted (cont.)</b>					
		<b>Births<sup>2</sup></b>		<b>Deaths<sup>3</sup></b>	
<b>Year</b>	<b>3 months ended</b>	<b>Establishments</b>	<b>Employment</b>	<b>Establishments</b>	<b>Employment</b>
2004	March	3.1	1.3	2.7	1.1
	June	3.5	1.6	3.5	1.4
	September	2.9	1.0	2.6	1.0
	December	2.8	0.9	2.2	0.8
2005	March	2.9	1.0	2.5	1.0
	June	3.1	1.1	2.6	0.9
	September	3.0	1.1	2.5	1.1
	December	3.3	1.1	2.8	0.8
2006	March	3.2	1.0	2.4	0.7
	June	3.3	1.1	2.9	1.0
	September	3.0	1.1	2.6	0.8
	December	3.0	1.0	2.6	1.1
2007	March	2.6	1.0	2.7	0.8
	June	3.4	1.4	3.6	1.2
	September	2.9	0.9	2.1	0.7
	December	2.7	0.9	2.3	0.7
2008	March	2.6	0.8	2.5	0.7
	June	3.2	1.0	2.6	0.8
	September	2.4	0.8	2.6	0.8
	December	2.8	0.9	3.0	0.8
2009	March	3.1	1.0	3.2	1.2
	June	2.2	0.8	3.9	1.1
	September	2.1	0.7	2.6	0.8
	December	2.9	0.8	2.7	0.8
2010	March	2.7	0.7	2.2	0.7
	June	2.7	0.8	2.3	0.7
	September	2.7	0.8	3.2	0.9
	December	2.9	0.8	2.3	0.6
2011	March	2.6	0.8	2.9	0.7
	June	2.5	0.7	2.0	0.5
	September	2.7	0.9	2.6	0.7
	December	2.9	0.9	2.4	0.8
2012	March	2.5	0.7	2.7	0.7
	June	2.6	0.8	1.9	0.4
	September	2.8	0.8	2.7	0.7
	December	2.3	0.8	2.1	0.6
2013	March	2.7	0.8	2.9	0.7
	June	2.5	0.8	N/A	N/A
	September	2.7	0.8	N/A	N/A
	December	2.6	0.9	N/A	N/A

<sup>1</sup>The rates measure births and deaths as a percentage of the average of the previous and current quarter employment levels or total number of establishments.

<sup>2</sup>Values for births are not available for the first three quarters of the time series by definition.

<sup>3</sup>Values for deaths are not available for the most recent three quarters by definition.