Business Employment Dynamics, First Quarter 2014
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This article is the second in a quarterly series summarizing updated and revised Business Employment Dynamics (BED) data, following the first introductory article in the August 2014 Labor Market Review (Volume 43, Number 8). More comprehensive BED data will be published in an additional online report. BED data are a product of a federal-state cooperative program known as the Quarterly Census of Employment and Wages (QCEW). The QCEW data are based largely on reports filed quarterly by employers to pay unemployment insurance (UI) taxes. These reports are also used to produce BED data on gross job gains and losses.

In the BED program, QCEW records are linked across quarters to provide a history through time for each business. This allows net employment changes at the establishment level to be measured. BED data reveal the dynamics underlying the measure of net change in employment at the establishment level. A net increase in employment can come from either opening or expanding establishments, whereas a net decrease in employment can come from either closing or contracting establishments. 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. Chart 1 displays the four components that make up gross job changes along with the net change in employment (the difference between gross job gains and gross job losses) between first quarter 2003 and first quarter 2014. The most recent data for these components are discussed in the following sections.

Gross Job Gains and Losses
Between January 2014 and March 2014, gross job gains at opening and expanding private-sector establishments amounted to 38,773. This is lower by 3,241 jobs than the gross job gains in the previous quarter. Over this period, gross job losses at closing and contracting private-sector establishments were 39,417. This is 823 more job losses than those seen in the previous quarter. The difference between the number of gross job gains and gross job losses in the private sector during the first quarter of 2014 yielded a net employment loss of 644 jobs. This represents the fifth quarter of net contractions over the past eight quarters.

Components of Gross Job Gains and Losses
Expanding establishments are those with positive third month employment in both the previous and current quarters, with a net increase in employment over this period. Expanding establishments gained 30,183 jobs in the first quarter of 2014. Gains were fewer than those seen in the previous quarter by 3,251 jobs.

Contracting establishments are those with positive employment in the third month in both the previous and current quarter, with a
net decrease in employment over this period. Contracting establishments lost 32,118 jobs in the first quarter of 2014. The number of jobs lost in contracting establishments was 592 greater than was seen in the prior quarter. Chart 3 shows expansions and contractions within the private sector of New Mexico between first quarter 2003 and first quarter 2014.

**Opening** establishments are those with positive third month employment in the current quarter either for the first time (births) or after zero employment in the previous quarter (reopenings). Opening establishments accounted for 8,590 jobs gained in the first quarter of 2014. The number of job gains at opening establishments was 10 more than was seen in the previous quarter.

**Closing** establishments are those with positive employment in the third month in the previous quarter and with zero employment in the current quarter. Closings may be either deaths or temporary closings. Closing establishments accounted for 7,229 jobs lost in the first quarter of 2014. The number of job losses at closing establishments was 231 more than in the previous quarter. Chart 4 shows openings and closings within the private sector of New Mexico between first quarter 2003 and first quarter 2014.

**Births** are a subset of openings, the rest of openings being made up of reopenings of seasonal businesses. Births involve establishments with positive third month employment for the first time in the current quarter with no links to the prior quarter, or establishments with positive third month employment in the current quarter and zero employment in the third month of the previous four quarters. Between January and March 2014, gross job gains due to establishment births were 5,889, which was 1,167 more jobs gained than in fourth quarter 2013.

NOTE: BLS waits three quarters to determine whether closing is permanent or a temporary shutdown. Due to this publication lag, there are no establishment death data for the most recent three quarters.
Deaths are a subset of closings, the rest being made up of temporary shutdowns of businesses. Deaths involve establishments with no employment or zero employment reported in the third month of four consecutive quarters following the last quarter with positive employment. Be aware that an establishment that closes during the quarter may be a death, but BLS waits three quarters to determine whether it is a permanent closing or a temporary shutdown. Because of this, there is always a lag of three quarters for the publication of death statistics; therefore, the latest data on deaths is for fourth quarter 2013, between October and December 2013. Gross job losses due to establishment deaths were 5,008. The difference between the number of gross job gains and gross job losses from establishment births and deaths in the private-sector during the fourth quarter of 2013 yielded 127 net jobs. Chart 5 shows employment gains and losses due to establishment births and deaths within the private sector of New Mexico between first quarter 2003 and first quarter 2014.

**Average Number of Jobs Gained and Lost by Establishment**

The Business Employment Dynamics program counts gains and losses in the number of establishments as well as employment. Chart 6 shows the gross gains and losses in number of establishments and employment (number of jobs). It indicates a moderately close mapping of gross gains and losses for the two measures. The spike in employment gains in 2006 is due to a non-economic code change.

By dividing the number of gross jobs gained by the number of establishments that added jobs, we get a ratio of employment to establishments and, thus, the average number of jobs gained by establishments adding jobs. If we also derive the equivalent ratio for gross losses, this can reveal changes in the relationship between these two measures over time. If the employment-establishment ratio (E-E ratio) is higher in gross gains than in gross losses this means that there was a higher average number of jobs gained than lost per establishment.

Chart 7 shows the E-E ratio for gross gains and gross losses measured as a four-quarter moving average. It is interesting to see that the E-E ratio was higher for gross losses than gross gains in all quarters in 2009 (when New Mexico’s economy was suffering most acutely during the recession) as well as the fourth quarter of 2012 and first quarter of 2013. The rise in the gross gains E-E ratio in 2006 was due to the same non-economic code change referred to earlier.

Using BED to drill down to the components of gross change, Chart 8 reveals the E-E ratio for expanding and contracting establishments. Chart 9 reveals the same ratio for openings and closings. Interestingly, during 2009 and the first quarter of 2010 the E-E ratio for contracting establishments was higher than that for expanding establishments. In contrast, the E-E ratio for closing establishments was higher than that of opening.
establishments only in periods prior to this (throughout 2004, fourth quarter 2005, fourth quarter 2007 to second quarter 2008) and third quarter 2009. Since third quarter 2009, the E-E ratio for opening establishments was consistently higher than that for closing establishments, whereas there have been seven other quarters (between fourth quarter 2011 and third quarter 2013) in which the E-E ratio was higher in expanding establishments than in contracting establishments. It is beyond the scope of this analysis to allot causality to these findings, but it does appear that contracting establishments contributed significantly to the high average number of jobs lost per establishment straight after the recession. It also seems that openings have boosted the average number of jobs gained per establishment during the recovery, especially since 2012. That being said, it should be borne in mind that expansions and contractions still make up the majority of gross gains and losses.

TECHNICAL NOTE: Differences between QCEW, BED, and CES employment measures

The Bureau of Labor Statistics 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. Additional information on each program can be obtained from the program web sites shown in Table 1 of the first BED article (August 2014). This table can also be found at http://www.bls.gov/news.release/cewbd.tn.htm). The next article on BED is scheduled to appear in the February Labor Market Review, to be published on April 3, 2015.