Weekly Hours and Real Earnings in New Mexico: A Post-Recession and Recovery Analysis
Ashley Leach, Economist

Employment gains and losses are the primary measurements for analyzing economic impacts on the labor market, including the impacts of the Great Recession and recovery. While employment change continues to be the focal point of most analysis, some conversations are looking more and more at the economic impacts on wages and earnings, especially as employment continues to recover from the Great Recession. When the Great Recession struck, layoffs were not the only cost-saving measures implemented by employers; reduced wages and hours were also enacted in attempts to weather the recessionary storm. Analysis of employment growth certainly indicates that the labor market is on the right path to recovery. But, we should ask: How were earnings and weekly hours impacted? Have these measurements begun to bounce back from lower levels? Does complementary analysis on hours and wages provide further evidence of labor market strengthening?

This article uses Current Employment Statistics (CES) program data on average weekly hours and average weekly earnings to assess how these measurements of the workforce have changed in recent years. This analysis adjusts earnings for inflation using the Personal Consumption Expenditures (PCE) measurements produced by the U.S. Department of Commerce's Bureau of Economic Analysis (BEA). (Note that real earnings are calculated by the author.) Analysis is limited to employment, hours, and earnings within the private sector for the period beginning in January 2007 and ending in March 2015. All measurements represent 12-month centered moving averages that have been calculated from non-adjusted source data. Due to this method, estimates presented include those from July 2007 to September 2014. Centered moving averages are intended to increase the reliability of the estimates and to eliminate seasonality. The use of a centered moving average, as opposed to a moving average based on past estimates only, reduces the dependence on past estimates and reduces lagging effects that would create issues in discussing estimates in relation to specific points in time. That being said, moving-average estimates are not exact estimates and should be referenced as such.

The following sections will look closely at employment, work hours, and earnings, leading to these conclusions:

- **Employment**: New Mexico has been seeing consistent, positive signs of recovery, as private-sector employment growth has steadily increased since late 2009 and been positive for over four years.

- **Workweek**: The workweek (average hours worked per week) has not grown alongside employment. Gains in average hours worked that were realized in the latter half of 2007 and most of 2008 diminished throughout the recovery, resulting in a workweek that was the same at the end of the period (September 2014) as it was at the beginning (July 2007, before the workweek increased swiftly).

- **Earnings**: Real earnings have not mirrored the recovery in private-sector employment. Losses in earnings have been measureable, but have generally slowed since the third quarter of 2009.

**Employment and Hours in New Mexico**

New Mexico has been recording positive growth in employment and declines in unemployment estimates, as the state continues on a slow, but fairly steady, route to recovery. Over-the-year employment growth in the private sector has been positive since December 2010 (barring one month of minimal negative growth in July 2012) and been trending upward since September 2009. Private-sector employment (not growth) has gradually increased after hitting a trough in January 2010. (Note that these statistics are based on official CES estimates, not moving-average estimates.)

As shown in Figure 1, employment growth has not been coupled with a growing trend in average weekly hours. Average weekly hours peaked around 36.2 in November of 2008 (with the 12-month centered moving average peaking at 35.5 between August and December 2008) following a swift increase in the workweek for New Mexico from July 2007. Average weekly hours have trended downward ever since, hitting an average of 34.6 hours a week in the 12 months centered by September 2014. Employers began to cut jobs around five to six months before they started reducing hours. The growth in the workweek leading up to and at the beginning of the recession may have been the result of employers compensating for lost production as employment stagnated and declined. As recessionary impacts heightened, however, it is likely employers implemented both layoffs and reduced workweeks to cut labor costs. Ultimately, there was no change in the workweek over the period. Average weekly hours...
at the end of the period (September 2014) were roughly the same as at the beginning (July 2007), prior to the recession.

Recessionary declines in New Mexico’s private-sector employment hit later than at the national level, and New Mexico’s recovery growth also lagged that of the U.S. Figure 2 shows private-sector employment and average weekly hours for the U.S. between July 2007 and September 2014. Beyond lagged impacts and varying degrees of change, private-sector employment moved in a similar way in New Mexico and in the U.S. What did vary were average weekly hours. Where average weekly hours in New Mexico fluctuated, but generally trended downward, for the majority of the period, hours in the U.S. as a whole declined during the recession before trending upward during the recovery. In short, New Mexico saw its workweek shrink after quick but sharp expansion early on, whereas the U.S. saw its workweek expand after a sharp decline during the recession. Interestingly, both geographies saw their average weekly hours estimates reach July 2007 levels as of September 2014, and those estimates equaled 34.6 work hours per week. The average weekly hours in both New Mexico and the U.S. had the same starting and end points, but the paths varied significantly in between.

Figure 3 illustrates changes in the components of reduced aggregate weekly hours. Private-sector aggregate hours represent the product of private employment and average weekly hours. Figure 3 shows three measurements: (1) the actual aggregate hours, (2) reduced employment aggregate hours, or the aggregate hours assuming the average workweek remained constant, and (3) shorter workweek aggregate hours, or the aggregate hours assuming employment remained constant. This visual helps show how much reduced employment and reduced hours impacted overall aggregate hours. Actual aggregate hours declined by 2.7 percent (based on 12-month centered moving-average estimates). Like Figure 1, Figure 3 shows that employers generally began to lay off workers while increasing workweek hours and then cut hours and continued layoffs as the recession intensified. In addition, the chart shows how significant employment reductions were in impacting overall aggregate hours. When looking at change over the entire period, shorter workweek hours did not contribute to the overall reduction in aggregate hours. Had it not been for the sharp increases in the workweek at the beginning of the period, aggregate weekly hours would have been even lower. Even when average hours were dropping after September 2008, hours were always above the July 2007 estimate of 34.6 (12-month centered moving average).

In the U.S., layoffs and shorter workweeks together pushed down actual aggregate weekly hours, as shown in Figure 4. The impact of shortened workweeks on aggregate weekly hours was much less significant than the impact of layoffs. In the fourth quarter of 2013, private-sector employment reached pre-recession levels. The increase in private-sector employment from then on pushed actual aggregate hours in line with reduced employment aggregate hours (aggregate hours had the workweek not shrunk over the period) and above shorter workweek aggregate hours (aggregate hours had employment not declined over the period).
So, in which sectors did aggregate weekly hours suffer the most? Figure 5 provides aggregate weekly hours for the goods-producing and service-providing industries. Figure 5 also shows aggregate weekly hours had employment remained constant (shorter workweek aggregate weekly hours) and aggregate weekly hours had the workweek remained constant (reduced employment aggregate weekly hours).

Each industry supersector faced different challenges in the recession and recovery. Employment losses were most severe in the goods-producing industries, with employment dropping over 14 percent between July 2007 and September 2014 (based on moving-average estimates). These losses contributed to a drop in actual aggregate weekly hours. Shorter workweeks did not contribute to the overall reduction in aggregate weekly hours (from 4.5 to 4.0 million) seen in Figure 5. Average weekly hours, which are typically higher in goods-producing industries than service-providing industries, actually increased over the period by 4.9 percent. This increase even takes into account a sharp decline in hours registered during the latter half of 2014 and early 2015. Positively, employment gains in the recovery have led aggregate weekly hours to generally trend upward since hitting a trough in February 2010.

Where reductions in average weekly hours were not generally implemented as cost-cutting measures in the goods-producing industries, they were measures that employers in the service-providing industries executed. Employment declined by 0.2 percent between July 2007 and September 2014 (moving-average estimates). This decline would be much larger but for the fairly strong increases in employment experienced in the service-providing industries during the economic recovery. The supersector’s average weekly hours declined in a similar way to average weekly hours for all private industries. But, where average weekly hours remained above July 2007 estimates for all industries combined (moving-average estimates), hours in the service-providing industries dipped below July 2007 hours in October 2011 and remained below them through the most current period, even with slight increases being realized after August 2013. Therefore, employment growth was the primary factor in the aggregate-weekly hour growth in the service-providing industries since spring 2012.

Figure 6 takes the analysis of aggregate weekly hours one step further by analyzing the measurement for New Mexico’s four MSAs. Of the four, Las Cruces was the only MSA that saw an upward trend in aggregate weekly hours during the recession and into the recovery. The MSA actually saw aggregate weekly hours grow by 5.9 percent over the period (moving-average estimates). Growth was driven by general upward trends in both private employment and average weekly hours, with average weekly hours growing the quickest before dropping swiftly in early 2012. The
MSA’s relatively flat aggregate weekly hours since then are due to that decline in average weekly hours. The remaining three MSAs experienced varying levels of decline in aggregate weekly hours over the period. Albuquerque’s private employment and average weekly hours declined during the recession and ticked back up in the recovery. Swift declines in the workweek beginning in 2014 have caused aggregate weekly hours to decline recently. Santa Fe’s employers, in general, initially implemented layoffs and ticked back up in the recovery. Where private employment has grown during the recovery, average weekly wages fluctuated, with the uptick in private employment bolstered aggregate weekly hours beginning in the fall of 2011. Finally, aggregate weekly hours in the Farmington MSA have fluctuated over the period, dropping by 2.1 percent overall (the smallest drop of all the MSAs). Employers initiated both layoffs and a reduced workweek during the recession. Where private employment has grown during the recovery, average weekly wages fluctuated, with the uptick in aggregate weekly hours after the summer of 2013 being driven by growth in both factors.

**Earnings in New Mexico**

Employment and hours are two of the three measurements presented in this article. The third measurement provides a different outlook on how New Mexico and its workforce have been impacted by economic changes in recent years. Because nominal earnings will show a natural increase due to inflation, it is important to look at real earnings to see just how workers’ paychecks have changed. Figure 7 illustrates private-sector average hourly earnings in both nominal and real dollars. New Mexico’s real hourly earnings averaged $23.13 as of July 2007 (moving-average estimate). Earnings declined to a short-term trough in May 2008 before rising to a peak of $23.49 in November 2009. Since that time, real hourly earnings have steadily declined, reaching a trough of $20.79 for the period (a drop of $2.70, or an 11.5 percent decline from peak hourly earnings). Average hourly earnings have moved in a reverse relationship with private-sector employment. When employment grew, earnings declined, and vice versa.

New Mexico’s trend in private-sector average hourly earnings is very similar to that of the nation. As Figure 8 shows, real average hourly earnings were higher in the U.S. than in New Mexico in July 2007 ($26.12 versus $23.13). Earnings declined to a short-term trough in March 2008 (as opposed to May 2008 in New Mexico) before rising to a peak of $27.42 in June 2009 (as opposed to November 2009 in New Mexico). Real private-sector average hourly earnings began a steady decline, similar to that experienced in New Mexico, after reaching the peak for the period. Earnings in the U.S. declined by a similar amount between the peak and September 2014; the drop in earnings reached $2.54, or 9.3 percent (as opposed to $2.70, or 11.5 percent, in New Mexico). As in New Mexico, real hourly earnings in the U.S. had a reverse relationship with private employment.

Figure 9 looks at real private-sector aggregate weekly earnings, which take into account changes in private employment and average weekly hours over the period. As of September 2014, employers were paying $454.2 million each...
week to New Mexico’s approximately 631,100 workers. The dip and recovery in real earnings seen in Figure 7 during the recession and earliest part of the recovery is eliminated when accounting for employment and hours, with recessionary employment declines causing real aggregate weekly earnings to begin a steady decline in August 2008, well before average hourly earnings started to drop. Real earnings declined by 0.4 percent per month between August 2008 and September 2009 before slowing to an average decline of 0.1 percent per month between September 2009 and September 2014. The fall in aggregate weekly earnings between August 2008 and September 2014 represents a decline of $69.7 million, or just over 13 percent.

New Mexico’s real hourly earnings declined over the period, but did this trend occur across the substate areas? Figure 10 provides real private hourly earnings for New Mexico and its MSAs. The most predominate decline occurred in the Santa Fe MSA, with real hourly earnings falling by $6.01, or nearly 21 percent, between July 2007 and September 2014 (moving-average estimates). This decline is coupled with the largest drop in aggregate weekly hours of the MSAs. Positively, Santa Fe’s real hourly earnings have remained above that of the state and all MSAs, even though the gap between earnings for the MSA and the state has shrunk considerably.

The Las Cruces MSA, whose aggregate weekly hours increased over the period, experienced the smallest decline in real hourly earnings, of just $0.41, or 1.9 percent. Earnings in Las Cruces also bucked the overall trend of declines experienced in the other MSAs and in the state as a whole in the latter half of 2007 and early half of 2008. In addition, real earnings in Las Cruces saw swift increases in 2013, while earnings in other areas remained either fairly stagnant or declined. Las Cruces’ relative strength in real earnings has brought its earnings more in line with those of the state and the Albuquerque MSA, whereas earnings at the beginning of the period were $1.80 to $2.30 lower, respectively.

Real hourly earnings in the Albuquerque MSA have generally followed the same trend as that of the state, although late recession/early recovery growth was lagged somewhat, and the post-recession decline in earnings occurred more swiftly.

We close out our analysis by looking at how real earnings have changed in select industry subsectors since the beginning of 2007. As Figure 11 illustrates, the education and health services supersector is the only one of the six presented in which real earnings were higher ($20.65 to $21.47, an increase of $0.82) in September 2014 than in July 2007. Sweeping gains in the recession and early recovery were lost between mid-2010 and early 2013.

Real hourly earnings declined sharply in the professional and business services supersector during the recession and early recovery before generally stabilizing from early 2010 to the end of the period; real hourly earnings dropped by $5.65 over the entire period. The trade, transportation, and utilities supersector was the only other sector in which real earnings declined by more than $2.00 over the period ($2.56). Quick declines beginning in early 2013 heightened the losses significantly. The remaining losses are as follows: construction, $1.73; manufacturing (production workers only), $1.02; and leisure and hospitality, $0.95.

**Data Definitions and Notes**

The Current Employment Statistics (CES) program measures employment, hours, and earnings on a monthly basis for New Mexico and its four MSAs—Albuquerque, Farmington, Las Cruces, and Santa Fe. CES is commonly known as the employer survey, as it publishes monthly data reported by New Mexico employers via a business establishment survey. Data are published by NAICS industry supersector each month and are reported...
on the U.S. Bureau of Labor Statistics (BLS) and New Mexico Department of Workforce Solutions (NMDWS) websites, in addition to being reported in the monthly NMDWS News Release and Labor Market Review. To access CES data, visit NMDWS's interactive data website LASER (Labor Analysis, Statistics & Economic Research, www.jobs.state.nm.us/analyzer) or the BLS website (www.bls.gov).

The CES program defines employment as the following: An estimate of the number of nonfarm, payroll jobs in the U.S. economy. Employment is the total number of persons on establishment payrolls employed full- or part-time who received pay (whether they worked or not) for any part of the pay period that includes the 12th day of the month. Temporary and intermittent employees; employees who are on paid sick leave, holiday, or who work during only part of the specified pay period are included, including striking workers. Data exclude proprietors, self-employed, unpaid family or volunteer workers, farm workers, and domestic workers.

The CES program defines average earnings as the following: A measure of gross payrolls divided by total hours paid during the pay period that includes the 12th day of the month. Averages of hourly earnings differ from wage rates. Earnings are the return to an employee for a stated period on average in an industry; rates are the amount stipulated for a given unit of work or time in a specific job. Average hourly earnings do not represent an employer’s total compensation costs because they exclude items such as employee benefits, irregular bonuses and commissions, retroactive payments, and the employer’s share of payroll taxes.

For more information on the CES definitions of employment, hours, and earnings, visit Chapter 2 of the BLS Handbook of Methods, available at www.bls.gov/opub/hom/homch2.htm.

Personal Consumption Expenditures (PCE) is the primary measure of consumer spending on goods and services in the U.S. economy. PCE measures the goods and services purchased by “persons”—that is, by households and by nonprofit institutions serving households (NPISHs)—who are resident in the United States. PCE also includes purchases by U.S. government civilian and military personnel stationed abroad, regardless of the duration of their assignments, and by U.S. residents who are traveling or working abroad for one year or less (Source: BEA). For more information on the PCE estimates, refer to the BEA’s “Concepts and Methods of the U.S. National Income and Product Accounts,” available at www.bea.gov-national/pdf/NIPAhandbookch5.pdf. To access monthly PCE data, visit Table 2.8.5. Personal Consumption Expenditures by Major Type of Product, Monthly, available on the BEA website at www.bea.gov.

The results of adjusting a measurement for inflation will vary based on the adjustment measure used (in this case PCE). For an interesting article on such differences, see “U.S. Wages Are Historically Great, Or They’re Awful. It Depends on Your Preferred Inflation Measure,” published in The Wall Street Journal on April 23, 2015 (http://blogs.wsj.com/economics/2015/04/23/u-s-wages-are-historically-great-or-theyre-awful-it-depends-on-your-preferred-inflation-measure/). BEA also produces a reconciliation of percent change in the CPI with the percent change in the PCE price index. You can find these data in Table 9.1U. Reconciliation of Percent Change in the CPI with Percent Change in the PCE Price Index, available on the BEA website.