CBER-DETR Nevada Coincident and Leading Employment Indexes\(^1\)

Benchmark Revisions Add Employment to Nevada

The Nevada Coincident Employment Index measures the ups and downs of the Nevada economy using an index of employment variables. The Nevada Leading Employment Index also measures the ups and downs of the Nevada economy, providing a signal about the future direction of the coincident index. The coincident index provides the benchmark series that defines the employment cycle or reference cycle in Nevada. The leading index then tracks the economy relative to that reference cycle. A good leading index will provide signals about the future path of the reference cycle.\(^2\)

The release of the January employment data includes the benchmark revisions that adjust some of the employment series back through January 2005. These revised data affected the movement of the coincident index, tending to smooth out some of its prior ups and downs.

Figures 1 and 2 depict the coincident and leading indexes with data through January 2012. Figure 1 encompasses four recessions in employment, including the most recent Great Recession. The peak of the last employment cycle in Nevada occurred in December 2006. The coincident index then regressed steadily through October 2009, where the coincident index reached a bottom. With the new benchmark revisions in the employment data, the coincident index also rose much more steadily than indicated by the pre-benchmark revision data. The January 2012 coincident index recovered to a level not seen since March 2009. In sum, during the recent employment recession, the coincident index fell by 34.5 percent from peak to trough and now recovered by 12.3 percent from the October 2009 trough, which implies much more ground to recover. Figure 2 shows the leading index and its movements relative to the recessions in the Nevada employment cycle captured by the coincident index. For the current employment recession, the leading index provided a clear signal by peaking in January 2006, eleven months before the coincident index reached its peak. After reaching a bottom in May 2009, the leading index now stands at its highest level since February 2009. The leading and coincident indexes reached troughs in May and October 2009, respectively, ending the Great (Employment) Recession in Nevada.

The January release of seasonally adjusted data conveys a somewhat mixed picture for the coincident index. Nonfarm employment, the unemployment rate (inverted), and the insured unemployment rate (inverted) moved in a positive direction and only household employment moved in a negative direction. The same release also depicts a more mixed message for the leading index. Initial claims for unemployment insurance (inverted), real Moody’s Baa bond rate (inverted), and housing permits moved in a negative direction, whereas commercial permits, construction employment, and the short-duration unemployment rate (inverted) moved in a positive direction. The overall changes, however, produced upward movements in both the leading and coincident indexes.
Figure 1: CBER-DETR Nevada Coincident Employment Index

Figure 2: CBER-DETR Nevada Leading Employment Index
Source: Center for Business and Economic research (CBER, 702-895-3191) in the College of Business at the University of Nevada, Las Vegas and the Department of Employment Training and Rehabilitation (DETR). Developed by Stephen M. Miller (Professor and Chair of Economics, 702-895-3969) and Mustafa Gunaydin (Graduate Student in Economics). DETR provided a grant to support Mr. Gunaydin’s research during the development of the indexes.

All series are initially not seasonally adjusted and then seasonally adjusted using Census X12. In some instances, our seasonally adjusted series differ from the seasonally adjusted data reported by the Bureau of Labor Statistics. The Nevada Coincident Employment Index includes four employment measures – household employment, nonfarm employment, the unemployment rate (inverted, since an upward movement in the jobless rate is a “negative”), and the insured unemployment rate (inverted). The Nevada Leading Employment Index includes six employment related measures – initial claims for unemployment insurance (inverted), the real Moody’s Baa bond rate (inverted), housing permits, commercial permits, construction employment, and the short-duration unemployment rate (inverted). While not employment variables, housing and commercial permits, as well as the Moody’s Baa bond rate, closely relate to construction activity and construction employment. All data are seasonally adjusted and come from DETR, CBER, and the Federal Reserve Bank of St. Louis FRED® data. The description of the construction method is posted at http://cber.unlv.edu/nvindices.pdf. Data availability restricts our coverage in the two indexes to monthly series beginning in January 1976. The data series for household employment, nonfarm employment, the unemployment rate, initial claims, and the real Moody’s Baa bond rate all begin in January 1976. Housing permits and the insured unemployment rate begins in January 1980 and March 1987, respectively. Commercial permits, construction employment, and the short-duration unemployment rate begin in January 1988, January 1990, and January 2001, respectively. Thus, the coincident index uses three series through March 1987, when we add the insured unemployment rate. The leading index begins with two series and adds housing permits in January 1980, commercial permits in January 1988, construction employment in January 1990, and finally, the short-duration unemployment rate in January 2001.