CBER-DETR Nevada Coincident and Leading Employment Indexes

Cloudy Skies Continue to Hang over the Nevada Employment Sector

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.

Figures 1 and 2 depict the coincident and leading indexes with data through May 2013. 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 it bottomed. 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, and reached a bottom in May 2009, five months before the coincident index reached its bottom. Compared to previous recessions, the leading index currently follows a path of recovery similar to its recovery from the early 1980s recession.

The May release of data conveys a consistent, positive story for the coincident index. On a year-over-year basis, the unemployment rate (inverted), household employment, nonfarm employment, and the insured unemployment rate (inverted) all moved in a positive direction. The leading index continues to tell a mixed story on a year-over-year basis. Commercial permits, housing permits, the short-duration unemployment rate (inverted), and initial claims for unemployment insurance (inverted) moved in a positive direction whereas construction employment and the real Moody’s Baa bond rate (inverted) moved in a negative direction.

On a monthly basis, the coincident index tells a mixed story. Household employment, the insured unemployment rate (inverted) and the unemployment rate (inverted) all moved in a positive direction while nonfarm employment moved in a negative direction. For the leading index, a mixed story also emerges. The real Moody’s Baa bond rate (inverted) and housing permits moved in a positive direction whereas the short-duration unemployment rate (inverted), commercial permits, construction employment, and initial claims for unemployment insurance (inverted) moved in a negative direction.

The coincident index rose and leading index fell in May 2013.
Figure 1: CBER-DETR Nevada Coincident Employment Index

Figure 2: CBER-DETR Nevada Leading Employment Index
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.

1 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.