



Would you Like

Seasonal Adjustments

with That?

The school year, holidays, and seasonal changes in the weather are events that consistently influence employment levels and cause confusion about short-term fluctuations in hiring. The predictable rise and fall of retail jobs and decrease in construction jobs each winter are textbook examples of such seasonal employment shifts. When assessing the labor market, it is useful to recognize that seasonal employment patterns make it difficult to determine the trend in demand for workers in these industries.

Unadjusted employment gives a true estimate of employment including the seasonal job gains and losses. By itself, a point-in-time estimate renders the determination of industry job growth or loss quite challenging. When comparing unadjusted employment levels between months, the seasonal effects mask the true changes in demand. Comparing employment to the same month of the previous year is an attempt to remove seasonality. However; this method loses power for making other comparisons. Adding growth rates to the year-over comparisons can produce a trend, but requires twelve months of data for accuracy, and is therefore inadequate for identifying current changes in the direction of employment.

The process of seasonally adjusting employment data accounts for and factors out seasonal patterns, thereby removing the variation that can be attributed to seasonal employment. The annual averages of employment plotted each July intersect the seasonally



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adjusted trendline, as they should, since they essentially represent true employment with the seasonal ebb and flow averaged out (see figure). Adjusting the data in this manner allows for the detection of expansions and contractions in employment beyond typical seasonal employment shifts. This process makes it possible to compare employment differences between months even when they are regularly affected by seasonal hiring practices.

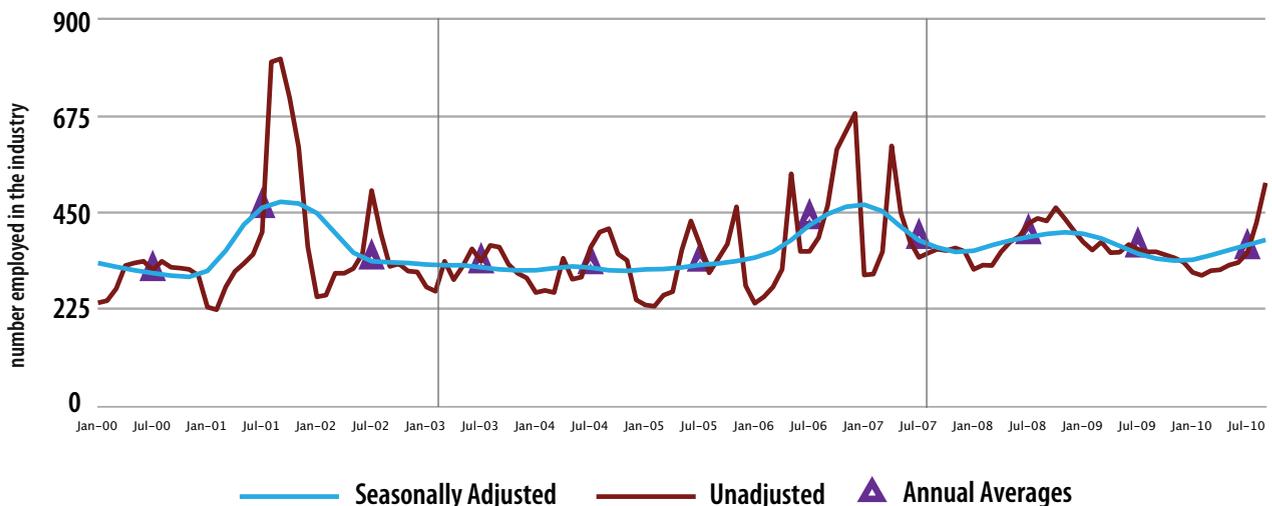
In a non-metro Utah example, it appears that there are roughly 240 more construction jobs in September 2010 than there were in March 2000 (see figure). Although construction experienced many peaks and valleys over the decade, seasonally adjusted, there are actually only about 60 more jobs than there were ten years prior. This constitutes a significant difference in demand for construction workers in a small county like Carbon.

Furthermore, each spike and drop in unadjusted employment demonstrates that seasonal adjustments are required to gauge whether demand is actually up, down, or stable in this industry. Assessing construction employment from November to January might lead to the conclusion that construction employment is in decline, however seasonally adjusted, the industry could be improving, as it did in 2005 (see figure). Since there may be a seasonal component to employment in other industries, there is value in noting whether these adjustments have been made when assessing the status of the current labor market. ⓘ

For more information:

- <http://www.bls.gov/cps/seasfaq.htm>
- <http://www.census.gov/const/www/faq2.html>

Carbon County Construction Employment • 2000-2010



Source: Utah Department of Workforce Services.