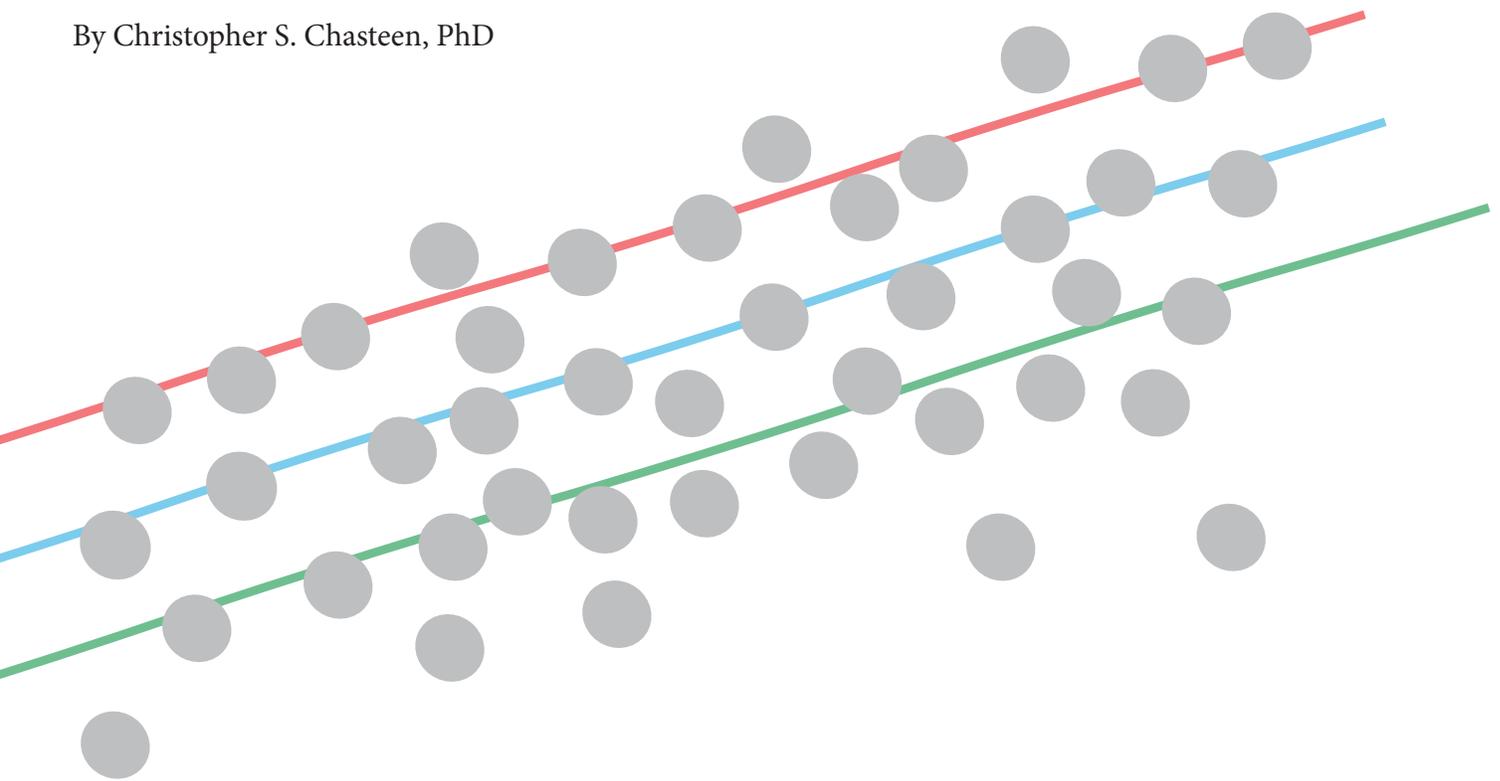


Employment and Unemployment Rates as Measures of the Supply and Demand of Labor

By Christopher S. Chasteen, PhD



**ECONOMIC
RESEARCH**
INSTITUTE

8575 164th Avenue NE, Suite 100
Redmond, WA 98052
800-627-3697
www.erieri.com

Local salary differentials are driven by the relative supply and demand of labor. The greater the demand and lower the supply, the higher the average wage will be for the local labor market. The final criterion for labor market differences in terms of salary planning is the local wage rate differential; however, there are other statistics we can use to gain some insight into the individual components of the labor supply and demand equation. Employment and unemployment rates are two such indicators. We can look at how these rates change over time to see how local economies are moving.

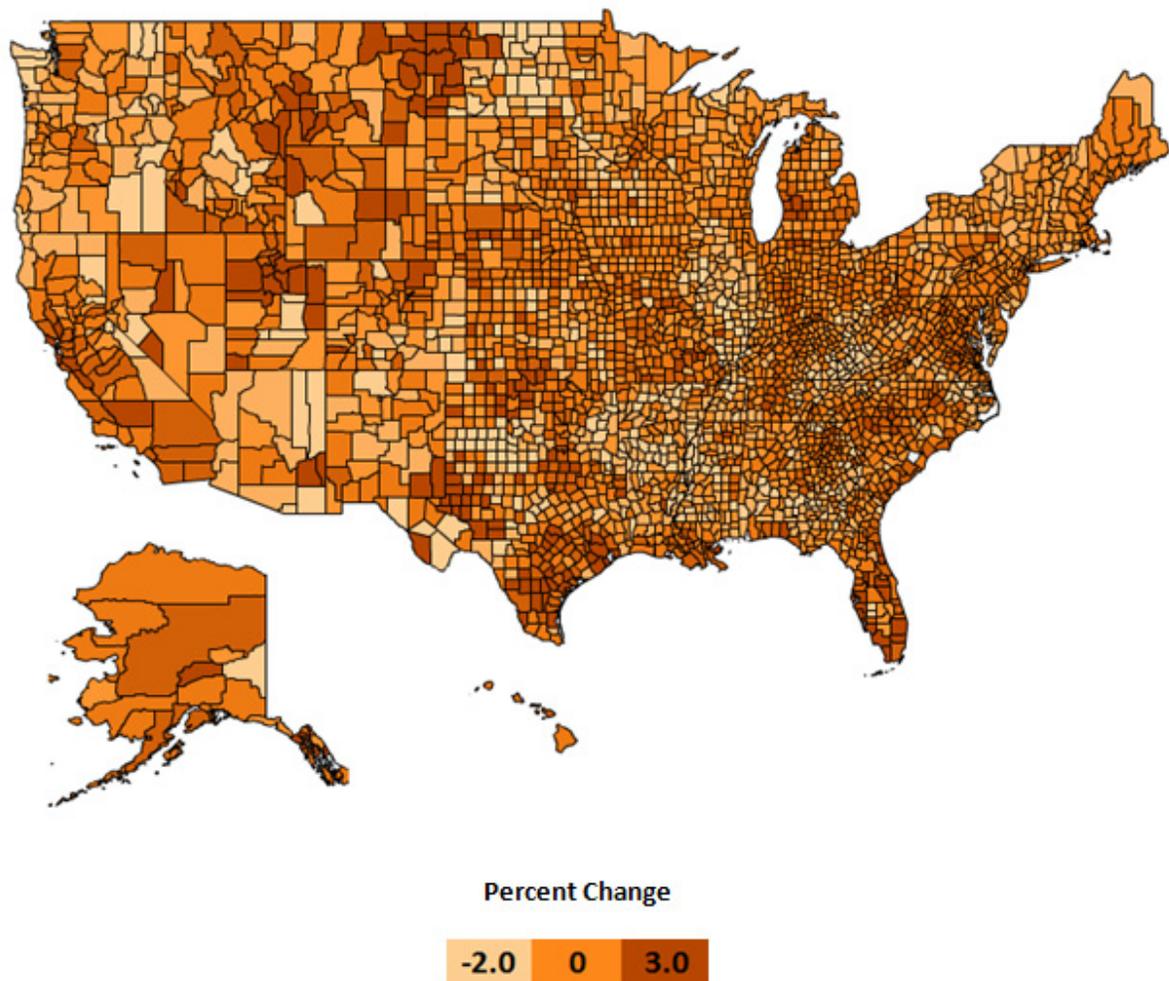
Unemployment rates take the number of unemployed divided by the total labor pool in a location. This rate is frequently cited as a primary indicator of the health of a local economy because, from a social perspective, 100% employment of the workforce would be ideal. However, this focuses only on the supply side and does not tell us much about the demand for labor. For example, if a location has no jobs, then prospective workers could just leave, thereby lowering the unemployment rate with no actual change in the local economy.

We will cover unemployment rates more shortly, but first let's discuss employment rates. We can look at the employment rate to get an idea about where jobs are being added and, therefore, where there is an increase in demand for labor. A net increase in demand for labor over time will put upward pressure on labor cost differentials, and this will make attracting labor more difficult if not taken into account.

Take a look at Figure 1 below. Darker areas are places that have shown the greatest increases in the rate of employed workers, whereas the lightest areas show a drop in the rate of employment. Stated differently, these light areas are losing employed workers, which may or may not have a direct impact on the local unemployment rate.

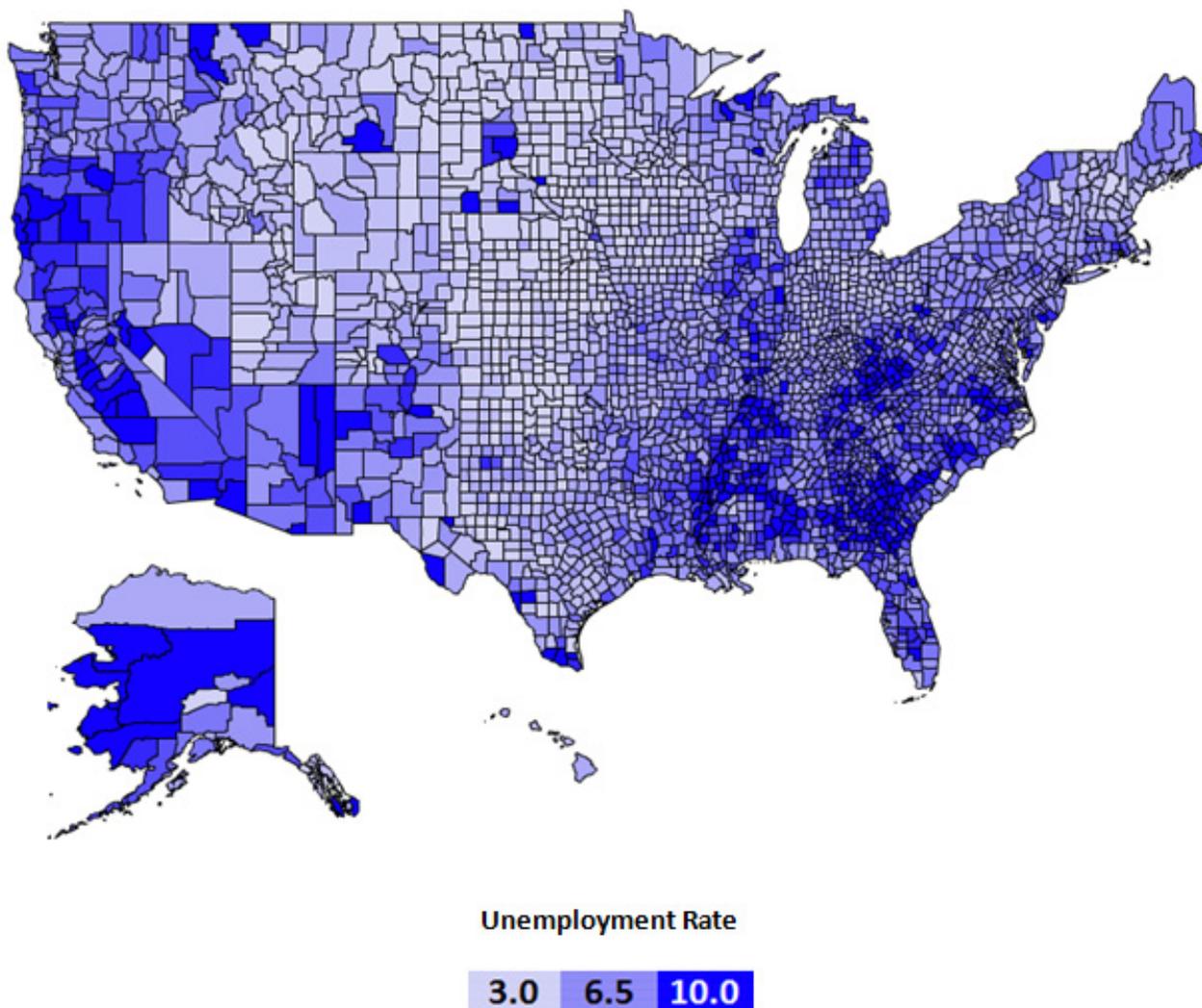
Consider North Dakota as an interesting case. Across North Dakota, counties have shown relatively low unemployment. But, looking at the three-year trend in employment rates, we can see that there is a distinct difference between the western half of the state and the eastern half in terms of where jobs are being added. Because of the oil boom in western North Dakota, skilled workers can earn more than they can in other parts of the state, which attracts both unemployed and currently employed workers to the area because of the higher wages being driven by the demand. While this movement can lower the unemployment rates in both areas, only the change in employment rates really show where jobs are being added. Texas is another area that shows dark areas of a quickly building workforce adjacent to light areas of a loss in employed workforce.

Figure 1. Three-Year Trend in Employment Rate



We can contrast this to the current unemployment figures (shown in Figure 2). Here we see that the unemployment rate across North Dakota and west Texas are generally low. But, we already know that, just because the supply of labor is relatively low, that doesn't necessarily imply the demand is high.

Figure 2. Current Unemployment Rate by County

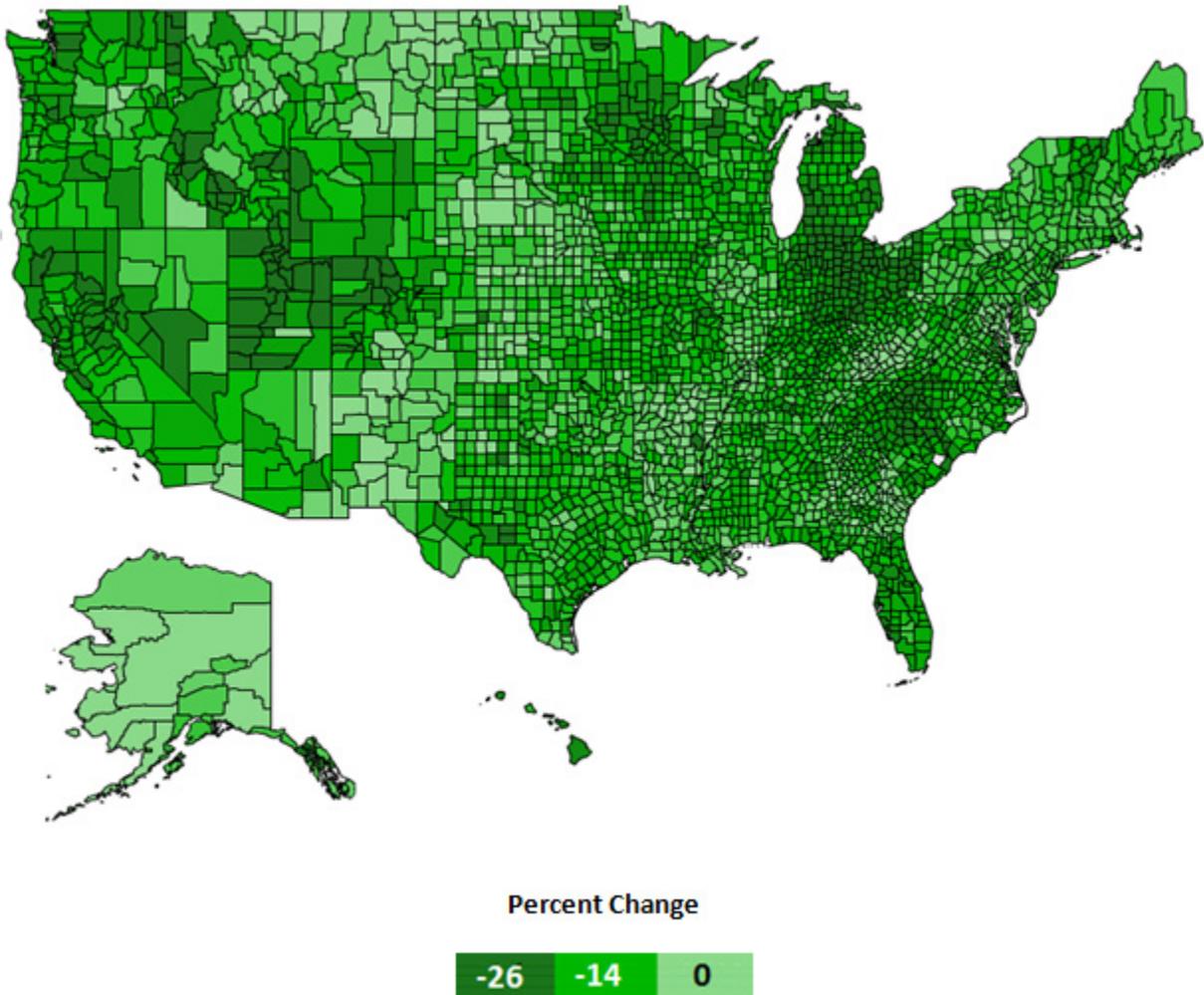


Another factor that the current unemployment rate does not tell is how the rate has been changing over time, that is, where the supply of labor has been decreasing. Figure 3 shows that, over the past three years, the unemployment rate has trended lower in most counties. What makes this chart potentially tricky to interpret is the general tendency to treat a double negative (decreasing unemployment) as a positive (increased employment).

We now know from our discussion of employment rates that the dark areas in Figure 3 are not necessarily hot labor markets, as people leaving the labor market can lower the unemployment rate (either following job opportunities in other areas or simply leaving the labor market altogether). Figure 3 is a good descriptor of how the economy has arrived at Figure 2.

We can see the large drops in unemployment in the dark green areas in Indiana/Ohio, the western Carolinas, Minnesota, and Utah, in particular. Compared to the darker blue areas in Figure 2, we see these same areas as a lighter blue than the surrounding Mississippi Valley, Appalachia, and the Deep South. However, only Utah appears in dark brown in Figure 1, suggesting that, of these three areas, Utah has seen the largest effect of adding jobs on the unemployment rate.

Figure 3. Three-Year Trend in Unemployment Rate



In Summary:

We have shown that the employment and unemployment rates are complementary measures when considering the supply and demand for labor. However, these are just indicators. While, for salary planning purposes, these can provide insight into areas that may need closer study, ultimately, it is the 'going rate' in terms of wages that has a direct impact on planning. For that, we need to look at market wage rates.

Christopher S. Chasteen, PhD
ERI Economic Research Institute
8575 164th Ave NE, Suite 100
Redmond, WA 98052
(800) 627-3697
info.eri@erieri.com
Publication Date: December 2014



ECONOMIC
RESEARCH
INSTITUTE

ABOUT ERI ECONOMIC RESEARCH INSTITUTE

ERI Economic Research Institute has been trusted for decades to provide compensation survey data. We compile the most robust salary survey, cost-of-living, executive compensation, and job competency data available. Thousands of corporate subscribers, including the majority of the Fortune 500®, rely on ERI analytics to streamline the compensation planning process, develop compensation packages that attract and retain top performers, and provide defensible data that holds up during litigation and audit.

