



OREGON WORKFORCE INVESTMENT:

Results & Trends

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External Influences Affecting the Placement Rate

It's Official – Recession

"...And make no mistake – we are in a recession," Governor Kulongoski announced in a recent speech. The recession became official December 1, 2008 when the National Bureau of Economic Research (NBER), a group of leading economists charged with identifying the start and end of economic downturns, announced the U.S. has been in a recession since December 2007.

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Every day, newspaper headlines support the announcement by NBER. "Job cuts highest since '02", "Douglas County jobless rate hits 10.4 percent", "Most jobs lost in 34 years", and "Unemployment rate surges upward" are a few examples of the headlines that remind us the economy is in a downturn. How long will the recession last? It's impossible to know for certain how long this recession will last. Oregon's previous recession lasted approximately two-and-one-half years. The downturn began during the fourth quarter of 2000, and the economy started to rebound the second quarter of 2003. Oregon's official forecast suggests job losses are likely to continue far into the second half of 2009.

According to NBER, the deterioration in the labor market was one main cause of the recession. Nationally, during 2008, employers cut approximately 2.1 million jobs. Oregon's unemployment rate (not seasonally adjusted) rose from 6.2 percent in January of 2008 to 8.8 percent in December of 2009, a +2.6 percent change. An estimated 175,000 Oregonians were unemployed in December of 2008 and that number will most likely near 204,000 in February of 2009.

How does this news affect people served by Oregon's workforce system? History has shown that during an economic downturn, the placement rate declines. That is, a smaller percentage of individuals get jobs after receiving services from Oregon's workforce system. The depth of the decline in the placement rate will depend on the length of the recession and severity of the downturn.

Oregon's Performance Reporting Information System (PRISM) contains historical data beginning July 2000, the time period just before the start of the last recession. In this report we'll use this historical data to investigate some factors which affect the placement rate as the economic downturn progresses.

Internal and External Influences

Most individuals receiving services from Oregon's workforce system have one primary goal – to get a job. Staff providing workforce services help people train for, find, and keep jobs.

The most recent placement data indicate seven out of 10 people served by Oregon's workforce system go to work, perhaps a surprisingly high proportion given the deteriorating economic conditions of the past year.

In part, the placement rate reflects the work of individual staff in the workforce system, but it is also significantly affected by other internal and external factors. For example, a change of policies and procedures in service delivery or a considerable increase or decrease in training funds could have a significant impact. The recent integration project between the Department of Community Colleges and

Workforce Development and the Oregon Employment Department is an example of change to the service delivery model.

External influences affecting the placement rate rarely can be controlled at the local level. No matter how efficient and effective service delivery is, the current state of the economy is bound to affect the workforce system's ability to place individuals in jobs. When the economy is good, businesses are hiring, but when the economy is in a downturn, employers stop hiring and often lay off workers. In this article we'll examine two external indicators which represent economic conditions influencing the placement rate – the Consumer Confidence Index and Oregon's unemployment rate.

Consumer Confidence Index

Consumer confidence is the degree of optimism on the state of the economy that consumers are expressing through their activities of saving and spending. This confidence is measured by the U.S. Consumer Confidence Index (CCI). In the United States, the CCI is issued monthly by *The Conference Board*, an independent economic research organization. The Index is calculated each month on the basis of a survey of 5,000 households, asking consumers' opinions on current conditions and future expectations of the economy. Opinions on current conditions make up 40 percent of the index, with expectations of future conditions comprising the remaining 60 percent.

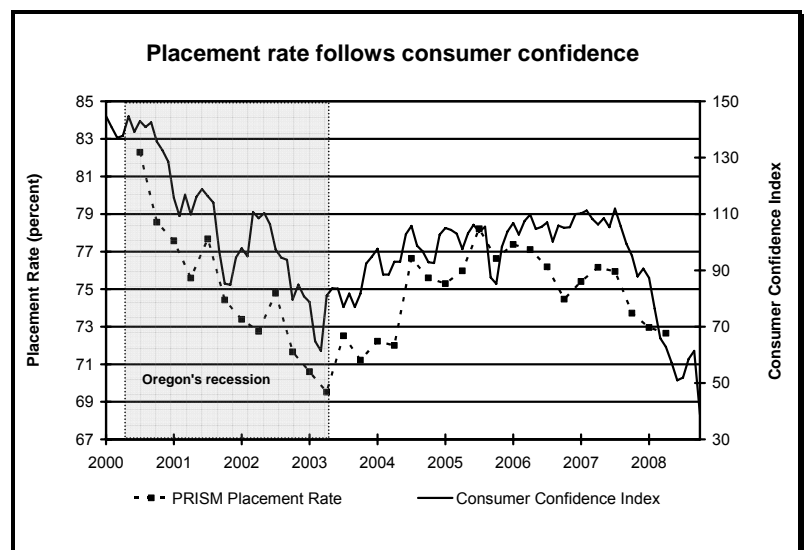
In the simplest terms, when confidence trends up, the economy grows and consumers spend money, boosting consumption. This is good news for business owners. In good economic times, when the CCI trends upwards, businesses often plan expansion – and as a result, they hire more people.

When consumer confidence trends downward, the rate of economic growth slows and consumers are likely to reduce their spending. Declining consumer confidence is a sign of slowing economic growth and may indicate that the economy is headed into trouble. During a slow economic growth period, businesses are less likely to expand, resulting in a slow-down in hiring or possibly layoffs.

Is there a relationship between the CCI and the PRISM placement rate? Graph 1 shows the placement rate follows a pattern very similar to that of the CCI, indicating a relationship between the two. This pattern is particularly noticeable during Oregon's recession in the early part of this decade. During the two-and-one-half-year recession, the placement rate declined by almost 13 percentage points (from 82.3% to 69.5%). During the same period the CCI dropped from 143.0 to 81.0, a decline of 62 points.

During the strong economic growth period from the later part of 2003 through mid-2005 (Graph 1), both the placement rate and the CCI trended upward. Following the recession, from July of 2003 to July of 2005, the placement rate increased from 72.5 percent to 78.2 percent (+5.7). During the same time period, the CCI increased from 77.0 to 103.6 (+26.6).

The strength of the relationship between CCI and the placement rate can be determined using a statistical modeling technique called linear regression. In its simplest form, a linear model specifies the relationship between a dependent variable, in this case placement rate, and the predictor variable, CCI. A linear



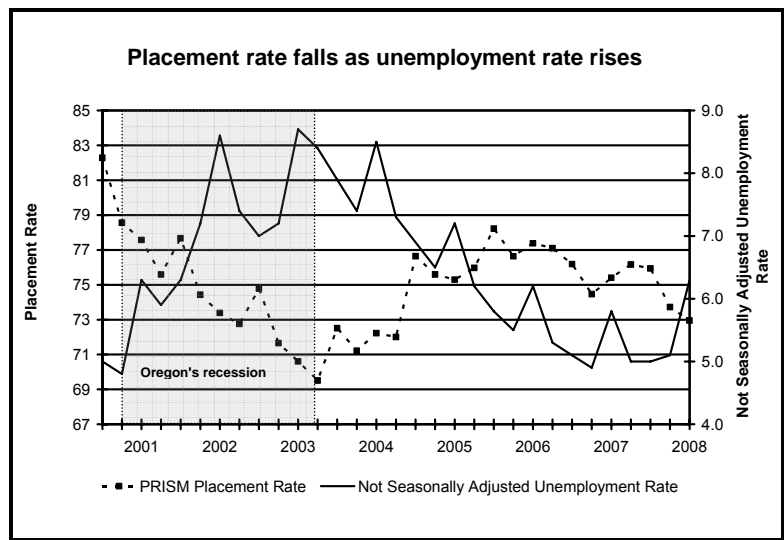
Graph 1

regression model can help answer the questions, “How much of a relationship exists between the CCI and the placement rate?” and “Is the CCI a good predictor of the placement rate?” A useful statistic calculated from the data is known as the coefficient of determination, also known as the R-square. If there’s no relationship between the placement rate and CCI, the R-square is zero. If there’s a perfect relationship, the value is one. The R-square normally falls somewhere between zero and one. The closer the R-square is to 1, the greater the correlation exists between the placement rate and the CCI.

In this model, the calculated R-square value between the placement rate and the CCI is .665, or stated another way, 66.5 percent, or two-thirds, of the variability in the placement rate can be explained by the CCI. Based on this R-square value, a strong positive relationship exists between the placement rate and the CCI.

Teeter-totter anyone?

Oregon’s unemployment rate is another external influence affecting the placement rate. Graph 2 shows that an opposite or inverse relationship exists between the unemployment rate (not seasonally adjusted) and the placement rate, causing a teeter-totter affect. As the unemployment rate increases, fewer job openings are available, causing increased competition for those jobs. As a result, the placement rate trends downward. This was demonstrated during the previous recession. Between July of 2000 and June of 2003, the unemployment rate rose from 5.0 percent to 8.8 percent, an increase of 3.8 percentage points. During the same time period, the placement rate dropped from 82.2 percent to 69.5 percent, a decrease of 12.7 percentage points.



Graph 2

But just how much of a relationship exists between the unemployment rate (not seasonally adjusted) and the placement rate? The R-square of the regression model is .464. In other words, 46 percent of the variability in the placement rate can be explained by the unemployment rate (not seasonally adjusted).

Consumer confidence and unemployment rate

Independently, both the CCI and the unemployment rate (not seasonally adjusted) are reasonably good predictors of the placement rate. But what happens when both CCI and the unemployment rate are included in the model at the same time? In this case, the R-square value increases to .736. That is, almost three-fourths of the variability in the placement rate can be explained by the CCI and the unemployment rate together.

Summary

The CCI and the unemployment rate (not seasonally adjusted), used together in a regression model, are excellent predictors of the PRISM placement rate. In good economic times, when the CCI trends upward and the unemployment rate slopes downward, the PRISM placement rate will tend to increase. However, in recent months as the economy turned downward, the unemployment rate has increased and the CCI has decreased. As a result, the statewide placement rate decreased two and one half percentage points since first quarter 2007.

Technical Note

Statewide PRISM placement data from July 2000 through March 2008 were used for this analysis. Consumer Confidence Index benchmarked to 1985=100.

Model summary:

$$\hat{Y} = 68.353 + .111X_1 - .711X_2$$

where \hat{Y} = Estimated placement rate

X_1 = Consumer Confidence Index

X_2 = Not seasonally adjusted unemployment rate

$p = .000$, $R^2 = .736$, Adjusted $R^2 = .717$, $F = 38.998$, d.f. = 2

Durbin-Watson = 1.393

$n=30$ d.f. = 2. $\alpha = .05$, $L = 1.26$, $U = 1.56$

Additional information

For more information visit the PRISM web site at www.oregon.gov/PRISM/.