

SIMON CENTER FOR REGIONAL FORECASTING 2007 REPORT

Continued Moderate Growth for Missouri in 2007

The Simon Center for Regional Forecasting at Saint Louis University's John Cook School of Business projects 0.8% growth in Missouri employment in 2007, adding approximately 22,000 jobs to the state's payrolls. The projected growth rate is slightly below the 1.0% average growth rate for Missouri employment for 1991–2006. The Simon Center forecasts U.S. employment growth to increase by 1.3% in 2007, which is also slightly below its 1.4% average for 1991–2006. Employment in the St. Louis region is expected to grow by 1.0% in 2007—just above the 1991–2006 average growth rate of 0.8%—contributing approximately 13,500 jobs to the region.

The Simon Center forecasts Missouri real personal income to increase by 2.0% in 2007, while the corresponding forecast for the U.S. is 2.4%. Both income growth forecasts are somewhat below the 1991–2006 averages for Missouri and the U.S. (2.6% and 2.9%, respectively). The Simon Center also expects the Missouri and St. Louis unemployment rates to decline slightly during 2007 (by –0.2 and –0.1 percentage points, respectively), while the U.S. unemployment rate is projected to remain constant.

The complete set of point forecasts is reported in Table 1 on page 2. The table also reports the 1991–2006 average, actual and forecast values for 2006, one-standard-deviation (68%) confidence interval for the 2007 forecast, and the probability that the variable will increase in 2007 for each variable. Figure 1 on page 3 depicts annual growth rates for Missouri and U.S. employment and real personal income for 1991–2006, as well as the 2007 forecast for each variable. Figure 1 shows that Missouri employment and income growth has lagged slightly behind that of the U.S. for the last four years, and the point forecasts for 2007 indicate that this recent trend is expected to continue in 2007. Figure 1 also indicates that these variables exhibit considerable volatility, and this contributes to a significant degree of uncertainty in the 2007 forecasts. This uncertainty can be quantified by the forecast intervals reported in Table 1. To provide additional insight into the range of likely outcomes, Figure 2 on page 4 presents density forecasts for Missouri and U.S. employment and income growth. Despite the uncertainty associated with the forecasts, the probabilities that Missouri and U.S. employment and income growth will be positive in 2007 (reported in column (5) of Table 1 and based on the density forecasts in Figure 2) are all well above 50%.

The Simon Center forecasts are generated using time-series econometric models and forecast combining methods. The combining methods use information from a large number of individual models based on both regional and national economic variables.¹ An advantage of considering a large number of potential predictors is that forecasts do not rely too strongly on particular predictors. In some models, a few leading indicators, such as building permits, tend to predict very slow growth—and perhaps even a recession—in 2007, while a number of other potential predictors indicate stronger growth.² Forecast combining methods are able to utilize information from many potential predictors to generate a “balanced” forecast.

As column (3) of Table 1 shows, the 2006 Simon Center forecasts were generally quite close to the actual values in 2006, including those for Missouri and U.S. employment and income growth. There is a more sizable gap between the 2006 actual value of 0% for St. Louis employment growth and the 2006 forecast of 0.6% (although the actual value still fell within the one-standard-deviation

¹Research studies related to the methodologies used in the construction of the Simon Center forecasts, as well as other Simon Center projects, are available at <http://pages.slu.edu/faculty/rapachde/Simon.htm>.

²See, for example, Edward E. Leamer (2007), “Is a Recession Ahead? The Models Say Yes, but the Mind Says No,” *The Economists' Voice*, Volume 4, Issue 1, Article 1; available at <http://www.bepress.com/ev/vol4/iss1/art1>.

confidence interval for the forecast). While the Bureau of Labor Statistic’s Establishment Survey (on which the Simon Center employment forecasts are based) indicates no change in employment over 2006 in St. Louis, the Bureau’s Household Survey shows an increase of 14,000 jobs, making it difficult to interpret the absence of growth in St. Louis employment in 2006 reported by the Establishment Survey.

Table 1: Simon Center Forecasts for 2007

(1)	(2)	(3)	(4)	(5)
Variable	1991–2006 average	2006 value	2007 forecast	Prob. > 0
<i>Missouri</i>				
Employment growth	1.0%	0.8% (0.7%)	0.8% [−0.7%, 2.2%]	70%
Real personal income growth	2.6%	2.8% (2.7%)	2.0% [0.1%, 3.8%]	86%
Change in unemployment rate	−0.1	−0.3 (0)	−0.2 [−0.9, 0.6]	42%
<i>United States</i>				
Employment growth	1.4%	1.4% (1.5%)	1.3% [0.2%, 2.4%]	87%
Real personal income growth	2.9%	3.0% (2.7%)	2.4% [0.7%, 4.0%]	92%
Change in unemployment rate	−0.1	−0.4 (−0.2)	0 [−0.7, 0.7]	48%
<i>St. Louis</i>				
Employment growth	0.8%	0% (0.6%)	1.0% [−0.4%, 2.4%]	75%
Change in unemployment rate	−0.1	−0.3 (0)	−0.1 [−0.6,0.4]	40%

Notes: figures for Missouri and U.S. real personal income growth are based on data available through 2006:3; numbers in parentheses below the 2006 values in column (3) are the Simon Center forecasts for 2006; figures in brackets below the 2007 forecasts in column (4) are approximate 68% confidence intervals for the forecasts.

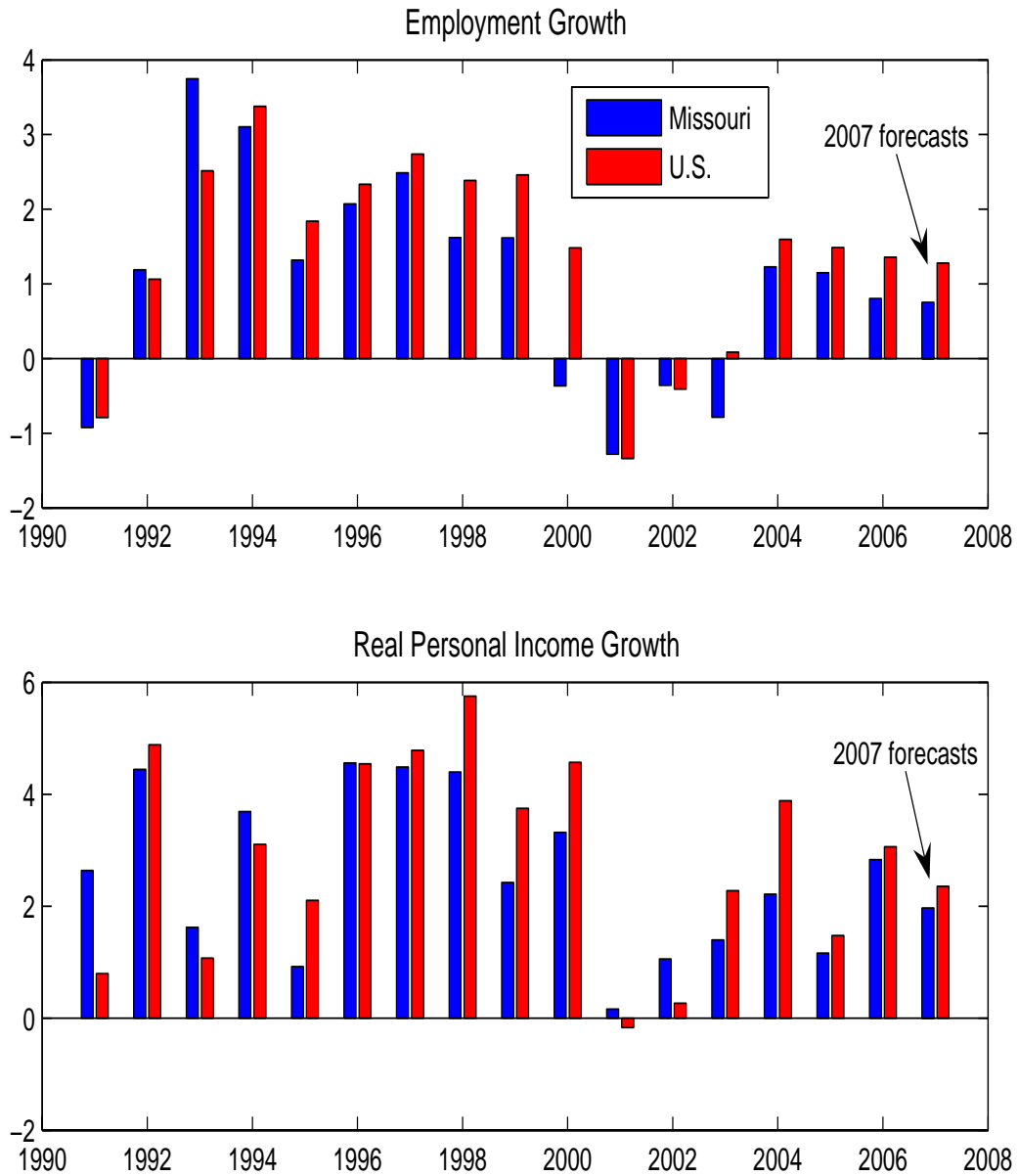


Figure 1: Missouri and U.S. Annual Employment and Real Personal Income Growth, 1991–2006 and 2007 forecasts

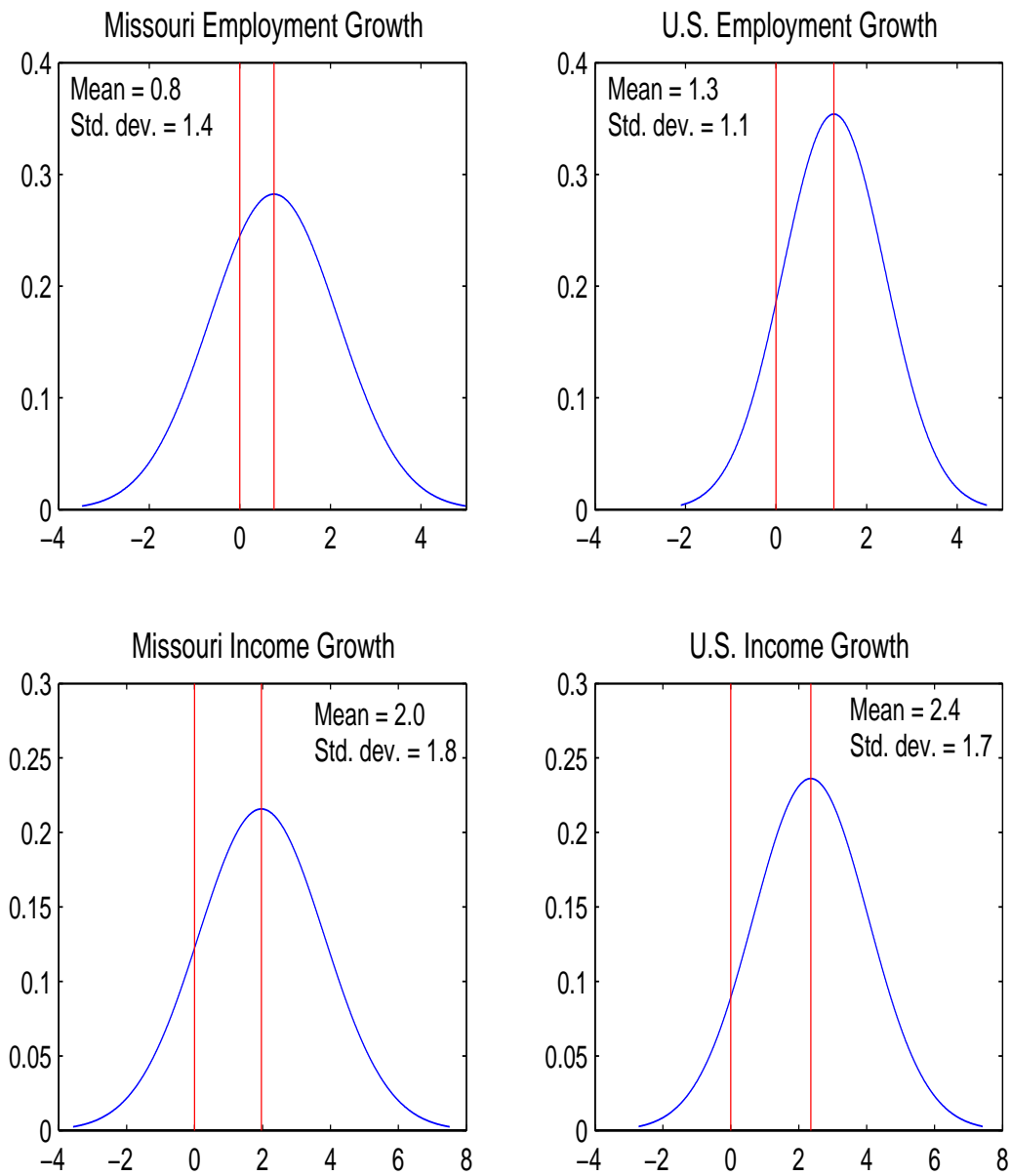


Figure 2: 2007 Density forecasts for Missouri and U.S. Annual Employment and Real Personal Income Growth

Notes: density forecasts have a normal distribution with mean and standard deviation indicated in the figures; red vertical lines indicate zero and the mean of the density forecast.