# A recession postmortem: Why some places fared better than others

By SUNG SOO LIM
Research Assistant

During the recent recession, employment across the nation fell by a misery-inducing 6.3 percent, the largest job decline in any postwar recession.

But “across the nation” masks a wide range of labor market conditions, depending upon where you live. Nevada experienced a staggering 12.9 percent decline in jobs from December 2007 to December 2009, while North Dakota posted a 1.7 percent increase. Likewise, employment dropped 61 percent in Loving County, Texas, while jobs increased 90.1 percent in Mercer County, Mo.

Is this but an economic crapshoot? What features might explain why some states, even some regions, did better or worse than others? Is it a matter of chance or economic destiny, at least in hindsight?

To answer these questions, the *fedgazette* looked at a number of economic features—income, education, poverty, industry mix, population, workforce participation and housing prices—across states, cities and counties prior to the recession. Those features were then analyzed for association with the subsequent job loss in those areas.

Four prerecession features jumped out as being significantly related to larger job losses during the recession: a small share of farm jobs, a large increase in housing prices, significant durable goods manufacturing and a large share of construction workers prior to the recession (see Table 1). These four features alone account for about half of the variability in employment loss across states and cities and about 20 percent across counties. (Full results of the regression analysis are available at minneapolisfed.org.)

Table 1 **Description of key economic features**

| Economic feature | Description |
|---|---|
| Farm share | Farm employment as a percent of total employment in 2006 |
| Housing price trend | Change in the ratio of median house price to median household income between 1999 and 2006 |
| Durable goods share | Employment in the durable goods manufacturing sector as a percent of total employment in 2006 |
| Construction share | Employment in the construction sector as a percent of total employment in 2006 |

Sources: Bureau of Labor Statistics, U.S. Census Bureau

Table 2 **Economic features: Comparing district states with the nation**

| Economic feature | U.S. | MN | ND | SD | MT | WI |
|---|---|---|---|---|---|---|
| Farm share | 2.0 | 2.4 | 6.4 | 5.8 | 4.6 | 2.6 |
| Housing price trend | 24.1 | 22.5 | 7.3 | 8.9 | 26.4 | 19.6 |
| Durable goods share | 5.2 | 6.7 | 3.9 | 5.4 | 2.4 | 9.3 |
| Construction share | 6.8 | 5.7 | 5.7 | 6.4 | 8.3 | 5.6 |

Sources: Bureau of Labor Statistics, U.S. Census Bureau

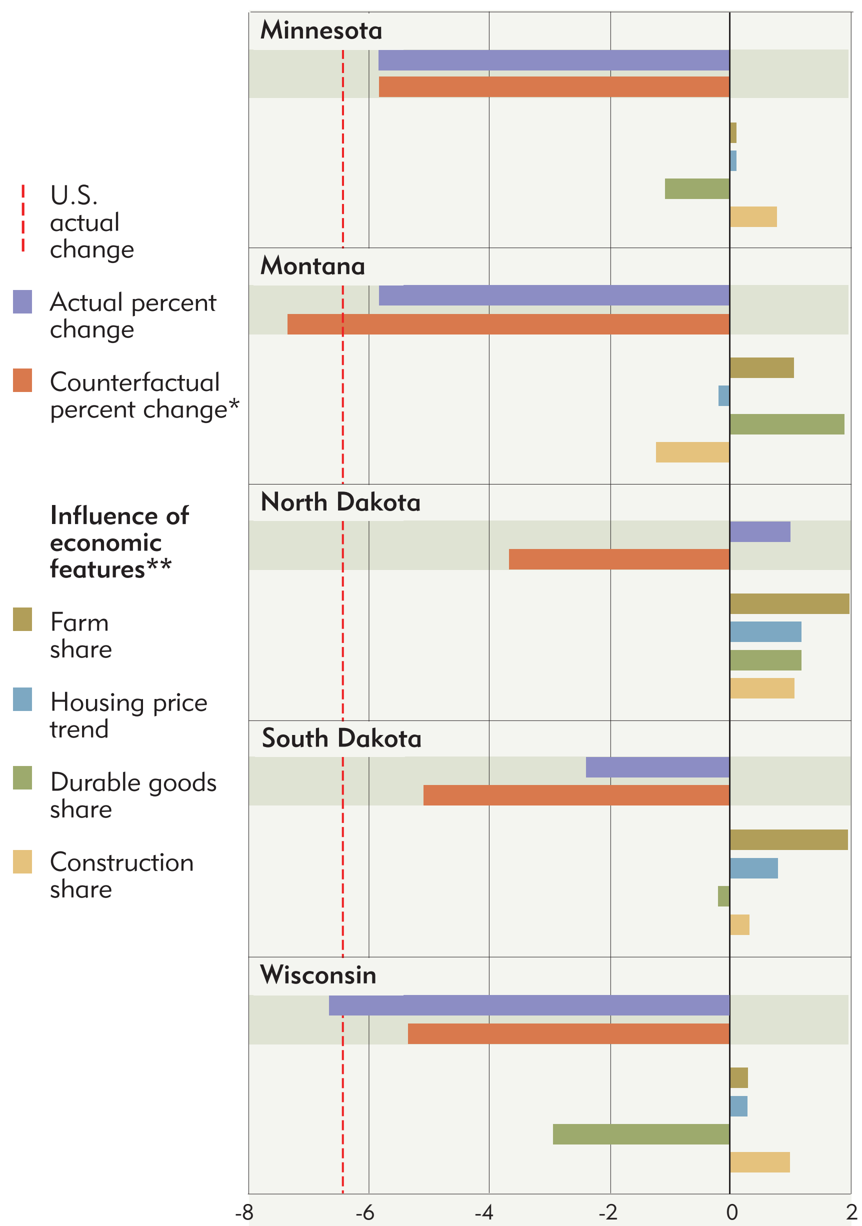
Positive effect on employment growth
Negative effect on employment growth

## Ninth District results

These results help explain why every Ninth District state except Wisconsin had a smaller percentage of job loss than the national decline during the recession.

While there is wide variation among these four features across district states, there are similarities as well. Each state in the Ninth District had a larger farm share of employment than the national average in 2006 (see Table 2). All states, except Montana, saw a smaller increase in housing prices and a smaller construction share of employment.

**Employment change and influence of economic features**
Dec. 2007– Dec. 2009




* Counterfactual employment growth if the state had the same averages as the nation for all four features at once.

**Percentage point change in state employment growth because the state was different from the nation on each of the four features individually. Individual changes need not sum to the change using all features at once.

Sources: Bureau of Labor Statistics, U.S. Census Bureau

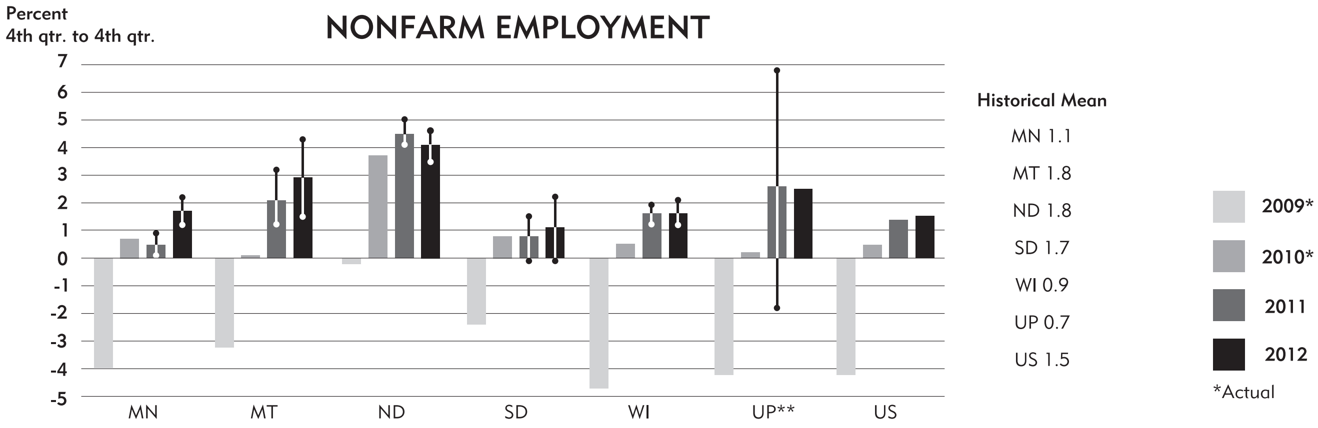
Another way of demonstrating the recessionary influence of these four features is to construct the counterfactual—what employment would have looked like had each district state mirrored the national average in farm jobs, median housing price increases, durable goods manufacturing and construction jobs (see chart). Comparing the counterfactual with actual data highlights the unique composition of each district state relative to the U.S. economy and the associated influence of employment growth during the recession.

Overall, North Dakota benefited the most from the differences in these four features relative to national averages. Had North Dakota looked like the nation, employment would have decreased 3.7 percent instead of increasing 1 percent. Roughly half of that difference (two percentage points) stems from the state’s large agricultural sector, which was relatively strong during the recession and acted as an employment buffer. South Dakota and Montana also had advantages, benefiting about 2 to 3 percentage points.

Meanwhile, the four features together had no impact on Minnesota employment. This result is consistent with past Minneapolis Fed research, including a June 2003 *Region* article (online at minneapolisfed.org) noting that Minnesota has a similar composition to the U.S. economy and tends to move closely with it. Finally, Wisconsin was not able to offset its relatively large share of durable goods manufacturing with advantages among the other three

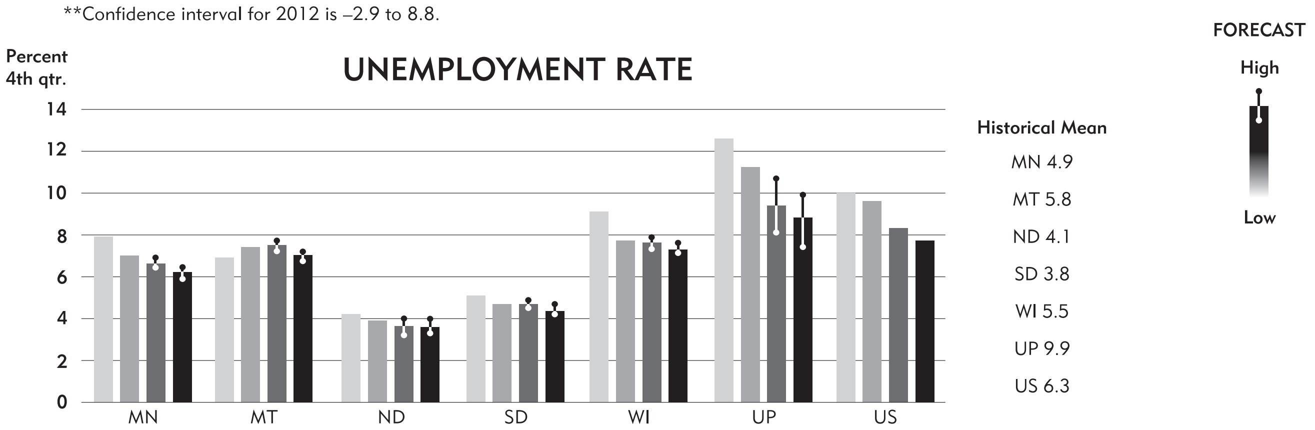
## District Forecast

**After tepid employment gains during 2010 when only North Dakota grew faster than 1 percent, the pace of nonfarm employment growth will pick up modestly by the end of 2011. Growth rates are expected to surpass historical average rates in Montana, North Dakota, Wisconsin and the Upper Peninsula of Michigan, and remain below historical growth rates in Minnesota and South Dakota. In 2012, employment growth will continue to accelerate in most areas of the district, with rates above historical averages in all parts of the district except South Dakota.**

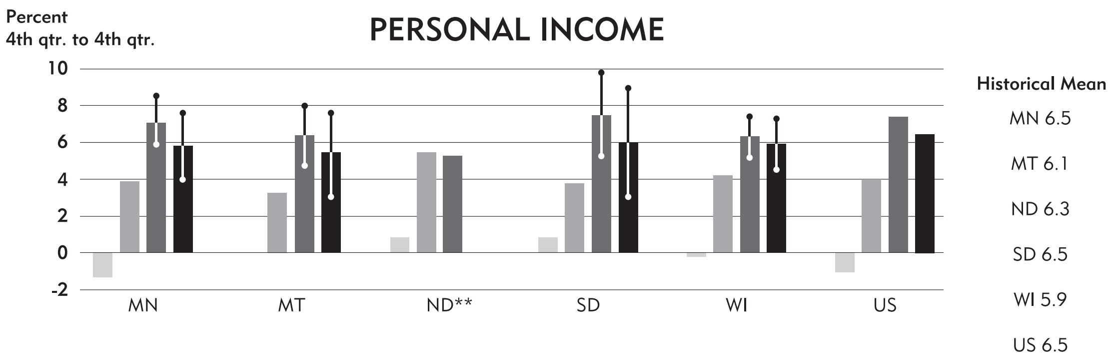



**Confidence interval for 2012 is –2.9 to 8.8.

**Unemployment rates during 2011 will decrease moderately from 2010 levels in Minnesota, North Dakota and the Upper Peninsula, remain level in South Dakota and Wisconsin, and increase in Montana. However, rates are expected to remain above historical averages, except in North Dakota, where the unemployment rate dropped below its historical average during 2010. In 2012, unemployment rates will decrease from 2011 levels in all areas except North Dakota, where the unemployment rate will stay the same. Rates will remain above historical averages during 2012 in all areas except North Dakota.**

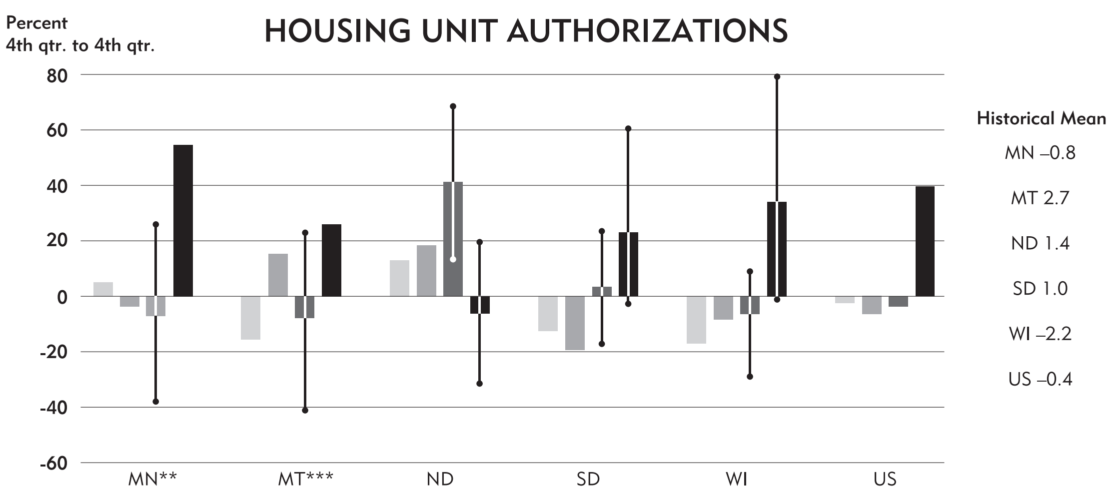



**Personal income will grow. The pace of personal income growth is expected to increase in 2011 compared with 2010 in all states except North Dakota, where income will grow slightly slower. Growth rates in 2011 are anticipated to be the fastest since 2007. In 2012, personal income growth rates will slow somewhat from 2011 levels in all areas except North Dakota, where personal income growth will decrease. However, growth rates in 2012 will still exceed rates recorded during the recession. Note that the decrease predicted in North Dakota is likely attributable to the volatile nature of farm income. The confidence interval surrounding this figure is wide, indicating a relatively high degree of uncertainty.**




**Value for 2012 is –17.1. Confidence interval for 2011 is –14.9 to 30.3 and for 2012 is –38.4 to 11.3.

**Housing units authorized will turn the corner by 2012 after declining for about the past six years. During 2011, authorizations are predicted to increase in the Dakotas (by 40 percent in North Dakota) but decrease in Minnesota, Montana and Wisconsin. Housing units authorized will then grow over 20 percent during 2012 in all district states except North Dakota. However, despite these increases, home building will generally remain at relatively low levels. Note that the confidence intervals for home building predictions span a relatively wide range, indicating a much higher degree of uncertainty compared with forecasts for employment, unemployment rate and personal income.**




**Confidence interval for 2012 is 9.1 to 133.1.
***Confidence interval for 2012 is –16.5 to 104.0.

features. Had Wisconsin's composition looked like the nation, employment would have dropped 5.3 percent instead of 6.7 percent.

Across the district, the relatively large farm share helped each state, particularly Montana and the Dakotas. Smaller home price increases also helped district states, except Montana. Minnesota and Wisconsin were disadvantaged by their large share in durable goods manufacturing; South Dakota was affected only slightly. Meanwhile, a relatively small durable goods manufacturing sector in North Dakota and Montana served as a buffer in those states. Finally, most district states benefited from a smaller share of construction employment. The exception is Montana, which had a robust home building sector prior to the recession.

But every recession is unique, and these advantages might offer little help to district states in future recessions. Indeed, in previous recessions, the reliance on the farm economy has sometimes been a spear rather than a shield for district states. During the next recession, an entirely different set of sectors could suffer large employment losses or serve as protection against employment losses. Just as one cannot predict recessions, neither can one guess which economic features will help or hurt a state economy. f