

## *Graphic Detail*

*Geographic Information Systems (GIS) organize and clarify the patterns of human activities on the earth's surface and their interaction with each other. GIS data, in the form of maps, can quickly and powerfully convey relationships to policymakers and the public. This department of Cityscape includes maps that convey important housing or community development policy issues or solutions. If you have made such a map and are willing to share it in a future issue of Cityscape, please contact [david.e.chase@hud.gov](mailto:david.e.chase@hud.gov).*

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# **Geographic Patterns of Regional Unemployment Versus Unemployment Compensation in the United States—2009**

**Ron Wilson**

U.S. Department of Housing and Urban Development

*The opinions expressed in this article are those of the author and do not necessarily reflect those of the U.S. Department of Housing and Urban Development.*

In 2009, the unemployment rate was the highest it has been in the United States since 1982 (BLS, 2012a). Cresting at 10 percent, the unemployment rate coincided with one of the most serious economic downturns in U.S. history. State governments respond to unemployment by providing compensation through insurance. Unemployment insurance comes from state-managed funding that provides monetary compensation to workers who have suffered job loss.<sup>1</sup> Unemployment compensation acts as a stabilizer for both family incomes and local economies. Individual state policies affect unemployment compensation amounts and eligibility. Unemployment compensation, then, may have geographic patterns that differ from unemployment rates and reveal the extent to which states are attempting to buffer the fallout from unemployment.

Location Quotients (LQs) used in this analysis highlight relative differences in the geographic patterns of unemployment rates (BLS, 2012b) and compensation levels (BEA, 2012) across the

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<sup>1</sup> For a general description of unemployment benefits, see [http://en.wikipedia.org/wiki/Unemployment\\_benefits](http://en.wikipedia.org/wiki/Unemployment_benefits).

nation. The LQ is simply the ratio of the county unemployment rate, or the share of unemployment benefits in the county's personal income, to its national counterpart. If a county's LQ is 1, it has the same unemployment rate (dependence on unemployment benefits) as the nation. A divergent color scheme for both unemployment rates and compensation levels shows whether counties have a similar (white), lesser (light gray), or greater (dark gray) LQ than the nation.

Exhibit 1 shows regional unemployment patterns by county in 2009, with clear regional distinctions. Approximately 51 percent of counties had rates of unemployment similar to the national rate (LQs between 0.76 and 1.24). An extensive and cohesive pattern of lower unemployment rates dominates the Great Plains states of Montana, North Dakota, South Dakota, Nebraska, Iowa, and Oklahoma. Nebraska, North Dakota, and South Dakota are made up almost entirely of counties with unemployment rates that were less than one-half the national rate.

The Northeastern states from Maine to Virginia show a regional pattern with similar to lower unemployment rates compared with the national rate. Michigan, California, and Oregon had a much higher than normal unemployment level, with most counties in these states having an unemployment rate of 1.25 to nearly 3 times greater than the national rate. Several localized clusters in the Southern states have unemployment rates higher than the national rate.

**Exhibit 1**

County Shares of the Unemployment Rate in 2009 for the Contiguous 48 States—  
(manual classification of location quotient breaks)

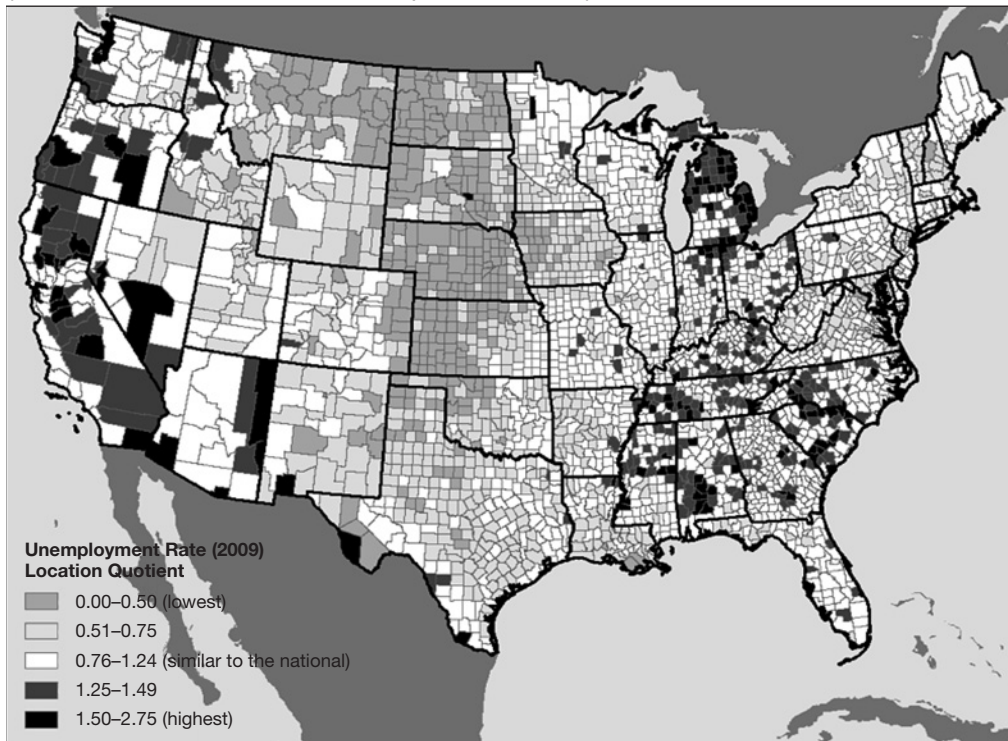


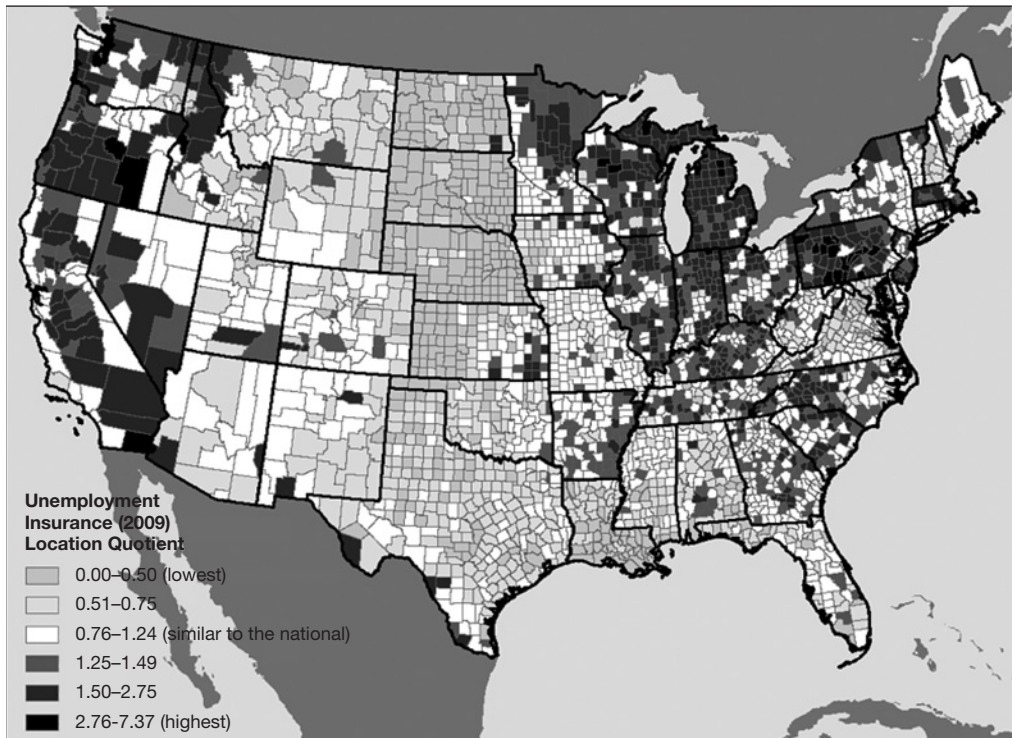
Exhibit 2 also shows clear regional patterns of unemployment insurance benefits by county in 2009.<sup>2</sup>

Unemployment insurance patterns in exhibit 2 are far more geographically divergent than the unemployment rates shown in exhibit 1. Only 34 percent of counties had similar levels (LQ values between 0.76 and 1.24) of unemployment compensation compared with the national level. Rust Belt and West Coast states had an extensive, cohesive pattern of counties with 1.5 to 3 times greater levels of unemployment compensation than the national level. Local clusters of unemployment insurance compensation are also present in the Southern states but are somewhat more geographically extensive than the unemployment rate pattern in exhibit 1. Clusters of extreme values in Indiana, Illinois, Wisconsin, Minnesota, and central Pennsylvania are visible in exhibit 2 that have no counterparts in exhibit 1.

In both exhibits, regional patterns of low unemployment rates and insurance compensation levels clearly overlap in the Great Plains states, but unemployment compensation extends farther down

## **Exhibit 2**

**County Shares of Unemployment Insurance Benefits as a Percentage of Personal Income in 2009 for the Contiguous 48 States—(manual classification of location quotient breaks)**



<sup>2</sup> Because of the fat upper tail of the distribution, a class break was added to the map in exhibit 2 to better describe it. Note that the highest value in exhibit 1 is 2.75, but the highest value in exhibit 2 is 7.37.

to Texas and Louisiana. Exhibit 2 reveals that many states in the Mississippi River Valley have high unemployment compensation levels around city centers but have lower levels in rural areas. Exhibit 1 indicates unemployment rates are lower or similar in rural areas. Unlike the patterns in exhibit 1, the Northeastern states in exhibit 2 show a number of counties in New York, New Jersey, Massachusetts, and, in particular, Pennsylvania with higher levels of unemployment compensation than the national level.

## Author

Ron Wilson is a social science analyst in the Office of Policy Development and Research at the U.S. Department of Housing and Urban Development and an adjunct faculty member of the Geographic Information Systems Program at the University of Maryland, Baltimore County.

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