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Uncertainty and the Geography of the Great Recession

By Daniel Shoag, Harvard University, and Stan Veuger, American Enterprise Institute

Did high levels of economic and policy uncertainty contribute to the large and persistent increase in unemployment between 2007 and 2009? We assemble a state-level measure of policy uncertainty from 2006 through 2009 and find that increases in local uncertainty over this period are strongly correlated with local labor market outcomes. The uncertainty-unemployment relationship is highly robust, and higher levels of uncertainty created by preexisting institutions lead to increased unemployment.

Macroeconomists have advanced a number of hypotheses to explain the severity of the2007–2009 decline in employment. These explanations, which are not mutually exclusive, include insufficient demand due to household deleveraging, slow recalculation or adjustment to sector-specific shocks, credit constraints due to problems in the financial sector, and the aforementioned increases in policy and general economic uncertainty. Unfortunately, as is often the case in macroeconomics, distinguishing the differential impact of these amplification channels has not been straightforward.

One aspect of the "Great Recession" that might shed light on the mechanism is the substantial geographic variation in employment losses. The five states most deeply affected by the recession experienced increases in their unemployment rates of 6 percentage points or more from 2006 to 2009 (with the largest increase, in Nevada, exceeding 7.5 percentage points). Conversely, the five states least affected by the downturn saw their unemployment rates increase by less than 2.1 percentage points. Given the importance of this geographic variation, it is desirable that theories of the recession are consistent with this cross-sectional pattern.

The differential effect of the recession across places was not random. In line with an explanation centered around structural sectoral shifts, states with larger housing price run-ups and declines suffered the largest employment losses. More directly on point, overall employment losses across states and counties are highly correlated with employment losses in the construction sector.

A number of important papers have demonstrated that geographic variation in household deleveraging and weaker demand are also correlated with employment losses. One study shows that employment losses are most severe in areas with initially high and subsequently falling household debt-to-income ratios; it also suggests, by analyzing data from counties with large household balance sheet shocks, that reduced aggregate demand was responsible for the

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majority of the job losses between 2007 and 2009.

Another theory, that credit constraints caused by financial sector problems lengthened the recovery, does not necessarily predict such wide variety in regional outcomes. However, further work finds that local credit crunches for small businesses did indeed lead to employment and wage losses between 2007 and 2009.

A recently popular explanation for the significant duration of the 2007–2009 recession's recovery is an increase in policy and economic uncertainty. Widely discussed in the popular news amidst analyses of the impact of Federal Reserve policy, health care reform, the rise of the Tea Party, debt ceiling disputes, and state and federal spending levels, policy and economic uncertainty have also received attention from researchers looking into their possible effects on the U.S. economy during the aftermath of the recession. In a leading paper in this literature, researchers create an indicator-based measure of policy uncertainty using newspaper mentions, tax code provision expirations, and forecaster disagreement. They show that higher uncertainty from 2008 on was associated with a deeper and longer recession.

In its simplest exposition, however, the uncertainty channel does not predict a wide spatial distribution of outcomes. This has led some to argue that the policy uncertainty channel is not consistent with a central feature of the recession. For example, prior commentary has claimed that "an increase in business uncertainty at the aggregate level does not explain the stark cross-sectional patterns in employment losses we observe" and that idiosyncratic firm-level risk shocks that are consistent with the procyclicality of the dispersion of investment rates cannot explain output variations over the business cycle.

Our work aims to counter such claims and to present cross-sectional evidence in support of the uncertainty channel. We create local measures of policy uncertainty from 2006 through 2009 based on newspaper references. We find that increases in local uncertainty over this period are strongly correlated with the effects of the recession, and that the correlation between uncertainty at the state level and employment losses is highly robust across alternate measures. While there is certainly a feedback loop between economic outcomes and uncertainty, we show that increases in local uncertainty are partially driven by preexisting state institutions, and that these pre-determined uncertainty amplifications cause unemployment increases. The uncertainty channel also remains strongly correlated with unemployment increases in our data in results that control for other mechanisms.

Our baseline results suggest that if uncertainty levels in all states had been the same as those of the five states facing the lowest levels of uncertainty in 2009, they would have been associated with a national unemployment rate that was 0.8 and 1.2 percentage points lower.

The key lessen from these findings taken together is that, like the structural and demand driven channels, the uncertainty explanation is consistent with the geographic pattern of the recession. As James Madison wrote in *Federalist Paper* No. 62:

> Great injury results from an unstable government. The want of confidence in the public councils damps every useful undertaking, the success and profit of which may depend on a continuance of existing arrangements. What prudent merchant will hazard his fortunes in any new branch of commerce when he knows not but that his plans may be rendered unlawful before they can be executed? What farmer or manufacturer will lay himself out for the encouragement given to any particular cultivation or establishment, when he can have no assurance that his preparatory labors and advances will not render him a victim to an inconstant government?

While it is hard to quantify the exact causal effect of this amplification mechanism, and to separate the impact of uncertainty from that of first-order shocks to the economy, these findings are important in cautioning researchers not to dismiss the uncertainty channel in contributing to the length and depth of the Great Recession. It also suggests that more research on the interaction of multiple channels would prove beneficial.

NOTE

This research brief is based on Daniel Shoag and Stan Veuger, "Uncertainty and the Geography of the Great Recession*," Journal of Monetary Economics* 84 (December 2016): 84–93, http://www.sciencedirect.com/science/article/pii/S0304393216301179.