Economic Insecurity Across the American States

NEW STATE ESTIMATES FROM THE ECONOMIC SECURITY INDEX

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Executive Summary

Economic Insecurity Across the American States provides the first state-level estimates of economic insecurity over the last generation. These estimates are available for all but two states (Alaska and Hawaii) for the period 1986-2010. This report examines these estimates across the states and the District of Columbia. For each state, a separate report is also available that delves more deeply into its unique experience.

The Economic Security Index (ESI) is an integrated measure of insecurity that captures the prevalence of large economic losses among households. More specifically, the ESI measures the proportion of individuals who lose at least 25 percent of their available household income, due to either changes in income or changes in out-of-pocket medical spending, and who lack sufficient liquid financial wealth to fully cushion the loss. The main data source is the March Current Population Survey, the same source used for the federal government’s estimates of poverty and unemployment.

The key findings of this report are:

- Nearly every state experienced record insecurity during the Great Recession. The handful of states whose ESIs peaked before 2008 did so earlier in the 2000s, driving home the increasingly unstable experience of the decade for most Americans.

- States all had relatively high levels of insecurity during the downturn. Even in the state with the lowest level of income losses (New Hampshire), approximately 17 percent of state residents were insecure; in the state with the highest level (Mississippi), roughly 24 percent were.

- All states experienced a substantial rise in insecurity between 1986 and 2010. While the Great Recession produced peak levels of insecurity in nearly all states, insecurity rose substantially before the downturn as well.

- The rankings of states with regard to insecurity remained relatively constant over the 1986-2010 period. State differences in insecurity appear to be fairly persistent.

- Finally, higher levels of the ESI are associated with some key demographic and economic characteristics of the states, especially changes in employment. Still, several states have levels higher (Mississippi, Arkansas) or lower (Michigan, Utah) than one would expect from their employment experience alone.
This month marks the third anniversary of the official end of the deepest recession since the Great Depression—sometimes known as the Great Recession. While production and output bottomed out in July 2009, return to pre-recession economic performance has been slow and the recovery for American households, even slower. In October 2009, the national unemployment rate peaked at 10 percent, its highest point since 1982. The following year, poverty rose to 15.1 percent, and median household income continued to fall, reaching its lowest level since 1996.

These statistics attest to the continuing fallout of the Great Recession. Yet they tell us less about the dynamic economic experiences of Americans—the ups and downs they face in a weak economy. The Economic Security Index (ESI) provides a more precise picture of these experiences. Focusing on large losses in “available household income” (income after factoring out medical costs and the cost of servicing debt), the ESI measures the share of households who lose at least a quarter of their available resources from one year to the next and who lack adequate liquid financial wealth to make up for these losses by spending down their assets.

Since the downturn began, the share of Americans with such large losses has consistently exceeded one in five (20 percent)—up from around one in seven (14 percent) in the mid-1980s. Moreover, the ESI has risen steadily through each of the post-1980s economic cycles. That is, Americans were increasingly vulnerable to large losses even before the Great Recession.

The ESI can be used to compare insecurity not only over time, but also across groups of Americans. Previous ESI reports have shown that insecurity is greater among younger Americans, racial minorities, and households headed by workers without a college degree—though levels of insecurity are surprisingly high across all groups. To date, however, the ESI has not been available for individual American states, a notable omission given state differences in economic performance. This report fills that gap.

_Economic Insecurity Across the American States_ provides the first state-level estimates of insecurity over the last generation. These estimates, based on the same data source used for the federal government’s estimates of poverty and unemployment, are available for all but two states (Alaska and Hawaii) and the District of Columbia from 1986 through 2010. This report presents
and compares these estimates across the states. For each of the 48 contiguous
states and DC, a separate state report is also available that delves more deeply
into its over-time experience.

These state-level measures of the ESI show that:

- Nearly every state experienced record insecurity during the Great Recession
  or in its immediate wake. Moreover, the handful of states whose ESIs peaked
  before 2008 did so earlier in the 2000s, driving home the increasing instability
  of the decade for American households.

- States all had relatively high levels of insecurity during the downturn as well.
  In part, this reflects the Great Recession’s breadth, but it also reflects the
  fact—discussed in previous reports—that all age, income, race, and educational
  groups appear vulnerable to the large income losses captured by the ESI.

- All states also experienced a substantial rise in insecurity between 1986 and
  2010. While the Great Recession produced peak levels of insecurity in nearly
  all states, insecurity rose substantially before the downturn as well. Every
  state had higher average insecurity between 1997 and 2007 than between 1986
  and 1996.

- The rankings of states with regard to insecurity remained relatively constant
  over the 1986-2010 period. Thus differences in insecurity appear to be fairly
  persistent over this generation-long period.

- Persistent differences across states in the ESI—while not as large as some
  other economic disparities across states, such as levels of unemployment and
  poverty—are far from trivial. The state with the lowest maximum level of the
  ESI (New Hampshire) peaked at a level already exceeded in 1986 by the state
  with the highest maximum level (Mississippi). Given the rise of the ESI over
  time across all states, these states can be thought of as roughly a generation
  apart in their level of insecurity.

- Finally, higher levels of the ESI are associated with some key state
  demographic and economic characteristics—such as the proportion of the
  population that is poor (higher insecurity), the share of households headed
  by a worker with a college degree (lower insecurity), and especially increases
  in the unemployment rate (higher insecurity). Still, several states have levels
  higher (Mississippi, Arkansas) or lower (Michigan, Utah) than one would
  expect from their employment experience alone.

The first section of the report explains how the ESI is calculated. (Further details
are contained in a technical appendix to the last ESI report, available at www.
economicsecurityindex.org, as well as in the notes to this report.) The second
section compares the level of and trend in the ESI across the states. The third
section examines potential sources of these differences. The final section sums
up the main findings.
What Is the Economic Security Index?

The ESI captures three major risks to economic well-being that Americans believe are difficult to anticipate and about which they express deep concern: (1) major income loss, (2) large out-of-pocket medical spending, and (3) insufficiency of liquid financial wealth to deal with the first two risks. Specifically, the ESI represents the share of Americans who experience at least a 25 percent decline in their inflation-adjusted “available household income” from one year to the next and who lack an adequate financial safety net to replace this lost income until it returns to its original level. “Available household income” is income that is reduced by the amount of a household’s out-of-pocket medical spending, as well as adjusted to reflect household size and household debt burdens. Thus Americans may experience income losses of 25 percent or greater due to a decline in income or an increase in medical spending or a combination of the two.

An “adequate” financial safety net is defined as sufficient financial wealth to make up for an individual’s reduced income for as long as it takes the typical (median) person with similar demographic and economic characteristics to recover from a loss of comparable magnitude. If an individual has an adequate safety net, he or she is not counted as experiencing a large loss even in the event of a 25 percent or greater decline in available income.

To calculate year-to-year changes in available household income requires a survey that follows individuals over time (a “panel survey”). The main source used in the construction of the ESI is the March supplement to the Current Population Survey (CPS), a large household survey that is also used by the Census Bureau to calculate official poverty rates. Although individuals can be followed for only two years—by linking individuals across two consecutive years of the survey, a process known as “matching”—the CPS is well-suited for the ESI’s focus on year-to-year changes in income and other household resources. The matched CPS data allow for consistent investigation of year-to-year changes from 1986 through 2010, with the exception of 1995.

Crucial for present purposes, the CPS is designed for the analysis of individual states as well as the nation as a whole. In smaller states, however, the number of matched individuals in the CPS is too limited to estimate the ESI reliably, especially after we exclude individuals with potentially unreliable earnings data.

To overcome these limitations, we estimate state ESIs by combining individuals within a “target” state with individuals in neighboring “donor” states, applying progressively lower weight to individuals from donor states as we move farther away from the target state. The weights given to individuals from donor states are also adjusted so that their education and income distributions match those of the target state over a 3-year window.

Cumulatively, this technique for producing reliable estimates for small geographic units has little effect on the estimates for populous states, but creates
much more precise estimates for less populous states. This approach may impart bias, however, if individuals from donor states are different in ways that are unobservable or not accounted for in the reweighting process. We have extensively benchmarked our estimates by comparing key state indicators based on our technique with published state data, focusing on employment levels and trends. Our tests show that we are capturing state characteristics with a high degree of accuracy, and in particular that we are not creating false convergence across the states in their employment characteristics, which might lead us to understate differences across states in the ESI.4

The CPS data provide us with reliable ESIs for all states but Alaska and Hawaii, which lack contiguous neighbors and are too small on their own for reliable estimates. We present these ESIs as three-year moving averages.5 For this reason, 2010 estimates should be considered provisional, pending the availability of 2011 data in September 2012.

The ESI: Who’s Counted as Insecure?

The ESI represents the percentage of Americans experiencing a large loss of available resources without an adequate financial safety net. A loss occurs when available household income declines by at least 25 percent from one year to the next (after adjusting for inflation) as a result of a decline in household income and/or an increase in out-of-pocket medical spending.

Household income includes all private and government sources of income. Household income is adjusted to reflect the economies of scale of pooling household resources and expenses. Household income is also reduced by the amount needed to pay off liquid financial debts when net financial wealth is negative.

Individuals with an adequate financial safety net are not treated as experiencing a large loss even when they experience 25 percent or higher income losses. We define “adequate” as enough liquid financial wealth to compensate for the lost income until typical recovery to pre-drop income.

Those entering retirement are also excluded from experiencing a large loss even if available household income declines by 25 percent or more concurrent with retirement; once retired, however, they are counted as experiencing a large loss when they experience large declines in available income without holding sufficient liquid financial wealth to buffer the loss.
Insecurity Across the American States

The Great Recession was both broad and deep. No part of the nation was spared. Nonetheless, some states were hit particularly hard. Nevada and Florida, for example, saw their housing markets collapse, and unemployment rise especially sharply and quickly. By contrast, other parts of the nation, such as the industrial Midwest, experienced a slower erosion over the latter half of the 2000s. And some parts, notably the Northeast, were spared the worst of the fallout that hit the South and West, and now appear to be doing better than the rest of the nation.

How did household economic security vary across the states over this tumultuous period? To begin with, nearly every state experienced record insecurity during the Great Recession. The handful of states whose ESIs peaked before 2008 did so earlier in the 2000s, providing yet more evidence of the instability of the decade for most Americans.

As Figure 1 indicates, states all had relatively high levels of insecurity during the downturn. Indeed, differences in insecurity across the states, while large, are not as large as differences in unemployment or poverty. In part, this is simply a reflection of the Great Recession’s breadth. Yet it also reflects the reality that all age, income, race, and educational groups appear vulnerable to the large income losses captured by the ESI. Previous ESI reports have shown, for example, that the ESI is relatively high among households headed by workers with a college degree, even though they have a lower likelihood of unemployment at any point in time than average.6 Large income losses and medical spending shocks affect a broad cross-section of Americans—in every state.

Figure 1: Peak ESI by state, 2008-2010
They also affect an increasing share of Americans in every state. Between 1986 and 2010, all states experienced a substantial rise in insecurity. While the Great Recession produced peak levels of insecurity in nearly all states, insecurity rose substantially before the downturn as well. As Figure 2 shows, every state had higher average insecurity between 1997 and 2007 than between 1986 and 1996.

Figure 2: Prevalence of large economic losses, by state
Figure 2 makes clear that the rankings of states with regard to insecurity remained relatively stable over the 1986-2010 period. Of the ten states with the lowest insecurity in 2008-2010 (New Hampshire, Wisconsin, Connecticut, Washington, Minnesota, Nebraska, Michigan, Maryland, Massachusetts, and North Dakota), seven were in the lowest ten in the initial 1986-1996 period, and all but one were in the lowest fifteen. Of the ten states with the highest insecurity in 2008-2010 (Mississippi, Arkansas, Alabama, Florida, Georgia, California, South Carolina, West Virginia, Idaho, and Nevada), five were in the highest ten in the initial 1986-1996 period, and seven were in the highest fifteen. Thus differences in insecurity appear to be fairly persistent over this generation-long period.

These lasting cross-state differences are far from trivial. The state with the lowest level of the ESI during the downturn, New Hampshire, peaked at a level of the ESI that the state with the highest level during the downturn, Mississippi, had already exceeded in 1986, the first year of the series. Given the rise of the ESI over time across all states, these states can be thought of as roughly a generation apart in their level of insecurity.

Understanding State Differences

Persuasively explaining why economic insecurity varies across the states must await detailed analysis of the specific causes of large income declines—the subject of a future report.

In this section, however, we show that higher levels of the ESI are associated with some key demographic and economic characteristics of the states, such as the proportion of the population that is poor (higher insecurity), the share of households headed by a worker with a college degree (lower insecurity), and increases in the unemployment rate (higher insecurity).

Looking first at demographics, the ESI reflects characteristics of state populations that we know to be related to insecurity at the individual level. Figure 3 shows that the concentration of racial groups (measured in 2010) is closely related to peak ESI levels from 2008-2010. States with a higher proportion of African-Americans generally have higher ESIs. The relationship between concentration of Hispanics and insecurity is less clear because only a handful of states have large Hispanic populations, but these states do tend to have higher levels of insecurity.
Figure 3: Racial composition in peak ESI years, 2008-2010
Furthermore, educational attainment of state populations appears to be related to state-level insecurity. Figure 4 shows that states with more college graduates tend to experience lower insecurity, while states with more high school dropouts tend to have higher ESIs.

**Figure 4: Peak ESI and educational attainment, 2008-2010**
Employment trends are also clearly related to state-level insecurity. Earnings represent the main income source for most American families, and medical spending and wealth have relatively modest effects on the index relative to income fluctuations.7 Figure 5 shows the relationship between the fall in each state’s employment-to-population ratio—the number of employed workers relative to the size of overall population—from 2007 to its lowest level between 2008 and 2010 (horizontal axis) and its peak ESI from 2008-2010 (vertical axis).8

As Figure 5 shows, greater declines in the share of the population employed—a broader measure of the labor market’s health than the unemployment rate—are associated with higher state ESIs.9 In this simple comparison, some states stand out. Mississippi and Arkansas boast comparatively high levels of insecurity despite relatively modest declines in employment, especially when compared to Florida, Alabama, and Georgia. By contrast, Michigan and Utah appear to experience low levels of insecurity during the recession despite large declines in employment.

**Figure 5: Insecurity and employment in the Great Recession**

![Chart showing the relationship between change in employment to population ratio from 2007 to its lowest point in 2008-2010 and state ESI from 2008-2010 with states plotted on a grid. The chart highlights states with high and low levels of insecurity.]
Conclusion

This report has provided the first state-level estimates of economic insecurity over the last generation, using the approach developed for the national Economic Security Index. These state ESIs measure the share of state residents who lose at least a quarter of their available income from one year to the next (whether from income declines or spikes in out-of-pocket medical costs) and who lack adequate liquid financial wealth to make up for these losses. These estimates are based on the same data used for federal measures of poverty and unemployment.

These state ESIs show that nearly every state experienced record insecurity during the Great Recession, all states experienced a substantial rise in economic insecurity between 1986 and 2010, and the rankings of states with regard to insecurity remained relatively constant between 1986 and 2010. Moreover, these persistent differences were smaller than differences in some other indicators, such as poverty and the unemployment rate, indicating the broad vulnerability of Americans of all walks of life and in all parts of the nation to large income losses.

Still, the gaps between states are far from trivial. The state with the lowest ESI during the downturn peaked at a level of the ESI already exceeded in 1986 by the state with the highest level during the downturn. In other words, these states can be thought of as roughly a generation removed from each other in their level of insecurity.

Higher levels of the ESI are associated with key demographic and economic characteristics of states. Nonetheless, several states have levels higher (Mississippi, Arkansas) or lower (Michigan, Utah) than one would expect from their employment experience alone. This points to the importance of more carefully examining the causes of cross-state differences, including state policy choices.

The main message, however, is that residents of all states are facing very high levels of insecurity. The relatively better performance of a few regions does not diminish the need for an effective federal response, from which all parts of the nation would benefit.
Notes


2 In large household surveys, such as the CPS, it is common for the data to include imputed income values when respondents fail to answer questions regarding income. While imputation is designed to ensure that income values are representative overall, it may create false instability in income from one year to the next. Therefore, we exclude any individuals with imputed labor income, roughly a third of the sample in most years. Further discussion of our treatment of imputed income values is contained in Jacob S. Hacker, Greg Huber, Austin Nichols, Philipp Rehm and Stuart Craig, “The Technical Appendix for Economic Insecurity and the Great Recession.” November 2011. Available online at http://economicsecurityindex.org/upload/media/ESI_Technical_Supplement_revised.pdf.

3 The 3-year window minimizes the variability that would arise due to reweighting because of the small number of observations in some target states in a given year. Those small numbers could otherwise generate inaccurate year-to-year fluctuations in a state’s demographic composition.

4 Geographic estimates are derived for each state by using neighboring states. Estimates for each “target” state are generated using the entire matched CPS sample, which has been re-weighted by state, age, race, and sex to adjust for attrition and differences in imputation rates across groups. Every out-of-state individual is a donor to the target state, but the weights of donor individuals are adjusted using a decay factor that increases exponentially with distance from the target state. These weights are then adjusted a final time so that the distribution of income (3 groups) and education (less than high school, high school diploma, college graduate) matches that of a 3 year window for the target state. This method produces reliable state-level employment/unemployment estimates for each state.

5 The 3 year moving average is calculated using data from 3 adjacent years, placing double weight on the current year. For example, a 2009 estimate of the ESI is calculated: (ESI_2008+2*ESI_2009+ESI_2010)/4. In years that lack an adjacent year (e.g. 1986), the ESI is calculated (2*ESI_1986 + ESI_1987)/3. For this reason, the 2010 value for each state is a provisional one.


7 Currently, the medical spending component of the index is based on the Consumer Expenditure Survey and the Survey of Income and Program Participation. The model by which these values are estimated focuses on income, age, and family structure as the key determinants of out-of-pocket spending. As a result, it does not take into account variation in state-specific factors that might affect the distribution of medical spending, such as the breadth of coverage within a state. Because medical spending affects the ESI only modestly, more accurate estimates of the ESI are unlikely to have much effect on state rankings, levels, or trends. Beginning in 2010, moreover, the CPS started to include direct measures of medical spending, which should allow us to make reliable state-specific estimates of medical spending and insecurity in future years. For more information on our estimates of medical spending, see Jacob S. Hacker, Gregory A. Huber, Austin Nichols, Philipp Rehm and Stuart Craig, “The Technical Appendix for Economic Insecurity and the Great Recession.” November 2011 (available online at http://economicsecurityindex.org/upload/media/ESI_Technical_Suppplement_revised.pdf) and Jacob S. Hacker, Gregory A. Huber, Philipp Rehm, Mark Schlesinger, and Rob Valletta, “The Economic Security Index: a new measure of the economic security of American workers and their families.” July 2010 (available online at http://www.economicsecurityindex.org/upload/media/48pgplusCov_revised_Aug_4.pdf).

8 This method was chosen because the timing of the recession was not uniform across states.

9 The unemployment rate is affected both by the number of people working and the number of people looking for work. By contrast, the employment-to-population ratio does not exclude workers who have given up looking for work.
The Economic Security Index (ESI), developed by political scientist Jacob Hacker and a multi-disciplinary research team with support from the Rockefeller Foundation, is designed to provide a meaningful, succinct measure of Americans’ economic security. Professor Hacker is based at the Institution for Social and Policy Studies at Yale University, which aims to facilitate interdisciplinary inquiry in the social sciences and research into important public policy arenas.

The ESI research team has been guided by a technical committee retained by the Rockefeller Foundation to provide oversight and to reinforce the intellectual and analytical integrity of the resulting work. Chaired by Brookings Institution economist Henry Aaron, the technical committee is comprised of seven leading experts on economic security:

- **Henry Aaron** (Brookings Institution)
- **Gary Burtless** (Brookings Institution)
- **Henry Farber** (Princeton University)
- **Robert Greenstein** (President, Center on Budget and Policy Priorities)
- **Larry Mishel** (Director, Economic Policy Institute)
- **Alicia Munnell** (Director, Boston College Center on Retirement Research)
- **Robert Solow** (Nobel Prize in Economics, 1987)