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EMPLOYMENT RESEARCH

The Enduring Local Harm
from Recessions

Brad J. Hershbein and Bryan A. Stuart

ARTICLE HIGHLIGHTS

- *We study the impacts of each recession over the past 50 years on the economic health of metro areas.*
- *Areas that suffer larger employment losses during a recession never fully recover their employment relative to less-affected areas.*
- *Badly hit areas also have less population growth, and the share of the population that is employed, as well as per capita income, are lower for at least a decade.*
- *These areas also grow relatively older and often become less educated, with fewer management and professional jobs.*
- *Recessions play a role in some areas falling economically behind others, as employment opportunities shift across areas more quickly than people do.*

ALSO IN THIS ISSUE

Workforce Data
(and Knowledge)
under PressureJoshua D. Hawley
page 4

Recessions receive enormous attention from researchers, policymakers, and the public. Most of this attention focuses on short-run, nationwide measures like the unemployment rate and gross domestic product. These outcomes are clearly important, but many of the broader and longer-lasting consequences of recessions remain uncertain. This is particularly true for how recessions affect local labor markets, such as metropolitan areas.

In particular, do badly affected areas eventually recover to be on par with their less-affected peers, or is the economic harm suffered during recessions persistent, possibly putting severely hit areas on a permanently lower trajectory for employment and earnings? To answer this question, we examine the long-term impacts of five national recessions—from the one in the mid-1970s through the Great Recession—on employment, population, earnings, and other outcomes for 363 metropolitan areas in the United States. Because the severity of each recession varied across these areas—some had heavy losses in employment while others actually gained jobs—we essentially compare worse-hit places to less-affected places, tracking outcomes for several years after each recession's end.

We find that, for every recession, harder-hit metropolitan areas suffer long-lasting economic harm relative to less-affected areas. Their paths diverge, and the former group falls behind in terms of employment, population, employment rates, and per capita earnings. Specifically, an area that loses 5 percent of its employment during a recession—the typical loss during the Great Recession—on average has 6.2 percent less employment than it otherwise would have almost a decade later. Population also falls, mostly because of fewer people moving in rather than more people moving out, but this loss is not as large as that for employment. Consequently, the share of the adult population that is employed falls by 2 percentage

points, or 1 out of every 50 people. This decline in the employment rate also leads to a long-term 3.2 percent drop in per capita earnings.

Moreover, these persistent economic impacts are often accompanied by modest, but not trivial, changes in the demographic characteristics of affected places. The share of residents aged 65 and over increases, while the share aged 15 through 39

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falls. Fewer workers are employed in managerial, professional, and technical occupations, and more are employed in manual and service jobs. The share of residents with a college degree falls. Even adjusting for these demographic changes, however, the majority of the employment and earnings impacts remain.

Our findings have important implications for the reallocation of economic activity across places, labor market dynamism, economic opportunities for workers and their children, and optimal policy responses. While our social safety net is mostly set up to respond to current (or very recent) economic conditions, our finding that recessions have enduring impacts on places long after the national economy has recovered suggests that targeting aid based on a longer economic history may be necessary to preserve economic opportunity for all.

How Recessions Can Have Long-Lasting
Local Effects...

Recessions are periods of depressed economic activity, and they coincide with large cuts to employment as the demand for labor falls. These declines generally vary across places because of

The Enduring Local Harm from Recessions

differences in industry specialization or in the types of workers affected, as well as the nature of the recession.

If during a recession most firms temporarily lay off workers or reduce their hours, then employment, wages, and the share of people employed are

are more likely to leave for other areas not as badly affected, or if the recession diverts would-be in-migrants—both people and businesses—to other areas. Recent research has found support for all these possibilities, but has not systematically examined the long-term outcomes of places badly hit by recessions.

...and Vary across Places

We thus look at places as defined by metropolitan areas. These 363 areas are groups of counties tied together by commuting patterns and having an urban center of at least 50,000 people. Although they exclude rural areas, they account for between 66 and 83 percent of the country's people and jobs between 1969 and 2016. These metropolitan areas proxy for local labor markets, the places in which people work and look for jobs. (Our results are similar when we examine commuting zones, which include rural areas.)

The severity of recessions varies considerably across metropolitan areas. Figure 1 shows this variation for the last recession we analyze, the Great Recession of 2007–2009. We measure the local severity of the recession by the change in employment between the national peak and the national trough—in this case between 2007 and 2009—in each metropolitan area. On the map, areas with darker red shading suffered greater proportional employment losses. Although some entire states were badly affected—Michigan, notably, as well as the Sun Belt states of Florida and Arizona—there are also several cases where neighboring areas fared quite differently, such as Providence and Boston, or Pittsburgh and Youngstown.

Our analysis essentially compares the long-term outcomes of places that were more severely affected to those that were less affected, and we do this separately for each of the past five recessions: the ones in 1973–1975, 1980–1982, 1990–1991, 2001, and 2007–2009. Of course, the metropolitan areas that suffered severe employment losses may have differed in several ways from those with smaller losses, and it is important to control for these differences. Therefore, we are also careful to account for differences in prerecession population growth (by age group), and we implicitly compare metropolitan areas within each of nine regions in the country. Moreover, our analytical approach, called an event study, allows us to confirm that more- and less-affected areas were trending similarly before the recession; this helps ensure that the less-affected areas serve as a good comparison to what would have happened in the more-affected areas had the recession there not been as severe.

Local Recessions Don't Just Fade Away

When we implement this approach, we find that employment doesn't just fall more immediately in harder-hit areas (this happens by construction), but it remains depressed for at least a

Areas that lost 5 percent more of their employment during a recession have employment rates 1–2 percentage points lower, even up to a decade later.

likely to quickly revert to previous trends once conditions improve. If, on the other hand, a recession causes employers to change their production processes or shut down, there could be long-term scarring in a local labor market. This could also happen if highly skilled (and higher-earning) workers

Figure 1 The Severity of the Great Recession Varied Considerably across Metropolitan Areas

NOTE: Figure shows the change in the natural log of employment (approximately equal to the percent change in employment) between 2007 and 2009 for 363 metropolitan areas (Core-Based Statistical Areas, as defined in 2003 by the Office of Management and Budget). Areas in darker colors experienced larger employment losses.

SOURCE: Authors' analysis of Bureau of Economic Analysis Regional data.

decade, and often longer. Specifically, we estimate that for every additional 1 percent drop in employment during a recession, employment is between 0.8 and 1.7 percent lower than it otherwise would have been seven to nine years after the recession ended. For a Great Recession–sized shock, when a 5 percent employment loss was not unusual, this means a long-term reduction in employment of roughly 4–8 percent. To be clear, we don't mean that employment is necessarily lower than it was before the recession began, but that it is lower than it would have been in the absence of the recession. Put differently, growth is on a lower trajectory.

We also find this same pattern of persistently lower growth in an area's population. Every 1 percent greater employment loss during a recession translates to between 0.3 and 0.7 percent lower population nearly a decade later. One might think this is driven by people moving out of badly affected areas, but we find the opposite. Fewer people move away; rather, the population loss occurs because fewer people subsequently move into hard-hit areas, and this effect lasts a long time. Moreover, the composition of the population shifts, with the population of badly hit areas aging and oftentimes having fewer highly educated professional workers than less-affected areas.

Put together, the long-term impacts on employment are greater than those on population, and thus the employment rate—the share of people with jobs—also suffers long-term declines in areas that experienced more severe recessions. We illustrate this pattern in Figure 2, which shows these declines for each recession. For each panel, the two vertical lines indicate the beginning and end of the recession (in terms of employment). That the thick blue line is near 0 before the recession indicates that areas have similar trends in the employment rate, regardless of how large their employment losses

Figure 2 In Every Recession, Harder-Hit Areas Suffer Persistent Declines in Employment Rates

NOTE: Figure shows, separately for each recession, the impact of a 1 percent greater employment loss during a recession (between the vertical lines) on the employment rate over time. Complete recovery is reached when the solid blue line returns to 0. Dashed lines indicate 95 percent confidence intervals.

SOURCE: Authors' calculations using Bureau of Economic Analysis Regional data (employment) and Surveillance, Epidemiology, and End Results data (population).

will be. In each case, as expected, the employment rate falls sharply during the recession. This decline persists, however, once the recession is over: for the 1973–1975, 1990–1991, and 2001 recessions, there appears to be no recovery at all, while there is only incomplete recovery for the 1980–1982 and 2007–2009 recessions. Consequently, areas that lost 5 percent more of their employment during a recession have employment rates 1–2 percentage points lower, even up to a decade later. For a typical metropolitan

area of 150,000 workers, that's 1,500 to 3,000 fewer people with jobs.

Policy Implications

The long-term impacts of local recessions also affect income, and we estimate that in badly hit areas, long-term per capita earnings are between 1 and 5 percent lower than they would have been in the absence of the recession. These losses are disproportionately borne by residents in the bottom half of the earnings distribution.

The Enduring Local Harm from Recessions

What explains these long-term impacts? We are actively working on this question, but at a fundamental level, employment opportunities shift across areas more quickly than people do.

Altogether, our research indicates that recessions produce enduring economic disruptions to local economies, and this pattern has existed for at least the past five

Recessions produce enduring economic disruptions to local economies, and this pattern has existed for at least the past five decades.

decades. Consequently, recessions likely play a role in the shift of economic activity across places over time; this, in turn, has implications for economic opportunity for people who grow up in areas badly hit—especially repeatedly—by recessions. The social safety net meant to deal with cyclical, temporary labor market disruption—unemployment insurance, SNAP (food stamps), and one-time cash grants—has not, in the past, led areas to recover. Instead, public policy may need to come up with more extensive and longer-term programs to help workers improve their skills, help businesses retool, and, more broadly, help communities reinvest in economic development.

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Workforce Data (and Knowledge) under Pressure

Joshua D. Hawley

In the first half of 2020, more than 40 million people filed an initial unemployment insurance claim, and according to the U.S. Department of Labor, over 33 million people were collecting benefits—both all-time highs (see Figure 1). As a result of COVID-19 and its effect on the economy, nearly every county in the United States experienced record unemployment growth in April, with little improvement since.

Strengthening Workforce Data Is Critical

To address such rampant unemployment, policymakers require more powerful and more robust employment data systems than currently exist. In my role as a professor and researcher at the Ohio State University, I worked with state agencies and academic colleagues to build a longitudinal data system linking information from education, workforce development, and social services. The linked data have allowed researchers in government

and academia to study the impact of individual outcomes for public policies, such as employment or education. The book *Data Science in the Public Interest: Improving Government Performance in the Workforce*, recently published by the Upjohn Institute (see p. 7 for more details), describes how state-specific data systems like the one in Ohio can help us improve the capacity to address challenges such as the rapid increases in unemployment (Hawley 2020).

I recommend four specific steps:

- 1) Increase the use of administrative records in employment statistics.
- 2) Better fund workforce data system infrastructure.
- 3) Explore partnerships with private organizations that have significant data on the labor force.
- 4) Build on the partnerships between universities and states to make use of these data, especially to focus attention on inequalities in the labor market.

ARTICLE HIGHLIGHTS

■ *The COVID-19 pandemic is an unprecedented challenge for federal and state data systems needed to design policy responses.*

■ *States cannot improve their systems on their own but need federal investment and collaboration with outside partners.*

■ *Cloud computing and tiered access to data offer efficiency advantages, but both the federal and many state systems need technology modernization for the shift to happen.*

■ *Partnerships with universities are critical to ensuring that data systems are used to their full potential to solve social problems, including racial inequality in labor markets.*

Increase Use of Administrative Records

Each month, the Bureau of Labor Statistics releases employment statistics based on two surveys, the household-based Current Population Survey (CPS) and the business-based Current Employment Survey (CES). There are significant strengths to these two surveys. They ask detailed questions allowing granular analysis, and (between the two) their scope is broad, covering nearly all types of employment. However, the sample sizes are still limited, with the CPS surveying some 60,000 of the more than 120 million households in the country, and the CES capturing 145,000 firms relative to the more than 10 million business establishments. Moreover, these surveys suffer from nonresponse. In a good month, some 15 percent of sampled households refuse to complete the CPS survey. During the COVID-19 crisis, the overall [CPS nonresponse rate has grown to over one-third](#), with similar if smaller increases for the CES. Since we do not know whether this nonresponse is random, it is difficult to understand whether the information collected is completely representative of the entire U.S. labor market.

Fortunately, administrative data—data collected for the administration of certain government programs—can fill some of these gaps. State unemployment insurance wage record systems, for instance, collect employment and wage information from employers for all workers covered by unemployment insurance, as authorized in the Federal Unemployment Tax Act of 1937. Through agreements with the states, [the Census Bureau uses these data for statistical purposes](#), producing trends in employment, earnings, and job transitions down to the county level, and for different industries and demographic groups of workers. Although not all workers are included (the self-employed are a large excluded group), the greater scope allows far

more detailed, if less timely, statistics than those allowed by surveys.

Additionally, several individual [states increasingly use their unemployment insurance systems for research and evaluation of their own labor markets](#), sometimes in conjunction with other states. One such effort is through the Coleridge Initiative (see sidebar).

Invest in Administrative Data Capacity

State workforce data systems are aging. Many states still run their unemployment insurance systems on old software and computer equipment—some that are 40 years old. [A well-publicized effort](#) in April aimed to recruit programmers familiar with old computer languages systems, such as COBOL. A decade ago, the National Association of State Workforce Agencies identified the long-term neglect of computer systems as a key barrier to resiliency, reporting that states simply could not handle the demands of claims during the Great Recession (let alone the current one).

The Coleridge Initiative

States often need to share workforce data to solve pressing economic and social problems—like an economic recession or natural disaster such as COVID-19—while preserving privacy and state autonomy over their own records. The [Coleridge Initiative](#) is a nonprofit organization that maintains state administrative data with cutting-edge, cloud-based security protocols (the FedRamp standard), granting access to specific, approved projects. The initiative also offers training courses to state and university analysts, providing a context to use the data in the public interest. (The author is a collaborator on the Coleridge Initiative.)

The problems have grown as [the federal government has reduced funding](#) for helping states maintain their systems.

Figure 1 U.S. Unemployment Insurance Claims, 2007–2020

SOURCE: U.S. Department of Labor, <https://oui.doleta.gov/unemploy/claims.asp>.

Workforce Data (and Knowledge) under Pressure

These issues could be rectified with additional funding and staffing support from both state and federal sources, as there is [already agreement on best practices](#). Additionally, greater support could also expand the usefulness of

Nearly every county in the United States experienced record unemployment growth in April, with little improvement since.

the data, such as providing linkages to employees of the federal government (not currently covered by state unemployment systems) or providing additional worker detail, such as demographics and occupation and job title.

Private Sector Data

Employers, schools, and workforce providers often store their data with a wide range of private sector vendors. For example, payroll firms, such as ADP, maintain records on employment, pay, and benefits for a wide range of organizations, and often include information not in unemployment insurance records, such as occupation and rate of pay.

Many states still run their unemployment insurance systems on old software and computer equipment—some that are 40 years old.

Credit bureaus, such as Equifax, track individual credit information and loan repayment history based on business financial transactions. Because companies submit these data as they are processed, records are more up to date than resources from the federal or state governments. Payroll and credit firms have typically sold access to these

data to employers and other businesses, but they are increasingly being used by researchers on an anonymized basis, such as the [Opportunity Insights economic recovery tracker](#). Furthermore, although use of private data still faces legal hurdles, there are new examples from [California](#) of statewide efforts to use anonymized credit data for public policy.

Partnerships to Improve Capacity and Focus on Inequities

The most pressing needs to improve data systems are not technical resources—rather, human resources are needed to create an effective governance structure for assembling, sharing, and analyzing the data (Lane 2020). Limits in existing human capital—often due to limited budgets—mean that simple automated reporting takes the place of sophisticated analyses. Diagnosing the current crisis in unemployment, and understanding why, for example, African Americans and women face greater challenges, requires new operation models. One such new model is through greater partnership with state universities. Ohio, for instance, has partnered with the Ohio State University to expand its research and analysis capacity (Hawley 2020), and California has similar efforts underway through the California Policy Lab at the University of California Berkeley and Los Angeles campuses. The collaboration with state government has led to greater use of data for dashboards, such as the [Workforce Success Measures](#) and the [Workforce Data Tools](#). The investments in data science have given us the ability during the COVID-19 pandemic to pivot quickly to dashboards on [unemployment and food security](#). These partnerships are increasingly regional—the Midwest states, for example, collaborate on data analysis.

Conclusion

The current unemployment crisis drives home the weaknesses in state workforce systems. State administrative data are increasingly important to workforce policy decision-making and help compensate for limitations in existing survey-based data. Most states sit on a wealth of valuable data that unfortunately are siloed, and they have few resources with which to analyze the data to promote sound and effective public policy. With relatively small increases in funding, however, substantial improvements in the quality and timeliness of workforce data are possible, including supplementing administrative data with data collected by the private sector. Additionally, partnerships, such as the one between the Ohio State University and state and local governments, help leverage existing resources more cost-effectively, and provide examples for how other states can better understand labor market changes during crises and policies to address them.

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New Book from the Upjohn Press

Data Science in the Public Interest Improving Government Performance in the Workforce

Joshua D. Hawley

Governments accumulate a lot of data on residents, especially those who participate in some form of social insurance program. But what do they use these data for? Do they use the data in a manner that is efficient and helps the most people? And are there

better ways to use the data? These are the key questions addressed in this new book from the Upjohn Press.

Hawley begins by describing governments' various workforce programs and how public policy affects the data development systems. He then provides an overview of how governments currently use data to help in decision making and federal and state performance management systems. He offers specific examples of technical structures used to provide data to state performance management systems in the workforce area, focusing on those of Ohio and Washington. A discussion of the legal and governance issues that arise when a state establishes a data system follows.

Hawley also discusses technical developments that states have made in performance management

systems for workforce development and explains three examples: scorecards, dashboards, and data visualizations.

Overall, Hawley brings to light new ways government is using tools to inform decisions about the workforce at the state and local levels. He moves beyond standardized performance metrics designed to meet federal agency requirements and discusses how governments use tools that can provide up-to-date information for decision makers.

[Read the introductory chapter.](#)

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