The Human Costs of Local Fiscal Crises During COVID-19



CITIES STRONG TOGETHER



About the National League of Cities

The National League of Cities (NLC) is the voice of America's cities, towns and villages, representing more than 200 million people. NLC works to strengthen local leadership, influence federal policy and drive innovative solutions.

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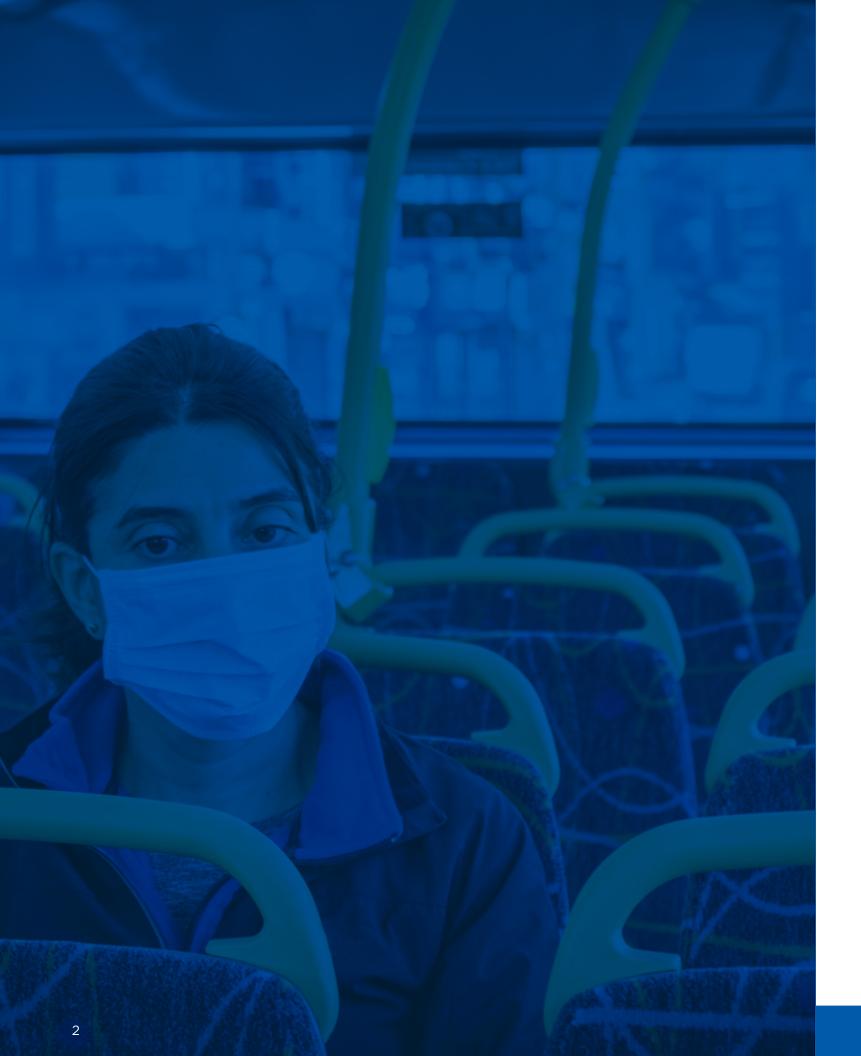
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Introduction

OVID-19 has dire implications for the vitality of US cities. While cities play a crucial role in the direct provision of essential services that will affect the health and economic security of millions of Americans, they are also ground zero for a deep fiscal crisis. A recent National League of Cities survey of 485 cities reveals that nearly 90 percent of cities will be less able in FY 2021 than in FY 2020 to meet their fiscal needs.² In the immediate term, US state and local governments anticipate a budget shortfall of nearly \$500 billion through the end of 2022.³ Revenue shortfalls in some cities could be as high as 20 percent in Fiscal Year 2021.⁴ Behind these numbers lay potentially devastating consequences for all citizens and communities alike. Looking back to the Great Recession (GR) of 2008-09, we identify some of the likely local impacts of the economic downturn in the absence of federal intervention. While often ignored in national coverage of the recession, they have left an indelible mark on US cities and, by extension, the overall economy.

Without federal aid, **COVID-19 will imperil** cities' ability to carry out vital functions. The impacts on the local economies and the quality of life are severe.

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Objectives and Approach

everaging the extensive research and reporting on the Great Recession, we aim to improve public understanding of the economic and social implications of city financial emergencies created by the COVID-19 crisis. As a word of caution, these two crises differ in important respects that makes a oneto-one comparison challenging. The prolonged public health emergency of COVID-19 did not define the Great Recession. Common to both crises, however, are intense fiscal strain on local governments and the demand for government intervention. Specifically, we illustrate the limited range of choices cities have when confronting fiscal crises in the absence of federal support, as well as the effects of these choices on crucial policy outcomes such as access to basic public services, economic indicators like employment

rates, and broader socio-economic trends like the quality of life.

Our research begins with the assumption that cities are not only the "frontlines"⁵ of emergency responses to COVID-19; they will also bear the brunt of the economic downturn caused by the pandemic. In contrast to Europe, where austerity has operated primarily at the national level, the burden of austerity in the United States has effectively been delegated by the national government to state and local officials.⁶ Following the last recession in 2008–9, a decline in local revenues—especially revenues derived from intergovernmental transfers, property taxes, and various fee assessments—occasioned financial hardships for many major cities across the country. Drawing on evidence from city financial emergencies resulting from the Great Recession, we first identify broader trends, drawn from a sample of cities that vary in size, economic and racial diversity, and partisan control, and match these trends with more in-depth profiles of illustrative cities. A case study approach is fine-tuned for not only building theory but also telling compelling stories. Case studies allow both for a richness of data and multiple perspectives well-suited to communicating complex information to various stakeholders. To assemble these cases, we synthesize a variety of materials, including:

 Published research literature on local responses to economic crises, with emphasis on local policy choices, intergovernmental revenue conditions, and socio-economic effects of policy choices;



	2.	Census of Governments data on revenues,
٦,		expenditures, and debt; and

3. Contemporary histories and newspaper reports of the Great Recession's impact on policy choices, downstream implications.

Our focus is on the human consequences
of financial emergencies in each city. This
approach consciously avoids the dominant frame
surrounding previous city financial emergencies,
which has emphasized pension liabilities and
renegotiating public sector union contracts.
Though this is a vital area of continuing research
and political debate, we focus our attention on
the hidden costs of municipal austerity for direct
service provision that is likely to emerge in the
absence of federal intervention. These case studies
summarized in Appendix will inform a discussion
of the potential impacts of COVID-19-related
economic dislocations and possible scenarios
resulting from local-level fiscal crises.

Background on the Great Recession

The unemployment rate peaked at **10%** in October 2009, an increase not seen since 1983.

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Between 2007 and 2009, the United States experienced its most extreme recession since the Great Depression. The combined financial and housing crisis had long-term and severe effects on businesses, workers, and the finances of state and local governments. The unemployment rate peaked at 10 percent in October 2009, an increase not seen since 1983. It did not fall below 5 percent until 2016, over seven years later. Extensive research has linked the Great Recession to rising income inequality, a turn toward precarious labor, and long-term scarring effects across generations.⁷

Compared to previous recessions in 1981, 1990, or austerity, and inadequate fiscal support for state 2001, the GR's economic recovery was prolonged. and local governments, slowed the economic Some scholars have suggested the sluggish recovery. For a given unemployment gap shock, pace is typical of combined financial crises cuts to state and local spending offset about 25 and economic downturns like the GR.⁸ Another percent of the federal government's total stimulus during a recession. Making this worse, federal reason for the slow recovery was that Congress's stimulus reached its peak after two years, while discretionary fiscal stimulus programs expired long before many of the recession's economic state and local spending cuts continued over effects were realized. Insufficient government the next five years after an unemployment gap shock.¹⁰ In sum, minus government intervention, stimulus was unable to fill the gap between aggregate demand and the economy's potential the pain of economic recessions can be both output.⁹ Equally important, state and local severe and lasting.



Major Findings

1. In the absence of adequate federal and state support, recessions mean austerity for local governments; no public service is safe from cuts.

Because of legal restrictions on deficit spending and borrowing, recessions confront local governments with limited options. They can either cut expenditures through service reductions, layoffs, or hiring freezes. Alternatively, they can increase revenue through tax increases, additional user fees, or asset sales. In the years that followed the end of the Great Recession, even as sales and income tax collections recovered, falling property tax revenue and decreasing aid from states and the federal government caused cities across the United States to make sizable cuts to public services.¹¹

These cuts were spread across a wide number of critical public services. Between 2009 and 2012, at least half of the central cities in the thirty largest metropolitan areas slashed the budgets for public safety, social services and health, housing, economic development, transportation, and public works.¹² Importantly, no area of public service was spared.¹³ In the 2011-2012 school year, 37 states cut aid to local school districts.¹⁴ In 2012, 44 percent of the 200 largest cities, reported cuts in Emergency Medical Services.¹⁵ Since the Great Recession, the number of firefighters and fire departments declined across the country, with cities like Lowell, Massachusetts reducing the fire-protection workforce by over a quarter.¹⁶ Some particularly hard-hit towns like Colorado Springs turned off streetlights, shuttered pools and community centers, and reduced garbage collections (see profile below).¹⁷ In the winter of 2016-17, budget cuts left East Cleveland, Ohio without a single functioning snowplow.¹⁸

PROFILE: CLOSING THE BUDGET GAP IN COLORADO SPRINGS, COLORADO

Nested near Pikes Peak, Colorado Springs is the second most populated city in the state, with over 400,000 residents in 2010. In contrast to the college town of Boulder a few hours away, Colorado Springs is staunchly Republican: the city and surrounding El Paso County in 2016 went for Donald Trump over Hillary Clinton by 22 points.

In 2010, the city entered the national consciousness as a leading example of the steps local governments took to close a widening budget gap created by the Great Recession.¹⁹ A history of fiscal conservatism and small government politics led to some of the nation's lowest property taxes and a reliance principally upon sales taxes. This mix of local revenues exacerbated the Great Recession's impact, leading to a looming \$40 million budget hole by the close of 2009. After a vote to triple the property tax rate failed, the city government struggled to fill the growing budget gap:

- One-third of all street lights were turned off to save money on electricity. Citizens who wanted the lights back on could do so via "adopting a streetlight" for an annual fee.²⁰
- The parks department budget was slashed by 75%, leading to pool and restroom closures and the removal of all trash cans from city parks since the city could no longer pay for trash removal.

- The dramatic reduction of public transit service by 100,000 hours per year after the city sold off nine buses essential to night and weekend service
- The online auction of three police helicopters
- Layoffs or early retirements of 550 local government employees, including 80 police officers
- A pause in infrastructure spending despite a \$700 million backlog in 2010 on necessary capital expenditures²¹

In the years since, Colorado Springs' recovery required a turn away from austerity and a grudging acceptance for more taxes, including \$250 million for new roads, \$2 million for new park trails, and \$12 million for new stormwater projects.²² Though still fiscally conservative, city leaders discovered citizens were willing to accept new taxes provided they were targeted to services that improved quality of life and attracted young, educated workers.

PROFILE: BALANCING THE BUDGET IN JACKSONVILLE, FLORIDA

On the eve of the Great Recession in January 2008, the Florida Legislature sponsored a specia amendment to roll back local property taxes by an estimated \$9.3 billion over five years. The amendment passed despite local government opposition and exacerbated the budget shortfal of Florida cities like Jacksonville. Located in the First Coast region near the Georgia border, Jacksonville is the most populous city in Florida, with a population of over 820,000, according to the 2010 census. Jacksonville entered 2008 with a preexisting \$65 million shortfall, which grew to over \$80 million by 2009, especially as the GR's housing crisis battered property tax revenues.23 From 2008-2011, Mayor John Peyton pushed fro dramatic cuts to maintain a balanced budget, including:

- Eliminating over 900 local employees, including from police and fire departments
- Significant cuts and hours reduction to the local library system

ial	 Cuts to employee training, information technology improvements, and travel 				
	 Hollowing out mowing budgets for city parks and neutral grounds 				
IIIs	 Deferring a needed and long-planned improvement to the city's airport 				
a, D h O	 Hiring freezes, pay cuts, and ultimately requiring city employees, including police and firefighters, to assume an increased share of their health insurance premiums²⁴ 				
s om	In the GR's aftermath, Jacksonville's road to recovery was slow, lagging behind other Floridia cities like Miami or Tampa. ²⁵ Prior to COVID-19, area housing prices and private sector jobs				

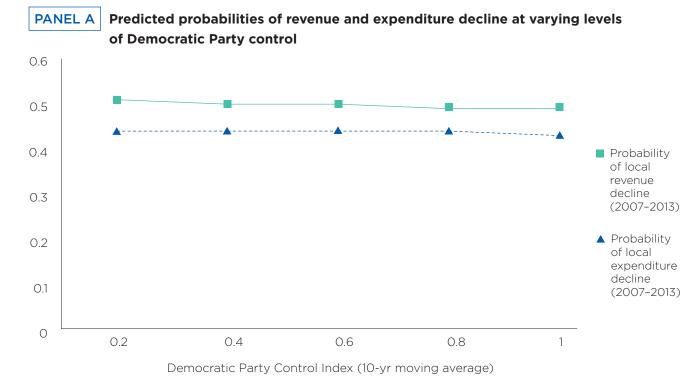
recovered somewhat to pre-recession levels, but local government employment as late as 2019 still lagged behind 2008 levels.²⁶



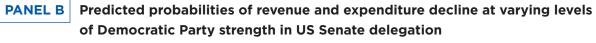
2. Fiscal crises affect revenues and expenditures across the fifty states, regardless of which party governs.

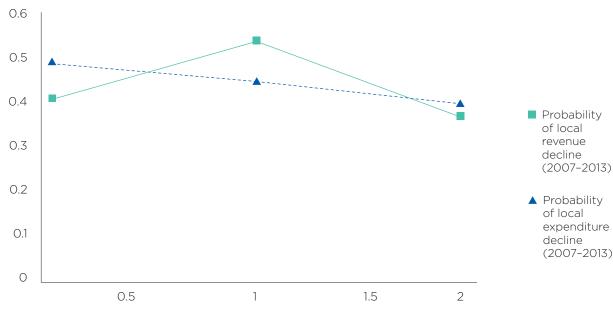
The Great Recession inflicted economic pain on voters of every partisan stripe and across the ideological spectrum of American politics. A leading 2016 study found that the Great Recession negatively impacted 49 out of 50 Metropolitan Statistical Areas.²⁷ Similarly, municipal officials across the country—in both Republican and Democratic strongholds alike-were faced with the reality of revenue shortfalls and the prospect of unprecedented budget cuts. This was especially true during the period of national fiscal restraint that followed the early recession years' countercyclical policies. While national media coverage on the crisis focused on a handful

EXHIBIT: PARTISANSHIP DID NOT AFFECT THE LIKELIHOOD OF LOCAL **REVENUE AND EXPENDITURE DECLINE DURING THE GREAT RECESSION**



of large cities, the real effects were felt far and wide. As the exhibit below shows, between 2007 and 2013, local governments were equally likely to experience these fiscal effects in strongly Republican and Democratic states. The predicted probability of revenue and expenditures and shortfalls does not vary significantly across states with strong legacies of Republican and Democratic control (Panel A). Nor does it differ across states with consistently Republican or Democratic delegations in the US Senate (Panel B). In short, there is little reason to believe that local austerity affected voters or officials of one party more than another.





Average # of Dem Senators (2007-2013)

Note: Both figures represented predicted probabilities drawn from bivariate logistic regression analyses. The outcome variables are binary indicators of whether total local government revenue and direct expenditures declined in each state between 2007 and 2013. These data are based on the authors' analysis of the Census of Governments. The state index of Democratic Party Control is drawn from Carl Klarner, "State Partisan Balance Data," Harvard Dataverse, https://dataverse.harvard.edu/dataset. xhtml?persistentId=hdl:1902.1/20403.

3. While not immediately visible, massive budget cuts inflict damage on local and regional economies.

The impact of the Great Recession on local governments was not immediate. Because of two rounds of federal stimulus and a lag between economic conditions and property values, it took over five years for cities to experience the full effects of revenue shortfalls. Though not immediately visible, these effects were severe. First, cuts to public services such as transportation had a direct impact on economic activity. Following the Great Recession, more than 60 percent of local transit agencies reported cutting back on both public transit routes and service frequency. In a 2013 survey conducted by Alameda County Transit (which services Oakland, California), nearly 25 percent of riders reported not going to work as often or at all due to service cuts.²⁸

Second, local budget cuts have had enduring impacts on employment and investment. Whereas government jobs have historically increased during recessionary periods, this changed with the Great Recession. Between December 2008 and December 2013, government employment, the vast majority at the state and local level, fell by 3% or almost 800,000 jobs. Local government jobs accounted for more than three-quarters of the loss.²⁹ Reflecting the public sector's history as an equalizing institution, women and African Americans represented 70% and 20% of these cuts, respectively.³⁰ Subsequent analysis has shown that African Americans particularly struggled compared to their white or Hispanic colleagues after public sector layoffs to either exit unemployment or transition into private sector employment.³¹ Looking beyond public sector employment, state and local governments that embraced dramatic spending cuts tended to fare worse in terms of unemployment and economic growth than those that expanded spending.³² In 2012, the Port Authority of Allegheny County (which services Pittsburgh, Pennsylvania) announced that it would cut 46 of its 102 bus lines due to a budget gap of more than \$60 million. As a result, the marketing firm DialAmerica paused its plans to add 150 jobs to its Pittsburgh-based call center, citing transit cuts as the reason for the decision.³³

Third, local austerity has had adverse effects on the quality of life in US cities. Most notable in this regard are cuts to basic infrastructure maintenance and repair. State and local governments own 90% of all non-defense public infrastructure assets and pay 75% of the costs to maintain and improve these assets. Historically, deferring maintenance or capital improvements is a common strategy in fiscally austere times. From 2009 to 2017, state and local infrastructure spending as a share of GDP declined by .5% to just under 2%—the lowest level since the 1950s.³⁴ Deferred investment has led to predictable deteriorating conditions. A case in point is the rust belt state of Michigan. From 2006 to 2013, cities like Lansing, Michigan scaled back road repair crews, sending the total percentage of federally funded roads in poor condition soaring from 4% to 40%.³⁵ In nearby Flint, the Great Recession compounded decades of neglect over its water system, leading in 2014 to an on-going public health crisis due to lead leaking into the water supply. In Detroit, a plague of rats, roaches, and mold led to mass teacher "sickout," closing 94 out of 97 public schools.³⁶

Beyond these direct effects on infrastructure and public health, numerous national studies link the slow economic recovery to critical health and well-being indicators. At the household level, foreclosures and evictions are related to a significant increase in the onset of depression.³⁷ Regions with higher rates of unemployment experience measurable increases in middle-aged suicides.³⁸ Further, persistent unemployment and economic hardship predict a significant jump in mothers' experience of domestic abuse.³⁹



PROFILE: BRIDGING THE DIGITAL DIVIDE IN **PROVO, UTAH**

As COVID-19 has forced millions of Americans to work from home, we are reminded yet again of the critical role of broadband internet in our personal and professional lives. Despite years of broadband deployment, expansive and affordable access seems elusive for millions of Americans. Recent Federal Communications Commission data suggests that over 20% of rural Americans lack access to fixed broadband connections (defined in terms of 25/3 Mbps speeds) compared to just 1.5% of urban residents.⁴⁰ Since the early 2000s, persistent divides have led some communities to take matters into their own hands by launching municipal broadband networks in direct competition with private providers. Like rural electrical utilities in the early 20th century, municipal broadband networks see an increased role for local governments in direct infrastructure provision. As of January 2020, the Institute for Local Self-Reliance (a pro-municipal broadband advocacy group) has identified over 900 communities—many of which are increasingly rural and lean republican-served by some form of municipal network or cooperative.⁴¹ Such systems, however, are not without controversy. Critics have assailed their costs, legitimacy, and propensity for inefficiency or even corruption.⁴² But, as we will see, it is difficult to disentangle these networks' fate from the effects of the Great Recession.

ZIONS BANK FINIANCIAL

For example. Provo. Utah struggled to build and maintain a public broadband network amid a recession.⁴³ Provo is Utah's third-largest city and home to Brigham Young University and over 112,000 residents as of 2010. In the early 2000s, city leaders argued that expansive fiber-optic connectivity could seriously upgrade economic development, job growth, and overall quality of life in Provo.⁴⁴ When private telecommunications providers under exclusive franchise agreements refused to provide the demanded connectivity, the city under the leadership of Mayor Lewis Billings took matters into their own hands. In 2004, Provo began constructing a municipal fiber network known as iProvo, raising \$39 million in bonds to cover construction costs.

Despite optimistic projections, the network never escaped its early growing pains. When anticipated revenues failed to materialize, the city repeatedly bailed out iProvo in 2006 and again in 2007. Under budgetary pressures created by the Great Recession, the city in 2008 opened proceedings to privatize the network. The city's initial sale to Broadweave in 2008, however, failed when the company could not make regular debt payments. To avoid default, the city provided a gapcovering loan from the city's energy fund belonging to the municipal Provo's experience is not unique as many electrical utility, Provo City Power.⁴⁵ In 2011, iProvo municipal broadband networks in cities like reverted to city ownership, forcing the city to Burlington, Vermont or Lafayette, Lousiana have write down some of the debt and pass along the struggled to either stay solvent or not become costs to residents and businesses through new an undue burden on city finances. The struggles utility fees. Finally, in 2013, the city once again of iProvo also suggest—like many infrastructure sold the network to Google Fiber for \$1.46 In projects-that benefits may be slow to emerge, exchange, Google promised to provide free-togiven the sizable upfront costs of network low-cost broadband services to schools, libraries, development. More importantly, local austerity and some underprivileged residents, assume may divert resources away from ambitious some construction debt, and a commitment to economic development plans like infrastructure improvements. Unlike Provo, however, many upgrade the network. Provo residents were still on the hook for the original \$39 million bonds. cities likely cannot count on a Google to bailout Some Provo residents enjoy the service years fledgling municipal fiber networks. later, but Google has generally been slow to roll out fiber connections after the company paused expansion plans in 2015.

PROFILE: DECLINING STATE AID IN MILWAUKEE, WISCONSIN

Milwaukee Mayor Tom Barrett called his city's 2010 budget "by far the most difficult" he had enacted during his 25 years of public service. Months before the budget was finalized, the Wisconsin Policy Forum had issued a report declaring that the city was on the "precipice of serious fiscal and programmatic disorder."47 Going into the Great Recession, Milwaukee boasted strong bond ratings, had a comparatively well-funded pension system, and maintained ample reserves. Nevertheless, the recession had created a dire set of conditions that imperiled city finances and further delayed economic recovery. Between 2008 and 2015, the City of Milwaukee saw a three percent decline in annual expenditures.48

Perhaps the most important source of pressure on city finances was a massive decrease in intergovernmental transfers, about 83 percent of which came from the state "shared revenue." Indeed, in the preceding years, the state government had failed to increase the state's shared revenue appropriation in proportion to the growth of state tax collections. Had state revenue sharing kept pace with inflation, it would have been about 58 percent higher in 2015 than it was. Additionally, the state refused to provide flexibility to municipalities like Milwaukee to explore alternative local revenue options to address the inadequacy of intergovernmental revenue. Lacking other options, Milwaukee responded by raising property taxes, which increased by 14% between 2011 and 2015,

and additional service charges.⁴⁹ Further, the Additionally, Minneapolis-St. Paul had maintained city made cuts in areas of capital investment, a critical density of corporate headquarters and froze hiring, initiated rolling "brownouts" in fire had since the 1970s reduced inter-jurisdictional protection, and trimmed expenditures in critical competition for industry through a tax-sharing departments. In constant terms, the city's Health policy.⁵¹ By contrast, Milwaukee saw weakened Department experienced a 16 percent decline in population and job growth. Between 2007 and its budget allocation between 2008 and 2015.50 2018, government employment in the Milwaukee metropolitan area fell by 8%.⁵² Even as the These fiscal realities further impeded national economy recovered, job growth in Milwaukee from becoming the sort of "flagship" Milwaukee and Racine counties fell behind.⁵³ As metropolitan area that Minneapolis-St. Paul had of 2018, Milwaukee County was the only county become for Minnesota during the previous two with a significantly higher poverty rate than the

decades. Unlike Milwaukee, the Twin Cities had state average.⁵⁴ benefited from durable state commitments to higher education, increasing the metropolitan area's attractiveness to recent college graduates.



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4. Austerity policies that followed the Great Recession have left cities underprepared for COVID-19.

Despite an unprecedented economic expansion recently cut short by COVID-19, local governments are still grappling with the lost decade created by the Great Recession. Rather than inspire more robust government interventions or countervailing, countercyclical policies, the Great Recession reduced support for government activism on major social problems such as poverty, health care, racism, and income inequality.⁵⁵ While local government employment finally returned to pre-recession levels in 2019, education and infrastructure spending by the majority of state and local governments has not.⁵⁶ An austerity mindset encouraged many states to restructure, cut, or make conditional state aid to local governments.⁵⁷ From 2009-2014, state aid experienced a nationally-averaged, inflation-adjusted decline of 6%, with local governments in some states seeing even more dramatic reductions (e.g., 24% in Arizona and 19% in Ohio).⁵⁸ Next to property taxes, state aid constitutes the largest source of local revenues, yet it tends to fluctuate with state economic conditions.⁵⁹ Cities that rely on it extensively face more intense fiscal pressure when financial crises emerge. Moreover, while many states have created or replenished their rainy-day funds, most local governments, except many of the US's largest cities, lack these sorts of funds.⁶⁰

Notably, local budget cuts resulting from the Great Recession have weakened governments' capacity to respond to the COVID-19 pandemic. Since 2008, the local public health workforce declined by 16 percent, mirroring the decline at the state level. These cuts have affected core personnel. Only 28 percent of local health departments now have a trained epidemiologist or statistician on staff. The director of one rural public health department in Kentucky was reportedly forced to respond to the COVID-19 pandemic with "3G cell service, paper records and one-third of the employees the department had 20 years ago."⁶¹ Similar staff cuts forced an environmental health supervisor in Toledo, Ohio, to take on additional duties that drew her time away from managing outbreak preparedness for a 425,000-person community. These duties included overseeing pool inspections, rodent control, and sewage programs.⁶²

Without adequate staff, health departments struggle to deliver critical services. In Florida, per-person spending by local health departments has fallen by 41 percent since 2010. With the onset of COVID-19, some departments were spending less per person than the average list price for a single COVID test. In one local health director's words, long-term defunding of local health departments have dismantled them to the extent that they "could not manage an outbreak."⁶³

PROFILE: THE SLOW RECOVERY OF BINGHAMTON, NEW YORK

Cities region *fell* by 8.6 percent or around 10,000 Binghamton, New York exemplifies the struggles of smaller towns dependent on a single industry jobs.⁶⁵ After record losses for much of a decade, or manufacturing that is "quick to stumble" the "fact that we've seen some leveling out is an during recessions "but slow to recover."⁶⁴ Located encouraging sign," declared a regional analyst in the Southern Tier of New York State near the in 2017.⁶⁶ Binghamton's sideways recovery was Pennsylvania border, Binghamton is home to even starker in contrast to the rest of NY State. nearly 50,000 residents and 250,000 residents From 2007-2017, changes in employement levels in the metropolitan area known as the "Triple in larger cities like Albany (+4.4%), New York City Cities." Since 1990, almost 70 percent of its (+8.6%), Rochester (+1.4%), or Syracuse (-.4%) manufacturing base has disappeared. The Great far outpaced Binghamton.⁶⁷ Even as late as 2019, Recession accelerated these post-industrial the Triple Cities region was "just getting into the transitions with large employers like IBM or recovery in a meaningful way," an economist Sikorsky shuttering after 2009. Even as large for the NY State Department of Labor noted.⁶⁸ parts of New York State returned to work in the Binghamton's experience attests to the extended early 2010s, Binghamton lagged behind. From pain many cities can feel long after the recession 2007 to 2017, private employment in the Triple has officially ended and the recovery has begun.



PROFILE: PUBLIC HEALTH STRUGGLES IN **CINCINNATI, OHIO**

Between 2010 and 2017, the City of Cincinnati, Ohio, experienced a 50% loss in revenue mainly due to cuts in intergovernmental transfers from the state of Ohio.⁶⁹ To respond to revenue constraints, the city made cuts to several departments, including the Cincinnati Health Department, whose general fund operating budget shrank by 39 percent between 2005 and 2020.⁷⁰ These cuts came amid an already austere context for public health in Ohio, where health departments receive less funding for emergency preparedness than nearly every other state. Overall, Ohio spends only about \$13 per person on public health, one of the US's four lowest-spending states.⁷¹ The fiscal crisis in public health has been brewing for a long time. As a former commissioner of the Cincinnati Health Department put it, "There's never enough funding for public health. Ever...Part of that is

that public health is out there doing the work the public doesn't know needs to be done, other than maybe restaurant inspections. People think you don't need public health until you have a crisis, and people are paying attention. But then, it's too late."72 Effects of Great Recession era austerity can still be felt in the Cincinnati Health Department. In April of 2020, in response to revenue shortfalls, the city announced temporary furloughs of 97 full-time and three part-time public-health workers--more than any other department. With further revenue shortfalls looming on the horizon, further cuts to public health could be coming soon. Absent additional federal support, the city has suggested that another deficit would mean basic cuts to services like sanitation, which would only worsen the public-health crisis.73

5. Public attention to local fiscal crises was limited during the Great Recession. And when the human costs emerged, media coverage was virtually nonexistent.

However severe, the impacts of the Great Recession on US cities received little public attention relative to other major economic storylines.⁷⁴ According to an analysis of media coverage, the effects of the recession on state and local governments accounted for 6% of news stories in 2009--the year that Congress passed the American Recovery and Reinvestment Act. Whereas nearly 40% of the sources in these stories were representatives of private-sector businesses, just over 10 percent were representatives of state and local governments. Perhaps most troublingly, even as unemployment surged, national coverage of the economy fell in tandem with an increase of major stock-market indices. Thus by the time local governments began to experience the recession's effects, they were barely visible in major media outlets.



6. There are several leading indicators that can help us identify warning signs of local fiscal distress.

Forecasting the effects of economic recessions on local finances is difficult, especially when the pace and scale of economic recovery is contingent on how government policies shape not only economic activity but also the management of a novel health emergency. Nevertheless, there are numerous leading indicators of local fiscal stress that can help to warn policymakers about the possibility of an oncoming crisis. Building on the post-2008 literature, a recent study of 300 cities' fiscal performance following the Great Recession identifies five key predictors.⁷⁵

- 1. Cash solvency: Cities' general fund balance, measured as a percentage of total annual expenditures, is a reliable predictor of local fiscal conditions. Every percentage point increase in the general fund balance is associated with a 1.3 percent decrease in the odds of fiscal distress in the years that followed the Great Recession.
- 2. Budgetary solvency: Cities' general revenue conditions also matter. A thousanddollar increase in total revenue per capita reduces the odds of fiscal distress by roughly 16.5 percent.
- 3. Long-term solvency: In the years following the Great Recession, cities with higher debt-to-revenue ratios tended to experience greater levels of fiscal distress. A single percentage point increase in debt-to-revenue ratio increases the odds of fiscal distress by 0.4 percent.

5. Socio-economic environment: The socio-economic context of cities, including general trends in population and income, plays an important role in shaping city fiscal distress. Yet arguably the most reliable environmental predictor of local fiscal conditions following the Great Recession was change in median home prices. A percentage point increase in home prices decreases the odds of fiscal distress by 2.6 percent in the following year.

While these indicators do not capture how underlying fiscal conditions will interact with localized changes in the severity of the virus, they can (and have) been fruitfully combined with public-health data to examine how revenue shortfalls will play out in cities that are likely to incur the highest health costs from COVID-19. As a recent study in the National Tax Journal shows, of the five cities with the highest values on an index of COVID-19 costs (Yonkers, New York City, New Orleans, Boston, and Chicago), all but one are among the cities likely to experience the largest fiscal shortfalls in the Fiscal Year 2021.⁷⁶ This suggests that an accurate forecast of local fiscal distress must also take into consideration the effects of virus mitigation strategies. In any case, cities, states, and nonprofit organizations will have an important role to play in monitoring local fiscal conditions in the coming months.



4. Revenue structure: Cities' revenue structure is also an important predictor of fiscal distress. In particular, cities that relied more heavily on the property tax were less likely to experience financial distress in the years following the recession. Each percentage point increase in a city's reliance on the property tax as a revenue source is associated with a 3.2 percent decrease in the odds of fiscal distress.

Appendix: City Case Studies

City	State	Urbanization Level	City Population (2010)	City Population Est. (2019)	Unemployment Rate (Jan 2010)	Unemployment Rate (Jan 2020)	2016 Presidential Election Results	Lesson from the GR
Colorado Springs	Colorado	Medium Metro	416,427	478,221	9.4	2.8	Strong Republican	Balancing the budget leads to cuts across all public services
Jacksonville	Florida	Large Central Metro	821,784	811,507	11.2	3.1	Leans Republican	A shortfall in property taxes leads to painful cuts
Provo	Utah	Medium Metro	112,488	116,618	7.8	2.5	Strong Republican	The GR sidelines an ambitious infrastructure project to close the digital divide
Milwaukee	Wisconsin	Large Central Metro	594,833	590,157	9.9	4.0	Strong Democrat	Declines in state aid prolongs the city's recovery
Binghamton	New York	Small Metro	47,376	44,399	9.9	5.6	Leans Republican	Some cities have yet to recover from the GR
Cincinnati	Ohio	Large Central Metro	296,945	303,940	11.1	4.3	Leans Democrat	Cuts from the GR have undermined the public health response to COVID-19

Note: Urbanization level assessed at the country level is drawn from the National Center for Health Statistics' 2013 Urban-Rural Classification Scheme for Counties. Population is assessed at the city level using US Census Bureau data. 2010 data comes from the most recent census, while the 2019 population estimate is drawn from the American Community Survey. Unemployment statistics are calculated for the surrounding metro area and is drawn from the US Bureau of Labor Statistics. Election results for the surrounding county are drawn from the New York Times

Endnotes

- Prepared for the National League of Cities by David Reinecke, PhD (Princeton University) and Philip Rocco, PhD (Marquette 1 University). The views and opinions expressed in this research brief do not necessarily reflect the official policy or position of our respective institutions. All mistakes are our own. For comments, corrections, or critiques, please e-mail us at either reinecke@princeton.edu (David) or philip.rocco@marquette.edu (Phil).
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