

# Third District State Budgets in the Coronavirus Recession

Delaware, New Jersey, and Pennsylvania are in for a struggle as they try to balance their budgets during this unprecedented economic cycle.

BY ADAM SCAVETTE

States are bracing for financial hardships due to the coronavirus pandemic. As the nation endures the extended economic impact of the pandemic, including the various mandated shutdowns of nonessential businesses, now is a good time to understand the basics of state budgets as well as how they change over the business cycle. In addition to exploring the effects of the anticipated recession on state budgets and the federal government's efforts to aid the states, this article examines the expected nuances of this recession. It then takes a specific look at the Third Federal Reserve District states (Delaware, New Jersey, and Pennsylvania) to assess their preparedness to weather this economic downturn.

## **Fundamentals of State Budgets**

As we witness the responses of individual states to the coronavirus, with daily updates from governors and state public health commissioners, it is apparent that state governments are vital components of the nation's public sector. Indeed, when defense spending is not counted, state and local governments have historically undertaken more spending on public goods and services than has the federal government.¹ In 2018, total federal expenditures, excluding defense spending and grants to state and local government, was \$3.2 trillion, whereas total state and local expenditures was \$3 trillion (15.6 percent and 14.6 percent of gross domestic product, respectively) (Figure 1).² State expenditures support education, infrastructure,

Federal Reserve.

#### FIGURE 1

# Total Expenditures

Excluding defense and intergovermental transfers (2018)

Federa

3.2 tn

15.6% of GDP

State and Local

3.0 tr

14.6% of GDP

**Source:** U.S. Bureau of Economic Analysis; author's calculations.

health, hospitals, and public welfare (for example, Medicaid), among other items. State governments fund these expenditures with intergovernmental revenue (that is, transfers from the federal government) and tax receipts (sales, individual income, and corporate income), among other sources (Figure 2).

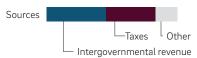
When the country faces an economic downturn, revenues shrink and expenditures rise, straining state budgets from opposite directions. If many consumers lose their jobs and spend less on goods and services, states receive less revenue from income and sales taxes. Simultaneously, demand for state government services such as unemployment insurance and Medicaid increase, raising overall expenditures. When expenditures exceed revenues, state governments face a budget gap, which they must address in the near term: Unlike the federal government, most states are required to balance their budgets from year to year.3

Aside from federal aid that states may receive during national downturns, states can address budget gaps by increasing revenue (for example, by raising taxes), cutting expenditures, drawing money

#### FIGURE 2

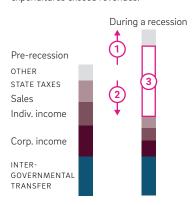
# State Revenue Suffers During Recessions

#### Model State Revenue



#### **How States Fund Government Expenditures**

During a recession, 1 services like unemployment insurance and Medicaid raise expenditures while 2 revenues shrink as people spend less and lose their jobs and income. Budget gaps 3 emerge when expenditures exceed revenues.



from a rainy day fund, or borrowing with municipal bonds.4 Tax hikes and spending cuts in the face of a recession may exacerbate the downturn or delay the recovery as consumers are further strained financially and public service jobs are eliminated. Although states can draw from rainy day funds, which are special reserve funds generated from surplus budget years specifically to aid during downturns, the level of reserves that each state may have at any given time varies significantly.5 Lastly, if allowed by its constitution, a state may issue debt in order to balance its budget. Municipal debt is issued on bond markets and rated by independent agencies according to the assessed future solvency of the issuing state, so states pay different interest rates for the money they borrow.6

## **What Happened Last Time**

During the Great Recession of 2008-2009 and the subsequent recovery, nearly every state in the nation faced a budget gap as respective state revenues declined and expenditures increased (mostly driven by increased enrollments in Medicaid).

Despite the \$144 billion in fiscal relief funds to state and local governments from the American Recovery and Reinvestment Act of 2009,7 many states addressed their remaining budget gaps with tax increases and cuts in government services. In the three fiscal years following the start of the recession (2009-2011), 40 states enacted tax or fee hikes, 34 reduced spending on K-12 education, 43 reduced spending on college education, 31 reduced health care spending, and 29 reduced expenditures for services to the elderly and disabled (Figure 3).8 The effect of these state spending cuts is perhaps most clear in state government employment numbers in the immediate recovery years.9 From January 2009 through January 2013, state governments collectively shed 177,000 jobs (a 3.4 percent drop), and even as of February 2020, state government employment had not recovered to its peak level (Figure 4).10

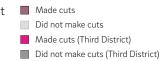
# What Makes the Coronavirus Recession Different

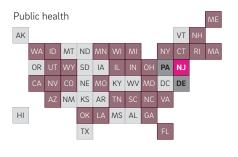
While other recessions in the past few decades have forced states to reckon with budget crises solely due to the effects of

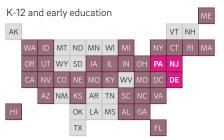
#### FIGURE 3

## **Tough Choices for States**

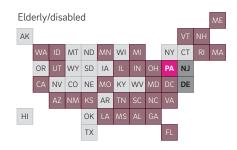
With only limited federal assistance, states during the Great Recession had to balance their budgets by cutting services. State service cuts by category, fiscal years 2009–2011







Source: Johnson, Oliff, and Williams (2011).





a slowing economy, the coronavirus recession will also force states to fund the battle against the virus (for example, through hospitals, healthcare, infrastructure, and police). This means that expenditures will increase far more than during previous recessions, especially for states particularly hard hit by the coronavirus in terms of hospitalizations and deaths, such as New Jersey and New York."

Beyond the health-related costs of the virus, we can identify areas that are more likely to suffer during recessions based on their industry mix.<sup>12</sup> A recent analysis by Moody's has identified the most at-risk industries for this coronavirus recession: leisure and hospitality,<sup>13</sup> transportation, and employment services. Therefore, states and local areas that have a high share of employment in these industries should expect to see larger downturns than the national average, and these effects will stress public budgets.<sup>14</sup>

Although leisure and hospitality represents 11 percent of national employment, 15 the number of jobs in the industry is up 40 percent since the end of the 2001 recession, 16 whereas overall employment has grown less than 20 percent (Figure 5). Because restaurants, the arts, and entertainment venues are typically enjoyed in person, we can expect the coronavirus recession to have a harsh effect on this economic sector. The pandemic's lingering effect on future consumer demand for hospitality services is uncertain, and is

perhaps only comparable to the impact on the airline and travel industry after the 9/11 terrorist attacks.<sup>17</sup> The attacks resulted in a 32 percent annual reduction in air travel in September 2001 and a 12 percent reduction the following year, most likely because consumers continued to avoid flying. How badly will the pandemic affect the hospitality industry? A clue comes from an early April 2020 survey by the National Restaurant Association, which found that, even in the midst of federal government assistance, "15 percent of U.S. restaurants have permanently closed or are likely to in the next two weeks."<sup>18</sup>

## How the Federal Government Aids States

Although the federal government has spent trillions of dollars trying to stabilize the economy, it has imposed limits on how state and local governments may use this money. Notably, the \$2 trillion Coronavirus Aid, Relief, and Economic Security (CARES) Act, which Congress enacted in late March 2020, included, in addition to direct aid to American workers and assistance for small businesses via the Paycheck Protection Program,19 a \$150 billion Coronavirus Relief Fund for payments to state and local governments.20 However, this relief fund is to be used only for expenditures related to the public health emergency, and it cannot be used to cover expenditures that were already accounted for in

state budgets before the date of the act's passage (March 27, 2020). Although the fund will aid in covering unforeseen expenditures related to the coronavirus over the remainder of 2020, it cannot directly<sup>21</sup> cover the revenue shortfalls and expenditure increases resulting from slowing state economies due to the mandated shutdowns.<sup>22</sup> (To address this limitation, in early April 2020 the Federal Reserve, under credit protection from the Department of the Treasury, instituted the Municipal Liquidity Facility [MLF] to buy up to \$500 billion in short-term debt directly from state and local governments.<sup>23</sup>)

## Fiscal Preparedness Among Third District States

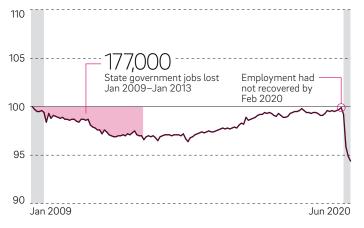
In order to analyze the preparedness of the Third District states to weather the budget gaps that they are certain to incur in this fiscal year and perhaps beyond, we examine their rainy day funds, their credit ratings, and results from a budget stress test used to analyze the effects of the coronavirus on respective state public finances.

State rainy day funds may be inadequate for this downturn. A recent Tax Foundation Analysis found that the median rainy day fund balance was 8 percent of state general fund expenditures, whereas it is recommended that states carry 15 percent in order to withstand revenue shortfalls associated with a moderate recession.<sup>24</sup> At the start of fiscal year 2020,

# Budget Cuts Led to Job Cuts

As states slashed their budgets during the Great Recession, state government employment dropped.

Change in state government employment, 2009–2020; January 2009 = 100

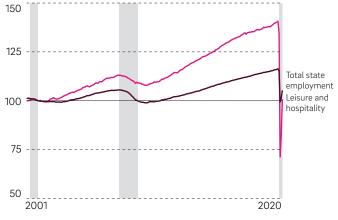


Source: U.S. Bureau of Labor Statistics (2020).

#### FIGURE 5

## Leisure and Hospitality Stands Out

The leisure and hospitality sector has grown markedly since the 2001 recession but is suffering disproportionately now. Sectoral change in employment, 2001–2020; 2001 = 100



Source: U.S. Bureau of Labor Statistics (2020).

all Third District state rainy day funds were below the median. Although Delaware's rainy day fund stood at 5.4 percent of state general fund expenditures, Pennsylvania and New Jersey tied, at 1 percent, for the lowest nondepleted funds in the country (Figure 6).<sup>25</sup>

Another means of short-term funding relief for some states is the issuance of debt to financial markets.26 Although the MLF was established to aid state borrowing efforts by purchasing short-term debt from state governments, borrowing costs vary across states according to perceived risk.27 Commonly, general obligation debt is issued through financial markets and rated by independent rating agencies (for example, Moody's, Standard & Poor's, and Fitch), which base their ratings on a state's ability to repay debt and on the state's economic health. A lower rating for general obligation debt results in a higher interest rate for a state, which raises the cost of borrowing and ultimately results in a higher burden for that state's taxpayers. As of June 2020 (Figure 7), Delaware had an AAA rating and was one of several states that paid the lowest borrowing costs for municipal debt issuers in the nation. Pennsylvania had an A+ rating, forcing it to pay 0.5 percentage point more than states like Delaware for interest on 10-year debt. New Jersey stood among the worstrated municipal borrowers in the nation with an A-rating, forcing it to pay 0.9 percentage point more than AAA municipal borrowers.

When Moody's Analytics ran its stress-test model in April,28 it found that the coronavirus shock will have widely disparate effects on state public finances, due to states' varying levels of fiscal preparedness, employment industry mix, and tax revenue streams.29 The analysis resulted in an estimated tax revenue shortfall through fiscal year 2021 of 5.6 percent for Pennsylvania, 10.6 percent for Delaware, and 25.4 percent for New Jersey (Figure 8).30 According to the model, Pennsylvania's tax revenues appear to be more resilient than in most states, largely due to its heavy concentration of employment in education and healthcare.31 However, due to New Jersey's reliance on two volatile revenue streams-a progressive

FIGURE 6

# State Rainy Day Funds May Be Inadequate for This Downturn

Rainy day fund as percentage of state general fund expenditures, start of FY 2020

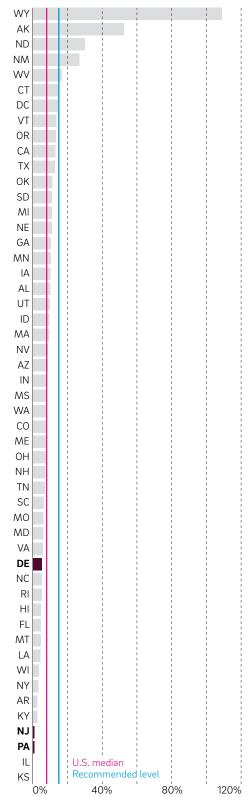
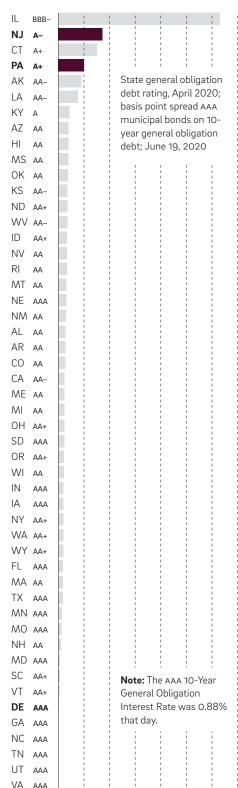


FIGURE 7

## Borrowing Costs Vary Across States According to Perceived Risk

A lower rating generally means a higher interest rate for the state.

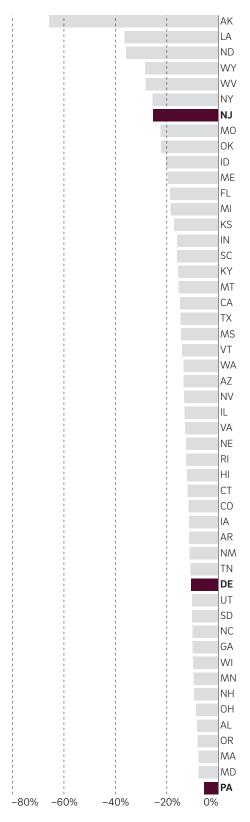


Source: Walczak and Cammenga (2020).

**Source:** Thomson Reuters Municipal Market Monitor.

# COVID-19 Will Have Disparate Impact on State Finances

Estimated tax revenue shortfall, percent of 2019 general fund revenues, by state, FY 2021



personal income tax and a large employment base in hospitality and tourism—the state's tax revenues stand to be among the worst affected.

In many states, the coronavirus recession will likely exacerbate one particular ongoing fiscal concern: the management of pension and health benefit funds for retired state workers and teachers. When crafting their annual budgets, states may defer payments into these funds in order to balance their budgets, inflating unfunded pension liabilities over time. Due in part to these deferrals, New Jersey and Pennsylvania<sup>32</sup> have both seen their unfunded pension liabilities balloon since the Great Recession, with the former's pension outlook ranking<sup>33</sup> among the worst in the country. Perceived fiscal irresponsibility reflected by large unfunded pension liabilities in Democratic-controlled states such as New York, New Jersey, and Illinois has resulted in a politicized public debate over whether any further federal aid to states to alleviate the fiscal shock of the coronavirus<sup>34</sup> would be a "blue state bailout."

## Final Thoughts

State governments will undoubtedly face difficult times as the coronavirus recession concludes and recovery begins. These governments will need to make tough decisions to address budget gaps resulting from tax revenue shortfalls and expenditure increases. We must understand the dynamics of state government budgets and the role of state government services in communities across the nation if we are to evaluate how the federal government might best address states' needs through further legislation. Although states and municipalities around the country are preemptively addressing these budget concerns by cutting expenditures, these cuts and reduced service levels may persist for years beyond this current crisis, as occurred during the last business cycle. Moreover, state fiscal austerity in the wake of the Great Recession is estimated to have worsened the effects of the recession and slowed our nation's last recovery considerably, making it a reaction worth avoiding.<sup>35</sup> [I]

# How Will States Pass Their Fiscal Stress to Local Governments?

Local governments will face their own fiscal hurdles as they wade through a recession and lean on heavily distressed state governments for relief. Local governments receive 32 percent of their revenues from state transfers, 36 so they are particularly vulnerable to state expenditure cuts as states pass through their fiscal stress. Furthermore, aside from the largest jurisdictions, local governments must rely on states to pass on federal aid associated with the coronavirusfighting efforts. The CARES Act, which allocates \$150 billion for state and local governments, directly allocates local funds only for jurisdictions with 500,000 or more residents, with the rest allocated to the states to relieve smaller jurisdictions. Furthermore, the Federal Reserve's MLF will directly buy municipal debt only from counties with a population of at least 500,000 and cities with a population of at least 250,000, leaving most jurisdictions without direct access to short-term funding relief.<sup>37</sup> Unlike states facing fiscal strains, local governments may file for Chapter 9 bankruptcy protection under federal law, as Detroit did in 2013. However, governing state law must permit municipal governments to file for bankruptcy protection in order for them to do so.<sup>38</sup> In part because only about half of the states authorize municipal governments to file for bankruptcy, local governments have rarely succeeded in declaring bankruptcy over the past 20 years.<sup>39</sup>

Source: White et al. (2020).

#### **Notes**

- 1 See Gordon (March 2012).
- **2** Sources: Bureau of Economic Analysis National Income and Product Account Tables 1.1.5, 3.2, 3.3, and 3.15.5; author's calculations. "Federal spending" includes Medicare and Social Security but not matches on Medicaid, as those are included in "grants to state and local government."
- **3** The National Conference of State Legislatures (NCSL) reports that 49 states must balance their budget, with Vermont being the exception. The requirement that a state balance its budget is either explicitly stated in the state constitution, interpreted from the state constitution, or effectively enforced due to political culture. For more information, see National Conference of State Legislatures (2010).
- **4** States may also use less traditional one-off actions, such as deferring pension obligations, diverting funds from an unemployment insurance trust fund, or extending the fiscal year, as New Jersey announced its intention to do for the 2020 fiscal year.
- 5 See Cammenga (2020).
- **6** By law, four states (Arizona, Colorado, Indiana, and Nebraska) prohibit debt and 12 others require voter approval of debt supported by general tax revenue. See McNichol et al. (2020).
- **7** Most of these funds were allocated to Medicaid and education funds. For more information, see Economic Policy Institute (2009).
- 8 See Gordon (July 2012).
- 9 See Pome and Saxon (2019).
- **10** U.S. Bureau of Labor Statistics, All Employees, State Government [CES9092000001], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/CES9092000001, April 22, 2020.
- 11 See New York Times (2020).
- 12 See Scavette (2019).
- **13** This includes NAICS sectors 71 (arts, entertainment, and recreation) and 72 (accommodation and food services).
- **14** A recent analysis by Brookings identified three metro areas in the Third District (Atlantic City–Hammonton, NJ; Ocean City, NJ; and East Stroudsburg, PA) among the top 15 metro areas with the largest share of high-risk employees. For more information, see Muro et al. (2020).
- **15** As of February 2020. For more information, see U.S. Bureau of Labor Statistics (2020).
- 16 See https://fred.stlouisfed.org/series/USLAH.
- **17** See Clark et al. (2009).
- 18 See Gangitano (2020).

- 19 The Paycheck Protection Program (PPP) indirectly benefits state finances: If businesses that take these forgivable loans keep employees on their payrolls, and if those employees would otherwise have been laid off, the states will save money on unemployment insurance (UI) benefits. Furthermore, the five states that do not tax UI benefits (two of which are Pennsylvania and New Jersey) will see an even larger positive fiscal effect, because, in addition to spending less on UI benefits, they will receive income taxes from those otherwise-laid-off employees—taxes paid out of the PPP funds used as wages. For more information on which states tax unemployment benefits, see Bishop-Henchman and Saddock (2013).
- 20 See U.S. Department of the Treasury (2020).
- **21** Walczak (2020) notes that "much of the funding already provided under the CARES Act, while not directly available to backfill revenue losses, is nonetheless fairly fungible, freeing up states' existing revenues to meet other needs."
- **22** Furthermore, a follow-up bill to CARES, the Paycheck Protection Program and Health Care Enhancement Act, passed in late April 2020, did not include aid to state and local governments. For more information, see U.S. Congress (2020).
- 23 See Board of Governors of the Federal Reserve System (2020).
- 24 See Walczak and Cammenga (2020).
- 25 Illinois and Kansas had nearly empty reserve funds.
- 26 See footnote 6 for limits on state-level debt financing.
- **27** In order to prevent outbidding regular investors, the Federal Reserve's MLF will charge penalty rates to borrowers tapping the facility. The penalty rates charged on individual debt are scaled based on ratings from nationally recognized statistical rating organizations (NRSROS). For more information, see Federal Reserve Bank of New York (2020).
- 28 See White et al. (2020).
- **29** Run in early April 2020, the Moody's model assumes a deep recession in the first half of 2020, with a peak unemployment rate of 13 percent in the second quarter of 2020, and a peak-to-trough real gross domestic product decline of 10 percent.
- **30** This does not take into consideration anticipated additional Medicaid expenditures, which increase during recessionary periods.
- **31** Although both of these industries have been less sensitive to recessions, this pandemic may affect them more than did previous recessions. The cancellation of elective surgeries and the associated coronavirus costs have led to widespread stress among U.S. hospitals. Furthermore, the higher-education sector is likely to struggle due to reduced enrollment, reduced state aid, and declines in endowment investments. For more information, see Hook and Kuchler (2020) and Foroohar (2020).

**32** The Public Pension Management and Asset Investment Review noted that Pennsylvania's "unfunded pension liability was the direct and foreseeable consequence of past policy decisions, primarily deferring actuarially determined contributions as well as investment underperformance." For more information, see Public Pension Management and Asset Investment Review (2018).

33 See Marcus (2020).

34 See Walsh (2020).

35 See Matthews (2020).

36 See Tax Policy Center (2020).

**37** State governments may now authorize at least two cities or counties eligible to directly issue notes to the MLF regardless of population. Initially, the act restricted direct aid to counties with a population of at least 2 million and cities with a population of at least 1 million.

38 See Maciag (2013).

39 See Murphy and Cook (2018).

#### References

Bishop-Henchman, Joseph, and Chris Saddock. "State Taxation of Unemployment Benefits," Tax Foundation, May 13, 2013. https://taxfoundation.org/state-taxation-unemployment-benefits/.

Board of Governors of the Federal Reserve System. "Federal Reserve Takes Additional Actions to Provide up to \$2.3 trillion in Loans to Support the Economy," April 9, 2020. https://www.federalreserve.gov/newsevents/pressreleases/monetary20200409a.htm.

Cammenga, Janelle. "How Healthy Is Your State's Rainy Day Fund?" Tax Foundation, April 1, 2020. https://taxfoundation.org/2020-state-rainy-day-funds/.

Clark, David E., James M. McGibany, and Adam Myers, "The Effects of 9/11 on the Airline Travel Industry." In Matthew Morgan, ed., *The Impact of 9/11 on Business and Economics*. New York: Palgrave Macmillan, 2009, pp. 75–86. https://link.springer.com/chapter/10.1057/9780230100060\_7.

Economic Policy Institute. "Fiscal Relief for State and Local Governments: American Jobs Plan," November 24, 2009. https://www.epi.org/publication/relief\_for\_state\_and\_local\_gov/.

Federal Reserve Bank of New York. "FAQs: Municipal Liquidity Facility," May 15, 2020. https://www.newyorkfed.org/markets/municipal-liquidity-facility/faq.

Foroohar, Rana. "Coronavirus Bursts the U.S. College Education Bubble," *Financial Times*, April 26, 2020. https://www.ft.com/content/e5d50e86-861a-11ea-b872-8db45d5f6714.

Gangitano, Alex. "Restaurant Industry Calls for Changes to Small-Business Loan Program," *The Hill*, April 9, 2020. https://thehill.com/business-a-lobbying/business-a-lobbying/492031-restaurant-industry-calls-for-changes-to-small.

Gordon, Tracy. "What States Can, and Can't, Teach the Federal Government About Budgets," Brookings Institution Report (March 2012). https://www.brookings.edu/research/what-states-can-and-cant-teach-the-federal-government-about-budgets/.

Gordon, Tracy. "State and Local Budgets and the Great Recession," Stanford Center on Poverty and Inequality Report (July 2012). https://web.stanford.edu/group/recessiontrends-dev/cgi-bin/web/sites/all/themes/barron/pdf/StateBudgets\_fact\_sheet.pdf.

Hook, Leslie, and Hannah Kuchler. "How Coronavirus Broke America's Healthcare System," *Financial Times*, April 30, 2020. https://www.ft.com/content/3bbb4f7c-890e-11ea-a01c-a28a3e3fbd33.

Johnson, Nicholas, Phil Oliff, and Erica Williams. "At Least 46 States Have Imposed Cuts That Hurt Vulnerable Residents and Cause Job Loss," Center on Budget and Policy Priorities Report, February 9, 2011. https://www.cbpp.org/sites/default/files/atoms/files/3-13-08sfp.pdf.

Maciag, Michael. "Municipal Bankruptcy State Laws Policy Map," Governing, January 25, 2013. https://www.governing.com/gov-data/state-municipal-bankruptcy-laws-policies-map.html.

Marcus, Samantha. "N.J.'s Troubled Public Worker Pension Fund Piled Up More Debt Before Coronavirus Crisis," *NJ.com*, May 12, 2020. https://www.nj.com/politics/2020/05/njs-troubled-public-pension-fund-piled-up-more-debt-before-coronavirus-crisis.html.

Matthews, Dylan. "The Case for a Massive Federal Aid Package for States and Cities," Vox, April 22, 2020. https://www.vox.com/policy-and-politics/2020/4/22/21228229/coronavirus-bailout-money-state-austerity-budget-shortfall.

McNichol, Elizabeth, Michael Leachman, and Joshuah Marshall. "States Need Significantly More Fiscal Relief to Slow the Emerging Deep Recession," Center on Budget and Policy Priorities Report, April 14, 2020. https://www.cbpp.org/research/state-budget-and-tax/states-need-significantly-more-fiscal-relief-to-slow-the-emerging-deep.

Muro, Mark, Robert Maxim, and Jacob Whiton. "The Places a COVID-19 Recession Will Likely Hit Hardest," Brookings Institution, March 17, 2020. https://www.brookings.edu/blog/the-avenue/2020/03/17/the-places-a-covid-19-recession-will-likely-hit-hardest/.

Murphy, Mary, and Matthew Cook. "Local Governments Rarely File for Bankruptcy," Pew Charitable Trusts Fact Sheet, February 6, 2018. https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2018/02/local-governments-rarely-file-for-bankruptcy.

National Conference of State Legislatures. "NCSL Fiscal Brief: State Balanced Budget Provisions" (October 2010). https://www.ncsl.org/research/fiscal-policy/state-balanced-budget-requirements-provisions-and.aspx.

*New York Times.* "Coronavirus in the U.S.: Latest Map and Case Count," accessed May 7, 2020. https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html.

Pome, Edwin, and Nicholas Saxon. "Effects of Economic Downturn on Private and Public Employment," U.S. Census, October 17, 2019. https://www.census.gov/library/stories/2019/10/effects-of-economic-downturn-private-and-public-employment.html.

Public Pension Management and Asset Investment Review Commission. "Final Report and Recommendations," *Treasury Department: Commonwealth of Pennsylvania*, December 2018. https://www.psers.pa.gov/About/Investment/Documents/PPMAIRC%202018/2018-PPMAIRC-FINAL.pdf.

Scavette, Adam. "Regional Spotlight: Evaluating Metro Unemployment Rates Throughout the Business Cycle," Federal Reserve Bank of Philadelphia *Economic Insights* (Fourth Quarter 2019), pp. 12–18. https://www.philadelphiafed.org/-/media/research-and-data/publications/economic-insights/2019/q4/eiq419\_rs-evaluating-unemployment-rates.pdf?la=en.

Tax Policy Center. The Tax Policy Center's Briefing Book: A Citizen's Guide to the Fascinating (Though Often Complex) Elements of the U.S. Tax System, May 2020. https://www.taxpolicycenter.org/briefing-book/what-are-sources-revenue-local-governments.

U.S. Bureau of Labor Statistics. Industries at a Glance: Leisure and Hospitality. Accessed May 7, 2020. https://www.bls.gov/iag/tgs/iag70.htm.

U.S. Congress. H.R.266—Paycheck Protection Program and Health Care Enhancement Act. 116<sup>th</sup> Congress, April 24, 2020. https://www.congress.gov/bill/116th-congress/house-bill/266.

U.S. Department of the Treasury. "The CARES Act Provides Assistance for State and Local Governments," accessed May 7, 2020. https://home.treasury.gov/policy-issues/cares/state-and-local-governments.

Walczak, Jared. "Designing a State and Local Government Relief Package," Tax Foundation, May 12, 2020. https://taxfoundation.org/state-and-local-relief-package-coronavirus-relief-fund-cares-act/.

Walczak, Jared, and Jannelle Cammenga. "State Rainy Day Funds and the COVID-19 Crisis," Tax Foundation, April 7, 2020. https://taxfoundation.org/state-rainy-day-funds-covid-19/.

Walsh, Mary Williams. "As Virus Ravages Budgets, States Cut and Borrow for Balance," *New York Times*, May 14, 2020. https://www.nytimes.com/2020/05/14/business/virus-state-budgets.html.

White, Dan, Sarah Crane, and Colin Seitz. "Stress-Testing States: COVID-19," Moody's Analytics Analysis, April 14, 2020. https://www.economy.com/economicview/analysis/379097/StressTesting-States-COVID19.