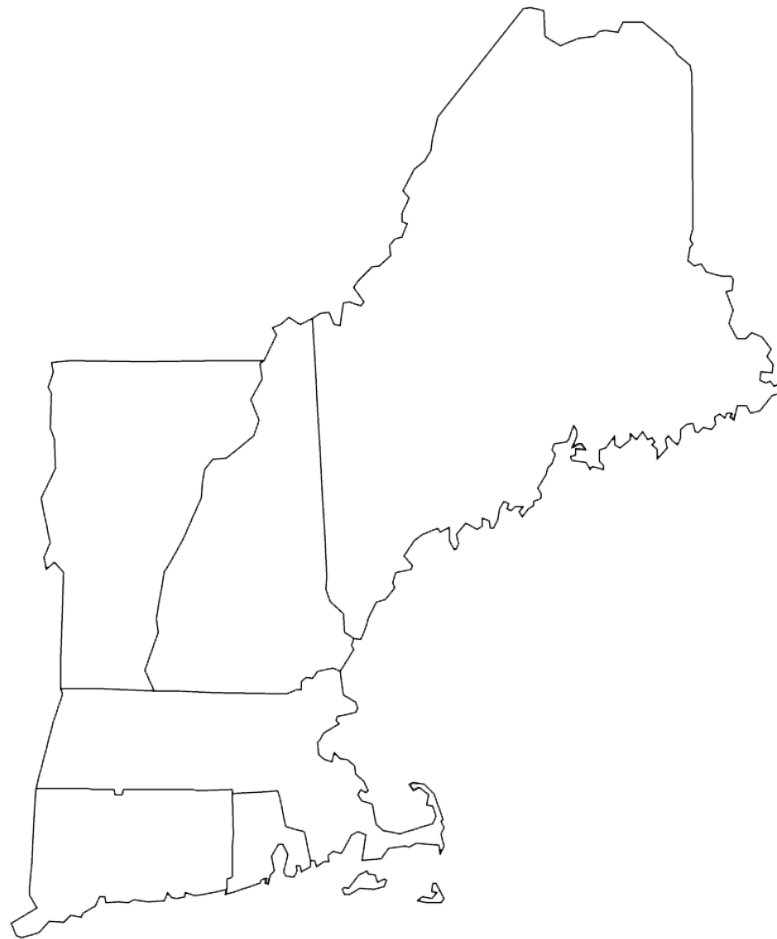


# *COVID-19 Special Investigation Report:* Economic Needs of New England State and Local Governments in Pandemic Recovery

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Prepared August 2020



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# Executive Summary

The COVID-19 pandemic has precipitated a contraction of economic activity of unprecedented speed and magnitude. One consequence of the contraction is that state and local governments are experiencing large decreases in revenue inflows and increased need for expenditures associated with public education and social welfare and public health programs. State and local governments are mandated to balance their budgets and will almost certainly implement substantial reductions in their services and programs unless they receive aid from the federal government sufficient to close their pandemic-induced budget gaps. Such a decrease in spending would have two deleterious effects. First, it would inflict harm on residents and businesses that depend on state and local government services and programs. Second, it would produce a substantial fiscal drag on the economic recovery from the pandemic-induced recession. The Federal Reserve has already reduced short-term interest rates to effectively zero and it would be unable to offset that fiscal contraction. As a result, there would be slower economic growth, with less job creation and higher unemployment, than there otherwise would be. A similar, but less severe, problem occurred during the recovery from the Great Recession of 2008. State and local government spending decreased as stimulus funds were exhausted, resulting in a substantial fiscal drag that was an important factor underlying the slow economic recovery during the early 2010s.

This report reviews the impact of the pandemic-driven decline in economic activity in New England on state and local government finances, identifies policy considerations, and discusses some specific policy recommendations.

Fairly massive aid to state governments sufficient to close their budget gaps (and those of associated local governments) is necessary to avoid decreases in state and local government spending from prolonging the recession and producing a period of slow growth in its aftermath. Short of that, smaller amounts of aid to state and local governments that is targeted to some of the most important functions associated with adapting to the pandemic will not avoid that disastrous macroeconomic scenario but would still have beneficial effects. For example, aid targeted at providing safe child care and in-classroom instruction would facilitate the return of parents to work and investment in their children’s human capital. Aid dedicated to increased testing, contact tracing, provision of PPE, and other public health measures would decrease the likelihood of new outbreaks of the virus causing further disruptions of economic activity and consequent further increases in the budget gaps facing state and local governments.

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# COVID-19 Special Investigation Report: Economic Needs of New England State and Local Governments in Pandemic

## 1. Introduction

The COVID-19 pandemic has precipitated a severe contraction of economic activity, including a sharp drop in employment and an increase in the rate of unemployment.<sup>1</sup> Many sectors of the economy have been negatively affected by the downturn, including state and local governments. The link between general economic activity and state and local government spending and employment is straightforward. State governments are constrained by their constitutions to not run fiscal deficits.<sup>2</sup> As a result, when an economic contraction precipitates a decrease in tax revenue, state governments must use some combination of expenditure decreases, drawing down of rainy-day funds, and tax increases to maintain a balanced budget. State policy makers are understandably reluctant to increase tax rates during a recession to fully offset the decrease in revenue and rainy-day funds are generally too small to weather a major downturn, so most of the budget balancing is accomplished by decreasing expenditures. Local government budgets are affected through both the drop in their own revenue from taxes and fees as well as by the decrease in transfers from states to local governments that often occurs.

**“Many sectors of the economy have been negatively affected by the downturn, including state and local governments.”**

The net result is a decrease in state and local expenditures. The decrease in expenditures has several negative consequences. Most importantly, there is a decrease in the provision of needed public programs and services. The demand for many public services and programs increases during economic downturns, and so the decrease in spending comes at an especially bad time. In addition to the direct impact on the users and recipients of services and programs provided by state and local governments, the reduction in spending results in a further contraction of economic activity. The decrease in expenditures is accomplished by furloughing state and local employees, decreasing expenditures on goods and services purchased by governments from suppliers, and reducing social welfare transfers.

**“The lost earnings of furloughed workers result in their spending less on goods and services, which then cascades into further job losses at affected businesses.”**

The furloughing of state and local government employees at a time when it is very difficult to find alternate jobs results in those workers becoming unemployed. That directly impacts the finances and well-being of those workers, and also reduces aggregate demand in the overall economy through a multiplier process. The lost earnings of furloughed workers result in their spending less on goods and services, which then cascades into further job losses at affected businesses. Similarly, the reduction in spending by state and local governments at business and service providers results in reduced

revenue at those businesses at a time when demand conditions are already very soft, with a consequent reduction in employment at those businesses.

A key basic insight of macroeconomics is that one person’s spending is another person’s income. The decrease in state and local government expenditures has ripple effects across the economy that exacerbate the overall downturn in economic activity. Compared to other organizations and businesses, state and local governments are especially likely to spend aid given to them during a downturn. In contrast, some of the aid directed to businesses and to households that are not yet experiencing unemployment may be saved for precautionary purposes, at least in the short-run. The effectiveness of aid increases with the proportion of it that is quickly spent, and so aid to state and local governments is an especially effective means to stimulate the aggregate economy.

For that reason, along with the importance of maintaining the services they provide, professional economists are nearly unanimous in advocating aid to state and local governments as an effective stimulus to counteract the effects of deep recessions. A letter to congressional leaders signed by 159 economists, including the two most recent chairs of the Federal Reserve Board of Governors, advocates for “new assistance to states and localities” and notes that if “...Congress fails to act, state and local governments face potentially disastrous budget shortfalls...”<sup>3</sup> Similarly, approximately 90 economists (including myself) wrote to the Massachusetts governor and legislative leaders warning of the negative consequences of potential state budget cuts and noting that “Now is an appropriate time for the federal government to provide relief to states...”<sup>4</sup>

The next section of this report documents the pandemic-driven decline in economic activity, discusses the forecast for economic activity in the near future, and presents estimates of the likely impact on state and local government finances. The problems facing state and local governments in New England stems in part from the direct local effects of the pandemic and also from the deterioration in business conditions and employment opportunities associated with the national (and international) recession. Due to this, much of the discussion focuses on the national situation and how that relates to conditions in New England. This is followed by a section focused on the potential role of policy in ameliorating the pandemic-induced deterioration in state and local fiscal conditions. The final section discusses policy recommendations.



## 2. The Effect of the Pandemic Recession on Economic Activity and State and Local Government Finances

### 2.1 The National Situation

The effect of the pandemic on economic activity has been truly remarkable. In order to avoid community transmission of COVID-19, most businesses and other places of employment either shut down or went online starting in March 2020. An analogy used by many commentators is that the economy was put into a medically induced coma in order to prevent more widespread transmission of the virus. Although the period of pandemic related shutdown included less than a third of the 1st quarter of 2020, the Bureau of Economic Analysis (BEA) estimates that real (inflation adjusted) GDP fell by 5 percent (seasonally adjusted annual rate) in that quarter. The BEA's "advance" estimate for the 2nd quarter is that real GDP decreased at a 32.9 percent (seasonally adjusted) annual rate.<sup>5</sup> This rate of decrease is unprecedented in the modern era of aggregate data collection.

Data on changes in employment and the rate of unemployment, which are released by the Bureau of Labor Statistics (BLS) in a timelier manner than the official GDP statistics, also point to an economic downturn of unprecedented severity. The national seasonally adjusted standard (U-3) civilian unemployment rate increased from 3.5 percent in February 2020 to 4.4 percent in March, and then jumped to 14.7 percent in April before decreasing to 13.3 percent in May, 11.1 percent in June, and 10.2 percent in July.<sup>6</sup> The unemployment rates for April, May and June were all greater than that measured at any point since the Great Depression of the 1930s, and the July rate remains very high by historical standard.

The official payroll employment statistics tell a similar story. Total nonfarm employment decreased 14.6 percent between February and April 2020.<sup>7</sup> Employment has since regained some of that loss, but as of July 2020 employment remains 8.6 percent below the February level.

### 2.2 Economic Conditions in New England

The economic impact of the pandemic in the New England states was roughly similar to that of the national experience. Table 1 displays the civilian unemployment rate for the U.S. and each of the six New England states for February through June 2020. In interpreting this table, one should keep in mind that the state unemployment rate estimates are based on smaller samples than are the national unemployment rate estimates, and are consequently less precise.

Table 1: Civilian Unemployment Rate (percent, seasonally adjusted)

State	February 2020	March 2020	April 2020	May 2020	June 2020
United States	3.5	4.4	14.7	13.3	11.1
Connecticut	3.8	3.4	8.3	9.6	9.8

Table 1: Civilian Unemployment Rate (percent, seasonally adjusted) (cont..)

State	February 2020	March 2020	April 2020	May 2020	June 2020
Maine	3.2	3.0	10.4	9.4	6.6
Massachusetts	2.8	2.8	16.2	16.6	17.4
New Hampshire	2.6	2.4	17.1	15.4	11.8
Rhode Island	3.4	4.7	18.1	16.4	12.4
Vermont	2.4	3.1	16.5	12.8	9.4

Source: Bureau of Labor Statistics, retrieved from FRED on August 7, 2020.<sup>8</sup>

Although all of the New England states followed the general national pattern of experiencing a sharp increase in unemployment between March and April, some differences are worth noting. Massachusetts stands out for having experienced a very sharp initial increase in its unemployment rate that has continued to increase even as the national unemployment rate has started to decrease. Massachusetts' unemployment rate in June 2020 (the most recently available date as of the writing of this report) is the highest in the nation, followed by New Jersey and New York. A characteristic common to these three states is that they were all hit hard by the pandemic. Their high unemployment rates largely reflect the fact that their economies shut down to a greater extent, and for a longer time, than the economies of states that experienced lower rates of COVID-19 cases.

Connecticut experienced a smaller initial jump in its unemployment rate than did the other New England states, although its unemployment rate has since continued to slowly increase while the unemployment rate has started to decrease in several other states. The Connecticut Department of Labor has expressed the opinion that the Connecticut unemployment rate is underestimated due to technical pandemic-related issues, and based on unemployment insurance claims estimates that the true rate was 16-17 percent in mid-June.<sup>9</sup>

Vermont's unemployment rate rose by roughly the same amount as did Massachusetts' between March and April, but has subsequently fallen substantially while Massachusetts' unemployment rate has continued to rise. This likely reflects Vermont's success in reducing the rate of new COVID-19 cases.

### 2.3 Variation Over Communities

The economic impact of the pandemic differs not only across states, but also within states. Some communities have experienced much higher rates of COVID-19 cases than have others, and as a result have experienced much sharper decreases in employment and increases in unemployment. At the county level there is a clear correlation between the prevalence of COVID-19 in the population and decreases in employment.<sup>10</sup>

The industry-mix of employment in a local labor market is another determinant of the impact that the pandemic has on economic activity in that market. Some industries, such as leisure and hospitality, depend on person-to-person contact and experienced a massive decrease in their employment as social distancing measures were put into place. Communities that have a substantially higher than typical share of their employment in industries

*The industry-mix of employment in a local labor market is another determinant of the impact that the pandemic has on economic activity in that market.*

disproportionately affected by the pandemic tended to experience a more pronounced decrease in economic activity and increase in unemployment than did other communities. Some other industries and occupations, such as professional services, lend themselves to telework arrangements that make their employment less sensitive to the pandemic.

Industries with high exposure to the pandemic tend to disproportionately employ workers who have lower wages and earnings than do workers in industries with low exposure.<sup>11</sup> The workers in the highly exposed industries are also more likely to be part-time and have relatively low educational attainment.<sup>12</sup> Overall, the economically vulnerable are disproportionately represented in the industries with high exposure to the pandemic.

Industry-mix interacts with the prevalence of COVID-19 cases in determining how the economies of communities are affected by the pandemic. There is a much stronger county-level relationship between the decrease in employment and the rate of COVID-19 cases for industries that do not lend themselves to telework, such as leisure and hospitality, than there is for industries where telework is generally possible, such as professional services.<sup>13</sup>

People of color are disproportionately at risk of contracting COVID-19, and so communities of color have also been disproportionately affected economically.<sup>14</sup> The heightened vulnerability of people of color to COVID-19 has several root causes, including discrimination in access to health care and housing, as well as factors associated with inequity in educational attainment and access to occupations conducive to working from home. Communities of color also tend to have a disproportionate share of workers in industries that have high exposure to the economic effects of the pandemic.

## 2.4 The Economic Outlook

The economic outlook remains uncertain and depends critically on the evolution of public health conditions in the coming months. However, all credible economic forecasters agree that we are in a severe contraction and that full recovery will take several years.

The “Survey of Economic Projections” (SEP) released most recently by the U.S. Federal Reserve System in June 2020 reports the economic projections of the members of the Board of Governors or the Federal Reserve System and the presidents of the Federal Reserve Banks. The median forecast of the unemployment rate in the SEP is 9.3% at the end of 2020, 6.5% at the end of 2021, and 5.5% at the end of 2022. In contrast, the median SEP estimate of the normal unemployment rate is 4.1%.<sup>15</sup>

**The median forecast of the unemployment rate in the SEP is 9.3% at the end of 2020, 6.5% at the end of 2021, and 5.5% at the end of 2022.**

The Federal Reserve Bank of Philadelphia regularly conducts a survey of professional economic forecasters. The median forecast of the unemployment rate in the 4th quarter of 2020 is 11.0 percent in their May 15, 2020 survey release.<sup>16</sup> The median unemployment rate forecast for 2021 is 8.1 percent and that for 2022 is 6.2 percent; prior to the pandemic those forecasts had been 3.6 percent and 3.7 percent, respectively.

The Wall Street Journal reports a survey of the forecasts of more than 60 economists on a monthly basis. In their

July 2020 release, the average forecast for the unemployment rate in December 2020 is 9.1 percent and the average forecasts for the unemployment rates in December 2021 and 2022 are 6.8 percent and 5.6 percent.<sup>17</sup>

Although the forecasts differ, they all point to the current recession being severe and long lasting. As the next section documents, the implication is that there will be an accompanying severe and long-lasting deterioration in the fiscal position of state and local governments.

## 2.5 The Effect of the Pandemic on State and Local Government Finance

State and local tax revenue streams are closely tied to economic conditions. The reason for this is simple – the magnitude of the tax bases of state and local tax systems depends on the level of economic activity. Income taxes depend on labor earnings, which depend on employment, as well as non-labor income, such as income generated from financial assets or income generated from rental property. During any recession the unemployment rate rises and labor income decreases. The decrease in labor earnings has been especially severe in the current recession due to the unprecedented increase in unemployment, although so far this has been somewhat offset by the expansion of unemployment insurance benefits provided in the CARES act. Other sources of taxable income have also decreased. Decreases in interest rates have resulted in a decrease in financial income, and rental income will likely decrease as households experiencing unemployment have difficulty staying current on their rent payments.

**The decrease in labor earnings has been especially severe in the current recession due to the unprecedented increase in unemployment...**

Sales tax revenue depends on consumer spending. In a normal recession, consumer spending is somewhat less volatile than disposable (after tax) personal income. However, this recession is different; personal consumption expenditures have decreased substantially more than disposable personal income. Many retail establishments shut down temporarily and supply bottlenecks created shortages of some products. Some taxable sectors, such as restaurants, bars, and hotels, are likely to have depressed sales, and generate lower than normal sales tax revenue, for the duration of the pandemic. In addition to reducing sales tax revenue, the reduced revenue of these places of business also reduces the income taxes paid by their owners and employees.

### Mix of Revenue Sources and Cyclicity

The composition of revenue sources varies by level of government and also over states. Nationally, federal aid to states comprised the largest source of revenue to state governments, followed by sales taxes, individual income taxes, and user fees and charges.<sup>18</sup> State aid is the largest source of revenue for local governments, followed by property taxes, and user fees and charges. However, the source of revenue varies greatly over states. For example, New Hampshire has neither a state sales tax nor a comprehensive individual income tax; property taxes account for a much larger share of revenue to the state and local government sector than in most other states.

**State aid is the largest source of revenue for local governments...**

Research suggests that the revenue that states accrue through levying taxes and fees has become more cyclically sensitive over time.<sup>19</sup> The degree to which a state’s tax revenue varies with economic conditions potentially depends on the mix of sources from which the state draws its revenue, although a more important factor is the cyclical dependence of taxpayers’ income.<sup>20</sup>

Given the importance of federal aid in the revenue received by states, and state aid in the revenue received by local governments, intergovernmental transfers play a key role in the overall cyclicity of state and local government revenue.

## 2.6 Evidence from the Great Recession

Prior to the current pandemic-induced recession, the most severe recession that the United States had experienced since the 1930s Great Depression was the Great Recession of 2007-2009. The slow economic expansion following the Great Recession was due in part to the drag from fiscal contraction by state and local governments. The decrease in state and local own-source revenue receipts was much larger following the onset of the Great Recession than in other recent recessions, and the cumulative

decrease in revenue persisted for a longer period of time.<sup>21</sup> Recession-induced increases in public program caseloads, especially in Medicaid, unemployment insurance, and public post-secondary education, exacerbated fiscal pressure. The 2009 American Recovery and Reinvestment Act (ARRA) stimulus included approximately \$146 billion in aid to states, but that was not enough to close the recession-induced budget gaps. Although 40 states increased taxes or fees, the budget gaps were closed primarily by reducing spending. This resulted in state government employment decreasing by 137,000 jobs (2.6 percent) and local government jobs decreasing by 437,000 jobs (3.3 percent) between August 2008 and September 2012.

*The decrease in state and local own-source revenue receipts was much larger following the onset of the Great Recession than in other recent recessions...*

Explaining how much of the anemic economic recovery from the Great Recession was due to the fiscal contraction in the state and local government sector is difficult, although it was very clearly a contributing factor. State and local tax revenues tend to lag business cycles, and the ARRA aid to states covered shortfalls early on.<sup>22</sup> However, state and local government spending was a drag on economic output starting in 2010. Based on his macroeconomic model, economist Ray Fair attributes sluggish government spending as the main causal factor underlying slow growth following the Great Recession, with much of the drag coming from the state and local sector.<sup>23</sup>

## 2.7 Rainy Day Funds and Fiscal Preparedness for the Pandemic

How well state and local governments are able to weather economic downturns depends on the state of their finances prior to the start of the downturn, including how much money is set aside in a “rainy day” fund that can be drawn down during periods in which tax revenue is temporarily lower than normal. By the end of 2019 states had recovered fiscally from the effects of the Great Recession and revenue growth was strong.<sup>24</sup> Moreover, the median state rainy day fund balance was projected to reach 8.0 percent of expenditures in fiscal 2020, an all-time high.<sup>25</sup> Underlying the healthy median rainy day fund balance was a wide range of variation, from 0 percent in Illinois to 52.6 percent of expenditures in Alaska. The rainy day fund balances in the New England states are displayed and discussed in the section of this report on “Likely Fiscal Effects in New England” below.

Although most states had healthy reserves that would provide a decent buffer to a mild downturn prior to the pandemic, rainy day fund balances would not be sufficient to smooth over the decrease in revenue that would be associated with a severe recession.

## 2.8 Forecasts of the Effect of the Pandemic on State and Government Finances

Although estimating budget shortfalls arising from the pandemic recession is difficult at this early stage, some preliminary estimates are available. As discussed above, tax revenue is highly dependent on economic conditions. A direct implication of this is that forecasts of tax revenue are highly dependent

on the assumed paths of macroeconomic variables that underly the revenue forecasts. National macroeconomic forecasts have been changing substantially over time as new data and information becomes available, so forecasts of tax revenue also change. And at any given point in time tax revenue forecasts will vary due to differences in the revenue forecasting model and to the specific macroeconomic forecast that is input into the model.

### Center on Budget and Policy Priorities

The Center on Budget and Policy Priorities estimates that the pandemic recession will create state budget shortfalls (relative to the no-pandemic counterfactual) of approximately \$555 billion through fiscal year 2022, and notes that the induced shortfall in fiscal 2021 exceeds (in constant dollars) the peak budget shortfall during the Great Recession.<sup>26</sup>

### Moody's Analytics

In early April 2020 Moody's Analytics performed a “stress test” of how well states would weather a recession associated with the pandemic.<sup>27</sup> They consider two different scenarios: a baseline “moderate stress” scenario where the unemployment rate peaks at 13 percent, and a “severe stress” scenario where the unemployment rate peaks at 17 percent. The actual unemployment rate subsequently peaked at 14.7 percent in April, so reality is likely in between their two scenarios. Their main findings are that aggregate state revenue fell by 14.8 percent of the general fund in the moderate stress scenario through fiscal year 2021 and by 19.5 percent in the severe stress scenario. Total state fiscal stress is forecast to be greater than the decrease in revenue; state Medicaid expenditures increase by 3.1 percent of the general fund in the moderate stress scenario and by 3.5 percent in the severe stress scenario. Put in dollar terms, the aggregate decrease in revenue in the moderate stress scenario is approximately \$158 billion through fiscal 2021, and about \$203 billion in the severe stress scenario.

*Total state fiscal stress is forecast to be greater than the decrease in revenue...*

Taking account of the increased state spending associated with the pandemic, the aid to states under the CARES Act and Families First (which increased the federal share of Medicaid spending), and a drawdown of half of their reserves, Moody's estimates that under the severe scenario states will face, in aggregate, a shortfall of approximately \$172 billion through the end of fiscal 2021 and close to \$300 billion through the end of fiscal 2022.

## 2.9 The Effect of the Pandemic on Local Government Finances

Local government finances are affected by the pandemic both directly, through the impact of the recession on their revenues and social spending, and also indirectly through potential changes in aid they receive from their state government. Economist Timothy Bartik notes that local governments raise, on average, about 25 percent less revenue than state governments and rely more heavily on property tax revenue, which is less cyclically sensitive than other taxes.<sup>28</sup> As a result he expects recession-induced local government budget shortfalls to be roughly 48 percent as large as state budget shortfalls.

The National League of Cities has constructed estimates of the fiscal impact of the pandemic on cities, towns and villages.<sup>29</sup> Based on a modeling approach that ties local revenue streams to the unemployment rate, the total revenue loss to cities, towns and villages due to the pandemic is estimated to be over \$360 billion between 2020 and 2022.



As discussed in the earlier section on “Variation over Communities,” the effect of the pandemic differs across regions and communities within states depending on the characteristics of their workers and the exposure of their employers to the economic effects of the pandemic. In consequence, communities with a high share of workers employed in industries such as personal services or hospitality are especially hard hit by the pandemic. In addition to being vulnerable to a reduction in revenue from fees and a somewhat more muted reduction in property tax revenue, these communities are very vulnerable to potential reductions in transfers from state governments and the need to increase provision of services to their residents.

**...communities with a high share of workers employed in industries such as personal services or hospitality are especially hard hit by the pandemic.**

### 2.10 Likely Fiscal Effects in New England

The effect of the pandemic recession on state and local government finance in New England largely mirrors what is happening at the national level. Table 2, which is based on Moody’s stress test analysis, compares the rainy day balance at the end of fiscal year 2019 (measured as a percentage of fiscal 2019 revenue) to the magnitude of the fiscal shock (decrease in revenue plus increase in Medicaid spending) hitting each state under moderate and severe recession scenarios (also measured as a percentage of fiscal 2019 revenue). It should be emphasized that the fiscal shock estimates are projections based on fairly limited information and should not be used for more than gauging the rough magnitude of the fiscal crises facing state governments.

Compared to the nation (sum of U.S. states), Rhode Island stands out as being especially vulnerable to a fiscal shock due to its small rainy day fund balance. Connecticut and Vermont, in contrast, have rainy day fund balances that are substantially larger than that for states overall. Maine is the only one of the New England states that is projected to experience a fiscal shock larger than that experienced by states overall.

Table 2: Rainy Day Balances and Moody’s Analytics Estimates of Fiscal Shock (all as a percentage of fiscal 2019 revenues)

STATE	Rainy Day Balance, end of fiscal 2019	Fiscal shock, moderate scenario	Fiscal Shock, severe scenario
Sum of U.S. States	8.2	-17.9	-23.1
Connecticut	12.8	-13.5	-17.4
Maine	8.1	-22.6	-29.0
Massachusetts	8.1	-10.2	-13.4
New Hampshire	7.1	-15.3	-19.1
Rhode Island	0.6	-15.7	-18.3
Vermont	13.2	-17.8	-20.4

source: Moody’s Analytics<sup>30</sup>

### 2.11 Impact on State and Local Government Employment

Layoff and furloughs of state and government employees are already occurring. The Bureau of Labor Statistics employment report for May revealed that state and local government employment had decreased since March.<sup>31</sup> Although the loss of state and local public employment has not been as severe as that in

the private sector, it is still striking since state and local cutbacks tend to lag the business cycle. The loss of state and local jobs so early in the pandemic recession likely reflects the shutting down of some public facilities and the furloughing of affected workers. However, it may also reflect governments being cautious in the face of what are anticipated to be severe budget gaps.

### 2.12 Multiplier Effects on Economic Activity

Although an increase in government expenditures will largely crowd out private sector activity under conditions of full employment, mainstream macroeconomic theory predicts that when the aggregate economy is operating with considerable slack a fiscal stimulus will boost aggregate demand and move the economy toward full employment. In this case there will be a multiplier effect, and a given increase in government spending may increase economic output by an even larger amount (the multiplier would be zero if the increase in government spending simply crowded out private activity, and would be greater than one if the increase in government spending resulted in an increase in overall economic activity greater than the increase in government spending).

There is ample empirical evidence that the prediction of a positive multiplier is borne out during periods of economic slack. Sparked partly by the availability of new data, a wave of recent research has produced convincing evidence of the effectiveness of government spending increases in increasing economic output and employment. A recent review and synthesis of this research concludes that it points to a lower bound of a national fiscal spending multiplier equal to about 1.7 in the situation where monetary policy does not respond to the spending increase (as would be true when interest rates have been pushed to the zero lower bound).<sup>32</sup>

The size of fiscal spending multipliers would be expected to vary with economic conditions. A recent econometric study estimates the effects of changes in government spending in U.S. states during the 2005-2015 period, which includes the Great Recession.<sup>33</sup> As would be expected from theory, the government spending multipliers are larger during the recession than otherwise, and reach values over 4 when a state is in a severe recession. They vary considerably over states, with the size of the multiplier increasing with the severity of the recession. Other recent studies come to similar conclusions.<sup>34</sup> The effect of increases in government spending is also found to spill over to other states, resulting in a boost to economic activity beyond the borders of the state where government spending increases.<sup>35</sup> This points to the need for a federal role in fiscal stimulus. Because some of the benefits of a given state’s increase in spending spill beyond its borders, it will likely stop short of the optimal level of stimulus if it is relying on its own resources.

It is important to stress that federal transfers to state and local governments during a recession are likely to be especially effective means of economic stimulus. During a recession, states experience both decreased revenue and increased demand for services and are unable to run fiscal deficits to close the resulting gap. Due to this, any increase in federal transfers to states is very likely to be spent rather than saved. In contrast, transfers to private households and businesses are more likely to experience leakages into saving and so be less effective in stimulating aggregate demand.

**During a recession, states experience both decreased revenue and increased demand for services and are unable to run fiscal deficits to close the resulting gap.**

Conversely, it is also important to stress that state and local government spending decreases have a negative multiplier effect on economic activity. The magnitude of the spending decrease understates the negative effect that has on economic activity through multiplier effects.



## 3. Interconnecting Issues

The current fiscal crises facing state and local governments stem from the abrupt reduction in employment, sales, and other economic activity precipitated by the pandemic. Policies that are conducive to stimulating economic activity will also serve to prop up the tax bases that state and local governments rely on to generate revenue and will attenuate fiscal pressures. State and local government spending stimulates economic activity, as discussed above, and in turn state and local revenues are increased by anything that stimulates economic activity. This section briefly reviews some of the issues and policies that are most interconnected with state and local fiscal conditions.

### 3.1 Monetary Policy and the Federal Reserve

Under normal conditions, the Federal Reserve has primary responsibility to stabilize aggregate economic conditions in the United States. By law, its dual mandate is to achieve price stability and maximum employment. During the post-World War II period economists debated the relative efficacy of monetary and fiscal policy for macroeconomic stabilization, but by the 1980s a consensus had formed that monetary policy was the superior tool under most conditions. However, one condition under which fiscal policy is needed to supplement monetary policy is when the Federal Reserve has pushed interest rates to near zero. That occurred after the financial crisis and onset of the Great Recession and has occurred again now. Although Federal Reserve officials generally avoid weighing in on specific fiscal policy proposals, Jerome Powell, chair of the Board of Governors of the Federal Reserve System, expressed the view that it would hurt the economic recovery if state and local governments lay off workers during a virtual hearing of the House Financial Services Committee on June 17, 2020.<sup>36</sup>

The Federal Reserve has set up the Municipal Lending Facility to purchase states and municipal debt. This is important in stabilizing state and local governments access to credit, but it does not substitute for direct fiscal transfers to those governments.

### 3.2 Child Care

An important impediment to labor force participation by parents of young children is the disruption of child care arrangements. Parents who previously enrolled their children in day care centers, nursery schools, pre-K programs, after-school programs and summer camps have in many cases had their arrangements disrupted, making a return to working away from home difficult. The possibility that many schools will reopen in fall with students spending reduced hours, if any, in classrooms is creating additional uncertainty and may result in some parents cutting their work hours. Such a reduction in labor supply would reduce income and sales tax revenue and exacerbate fiscal difficulties.

**Such a reduction in labor supply would reduce income and sales tax revenue and exacerbate fiscal difficulties.**

Child care providers face additional costs associated with safely providing their services and complying with government pandemic-related protocols and may need to pass these costs on to parents, who in turn may face difficulty in carrying the increase in tuition or fees. In the case of publicly run child care programs, the costs may be borne by state or local governments and directly increase fiscal stress.

For more information on child care, see the separate GRI report by Alicia Sasser-Modestino.

### 3.3 Schools

State and local governments are the primary providers of educational services in the United States. Elementary and secondary schools are projected to face increased costs associated with implementing public health protocols in preparing to reopen in the fall.<sup>37</sup> Similar to the child care sector, the elementary and secondary education sector plays an important role in facilitating the return to work of parents of school age children. Failure to adequately fund public K-12 education would likely slow the recovery of employment and earnings of parents. From a longer-run perspective, the reduction in human capital accumulation of students affected by educational cutbacks is more important.

**Failure to adequately fund public K-12 education would likely slow the recovery of employment and earnings of parents.**

It is important to stress that the increase in costs incurred by public education systems is a source of fiscal imbalance that is over and beyond the revenue losses due to the pandemic outlined summarized above.

For more details about the impacts of K-12 education, see separate GRI report by Lori Gardiner and Emily Mann. For more details on the impacts within higher education, see GRI report by Ted Landsmark.

### 3.4 Public Pension Funding

Many states and localities have long experienced shortfalls in the funding of their defined benefit public pension systems.<sup>38</sup> Although this remains a problem, and the funded ratios of plans may decrease with the reduction of the prices of assets in plan portfolios and with reductions in expected rates of future returns on portfolio investments, it is important to recognize that public pension funding has played only a minor role in the deterioration of state and local government finances since the outbreak of the pandemic. Moreover, research indicates that public plan sponsors have generally increased contributions in response to deteriorations in funding and have not used pensions as a back-door means of running fiscal deficits.<sup>39</sup>

## 4. Policy Recommendations

This report has emphasized the effect of the current pandemic-induced recession on state and local government revenue and the consequent downward pressure on state and local government spending. This section outlines recommendations for how public policy can serve to attenuate the fiscal pressures facing state and local governments. The essential principles apply to all of the United States. Relatively

unrestricted aid to state governments that can then use that aid to close budget gaps at both the state and local levels is preferred to aid that is narrowly targeted for specific purposes or programs. State and local economic conditions should matter in the allocation of this aid, with those states whose economies have been hit hardest by the pandemic receiving proportionately more aid than those whose economies have been less affected. In this respect, the main New England-specific part of the recommendation is that within New England aid should be targeted at states that have been hardest hit. To the extent that federal aid is awarded directly to local governments, consideration should be given to which localities have experienced the largest degree of economic dislocation.

***To the extent that federal aid is awarded directly to local governments, consideration should be given to which localities have experienced the largest degree of economic dislocation.***

Reductions in state and local government spending during a recession counter the effect of other policy actions to reduce the severity of the recession and to increase the pace of the subsequent recovery. The contractionary macroeconomic impact of spending cuts is sizable, but one should not lose sight of the fact that the primary reason for state and local expenditures is the direct benefits they confer on the public. The state and local sector is the primary source of educational services, public safety services, social welfare services, and many more essential functions. Spending cuts necessitated by a recession-induced decrease in revenue come at the time when government programs may be most needed to supplement the resources available in the private sector. The resulting decrease in public sector services and investment negatively affect people in the short run, through cuts in child development programs for example, and also retard economic growth in the longer term due to the lost investment in human capital.

The \$150 billion Coronavirus Relief Fund to be distributed to state and local governments under the CARES act must be used to fund expenditures incurred by governments due to the public health emergency. As such, it cannot be simply put into states' general funds to make up for lost revenue. The magnitude of needed pandemic-related expenditures is large enough that this is not likely to be a serious constraint. However, it is very desirable that further federal legislation provide funds to states and

***The magnitude of needed pandemic-related expenditures is large enough that this is not likely to be a serious constraint.***

localities to compensate for the revenue lost due to the pandemic-induced economic contraction. There is a non-partisan consensus among professional economists that such aid is essential to prevent the current recession from extending long past the end of the pandemic and causing major economic damage. A lesson from the period of slow economic growth that followed the end of the Great Recession is that the failure to provide adequate relief to state and local governments can result in less job creation and higher unemployment than would otherwise be the case.

During the period between the Great Depression and the financial crisis that fed into the Great Recession fiscal crises facing state and local governments primarily affected the residents and businesses in the jurisdictions needing to decrease expenditures and increase taxes. Residents of other areas were largely spared the negative consequences because the Federal Reserve was able to use monetary policy to stabilize the national economy and prevent, or at least greatly limit, state and local contractionary fiscal policies from causing slow job creation and high unemployment nationally. Any national macroeconomic damage caused by fiscal contraction at the state and local level could be largely offset by the Fed decreasing its target for short-run interest rates. That is one reason why during this era fiscal policy fell into disfavor among economists as a macroeconomic stabilization tool.

Fiscal policy as a macroeconomic stabilization tool became relevant again when interest rates began to hit the zero lower bound. This happened in Japan in the 1990s, and then occurred in the United States and other countries during and after the Great Recession. When short-term interest rates are close to zero the Federal Reserve (or the central bank in other countries) cannot offset fiscal contractions by further reducing its policy rate. This is the situation the United States was in following the Great Recession, and it is again the case now. One difference between the Great Recession situation and now is that state and local budget shortfalls will likely be substantially larger in the current situation, and their contractionary effect on national employment growth and unemployment will also likely be larger.

***When short-term interest rates are close to zero the Federal Reserve...cannot offset fiscal contractions by further reducing its policy rate.***

Economists generally favor allocating stimulus funds to states based on largely exogenous correlates of the determinants of a state's fiscal stress, such as the increase in its unemployment rate. Because the pattern of intergovernmental responsibilities within states vary greatly across states, giving states leeway to reallocate funds to local governments is generally preferred.<sup>40</sup>

***A systematic automatic mechanism has the advantage of converting fiscal relief to states and localities into a macroeconomic stabilizer.***

Proposals have also been developed to automatically distribute fiscal stabilization funds to states in the form of a temporary increase in the federal share of their Medicaid expenditures.<sup>41</sup> A systematic automatic mechanism has the advantage of converting fiscal relief to states and localities into a macroeconomic stabilizer. Tying the aid to Medicaid is a means of making the aid less fungible and making sure that states will not restrict their Medicaid program during downturns.

There is much to be said in favor of stimulus proposals that tie the magnitude of aid to state and local governments to economic conditions. Such an approach allows the magnitude of aid to automatically change with the macroeconomic conditions that generate the need for federal aid and remove some of the uncertainty regarding the appropriate size of the stimulus

package. However, there is an urgent need to provide aid to state and local governments soon and it is important that aid not be delayed as a result of an impasse over the appropriate distribution formulas to use.

In addition to largely unrestricted aid to states to close budget gaps and avoid fiscal contraction, other targeted aid programs would speed the economic recovery. In particular, expenditures that facilitate the safe return to work will have direct economic benefits to affected workers and employers and also have positive spillover effects and boost macroeconomic activity.

Examples of this that are covered in other reports in this series include programs to provide safe childcare environments that would enable parents to return to work; programs to equip schools with equipment to enable students and teachers to safely return to classroom instruction would facilitate parental return to work and also children's human capital investment; and programs to implement widespread testing, contact tracing, and distribution of PPE that would help to contain new outbreaks of COVID-19 and facilitate more widespread reopening of the economy. Measures that successfully contain the spread of the virus will increase public confidence that it is safe to resume normal economic life and promote both public health and economic recovery.

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