Rhode Island's May
2020 Revenue
Estimating Conference
in Historic and
Regional Context



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I. Introduction

General revenues are one of four primary revenue types collected by the State of Rhode Island and, unlike the state's three other funding streams—federal grants, other funds, and restricted receipts—they are typically used for any type of budgeted expenditure. General revenues are the state's largest revenue source, accounting for 40.9 percent of all state spending in the fiscal year (FY) 2020 budget as first enacted.¹

In Rhode Island, the annual state budget is based on general revenue projections that are determined through a Consensus Revenue Estimating Conference, which consists of regularly scheduled meetings of three principals: the State Budget Officer, the House Fiscal Advisor, and the Senate Fiscal Advisor. The Conference typically relies on testimony regarding revenue collections, as well as economic forecasting produced by an independent forecasting firm, to produce estimates for both the current and subsequent fiscal year. Ultimately, revenue estimates reflect a consensus reached by the Conference principals.² State law dictates that the Revenue Estimating Conference must occur twice annually, during the first week of November and May each year, but any of the principals may convene an additional conference if they feel that the most recent revenue projections "are no longer valid."³

The determination of accurate estimated revenues by the Revenue Estimating Conference is central to the integrity of the budget process and to meeting the constitutional requirement of a balanced state budget. In January or February, the governor presents to the legislature a proposed budget for the upcoming fiscal year which relies on the estimates produced in the November Revenue Estimating Conference.⁴ When the legislature enacts a budget—typically before the fiscal year begins on July 1—it relies on the Conference's May estimates.⁵

While the Revenue Estimating Conference is perennially important to the state's fiscal position, the May 2020 Conference garnered particular prominence due to the economic crisis that has accompanied the COVID-19 pandemic from mid-March onward. To enhance our understanding of the consensus revenue estimates reached in May, and what those estimates mean for Rhode Island, this RIPEC report delves into how the estimates were determined. This report then analyzes

¹ Federal grants comprised 33.4 percent of spending, other funds made up 22.6 percent of spending, and restricted receipts accounted for 3.1 percent of spending. R. I. House Fiscal Advisory Staff, <u>FY 2020 Budget as Enacted Analysis</u>, Section VII: Summary Tables.

² R.I. Gen. Laws § 35-16-1, 35-16-2.

³ R.I. Gen. Laws § 35-16-3(a).

⁴ The governor is statutorily obligated to submit budget recommendations to the Senate on or before the first Thursday in February during the years in which a new government is inaugurated and is obligated to submit on or before the third Thursday in January all other years. R.I. Gen. Laws, § 35-3-7(a).

⁵ If the legislature fails to reach agreement on a spending plan for the fiscal year by July 1, the previous fiscal year's budget appropriations will continue to be made available on a monthly or quarterly basis until a budget is agreed to. R.I. Gen. Laws § 35-3-7(a), § 35-3-19.

Conference projections in the historic context of revenues in Rhode Island over the past 15 years, and additionally looks at how Rhode Island's revenue estimates compare to those of other states, with a particular emphasis on states in the region.

Specifically, Section II of this report describes the testimony that informed Conference estimates and compares revenue projections for FY 2020 and FY 2021 determined in May 2020 to those reached in November 2019, as well as how estimated revenues compare on an actual basis from FY 2019 through FY 2021. Section III provides historic context, analyzing Rhode Island general revenues, as well as the state's two largest sources of general revenues—personal income and sales and use taxes—from FY 2005 to present. Section IV additionally compares the estimates made in the Revenue Estimating Conference to audited revenues between FY 2005 and FY 2019 and details the relative accuracy of those estimates in periods of significant economic decline and recovery. Section V offers regional context, comparing Rhode Island's estimated revenue losses to those determined in other U.S. states and focuses in on the most recent estimates produced in Massachusetts and Connecticut. Finally, RIPEC highlights the report's key insights in Section V.

II. May 2020 Revenue Estimating Conference

This section outlines what occurred in the May 2020 Revenue Estimating Conference by detailing the testimony that informed the principals' estimates, breaking down the state's general revenue sources, and comparing May consensus estimates for FY 2020 and FY 2021 to both November 2019 consensus estimates and FY 2019 audited revenues.

Revenue and Economic Forecasting Testimony

To reach consensus revenue projections, the principals of the May 2020 Revenue Estimating Conference relied on testimony regarding governmental revenues from several governmental and quasi-governmental agencies.⁶ For instance, the Department of Revenue's tax administrator testified that the extension of filing deadlines significantly hindered the Department's ability to provide testimony, but that the most recent data showed a significant drop in business taxes in the month of April.⁷ The Rhode Island Lottery similarly testified that revenues were categorically down in April due to the closure of the state's two casinos, the suspension of nearly all professional sports, and executive orders limiting nonessential movement outside of and within the state.⁸

Prior to reaching consensus revenue estimates, the May 2020 Conference principals also heard economic forecasting testimony provided by a state-contracted and nationally based firm, IHS Markit, which also provided forecasting testimony at the November 2019 Conference. Presenting on both the United States and Rhode Island economy, IHS Markit relied on the most recent available data, as well as assumptions regarding public health and economic recovery. Specifically, IHS Markit's models assume that COVID-19 outbreaks would peak between May and August 2020 and will thereafter be geographically isolated and manageable until a vaccine is widely available by late 2021. As a result, the forecasters projected there would be no more instances of widespread economic closures, but a relatively slow, rather than a fast, "v-shaped," economic recovery.⁹

Consensus Economic Forecast

The May 2020 Conference adopted the economic forecast presented by IHS Markit. The forecast covers FY 2021 to FY 2026, and includes the following indicators: nonfarm employment, nonfarm employment growth, personal income, personal income growth, unemployment rate, wages and

⁶ In May 2020, testimony was provided by the: Department of Human Services, Executive Office of Health and Human Services, Department of Labor and Training, Office of the General Treasurer, Historic Preservation and Heritage Commission, Rhode Island Film and Television Office, Commerce Corporation, Department of Revenue – Division of Lottery, Department of Revenue – Division of Taxation, and Office of Accounts and Controls. R.I. Office of Management and Budget, Revenue & Caseload Estimating Conferences.

⁷ R.I. Department of Revenue, <u>Revenue Estimating Conference Testimony</u>, <u>May 4, 2020</u>.

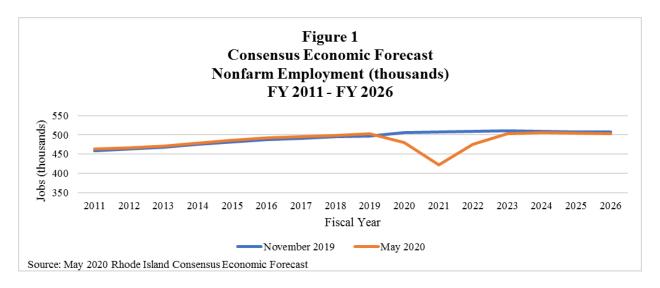
⁸ R.I. Lottery, <u>Revenue Estimating Conference Testimony</u>, <u>April 29, 2020</u>.

⁹ IHS Markit, U.S. Economic Outlook, Revenue Estimating Conference Testimony, April 29, 2020.

salaries income growth, personal consumption expenditure growth, housing starts, consumer price index, and dividend, interest, and rent growth. Except for the consumer price index, which is national, all these indicators are specific to the State of Rhode Island.

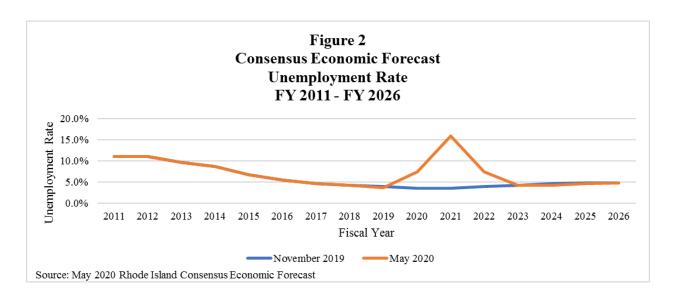
Figures 1-3 respectively compare nonfarm employment figures, the unemployment rate, and personal income figures forecasted at the November 2019 Consensus Revenue Estimating Conference and the May 2020 Conference. Collectively, they illustrate that the most recent estimates are based on an assumed significant economic contraction.

November forecasts placed nonfarm employment in Rhode Island for FY 2020 at 505,700, but the May forecast revised those projections downward to 480,300. For FY 2021, the revision was even more stark; the May forecast was 421,600, down from the 508,000 jobs forecasted in November, a difference of 86,400. It was projected that nonfarm employment would remain significantly below pre-COVID projections until FY 2023.

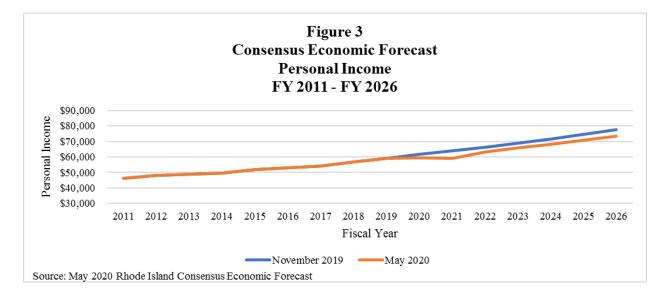


Similarly, the forecast for the average annual unemployment rate for FY 2020 was revised from 3.6 percent in November to 7.4 percent in May and it was forecasted that the FY 2021 unemployment rate will be 15.9 percent, compared to November's forecast of 3.6 percent. An elevated unemployment rate (7.5 percent) was also forecasted for FY 2022, but for FY 2023, a 4.2 percent unemployment rate forecasted in May 2020 was the same as was forecasted in November 2019. 10

¹⁰ Importantly, the unemployment rate forecast (as with all indicators) was based on the most recent data, which was only available through April at the time of the Conference. However, some of the jobs lost in April were regained in May and the U.S. Bureau of Labor Statistics (BLS) consequently posted lower unemployment rates nationwide in its most recent Employer Situation Summary. U.S. BLS, Economic News Release, Employment Situation Summary, June 5, 2020.



The May consensus economic forecast for personal income projects that the current crisis will continue to impact the state economy through FY 2026. Average personal income for FY 2020 was revised downward from \$61,590 in November to \$59,388 in May, with a larger downward revision for FY 2021, from \$63,959 in November to \$58,993 in May. For FY 2026, estimators in May projected personal income of \$73,506, compared to a November forecast of \$77,662.

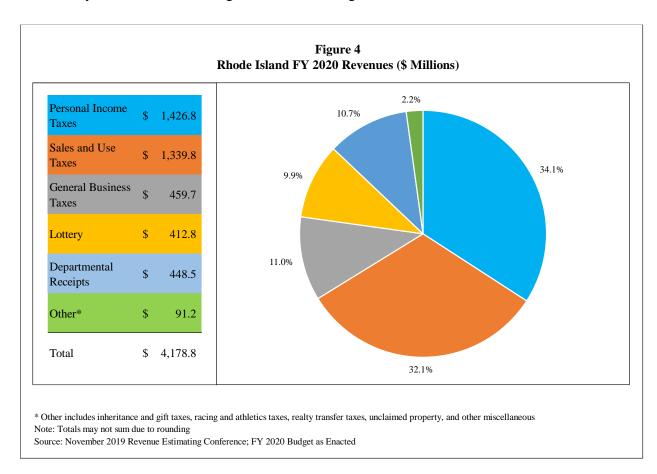


Breakdown of General Revenues

As illustrated in Figure 4, the Rhode Island state budget places far greater reliance on some revenue streams as compared to others. In the FY 2020 budget as first enacted, approximately two-thirds (66.2 percent) of general revenues came from just two sources: personal income tax and sales and use tax.¹¹ General business taxes comprised 11.0 percent of general revenues in the FY 2020

¹¹ Sales and use taxes include motor vehicle, alcohol, and cigarette taxes, as well as general sales and use taxes.

enacted budget, departmental receipts comprised 10.7 percent, and lottery revenues made up 9.9 percent. Most small businesses remit income taxes through the personal income tax; the general business taxes category includes only income taxes paid by larger businesses. The state's heavy reliance on certain forms of revenue is important to consider as a substantial decline in one revenue stream may be far more or less significant to the budget than a decline in another source of revenue.



FY 2020 General Revenue Estimates

Compared to the November 2019 Consensus Revenue Estimating Conference, the estimate for FY 2020 general revenues was revised sharply downward in May 2020. Total general revenues for the fiscal year were estimated at \$3.9 billion in May, compared to \$4.2 billion in November, a decrease of \$280.9 million, or 6.7 percent of total general revenues. However, the impact of the pandemic to FY 2020 general revenues was limited since most of the fiscal year had elapsed before the economic fallout began in mid-March of 2020.

While slight nominal revenue increases were projected in May over November in cigarette and alcohol taxes as well as unclaimed property revenues—together totaling an increase of \$3.3 million—every other general revenue line item was revised downward (except for financial institution and realty transfer taxes, for which the estimates were unchanged). The largest nominal

decrease between November and May is in lottery revenues, which were revised downward by \$108.5 million from \$377.1 million to \$268.6 million, a 28.8 percent decrease. The second largest nominal revenue decrease between November and May is in personal income taxes (\$82.9 million) and the third largest is in sales and use taxes (\$63.1 million), followed by business corporation taxes (\$10.8 million).

Figure 5 breaks down the nominal and percent differences between November 2019 and May 2020 general revenue estimates by line item for FY 2020 and Figure 6 displays those nominal differences by revenue category.¹²

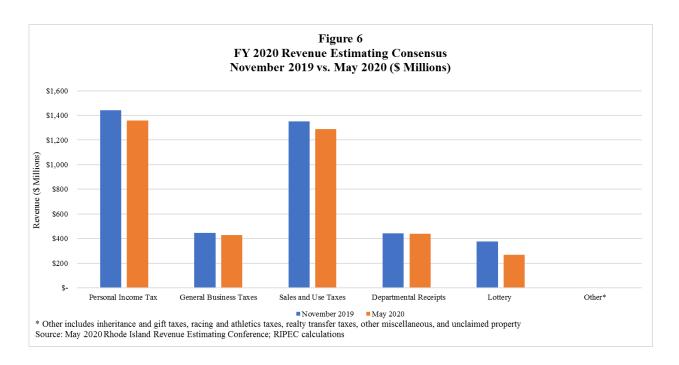
¹² Motor vehicle tax under sales tax accounts for motor vehicle license and registration fees. It does not account for the state sales tax on the sale of motor vehicles. R.I. OMB, May 2020 Revenue Estimating Conference Report, 6.

Figure 5
FY 2020 Revenue Estimating Consensus, November 2019 vs. May 2020 (\$ Millions)

	· ,										
	November 2019			May 2020		ovember-May	% Change				
	C	onsensus		Consensus		Change	70 Change				
Personal Income Tax											
Personal Income Tax	\$	1,441.8	\$	1,358.9	\$	(82.9)	-5.7%				
General Business Taxes											
Business Corporations	\$	143.7	\$	132.9	\$	(10.8)	-7.5%				
Public Utilities Gross	\$	104.0	\$	100.0	\$	(4.0)	-3.8%				
Financial Institutions	\$	24.4	\$	24.4	\$	-	0.0%				
Insurance Companies	\$	126.5	\$	125.0	\$	(1.5)	-1.2%				
Bank Deposits	\$	3.0	\$	3.1	\$	0.1	3.3%				
Health Care Provider	\$	43.7	\$	41.6	\$	(2.1)	-4.8%				
Total Business	\$	445.3	\$	427.0	\$	(18.3)	-4.1%				
Sales and Use Taxes											
Sales and Use Taxes	\$	1,192.1	\$	1,129.0	\$	(63.1)	-5.3%				
Motor Vehicle	\$	1.8	\$	1.0	\$	(0.8)	-44.4%				
Cigarettes	\$	137.3	\$	138.1	\$	0.8	0.6%				
Alcohol	\$	20.2	\$	20.3	\$	0.1	0.5%				
Total Sales and Use	\$	1,351.4	\$	1,288.4	\$	(63.0)	-4.7%				
		Other	· Ta	xes							
Inheritance and Gift	\$	63.4	\$	58.1	\$	(5.3)	-8.4%				
Racing and Athletics	\$	1.2	\$	0.9	\$	(0.3)	-25.0%				
Realty Transfer	\$	14.2	\$	14.2	\$	-	0.0%				
Total Taxes	\$	3,317.3	\$	3,147.5	\$	(169.8)	-5.1%				
Departmental Receipts	\$	443.5	\$	440.5	\$	(3.0)	-0.7%				
Other Miscellaneous	\$	31.0	\$	29.1	\$	(1.9)	-6.1%				
Lottery	\$	377.1	\$	268.6	\$	(108.5)	-28.8%				
Unclaimed Property	\$	9.9	\$	12.2	\$	2.3	23.2%				
Total General Revenues	\$	4,178.8	\$	3,897.9	\$	(280.9)	-6.7%				

Note: Totals may not sum due to rounding

Source: May 2020 Rhode Island Revenue Estimating Conference; RIPEC calculations



FY 2021 General Revenue Estimates

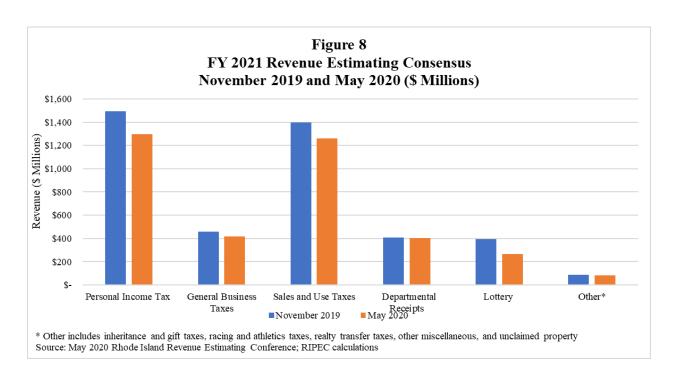
Unlike FY 2020 revenues, FY 2021 revenues bear the full impact of the economic fallout from the pandemic. Accordingly, the difference between November 2019 and May 2020 Revenue Estimating Conference general revenue projections was significantly larger for FY 2021 than for FY 2020. In November, the Conference principals agreed to a total general revenue projection of \$4.2 billion for FY 2021, compared to a \$3.7 billion estimate in May, totaling a \$515.8 million (12.2 percent) decrease. The principals' May consensus of \$3.7 billion is, moreover, \$522.0 million less than the \$4.2 billion in general funds that the governor allocated for expenditures in her FY 2021 budget proposal.¹³

Aside from relatively minor nominal increases in unclaimed property, bank deposit taxes, and financial institution taxes—together totaling \$0.8 million—estimated in May over November for FY 2021, every other general revenue line item was revised downward. In nominal terms, personal income taxes experienced the largest downward revision between November and May, from \$1.5 billion to \$1.3 billion, a decrease of \$199.9 million, or 13.4 percent. The second largest nominal decrease is in sales and use taxes, the estimate for which dropped from \$1.2 billion in November to \$1.1 billion in May, a \$130.7 million (10.5 percent) decrease. The nominal difference between the November and May estimates for lottery revenues is the third largest (\$130.3 million decrease) and the tax on business corporations ranks fourth in this regard (\$20.8 million decrease).

¹³ The governor's budget proposal is based off November 2019 Revenue Estimating Conference estimates but bases expenditures off a greater general revenue total because it assumes both savings unaccounted for in the consensus and new sources of general revenue. R.I. OMB, <u>FY 2021 Budget Proposal – Executive Summary</u>, A4-A5.

Figure 7 details the nominal and percent change between November 2019 and May 2020 line item estimates for FY 2021 while Figure 8 displays the nominal change between November and May estimates by general revenue group.

FY 2021 Revenue	Estin	Fignating Co 2020 (\$	nse	nsus, Nov	emb	er 2019 v	vs. May
		ember 2019 onsensus		Aay 2020 Consensus		ember-May Change	% Change
		Personal l	ncon	ne Tax			
Personal Income Tax	\$	1,495.7	\$	1,295.8	\$	(199.9)	-13.4%
		General Bu	sines	s Taxes	•		
Business Corporations	\$	153.1	\$	132.3	\$	(20.8)	-13.6%
Public Utilities Gross	\$	105.0	\$	98.9	\$	(6.1)	-5.8%
Financial Institutions	\$	21.1	\$	21.2	\$	0.1	0.5%
Insurance Companies	\$	129.5	\$	120.7	\$	(8.8)	-6.8%
Bank Deposits	\$	3.0	\$	3.1	\$	0.1	3.3%
Health Care Provider	\$	44.5	\$	42.0	\$	(2.5)	-5.6%
Total Business	\$	456.2	\$	418.2	\$	(38.0)	-8.3%
		Sales and	Use	Taxes			
Sales and Use Taxes	\$	1,239.8	\$	1,109.1	\$	(130.7)	-10.5%
Motor Vehicle	\$	3.0	\$	2.0	\$	(1.0)	-33.3%
Cigarettes	\$	133.6	\$	130.6	\$	(3.0)	-2.2%
Alcohol	\$	20.6	\$	20.5	\$	(0.1)	-0.5%
Total Sales and Use	\$	1,397.0	\$	1,262.2	\$	(134.8)	-9.6%
		Other	Tax	es			
Inheritance and Gift	\$	48.2	\$	44.9	\$	(3.3)	-6.8%
Racing and Athletics	\$	1.2	\$	1.0	\$	(0.2)	-16.7%
Realty Transfer	\$	14.7	\$	14.5	\$	(0.2)	-1.4%
Total Taxes	\$	3,413.0	\$	3,036.6	\$	(376.4)	-11.0%
Departmental Receipts	\$	410.0	\$	403.0	\$	(7.0)	-1.7%
Other Miscellaneous	\$	14.7	\$	12.1	\$	(2.7)	-18.0%
Lottery	\$	395.5	\$	265.2	\$	(130.3)	-32.9%
Unclaimed Property	\$	8.4	\$	9.0	\$	0.6	7.1%
Total General Revenues	\$	4,241.6	\$	3,725.9	\$	(515.8)	-12.2%



Actual Estimated Revenue Changes: FY 2019 through FY 2021

While the May 2020 Revenue Estimating Conference found large shortfalls for FY 2020 and FY 2021 as compared to revenue estimates for these fiscal years as determined by the November 2019 Conference, the actual decline in revenues from FY 2019 through FY 2021 is not as dramatic. As illustrated in Figure 9, the May Consensus Revenue Estimating Conference projected general revenue declines of \$126.7 million (3.1 percent) from FY 2019 to FY 2020 and \$172.1 million (4.4 percent) from FY 2020 to FY 2021. Taken together, the Conference projected a loss \$298.7 million (7.4 percent) between FY 2019 and FY 2021.

The May 2020 Conference anticipated that the largest portion—44.2 percent—of decline in general revenues between FY 2019 and FY 2021 will come from lottery revenues, which were projected to experience a two-year decrease of \$132.1 million (33.3 percent). Most of that decline was projected to occur during FY 2020; the Conference projected a \$128.7 million (32.4 percent) decrease between FY 2019 and FY 2020 and a \$3.4 million (1.3 percent) decrease between FY 2020 and FY 2021.

With respect to personal income tax revenues, the May 2020 Revenue Estimating Conference determined that personal income tax revenues will decline by \$101.2 million (7.2 percent) between FY 2019 and FY 2021, consisting of a \$38.1 million (2.7 percent) decrease between FY 2019 and FY 2020, and a decline of \$63.1 million (4.6 percent) between FY 2020 and FY 2021.

Relatively, the decline projected for sales and use tax revenues is small over the two fiscal years. The May 2020 Revenue Estimating Conference projected a slight, \$2.4 million (0.2 percent)

revenue increase in the subcategory of sales and use tax from FY 2019 to FY 2020 but estimated a decline of \$26.2 million (2.0 percent) from FY 2020 to FY 2021, amounting to a \$23.8 million (1.9 percent) decrease between FY 2019 and FY 2021. When accounting for sales and use tax only—not including motor vehicle, cigarette, and alcohol taxes—the Conference projected a \$3.3 million (0.3 percent) revenue increase from FY 2019 to FY 2020, a \$19.9 million (1.8 percent) decline from FY 2020 to FY 2021, and a total decline of \$16.6 million (1.5%) between FY 2019 and FY 2021.

Figure 9
May 2020 Revenue Estimating Conference Projected Revenue Changes, FY 2019-2021
(\$ Millions)

	FY 2019	May 2020 Projections		Change			
	Audited	FY 2020	FY 2021	FY 2019-2020	FY 2020-2021	FY 2019-2021	
Personal Income Tax	\$ 1,397.0	\$ 1,358.9	\$ 1,295.8	\$ (38.1)	\$ (63.1)	\$ (101.2)	
General Business Taxes	441.7	427.0	418.2	(14.7)	(8.8)	(23.5)	
Sales and Use Taxes	1,286.0	1,288.4	1,262.2	2.4	(26.2)	(23.8)	
Departmental Receipts	416.7	440.5	403.0	23.8	(37.5)	(13.7)	
Lottery	397.3	268.6	265.2	(128.7)	(3.4)	(132.1)	
Other*	85.9	114.5	81.5	28.6	(33.1)	(4.4)	
General Revenues	\$4,024.6	\$ 3,897.9	\$3,725.9	\$ (126.7)	\$ (172.1)	\$ (298.7)	

Note: Totals may not sum due to rounding

^{*} Other includes inheritance and gift taxes, racing and athletics taxes, realty transfer taxes, other miscellaneous, and unclaimed property Source: May 2020 Rhode Island Revenue Estimating Conference; RIPEC calculations

¹⁴ The sales and use tax revenue subtotal is calculated by the Consensus Revenue Estimating Conference to include motor vehicle, cigarette, and alcohol taxes, as well as the general sales and use tax.

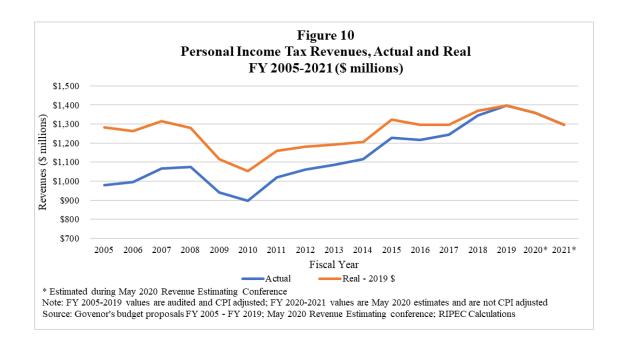
III. Rhode Island General Revenues, FY 2005-Present

Section III provides historic context, analyzing general revenue trends from FY 2005 to present, during which time Rhode Island's economy experienced both significant retraction and expansion. It first examines trends in personal income tax revenue, sales and use tax revenue, and general revenue collections, and then analyzes the relative accuracy of Consensus Revenue Estimating Conference projections for these revenue categories. This section focuses on personal income tax and sales and use tax revenues in addition to general revenues because of the outsized budgetary importance of these revenue streams.

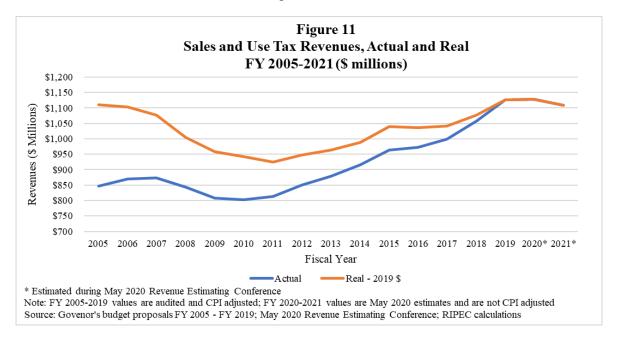
Revenue Trends

Figures 10 through 12 respectively show personal income tax revenues, sales and use tax revenues, and general revenues from FY 2005 to FY 2021 in actual and real (2019) dollars. FY 2005 to FY 2019 values reflect audited expenditures while FY 2020 and FY 2021 values are based on the May 2020 Revenue Estimating Conference. They collectively indicate the extent to which the Great Recession (2007-2009) hindered revenue collections. While the ultimate impact of the current economic recession is unclear, it is already distinct from the Great Recession in several ways (including, for instance, the speed at which the current recession unfolded and its peak unemployment rate). Nevertheless, both the short-term and long-lasting effect of the Great Recession on revenues provides historic context and perspective as we seek to analyze and understand the current economic contraction.

It is remarkable that, after adjusting for inflation, eight years elapsed before personal income tax collections in Rhode Island reached pre-Great Recession levels; personal income tax revenues remained below FY 2007 levels from FY 2008 through FY 2014. In both actual and real terms, personal income tax revenues reached a peak in the FY 2005 to FY 2019 period in FY 2019 (\$1.4 billion in revenues). From 2007 peak to FY 2010 trough, personal income tax revenues declined by \$260.7 million in real terms, a drop of 19.8 percent.

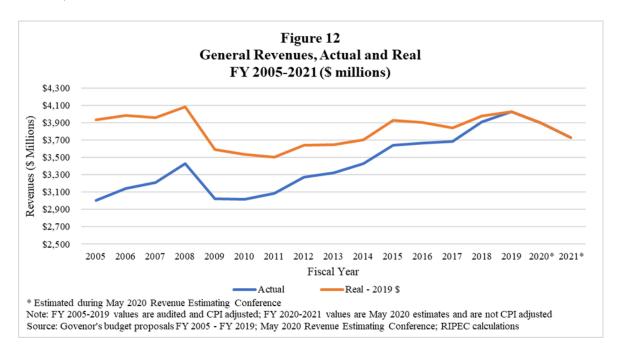


Following a somewhat similar trajectory to personal income tax revenues, it was 14 years before sales and use tax revenues exceeded their pre-recession peak in real terms. From FY 2005 to FY 2011, sales and use tax revenues experienced year-over year declines in real terms, with a \$185.8 million difference between FY 2005 peak and FY 2011 trough, a decrease of 16.7 percent. It was not until FY 2019 that sales and use tax revenues exceeded FY 2005 levels, when FY 2019 revenues of \$1.1 billion were \$15.8 million greater than FY 2006 revenues in real terms.



Accounting for inflation, Rhode Island general revenue collections remarkably have not exceeded their pre-recession peak. FY 2008 general revenues of \$4.1 billion in real terms were the highest of the FY 2005-2019 period. General revenues fell the following year, reaching a low of \$3.5

billion in FY 2011—\$577.6 million (14.1 percent) less than in FY 2008. Rhode Island general revenue collections remained below 4.0 billion until FY 2019, when, in real terms, the state collected \$57.8 million less than it had in FY 2008.



The revenue shortfalls for personal income tax, sales and use tax, and the general fund determined by the May 2020 Consensus Revenue Estimating Conference are of a much smaller magnitude than the losses experienced during the Great Recession. Personal income tax revenues are estimated to decline by \$101.2 million (7.2 percent) between FY 2019 and FY 2021, in contrast to the greatest two-year real decrease in personal income tax revenues during the Great Recession: \$225.2 million (17.6 percent) from FY 2008 to FY 2010. Similarly, sales and use tax collections decreased by \$117.7 million (10.9 percent) in real terms from FY 2007 to FY 2009, while a much smaller two-year decrease—16.6 million, or 1.5 percent—was projected at the May 2020 Conference for FY 2019 to FY 2021. The May 2020 Conference anticipated a general revenue decline of \$298.7 million (7.4 percent) between FY 2019 and FY 2021, while, in real terms, FY 2008 to FY 2010 experienced a significantly larger general revenues decline of \$545.1 million (13.4 percent).

Revenue Estimating Trends

The Consensus Revenue Estimating Conference makes four estimates for each fiscal year; two estimates are made in the November and May before each fiscal year and two are made in the November and May during each fiscal year. The estimation of out-year budgets is complicated by the fact that, every year, revenues are impacted by changes in law. Figure 13 outlines estimated revenue changes due to statutory alterations for personal income revenues, sales and use tax

revenues, and general revenues between FY 2005 and FY 2019, and shows that, every year, there are estimated net increases or decreases in general revenues that cannot be reflected in the first two estimates made by the Conference. Figure 13 additionally illustrates that most years there are anticipated changes due to law in sales and use tax and personal income tax revenues. When compared to the total sum of revenues in each category, estimated changes are typically small (for general revenues, under 2.0 percent in all but two years and under 1.0 percent in eight of 15 years). However, in FY 2011 an estimated general revenue increase of \$143.9 million represented 4.7 percent of audited general revenues.

Figures 14 through 19 address two questions: 1) historically, how accurate are the revenue estimates determined at the

Figure 13 Rhode Island Estimated Legal Revenue Changes by Net Increase or Decrease, FY 2005 - FY 2019

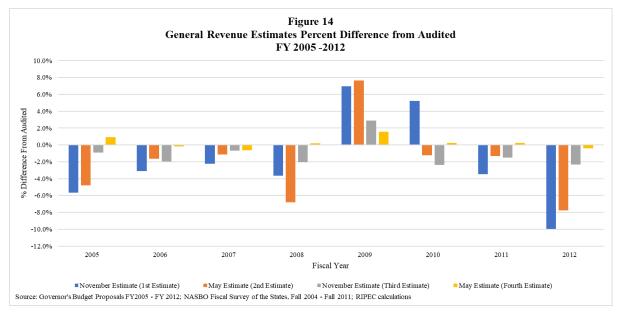
Revenues								
		_		General				
1 ax		Tax						
\$	1.4	\$	3.1	\$	49.9			
\$	(1.1)	\$	-	\$	12.1			
\$	1.0	\$	(9.4)	\$	(8.1)			
\$	-	\$	9.8	\$	50.2			
\$	-	\$	3.6	\$	50.2			
\$	2.7	\$	21.8	\$	65.6			
\$	-	\$	(6.0)	\$	143.9			
\$	17.2	\$	-	\$	21.7			
\$	9.7	\$	-	\$	16.4			
\$	(8.0)	\$	-	\$	(2.4)			
\$	(3.1)	\$	(9.4)	\$	(8.4)			
\$	(30.5)	\$	(12.4)	\$	(44.5)			
\$	-	\$	(9.0)	\$	(5.9)			
\$	24.4	\$	4.9	\$	42.9			
\$	14.5	\$	-	\$	56.0			
	Ta \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Sales & Use Tax \$ 1.4 \$ (1.1) \$ 1.0 \$ - \$ - \$ 2.7 \$ - \$ 17.2 \$ 9.7 \$ (8.0) \$ (3.1) \$ (30.5) \$ - \$ 24.4	Sales & Use Tax Per II \$ 1.4 \$ \$ (1.1) \$ \$ 1.0 \$ \$ - \$ \$ - \$ \$ 2.7 \$ \$ - \$ \$ 17.2 \$ \$ 9.7 \$ \$ (8.0) \$ \$ (30.5) \$ \$ 24.4 \$	Sales & Use Tax Personal Income Tax \$ 1.4 \$ 3.1 \$ (1.1) \$ - \$ 1.0 \$ (9.4) \$ - \$ 9.8 \$ - \$ 3.6 \$ 2.7 \$ 21.8 \$ - \$ (6.0) \$ 17.2 \$ - \$ 9.7 \$ - \$ (8.0) \$ - \$ (3.1) \$ (9.4) \$ (30.5) \$ (12.4) \$ - \$ (9.0) \$ 24.4 \$ 4.9	Sales & Use Tax Personal Income Tax \$ 1.4 \$ 3.1 \$ \$ (1.1) \$ - \$ \$ 1.0 \$ (9.4) \$ \$ \$ - \$ 9.8 \$ \$ - \$ 3.6 \$ \$ 2.7 \$ 21.8 \$ \$ \$ - \$ (6.0) \$ \$ 17.2 \$ - \$ \$ 9.7 \$ - \$ \$ (8.0) \$ - \$ \$ (30.1) \$ (9.4) \$ \$ (30.5) \$ (12.4) \$ \$ 24.4 \$ 4.9 \$			

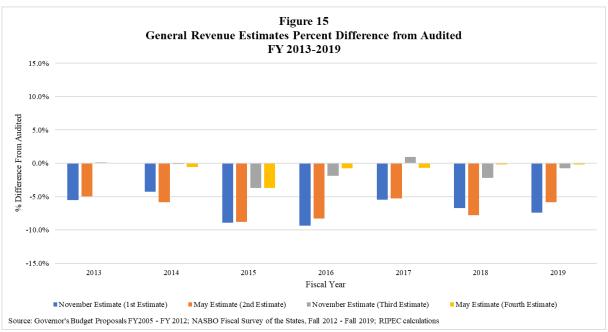
Source: National Association of State Budget Officers, The Fiscal Survey of the States, Fall 2004-2019

Consensus Revenue Estimating Conferences, and 2) how do economic contraction and expansion affect the relative accuracy of Conference estimates? Figure 14 shows the percent difference of general revenue estimates over four consecutive Revenue Estimating Conferences from FY 2005 through FY 2012 in relation to final audited revenues for those years. Figure 15 makes the same comparisons but covers the period from FY 2013 through FY 2019. Figures 16 and 17 illustrate these same comparisons for personal income tax revenues for FY 2005 through FY 2019, and Figures 18 and 19 cover FY 2005 through FY 2019 for sales and use tax revenues. In all these figures, RIPEC accounts for the impact of the statutory changes displayed in Figure 12 by adjusting for these changes in the first two estimates made by the Conference. It is assumed that the legal changes for a given fiscal year, which typically are enacted before the final two estimates, have been incorporated in those later estimates.

Figures 14 through 19 collectively indicate that, as expected, Conference estimates tend to become more accurate as time elapses and the data used for estimating becomes more current. However, these figures also illustrate that, while Conference estimates tend to be relatively close to audited amounts overall, estimate accuracy tends to lag in years in which the economy experienced significant decline or expansion.

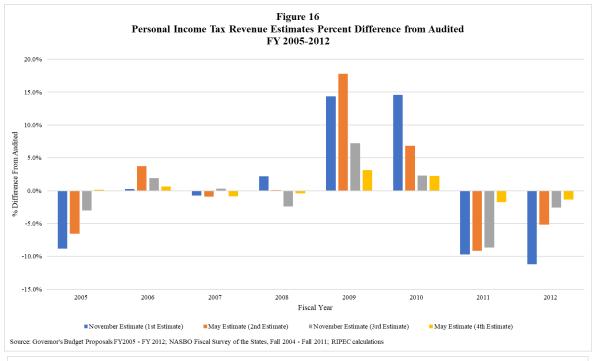
Accounting for both over- and underestimates, the Conference was an average of 3.4 percentage points away from audited general revenues from FY 2005 to FY 2019 when considering all four estimates. Comparatively, during the economic contraction of FY 2009, general revenues were overestimated by an average of 4.8 percent when accounting for all four estimates, and as the economy recovered in FY 2012, the Conference underestimated general revenues by a four-estimate average of 5.1 percent. Generally, the Conference has been far more likely to underestimate, rather than overestimate, general revenues.

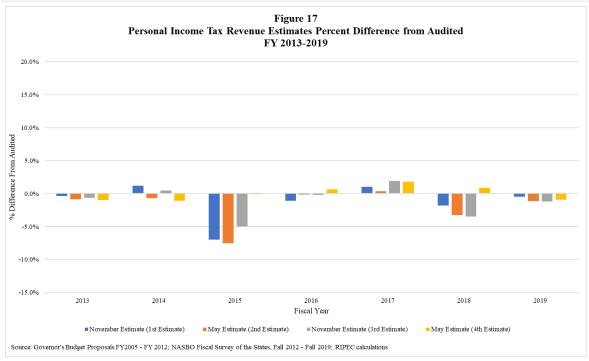




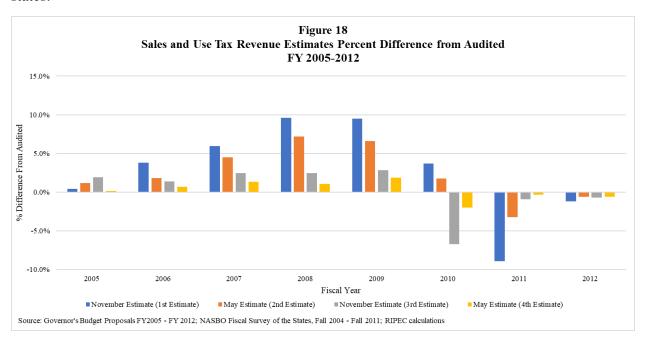
¹⁵ To account for both over- and underestimates, RIPEC treated each data point as a positive when determining the mean.

In comparison to general revenue estimates, personal income tax estimates were slightly more accurate overall in the last fifteen years, but more volatile in years of economic decline and recovery. From FY 2005 through FY 2019, estimators were an average of 3.3 percentage points off from the audited amount when all four rounds of estimating and both over- and underestimates are considered. For FY 2009, the Conference's four-estimate average was 10.6 percent greater than audited personal income tax revenues, and as Rhode Island's economy began to recover in FY 2011, the four-estimate average was 7.3 percent lower than audited revenues.

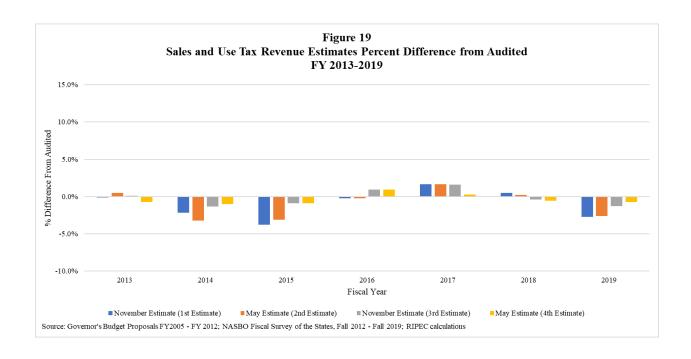




On the whole, sales and use tax revenues have been more predictable than both personal income tax revenues and general revenues; taking all four estimates into consideration and accounting for both under- and overestimates, the average estimate was 2.2 percentage points off from audited revenues between FY 2005 and FY 2019. Accurate estimating of sales and use tax revenues proved somewhat more difficult as Rhode Island moved in and out of the Great Recession, with a four-estimate average that was 5.2 percent greater than audited revenues in FY 2009 and 3.4 percent lower than audited revenues in FY 2011. While sales and use tax revenues were more accurate than personal income tax revenues during the Great Recession, it is worth noting that the current economic crisis may be distinct in this regard, as consumer spending across the U.S. took an unusually steep drop in March and early April due to unusually high unemployment figures as well as the temporary closure of nonessential businesses and shelter-in-place orders across most states. ¹⁶



¹⁶ "A retail report shows the biggest decline in sales in three decades," New York Times, April 15, 2020.



IV. How Rhode Island Revenue Estimates Compare

Section IV first draws comparison between Rhode Island's estimated revenue losses and the rest of the United States and then homes in on Rhode Island's closest neighbors: Connecticut and Massachusetts. This section gauges the potential accuracy of the May 2020 Conference by asking if Rhode Island's COVID-era estimates are like those produced in other states.

How Revenue Estimates Compare Nationally

In comparison to other states, Rhode Island's May 2020 Revenue Estimating Conference was middling in its projections regarding the impact of COVID-19 on revenue streams. As Figure 20 shows, at least 29 states, including Rhode Island, provided formal revenue estimates both before and after the COVID-19 crisis emerged. For each state, the percent decline assumed from pre-COVID-19 projections show the assumed effect of the pandemic and its associated recession on FY 2020 and/or FY 2021 state revenue collections. For FY 2020, estimated revenue declines due to COVID-19 range from three percent in Louisiana and Vermont to 18 percent in Utah, with a median anticipated revenue decline of seven percent. ¹⁷ Rhode Island's projected decline in revenue projections for FY 2020 is seven percent. Estimated revenue declines for FY 2021 range from zero percent in Utah to 30 percent in New Mexico, with a median projected revenue decline of 12 percent. As with FY 2020, Rhode Island's projected decline in revenues for FY 2021 is equal to the median: twelve percent.

Importantly, factors such as revenue structure, revenue estimating methods, the source of the estimate, and the date on which revenue estimates were made impact each state's estimates and help explain the large variation in assumptions observable in Figure 20.

¹⁷ The median is the middle value of any given data set. Median is typically used, rather than mean, to determine normative value when the presence of outlier data would otherwise skew the average towards one extreme or another.

Figure 20 COVID-19 Revised State Revenue Projections by State (Last updated, May 29)

State	% Decline from Pre- COVID Projection FY 2020 FY 2021 Date of Estimate			Source of Estimate		
			2			
Alaska	11%	15%	April 22	Legislative Finance Division		
Arizona	12%	6%	April 9	Joint Legislative Budget Committee		
Arkansas	7%	4%	April 6	Office of Budget		
California		16-21%	May 9	Legislative Analyst Office		
Colorado	10%	25%	May 12	Legislative Council		
Connecticut	5%	11%	April 30	Consensus Revenue Estimate		
Delaware		6%	May 21	Economic and Financial Advisory Counc		
District of Columbia	9%	9%	April 24	Office of the Chief Financial Officer		
Hawaii	7%	12%	May 28	Council on Reserves		
Illinois	6%	12%	May 20	Commission on Government Forecasting and Accountability		
Kansas	11%	6%	April 30	Office of Consensus Revenue Estimates		
Kentucky†	4%		May 27	Office of the State Budget Director		
Louisiana	3%	10%	May 11	Revenue Estimating Conference		
Maryland	5-6%	11-14%	May 14	Office of the Comptroller		
Massachusetts		13-19%	April 14	Economic Roundtable		
Michigan [^]	13%	12%	May 15	Consensus Revenue Agreement		
Minnesota*		7%	May 5	Management and Budget		
New Jersey	7%	18%	May 13	Department of Treasury		
New Mexico	5-6%	22-30%	May 5	Consensus Revenue Estimating Group		
New York^		13%	April 25	Department of Budget		
North Carolina	7%	10%	May 22	The Fiscal Research Division and the Office of State Budget and Management		
Oklahoma	7%	16%	April 30	Board of Equalization		
Oregon*		11%	May 20	Office of Economic Analysis		
Pennsylvania	9%		May 26	Independent Fiscal Office		
Rhode Island	7%	12%	May 18	Revenue Estimating Conference		
South Carolina	5%	6%	May 8	Board of Economic Advisors		
Utah	13-18%	0-5%	May 13	Office of the Legislative Fiscal Analyst		
Vermont	3%	17%	April 28	Joint Fiscal Office		
Wyoming*	9%	20%	May 26	Legislative Service Office		
•			,			

Note: Revenue assumptions vary by state; "--" indicates that no estimate was produced

 $Source: National\ Conference\ of\ State\ Legis\ latures, "Coronavirus\ (COVID-19):\ Revised\ State\ Revenue\ Projections";$

Massachusetts FY 2021 Budget Preview, Massachusetts Budget Roundtable; Rhode Island May 2020 Revenue Estimating

How Revenue Estimates Compare Regionally

The revenue projection declines anticipated during the May 2020 Revenue Estimating Conference are on par with revenue estimates that have been produced regionally, as well as nationally.

[†] Kentucky's estimate includes General Fund and Road Fund

[^] Every state's fiscal year begin on July 1 with four exceptions: New York (April 1), Texas (September 1), and Alabama and Michigan (October 1)

^{*} Minnesota's estimate is for the FY 2020-2021 biennium; Oregon's estimate is for the FY 2019-2021 biennium; Wyoming's estimate is for the FY 2021-2022 biennium

Connecticut and Massachusetts were chosen for regional comparison because they are economic competitors with close physical proximity that are similar in terms of revenue estimating process and revenue structure. Additionally, all three states are among the hardest hit by COVID-19; as of June 16, 2020, Rhode Island ranked fourth highest in per capita cases while Massachusetts ranked third and Connecticut ranked sixth. Rhode Island, Massachusetts, and Connecticut are distinct in terms of the degree to which each state relies on certain revenue streams, though they are more similar than not when compared to the nation overall. Rhode Island relies less heavily on personal income taxes and more heavily on sales and use tax and lottery revenues than both

Massachusetts and Connecticut.²⁰

Rhode Island and Connecticut projected similar estimates in terms of revenue losses in consequence of the COVID-19 pandemic. For FY 2020 and FY 2021, Connecticut respectively projected that it will see a 5 percent and 11 percent decline in revenues compared to pre-COVID estimates, while Rhode Island projected losses of 7 percent for FY 2020 and 12 percent for FY 2021. Massachusetts has not published estimated losses for FY 2020 but projected a higher decrease in anticipated revenues for FY 2021 than both Connecticut and Rhode Island: between 13 and 19 percent.

Figure 21
COVID-19 Revised Revenue Projections for
Connecticut, Massachusetts, and Rhode Island

State	, , _ , , , , , , , , , , , , , , , , ,	e from Pre- Projection	Date of	Source of Estimate	
	FY 2020	FY 2021	Estimate		
Connecticut		11%		Consensus	
	5%		April 30	Revenue	
				Estimate	
Massachusetts		13-19%	April 14	Economic	
			April 14	Roundtable	
Rhode Island				Revenue	
	7%	12%	May 18	Estimating	
			-	Conference	

Note: Revenue assumptions vary by state; "--" indicates that no estimate was produced

Source: National Conference of State Legislatures, "Coronavirus (COVID-19): Revised State Revenue Projections"; Massachusetts FY 2021 Budget Preview, Massachusetts Budget Roundtable; Rhode Island May 2020 Revenue Estimating Conference

¹⁸ Like Rhode Island, both Massachusetts and Connecticut determine revenue estimates through consensus. By statute, Massachusetts' revenue forecasts are determined through the consensus of the Senate Ways and Means Committee, the House Ways and Means Committee, and the executive secretary of administration and finance. Massachusetts' most recent round of consensus revenue estimating occurred before the COVID-19 crisis, so the estimate provided in this section was produced by a consensus group, the Massachusetts Budget Roundtable, that met to discuss budget gaps considering the new economic reality. In Connecticut, the legislative fiscal office and governor's budget agency reach consensus on budget estimates. See: Yael Shavit, "Revenue Forecasting Processes in New England," New England Public Policy Center Policy Briefs, Federal Reserve Bank of Boston, April 2009; Erica MacKellar, "Revenue Estimating in the States," *LegisBrief* vol. 24, no. 12 (March 2016); Massachusetts Municipal Association, "State budget writers to host discussion of COVID economic impacts April 14," April 2, 2020; Connecticut Office of the State Comptroller, "Financial Forecast."

¹⁹ In terms of deaths per capita, Connecticut, Massachusetts, Rhode Island ranked third, fourth, and fifth, respectively. *New York Times*, "Coronavirus in the U.S.: Latest Map and Case Count," accessed June 16, 2020.

²⁰ Personal income taxes make up 32.1 percent of Rhode Island's FY 2020 budget as enacted, compared to 52.7 percent in Massachusetts and 53.1 percent in Connecticut. Sales and use tax revenues comprise 32.1 percent of Rhode Island's general revenues, compared to 24.5 percent in Connecticut and 16.3 percent in Massachusetts, and lottery revenues make up 10.7 percent of Rhode Island's general revenues, compared to 1.1 percent in Connecticut and 0.003 percent in Massachusetts. R.I. OMB, FY 2020 Budget as Enacted Executive Summary; C.T. Office of Policy and Management, FY 2020-FY 2021 Biennial Budget; M.A. Legislature, FY 2020 Final Budget; RIPEC calculations.

V. Conclusion

Rhode Island's May 2020 Consensus Revenue Estimating Conference revised general revenue estimates for FY 2020 and FY 2021 sharply downward from the November 2019 consensus. Even though roughly three-quarters of FY 2020 had passed by the time the COVID-19 outbreak arrived in Rhode Island, estimates were decreased by \$280.9 million (6.7 percent). For FY 2021, when it is anticipated the full fallout of the COVID-19 crisis will be felt, the Conference revised November projections down by \$515.8 million (12.2 percent). These large shortfalls reflect revenue estimates determined at the November Conference, which assumed growth in revenues between FY 2019 and FY 2021.

When viewed in terms of actual values, the revenue declines for FY 2020 and FY 2021, while significant, are not as dramatic. The May Revenue Estimating Conference projected general revenue declines of \$126.7 million (3.1 percent) from FY 2019 to FY 2020 and \$172.1 million (4.4 percent) from FY 2020 to FY 2021. Taken together, the Conference anticipated a loss \$298.7 million (7.4 percent) over the two-year period between FY 2019 and FY 2021.

The general revenue declines projected in the May 2020 Conference, while substantial, are of a much smaller magnitude than revenue losses experienced during the Great Recession. While the Conference projected a steep year-over-year decline in general revenues of \$172.1 million (4.4 percent) between FY 2020 and FY 2021, a general revenue decline of nearly three times that magnitude was recorded at the height of the Great Recession; between FY 2008 and FY 2009, general revenues declined by \$491.3 million (12.0 percent) in real terms.

In terms of accuracy, it is important to note that Conference revenue estimates have proven, overall, remarkably accurate in the last fifteen years. Moreover, the COVID-era estimates produced for Rhode Island in May 2020 are consistent with regional and national estimates made in the same period. However, the Conference principals were challenged by a fast-moving situation of unprecedented uncertainty and were missing crucial personal income tax return data. If the May 2020 revenue estimates prove to be inaccurate, revenue estimates during the Great Recession suggest that it is more likely that Rhode Island's general revenue declines will be greater than estimated.

The history of revenues in Rhode Island, and particularly the experience of the Great Recession and its aftermath, offers another cautionary lesson for policymakers: that the contraction of Rhode Island's economy is likely to be extended and the recovery is likely to be slow, placing downward pressure on revenues for the next few budget cycles. The May consensus economic forecast predicted a significant and sustained decline in the average Rhode Islander's personal income, and nonfarm employment was projected to remain well below pre-COVID levels until FY 2023, while the unemployment rate was projected to remain well above pre-COVID levels for the same length

of time. With the very real prospect of a prolonged decrease in available revenues, policymakers cannot simply rely on federal stimulus funding to see the state through the current crisis, but should instead reassess budgetary priorities and plan actively to tighten the state's proverbial belt.