State of Connecticut

Issuer: State of Connecticut		
Assigned	**Rating**	**Outlook**
General Obligation Bonds (2020 Series A)	AA-	Stable
General Obligation Refunding Bonds (2020 Series B)	AA-	Stable
Affirmed	**Rating**	**Outlook**
General Obligation Bonds	AA-	Stable
Issuer: Connecticut Innovations, Incorporated		
Affirmed	**Rating**	**Outlook**
State of Connecticut General Fund Obligation Bonds 2014 Series A	AA-	Stable

Methodology:

U.S. State General Obligation Rating Methodology

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Rating Summary: The AA- rating reflects high wealth levels that provide strong support to above average debt and pension burdens. Going forward, the prospect of continued fiscal stability is enhanced by the transfers the State has made to the Budget Reserve Fund (BRF). Overall credit strength continues to be constrained by the State's lagging economic recovery following the Great Recession.

Revenue performance has been strong. Several revenue categories outperformed budget, including income taxes, pass through entity taxes and sales taxes. Revenues increased a healthy 3.5% in FY 2019, after adjusting for Medicaid receipts attributable to FY 2018. In addition, the BRF contributions continued which is a favorable trend. At the close of FY 2019 the BRF has amassed $2.5 billion, which represents 13% of General Fund expenditures. In KBRA's view, this level of reserves strengthens the financial condition of the State and helps achieve a cushion for the next economic downturn.

Under the State's Volatility Cap, effective in FY 2018, any final and estimated income tax and pass through entity tax collections in excess of a formula-derived threshold are deposited in the BRF. In KBRA's view, the Volatility Cap significantly addresses the revenue swings historically experienced by the State caused by the difficulty in estimating income tax revenues.

Operating reserves are expected to continue to strengthen in FY 2020. KBRA has reviewed the latest OPM monthly report on the General Fund. While the report indicates unfavorable budgetary revisions and a projected $19.6 million General Fund operating deficit, the projection is net of an estimated $318.3 million volatility cap deposit to the BRF. The estimated ending BRF balance is $2.8 billion or 14% of budgeted General Fund appropriations for FY 2021.

The 2020-2021 Biennium budget addresses the outyear structural imbalance largely through continuing existing revenue policies that were scheduled to expire and broadening the sales and use tax. Notably, with the estimated transfers over the biennium, the BRF balance is expected to reach 15% of budgeted expenditures by the end of the biennium, although the State faces challenges to achieve this important goal. The State's discipline in restraining spending in a period of revenue expansion is a credit positive as it enables reserve accumulation and positions the State to manage future declines in its volatile revenue base. Appropriations initiatives in the budget include pension restructuring as well as labor reforms. The State's adopted General Fund budget is balanced, although over the biennium approximately $419 million of savings from labor reforms require implementation. State officials informed KBRA that steps towards implementation are underway. The budget reduces the diversion of sales tax to the Special Transportation Fund ($58 million and $113 million in FYs 2020 and 2021).

The State has high debt levels, but this partly reflects its practice of issuing general obligation debt for certain university projects and for purposes that municipal entities and counties fund in other states such as local school construction. Fixed costs (debt service, OPEB and pension) are 20% of general government expenditures, which KBRA views as high.

In KBRA's view, the State economy continues to grow at a slower pace than regional and national growth trends. Since 2010, the State has generally lagged the New England region and the United States in growth in total employment and gross state product.

The Stable Outlook reflects KBRA's view that the State will continue to maintain its strong reserve position.

Key Rating Strengths
• Strong wealth levels with State per capita income the highest in the nation. • Budget Reserve Fund balance has increased and this trend is expected to continue. • Strong financial management framework for tracking revenues, monitoring budget performance and a history of making required adjustments.

Key Rating Concerns
• Increasing budgetary burdens for debt service, pension contributions, and Medicaid. • Continued lack of growth in the important economic indicators of population, employment and gross state product. • Unfunded pension liabilities and tax-supported debt burden are high relative to personal income, each exceeding 3.0x the respective U.S. averages. However, the State borrows for many local purposes and the comparison on a combined state and local basis is more moderate.

Drivers for Rating Change	
• Trend of structurally balanced operations and accurate revenue projections, along with increases in the Budget Reserve Fund. • Significant improvement in the funded ratios for the State's pension systems.	+
• Structural operating deficits in the General Fund. • Weakening in the State's employment base and economic activity.	-

Rating Highlights	
Per Capita Personal Income (2018) (in dollars)	$76,456
as a % of U.S.	*140%*
Population (2018)	3,572,665
Growth 2010 to 2018	*-0.2%*
Real GDP, % Change 2010 to 2018	
Connecitcut	-2.1%
New England	10.1%
United States	19.0%
Budget Reserve Fund Balance ($ in millions)	
FYE 2017	$212.9
FYE 2018	$1,185.3
FYE 2019 (9/30/2019 OSC Estimate)	$2,505.5
FYE 2020 Estimate (OPM 11/20/2019)	$2,804.2
Total Direct Debt ($ in millions)	$25,338
Net Pension Liability (6/30/2018 Measurement Date) ($ in millions)	$37,988
Fixed Costs as a % of Governmental Expenditures (FY 2018)	20.4%

Rating Determinants (RD)	
1. Management Structure, Budgeting Practices and Policies	AA+
2. Debt and Additional Continuing Obligations	A+
3. Financial Performance and Liquidity Position	A+
4. State Resource Base	AA-

RD 1: Management Structure, Budgeting Practices and Policies

KBRA views Connecticut's management structure and policies as providing a very strong framework for managing its financial operations and debt issuance compared with other states. This framework is established by the State Constitution, Statutes, and administrative practices. Within this framework, the prior administration achieved good financial results in FY 2018 and this trend continued through FY 2019. Governor Ned Lamont has identified fiscal stability as one of his top priorities.

Constitutional Provisions

Under Connecticut's Constitution, the State is divided into three distinct branches: The Legislative, Executive, and Judicial. The executive power of the State is vested in the Governor. Governor Ned Lamont was elected in November of 2018 for a term beginning in January 2019. Treasurer Shawn Wooden was also elected November 2018. The Treasurer is primarily responsible for receiving and disbursing monies of the State and is the sole fiduciary of the State's retirement funds. The Treasurer also has the responsibility for carrying out the issuance of debt. The Comptroller is required to issue monthly budgetary reports on the State's financial condition, in conjunction with the Office of Policy and Management (OPM). OPM is directly responsible to the Governor for policy development in the areas of budget and financial management and prepares the State budget.

The State's Constitution provides that the General Assembly may not authorize general budget expenditures in excess of estimated revenues. The Constitution also includes a spending cap on annual growth in expenditures which limits the increase in expenditures to the greater of the five-year average growth in personal income or inflation over the previous year. The cap excludes debt service for general obligation debt. The cap may be exceeded if the Governor declares a fiscal emergency, and both houses of the legislature support such action by a three-fifths vote.

Under the State Constitution, the Governor has the power to veto any line item of any itemized appropriation bill, while at the same time approving the remainder of the bill. The General Assembly may override the Governor's veto by two thirds vote of each legislative house.

Statutory Provisions

State law requires that total net appropriations for each fund shall not exceed estimated revenues for each respective fund. Under State statute, the State is required to monitor its financial performance monthly and the Governor is empowered to take action, under statutory limitations, to maintain budget balance. State statutes require consensus revenue forecast to be developed on a regular basis three times a year. The State's statutes allow for broad revenue raising ability.

Financial Management Policies

The State operates under a strong and comprehensive framework of financial management policies, most of which are codified in statute. The State's framework for financial management includes the following planning and reporting components:

> <u>Monthly Reports on Financial Performance</u>— By statute, OPM is required to provide the State Comptroller with a letter with monthly updates to revenue and expenditure projections for the General Fund in the current fiscal year, along with projections for end of fiscal year surplus or deficits. Based on the OPM letter, the Comptroller prepares a monthly letter on financial performance. Both the OPM and the State Comptroller's monthly letter is available on the state's website. KBRA views the Comptroller's and OPM's monthly monitoring and projection of the year-end financial position as an extremely valuable tool in managing the State's finances.

> <u>Annual Report to Legislature</u>— By statute, each November, OPM and the Office of Fiscal Analysis (OFA) is required to submit a Fiscal Accountability report to the Legislature which projects revenues for the current biennium and the next three fiscal years.

> <u>Three Year Out Report</u>— As part of the budget process, the Governor must annually submit a separate report to the Legislature which sets forth the estimated revenues and expenditures for the current biennium and the next three fiscal years.

Consensus Revenue Estimates— OPM and the OFA are required by statute to issue consensus revenue estimates each year by November 10, January 15, and April 30 that cover the current biennium and the next three fiscal years. The development of consensus revenue forecasts utilizes both in house analytic staff and external economic forecasting services. Economic trends are monitored and factored into monthly updates on revenue projections.

The Treasurer has investment responsibility for all funds of the State and functions as the trustee of all State pension, retirement, and trust funds. The Treasurer is required to report annually on investment activities by December 31 to the Governor and the State's Investment Advisory Council.

State Budget Process

The State's fiscal year begins on July 1 and ends on June 30. The Governor is required to transmit a budget document to the General Assembly in February of odd numbered years setting forth a separate budget for each of the biennium years. Under State Statute, the Governor has the ability to run the State under Executive Order to maintain essential services in the absence of a budget.

In each even numbered year, the Governor must prepare a report (Mid Term Budget Report) on the status of the budget enacted in the previous year with any recommendations on adjustment and revisions for the coming year. All budget recommendations incorporate the consensus revenue estimate process. If a budget surplus or deficit is projected, the Governor will recommend how the deficit will be mitigated or how the surplus will be used.

Ability to Adjust Expenditures and Deficit Mitigation

Under State statute, the Governor is empowered during the fiscal year to reduce the budget allotment, or expenditure request, by up to 5.0% of any specific appropriation to an agency, except for aid to municipalities, up to 3% of the total appropriations of any fund under certain circumstances without Legislative approval in order to maintain balanced financial operations. Such reductions to expenditures are also referred to as rescissions. Such budget allotments are subject to further modification by the Governor throughout the fiscal year if necessary. Beyond these limits, the General Assembly must act to reduce expenditures.

If the monthly status letter on financial performance issued by the Comptroller indicates a projected General Fund deficit greater than 1% of total General Fund appropriations, the Governor is required within thirty days to submit a report to the General Assembly that outlines a plan that the Governor shall implement to reduce expenditures to prevent a deficit. Over the last several years, the Governor has adjusted the State's operating budget through the rescission process several times in response to projected deficits identified as part of the monthly monitoring of financial performance.

Budget Reserve Fund

State statutes dictate that unappropriated surpluses left in the General Fund (GF) shall be transferred to the Budget Reserve Fund (BRF) until the Fund reaches 15% of the net GF appropriations. The Revenue Volatility Cap requires that beginning in FY 2018 estimated and final payments of the personal income tax and the pass-through entity tax in excess of a threshold, the Revenue Volatility Cap, are deposited into the BRF. The threshold for deposits adjusts under a statutory formula tied to personal income and is calculated annually by the State Comptroller. After the BRF reaches 15% of net GF appropriations, revenues in excess of the Volatility Cap are to be applied to long term liabilities, initially pension liabilities.

Briefly, uses of the BRF include:

- To fund a deficit in the preceding fiscal year
- By transfer of the General Assembly if the consensus revenue forecast projects a GF revenue decline of more than 1%

State Debt Limit

State statutes impose a ceiling on the amount of GF supported debt which may be authorized by the Legislature. The limit is 1.6x net GF tax receipts as projected by the Finance, Revenue and Bonding Committee of the General Assembly. Certain types of debt are excluded from this cap, including cash flow borrowings and emergency financings. Per the November 2019 Fiscal Accountability Report, the estimated debt incurring margin for FY 2020 is $4.3 billion.

General obligation debt is issued under State debt statutes and specific bond authorizations. Statutes provide that the bonds will be general obligations of the State and that the full faith and credit of the State is pledged for repayment. As per the State's contract with bondholders, appropriations for principal and interest do not need legislative approval. There are no express statutory provisions establishing any priorities in favor of general obligation bondholders over other claims against the State. Connecticut is not a voter initiative state.

Municipal Accountability Review Board (MARB)

Statutes passed by the General Assembly as part of the FY 2018-FY 2019 budget process established a Municipal Accountability Review Board (MARB) to provide oversight and assistance to municipalities experiencing fiscal distress. The State has assumed the annual debt service obligations of the City of Hartford under this program. KBRA has added Hartford's outstanding debt to the State's aggregate outstanding debt. The State is also providing support to the City of West Haven under MARB which is expected to be short-term.

Bankruptcy

Under Chapter 9 of the U.S. Bankruptcy Code, State governments are not permitted to petition courts for protection from creditors, including holders of their general obligation debt.

RD 2: Debt and Additional Continuing Obligations

State Tax-Supported Debt

Connecticut's pro forma tax-supported debt burden is $25.3 billion including $18.7 billion in general obligation bonds, $6.0 billion in special tax debt secured by a pledge of transportation related taxes and fees, and $214 million in various other obligations. Also included in this figure is $511 million in City of Hartford debt. The State has assumed Hartford's debt service payments on this debt under a Contract for Financial Assistance executed in April 2018 as part of a plan to stabilize the financially distressed city.

In comparison with other states, Connecticut's state tax-supported debt burden is high. These high debt levels result in part from the State's practice of issuing general obligation debt for certain university projects and for purposes that municipal entities and counties fund in other states, including local school construction. Connecticut has not had a county form of government since October 1960.

The presently offered General Obligation Refunding Bonds will refund approximately $206 million in outstanding Series 2010A and Series 2010C Bonds for estimated present value savings of $11.3 million over the life of the bonds, or present value savings of approximately 5.9%. The average life of the refunding bonds will be substantially the same as the refunded obligations.

Figure 1

Pro Forma Direct Tax-Supported Debt
Principal Amount Outstanding
(dollars in thousands)

	2/1/2016	2/1/2017	2/15/2018	2/1/2019	11/1/2019
General Obligation Bonds[1]	$13,529,951	$14,090,513	$14,038,169	$15,007,964	$14,596,227
General Obligation Bond Anticipation Notes	-	-	400,000	-	-
Pension Obligation Bonds (GO)[2]	2,346,499	2,351,187	2,369,532	2,367,505	2,383,043
UConn 2000 Bonds (GO)	1,059,285	1,532,895	1,420,535	1,635,125	1,676,390
Total General Obligation Debt	16,935,735	17,974,595	18,228,236	19,010,594	18,655,660
Special Tax Obligation Bonds	4,519,700	5,041,800	5,540,495	5,957,600	5,957,640
Other[3]	320,463	326,883	302,343	256,706	213,571
State Guaranteed City of Hartford Debt	-	-	-	515,910	510,994
Total Direct Tax-Supported Debt	**21,775,898**	**23,343,278**	**24,071,074**	**25,740,810**	**25,337,865**

Source: POS and historic State of Connecitcut General Obligation Bond Official Statements.

[1]Figure for 11/1/2019 is adjusted to include estimated impact of currently offered $700 million General Obligation Bonds and $191.75 million General Obligation Refunding Bonds.

[2]Includes accreted value of Capital Appreciation bonds.

[3]Includes lease financing, tax increment financings, CHFA Supportive Housing Bonds and CHFA Emergency Mortgage Assistance Program Bonds.

Connecticut's state tax-supported debt burden is high relative to population, personal income and GSP, ranking among the very highest in the Country by all three metrics. The State's debt burden compares more favorably however when analyzed on the basis of aggregate state and local borrowings. By this more inclusive measure, the State's debt burden falls to the top 30% of states compared to personal income and to GSP (Figure 2).

FIGURE 2

Debt Ratios (in dollars)	Connecticut[1]	Average of U.S. States	Connecticut Rank Among the 50 States
Tax-Supported Debt:			
Per Capita	$7,092	$ 1,616	Highest 10%
as a % of Personal Income	9.5%	3.0%	Highest 10%
as a % of GSP	9.2%	2.6%	Highest 10%
Aggregate State and Local Debt:			
Per Capita	$13,867	$ 9,308	Highest 15%
as a % of Personal Income	19.2%	17.9%	Highest 30%
as a % of GSP	18.5%	15.5%	Highest 30%

Source: U.S. Census Bureau, U.S. Bureau of Economic Activity, Credit Scope, and Annual Disclosures

Connecticut has a relatively small level of exposure to variable rate debt or derivative financings; hence these types of transactions do not pose a significant risk to the State's liquidity position. As of November 1, 2019, the State has $1.126 billion in variable rate general obligation bonds, which represents approximately 6.7% of pro forma long-term GO debt. The State has one outstanding GO swap with the notional amount of $20 million that will mature June 1, 2020. Under the swap agreement, the State controls termination unless its rating falls below the BBB level.

Debt Amortization

Connecticut's debt amortization parameters are conservative, with GO debt generally required to be amortized over 20 years on a level principal basis, which generates a declining debt service schedule. Speed of amortization of direct general obligation debt, is above average with 72% of principal retired over the next 10 years. In FY 2018, debt service on long term direct GO Bonds represented 8.2% of total governmental expenditures (on a GAAP basis) for FY 2018.

Capital Improvement Plan

The State's general obligation bond authorizations for capital projects has seen a decline in recent years, decreasing from $2.8 billion in FY 2015 to approximately $1.4 billion in FY 2019. Authorization for bonding was not voted on by the General Assembly in the regular FY 2019 legislative session as state leaders continue to consider methods to increase transportation infrastructure funding, ranging from tolling proposals and additional GO bonding authority. In early November 2019, Governor Lamont released his CT2030 Plan which calls for $14 billion in road and bridge improvements as well as $7 billion in public transportation spending for airports, ports, bus and rail service. The state legislature is also considering alternative plans.

State of Connecticut Retirement Systems

Connecticut administers two major pension plans: the State Employees' Retirement System (SERS) and the State Teachers' Retirement System (TRS). It also administers the much smaller Judicial Retirement System (JRS). The State's level of funding for its pension plans remains among the lowest for US states. The funded ratio for SERS is 36.4% and for TRS is 57.7%. The State has contributed to these funds at the full Actuarially Determined Employer Contribution (ADEC) in recent years, but funding progress has lagged as realized investment returns have not reached actuarial assumptions.

State Employees' Retirement System (SERS)

SERS is a single-employer defined benefit pension plan that provides retirement, disability, and death benefits to plan members and their beneficiaries. Employees also contribute. Full actuarial valuations are performed by a third-party consultant as of June 30 in even numbered year, with the last full valuation completed as of June 30, 2018. The assumed annual investment rate of return was reduced gradually from 8.5% in 2010 to 6.9% in 2016. This revised assumption is more realistic in KBRA's view and has contributed to a trend of significant growth in annual contribution requirements.

On July 31, 2017, the General Assembly approved an agreement between the State and State Employee Bargaining Agent Coalition (SEBAC) which made substantial changes to pension and healthcare benefits for employees and retirees, including a three-year wage freeze, increased employee pension contributions for existing SERS members, a reduced COLA formula and a change in timing for post-2022 retirees, revisions to the healthcare design plan, and cost sharing for current employees. The State also agreed to extend the expiration date of the existing agreement with SEBAC on pension and healthcare from 2022 to 2027.

The 2017 agreement extended the amortization end date for approximately 4/5ths of the outstanding unfunded liability from 2032 to 2046. The 2019 Budget Act for the 2020-2021 extended amortization for the remaining 1/5th of the unfunded liability to 2046, which is anticipated to reduce the ADEC by approximately $157 million annually in FY 2020 and FY 2021.

Teacher's Retirement System (TRS)
TRS is a single-employer defined benefit pension plan administered by the Teachers' Retirement Board (TRB) for teachers, principals and other education supervisors employed in public school districts. Connecticut pays the entire ADEC on behalf of participating school districts and public universities. The teachers also contribute.

In April 2008, Connecticut issued $2.3 billion in taxable Pension Obligation Bonds (POB) which was deposited into the Teachers' Retirement Fund. Under the bond documents, the State covenants to contribute 100% of the ADEC based on the then current closed amortization period ending in 2032. However, as part of the 2019 Budget Act for the 2020-2021 biennium, the State extended the amortization period 17 years, utilizing a level dollar amortization which reduces the ADEC an estimated by $183 million and $188 million, in FYs 2020 and 2021, respectively. To compensate for the modification, a Special Capital Reserve Fund (SCRF) was established for the benefit of the POB holders, with a deposit of $380.9 million in June 2019. In addition, net lottery revenues are pledged to replenish the SCRF in the event of a draw. Furthermore, the assumed investment rate of return was reduced to 6.9% from 8%. The State Attorney General opined that these changes provide adequate protection to the POB bondholders.

FIGURE 3

Pension Funded Status as of June 30, 2018 (dollars in millions)

	SERS	TRS	Total
Market Value of Assets	$12,453	$17,947	$30,400
Actuarial Accrued Liability	34,214	34,712	68,926
Unfunded Actuarial Accrued Liability	21,223	16,765	**37,988**
Funded Ratio (based on the market value of assets)	36.4%	51.7%	44.1%
FY 2018 Actuarially Determined Employer Contribution (ADEC)	1,443	1,271	**2,714**
% of ADEC Contributed	100%	100%	

Source: State of Connecticut Annual Information Statement dated February 20, 2019 with July 3, 2019 supplementary information; SERS Report of the Actuary on the Valuation Prepared as of June 30, 2018, Revised June 18, 2019; and TRS Actuarial Valuation as of June 30, 2018, Revised as of June 18, 2019.

Net Pension Liability

The State's net pension liability (NPL), based on GASB 68 reporting requirements, represents a combined liability for all of the State pension funds, SERS, TRS and JRS. The NPL begins with the total actuarial pension liability based upon the entry age normal actuarial method. From this amount, the market value of invested pension fund assets is deducted and the balance is the NPL.

The combined NPL is $34.9 billion as of June 30, 2017 as shown in the State's FY 2018 audited Statement of Net Position. This NPL ranks among highest in the country when compared to population, personal income, and GSP (Figure 4). In FY 2018, the State's combined contribution toward pensions was $2.74 billion including $1.44 billion to SERS, $1.27 billion to TRS, and $25 million to JRS. This total contribution was equivalent to 8.2% of FY 2018 total governmental expenditures.

FIGURE 4

Net Pension Liability (NPL) Ratios
(in dollars)

	Connecticut 2018	Average of U.S. States 2017	Connecticut Rank Among the 50 States
Net Pension Liability:			
Per Capita	$9,633	$2,045	Highest 10%
as a % of Personal Income	13.4%	3.9%	Highest 10%
as a % of GSP	13.1%	3.5%	Highest 10%

Source: Credit Scope, FY 2017 Data. All figures represent the Net Pension Liability as reported in the Statement of Net Position per GASB 68.

The State has fully funded the ADEC for the SERS plan since 2012 and on the TRS plan since 2006, but the funded status of the two plans has eroded in part because actual investment returns have lagged assumptions. The revised return assumptions assume that investment returns will provide a smaller portion of the cashflows needed to maintain the plans, resulting in increased State contributions.

More current unfunded pension liability figures for SERS and TRS as of the June 30, 2018 measurement date indicate an unfunded pension liability of $34.4 billion. Seen below, contributions to SERS and TRS have grown consistently in recent years and are anticipated to increase to $2.99 billion in FY 2021. Presented also are the reductions in the ADEC in coming years relative to prior estimates due to the aforementioned legislative changes extending the amortization of respective unfunded liabilities for the two plans.

FIGURE 5

Actuarially Determined Employer Contributions (ADEC) for SERS and TRS
FYE June 30 (dollars in millions)

	2017	2018	2019	2020 Est.	2021 Est.
SERS					
ADEC Prior to 2019 Legislation	$1,569	$1,443	$1,575	$1,773	$1,897
Less Reductions Per 2019 Legislative Changes	-	-	-	(157)	(157)
Total State SERS ADEC	1,569	1,443	1,575	1,616	1,740
TRS					
ADEC Prior to 2019 Legislation	1,012	1,271	1,292	1,392	1,437
Less Reductions Per 2019 Legislative Changes	-	-	-	(183)	(189)
Total State TRS ADEC	1,012	1,271	1,292	1,209	1,248
Total State SERS and TRS ADEC	**$2,581**	**$2,714**	**$2,867**	**$2,825**	**$2,988**

Source: State of Connecticut Annual Information Statement dated February 20, 2019, with July 3, 2019 Supplementary Information; SERS Report of the Actuary on the Valuation Prepared as of June 30, 2018, Revised June 18, 2019; TRS Actuarial Valuation as of June 30, 2018, Revised as of June 18, 2019; and, State of Connecticut Rating Agency Presentation dated March, 2019.

Other Post-Employment Benefits (OPEB)

Connecticut provides healthcare and life insurance benefits to eligible state employees. The State funds the benefit costs on a pay as you go basis, as do most states, through a transfer from the General Fund to its OPEB trust fund. Beginning in 2009, new hires had OPEB trust contribution requirements. The most recent SEBAC contract requires employee trust contributions of 3% of salary for 15 years for employees hired on or after July 1, 2017. In FY 2018, the State's contribution to retiree healthcare and life insurance costs was $821 million, which represents 2.8% of FY 2018 total governmental expenditures.

Total Fixed Costs

Total FY 2018 fixed costs, including debt service, pension contributions and pay-as-you-go OPEB costs, represented 20.4% of total governmental expenditures.

RD 3: Financial Performance and Liquidity Position

The State's financial position trended favorably in FY 2018 and FY 2019, lifted by better than budgeted income tax receipts and sales tax collections in the General Fund. In earlier years, underperforming PIT collections have weighed on the State's operating performance. Effective in FY 2018, however, there was a swing to substantially better than projected PIT collections. This has allowed the Budget Reserve Fund (BRF) to grow from $213 million in FY 2017 to a strong $2.5 billion at the close of FY 2019.

State statutes direct the Comptroller to deposit any unappropriated GF surplus to the BRF. Recent legislative reforms establish a revenue volatility cap whereby collections from certain volatile sources above a certain threshold are deposited to the BRF. The volatility cap resulted in substantial FY 2018 and FY 2019 deposits, providing a much-needed boost in State reserves. The FY 2020-2021 Biennium Budget reflects further transfers to the BRF, and by the close of FY 2021 the BRF is budgeted to reach 15% of General Fund expenditures, the State's target funding level.

In discussion with KBRA, the Governor identified fiscal stability as one of his top three priorities. The FY 2020-2021 Biennium Budget strengthens the revenue base by renewing the hospital user fee on a permanent basis, renewing certain expiring revenue initiatives and expanding the sales tax base.

FY 2020 General Fund Outlook

Operating reserves are expected to continue to strengthen in FY 2020. KBRA has reviewed the latest OPM monthly report on the General Fund (released November 20, 2019). While the report indicates unfavorable budgetary revisions and a projected $19.6 million GF operating deficit, the projection is net of an estimated $318.3 million volatility cap deposit to the Budget Reserve Fund. The estimated ending BRF balance is $2.8 billion. The GF projection does not reflect the potential settlement related to litigation brought by the CT Hospital Association in 2015 regarding a provider tax established in 2011 which the State was supposed to reimburse.

Factors contributing to reduced FY 2020 revenue estimates include a $100 million increase in expected income tax refunds which may reflect reporting changes resulting from the State's relatively new pass-through entity tax. Expenditures are projected to exceed budget by $76.2 million, with healthcare related cost increases contributing to the larger cost revisions: Medicaid cost trends ($19.2 million increase), inmate medical services ($10 million increase) and employee fringe benefit costs for higher claims and premiums (net $12 million increase).

Adopted Biennium Budget

On June 4, 2019 the State Legislature passed the FYs 2020–2021 Biennium Budget. FY 2020 General Fund spending is budgeted to increase 1.7% over FY 2019 appropriations, and a 3.4% spending increase is budgeted for FY 2021. The enacted budget includes volatility transfers to the State's Budget Reserve Fund ($620 million over the two years).

The budget achieves budget balance largely through a continuation of current policies, as well as expansion of the sales tax base, pension restructuring and labor reforms. Revenue enhancements total $1.06 billion in FY 2020 and $1.46 billion in FY 2021. Most notably, the budget retains the FY 2019 structure of hospital user fees charged by the state, thus reversing previous legislation that would have reduced the hospital user fee beginning in FY 2020. The FY 2019 structure reflects a $900 million hospital user fee, with supplemental payments by the State to the hospitals, and federal grant revenue tied to the supplemental payments. The budget maintains the current 10% corporate tax surcharge ($60 million in FY 2020). Budgeted withholding PIT revenue is higher than the April 30 consensus revenue estimate by $90 million in each year to reflect improved expectations for personal income tax (the enacted budget assumes 5.3% growth in FY 2020, and 4.0% in 2021). The economic growth rate for sales tax (prior to tax changes) is 1.8% in FY 2020 and 2.4% in FY 2021.

Larger components of additional revenues in FY 2020 are derived from adjusting the diversion of the car sales tax to the Special Transportation Fund ($58 million), a 1% prepared food tax ($48 million), and expansion of the sales tax base to include digital downloads ($27.5 million). Income taxes benefit from maintaining eligibility limits for property tax credits ($53 million) and a reduction in the pass-through entity tax credit ($50 million). While the budget diverts funds from transportation to the General Fund, the budget does not address highway tolls.

Appropriation initiatives include reforms to the teachers' pension costs, for budgeted expenditure savings of $183 million and $189 million in FYs 2020 and 2021, respectively. Reforms in state employees' pension (through extending the amortization) and potential healthcare program reforms, with combined savings budgeted for $163 million in FY 2020 and $256 million in FY 2021. Municipal aid is stable from prior levels, and education funding increases $118 million over the two years.

Figure 6

General Fund Operations and BRF Balance
FYE June 30 ($ in millions) (Budgetary Basis)

	FY 2020 Adopted Budget	FY 2021 Adopted Budget
Revenues[1]	19,363	19,997
Expenditures[2]	19,319	19,982
Surplus (Deficit)	**44**	**15**
as a % of Expenditures	0.2%	0.1%
Budget Reserve Fund Balance		
Beginning Budget Reserve Fund Balance	2,506	2,965
Operating Surplus (Deficit)	44	15
Volatility Cap Deposit	318	302
Revenue Transfer Cap	97	151
Estimated Ending BRF Balance	**2,965**	**3,168**
as a % of Budgeted Expenditures	*15.3%*	*15.9%*

[1] Net of volatility and revenue cap transfers.
[2] Includes miscellaneous adjustments.
Source: State of Connecticut

FY 2019 Results

The State's 2019 budgetary basis annual financial report was released on October 31, 2019. The General Fund achieved a $371 million operating surplus, which was deposited to the Budget Reserve Fund. In addition, a volatility cap deposit of $949.7 million was made to the BRF. The ending BRF balance of $2.5 billion represents just over 13% of FY 2020 appropriations. Strengthened reserves will help the State in weathering economic downturns.

As shown in Figure 7, FY 2019 budgetary basis GF revenue growth is a sizable 8%. The revenue growth is overstated due to the timing of Medicaid reimbursement, as $400 million of revenue recorded in FY 2019 is attributable to FY 2018. Adjusting for this event, FY 2019 budgetary basis GF revenue growth is a still favorable 3.5%. Several revenue categories outperformed budget, including income taxes ($518 million favorable budgetary variance), pass through entity taxes ($572 million variance) and sales taxes ($184 million variance).

While PIT collections exceeded budget, PIT revenues declined relative to the previous year reflecting the absence of the extraordinary impact in FY 2018 from federal tax reform. However, the PIT decline is offset by pass-through entity income taxes collections which started in FY 2019. Under federal tax law changes effective January 1, 2018, pass-through businesses (sole proprietors, partnerships and S-corporations) gained a 20 percent deduction, incentivizing organizing and reporting as a pass-through entity. The strong sales tax collections reflect increased collection from online sales, partially due to the U.S. Supreme Court decision Wayfair, Inc. v. South Dakota.

FY 2019 expenditures increased $638 million (3.4%) over the prior year, with the majority of expense growth attributable to three spending areas: a transfer to the new TRS Special Capital Reserve Fund created for the benefit of POB bonds issued in 2008 ($380 million), SER retirement contribution ($115.8 million) and Medicaid costs ($93.9 million). The Special Capital Reserve Fund was established in June 2019 to comply with the adequate provision requirement of the 2008 GO pension obligation bonds. The State is changing the actuarial funding methodology for the TRS, and this change requires meeting an adequate provision covenant.

The State's discipline in restraining spending in a period of revenue expansion is a credit positive as it enables reserve accumulation and positions the State to manage future declines in its volatile revenue base.

Figure 7

General Fund Statement of Revenues, Expenditures, and Net Surplus
Budgetary Modified Cash Basis (FYE June 30) (dollars in millions)

	2014	2015	2016	2017	2018	2019
Operating Revenues[1]	17,009	17,282	17,781	17,703	18,199	19,650
Operating Expenditures	16,980	17,420	17,921	17,763	18,611	19,249
Other Resources	29	25	(30)	37	(71)	(31)
Operating Surplus (Deficit)	**58**	**(113)**	**(170)**	**(23)**	**(483)**	**371**
Transfers (to) from Budget Reserve Fund	(248)	113	170	23	483	371
Reserved for Subsequent Years Expenditur	-	-	-	-	-	-
Reserved for Prior Years Resources	191	-	-	-	-	-
Unappropriated Surplus (Deficit)	**-**	**-**	**-**	**-**	**-**	**-**

Budget Reserve Fund[3]

	2014	2015	2016	2017	2018	2019
Beginning Budget Reserve Fund Balance	271	519	406	236	213	1,185
Transfers from (to) General Fund	248	(113)	(170)	(23)	(483)	371
Volatility Cap Deposit[2]	-	-	-	-	1,471	950
Ending Budget Reserve Fund Balance	**519**	**406**	**236**	**213**	**1,201**	**2,506**
as a % of Operating Expenditures	*3.1%*	*2.3%*	*1.3%*	*1.2%*	*6.5%*	*13.0%*

Source: Annual Financial Reports of the State Controller

[1] FY 2018 and FY 2019 revenue is reported net of volatility deposits to the BRF.

[2] Volatility transfers became effective in FY 2018.

[3] Held in Special Revenue Fund.

Figure 8

General Fund Revenues and Expenditures Budgetary Modified Cash Basis (FYE June 30) (dollars in millions)	2015	Δ YOY (%)	2016	Δ YOY (%)	2017	Δ YOY (%)	2018	Δ YOY (%)	2019
Revenues									
Personal Income Tax	9,151	0.3%	9,182	-2.1%	8,989	19.8%	10,770	-10.5%	9,640
Federal Grants	1,241	4.9%	1,302	1.8%	1,325	-13.7%	1,143	82.3%	2,084
Sales and Use Tax	4,205	-0.6%	4,182	0.2%	4,192	0.2%	4,202	3.2%	4,338
Corporate Income Tax	815	8.1%	880	17.8%	1,038	-11.3%	921	15.2%	1,061
Pass-through Entity Tax									1,172
Excise Taxes (Alcohol and Cigarettes)	420	3.9%	437	1.8%	445	-1.1%	440	-4.2%	421
Indian Gaming Payments	268	-0.8%	266	1.5%	270	1.1%	273	-6.6%	255
Statutory Transfers from Other Funds	135	31.4%	178	-33.5%	118	-7.3%	110	0.0%	110
Other	1,046	29.5%	1,355	-2.1%	1,326	-74.4%	340	67.4%	569
Total Revenues	**17,282**	2.9%	**17,781**	-0.4%	**17,703**	2.8%	**18,199**	8.0%	**19,650**
Expenditures									
General Government	661	-5.1%	627	-6.8%	585	10.7%	648	0.8%	653
Public Safety	287	0.5%	289	-4.9%	274	-5.3%	260	4.7%	272
Conservation and Development	206	-5.3%	195	-7.1%	181	0.0%	181	-6.2%	170
Health and Hospitals	1,785	-1.1%	1,766	-32.6%	1,190	-2.2%	1,163	2.6%	1,194
Human Services	3,096	0.2%	3,102	16.9%	3,625	18.4%	4,292	0.5%	4,312
Education, Libraries and Museums	5,025	1.9%	5,122	-2.3%	5,004	0.4%	5,025	3.7%	5,208
Corrections and Judicial	2,070	-0.5%	2,061	-5.4%	1,949	-2.0%	1,911	3.0%	1,968
Debt Service	1,554	17.8%	1,831	5.7%	1,935	1.1%	1,956	13.8%	2,225
Other	2,735	7.1%	2,929	3.1%	3,020	5.1%	3,175	2.3%	3,247
Total Expenditures	**17,420**	2.9%	**17,921**	-0.9%	**17,763**	4.8%	**18,611**	3.4%	**19,249**

Source: Annual Financial Report of the State Controller

FY 2018 Financial Results

Under the State's Volatility Cap included in the FY 2018–2019 biennium budget (Public Act 17-2), any final and estimated income tax collections over $3.15 billion are required to be deposited in the BRF. The final and estimated income tax collections are highly volatile, and the legislation helps insulate General Fund operations. FY 2018 was the first year of the required transfers. In the State's comprehensive annual financial report, the BRF is shown as part of committed fund balance in the General Fund. On a GAAP basis the General Fund unassigned deficit declined to -$241 million, from -$821 million at the close of FY 2017, largely reflecting the improved BRF balance (Figure 9).

As presented in the State's audited budgetary based financial report, the General Fund incurred a $483 million operating deficit in FY 2018 (Figure 7), net of a $1.47 billion transfer to the BRF. The operating deficit was eliminated by a transfer from the BRF; on a budgetary basis the BRF is reported as a special revenue fund. The net effect of the two transfers, one in and one out, was a $1.2 billion ending BRF balance (6.5% of expenditures). The volatility of the State's income tax collections necessitates an ample cushion against difficult to predict declines.

FIGURE 9

General Fund Summary Statement of Income and Balance Sheet FYE June 30 (Audited, GAAP Basis) (dollars in millions)					
	2014	**2015**	**2016**	**2017**	**2018**
Statement of Income					
Revenues	17,400	17,954	18,215	18,502	20,663
Expenditures	16,591	16,936	17,444	17,138	18,077
Excess (Deficiency) of Rev. Over Exp.	809	1,018	771	1,364	2,586
Other Financing Sources (Uses)	(262)	(1,166)	(1,195)	(1,243)	(940)
Net Change in Fund Balance	**547**	**(148)**	**(424)**	**121**	**1,646**
Fund Balance (Deficit) - Beginning	(589)	(41)	(190)	(614)	(494)
Change in Reserve for Inventories	0	(1)	(0)	(1)	(0)
Fund Balance (Deficit) - Ending	**(41)**	**(190)**	**(614)**	**(494)**	**1,151**
Balance Sheet					
Assets					
Cash and Cash Equivalents	-	-	-	-	481
Taxes Receivable, Net	1,278	1,220	1,321	1,381	1,801
All Other	538	659	532	543	1,041
Total Assets	**1,816**	**1,880**	**1,853**	**1,924**	**3,323**
Liabilities					
Accounts Payable and Accrued Liabilities	**302**	**346**	**334**	**350**	**373**
Due to Other Funds	**341**	**324**	**432**	**356**	**84**
All Other	**775**	**971**	**1,123**	**1,062**	**1,030**
Total Liabilities	**1,418**	**1,641**	**1,889**	**1,768**	**1,487**
Deferred Inflows of Resources	439	428	578	650	685
Fund Balances					
Nonspendable	50	51	53	54	56
Committed for:	-	-	-	-	-
Continuing Appropriations	86	65	97	60	134
Budget Reserve Fund	**519**	**406**	**236**	**213**	**1,201**
Future Budget Years	31	81	-	-	-
Unassigned	(727)	(793)	(999)	(821)	(241)
Fund Balance (Deficit) - Ending	(41)	(190)	(614)	(494)	1,151
Budget Reserve Fund as a % of Expenditures	*3.1%*	*2.4%*	*1.4%*	*1.2%*	*6.6%*
Unassigned Fund Balance as a % of Expenditures	*-4.4%*	*-4.7%*	*-5.7%*	*-4.8%*	*-1.3%*
Total Fund Balance as a % of Expenditures	*-0.2%*	*-1.1%*	*-3.5%*	*-2.9%*	*6.4%*

Source: State of Connecticut CAFRs FY 2014 to FY 2018.

Liquidity Position

The State's strong liquidity position strengthened further in FY 2019. Available cash balances averaged $4.13 billion in FY 2019, relative to a $2.76 billion average balance in FY 2018.

The common cash pool represents the State's operating cash and includes the Budget Reserve Fund (Figure 10). Available cash includes bond funds and other balances which can be made available to the common cash pool through temporary transfers under long established State practice. The State's level of cash in the common cash pool at a given point in the fiscal year reflects the seasonality of cash flow. The level of total available cash is impacted both by the rate of bond issuance and the rate of spending from those bond funds. The State has no plans to issue cash flow notes.

FIGURE 10

Available Cash Balance (dollars in millions)						
	6/30/2014	6/30/2015	6/30/2016	6/30/2017	6/30/2018	6/30/2019
Common Cash Pool	$941	$1,092	$821	$1,101	$1,871	$3,558
Total Available Cash	$1,781	$2,218	$1,764	$2,657	$3,399	$4,827

Source: State of Connecticut Treasurer's Office | Treasurer's Cash and Debt Monthly Reports.

Fiscal Accountability Report for FYs 2020-2024

State Statutes require OPM and the Office of Fiscal Analysis to prepare a Fiscal Accountability Report, analyzing issues affecting spending and revenue for the current biennium and the succeeding three fiscal years. KBRA views the report as a valuable tool for policymakers to identify and highlight upcoming fiscal issues. Among the components of the report is an analysis of year over year GF expected revenue growth and fixed cost growth. In FY 2020, GF revenues are projected to decline as sales tax transfers to the Municipal Revenue Sharing Account commence. In addition, a portion of the car sales tax will in transferred to the Special Transportation Fund in FY 2022. Decision makers will address the challenge of this revenue loss in the next biennium budget.

RD 4: State Resource Base

The State's resource base is highly developed but has experienced slow growth in recent years. Per capita personal income ranks first among the 50 States and high levels of educational attainment and low levels of poverty position the State well relative to peers in several areas. Population growth, however, has been flat since 2010 compared to the New England region and U.S. which have grown of 2.7% and 5.8%, respectively. Per capita personal income levels have additionally grown slowly in recent years and real Gross State Product (GSP) through 2018 has contracted since 2010.

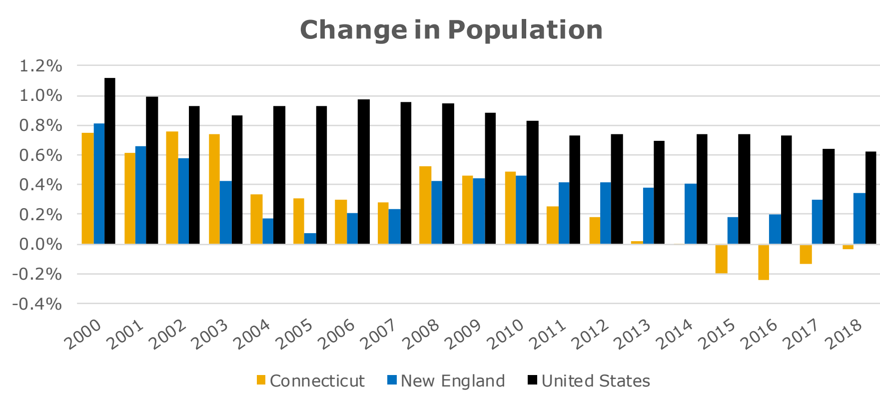
The State however continues to benefit from a diverse and highly productive economic base. In 2018, 16 "Fortune 500" companies were headquartered in Connecticut, including United Technologies Corporation (UTC), Cigna, Praxair, Stanley Black & Decker and Hartford Financial Service Group. The defense industry is an important component of the State's economy and has demonstrated renewed strength since 2002, a trend that is expected to continue. Major defense companies include United Technology Corporation (UTC) and its Pratt and Whitney Aircraft Division, Sikorsky Aircraft (a division of Lockheed Martin), and General Dynamics Corporation's Electric Boat Division. UTC, currently headquartered outside the City of Hartford, announced in June 2019 plans to merge with Raytheon Company in 2020. The combined Company's headquarters is to be located in Massachusetts, though KBRA understands that nearly all of UTC's 19,000 employees will remain in Connecticut, with approximately 100 moving to the new headquarters. Shareholders backed the plan in October 2019, and the deal is now pending regulatory approval.

In July of 2018 the State announced that KPMG would be adding 110 new jobs to its Stamford office over the next five years. In addition to KPMG, Seven Stars Cloud Group is establishing its global headquarters for technology and innovation at the University of Connecticut's former campus in West Harford and expects to create 330 jobs over the next five years. Additionally, digital services and consulting firm Infosys opened a technology and innovation hub in Hartford in December 2018 with plans to expand the facility to 1,000 jobs by 2023.

Population

Population growth has lagged that of the New England Region and U.S. since 2000 and has contracted over the last five years (Figure 11).

FIGURE 11



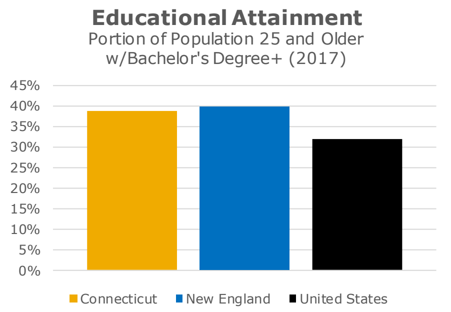
	2010	2018	Δ 2010 to 2018 (%)
Connecticut	3,579,125	3,572,665	-0.2%
New England	14,469,783	14,853,290	2.7%
U.S.	309,326,085	327,167,434	5.8%

Source: U.S. Census Bureau

Educational Attainment, Poverty, and Age Groups

Educational attainment in Connecticut and the New England region is strong relative to the U.S., although improvement in this metric lagged the U.S. somewhat since 2010 (Figure 12). Poverty in the State is well below the U.S. average but ticked upward since 2010 despite a trend of improvement across the U.S. (Figure 13). Connecticut's proportion of working age individuals is higher than the U.S. average and shrank slightly less since 2010 than the region overall, which KBRA views as a favorable indicator of the State's competitiveness that stands in contrast to less favorable trends in employment (Figure 14).

Figure 12

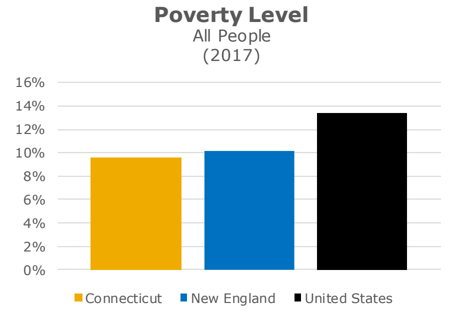


Educational Attainment

	2010	2017	Point Δ 2010 to
Connecticut	35.5%	38.7%	3.1
New England	35.6%	39.7%	4.1
United States	28.2%	32.0%	3.8

Source: U.S. Census

Figure 13

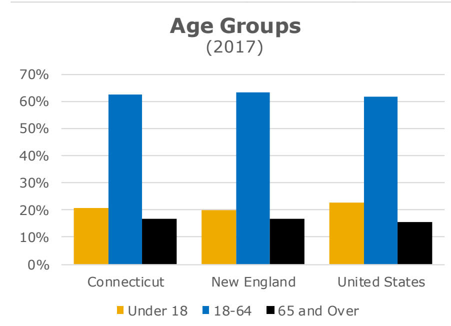


Poverty Level

	2010	2017	Point Δ 2010 to
Connecticut	9.2%	9.6%	+0.4%
New England	10.3%	10.2%	-0.1%
United States	13.8%	13.4%	-0.4%

Source: U.S. Census

Figure 14



Age Groups

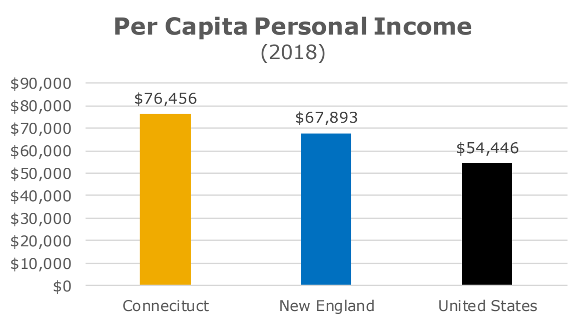
	Under 18	18-64	65 and Over
Connecticut	20.7%	62.5%	16.8%
New England	19.9%	63.2%	16.9%
United States	22.6%	61.8%	15.6%

Source: U.S. Census

Per Capita Personal Income

Per capita personal income at $76,456 in 2018 is the highest in the country reflecting the concentration of the State's economy in high value-added industries. Per capita personal income growth however has lagged since 2010 (Figure 15).

Figure 15



Per Capita Personal Income

	2010	2018
Connecticut as a % of New England	119%	113%
Conneicticut as a % of United States	153%	140%

Source: Bureau of Economic Analysis

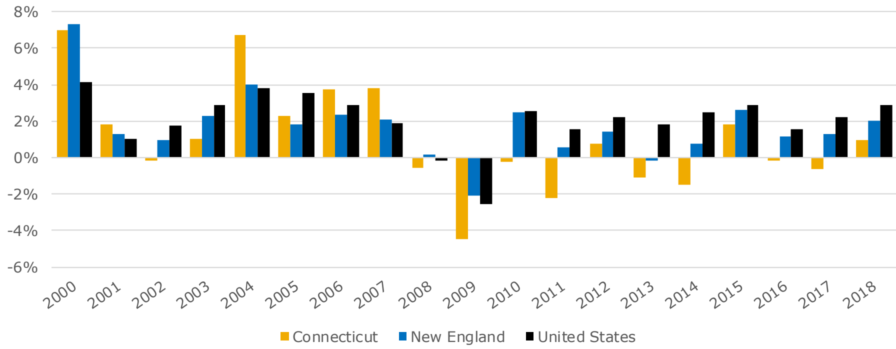
Real Gross State Product

Connecticut's real (inflation adjusted) gross state product (GSP) experienced a more pronounced decline and weaker recovery following the Great Recession than the region and U.S. overall, contracting in seven of the last ten years, including growth of 1.0% in 2018. In KBRA's view, the decline reflects poor performance in from State's pharmaceuticals and financial activities sectors, both of which were outsized contributors to growth in the decade preceding the Great Recession. The financial activities sector has declined from 31.4% of real GSP in 2009 to 26.4% in 2017 as various types of financial institutions have reduced risk-taking activities. Pharmaceutical sector activity has additionally declined due to the reduction of activity in the State by Pfizer, Bayer, and Bristol Myers Squibb. This drag is evidenced by the decline in chemical manufacturing as a share of total real GSP from 9.4% in 2007 to 1.6% in 2016.[1]

[1] Granular GSP data for chemical manufacturing sector was not disclosed subsequent to 2016.

FIGURE 16

Real GSP Annual Change
(chained 2012 dollars)



(dollars in millions)	2010	2018	Δ 2010 to 2018 (%)
Connecitcut	247,461	242,171	-2.1%
New England	871,810	959,518	10.1%
United States	15,598,753	18,566,442	19.0%

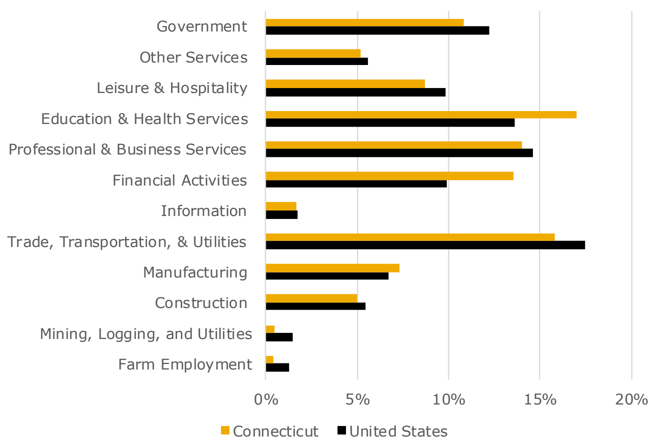
Source: Bureau of Economic Analysis

Employment

Connecticut's employment base is broad and benefits from specialization in value added sectors including advanced manufacturing, education/health services and financial activities (Figure 17). Employment growth has been slow through the current economic cycle with October 2019 employment exceeding the prior 2008 pre-crisis peak by about 4.9% compared to U.S. jobs 8.4% above this prior high-water mark (Figure 19). Since 2008, the State's employment concentration in education/health services intensified while manufacturing employment has declined (Figure 18). KBRA views the decline in manufacturing employment as consistent with the reduced pharmaceuticals activity discussed previously. Financial activities employment, inclusive of insurance, real estate, and other rental and leasing activity in turn is 3.5% above its prior 2009 high as of 2018 even as its corresponding share of GSP has declined.

FIGURE 17

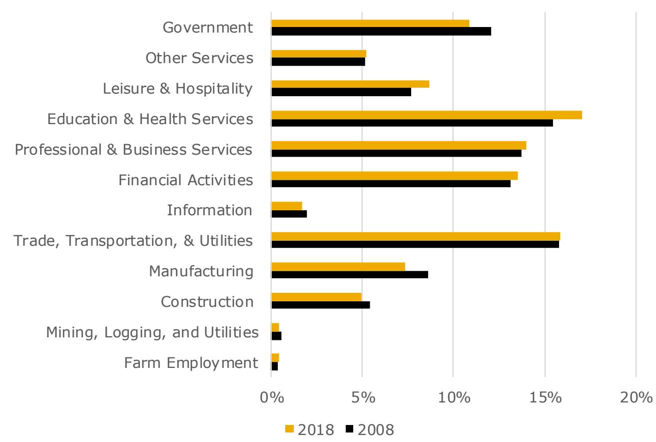
Employment by Sector
Connecticut vs. United States (2018)



Source: U.S. Bureau of Economic Analysis

FIGURE 18

Connecticut Employment by Sector
2008 vs. 2018



Source: U.S. Bureau of Economic Analysis

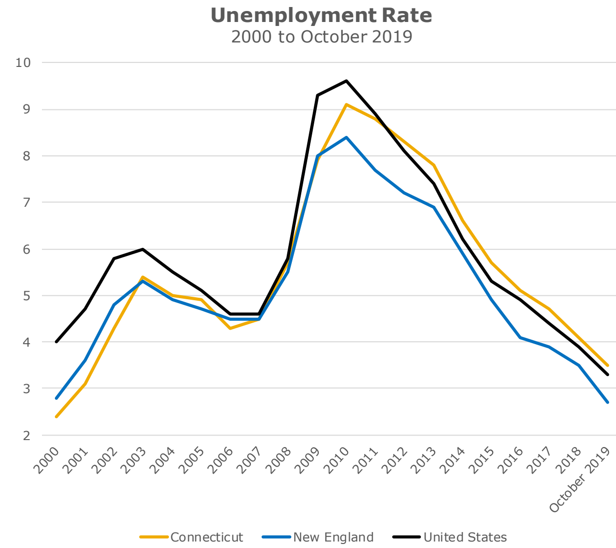
Unemployment has tracked closely with the U.S. over the last decade but trailed the performance of the region. The State unemployment rate was 3.5% as of October 2019 which was somewhat higher than the New England region and U.S. at 2.7% and 3.3%, respectively.

Figure 19

Employment (Not Seasonally Adjusted) (in thousands)						
Year	**State of Connecticut**	**Δ YOY (%)**	**New England Region**	**Δ YOY (%)**	**United States**	**Δ YOY (%)**
2000	1,722		7,131		136,891	
2001	1,705	-1.0%	7,127	0.0%	136,933	0.0%
2002	1,697	-0.4%	7,116	-0.2%	136,485	-0.3%
2003	1,688	-0.5%	7,103	-0.2%	137,736	0.9%
2004	1,686	-0.1%	7,115	0.2%	139,252	1.1%
2005	1,709	1.4%	7,168	0.7%	141,730	1.8%
2006	1,749	2.3%	7,260	1.3%	144,427	1.9%
2007	1,773	1.4%	**7,304**	0.6%	**146,047**	1.1%
2008	**1,775**	0.1%	7,278	-0.4%	145,362	-0.5%
2009	1,741	-1.9%	7,109	-2.3%	139,877	-3.8%
2010	1,737	-0.2%	7,103	-0.1%	139,064	-0.6%
2011	1,746	0.5%	7,141	0.5%	139,869	0.6%
2012	1,730	-0.9%	7,171	0.4%	142,469	1.9%
2013	1,718	-0.7%	7,197	0.4%	143,929	1.0%
2014	1,763	2.6%	7,342	2.0%	146,305	1.7%
2015	1,781	1.0%	7,426	1.1%	148,834	1.7%
2016	1,794	0.7%	7,527	1.4%	151,436	1.7%
2017	1,808	0.8%	7,638	1.5%	153,337	1.3%
2018	1,827	1.1%	7,793	2.0%	155,761	1.6%
October 2018	1,849		7,860		156,952	
October 2019	1,862	0.7%	7,917	0.7%	159,067	
Growth 2008 Cyclical Peak to Oct. 2019	**4.9%**		**8.4%**		**8.9%**	

Note: Cyclical low noted in bold.
Source: U.S. Bureau of Labor Statistics

Figure 20

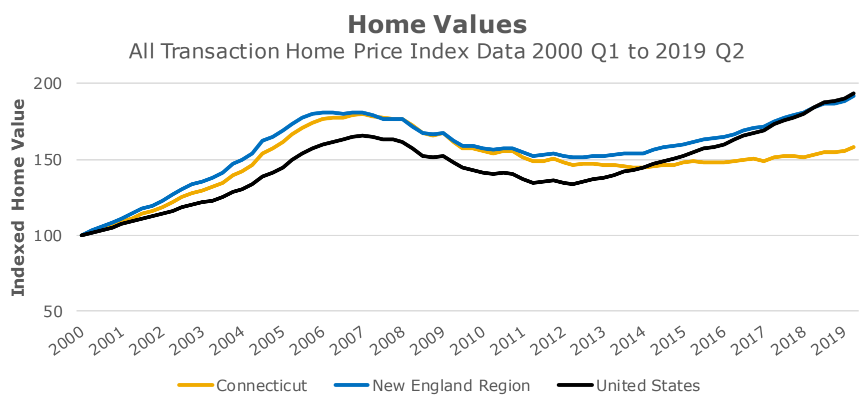


Source: U.S. Bureau of Labor Statistics

Home Value

State home value appreciation has lagged the region and the U.S. by a significant margin since the year 2000. As of Q2 2019, home values are 12.4% below their prior Q1 2007 peak compared to region and U.S. home values which rest 6.0% and 17.3%, respectively, in excess of their prior highs.

Figure 21



Source: Federal Housing Finance Agency