Connecticut at Risk:

Will the State Navigate to Prosperity?

Comeback America Initiative
Keeping America Great

CCEA
University of Connecticut

About

The Comeback America Initiative (CAI) and the Connecticut Center for Economic Analysis (CCEA) created this publication to highlight the strengths and weaknesses in Connecticut's financial condition and competitive posture, as well as to suggest policies and initiatives that state leaders might implement to improve the state's financial condition, and enhance the state's competitiveness and future prosperity.

CAI is a non-profit organization that promotes fiscal responsibility and sustainability by engaging the public and assisting key policymakers on a non-partisan basis to achieve solutions to America's federal, state and local fiscal imbalances. Additional information can be found at www.KeepingAmericaGreat.org

At the request of Governor Weicker, the University of Connecticut created CCEA in 1992 to serve the state's citizens by providing timely and reliable information about the state's economy and to evaluate the potential impacts of proposed policies and strategic investments. By mobilizing and directing the expertise available at the University of Connecticut, state agencies, and the private sector, CCEA aims to equip the public and decision makers with transparent analyses to facilitate systematic, thoughtful debate of public policy issues. CCEA takes a long-term, strategic view of economic forces and is committed to providing studies that are objective and transparent. Additional information can be found at http://ccea.uconn.edu/

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Executive Summary

Connecticut has an impressive history and considerable future potential. However, Connecticut's economy has underperformed by national standards and the state's financial situation has become untenable. While some progress has been made in recent years, considerable challenges remain.

This publication was not written to criticize current or past policymakers' decisions, or to dwell on negative aspects of the state's challenges. Rather, the purpose is to present information to facilitate a productive discussion about how to create a better future in Connecticut.

Data in this report show that Connecticut's economic underperformance began approximately two to three decades ago when the state's economy did not adapt to changes in the global economy. As a result, Connecticut's economy remained disproportionately reliant on industries such as financial services (including insurance) and specialty manufacturing operations. The state's median incomes declined, income disparities within the state increased, and the poverty rate grew significantly during this time. Additionally, Connecticut has failed to recover as well as other states from the 2007 financial crisis and consequent recession.

While state budgets may have been "balanced", financial statements show the state's expenditures have exceeded revenues for several years, and its bonded debt and unfunded liabilities have increased dramatically. Connecticut ranks among the highest, and possibly the highest, in total unfunded pensions and retiree healthcare per taxpayer in the nation. The state is passing large burdens to future generations of taxpayers.

The key to the state's fiscal and economic health lies in the government's ability to promote private sector business growth, but Connecticut is seen as increasingly uncompetitive; falling behind other states in attracting both businesses and individuals. Without future job growth, the state will not see increased prosperity and security for many of its citizens. Connecticut must put its financial house in order, promote economic growth, and address a range of troubling disparities, which can only be achieved through a thoughtful conversation among various stakeholders.

Therefore, the authors make three broad recommendations, and offer specific ideas for each within the recommendations section:

(1) Connecticut must address its unsustainable fiscal outlook, and adopt a comprehensive solution to put its finances in order;

(2) Connecticut must focus on improving economic growth, reducing disparities, and enhancing the state's competitiveness; and

(3) Connecticut must create and institutionalize a culture of transparency, accountability, and transformation at all levels of government.

In addition to these over-arching recommendations, this publication includes a number of illustrative questions intended to promote conversation and help people consider potential non-partisan solutions that can gain bipartisan support to address the state's challenges.

Introduction

Connecticut has a proud history. It played an integral part in the American Revolution, is one of the thirteen original colonies, and is the birthplace of the *Fundamental Orders*, which formed the basis of the U.S. Constitution. For many decades Connecticut was thought of as a flagship state nationally, and the first choice for many companies and individuals in the tri-state area (NY, NJ, CT). These factors, combined with Connecticut's prominent historical role in the nation's defense, resulted in the USS Connecticut being named the flagship of the "Great White Fleet" that circumnavigated the globe in 1909.

Connecticut remains a leader in certain respects today. For example, Connecticut is among the states with the highest per capita income and earns the third highest state gross domestic product (SGDP) per capita.[1] Connecticut has a highly educated workforce, with a wealth of higher education institutions. In addition, the state enjoys benefits from its close proximity to New York City and Boston, its long shore line, and its natural beauty, including its famous Mystic Coast.

Despite such positive attributes, Connecticut's economy has now underperformed for more than two decades, after exceeding national averages in the 1980s. Moreover, the level of income disparity within the state, its level of debt per taxpayer, and other metrics of economic health have worsened. Connecticut's current fiscal and economic path does not facilitate future job growth or increased prosperity and security for the majority of its citizens. Absent reforms the current trajectory risks undermining the state's future potential growth and competitive posture – particularly in the critical arena of innovation and job creation. The question is why, despite the state's many positive attributes and considerable potential, has economic performance not been more robust?

While the state has taken significant steps in recent years to adjust its course, there is much still to be done. It is time to *batten down the hatches* and navigate from the current troubled waters to safer and calmer seas. Just as a ship's captain must know from where he has sailed to know where he is headed, this publication begins by summarizing Connecticut's financial and economic performance over recent decades. This publication first presents retrospective financial, economic and other data in an understandable way, so that all interested parties can have a clear picture of "where the state has been" and "where the state stands today." Then this publication provides selected recommendations and key questions to consider when designing a path to create a better future. These are intended to be illustrative, not prescriptive. Nowhere in this publication do the authors call for or endorse specific legislation or strategic initiatives. Rather, this publication seeks to build a productive conversation among a broad range of key stakeholders about how the state can and should proceed over the coming years.

Even though this publication focuses solely on the challenges facing Connecticut, many other states face similar financial and economic challenges. The authors of this publication hope that it can serve as a guide for others who seek to replicate the analysis used and apply it to their own state.

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[1] U.S. Department of Commerce, Bureau of Economic Analysis. Data from 2011. See Appendix 1 for full rankings.

Data & Data Analysis

To illuminate both historical patterns and current challenges, this publication compares Connecticut and ten select comparator states. These states were chosen on the basis of geographic proximity, size, economic similarity, or because they are states that Connecticut residents are moving to and from. These ten states are: Florida, Illinois, Massachusetts, North Carolina, New Jersey, New York, Pennsylvania, Rhode Island, Texas, and Virginia.[2]

All data and analysis in this publication is intended to be fact-based, non-partisan, non-ideological, fair, and balanced. As such, all the data used in this publication come from non-partisan, authoritative sources, and where possible, definitive federal organizations such as the Bureau of Economic Analysis (BEA) and the U.S. Census Bureau. In the interest of improving readability and not otherwise burdening the reader with "data overload," many of the germane data sets are in the appendices. Generally, tables within the text contain only the rankings for Connecticut and the select comparator states.

There are many ways to evaluate a state's financial and/or economic position. Because citizens place different emphasis on various state characteristics, no one approach or indicator is universally definitive. Additionally, in many publications, the statistics and analysis are presented in ways to muddle their meaning. In writing this, the authors have worked to present information in a way that a layperson will find understandable and thus able to discuss with others. Similarly, special care has been taken to ensure all comparisons are "apples-to-apples."

Comparing an individual state's finances with other states is not easy. Government structures across states vary widely, making comparisons difficult (e.g. virtually all states have multiple levels of governments; Connecticut has only two—the state and municipalities). Additionally, statistics can easily be manipulated in accordance with personal (or political) interests; making those statistics appear to support specific ideological arguments, when in fact the statistics do not. That said, CAI and CCEA acknowledge that it is also the case that comparisons across states are an inexact science and subject to annual fluctuations.

[2] In today's world all 50 states (and many foreign countries) are competitors. However, for practical reasons, an exhaustive comparison here was infeasible. Therefore, throughout this analysis, we compare Connecticut to all fifty states when- and wherever possible. However, for some of the more involved analyses, even a comparison group of all states was not practical. As such, in sections, comparisons are limited to a selection of (economically) similar states, as well as Connecticut's regional neighbors. Additional information regarding the choice of these states is available upon request.

Connecticut's Current Financial Condition

To flourish and prosper, a state must have a firm financial foundation. Unfortunately, Connecticut's current financial health is poor, both in absolute terms and in comparison to its peers. If the state does not address its financial challenges, its competitive position will continue to deteriorate and it will never reach its full potential.

For the past few years, Connecticut's state government general fund spending as a percentage of GDP has been high. At 7.8 percent of GDP in 2011, Connecticut ranked third highest out of all 50 states, and higher than all select comparator states except Massachusetts.[3] While state spending as a percentage of GDP has remained relatively constant over the past several years, there has been a recent uptick post 2007, which is to be expected. However, the question remains as to whether the state's residents are getting appropriate value for this spending. Similarly, there are many areas for state government to improve the economy, efficiency, and effectiveness of programs.

However, annual spending figures tell only part of the story, as bonded state debt ("municipal bonds") and unfunded or under-funded obligations (such as retirement benefits for state employees and retiree health benefits) are not included as part of "spending."

Connecticut's position is – regrettably – quite similar to the federal government's position in that the state's revenues have simply not grown as fast as its commitments, both those in the short-term and projected over time. While Connecticut's "official" debt position is troublingly high (Figure 1), the substantial unfunded retirement and other obligations that lie ahead, but are excluded in many summaries, are a matter of greater concern. Beginning in the 1990s, state employee retirement programs were expanded considerably. For several years now, elected officials have not made the necessary contributions to fund the promised benefits. Unfunded pensions per taxpayer have grown since the 1990s, and are close to only Massachusetts. However, adding in retiree healthcare obligations shows that Connecticut has the highest unfunded retirement obligations cost per taxpayer among comparator states, and possibly the highest in the nation.[4]

[3] Fiscal Survey of States; Report by the National Governors Association and National Association of State Budget Officers, 1997-2011. It should be noted that this only includes state spending levels. A full analysis of government spending across states would also include local spending, given different government structures across states. However, detailed analysis of both state and local spending was outside the scope of this publication, and even so, data on local government spending across states is of limited availability. See Appendix 2 for further discussion.
[4] CCEA Analysis of State Consolidated Annual Financial Reports & Actuarial Reports. See appendices 5 and 6.

Many are unaware of the state's poor financial condition because it is largely off the state's balance sheet, hidden from public view. Nearly all state governments, including Connecticut's, require states to maintain a balanced operating budget. In form, Connecticut has had a balanced budget in past years, but not in substance. For the real story, one must look at the government's financial statements. Most state budgets are calculated largely on a cash basis, meaning that revenues are recorded at the time received and expenditures at the time payment is made. Financial statements, which follow Generally Accepted Accounting Principles (or GAAP), allow a more accurate accounting of revenues and expenditures tied to when an activity actually takes place. The use of GAAP helps prevent manipulation of expenditure or revenue timing that can make an entity's financial picture seem more favorable than it truly is.

While state budgets may have been balanced on a cash basis, Connecticut's financial statements show expenditures exceeding revenues on an accrual basis going back many years, with the government taking on bonded debt, incurring other financing arrangements, and building increased unfunded obligations to make up for fiscal shortfalls. Debt to finance capital projects can be beneficial, but borrowings should not be used to finance operating expenses. In addition, increased debt typically results in increased interest costs, which can exacerbate a government's fiscal challenge and risk.

Connecticut's financial statements show that an increasing portion of Connecticut's state expenditures has gone towards paying interest on accumulated debt. Figure 2 reveals Connecticut is highest among comparators in interest costs on many metrics (per taxpayer; percent of personal income; percent of total revenue). This is a significant concern because current interest rates are at or near historic lows, meaning there are considerable up-side risks if and when rates rise.

Of most concern are Connecticut's large and growing unfunded liabilities and obligations, specifically employee and teacher pensions and retiree health benefits. When comparing these obligations across states, there are various methodologies that can be used, some of which are more limited in scope and others that are more expansive.[5] Regardless of the methodology used, Connecticut has some of the highest – if not the highest – total liabilities and unfunded obligations per taxpayer of any state in the nation. Figure 3 shows the growth in unfunded pensions has been a long time in the making, growing over both Republican and Democratic administrations.[6]

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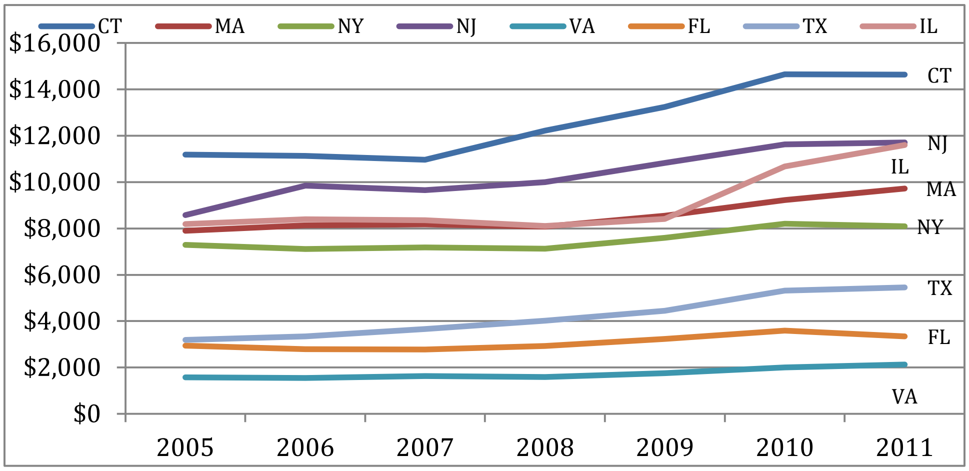
[5] For an example of a more expansive, all-inclusive analysis, see the Institute for Truth in Accounting's (ITA) *Financial State of the States* report. ITA ranks Connecticut the highest in total liabilities and unfunded obligations per taxpayer in the nation. See Appendix 6 for full rankings. The ITA analysis uses data from state financial statements and actuarial reports to calculate total taxpayer burden, including short term liabilities, outstanding debt, and unfunded pension and retiree health obligations. The ITA analysis also attempts to allocate a portion of multi-employer pension plans to the state, and offsets liabilities with current assets. For comparison purposes, this publication analyzed the state's primary government bonded debt and state unfunded pension and retiree health obligations. It is worth noting that, strictly speaking, either approach is valid. Additional information regarding the methodology employed is available in Appendix 8.

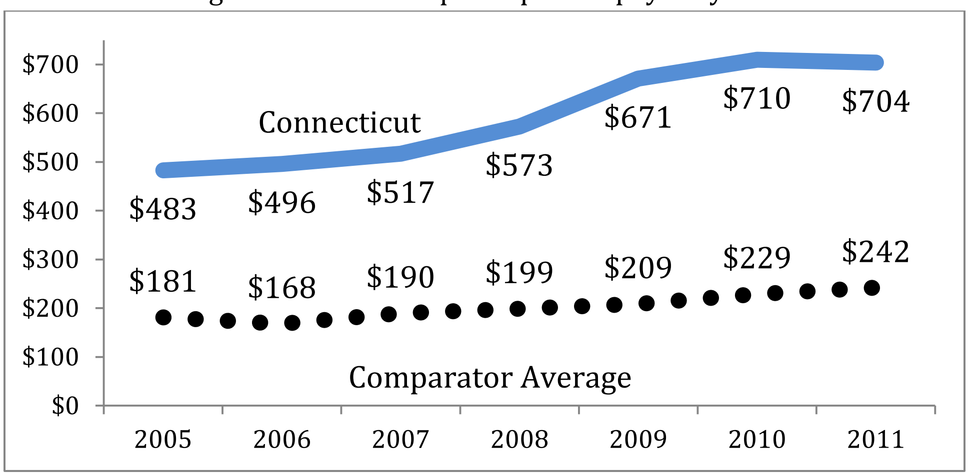
[6] Data on unfunded pension actuarial accrued liability was not analyzed for all comparator states - only those where data was readily available going back multiple years. In addition, other post-employment benefits was analyzed historically as well, however GASB only promulgated it be disclosed in 2009, and thus historical analyses across states is not very illuminating.

Figure 1: Bonded Debt per Taxpayer



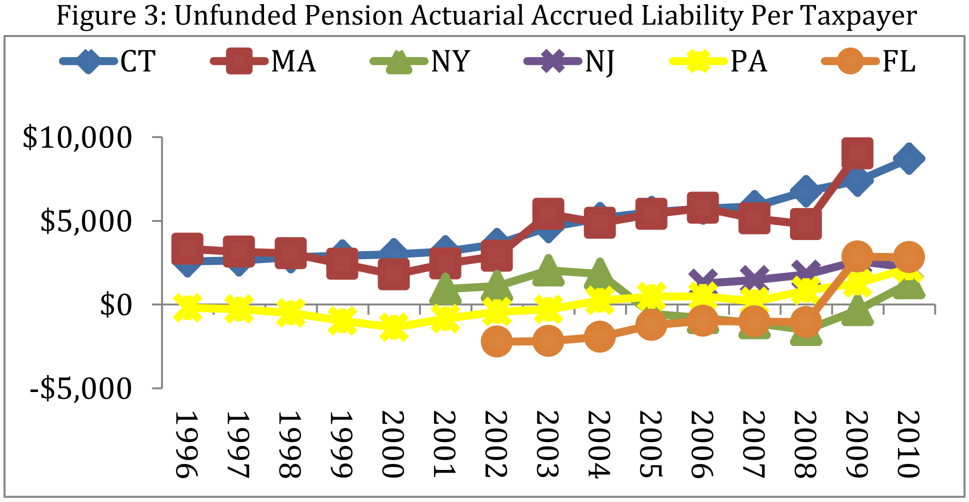
Source: CCEA

Figure 2: Interest Expense per Taxpayer by Year



Source: CCEA

Figure 3: Unfunded Pension Actuarial Accrued Liability Per Taxpayer

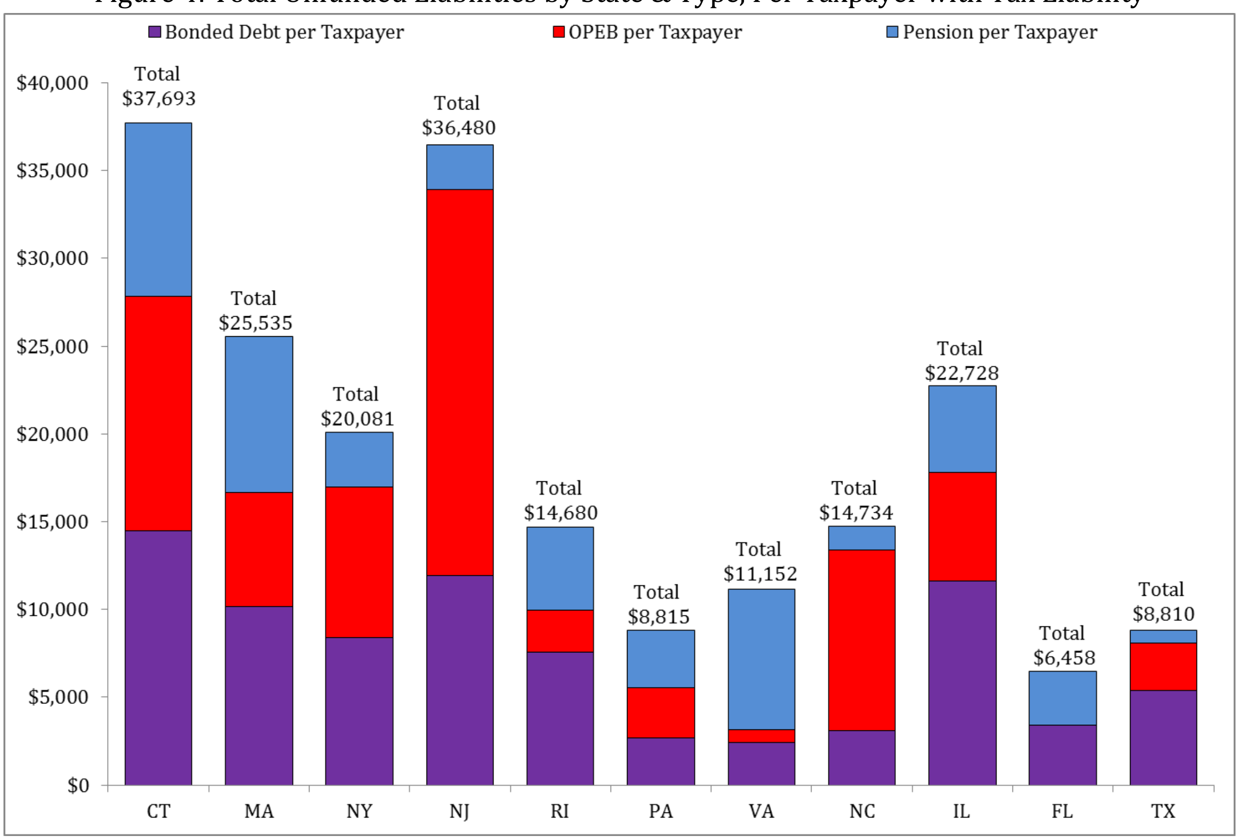


Source: CCEA

These unfunded retirement costs have been kept largely from public view because current accounting standards do not require they be shown on the state's balance sheet, unlike the federal government. However, that is changing. The Governmental Accounting Standards Board (GASB) has issued a new rule requiring states to report more information about the cost of their unfunded pension obligations, and is likely to require the same for retiree healthcare benefits in the future. This is a positive step; it will increase transparency of the financial conditions of all states, not just Connecticut. Governor Malloy should also be commended for moving the state towards GAAP-based budgeting, which increases transparency and financial accountability. In fact, it was his first executive order signed upon taking office; such leadership should be recognized.

It is also important to recognize that the Governor and Connecticut Legislature have acted to lessen these off-balance sheet obligations, which is appropriate. However, these steps were much too modest and came at the price of a four-year no-layoff commitment to state employees. In addition, the state's major labor contract, covering benefits, is not scheduled to reopen until 2022. This appears unrealistic because Connecticut's current fiscal path is unsustainable. The state is passing large burdens to future generations of taxpayers by promising more benefits and not paying for the accrued cost of employee retirement benefits. This must change. Figure 4 shows the composition of total unfunded liabilities for comparator states.

Figure 4: Total Unfunded Liabilities by State & Type, Per Taxpayer with Tax Liability



Source: CCEA Note: OPEB stands for Other Post-Employment Benefits

The state's fiscal challenges are exacerbated for another critical reason. State and local governments are heavily dependent on the federal government; Connecticut is no exception. "Bad news flows downhill" and when the federal government inevitably restructures its own finances, cutting transfers, states and localities will lose funding. Therefore, they need to take steps to put their own finances in order.

Analysis shows that federal dollars represent 37 percent of Connecticut state government revenues, 30th highest percentage in the nation, slightly below the average of 39 percent among states.[7] That same analysis shows that indirect flows – such as federal purchases from businesses and direct payments to individuals (including Social Security, Medicare, and compensation of federal employees) – equaled 29.3 percent of state GDP; 17th highest in the nation, below four of the comparator states (Virginia, Rhode Island, Florida, and Pennsylvania).

Furthermore, just as states rely on the federal government for a significant share of their revenue, municipalities rely on state government, thus the financial challenges of the state inevitably impact local governments.[8] Connecticut has a unique state governance structure. For example, Connecticut is one of only two states without county government. One of the results from the state's governmental organization is that the 169 towns – with 195 school districts all operate independently. In addition, Connecticut has assumed certain obligations that otherwise would have been assumed by county governments (e.g., teachers' retirement).

Importantly, a number of Connecticut municipalities also face serious financial and competitiveness challenges. They will likewise be affected by the state's fiscal challenges. Therefore, the state needs to be aware of, and help to facilitate, any needed transformation and restructuring efforts at the municipal level.

[7] Mazur, Edward J. & Taylor R. Powell. Intergovernmental Financial Dependency 2013: An Annual Study of Key Dependency Measures for the 50 States. Clifton Larson Allen LLP.

[8] Obtaining financial data at the municipal level was outside the scope of this publication, and would require an enormous amount of data collection across towns, and even more so to compare to other states. However, we acknowledge that a more comprehensive review of the state's financial picture would include municipal debt and obligations, especially since Connecticut's lack of county government has led the state to take on more obligations than may occur in other jurisdictions.

Connecticut's Current Competitive Posture

Competitive posture goes hand in hand with a state's financial condition, and for the purpose of this publication is defined as the attractiveness of a state as a place to do business or to live. Measuring states' competitiveness is not an exact science, as many factors go into business and individual residence decisions. There is vigorous debate among scholars regarding which factors to use and how important these different factors are. The factors chosen for this publication are consistently cited as criteria by which businesses and individuals base these decisions, but the weight given to each factor is subjective and left to individual readers.

Of course, the attractiveness of a state to businesses and individuals is interrelated, even though their reasons to locate in a state may differ. A state must attract and retain businesses so that more people will be employed, but one of the reasons for a business to locate in a specific state is that the people with skills required by that industry already live in the state or are willing to live there. As a result, there is a mutual relationship between attracting and retaining both businesses and individuals. There must be ample employment opportunities available, frequently for both spouses, if individuals and families are going to choose to move to and stay in a state.

Competitiveness is not solely influenced by the government; there are many additional factors, outside the control of the government that impact competitiveness. National and international macroeconomic forces, demographic changes, family location, and the geography and topography of the state can all affect a state's competitiveness. Elected officials cannot control these forces, but they can recognize and adapt to these factors, while determining the areas they can influence to improve the competitive posture of a state.

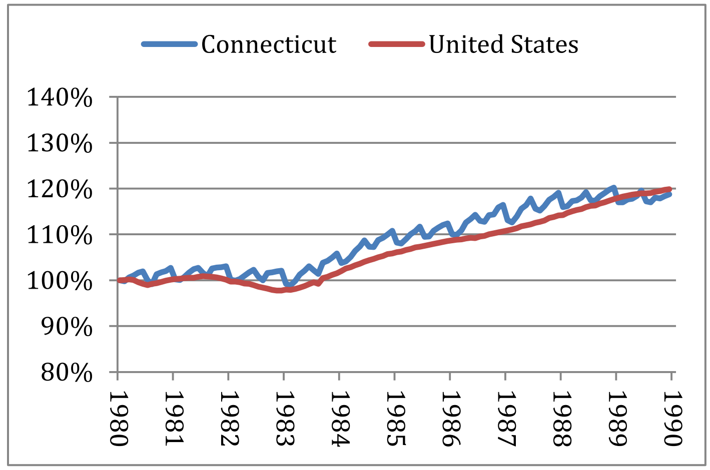
Globalization and technological innovation have made the world an increasingly flexible, mobile, and interconnected place. Businesses and people are not as restricted as they once were. Many jobs and industries allow employees to work from almost anywhere in the world, which is why it is increasingly important for a state to maintain a strong competitive posture.

Given its income statistics and geographic location, Connecticut would seem to be not only an ideal place to live, but also one in which to conduct business. However, Connecticut has suffered extremely weak growth for over twenty years. During this time, median incomes have declined, income disparities have increased, and the poverty rate has grown significantly.

Connecticut has not grown as fast as the overall U.S. economy in recent years and has failed to recover as well as its comparators from the 2007 financial crisis and ensuing recession. At the same time, Connecticut is neither facilitating the creation of nor attracting new businesses to help drive the state's economy in the future. Connecticut faces a critical challenge to retain, create, and attract new businesses to strengthen its competitive position, drive job creation and income growth, and secure its future economic health. New initiatives in digital visualization, innovation hubs, and a supportive ecosystem, among others, begin to address this challenge, but have not yet begun to deliver significant results.

Prior to the recession, Connecticut's growth in real GDP per capita was average in comparison to other states, but more recently it has fallen below average. From 1997-2006, Connecticut's average annual growth rate in real GDP per capita was 1.9 percent – tied with Alabama, Utah, North Carolina, and Maine – or approximately 23rd in the nation.[9] From 2007-2011, Connecticut's real GDP per capita growth averaged a negative 0.6 percent, ranking the state in the bottom 20 in the nation. In other words, not only was Connecticut not growing as fast as many other states before the recession, but also it has not recovered as well as many of its comparator states[10].

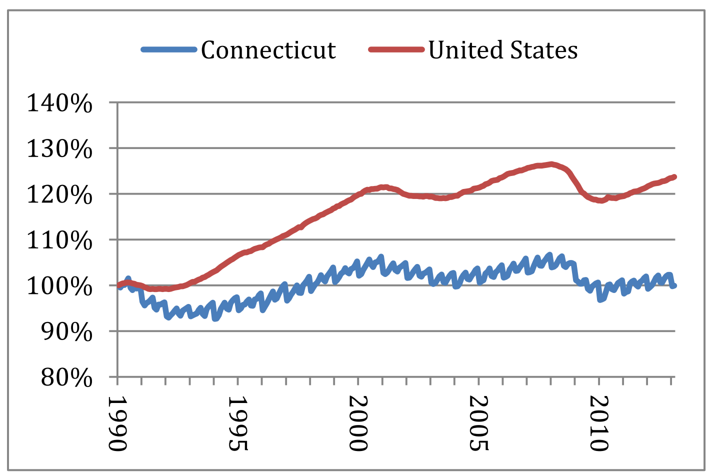
Figure 5: Change in Non-Farm Payroll 1980-1990



Source: BLS (Base Year 1980)

Regrettably, real GDP per capita is not the only economic metric that indicates slow growth in Connecticut. During the 1980s, job creation roughly mirrored the national trend (Figure 5). Then in the 1990s, Connecticut started falling behind in job creation. In fact, Connecticut has the worst job creation record out of all 50 states since 1990.[11] Shockingly, fewer people are employed in the state now than in 1990 even though the state's population increased during the same period (Figure 6)[12]. Historically, Connecticut's unemployment rate has been below the national unemployment rate. However, recently that historical trend has changed as well, once again showing how Connecticut is not recovering as fast as others, and how its position is deteriorating.

Figure 6: Change in Non-Farm Payroll 1990-2013



Source: BLS (Base Year 1990)

[9] See Appendix 1 for a comparison of all fifty states.
[10] See Appendix 1 for details.
[11] Flaherty, Patrick J. (2010). Last but not Dead, *The Connecticut Economic Digest*, vol. 15, no. 2, p. 1.
[12] Bureau of Economic Analysis, 2011. Bureau of Labor Statistics, December 2012.

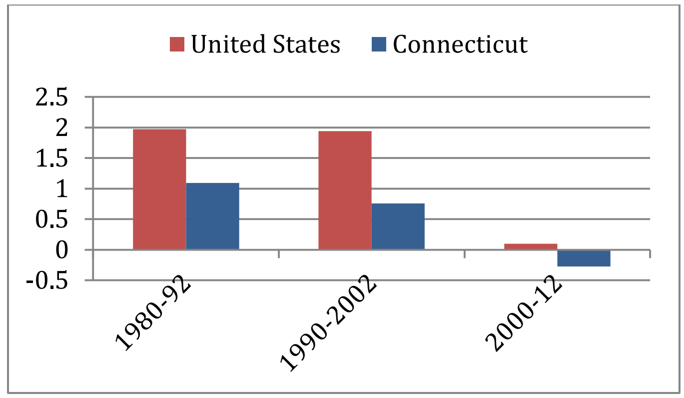
Connecticut employment growth rates have fallen further and further behind national growth rates. Connecticut's average employment growth rate has been negative, -0.3 percent, since 2000. Analyzing equivalent periods of time historically shows Connecticut has lagged the nation in average employment growth for decades (Figure 7).

The causes of Connecticut's accelerating decline are numerous, but result in part from the state's unwillingness or inability to augment its economic base by promoting entrepreneurial growth in high value-added areas such as industries that spend heavily on research and development.

For the past several decades Connecticut's economy has been heavily reliant on the financial, insurance and real estate industry (FIRE), with approximately 32 percent of its economy in the industry, compared to 21 percent of the nation as a whole.[13] Thus, Connecticut was disproportionately impacted by the financial crisis. But even before 2007, the industry did not experience employment growth,[14] due in part to accelerating productivity resulting from increased use of information technology (Figure 8).

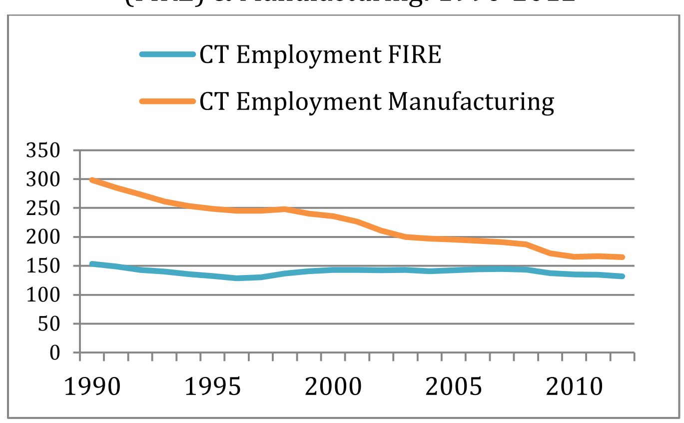
In 1990, Connecticut's economy and share of employment was more reliant on manufacturing than the nation as a whole, and as manufacturing has declined nationwide over the past several decades, Connecticut has suffered a disproportionate impact. In addition, Connecticut manufacturers failed to participate meaningfully in the IT revolution during the 1990s, and remained dependent on large, traditional employers that have suffered in recent years. Recently, there have been positive signs that the decline in employment in the manufacturing sector may be beginning to flatten out. Moreover, several recent studies have put Connecticut as a competitive location for advanced manufacturing.[15]

Figure 7: Employment Growth in CT versus U.S. 1980-2012



Source: CCEA from BLS data

Figure 8: Connecticut Employment in Financial, Insurance & Real Estate (FIRE) & Manufacturing: 1990-2012



Source: BLS & CCEA

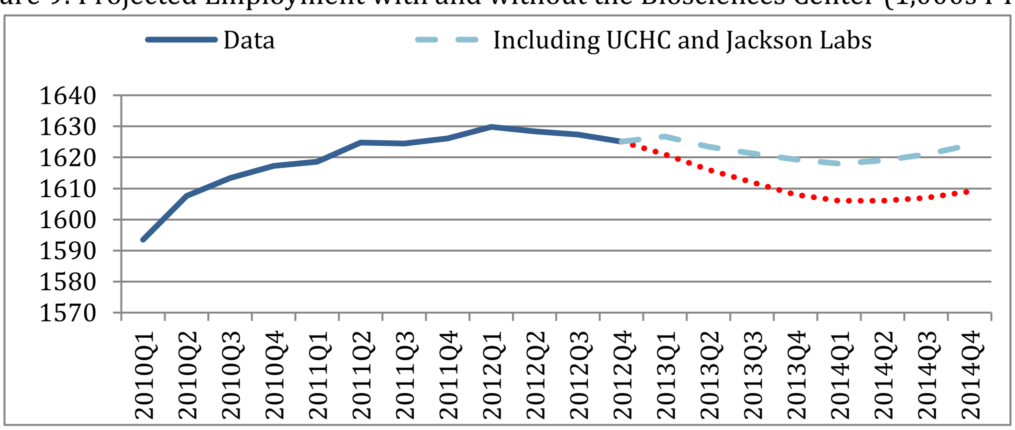
[13] U.S. Department of Commerce, Bureau of Economic Analysis. Data from 2011.
[14] CCEA analysis using Bureau of Labor Statistics data. Employment measured as full time equivalents (FTE).

[15] "Connecticut Manufacturing: Building on the Past, Creating Our Future." Connecticut Business and Industry Association, 2012. "Reexamining advanced manufacturing in a networked world: Prospects for a resurgence in New England." New England Council and Deloitte Consulting LLP, 2009.

These two issues, overreliance on financial services and a decline in key industries, contribute to a relatively weak small business sector, with very few young and innovative firms, which are the primary engines of job creation. There were roughly five thousand fewer small businesses operating at any given time at the end of the past decade than the beginning.[16] This 'trend' is not necessarily the simple result of any single factor or factors. However, previous academic research supports the contention that small businesses are more sensitive to macroeconomic changes – particularly disturbances in the financial markets that impact (directly or not) the availability and cost of credit as well as other investable funds – than their larger brethren.[17] As such – and given the relatively large number of small businesses operating in industries such as Construction and/or Accommodation and Food Services, and the high number of small businesses that support larger manufacturers, the decrease in the total number of small businesses towards the end of the decade (specifically after the 2007-2009 financial turmoil) is certainly understandable. However, to more fully understand the dynamics of Connecticut's small business sector, both the availability and quality of data regarding firms operating in the state needs to be improved.

Aside from the various long term economic trends in the state, the recent economic performance over the past year was not encouraging. While national employment grew by over two million in each of the last two years, Connecticut's seasonally adjusted employment fell roughly 4,000 from first quarter of 2012 to first quarter 2013, and it is estimated that Connecticut's real GDP grew in 2012 only 0.8 percent, compared to 2.2 percent nationally.[18] If construction of the expanded University of Connecticut Health Center (UCHC) continues, including its Biosciences Center and construction of Jackson Laboratories, the employment outlook in the near term resembles a mini dip, with an upturn in 2014 (Figure 9).

Figure 9: Projected Employment with and without the Biosciences Center (1,000s FTEs)



Sources: BLS data to 2012Q4 and CCEA thereafter based on a combination of Bayesian techniques for the baseline outlook and REMI impacts for inclusion of the Biosciences Center.

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16 US Census; Number of Firms, Number of Establishments, Employment, and Annual Payroll by Enterprise Employment Size for States, NAICS Sectors; 2010.

17 See, for example: Allen N. Berger, Gregory F. Udell, The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle, *Journal of Banking & Finance*, Volume 22, Issues 6–8, August 1998, Pages 613-673; Gertler, Mark & Gilchrist, Simon, 1994. "Monetary Policy, Business Cycles, and the Behavior of Small Manufacturing Firms," *The Quarterly Journal of Economics*, MIT Press, vol. 109(2), pages 309-40, May.

18 CCEA estimates based largely on personal income data.

There are some signs the economy could perform better. For example, following five years of decline, residential construction permits have made gains of over 50 percent in 2012. Furthermore, while devastating to economic performance and accumulated wealth in 2012, Hurricane Sandy will stimulate reconstruction over the next few years based in part on increased federal funding. Lastly, the Dow is up over the past year, which in turn benefits the financial industry and its Connecticut resident employees.

Despite these positive signs, there are also potential economic downsides at both the national and local level. Fiscal rebalancing at the national and local level could impact the economy negatively, depending on how it is approached. For example, CCEA has used the REMI (Regional Economic Models, Inc.) model[19] to analyze various approaches to rebalancing Connecticut's current operating deficit, the results of which show that adverse impacts on consumption can be partially mitigated depending on the approach taken. Potentially, state budget policies could throw the state back into recession.

There are some reasons to be both optimistic and pessimistic about Connecticut's economic outlook in the near term. But the state will be unable to reach its full potential over the long term if it fails to address adequately its underlying financial and competitiveness challenges. Many major companies have downsized their presence in Connecticut over the past several years (e.g. UPS, Sikorski Aircraft, and Pfizer) and the state has lost highly educated individuals to other states due to its declining competitive position and lack of adequate employment opportunities.

Recent longitudinal studies have revealed that Connecticut's major investments in higher education succeeded in retaining a far higher proportion of its best academic performers—only to see the majority leave the state within a few years of graduation because of the absence of job opportunities. This suggests that, at least historically, there has been a serious disconnect in the education-workforce pipeline. Parallel with this pattern have been the weaknesses in economic development and state marketing initiatives. The Malloy Administration is addressing these challenges strenuously, but the years of inattention have left a very steep hill to climb.

Connecticut has resorted to providing significant tax incentives to attract and retain business in recent years. While tax incentives in and of themselves do not constitute a comprehensive economic development strategy, their use could be improved. In some cases, the rules and regulations regarding their use are so constraining that they prevent companies from making investments that would benefit the economy. In addition, temporary incentives cannot take the place of needed structural reforms.

[19] REMI is a general equilibrium/demographic model operating at the state and county level in all states. It is designed to trace adjustments stemming from shocks to the economy including direct, indirect, and induced impacts out to 2060. It models adjustments to all major macroeconomic variables – national accounting metrics, employment, participation in the labor force by industry and occupations, international trade, induced investments, and inter-county migration including derived impacts on government budgets.

Competitiveness Rankings

Various organizations evaluate competitiveness, by developing their own rankings and indices, using their own methodologies, and weighting differing factors, to compare states' competitive postures. Unfortunately for Connecticut, virtually all such rankings indicate that the state is uncompetitive when compared to its comparators. Specifically, Connecticut ranks below most, with the exception of Rhode Island and possibly New Jersey, depending on the source. Table 2 below displays some of these rankings and indices that measure competitiveness, and where Connecticut ranks against its comparators. These rankings go from best to worst, with 1st being the best state in the country and 50th being the worst.

Table 2: Competitiveness Rankings

	CNBC – America's Top States for Business 2012	Forbes – Best States for Business 2012	Beacon Hill Institute State Competitiveness Report - 2011	Small Business & Entrepreneurship Council – U.S. Business Policy Index 2012	University of Nebraska – State Entrepreneurship Index - 2012	Average
Connecticut	**44th**	**39th**	**26th**	**42nd**	**12th**	**33rd**
Massachusetts	28th	17th	1st	38th	1st	17th
New Jersey	41st	23rd	29th	49th	7th	44th
New York	34th	23rd	29th	47th	4th	27th
Pennsylvania	30th	30th	39th	24th	11th	27th
Rhode Island	50th	49th	19th	41st	19th	36th
Florida	29th	27th	18th	5th	35th	23rd
Illinois	26th	38th	44th	35th	9th	30th
North Carolina	4th	4th	21st	37th	26th	18th
Texas	1st	7th	15th	3rd	18th	9th
Virginia	3rd	2nd	7th	12th	20th	9th

Of course, the variation in the rankings in Table 2 is significant. However, this variation is hardly surprising given that the rankings employ different methodologies. Regardless, the rankings show Connecticut's relative un-competitiveness, a position reinforced by prominent business voices such as CNBC and Forbes.[20]

A closer inspection of these rankings and indices reveals consistent areas where Connecticut falls short, and conversely, where it has a competitive advantage. On the positive side, Connecticut consistently ranks near the top on quality of life measures, which include poverty rates, crime rates, healthcare quality, cultural and recreational activities, and school quality. However, such averages mask large disparities that exist across states and Connecticut in particular. Connecticut also ranks highly in metrics related to innovation, such as number of patents, research and development support, or grants per capita. However, as noted, Connecticut has work to do in attracting, creating, and supporting more innovative firms.

[20] See Appendix 3 for more detail regarding the various rankings mentioned in Table 2.

Unfortunately, the negatives far outweigh the positives when it comes to Connecticut's competitiveness. Connecticut ranks near the bottom in the cost of doing business, which includes tax burden, cost of labor, rental costs, and energy costs. Both CNBC and Forbes rank Connecticut in the bottom five in the cost of doing business.[21] These rankings are consistent with the economic data presented previously, indicating that Connecticut's economic health is poor relative to other states. Job growth, GDP growth, new business establishments, unemployment, and the number of major corporations are all measures of a state's economic climate.

Additionally, Connecticut consistently ranks poorly when it comes to transportation and infrastructure. Connecticut's regulatory environment is also perceived as unfriendly to businesses.[22] The only area that does not lean heavily in one direction or the other is workforce/labor supply. Rankings consistently show that Connecticut has one of the best educated workforces in the country, but large income disparities, weaknesses in the education-workforce pipeline, demographic trends, and net migration argue that Connecticut actually faces serious future labor supply issues. Furthermore, positive average statistics in areas such as education hide enormous and troubling disparities within the state.

The remainder of this publication will explore select key competitiveness factors and analyze where Connecticut stands. These factors are education, demographics & labor supply, cost of living & doing business, taxes, transportation & infrastructure, healthcare, and regulatory environment. This publication is not designed to rank Connecticut as those other studies have, but to provide substance and context to the data.

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[21] While there is some basis for challenging the measures of cost (e.g. the use of residential rates for electricity when the relevant measure is energy per unit of output, a metric on which Connecticut scores very well), Connecticut has imposed very significant costs on business through process—the difficulty, complexity, and uncertainty any business faces if its activities or expansion must go through permitting processes or other regulatory hurdles. Thus the challenge in Connecticut may actually be primarily process—which would be good because that is a challenge that could be addressed quickly, as some agencies are now doing.

[22] Ibid

Education, Demographics & Labor Supply

People are an organization's most valuable asset. This maxim applies to states as well as businesses. In many regards a state's future competitiveness flows from its people. According to many metrics, Connecticut has one of the best educated populations in the country. Connecticut has been ranked in the top ten states in high school retention rates,[23] and second among all states in its percentage of high school graduates enrolling in universities.[24] In addition, roughly 36 percent of population over 25 has a bachelor's degree or higher, sufficient to rank fourth among all states.[25]

A quality education system, particularly primary and secondary education, is critical to economic competitiveness. In addition, a strong higher education system that sustains close linkages to the needs of area businesses improves competitiveness. Families also place high value on the quality of an education system when deciding where to live, just as young adults consider the quality of higher education systems when deciding where to attend college. Connecticut's education system has some outstanding qualities, but also faces significant challenges that must be addressed.

Connecticut spends a large amount of government resources on education. At the K-12 level, total education spending for primary and secondary education was $14,746 per pupil (2010), 7th highest in the nation, and above all comparator states except Rhode Island, New Jersey, and New York[26]. On average, Connecticut ranks relatively well in terms of test scores, but these rankings vary depending on the subject, grade level, and gender tested.[27] For example, Connecticut students rank in the top 10 in reading, but rank lower in mathematics and science (Table 3).

Table 3: Test Scores Rankings for Comparator States

	Mathematics/4		Mathematics/8		Science/8		Reading/4		Reading/8	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Connecticut	**22nd**	**22nd**	**19th**	**21st**	**27th**	**24th**	**7th**	**7th**	**2nd**	**4th**
Florida	31st	32nd	43rd	42nd	41st	35th	15th	12th	36th	37th
Illinois	33rd	33rd	29th	28th	37th	43rd	31st	35th	27th	28th
Massachusetts	1st	1st	1st	1st	7th	7th	1st	1st	1st	3rd
New Jersey	4th	4th	3rd	4th	25th	27th	2nd	4th	3rd	1st
New York	37th	35th	39th	35th	39th	34th	19th	22nd	25th	30th
North Carolina	12th	18th	24th	17th	42nd	40th	29th	26th	37th	31st
Pennsylvania	8th	9th	21st	23rd	28th	36th	11th	6th	20th	18th
Rhode Island	23rd	25th	30th	29th	35th	41st	24th	18th	30th	29th
Texas	24th	27th	10th	10th	29th	29th	33rd	38th	31st	45th
Virginia	9th	8th	15th	12th	16th	12th	9th	8th	19th	25th

Source: U.S. National Center for Education Statistics (All states and District of Columbia)

[23] United State Census Bureau, *2012 Statistical Abstract* tables 246 and 270. Data from 2004-2009.
[24] United State Census Bureau, *2012 Statistical Abstract* tables 246 and 270. Data from 2008.
[25]United States Bureau of the Census. *2012 Statistical Abstract* table 233. Data from 2009. Set against the share of total population, Connecticut's ranking among states is second only to Massachusetts.
[26] U.S. Department of Education, National Center for Education Statistics.
[27]U.S. Department of Education. National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011.

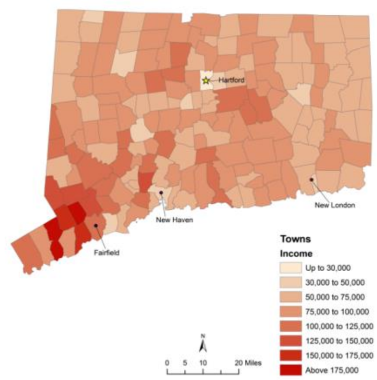
Importantly, looking at averages disguises the fact that Connecticut has the highest achievement gap in the nation, which is the difference in education performance between low income and non-low income students.[28] Such dramatic disparity in educational performance not only negatively impacts the ability to maintain a quality workforce, but also results in additional economic consequences. For example, high school dropouts generally earn less over their lifetime, are more likely to be unemployed, rely more heavily on government services, and commit more crimes. And in Connecticut, virtually all population growth is in core urban areas, among lower income households. If this pattern is sustained, and the state fails to raise the performance of schools in those areas, the future measured performance of Connecticut's education system will consistently decline.

Educational disparities correlate with the growth of poverty in the state and rising income inequality. 720,000 Connecticut residents, twenty-one percent, are either living in poverty or near poverty.[29] Even though median household income in Connecticut is high compared to other states, it has fallen in inflation-adjusted terms by more than $7,300 since 1989; Connecticut ranks behind only New York in terms of income inequality.[30] Figure 10 shows median household income in Connecticut, highlighting the income inequality, which is most heavily concentrated in urban areas.

[28] Connecticut Commission on Educational Achievement. *Every Child should have a chance to be exceptional. Without Exception. A plan to help close Connecticut's achievement gap.* 2010.
[29] Meeting the Challenge- The Dynamics of Poverty in Connecticut. CCEA 2013.
[30] The Unequal State of America: a Reuters Series; Analysis using Census Data. www.reuters.com/subjects/income-inequality

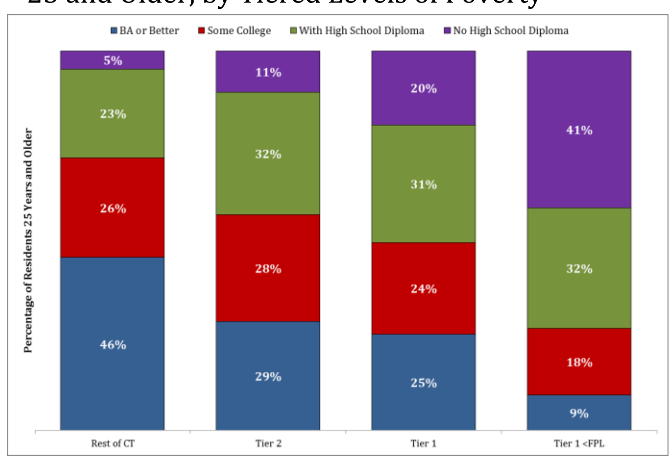
Figure 11 indicates that the very poor in the state are less likely to have a high school diploma and attend or graduate college. For example, 41 percent of those 25 and older in very poor areas (Tier 1 areas below Federal Poverty Level) have no high school diploma, versus only 5 percent of those outside of impoverished areas (Figure 11).

Figure 10: Median Household Income



Source: Meeting the Challenge-The Dynamics of Poverty in Connecticut, CAFCA, CCEA, BWB Solutions

Figure 11: 2010 Education Levels – Residents 25 and Older, by Tiered Levels of Poverty[31]



Source: Meeting the Challenge-The Dynamics of Poverty in Connecticut, CAFCA, CCEA, BWB Solutions

[31] Tier 1 consists of six of Connecticut's largest urban centers, the six cities with the largest numbers of Very Poor residents: Hartford, New Haven, Bridgeport, Waterbury, New Britain, and Stamford. Tier 2 consists of cities and town with 7.5 percent or more of the total population classified as Very Poor (below Federal Poverty Level).

Some progress has been made in addressing education disparities. The Governor and the Legislature have made education reform a top priority, and last year's comprehensive education bill seeks to make positive strides by raising standards for teachers, improving capabilities to address failing schools, and increasing accountability. However, more remains to be done, as huge disparities in outcomes still exist. At the same time, education costs are straining municipal budgets; where education now consumes a large percent of total expenditures on average, and is squeezing other critical services.

Innovation is related to education, and in certain areas Connecticut can be proud of its past innovation achievements. Competitiveness rankings show Connecticut is perceived as an innovative state, ranking well in categories such as number of patents issued, or the amount of money for research grants. Additionally, in May 2011, Governor Malloy announced the Bioscience Connecticut Initiative at the University of Connecticut Health Center. The initiative, which was central to capturing the major Jackson Labs research facility, should help make Connecticut a leader in the bioscience industry as well as double federal and industry research grants to drive discovery, innovation and commercialization. The Governor has now proposed to build on these developments with the massive Next Generation investment in the University of Connecticut. Connecticut must leverage these initiatives and its competitive advantage in innovation, while addressing its education challenges, to ensure that the next generations of innovators choose to live and work in the state.

Connecticut has an aging population (Table 4). Lack of job creation has resulted in a shrinking working age population and a growing 65 and over population. In 2012, Connecticut ranked 14th highest in the nation in its share of population 65 and older, and 10th highest share of population pre-retirement (age 50-64). The state also ranked 15th highest in share of population of labor force age (18 and older), which means conversely that the state ranks low in the percentage of population below age 18. Looked at as a whole, the state has a disproportionately older population, with relatively fewer young people, (under the age of 18) who will be the future supply of labor in the state (Table 4).

Table 4: Ranking of Population Cohorts of Labor Force Age (2012)

	Share of Population 18 and Older	Share of Population 50 - 64	Share of Population 65 and Older	Employed per 100 of Population
Connecticut	**15th**	**10th**	**14th**	**16th**
Florida	6th	28th	1st	48th
Illinois	34th	42nd	37th	23rd
Massachusetts	7th	16th	19th	7th
New Jersey	20th	25th	28th	22nd
New York	11th	34th	25th	20th
North Carolina	30th	37th	34th	40th
Pennsylvania	9th	7th	4th	18th
Rhode Island	5th	13th	9th	21st
Texas	49th	49th	49th	38th
Virginia	17th	31st	43rd	15th

Source: http://www.census.gov/popfinder/ (February 27, 2013)

Demographic trends and income disparities relate to competitiveness for two important reasons. First, people can, and will, leave Connecticut. More importantly, the people more likely to leave the state are those who have the ability, or enough income and other opportunities to do so. If they do leave the state, it will have negative impacts on Connecticut's labor supply and tax base.[32] Additionally, if those of wealth and means leave, they will leave behind a population less skilled, less employable, and more reliant on public services.

These income migration problems have already begun to emerge. Data collected from 2005-2010, show Connecticut is ranked 10th worst state in net income migration, and 6th worst when adjusted for population size, but still better than three select comparator states (New York, New Jersey, Illinois).[33]

In summary, while various workforce quality statistics appear positive, particularly in education, closer inspection reveals there are major challenges in composition, age, disparity, and dynamics. Connecticut currently faces significant workforce and labor supply issues, which will only grow over time without action.

[32] It is important to note that if one spends at least 183 days a year in another state, and meets certain other tests; they may not be considered a resident for the purposes of income tax in Connecticut. For example, if an individual were retired and had no Connecticut sourced income, and lived most of the year in another state they may not be liable for Connecticut state income tax.

[33] State to State Migration Data; Tax Foundation analysis using IRS data. Population statistics from U.S. Census Bureau.

Cost of Living & of Doing Business

Competitiveness rankings point to Connecticut's cost of doing business as a substantial competitive disadvantage. The cost of doing business and the cost of living are related, as a state with a high cost of living will face increased labor costs, as employees demand a wage consistent with the cost of living in the state. This section provides an overview of the high cost of living/doing business in the state, with particular attention given to two areas – housing and energy.[34]

Obtaining relevant data on overall cost of living across states is not possible. However, the United States Census Bureau does cost of living indexes comparing major urban centers. These indexes rank 134 urban areas, including three Connecticut urban areas, which all ranked in the top 30 in cost of living.[35] Table 5 shows that Stamford ranked 8th, New Haven 27th, and Hartford 28th. In all components of the index, the three Connecticut urban areas do not rank outside the top 40 in any category. Looking at housing specifically, Stamford ranks 9th, Hartford ranks 35th, and New Haven ranks 39th. Related to the cost of housing, Connecticut residents spend more on residential construction, on both new and existing homes, than any other state in the country.[36]

Table 5: Cost of Living Index

	Composite Index (100%)	Grocery Items (13%)	Housing (29%)	Utilities (10%)	Transportation (14%)	Healthcare (4%)	Miscellaneous (31%)
Stamford	146.9 (T8th)	121.8	212.6	121.3	220.0	113.3	122.1
New Haven	122.1 (T27th)	117.9	134.9	123.5	106.3	112.7	117.9
Hartford	121.8 (T28th)	120.7	137.8	120.7	109.0	113.0	113.5

Source: U.S. Census Bureau: Cost of living index – Selected Urban areas, Annual Average: 2010

34 Certainly taxes and regulations are components of cost of living/doing business, but because they are factors directly controlled by government, they are focused on exclusively in other sections.

35 While Bridgeport has a larger population than these three areas, it is not included in the Census urban area rankings.

36 Calculated on a per construction permit issued basis using total receipts from residential contractors. Interestingly, as the number of units within a residential structure increases, Connecticut construction costs decrease relative to other states. For example, Connecticut has the 5th highest cost per unit of new housing for single unit housing structures among all states, and is the most expensive among select comparator states. Yet in cost per unit for five unit or more structures Connecticut ranked 30th, antepenultimate among comparator states for the bottom ranking. Data based on square footage might bring Connecticut costs more in line with other states, given the quality of housing often built in Connecticut.

Connecticut has high energy costs, it ranked 2nd, behind only Hawaii[37], in costs per unit of energy, or costs per BTU[38]. Connecticut, however, is very energy efficient, ranking 47th in the nation in energy consumption per capita. The combination of high efficiency and high unit cost results in Connecticut being middle of the pack in energy expenditures per capita, ranking 25th (Table 6).[39]

Unfortunately, the cost per unit of energy does matter in terms of the cost of doing business. After all, businesses can employ efficiency approaches anywhere. Therefore, Connecticut has a competitive disadvantage in energy costs. While some progress has been made recently to reduce energy costs, the state has a long way to go to be competitive.[40]

Table 6: Energy Costs and Expenditure Rankings

	Expenditures per Million Btu Rank	Consumption per Capita, Rank	Expenditures per Capita, Rank
Connecticut	**2nd**	**47th**	**25th**
Florida	15th	43rd	47th
Illinois	27th	28th	40th
Massachusetts	6th	46th	34th
New Jersey	9th	37th	18th
New York	7th	50th	48th
North Carolina	20th	36th	42nd
Pennsylvania	17th	33rd	31st
Rhode Island	3rd	51st	39th
Texas	26th	6th	5th
Virginia	22nd	27th	36th

Source: United States Energy Information Administration: Independent Statistics and Analysis: 2010

[37] See Appendix 4 for details.

[38] United States Energy Information Administration; Independent Statistics and Analysis; 2010. See Appendix 4 for full rankings.

[39] Insofar as Connecticut firms use interruptible power (e.g. Taylor & Fenn) or have their own power systems, the state may be even more competitive because the unit cost to those firms is dramatically lower. But these approaches may not be available to a sufficient number of firms to impact overall competitiveness.

[40] Connecticut has been particularly hostile to distributive generation and submetering, frustrating the efficient use of fuel cells and other technologies. Current initiatives will hopefully address this barrier to increased competitiveness.

Taxes

Benjamin Franklin declared, "The only things certain in life are death and taxes." Taxes are necessary to fund government services. Nobody particularly likes them, but they are a part of life and necessary for responsible governance. Across the states, tax burdens vary, but Connecticut is perceived as being a high tax state. However, as is the case with many perceptions, this criticism is not entirely justified. Ultimately, further scrutiny and analysis of this issue is required.[41] Tax burden can be measured many ways, and data can often be manipulated to change how Connecticut's tax burden ranks compared to other states.[42]

This analysis examined total state taxes collected as a percent of total personal income in the state, which the Federation of Tax Administrators identifies as a proper method for comparing relative tax burden across states. In addition, Connecticut and Rhode Island are the only two states without county government; therefore this examination looked at both state taxes, and state and local taxes combined, to account for the unique governmental structure in Connecticut. However, local government effective tax rates vary significantly, and including those in comparisons to other states masks such heterogeneity at the local level.

At the state level, Connecticut ranks 18th in the nation in state taxes collected as a percent of personal income (6.48 percent)[43]. However, of the ten comparator states, only New York has a higher state tax burden than Connecticut. Factoring in local government taxes moves Connecticut higher, to 13th in the nation (11.3 percent), below three comparators, New York, New Jersey and Rhode Island. Based on this analysis, Connecticut's tax level is relatively high, but not as high as some comparators.

However, it is important not only to examine the level of taxation, but also to consider the composition of taxes and revenues. Comparing tax composition at the state level over several years, across comparator states, shows significant variation.[44]. For example, Connecticut relies less on sales tax revenue and more on personal income tax than its comparators.

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[41] As noted elsewhere, Connecticut does a poor job in developing, sustaining, and evaluating data that tracks its performance and reveals the dynamics of its economy, population, and other crucial characteristics. This systematic weakness undermines not only the ability to formulate coherent and effective policy, but also disables the ability to respond to misleading studies that hurt the state's perceived quality.

[42] See Appendix 9 for discussion of various methodologies for measuring tax burden.

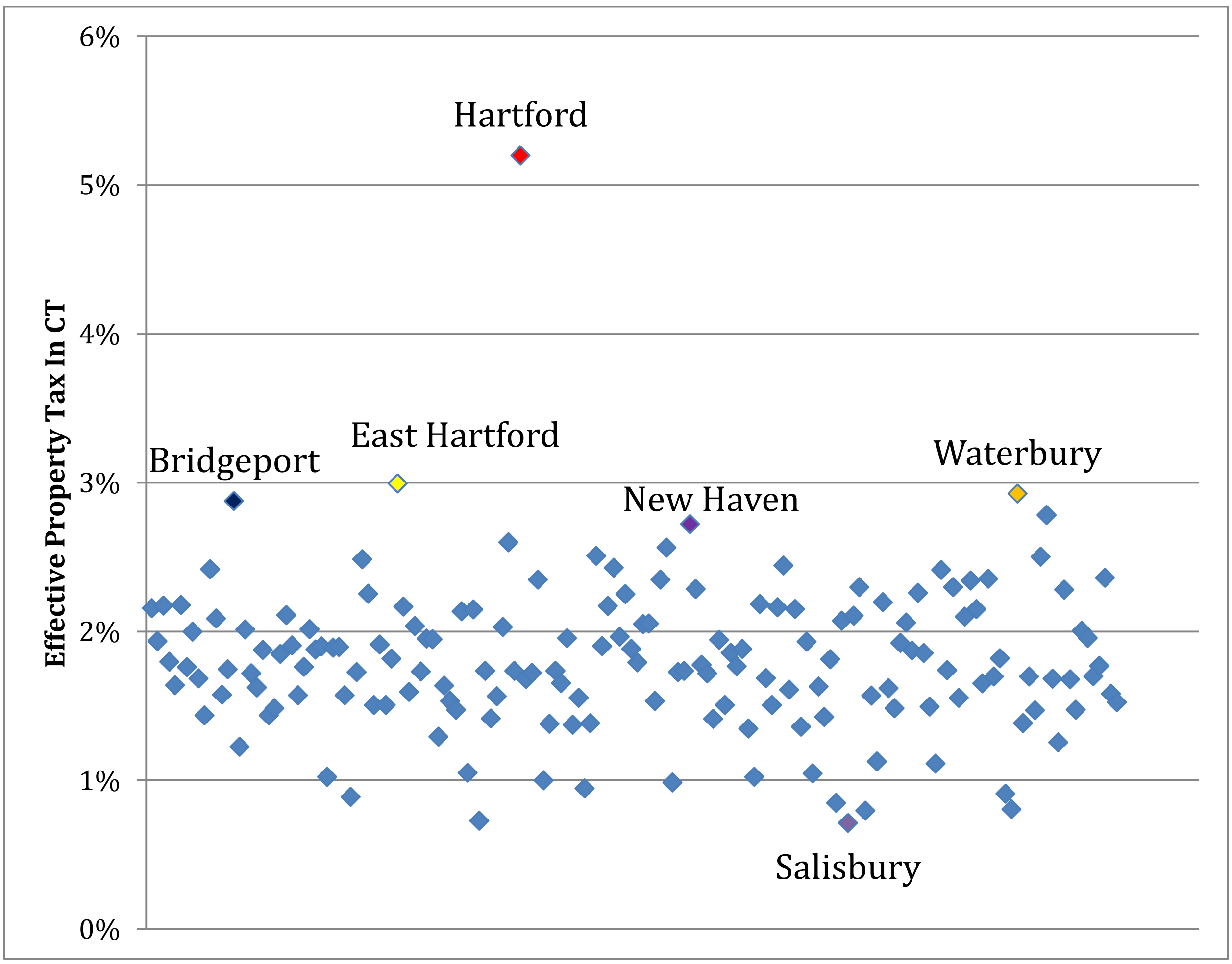
[43] Total taxes collected from U.S. Census Bureau, State & Local Government Finances. Personal Income from U.S. Department of Commerce; Bureau of Economic Analysis; State data alone is from 2011. State and local combined is from 2010, most recent year available. When viewing these comparisons/rankings one should take into account that taxes in some states, including some high on the list (Alaska, North Dakota, Wyoming, West Virginia) consist heavily of "severance taxes", mainly taxes imposed on energy producers. The impact of such taxes is reflected in energy prices, and therefore is borne more by individuals outside the state of jurisdiction.

[44] Fiscal Survey of States; Report by the National Governors Association and National Association of State Budget Officers, 1997-2011.

In addition, analysis suggests all Connecticut government, state and local combined, relies on the property tax more than other states. For example, as a percentage of total state and local own source general revenues, Connecticut received 35 percent of its revenue from property taxes, 3rd highest in the nation, below only one comparator state (New Jersey).[45]

There are also significant property tax disparities across the state (Figure 12). For example, effective property tax rates range from a low of 0.7 percent in Salisbury to 5.2 percent in Hartford – a significant outlier at 2.2 percent above any other jurisdiction. The state average is 1.77 percent. High property taxes may depress property values, increase rents, reduce economic development, induce wasteful dispersion of housing, and force seniors out of their homes and out of the state, among other impacts.

Figure 12: Effective Property Tax Rates across Connecticut



Source: Connecticut Office of Policy and Management

[45] U.S. Census Bureau, Survey of State and Local Finances, 2010.

These tax composition issues and tax disparities are relevant to competitiveness for a variety of reasons, and are related to the state's labor supply and demographic challenges. Because Connecticut's wealth is highly concentrated, outward migration of that population would have a disproportionately negative impact on revenue. Furthermore, property tax disparities impact the growing 65 and older population, and can result in situations where seniors are forced out of their homes.

This suggests that Connecticut's tax system requires a comprehensive review and reform in a manner that considers both the fiscal and economic implications of its tax composition and structure[46]. This could be accomplished by integrating dynamic tax incidence analysis into the policy making process, but in order to do so, government must significantly improve its current ability to collect and assess data.

Finally, while this analysis has focused on taxes, they are not the only means by which a state derives revenue. Various fees, charges, and other assessments are imposed for a variety of government services. While data comparisons on these sources of revenue across states is spotty and difficult to translate into "apples to apples" comparisons, the data that is available suggests that government in Connecticut relies more on taxes as a share of its revenue than other states. For example, according to the Census, Connecticut state and local government received approximately 82 percent of its own source general revenues (not including federal transfers) from taxes, the highest in the nation by quite a margin.[47] New Jersey is next closest at 76 percent, and cumulatively across all 50 states the share is 66 percent. Further analysis, beyond the scope of this publication, is required to determine if Connecticut is a true outlier in this regard. However, but if it is, it argues strongly for a major overhaul of state revenue sources.

[46] For example, an upcoming CCEA analysis suggests there are much more appropriate ways to structure taxes in Connecticut compared to the recent retroactive income tax increase in 2011.
[47] U.S. Census Bureau, Survey of State and Local Finances, 2010.

Transportation & Infrastructure

Not all competitiveness rankings analyzed transportation and infrastructure quality, but those that did so ranked Connecticut very low overall, below most comparator states by a significant margin.[48] Like education, transportation and infrastructure is a critical foundational element of competitiveness, facilitating effective and efficient movement of people, goods, and services to both domestic and foreign destinations.

Comparing the quality of transportation and infrastructure across states is challenging; the criteria used by the competitiveness rankings illustrate its limitations. For example, CNBC's analysis measures the value of goods shipped by air, land and water. While this may be a partial measure of a state's transportation system, it certainly incorporates many other factors. In addition, both CNBC and Beacon Hill Institute evaluated the availability of air travel and assessed average commute time. Connecticut suffers a competitive disadvantage in both of these areas. For example, Connecticut ranks 41st in the nation in air passengers per capita, and 35th in the nation in average commute time. Both these statistics are useful measures, but are also imperfect. For example, the air travel statistic disregards the availability of air travel in close neighboring states, and high levels of congestion are highly correlated with states that have or are near major metropolitan areas.

Traffic congestion certainly is a problem, as anyone who travels I-95 can attest. Interestingly, this high congestion, combined with high vehicle ownership rates, contributes to relatively high vehicle insurance rates. Connecticut ranked 10th nationally in automobile registrations per licensed driver among all states, and ranked 8th highest in vehicle insurance costs. However, even though Connecticut is one of the most costly states in the country to purchase vehicle insurance, the same is true of many of the select comparator states (Table 7).

Connecticut invests less in transportation relative to other states. At the state level, spending for transportation over the past several years has averaged 7 percent of expenditures, compared to an average of 9 percent across comparator states.[49] State and local combined spending on all transportation in the state is roughly 4.4 percent of total expenditures, ranking Connecticut 3rd lowest in the nation. And measured as a percentage of GDP, Connecticut is the lowest in the nation.[50] This is quite disturbing, and again argues strongly for the importance of regular, systematic assessment and benchmarking of the state's performance.

[48] CNBC & Beacon Hill Institute both rank Connecticut 43rd out of all 50 states in transportation and infrastructure, below all comparators in the Beacon Hill Institute ranking, and below all comparators except Rhode Island in CBNC rankings.

[49] Fiscal Survey of States; Report by the National Governors Association and National Association of State Budget Officers, 1997-2011.

[50] U.S. Census Bureau; Survey of State and Local Finances; 2010.

Table 7: Vehicle Insurance Costs Rankings 2008-2010

	2010	2009	2008
Connecticut	**8th**	**8th**	**9th**
Florida	5th	6th	4th
Illinois	24th	22nd	27th
Massachusetts	12th	13th	13th
New Jersey	1st	2nd	3rd
New York	4th	4th	5th
North Carolina	45th	40th	44th
Pennsylvania	17th	17th	17th
Rhode Island	7th	7th	7th
Texas	14th	13th	15th
Virginia	34th	31st	31st

Source: National Association of Insurance Commissioners

There is significant room for improvement in the quality of Connecticut's infrastructure. Connecticut is not alone in this regard, as the nation as a whole has underinvested in infrastructure. The American Society of Civil Engineers (ASCE) 2013 Report Card on America's infrastructure gave the quality of the nation's infrastructure a D+, and estimates that the nation requires $3.6 trillion investment by the year 2020. While ASCE does not give grades to individual states, it does analyze numerous measures of states' infrastructure quality.[51] According to ASCE:

- 73 percent of Connecticut roads are poor or mediocre quality, *tied with Illinois for worst in nation;*
- 406 bridges, or 9.6 percent, are considered structurally deficient (26th worst);
- 1,070 bridges in Connecticut, or 25.4 percent, are considered functionally obsolete[52] (6th worst);
- Connecticut has 233 high hazard dams.

In addition, roads in need of repair cost Connecticut motorists $847 million a year in extra vehicle repairs and operating costs, or $294 per motorist (22nd worst in the nation). Connecticut requires $1.4 billion investment in drinking water infrastructure and $3.6 billion in wastewater infrastructure.

On the positive side, Connecticut has a competitive advantage in its availability of mobile phones and high speed internet lines. Connecticut ranked 15th in the nation in mobile phones per 1000 population and 3rd in the nation in high speed internet lines per 1000 population.[53] But to date it does not house, apparently, a non-proprietary Tier IV data center, a crucial piece of infrastructure in the age of Big Data and rapidly evolving IT.

In summary, according to most available measures Connecticut has poor transportation and infrastructure and is failing to make sufficient investments. Meanwhile, numerous quality measures show many areas for improvement. The state must look for ways to better invest in and finance infrastructure to remain competitive, reduce congestion and protect the environment.

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[51] 2013 Report Card For America's Infrastructure, American Society of Civil Engineers.
[52] Bridges that no longer meet the current standards that are used today. Examples are narrow lanes or low load-carrying capacity.
[53] Beacon Hill Institute, State Competitiveness Report, 2011.

Healthcare

Rising healthcare costs are one of the most significant competitiveness challenges facing our nation, impacting governments, businesses, and individuals. Our nation spends dramatically more than any other industrialized country—more than twice as much per person—but receives significantly poorer outcomes in general. Healthcare costs (Medicaid and Medicare) are the single biggest cost driver of the federal government's structural deficits, and these costs, including Children's Insurance Program (CHIP), because of mandated sharing by states, are squeezing state budgets. Other healthcare costs, including those for public sector employees and retirees are putting additional pressure on both state and local budgets.

On a per capita basis, Connecticut ranks very high on the amount spent on healthcare, both public and private. For example, Connecticut ranks 1st in the nation in spending on ambulatory and hospital care per capita (Table 8). However, high health expenditures are partially a reflection of Connecticut's high income; when calculated as a share of GDP, Connecticut falls to the middle of the pack. Furthermore, although spending is high, the most recent data available suggests Connecticut gets value, ranking high in health quality measures relative to other states, such as life expectancy, infant mortality, and obesity rates.[54]

Table 8: Ambulatory and Hospital Care Expenditures as a Share of GDP and Per Capita

	Spending Ranked as a Share of GDP	Ranked as Spending per Capita
Connecticut	**25th**	**1st**
Florida	2nd	15th
Illinois	42nd	34th
Massachusetts	18th	2nd
New Jersey	19th	6th
New York	41st	12th
North Carolina	37th	36th
Pennsylvania	7th	8th
Rhode Island	17th	14th
Texas	34th	23rd
Virginia	43rd	26th

Source: U.S. Bureau of Economic Analysis

[54] Data comparing health status across states is not recent, and in some cases more than five years old. Most recent data from the Kaiser Family Foundation ranks Connecticut 5th in life expectancy, 19th in infant mortality and the 5th lowest in childhood obesity rates. www.statehealthfacts.org

Medicaid, the largest government healthcare program in the state, already presents significant fiscal challenges, which will only grow in the future.[55] All the states across the country face this challenge, and in fact Connecticut spends relatively less on Medicaid than select comparators (21 percent of spending versus an average of 23 percent, on average over a multi-year period).[56] However, because Medicaid is a primary payer for long-term care services, Connecticut faces significant increasing costs because of its weak population growth and thus rapidly rising share of the elderly (65 and older). Nationally, Medicaid pays an estimated 43 percent of long-term care costs.[57] Studies show that Connecticut spends a higher proportion on its long-term care Medicaid spending for institutional care relative to other states, as opposed to home and community-based care.[58] Not only is institutional care much more expensive, it often delivers inferior outcomes and patients typically prefer home and community-based care.

Furthermore, increasing healthcare costs for government employee benefit programs pose a very serious fiscal challenge. Connecticut ranks among the highest in unfunded retiree healthcare obligations per taxpayer in the country, and rising healthcare costs will make it more difficult to meet these obligations in the future. Rising costs for current employee benefits will put increasing pressure on government budgets as well. The Malloy Administration has taken positive strides to address these costs while improving quality through the State Health Enhancement Program (HEP). HEP provides financial incentives for state employees, select retirees, and dependents to seek preventive and wellness care, and initial results suggest positive outcomes both in improving care and lowering costs.[59] In addition, the Malloy Administration succeeded in negotiating an agreement with state workers to begin systematic contributions to the previously unfunded retiree health program. However, additional transparency over the design and administration of this program is needed in order to assess further needed reforms.

Lastly, the new federal healthcare law, the Affordable Care Act (ACA), presents both opportunities and challenges for Connecticut. Outside analysis predicts that the percentage of Connecticut residents with health insurance coverage will increase substantially, from 89 percent to 95 percent, reducing the number of uninsured by 170,000.[60] By 2016, 10 percent of the insured population will receive health coverage through the new health insurance exchange. Enrollment in Medicaid is also projected to increase 31 percent. However, projections also anticipate total state government spending on healthcare will be reduced through 2020, in large part due to those who have been covered under Connecticut's State Administered General Assistance Program (SAGA) shifting to the federally subsidized health exchange.

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[55] The federal government recently denied a request from Connecticut to raise the eligibility requirements for Medicaid, a sharp reminder of how difficult it can be to roll back the broad coverage Connecticut has offered.
[56] Fiscal Survey of States; Report by the National Governors Association and National Association of State Budget Officers, 1997-2011.
[57] Kaiser Family Foundation, *Medicaid and Long Term Care Services and Supports.* June 2012.
[58] CT Institute for 21st Century, *Framework for Connecticut's Fiscal Future, Part 1: Assessment of Connecticut's Long Term Care Services.* 2010.
[59] Evidence, Examples, and Insight on Value-Based Insurance Design; University of Michigan, Center for Value-Based Insurance Design, January 2013.
[60] Auerbach, David & Sarah Nowak Jeanne S. Ringel, Federico Girosi, Christine Eibner, Elizabeth A. McGlynn & Jeffrey Wasserman. "The Impact of the Coverage-Related Provisions of the Patient Protection and Affordable Care Act on Insurance Coverage and State Health Care Expenditures in Connecticut." Rand Corporation. 2011.

While these estimates are encouraging, there is much uncertainty regarding the impact of the ACA, especially in terms of how many people will shift to the exchanges, as well as what the law's impact on overall healthcare costs will be. An upside in any event may be Connecticut's health insurance companies benefitting from increased reliance on health insurance, which ACA will generate—assuming Connecticut is able to retain the companies.

In summary, increasing healthcare costs will increasingly confront Connecticut (and the nation) with serious financial and competitiveness challenges. Government must take steps to ensure public sector costs do not crowd out more productive areas of the budget needed to promote economic growth. It must remain flexible enough to adapt to a fast changing industry driven by the Affordable Care Act. These pressures should also spur public health administrators to develop more efficient ways of delivering home and community-based health services, including the use of remote monitoring devices, increasing patient participation in monitoring their own health, and strengthening incentives to pursue preventive regimes and wellness programs. The use of electronic diagnostic tools, sophisticated communication systems, and shared electronic records offer the opportunity for both significant savings and improved outcomes, by saving significant resources previously dedicated to paper-based medical records, overburdened with redundancies.[61]

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[61] Peter E. Gunther, *Preliminary Framework for a Benefit-Cost Analysis of Health Human Resources Preferred Deployment Practices*, Health Canada 2008, Smith Gunther Associates Ltd.

Regulatory Environment

Regulations, like taxes, typically add cost to doing business.[62] All else being equal, excessive or poorly planned regulation harms a state's competitiveness, but regulations are also intended to provide certain societal benefits.

Connecticut has a reputation as a highly regulated state that is unfriendly to business. Elected officials are aware of this perception and have recognized it as a problem. The state has now established a variety of commissions, committees, and task forces to review regulations, but have resulted mostly in further analysis of the cost/benefit of regulations, rather than the consolidation, rationalization, reframing, or elimination of regulations.

Government must strive for smart, unrestrictive and consistently applied regulation, where the benefits outweigh the costs. Where studies or evidence show that regulation is overly burdensome, restrictive or duplicative, these regulations must be reformed or eliminated. There are instances where state agencies have recommended that the regulations for which they are responsible should be eliminated, but they remain in place.[63] As innovations take place, regulations can have unintended effects, including restraining progress or becoming dated. For example, Connecticut electricity generation and distribution laws and regulations appear to be unduly onerous on green energy sources and potential producers.[64]

Furthermore, regulations such as occupational licensing requirements directly impact job creation. While licensing requirements are intended to provide societal benefits, Connecticut requires much more licensing than other states and in some professions where it may be inappropriate. For example, Connecticut licenses 155 professions, second only to California, and twice the national average[65]. Connecticut is the only state in the nation that requires state licensure of "forest workers." Connecticut is one of only three states requiring state licensure of home entertainment installers, and one of only seven states requiring licensure of furniture upholsterers. Such requirements can limit entry to the profession, restrict competition, raise costs, and deter innovation. An important first step moving forward would be a comprehensive baseline review of existing regulations tasked with making recommendations to modify and/or expunge outmoded regulations.

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[62] While commentators often make sweeping claims on the cost of regulations, in fact regulations can spur competition and innovation, improving products and services while lowering costs to consumers. Two salient examples are: 1) the creation of property rights in sulfur emissions, which unleashed a wealth of creativity that quickly brought down costs, essentially eliminated acid rain, and dramatically improved air quality; 2) the requirement to post unit pricing and include nutritional data on food packaging, resulting in healthier product competition and the introduction of an array of new products that responded to consumer demand for a variety of specific qualities, e.g. organic, gluten free, or low salt, among other attributes.

[63] For example, a recent report by the Connecticut Policy Institute highlighted the Department of Environmental Protection's (DEEP) recommendation that the Stream Channel Encroachment Line Program (SCEL) be eliminated.

[64] Sara C. Bronin, "Community Energy," with Hannah J. Wiseman, San Diego Journal of Climate & Energy Law, forthcoming 2013 and Building-Related Renewable Energy and the Case of 360 State Street, 65 Vanderbilt L. Rev. 1875 (2012).

[65] Connecticut Policy Institute. *Connecticut's Regulations: Examples Where the Costs Exceed the Benefits.* 2013.

Recommendations

This publication presents a broad range of high-level facts characterizing Connecticut's financial condition and competitive posture. Throughout the analysis and commentary, the authors have striven to present a balanced, objective picture of the state's financial condition and competitive position. Regrettably, Connecticut's economy has underperformed – both relative to its peers and its potential – for many, many years, and the state's fiscal situation faces serious challenges that are likely to grow over time absent major structural reforms.

Admittedly, this publication is not the first to bring attention to many of these challenges, and it acknowledges there has been some progress on several fronts in recent years. But the long years of inaction on these structural issues, stretching back nearly a generation, have left the state with multiple challenges; thus much work remains to be done, and time is not working in the state's favor.

In developing this publication, the goal was and is to encourage and facilitate a constructive conversation about Connecticut's fiscal health and competitive position. As such, this publication concludes by focusing on what are – based on the authors' collective knowledge, experience, and understanding – three key topics that Connecticut must address successfully for the state to recapture the preeminent role it once played in our nation's development and growth.

Connecticut must address its unsustainable fiscal outlook, and adopt a comprehensive solution to put its finances in order

The state's elected leadership has taken some positive steps to put the state's finances in order. The Governor's insistence on transitioning to GAAP-based accounting will bring welcome improved transparency to the budget process, and the agreement reached with public employee unions in 2011 was an important step towards addressing the state's large and mounting retiree benefit costs. Additionally, last year the state was able to designate a modest amount of funding for a "rainy day fund" for the first time since the recession. However, much remains to be done to shore up the financial condition of the state so it can provide quality services and invest in those areas vital to the state's economic competitiveness, while maintaining reasonable levels of taxation.

As evident in this publication, while Connecticut's level of government spending as a percentage of GDP is high, the percentages are reasonable when compared with other states. However, as also noted, the state government's annual budget figures do not tell the entire story. The fact is that Connecticut has one of – if not the – highest levels of state debt on a per-taxpayer basis of any state.[66] The state must take further steps to rein in its rising debt burdens and interest expense. More importantly, the state must proactively continue to review its plan designs and improve funding for its huge underfunded pension and retiree healthcare obligations.

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[66] See the discussion in Appendix 2. Because Connecticut concentrates a large share of public debt at the state level, more comprehensive measures of public debt, including municipal commitments, bring Connecticut closer to other states. However, in many states the state itself has no legal obligation to assume the commitments of lower levels of government, so comparisons are extremely complex. However measured, Connecticut has a daunting burden of commitments.

Given their size and the related implications for the state's future tax burdens and competitive posture, Connecticut's off-balance sheet obligations should be restructured, with different reforms being pursued for current retirees, current employees, and future employees. Given the seriousness of the problem, the state cannot wait until the next round of contract negotiations on retiree benefits in 2022 to begin developing its options. Therefore, the first recommendation is for the government to sanction an independent, comparative study of the related plans and options available to address this problem. Conducting such a study, and making the results available to the public, would go a long way towards setting the table for needed reforms.

Connecticut must focus on improving economic growth, reducing disparities, and enhancing the state's competitiveness

Rightly or wrongly, Connecticut is widely perceived as an unattractive state for business. This perception needs to be changed. For such a change to occur, the state must shed its (comparative) over reliance on its traditional financial, insurance, and precision manufacturing sectors, striving to strengthen and grow in other areas, such as biomedical research, pharmaceuticals, medical devices, clean energy, digital technologies, and related information technologies; industries where Connecticut can exploit its leadership in education, workforce quality, proximity to major markets, and other salient competitive strengths. At the same time, Connecticut needs to address a range of key disparities that exist within the state.

The Malloy Administration has taken positive steps to promote economic development, some of which have been highlighted in this publication. However, many of these are based on temporary incentive approaches and a range of structural challenges need to be addressed. Key areas where the state can and should focus include: (i) improving its infrastructure – particularly with regard to roads and power; (ii) updating, coordinating, and rationalizing regulations to bring them in line with technological advances; (iii) investigating (and adopting) tax code reforms–such as allowing research and development tax credits to be capitalized–that promote private sector investment in the state; and (iv) sustaining the current initiatives to strengthen the education-workforce pipeline, including resurrecting longitudinal analysis that reveals the detailed dynamics of this process.

Connecticut must create and institutionalize a culture of transparency, accountability and transformation at all levels of government

Meeting future financial, competitiveness, and economic challenges requires a fundamental review and reassessment of the state government; marginal changes are and will not be enough. However, making such changes will be difficult and should be done in a thoughtful, persistent, and consistent manner. Changes should emerge from a forward looking, coherent strategic plan that assesses strengths, weaknesses, opportunities, and threats, and includes consideration of the resources available to invest in strategic initiatives. Additional transparency and accountability is also essential. To achieve it, the state needs dramatically better and more comprehensive data; that is, it must collect and analyze a broad array of economic, social, and demographic and performance data across departments and agencies, and develop an integration platform for such data. The state should also institute regular, systematic studies that speak to the critical challenges faced. At the same time, this data should be broadly accessible, facilitating public understanding and discussion.

Comptroller Kevin Lembo's efforts on this front deserve praise. But much, much more work remains.[67]

Once better data are available, it will be incumbent on the government to create and enforce accountability. The state should develop and adopt clear, credible outcome-based performance metrics, similar to the various types of arrangements found throughout private industry and increasingly in other states. The federal government's Government Performance and Results Act (GPRA), enacted in the 1990s, provides an example of broad based management reform of the kind that should be considered. GPRA required all federal agencies to develop five year strategic plans with long-term, outcome-oriented goals, and other performance reporting requirements. Similarly, at the federal level, the Office of Information and Regulatory Affairs (OIRA) – which is a separate office within the federal Office of Management and Budget – serves as an internal check on the costs and benefits of regulations prior to their adoption.

Whatever the specific mechanism, Connecticut's government must come to grips with the fact that the state can no longer afford – both figuratively and literally – to operate in anything but an economical efficient and effective manner. Transparency and accountability are the keys to such a change. Louis D. Brandeis' famous statement that, "Sunlight is said to be the best of disinfectants…" is as true now as it was in 1913, when that line appeared in the December 20th *Harper's Weekly*. If Connecticut is to regain its former status as one of this country's undisputed leaders – and to grow its way out of the economic and financial morass into which it has sunk over the past decades – the state government must allow the sun to shine into every nook and cranny so that quality data and analysis will frame its policy discussions and its citizens will see that their tax dollars are truly being used, as they should be, for the benefit and betterment of all.

[67] An obvious model is NYCMAP, the remarkable integrated database for New York City; it has more than 1000 data elements for the nearly 1.2 million parcels in the five boroughs; based on a geographic information system, NYCMAP is accurate to within 12 inches of curb lines. Developed and implemented by an academic and city administrative team, based at Hunter College, NYCMAP has saved New York millions of dollars, dramatically improved police and fire response times and effectiveness, permitted coordination of infrastructure projects, and permitted an array of important research that has successfully identified public health threats and other significant policy challenges.

Questions

The authors believe the preceding key recommendations are critical to putting Connecticut on a better course. However, they are illustrative, not exhaustive. Our research and analysis shows Connecticut faces many related challenges, but determining the best way to address them was outside the scope of this publication. Therefore, we offer the following open-ended questions, designed to represent a sample of the type that should be asked and answered to help navigate Connecticut towards a safer and more prosperous course. These questions are illustrative in nature, intended to spur a constructive conversation among a broad range of key stakeholders.

1. How can state government best ensure implementation of strategic planning for the state overall and at key agencies, coupled with improved performance measurement, evaluation, and accountability mechanisms?

2. What is the proper role for independent oversight and audits of government organizational structure, programs, taxes and activities to ensure economy, efficiency and effectiveness?

3. How can the legislature improve its oversight and evaluation capabilities?

4. To what extent should the government or legislature create a special legislative process, for consideration of certain government transformation proposals (e.g., restructuring of government, regulatory review, tax reform, employee benefits reform[68])?

5. In addition to the promising expansion of 'Lean' business concepts by the Malloy Administration, what additional steps can be taken to integrate best practices from the private sector?

6. In addition to improving data interoperability, what can the state do to better encourage cooperation amongst its 169 municipalities that will improve overall economy, efficiency and effectiveness?

7. What further measures can the state take to better educate and train its labor force to meet the needs of the marketplace, to help individuals looking for jobs, and companies needing skilled workers?

8. What actions can the government take to address the high relative costs of living/doing business in the state to enhance competition and competitiveness (e.g. how to reduce energy costs and have more competitive labor costs)?

[68] Similar to what is being proposed by the Government Transformation Initiative at the federal level. More information can be found at www.GTICoalition.org.

9. How can the state optimize the state's tax structure (property taxes, sales, income, estate, etc.) and diversify revenue bases (e.g., user fees) so that it can raise necessary revenue while minimizing any adverse economic consequences (e.g. by using dynamic tax incidence analysis)?

10. How can the state better invest in and finance (e.g. new dedicated revenue sources) infrastructure to improve its competitive posture, reduce congestion and protect the environment (e.g., electronic tolling)?

11. What are the costs and benefits of opportunities for additional public-private partnerships, or the ability to privatize certain government functions, (e.g., roads, airports), to enhance service while reducing cost?

12. What can be done to facilitate redevelopment of distressed properties and former manufacturing sites to promote economic development (e.g. tax relief, liability limitation)?

13. What further action can the state take to shift institutional long term care Medicaid patients to home and community based care?

14. Given the absence of county government in Connecticut, what role should state government play in addressing various large and growing disparities in several critical areas (e.g., education, property taxes, public housing, etc.)?

15. How best can the state reform the scope, structure and authority of financial review/control boards so that the finances of troubled municipalities can be restructured in a timely, effective, and sustainable manner, included consideration of off-balance sheet obligations?

16. What concrete steps can the state take to ensure municipalities have governance structures that avoid conflicts of interest (e.g., employees on City Councils) and re-enforce home rule (e.g., City Charters) so cities and towns can ensure the financial integrity and sustainability of the municipality?

17. Should the state reconsider the separation of school districts from municipalities in order to address potential conflicts, economy, efficiency, and accountability issues?

Conclusion

Connecticut can reach its full potential, but it will require elected officials and other key stakeholders to come together to address the many financial, competitiveness, and economic challenges that threaten the state's future prosperity. This publication has directed light on these challenges, and with light comes heat, and with heat comes action. Hopefully, this analysis can pave the way for non-partisan options that can gain bipartisan support. The authors do not claim to have all the answers, but rather provide a fact-based, non-partisan, and non-ideological framework that can be used by all interested parties, in a constructive manner.

The challenges Connecticut faces are many; they are complex, and navigating them will not be easy. But the state's history proves that it can rise to the occasion. Safer and calmer seas do lie ahead, but in order to navigate to a better future it will require all interested parties to come together, acknowledge the full nature and scope of the problem, and agree on appropriate approaches and implement them. In offering this analysis, the authors hope it will frame, encourage, and facilitate a public policy discussion and implementation of policies. Time is working against Connecticut; the time for action is now.

Appendix 1: Real GDP Per Capita

Real GDP per capita								
Rank	State	Real GDP Per Capita 2011	Rank	State	Average Year over Year change: 1997-2006	Rank	State	Average Year over Year change: 2007-2011
1	Delaware	$63,159	1	Oregon	3.70%	1	North Dakota	5.20%
2	Alaska	$61,853	2	South Dakota	3.50%	2	Oregon	2.40%
3	**Connecticut**	**$56,242**	3	Idaho	3.30%	3	Alaska	1.00%
4	Wyoming	$55,516	4	California	3.20%	4	West Virginia	0.90%
5	Massachusetts	$52,915	5	Arizona	3.20%	5	Massachusetts	0.70%
6	New York	$52,214	6	North Dakota	3.00%	6	Iowa	0.70%
7	North Dakota	$50,096	7	Wyoming	2.80%	7	South Dakota	0.60%
8	New Jersey	$48,380	8	Vermont	2.80%	8	Nebraska	0.60%
9	Oregon	$48,098	9	New York	2.80%	9	New Hampshire	0.60%
10	Virginia	$46,408	10	Rhode Island	2.60%	10	Texas	0.60%
11	California	$46,041	11	Virginia	2.60%	11	Wyoming	0.40%
12	Minnesota	$45,822	12	Massachusetts	2.60%	12	Maryland	0.20%
13	Colorado	$45,792	13	Maryland	2.50%	13	Louisiana	0.20%
14	Washington	$45,520	14	New Hampshire	2.40%	14	Utah	0.10%
15	Maryland	$45,360	15	Florida	2.40%	15	Oklahoma	0.10%
16	Illinois	$45,231	16	Minnesota	2.30%	16	Pennsylvania	0.10%
17	Louisiana	$45,002	17	Iowa	2.20%	17	Kansas	0.10%
18	Texas	$44,788	18	Colorado	2.10%	18	Washington	0.00%
19	Nebraska	$43,356	19	Louisiana	2.10%	19	New York	-0.10%
20	New Hampshire	$42,916	20	Montana	2.10%	20	Vermont	-0.20%
21	Hawaii	$42,171	21	Alabama	1.90%	21	Minnesota	-0.20%
22	Iowa	$41,993	22	Utah	1.90%	22	Mississippi	-0.20%
23	South Dakota	$41,795	**23**	**Connecticut**	**1.90%**	23	Montana	-0.20%
24	Rhode Island	$41,532	24	North Carolina	1.90%	24	Delaware	-0.30%
25	Nevada	$41,311	25	Maine	1.90%	25	Rhode Island	-0.40%
26	North Carolina	$39,879	26	New Mexico	1.80%	26	Illinois	-0.40%
27	Kansas	$39,484	27	Nebraska	1.80%	27	Virginia	-0.40%
28	Pennsylvania	$39,272	28	New Jersey	1.80%	28	Wisconsin	-0.60%
29	Wisconsin	$38,822	29	Oklahoma	1.80%	**29**	**Connecticut**	**-0.60%**
30	Utah	$38,452	30	Kansas	1.80%	30	Arkansas	-0.60%
31	Georgia	$37,270	31	Arkansas	1.80%	31	Colorado	-0.60%
32	Indiana	$36,970	32	Wisconsin	1.80%	32	Missouri	-0.60%
33	Vermont	$36,665	33	Washington	1.70%	33	Indiana	-0.60%
34	Tennessee	$36,543	34	Illinois	1.60%	34	Maine	-0.70%
35	Ohio	$36,283	35	Indiana	1.60%	35	Tennessee	-0.70%
36	Missouri	$35,952	36	Pennsylvania	1.60%	36	Idaho	-0.70%
37	Oklahoma	$35,381	37	Delaware	1.50%	37	North Carolina	-0.80%
38	Arizona	$35,032	38	Tennessee	1.50%	38	New Mexico	-0.80%
39	Florida	$34,689	39	Texas	1.50%	39	Kentucky	-0.90%
40	Michigan	$34,166	40	Nevada	1.50%	40	New Jersey	-1.00%
41	New Mexico	$33,857	41	Hawaii	1.40%	41	California	-1.00%
42	Maine	$33,746	42	Mississippi	1.20%	42	Ohio	-1.10%
43	Idaho	$32,469	43	West Virginia	1.20%	43	Alabama	-1.20%
44	Kentucky	$32,331	44	Georgia	1.10%	44	Hawaii	-1.30%
45	Montana	$32,041	45	Ohio	1.00%	45	Michigan	-1.40%
46	Alabama	$31,301	46	South Carolina	1.00%	46	South Carolina	-1.50%
47	Arkansas	$31,142	47	Kentucky	0.90%	47	Georgia	-1.60%
48	South Carolina	$30,620	48	Missouri	0.80%	48	Florida	-2.20%
49	West Virginia	$30,056	49	Michigan	0.60%	49	Arizona	-2.40%
50	Mississippi	$28,293	50	Alaska	-0.20%	50	Nevada	-2.60%

Source: Bureau of Economic Analysis

Appendix 2: Connecticut Government Spending

Comparing government spending levels across states to allow for an "apples to apples" comparison is challenging. Government structures vary across states, and Connecticut is unique in that it is one of only two states without a county level of government. This results in the state assuming certain obligations that it otherwise may not, relative to other states. In some ways, lack of county government reduces certain economies and efficiencies, and exacerbates disparities. Therefore, efforts to incentivize cooperation among localities in certain areas could be beneficial. The legislature has recently reinstated the M.O.R.E. commission (Municipal Opportunities & Regional Efficiencies), which is a positive sign, and hopefully can make progress in this regard. In addition, just as the state relies on the federal government for revenue, municipalities rely on the state to a great degree. The lack of county government in some cases causes individual municipal finances to be more sensitive to federal and state budget actions, relative to other states.

Detailed analysis of local and municipal finances was outside the scope of this report, as was a detailed analysis of spending at the program level within the state. Ours is limited to a high level analysis of state government spending over time, and by major spending categories (education, transportation, Medicaid, etc.). The effort required to gather sufficient data on program spending, and spending at the municipal level in Connecticut, would require much more analysis, and even more to compare to other states. The only data available on local finances across states is from the U.S. Census, and this data is a few years old, and it is unclear whether their categorizations and data collection methodologies allow for a useful comparison.

While the authors acknowledge that our analysis of government spending in Connecticut is not exhaustive, our main focus was on highlighting the mounting debt, interest and unfunded obligations in Connecticut, which show that Connecticut is an outlier in that regard. Furthermore, while acknowledging that governmental structure varies across states, the fact remains that government spending at the state level is high in Connecticut, relative to other states, as shown in the table on the next page.

Annual State Expenditures as a Percent of Nominal GDP					
Rank	State	Average: 1997-2006	Rank	State	Average: 2007-2011
1	Alaska	8.5%	1	Alaska	12.1%
2	Hawaii	7.9%	2	Massachusetts	8.5%
3	Massachusetts	7.6%	3	Hawaii	8.0%
4	New Mexico	6.9%	**4**	**Connecticut**	**7.6%**
5	**Connecticut**	**6.9%**	5	New Mexico	7.5%
6	Rhode Island	6.6%	6	Rhode Island	6.4%
7	West Virginia	6.4%	7	New Jersey	6.3%
8	Minnesota	6.3%	8	West Virginia	6.2%
9	Maine	6.2%	9	Minnesota	6.0%
10	Wisconsin	5.8%	10	Maine	5.9%
11	New Jersey	5.8%	11	Kentucky	5.7%
12	Kentucky	5.7%	12	Ohio	5.6%
13	Delaware	5.4%	13	Wisconsin	5.4%
14	Ohio	5.3%	14	Delaware	5.4%
15	Montana	5.1%	15	Montana	5.0%
16	California	5.1%	16	California	5.0%
17	Mississippi	4.9%	17	Pennsylvania	5.0%
18	Maryland	4.9%	18	Mississippi	4.9%
19	Utah	4.8%	19	Maryland	4.9%
20	Pennsylvania	4.8%	20	Wyoming	4.9%
21	New York	4.8%	21	Indiana	4.9%
22	Idaho	4.8%	22	New York	4.8%
23	Kansas	4.8%	23	Idaho	4.8%
24	Oklahoma	4.7%	24	Vermont	4.7%
25	Georgia	4.7%	25	Alabama	4.6%
26	Vermont	4.7%	26	North Carolina	4.6%
27	Indiana	4.6%	27	Kansas	4.6%
28	Iowa	4.6%	28	Georgia	4.4%
29	North Carolina	4.6%	29	Washington	4.3%
30	Washington	4.6%	30	Utah	4.3%
31	Illinois	4.5%	31	Arkansas	4.3%
32	Louisiana	4.4%	32	Illinois	4.2%
33	Arkansas	4.4%	33	Louisiana	4.1%
34	Alabama	4.3%	34	Oklahoma	4.1%
35	South Carolina	4.2%	35	Tennessee	4.1%
36	North Dakota	4.1%	36	Iowa	4.0%
37	Texas	4.1%	37	Virginia	4.0%
38	Virginia	4.0%	38	North Dakota	3.9%
39	Oregon	4.0%	39	Nebraska	3.7%
40	Nebraska	3.9%	40	South Carolina	3.7%
41	Tennessee	3.8%	41	Arizona	3.5%
42	Florida	3.8%	42	Oregon	3.5%
43	Missouri	3.7%	43	Florida	3.3%
44	Arizona	3.6%	44	Missouri	3.3%
45	Wyoming	3.5%	45	Texas	3.3%
46	Colorado	3.3%	46	South Dakota	3.0%
47	South Dakota	3.2%	47	Colorado	2.8%
48	Michigan	2.6%	48	Nevada	2.7%
49	New Hampshire	2.4%	49	New Hampshire	2.3%
50	Nevada	2.3%	50	Michigan	2.3%

Note: Includes State Level Spending Only.

Source: Fiscal Survey of States; Report by the National Governors Association & National Association of State Budget Officers, 1997-2011.

Appendix 3: Competitiveness Rankings[69]

CNBC – America's Top States for Business 2012[70]	Connecticut Rankings
Cost of doing business	46th
Workforce	40th
Quality of Life	12th
Economy	40th
Infrastructure and Transportation	43rd
Technology and Innovation	18th
Education	2nd
Business Friendliness	33rd
Access to Capital	15th
Cost of living	48th

Forbes – Best States for Business 2012[71]	Connecticut Rankings
Business Costs	47th
Labor Supply	23rd
Regulatory Environment	37th
Economic Climate	35th
Growth Prospects	31st
Quality of Life	3rd

Beacon Hill Institute State Competitiveness Report 2011[72]	Connecticut Rankings
Government and Fiscal Policy	39th
Security	4th
Infrastructure	43rd
Human Resources	15th
Technology	8th
Business Incubation	50th
Openness	8th
Environmental Policy	33rd

University of Nebraska - State Entrepreneurship Index 2012[73]	Connecticut Rankings
Percent growth in business establishments 2010-2011	37th
Growth in business establishments per person	30th
Business establishment births per person	38th
Patents per 1,000 persons	9th
Income per non-farm proprietor	3rd

[69] Competitiveness rankings for studies mentioned in this publication, with the exception of the Small Business & Entrepreneurship Council – U.S. Business Policy Index 2012 because it measured well over 50 categories. The study can be found at http://www.sbecouncil.org/wp-content/uploads/2012/12/USBPI2012.pdf.
[70] http://www.cnbc.com/id/100016697
[71] http://www.forbes.com/best-states-for-business/list/
[72] http://www.beaconhill.org/Compete11/Compete2011.pdf
[73] http://newsroom.unl.edu/blog/?p=1354

Appendix 4: Energy Costs across U.S.

Energy costs across U.S.								
Rank	State	Consumption per capita, Million BTU	Rank	State	Expenditures per Capita, Dollars	Rank	State	Expenditures per Million Btu, Dollars
1	Wyoming	948.00	1	Alaska	$8,807	1	Hawaii	$20.96
2	Alaska	899.00	2	Louisiana	$8,662	**2**	**Connecticut**	**$18.85**
3	Louisiana	894.00	3	Wyoming	$7,904	3	Rhode Island	$18.75
4	North Dakota	713.00	4	North Dakota	$6,740	4	Vermont	$18.41
5	Iowa	489.00	5	Texas	$5,446	5	New Hampshire	$17.73
6	Texas	466.00	6	Iowa	$4,841	6	Massachusetts	$17.55
7	South Dakota	465.00	7	Maine	$4,746	7	New York	$16.55
8	Nebraska	461.00	8	South Dakota	$4,651	8	Maine	$15.46
9	Kentucky	455.00	9	Montana	$4,610	9	New Jersey	$15.27
10	Indiana	442.00	10	Kentucky	$4,526	10	California	$14.92
11	Oklahoma	413.00	11	Alabama	$4,494	11	Maryland	$14.53
12	Alabama	410.00	12	Mississippi	$4,446	12	Nevada	$14.38
13	Kansas	408.00	13	Nebraska	$4,421	13	Delaware	$14.10
14	Montana	405.00	14	Kansas	$4,357	14	Arizona	$13.86
15	Mississippi	400.00	15	Vermont	$4,344	15	Florida	$13.71
16	West Virginia	398.00	16	Oklahoma	$4,268	16	DC	$13.14
17	Arkansas	385.00	17	West Virginia	$4,251	17	Pennsylvania	$12.94
18	South Carolina	358.00	18	New Jersey	$4,246	18	Oregon	$12.87
19	Tennessee	354.00	19	Indiana	$4,217	19	Michigan	$12.36
20	Minnesota	352.00	20	Hawaii	$4,191	20	North Carolina	$12.19
21	Idaho	340.00	21	Arizona	$4,128	21	Wisconsin	$11.95
22	Ohio	332.00	22	South Carolina	$4,034	22	Virginia	$11.91
23	New Mexico	329.00	23	DC	$4,033	23	Missouri	$11.85
24	Georgia	325.00	24	Delaware	$4,019	24	Georgia	$11.83
25	Missouri	322.00	**25**	**Connecticut**	**$3,977**	25	Ohio	$11.77
26	Wisconsin	316.00	26	New Hampshire	$3,971	26	Texas	$11.69
27	Virginia	312.00	27	Tennessee	$3,957	27	Illinois	$11.41
28	Illinois	307.00	28	Minnesota	$3,930	28	Montana	$11.38
29	Maine	307.00	29	Ohio	$3,907	29	South Carolina	$11.27
30	DC	307.00	30	Georgia	$3,844	30	Washington	$11.24
31	Washington	302.00	31	Pennsylvania	$3,829	31	Tennessee	$11.18
32	Colorado	301.00	32	Missouri	$3,817	32	Minnesota	$11.16
33	Pennsylvania	296.00	33	Wisconsin	$3,775	33	Mississippi	$11.12
34	Delaware	285.00	34	Massachusetts	$3,739	34	Colorado	$11.03
35	Michigan	283.00	35	Maryland	$3,719	35	Alabama	$10.96
36	North Carolina	283.00	36	Virginia	$3,717	36	New Mexico	$10.94
37	New Jersey	278.00	37	Idaho	$3,622	37	Utah	$10.92
38	Utah	275.00	38	New Mexico	$3,599	38	Arkansas	$10.72
39	Maryland	256.00	39	Rhode Island	$3,506	39	West Virginia	$10.68
40	Oregon	255.00	40	Illinois	$3,503	40	Kansas	$10.68
41	Nevada	239.00	41	Michigan	$3,497	41	Idaho	$10.65
42	Vermont	236.00	42	North Carolina	$3,451	42	Oklahoma	$10.33
43	Florida	233.00	43	Nevada	$3,437	43	South Dakota	$10
44	New Hampshire	224.00	44	Washington	$3,395	44	Kentucky	$9.95
45	Arizona	218.00	45	Colorado	$3,319	45	Iowa	$9.90
46	Massachusetts	213.00	46	Oregon	$3,281	46	Alaska	$9.80
47	**Connecticut**	**211.00**	47	Florida	$3,194	47	Louisiana	$9.69
48	California	210.00	48	New York	$3,177	48	Nebraska	$9.59
49	Hawaii	200.00	49	California	$3,134	49	Indiana	$9.54
50	New York	192.00	50	Arizona	$3,021	50	North Dakota	$9.45
51	Rhode Island	187.00	51	Utah	$3,002	51	Wyoming	$8.34

Source: United States Energy Information Administration: Independent Statistics and Analysis: 2010

Appendix 5: Debt, Pensions and OPEB per Taxpayer for Select Comparators

State	Tax Payers with Income Tax Liability	Other Post Employment Benefits UAAL Per Taxpayer (Thousands)	Pension Liability UAAL Per Taxpayer (Thousands)	Bonded Debt Per Taxpayer (Thousands)	Total Per Taxpayer
Connecticut	**1,344,035**	**$13,321.55**	**$9,876.06**	**$14,495.00**	**$37,692.73**
Florida	6,627,499	N/A	$3,041.54	$3,416.00	$6,457.61
Illinois	4,379,253	$6,193.76	$4,935.53	$11,599.00	$22,728.41
Massachussetts	2,493,792	$6,503.39	$8,862.01	$10,170.00	$25,535.39
New Jersey	3,248,911	$21,967.91	$2,570.94	$11,941.00	$36,479.66
New York	6,933,262	$8,606.05	$3,101.15	$8,374.00	$20,081.33
North Carolina	2,880,784	$10,278.54	$1,352.84	$3,102.00	$14,733.65
Pennsylvania	4,481,476	$2,864.47	$3,272.00	$2,678.00	$8,814.78
Rhode Island	382,968	$2,393.99	$4,730.61	$7,555.00	$14,679.75
Texas	7,684,583	$2,709.76	$720.33	$5,380.00	$8,810.22
Virginia	2,825,555	$701.46	$8,007.55	$2,443.00	$11,152.48

Source: CCEA Analysis of State Consolidated Financial Reports and Actuarial Reports for most recent year available

Appendix 6: Institute for Truth in Accounting State Rankings 2011

Insititute for Truth in Accounting State Rankings 2011					
Rank	State	Surplus/(Burden)	Rank	State	Surplus/(Burden)
1	Alaska	$34,100	26	Washington	($8,200)
2	Wyoming	$21,500	27	Texas	($8,400)
3	North Dakota	$13,200	28	New Hampshire	($8,600)
4	Utah	$2,800	29	South Carolina	($8,800)
5	Nebraska	$2,100	30	Maine	($10,900)
6	South Dakota	$1,900	31	Pennsylvania	($11,200)
7	Oregon	($200)	32	New Mexico	($13,100)
8	Iowa	($300)	33	Vermont	($14,100)
9	Idaho	($500)	34	Maryland	($14,200)
10	Tennessee	($800)	35	Rhode Island	($14,200)
11	Arkansas	($2,100)	36	North Carolina	($14,300)
12	Montana	($2,200)	37	Alabama	($14,600)
13	Minnesota	($2,600)	38	West Virginia	($15,400)
14	Florida	($2,700)	39	Louisiana	($15,700)
15	Indiana	($2,900)	40	Delaware	($18,300)
16	Virginia	($3,100)	41	Mississippi	($20,200)
17	Colorado	($3,200)	42	New York	($21,100)
18	Nevada	($3,200)	43	California	($23,500)
19	Arizona	($3,300)	44	Michigan	($23,600)
20	Missouri	($3,700)	45	Massachusetts	($24,100)
21	Kansas	($4,700)	46	Kentucky	($26,300)
22	Georgia	($5,000)	47	New Jersey	($37,000)
23	Wisconsin	($5,700)	48	Hawaii	($38,300)
24	Oklahoma	($7,500)	49	Illinois	($38,500)
25	Ohio	($7,700)	**50**	**Connecticut**	**($50,900)**

Note: The ITA analysis uses data from state financial statements and actuarial reports to calculate total taxpayer burden, including short term liabilities, outstanding debt, and unfunded pension and retiree health obligations. The ITA analysis also attempts to allocate a portion of multi-employer pension plans to the state, and offsets liabilities with current assets. Full methodology can be found at http://www.truthinaccounting.org/state-of-states/ Data above is derived from state's fiscal year 2011 financial statements. However, ITA will be updating its analysis for fiscal year 2012, in which Connecticut's total taxpayer burden falls to $46,200 per taxpayer. The reduction is due in large part to a lower unfunded retiree healthcare liability, based on an updated actuarial assessment in 2011. That lower actuarial assessment was due mostly to changes in assumptions, but in part due to changes in benefit plan and design. CCEA analysis for this publication already incorporated the lower actuarial assessment into the per taxpayer calculation in Appendix 5.

Appendix 7: Tax Burden as a Percentage of Personal Income

Rank	State	State Taxes Collected as a Percentage of Personal Income 2011	Rank	State	State & Local Taxes Collected as a Percentage of Personal Income 2009
1	Alaska	16.54%	1	Alaska	22.11%
2	North Dakota	11.45%	2	Wyoming	17.21%
3	Vermont	10.22%	3	New York	15.23%
4	Wyoming	8.96%	4	North Dakota	12.40%
5	West Virginia	8.22%	5	Vermont	12.25%
6	Hawaii	8.13%	6	Maine	12.20%
7	Arkansas	8.00%	7	New Jersey	12.15%
8	Delaware	7.99%	8	Hawaii	11.95%
9	Minnesota	7.92%	9	Wisconsin	11.71%
10	Maine	7.15%	10	Indiana	11.41%
11	California	7.08%	11	West Virginia	11.34%
12	Mississippi	7.00%	12	Rhode Island	11.33%
13	New Mexico	6.97%	**13**	**Connecticut**	**11.30%**
14	Kentucky	6.82%	14	Minnesota	11.24%
15	New York	6.81%	15	California	11.13%
16	Wisconsin	6.79%	16	Michigan	10.89%
17	Michigan	6.50%	17	Louisiana	10.86%
18	**Connecticut**	**6.48%**	18	Nebraska	10.85%
19	North Carolina	6.41%	19	Ohio	10.84%
20	Indiana	6.37%	20	Iowa	10.81%
21	Montana	6.33%	21	Kansas	10.79%
22	Nevada	6.28%	22	New Mexico	10.73%
23	Massachusetts	6.25%	23	Illinois	10.63%
24	Idaho	6.23%	24	Montana	10.61%
25	Pennsylvania	5.97%	25	Pennsylvania	10.59%
26	Rhode Island	5.92%	26	Delaware	10.46%
27	New Jersey	5.86%	27	Mississippi	10.35%
28	Kansas	5.77%	28	Maryland	10.35%
29	Washington	5.74%	29	Nevada	10.28%
30	Utah	5.74%	30	Arkansas	10.24%
31	Ohio	5.71%	31	Massachusetts	10.23%
32	Iowa	5.68%	32	Kentucky	10.20%
33	Oregon	5.54%	33	Colorado	10.06%
34	Maryland	5.37%	34	Oregon	10.05%
35	Oklahoma	5.34%	35	Utah	10.00%
36	Nebraska	5.28%	36	Oklahoma	9.87%
37	Illinois	5.24%	37	North Carolina	9.87%
38	Alabama	5.13%	38	Texas	9.79%
39	Louisiana	5.00%	39	Washington	9.78%
40	South Carolina	4.90%	40	Arizona	9.67%
41	Tennessee	4.78%	41	Florida	9.66%
42	Arizona	4.73%	42	Georgia	9.63%
43	Virginia	4.63%	43	Idaho	9.52%
44	Georgia	4.51%	44	South Carolina	9.34%
45	Missouri	4.40%	45	Virginia	9.22%
46	Florida	4.30%	46	Missouri	9.15%
47	Colorado	4.16%	47	New Hampshire	8.99%
48	Texas	4.16%	48	Alabama	8.69%
49	New Hampshire	3.82%	49	Tennessee	8.54%
50	South Dakota	3.73%	50	South Dakota	8.46%

Note: When viewing comparisons and rankings one should take into account that taxes in some states, including some high on the list (Alaska, North Dakota, Wyoming, West Virginia) consist heavily of "severance taxes", mainly those imposed on energy producers. The impact of such taxes is reflected in energy prices, and therefore is borne more by individuals outside the state of jurisdiction.

Source: U.S. Census & Bureau of Economic Analysis

Appendix 8: Description of Pension & Other Post-Employment Benefits Analysis

To evaluate pensions and other post-employment benefits (OPEB) across select comparator states, and over time, data was gathered from each state's actuarial valuation reports, as often as they were produced (not all comparator states were analyzed; only those for which data was available over multiple years). Data on OPEB liabilities was gathered from the same source, but was only recently (2009 or 2010) required by Government Accounting Standards Board (GASB). States hire an actuarial firm at their discretion and might not engage one for each year; although if the same actuary is used the "missing" years are usually interpolated.

The information gleaned from the actuarial reports focuses on the Unfunded Actuarial Accrued Liability (UAAL), which represents the amount of future projected benefits, in present value terms, which are not offset by currently held pension plan assets. More correctly, current plan assets are projected forward by assuming a return on those assets that is modified each year to reflect actual returns (usually smoothed over a five year period). This forecasting is done by the actuary and based on experience with the returns on investments for the given plan. Future benefits expected to be paid are estimated using actuarial assumptions of the rate of retirements, costs, inflation, and death rates based on experience. The resulting UAAL represents a "best estimate" of how many current dollars are required to meet those future obligations if they were invested today and the given assumptions hold; thus it is the amount "owed" by the state, similar to bonds that must be repaid. An important difference between UAAL and bonds is that bonds are repaid in nominal terms, meaning that the amount owed (with interest) doesn't increase with time unless more borrowing is done, whereas the UAAL will increase if plan assets are not set aside and invested today. The UAAL future benefits to be paid accrue with time as the tenure of covered employees grows. The actuaries calculate an Annual Required Contribution (ARC) that provides a "path" to repayment, usually over a 20 or 30 year period. Comparing projected plan assets to projected benefits yields a funded percent, which gives an idea, relative to plan size, of how much UAAL exists in today's terms.

There are different dynamics of UAAL compared to bonds: UAAL grows with time depending on how much is left "unfunded" in the current period, unlike bonds that usually have a fixed interest payment as time progresses. The same concepts apply to the OPEB UAAL; however, for almost all states, OPEB is funded very little, or not at all. Many states are using a "pay as you go" system to fund OPEB resulting in very high OPEB UAAL that is subject to the same dynamic growth as time progresses, especially since making current contributions large enough to significantly reduce the OPEB UAAL are not likely. Many states don't even bother to make ARC payments, or have moved the amortization period so far out that ARC payments are minimal. Still, the current UAAL represents the amount owed today to fully fund the plan, given the actuarial assumptions.

Appendix 9: Overview of Various Tax Comparison Methodologies

The comparative tax analysis used in this publication is based on total state taxes collected as a percentage of total state personal income. Data on state taxes collected was gathered from the U.S. Census from the most recent year available (2011) and personal income data from the Bureau of Economic Analysis. Other estimates and methodologies often attempt to include local taxes, but data is inconsistent and not readily available, and there is much heterogeneity across tax jurisdictions. For these reasons, the state level data is a more reliable comparison; however, for full context, because it is reliable & consistent, census data for state and local taxes combined as a percent of personal income are included in this publication, for the most recent year available (2009 - done as part of the 2010 census).

Our view is that comparisons that examine only the statutory tax rate across states are misleading. The existence of numerous state tax expenditures (deductions, credits, exemptions, etc.) and differences between how state tax codes calculate taxable income make such comparisons inadequate and inappropriate. For example, Connecticut provides few exemptions and deductions, so comparing only the statutory tax rate across states would not account for that fact.

Others have used different methodologies to evaluate tax burden across states. Some evaluate tax burden by looking at total state taxes collected per capita, which fails to account for relative income levels across states, and also does not account for the fact that not all residents pay taxes. Others, such as the Tax Foundation, evaluate total state and local tax burdens by claiming to account for the fact that not all of a state's tax revenues are paid by residents, nor do all residents pay taxes only to their own state. This sounds appealing, but it penalizes a state with more discretionary income and low tourism, since residents are likely to spend (and be taxed) more in other states, while the state does not attract spending (and taxes) from nonresidents. This effect is augmented in smaller states with a higher percentage of the population near its borders. Furthermore, higher income individuals are more likely to travel in their "off time." These actions reflect choices, whereas taxes paid to a state of residence involve little choice. Moreover, those states with high tourism and low incomes appear to be much better off due to location or resources rather than tax policy. Even with these "correction" efforts, effective tax rates don't change much except for those states that have the most opportunity to "export" some of their tax burdens, such as New York and Texas.

A third methodology attempts to create a hypothetical "tax bill" across income strata and by metropolitan locale. The method relies on assumptions and averages of trends in consumption and other spending choices (like housing). The problem with this method is that it is hyper-local, and due to the large heterogeneity in local tax, can produce spurious results when generalized to the state level. Further, average consumption decisions can breakdown when stratifying by income (e.g. relationship between housing expense and income), especially when tax implications are ex post to the decision, rather than having the decision include the tax ramifications.

The aggregate methodology used in our analysis has support from the Federation of Tax Administrators, which follows a similar process. They acknowledge that the other methodologies have their place (e.g. distributional or egalitarian aspects) and, in general, support the aggregate methodology. Their work can be found at http://www.taxadmin.org/Fta/rate/burden.html