Connecticut
still revolutionary

2015

Economic Development Strategy

"Connecticut has always been a birthplace of innovation…
The question before us now is 'what's next?'"
Governor Dannel P. Malloy, State-of-the-State Address, January 7, 2015

Introductions

Our shared history in Connecticut demonstrates a commitment to new ideas and betterment of the old. From the invention of the sewing machine to decades of leading the insurance industry to the development and production of fuel cells, we in Connecticut have spent centuries showing the world how to improve. From world-ranking productivity to one of the highest levels of foreign direct investment, Connecticut models the attributes that are defining the modern economy. As we move further into the 21st century, Connecticut is dedicated to continuing to innovate and live up to our rich history as a national and world leader.

Connecticut's strength starts with its people. We have the third most educated workforce in the nation, as well as the healthiest residents and the highest per capita income. We are a community of forward-thinkers, innovators, and researchers. By aligning education more closely with the needs of the private sector, Connecticut is ensuring that future generations have the skills to transform our world.

Connecticut Rankings in the United States[1]	
Healthy Residents	1st
Share of Finance & Insurance Jobs	3rd
Advanced Degrees per Capita	3rd
State Innovation	4th
Productivity per Capita	4th
Business Research & Development per Capita	5th
Scientists & Engineers per Capita	5th
Energy Efficiency	6th
Venture Capital Deals per 1 Million Residents	7th
Patents per 100,000 workers	7th

Connecticut also possesses an unparalleled quality of life. The abundance of natural resources, extensive network of cultural and creative assets, and variety of communities make Connecticut a great place to live and do business. Our location is ideal for residents and businesses alike, with ready access to major markets, financial centers, and colleges and universities. Within a one-day drive from Central Connecticut is one-third of the U.S. economy and two-thirds of the Canadian economy, making Connecticut one of the best locations in the nation.

The state of Connecticut has not cultivated its many successes without encountering challenges. The economic recession that began in 2007 caused a serious economic downturn in Connecticut. However, over the past five years, the state has regained nearly all of the private sector jobs lost in the Great Recession.

For the past year, with Connecticut's economic recovery in full swing, the state has been developing and executing a strategic plan. This plan calls for investing in industries, anchor companies, and the quality of life that provide a strong foundation for the state's

[1] Eversource, 2015 Connecticut Economic Review

economy. Many companies in Connecticut participate in national and international trade across various sectors. The Manufacturing Innovation Fund, the Bioscience Innovation Fund, and the Connecticut Port Authority are examples of the recent initiatives coming out of our strategic plan that are helping to expand business opportunities in Connecticut.

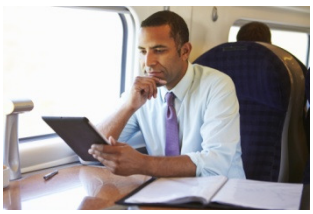
In order to maximize our strengths, the Economic Development Strategic Plan has targeted priority investment areas including healthcare/bioscience, insurance and financial services, advanced manufacturing, digital media, tourism, and green technologies, with attention to how these sectors collaborate and intersect. Within these targeted industries are more specialized areas that show promise for the Connecticut economy including biomedical devices, aircraft manufacturing, and boat building.

The significant planned investment in Connecticut's infrastructure and cities over the next decade will reap many economic benefits. Not only will updated infrastructure make doing business in Connecticut easier, the state's continued streamlining of permitting processes will ensure that businesses are able to focus on creating jobs and increasing capacity. Connecticut is also committed to utilizing and encouraging energy efficiency and alternative energy sources and to the continued betterment of education in the state.

The vision for Connecticut is one of innovation and excellence in people, places and organizations — in other words, vibrancy. This vibrancy will continue to attract talented and creative people and grow businesses. Our attention to, and investment in, the identified strategic areas of talent development, economic growth, and strong communities will be rewarded with long-term stability for our state.

Strategic Plan

Economic development is most effective when approached with a clear vision, an eye for long-term stability and growth, and a strong plan of execution. While the state needs to continue to manage its finances responsibly and maintain efforts to streamline government, we also must make the required investments to move our economy forward and innovate in ways that will benefit all Connecticut residents. Given that Connecticut has an impressive standing in many areas, this plan builds on our strengths while making changes to address our shortcomings.



Our Vision

Connecticut ranks among the top quartile of states in economic performance

Our Mission

Develop and implement strategies to increase the state's economic competitiveness

Our Objective

Build on our established strengths, invest in growth and emerging sectors; differentiate based on our key assets:

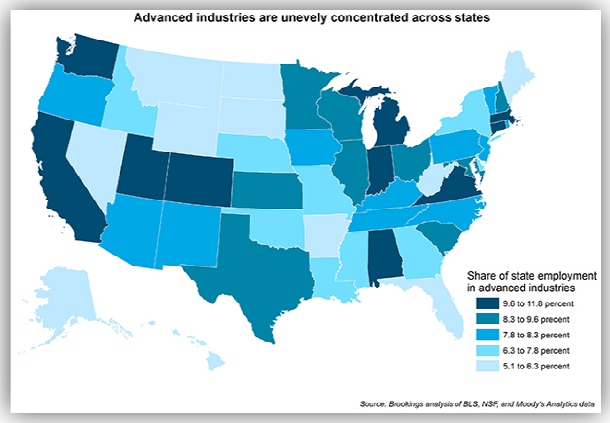
- **Grow the Business Clusters that Drive Connecticut's Economy and Encourage Entrepreneurial Development**
  1. Retain and grow our existing job base
  2. Facilitate ecosystems for industries to strengthen, connect, and collaborate
  3. Support entrepreneurial activities
  4. Build exports and encourage foreign direct investment
  5. Promote Connecticut's brand effectively nationally and internationally

- **Ensure a Workforce that Meets the Needs of the Future**
  1. Understand the future needs of employers
  2. With education partners, grow and enrich our talent pool and develop both short and long range initiatives to invest in our institutions around the key STEAM (science, technology, engineering, arts, and mathematics) skills

- **Create Livable, Vibrant Communities**
  1. Create vibrant neighborhoods through innovation, art, culture, and historic preservation
  2. Ensure quality housing at a broad range of prices

- **Invest in Infrastructure and Support Systems that will Foster Business Growth**
  1. Continue to strategically invest in transportation infrastructure
  2. Work to reduce or offset the cost of energy while reducing greenhouse gas emissions
  3. Continue efforts to create a more responsive government that reforms the regulatory environment and makes it easier to do business in the state
  4. Encourage environmentally-friendly, modern, and resilient development

GROW THE BUSINESS CLUSTERS THAT DRIVE CONNECTICUT'S ECONOMY AND ENCOUAGE ENTREPRENEURIAL DEVELOPMENT



Industry cluster strategies are an important component of a comprehensive economic development strategy. By understanding Connecticut's particular strengths, we can target economic development resources on businesses with the best opportunity to succeed.

The state has developed growth strategies around six industry clusters: health care/bioscience, financial services and insurance, advanced manufacturing, digital media, green technology and tourism. With an increasingly automated world, refined and technical industries will be the centerpiece of the future global economy. Advanced

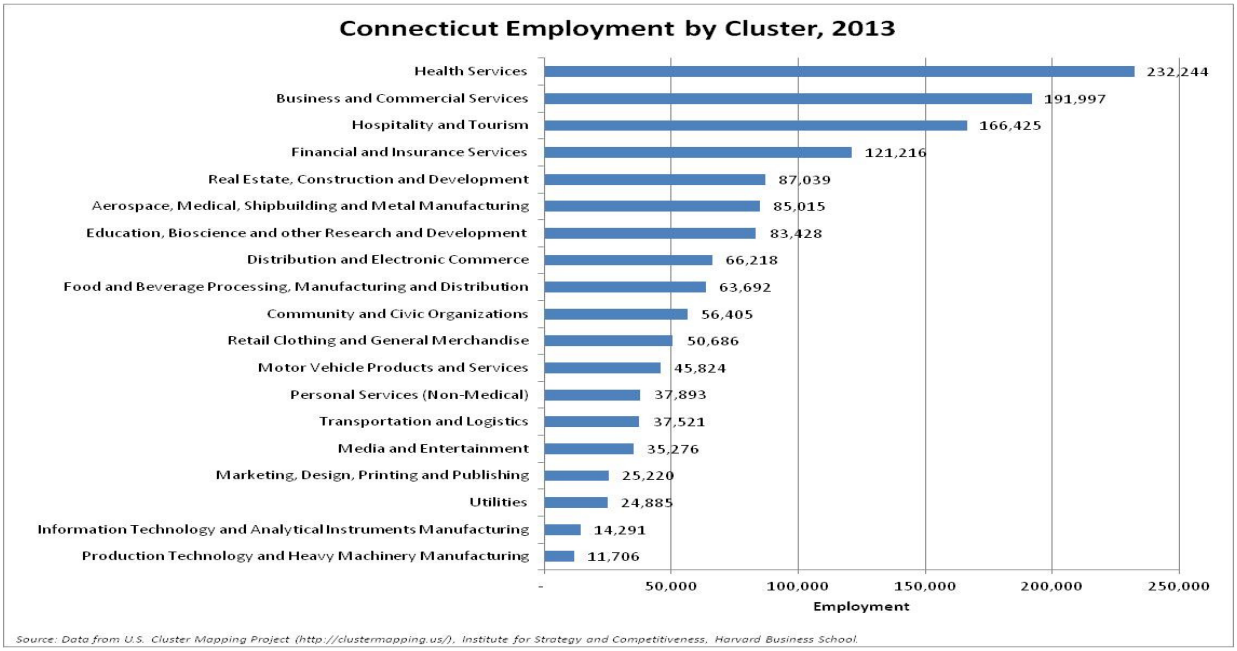
industries, as termed by the Brookings Institute, are those that are research-intensive and utilize science, mathematics, engineering, and technology skills. These advanced industries, like aerospace manufacturing and bioscience, provide strategic opportunities for Connecticut because of high employment concentration. Of the 100 large metropolitan areas with high concentrations in advanced industry employment and related workforce talent, four are in or encompass part of Connecticut.[2]

These strategic targets are based on three key guiding questions:

1.) In which areas do we have current size, depth and leadership positions?
2.) In which parts of the economy are we likely to see the fastest rates of national and global growth?
3.) In which high growth areas do we have the talent and ingenuity to compete?

From the chart below, it's clear that we have strong presence in the health care/bioscience, financial services/insurance, and manufacturing sectors. These three sectors account for 35% of state GDP.[3] Selecting these particular clusters will build upon the considerable strengths of our current employers and university skills.

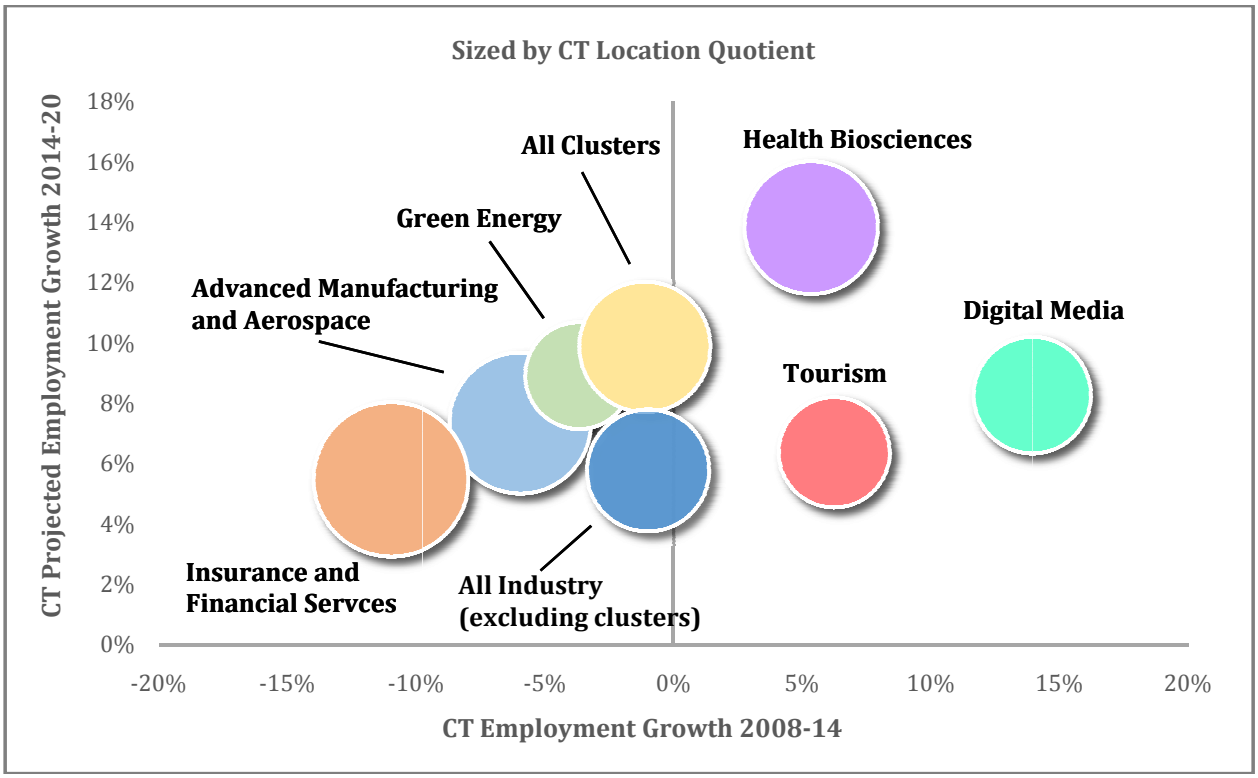
We must also look to the future to ensure we are investing in areas that are small today, but have growth potential. Thus, emerging opportunities in targeted areas remains a priority.



To determine Connecticut's competitiveness in certain industries or clusters, the location quotient (LQ) is used. The location quotient compares Connecticut's density of jobs in a particular occupation in comparison to the national average. Three of the state's six strategic clusters, digital media, green technology, and tourism, had an LQ in 2012 less than one, indicating an opportunity for Connecticut to grow local businesses in these clusters. Our policy goals are geared to growing these clusters to increase their competitive positioning. The other three clusters, insurance and finance, advanced

[2] The Brookings Institute, "America's Advanced Industries," http://www.brookings.edu/research/reports2/2015/02/03-advanced-industries#/M10420, (February 2015)
[3] U.S. Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School, 2013

manufacturing, and health and biosciences, had an LQ of more than one, a distinct competitive advantage in the regional economy. Policy goals should protect and enhance these clusters. The chart below shows historic and projected employment growth in the state's six target clusters.



Source: Connecticut Economic Resource Center, 2015

Clusters by the Numbers

- Total employment for these six clusters grew by 13% from 2004 to 2014 as compared to 9% growth across all industries.[4]

- Total employment in Connecticut for these six clusters is projected to grow by 15% from 824,301 in 2014 to 944,206 in 2024 as compared to 11% growth across all industries.

- Average annual earnings in the six strategic clusters were significantly higher than the state average in 2013 and represented an excellent opportunity for individuals in Connecticut to earn livable earnings. The average annual earnings for the aggregate of these six clusters was $89,508 as compared to $65,056 across all sectors.[5]

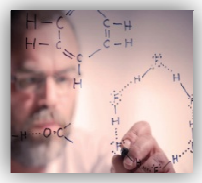
- The aggregate of exports from these sectors was $127 billion or 55% of total state exports in 2013. Similarly, the aggregate of sales from these sectors was $208 billion or 47.3% of total state sales in 2013.[6]

[4] All Business Cluster data came from Economic Modeling Specialists International. Employment data is full coverage meaning it includes QCEW employees, non-QCEW employees, self-employed, and extended proprietors.
[5] Some NAICS codes used were updated from 2007 NAICS codes to 2012 NAICS codes.
[6] Please note, clusters originally included employment under the NAICS codes of 9271 (Space Research and Technology) and 92613 (Regulation and Administration of Communications, Electric, Gas, and Other Utilities). However due to data constraints, we were unable to include employment data from those industries in the analysis.

Targeted investment of economic development funds in these industry clusters is expected to further develop the state's competitive advantage and foster an increased inflow of resources from abroad.

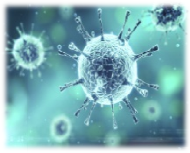
Overview of Business Clusters

Healthcare/Bioscience: Healthcare promises to be a strong driver of employment in the coming decade. Traditional healthcare jobs in healthcare delivery will grow due to the aging of the baby boomers and their need for additional healthcare services. Connecticut also will see growth from its strong position in life sciences (including pharma, medical devices, and genomics) due to the strength of the university research community and the strong array of companies expanding their R&D and manufacturing presence in the state. The cluster's competitiveness is also fueled by the highly effective technology transfer offices at Yale and UConn.



Connecticut's groundbreaking stem cell research legislation of a decade ago provided a platform for Yale, UConn and Wesleyan University to strengthen their position in the top tier of institutions/regions focused on this important field by supporting research and development as well as laboratory infrastructure. The recruitment of The Jackson Laboratory to Connecticut, with its expertise in personalized medicine research, complements research and tech transfer at our top universities and hospitals. Their strong reputation helps to enhance Connecticut's visibility as a global leader in life science research.

Currently, the bioscience cluster in Connecticut is composed of over 50,000 employees at more than 800 companies.[7] This industry is bolstered by Connecticut's educated workforce, with the fifth highest percentage of science and engineering doctorates in the nation.[8] The State of Connecticut demonstrated commitment to facilitating translational research and forward-thinking work in the bioscience field with the creation of the Connecticut Bioscience Innovation Fund (CBIF) in 2013. CBIF is working to invest $200 million in innovative and promising bioscience research and companies over ten years.[9]

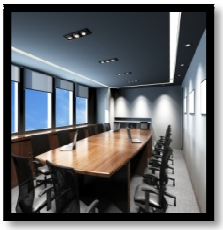


Within the bioscience industry in Connecticut, 28% are biomedical device jobs – a sub cluster that shows promise for strong future growth.[10] Biomedical device development marries two of Connecticut's target industries: healthcare/bioscience and precision/advanced manufacturing.

Insurance/Finance: For over one hundred years, the insurance industry has been synonymous with Hartford and Connecticut because of the state's competitive focus on technology; an unyielding commitment to quality and service-excellence for the consumer; a global reach to the consumer and financial markets; and the most educated and experienced financial services employees in the world. In addition to the robust insurance industry, Connecticut benefits from the presence of myriad other financial services organizations, including private equity firms, hedge funds, venture capital firms,

[7] Batelle/BIO State Bioscience Jobs, Investments and Innovation, 2014; The Connecticut Economic Digest, 2012
[8] National Science Foundation, 2014
[9] Connecticut Bioscience Innovation Fund, http://www.bioinnovationct.com/ctbioscience-fund/
[10] The Connecticut Economic Digest, Vol. 17, No. 2.

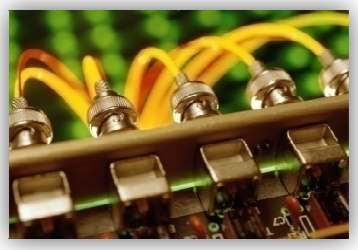
and several national and international banks. The finance subsection of the industry in Connecticut is projected to grow by as much as 30% by 2024.[11]



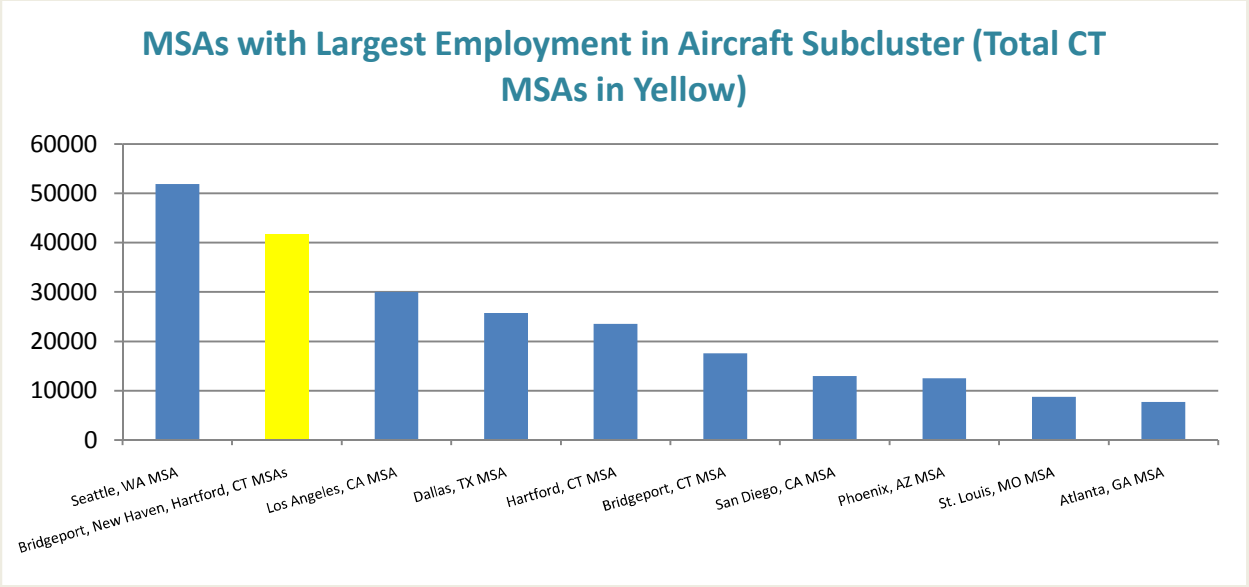
In 2012, finance and insurance accounted for 16.1% of the state's economy.[12] Connecticut is 3rd in the finance and insurance share of total employment in 2014.[13] Approximately 300,000 additional jobs in the state result from activities in the finance and insurance industries.[14] The state is home to financial industry giants such as AETNA, Hartford Steam Boiler, The Hartford, CIGNA, Bridgewater Associates, and AQR Capital Management, as well as many other strong small and midsize organizations like Webster Bank, People's United Bank, and ConnectiCare.

A focus area for Connecticut is continued leadership in the hedge fund, private equity and venture capital industries. The state is currently 2nd in assets managed in hedge funds with more than $300 billion managed by Connecticut firms.[15] Given the strength of this sector and the large amount of data that is gathered by Connecticut companies, there is also growing potential in the data analysis, data management, and cyber security industries in the state as well.

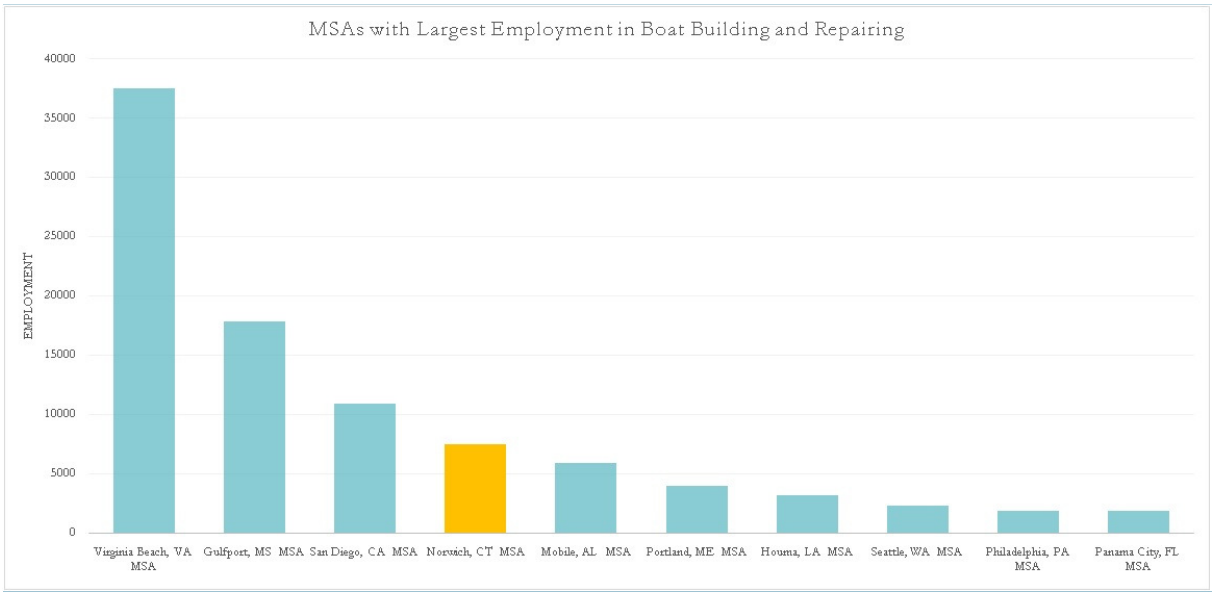
Advanced Manufacturing: Connecticut remains robust in manufacturing despite employment growth challenges in the past two decades. Connecticut ranks 5th in the states in business R&D invested per capita and 4th for workforce productivity.[16] The major global players in this industry such as Electric Boat, Sikorsky, Pratt & Whitney, and Kaman call Connecticut home and are supported by a strong supply chain of more than one hundred aerospace component manufacturers and hundreds of other advanced manufacturing companies.[17]



[11] Connecticut Economic Resource Center, 2014
[12] U.S. Bureau of Economic Analysis, 2012
[13] Eversource, 2015 Connecticut Economic Review
[14] U.S. Commerce Department, BEA, "Regional Multipliers" (RIMS II), Third Edition
[15] Connecticut Hedge Fund Association, Presentation to Commission on Connecticut's Leadership in Business and Corporation Law, July 2015
[16] Eversource, 2015 Connecticut Economic Review
[17] Aerospace Component Manufacturers (ACM), ACM_Membership_List.pdf



Source: Connecticut Economic Resource Center, 2015



Source: Connecticut Economic Resource Center, 2015

The state leads in the fields of advanced manufacturing such as aerospace, additive manufacturing, and underwater defense technology. Aerospace looks to be especially promising in the coming years, as the demand for commercial airplanes has been skyrocketing. As the need for aerospace parts and components have increased Connecticut companies have benefitted, and, in 2014, Connecticut aerospace exports were $6.9 billion or 43% all exports from the state.[18] The aerospace industry, as well as other manufacturing subsets, have benefitted from a tightly linked group of supply chain companies, many of which comprise the Aerospace Components Manufacturers association.

The State of Connecticut has committed to growing manufacturing through a dedicated $70 million to fund supports for the manufacturing industry. Through the Manufacturing Innovation Fund (MIF), Connecticut manufacturing companies have the opportunity for

[18] The Connecticut Economic Digest, Volume 20, No. 4

assistance in areas crucial to remaining competitive. The MIF is governed by representatives from industry and assists companies with funding for the most critical demands posed by the rapid growth of the industry: providing incumbent worker training, process improvement support, and new equipment. Connecticut was also recently awarded the Investing in Manufacturing Communities Partnership (IMCP) designation from the Economic Development Administration. This designation will provide the state preference and access to approximately $1 billion of grant opportunities. The focus is to support the aerospace and shipbuilding industries.

Digital Media: This fast-growing creative industry is comprised of numerous production and post-production facilities, digital animation, film, and gaming companies. The field involves the creative convergence of digital arts, science, technology, and business to present information in visually compelling and innovative ways. It constitutes a set of skills that are increasingly relevant in the corporate world, entertainment industry, science and technology realms, mass media, education, and numerous other fields.

Since 2006, average spending in this industry has been $200 million per year. This increase has been fueled in part by the state's attractive tax credit programs and the arrival of many new industry players. Connecticut is home to many industry giants such as ESPN, NBC Sports, and WWE, as well as television networks such as YES and A&E. Several talk shows and digital movie studios like Blue Sky Studios, a division of 20th Century Fox, also are located in the state.

In recognition of the potential of this cluster, the state has supported the creation of two undergraduate degrees being offered by UConn in digital media and design. The degrees are cross-disciplinary programs intended to give students in Connecticut a competitive edge for career success in the rapidly growing job market and to provide employers in the industry access to the required skill sets to further develop their markets.

Green Technology: National and global policy attention is being focused on renewable energy and energy efficiency. Connecticut is well positioned to take advantage of these trends building upon the early successes we have seen in this arena. We are a global leader in fuel cells (with 30% of the U.S. jobs and more than 50% of the regional jobs) and energy efficiency.[19] This strategy recognizes our unique position as a leader in this area.[20]

Connecticut has put in place high-level policy to maximize our share of energy-related business growth. The Department of Energy and Environmental Protection (DEEP) developed the first-ever Comprehensive Energy Strategy (CES) for the State of Connecticut—an assessment and strategy for all residential, commercial, and industrial energy issues. When implemented, the CES will move Connecticut toward a cheaper, cleaner, and more reliable energy future while creating thousands of jobs.

[19] Connecticut Center for Advanced Technology (CCAT), "Final Report: Fuel Cell Economic Development Plan Hydrogen Roadmap," http://www.ct.gov/ecd/lib/ecd/CCAT_Fuel_Cell_FINAL_Plan_1-31-08_DECD_w_participants.pdf (Jan 1, 2008)

[20] "State of the States" Fuel Cells in America 2014," U.S. Department of Energy, Fuel Cell Technologies Office, (December 2014)

The Connecticut Green Bank (formally known as the Clean Energy Finance and Investment Authority or CEFIA) is the first full-scale clean energy finance authority in the nation. It leverages public and private funds to drive investment and scale up clean energy deployment in Connecticut. It does so by offering innovative, low-cost financing such as the C-PACE program to encourage homeowners, companies, municipalities, and other institutions to support renewable energy and energy efficiency.

Tourism: Tourism and hospitality represents a $14 billion industry in Connecticut employing 118,000 people and generating $1.6 billion in state and local taxes.[21]

According to the World Travel and Tourism Council, tourism is predicted to grow 4.2% annually in the next 10 years worldwide. North American growth is expected to be in the 3.3% range annually over the same period.[22] Connecticut's natural beauty, diverse arts and cultural activities and events, and premier destinations combine to make a focus on tourism a natural fit for our state.

The "still revolutionary" marketing and branding campaign builds on the combined efforts of leading tourism organizations' marketing efforts to comprise the state's primary strategic investment to grow tourism. The "still revolutionary" campaign was launched in the spring of 2012 and in the year following, tourism-related jobs increased by 3%. The sector has been one of the top job generators since the campaign's inception. Additionally, hotel occupancy in the state has grown – an important indicator of a thriving tourism industry.

This marketing effort is also crucial to ensuring that businesses inside and outside of Connecticut are aware that the state is creating a truly competitive business environment. The campaign serves to highlight the state's attention to 1) strong workforce; 2) entrepreneurial activities; 3) programs to support company growth; 4) commitment to fiscal responsibility; and 5) regulatory reforms that enhance business opportunities.

Facilitating Growth for Companies Small and Large, New and Mature

The state's economic development strategy concentrates on all levels and sizes of business in order to accelerate our economic recovery. The state will continue to leverage its financial and technical resources to assist companies from startup phase through maturity. In addition to strategies aimed at assisting various types of businesses with challenges specific to their operations, the state is active in ensuring that supports are made available that assist all businesses, like affordable high-speed internet.

Research shows that small companies, in comparison to young companies, produce the most new jobs in an economy. Connecticut ranks 7th in the nation in patents per 100,000 residents - a good indicator

[21] "The Economic Impact of Tourism in Connecticut: For Calendar Year 2013," Tourism Economics, Wayne, PA
[22] World Travel and Tourism Council, *Travel and Tourism Economic Impact 2014*

of the state's innovative potential.[23] However, Connecticut ranks 44th in terms of the number of stage 2 companies (with 10–99 employees) per capita and 34th in terms of the number of startup companies (1-9 employees) per capita in the nation.[24] Thus, while Connecticut has a long history of innovation and patent creation, it is currently not demonstrating the follow-through in bringing these new ideas to market. Therefore, there is much opportunity for more entrepreneurial activity in the state. The State of Connecticut's strategy focuses on initiatives, investments, and assistance that will increase the chances of success for young companies by providing timely access to appropriate resources, including market and product expertise, talent, capital, and ideas.

Connecticut Innovations (CI), a quasi-governmental organization created in 1989 to provide strategic and operational insight to companies to push the frontiers of high-tech industries such as energy, biotechnology, information technology and photonics, plays a key role in the deployment of the state's efforts toward supporting innovation and entrepreneurship. This entity was one of the first early stage investment agencies developed by a state in the country. Since 1995, CI has made more than $242 million in equity and risk capital investments, leveraging more than $1 billion in private capital.

To further support entrepreneurs, the Department of Economic and Community Development (DECD) and CI have created an Innovation Ecosystem called CTNext. CTNext is providing the infrastructural underpinnings of Connecticut's innovative ecosystem, such as hubs where people of diverse backgrounds and interests interact with one another. These hubs are comprised of programming like mentor networks, community events, and access to technical support from universities and other professional individuals and organizations. CTNext is working with entrepreneurship stakeholders to create collaborative, vibrant, and innovative communities that help young companies grow and create good jobs in Connecticut.

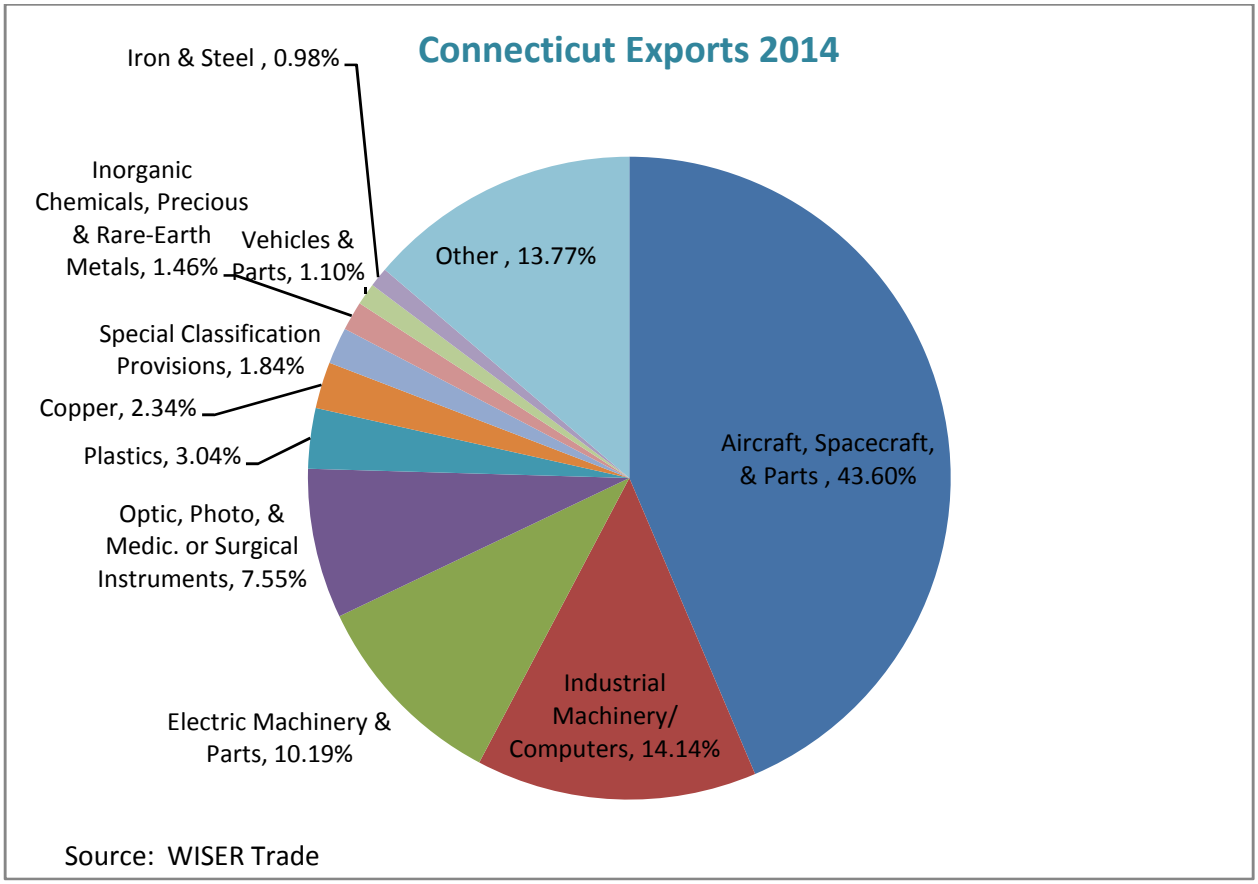
Connecticut's economy is reliant on companies of various sizes and ages to ensure a stable long-term economy. The Small Business Express Program (EXP) provides funding and technical assistance to Connecticut's main street small businesses to spur job creation and economic growth. Additionally, the state provides financial and technical assistance to mid-large companies in our targeted clusters that are investing in growing their businesses. Outside Connecticut's borders, the state has worked to attract companies whose business needs fit well with the strengths of our economy.

Exports and Foreign Direct Investment

Exports are an engine of growth for Connecticut companies accounting for $15.94 billion, which was 6.85% of GDP in 2014.[25] The state, through DECD, works closely with its partners at the federal and regional level to provide support services and programs to help Connecticut companies take advantage of opportunities in the global marketplace by diversifying their customer base and their revenue streams.

[23] Eversource, 2015 Connecticut Economic Review
[24] CTC, *The Connecticut Competitiveness Project*, Executive Summary, http://www.slideshare.net/CTTech/study-reports-connecticut-risks-losing-its-fastest-job-growth-technology-firms (January 5, 2011)
[25] World Institute for Strategic Economic Research (WISER), http://www.wisertrade.org; U.S. BEA

Encouraging foreign-owned companies to establish or expand operations in Connecticut is equally important, as they employ 102,600 and invest $14 billion annually. [26] A study by Business Roundtable shows the dramatic impact globally engaged companies have on the state's economy. These companies account for 49% of the state's private sector output and directly or indirectly support 850,900 private sector jobs.[27]



The state has launched an effort to proactively promote Connecticut abroad as the destination of choice. This strategy is a targeted approach directed to attract prospects from China, Germany and northern Europe, Israel, and Brazil in particular to explore the potential to establish a presence in the state. Currently, Connecticut's biggest export partners are France, Canada, Germany, Mexico, and the United Arab Emirates.

The Connecticut Port Authority, which was enacted by statute in 2014 and 2015, will provide improved opportunities for trade with national and international partners. The Connecticut Port Authority will begin its work in 2015 and will focus on increasing the trade viability of Connecticut's ports through strategic marketing and economic development. Combined with the improved infrastructure from the projects that will be undertaken over the next several decades, the state is making investments to ensure that Connecticut becomes a hub for exporting and importing goods.

[26] U.S. BEA, 2011 employment data, Gross Property, Plant, and Equipment series discontinued after 2007
[27] The Business Roundtable, *Globally Engaged U.S. Companies Drive Jobs and Investment in Connecticut* (September 2013)

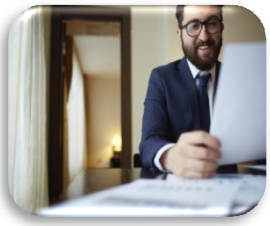
GROW THE BUSINESS CLUSTERS THAT DRIVE CONNECTICUT'S ECONOMY AND ENCOURAGE ENTREPRENEURIAL DEVELOPMENT		
Retain and grow our existing job base		
Action	**Responsibility**	**Metrics**
Work to ensure companies within the state retain and grow their workforce • Outreach Program tiered approach ▪ Top 100 businesses ▪ Top 10 business by industry segment ▪ Top regional businesses • Promote state programs/state through PR, partners Leverage existing & create industry, education and economic development organization relationships	DECD as lead	• # of jobs created/retained • # of companies retained • $ amount of private investment leveraged • State GDP • State employment level
Facilitate ecosystems for industries to grow and connect		
• Focus on creating structure for assistance in manufacturing and iterative prototyping for manufacturers, including biomedical devices • Provide support to strengthen supply chains for manufacturing including biomedical and shipbuilding	DECD/ Industry associations/ Bioscience and manufacturing companies	• $ invested in iterative processing facilities and assistance • # of CT manufacturers engaged in supply chains
Provide better assessment and support for financial firms, with particular focus on non-insurance firms and those located in southeastern CT	DECD/ Industry associations	• # of members in industry associations • # of attendees at events/conferences targeted to industry
Continue to engage in regional initiatives aimed at strengthening aerospace and defensive shipbuilding	DECD	• # of regional initiatives/events
Strengthen Connecticut's national and global position		
Domestic recruitment efforts will focus on recruiting companies to Connecticut by: • Careful research to target specific, well-suited businesses • Working with CT companies to leverage the supply chain to identify targets outside the state • Recruit at appropriate industry forums • Branding CT in the U.S. market	DECD and U.S. Commerce Department for export support	• # of new business opportunities brought to CT • # of new jobs created • $ amount of new private investment, including FDI • Tonnage at CT ports
Spur innovation		
Execute CI strategies to support startups with expertise and capital	Connecticut Innovations	• # of companies served • # of jobs created • ROI on equity investments • Leveraging of private $ • Leveraging of federal $

Implement the Innovation Ecosystem to drive new entrepreneurial activity across all sectors	Connecticut Innovations/ DECD	• Level of new company formation • # of companies served by CTNext • # of jobs created • # of patents issued in the state
Promote Connecticut's brand to drive economic growth		
Continue to support the "still revolutionary" brand	DECD	• Impact of advertising as measured by # views, # of click-throughs, survey results • Tourism visits • Perception of CT as a tourist destination and business location • Hotel occupancy and ADR

ENSURE A WORKFORCE THAT MEETS THE NEEDS OF EMPLOYERS

A productive and innovative workforce is repeatedly cited by companies as the most important factor in their location decisions. With talent as a key draw for businesses in the state, we must ensure that a high quality and creative workforce is in place and that it grows and responds to the changing needs of our businesses.

The state is addressing immediate skills challenges, disparities in educational attainment and long-term demographic changes that will impact our workforce. Additionally, with the increasingly technical nature of jobs across all sectors, many Connecticut organizations are evaluating how best to attract and retain individuals with the necessary technical skills and capabilities.



The state recognizes that a multi-tiered approach to developing a workforce and providing the skills needed to meet the market demand is required. A strong partnership amongst education, the training delivery system, and industry is essential. An example of this is the investment of $20 million in the Advanced Manufacturing Centers at four of the Connecticut community colleges. This investment was a direct result of manufacturers indicating that they were struggling to find talent with manufacturing skills. Additionally, $15 million in federal funding has been leveraged in three additional community colleges to purchase additional equipment and provide more training at these centers.

In 2013, the state made an extraordinary investment in these initiatives. While other states were cutting their higher education budgets, Connecticut committed more than $1 billion to UConn's STEAM programs, recognizing that the workforce of the future will be data-driven. Through this 10-year effort, the state will add 70% more seats to its engineering school, a new campus for digital media, and an expansion of R&D throughout the university. This unprecedented investment will ensure the talent required by future businesses will be met.

The newest investment in workforce development is the Connecticut Early College Opportunities (CT-ECO) program. The CT-ECO program provides public school students with the opportunity to receive concurrent high school diplomas and associate's degrees in targeted areas in 4-6 years, at no cost to the student. These programs are each tightly aligned with local industry partners like IBM and Electric Boat, and students are first in line for jobs with partner organizations upon completion of the program. As of Fall 2015, there

will be four CT-ECO programs in Connecticut with programs in technology, manufacturing, and financial services.

The Manufacturing Innovation Fund (MIF) is also working to address the needs of and gaps in the Connecticut workforce. Based upon the input of industry leaders on the Advisory Board of the fund, MIF is providing funding to manufacturing companies for a variety of needs, but there is an emphasis on workforce development, including incumbent worker training and apprenticeship programs.

ENSURE A WORKFORCE THAT MEETS THE NEEDS OF THE FUTURE		
Understand the current and future needs of employers		
Action	**Responsibility**	**Metrics**
• Create training programs to meet current gaps in our talent pool • Use partners such as CETC, DOL and employer groups to evaluate future needs of the employers in the state, with a special emphasis on our targeted clusters and highest unemployment areas	DOL, CETC, DECD, CI	• # of job placements • Unemployment levels • #of training programs in targeted skills and geographic areas
With education partners, grow and enrich our talent pool to address any current gaps		
• Expand manufacturing technology programs and grow engineering capacity in community colleges • Assess other areas (such as healthcare, insurance/financial services, and information technology)	Community Colleges, Technical Schools, UConn, Private colleges and universities	• # of graduates • # of placements
Develop longer range initiatives to invest in our institutions around the key STEAM skills		
• Partner with education to offer STEAM courses to address employer needs	UConn, K-12, Technical Schools	• Measure success of UConn STEAM programs • Engage businesses for their feedback • Measure success of CT-ECO program

CREATE LIVABLE, VIBRANT COMMUNITIES

Much of the American landscape is a sea of industrial, agriculture, and suburban subdivisions dotted with office parks and strip malls. In contrast, there is not a single town or village in Connecticut that is like anywhere else in Connecticut or anywhere else in the country. Each has its own history, shaped by the numerous ethnic nationalities who settled

there, with unique architecture and cultural venues, one-of-a-kind shops and restaurants, and exceptional characters, living and dead, who have left their marks, etched into buildings and onto the landscape. This depth of local character is a significant source of our current and future economic advantage, because the mobile young talent who will fuel the creation of the next economy value authentic places that offer opportunities for inspiration, connection, and personal impact.

Diversity of people is also a critical prerequisite to communities that inspire and encourage innovation. In order to ensure that investments made by the state are reaching a wide variety of Connecticut residents, the Small Business Express program is emphasizing assistance to minority- and women-owned businesses. We need to ensure that we continue to use state policy to ensure success for all types of people in our many great communities.

Investing in our state's creative economy and impressive arts infrastructure will advance the attractiveness and competitiveness of Connecticut cities, towns, and villages as meaningful communities in which to live, work, learn, and visit. Creative enterprise is an essential component of Connecticut's mission to develop and implement strategies to increase the state's economic competitiveness. The non-profit arts sector in Connecticut, for example, contributes more than $650 million in direct industry expenditures and supports more than 18,000 full time equivalent jobs.[28]

Through its grants and technical support, the Department of Economic and Community Development is helping to strengthen organizations in the arts and culture sector, thereby enhancing each community's competitive edge, bridging the social and economic divide, creating rich and meaningful experiences for residents and visitors, helping communities define and celebrate their distinct assets, and contributing to the development and retention of a creative workforce. The Department of Economic and Community Development is also currently managing a portfolio of more than $200 million in capital projects, including more than $50 million for arts and cultural organizations.

To help businesses create and retain jobs, quality housing choices are necessary. Affordable and workforce housing, particularly in and around transportation networks will serve as a building block for our future growth. The Department of Housing, along with the quasi-governmental agency the Connecticut Housing Finance Authority (CHFA), is investing over $500 million to help leverage private sector funding for the creation of thousands of new housing units throughout the state. Additionally, a $15 million pre-development and acquisition loan fund has been developed by CHFA, DECD, and the Local Initiatives Supportive Corporation (LISC) to encourage higher-density, mixed-use development near existing and new transit hubs to create more livable, walkable communities, and to expand access to jobs and housing.

[28] Americans for the Arts, Arts & Economic Prosperity IV, National economic impact survey in CT. The reported figures represent direct expenditures of reporting nonprofit organizations and their audiences in 2010 (approx. 29% of the state's arts and cultural agencies reported)

CREATE LIVABLE, VIBRANT COMMUNITIES		
Integrate arts/culture and preservation with economic development		
Action	**Responsibility**	**Metrics**
• Focus arts grants and historic preservation grants on projects that catalyze economic and community development and support the existing arts and culture infrastructure	DECD	• # of historic structures preserved • $ of federal and state historic tax credits • $ granted for arts awards
• Encourage enhanced integration of arts into economic development initiatives	DECD/ Regional and local arts and tourism organizations	• Increased traffic at arts attractions • # of jobs created in arts sector
Ensure quality housing at a broad range of prices		
Action	**Responsibility**	**Metrics**
• Implement the $500M commitment to build new and renovate existing workforce and affordable housing	DOH/CHFA	• # of new affordable units • # of market-rate units in targeted locations • # of new supportive units

INVEST IN THE INFRASTRUCTURE AND SUPPORT SYSTEMS THAT WILL FOSTER BUSINESS GROWTH

The state's comprehensive approach to economic development looks beyond direct financial assistance programs. It focuses on areas such as transportation infrastructure, energy policy and government efficiency, which all contribute to making Connecticut a more competitive place to do business.

Transportation Infrastructure Efforts

In 2015, Governor Malloy unveiled a 30-year, $100 billion plan to update and improve Connecticut's infrastructure. Included in the plan are increased speed, access, and frequency of rail and freight transportation within Connecticut but also to major regional hubs like New York, Boston, Philadelphia, and Montreal.[29] Additionally, the plan will widen existing interstate highways, such as I-84 and I-95, at key points, as well as additional upgrades to Bradley International Airport.[30] The many projects and upgrades included in the transportation plan are aimed at making Connecticut's infrastructure safer, creating more diverse modes of transportation, reducing carbon emissions, improving quality of life for residents, and making it easier for businesses to transport people and goods.

New transportation infrastructure investment holds the promise of revitalizing areas of the state serviced by rail and rapid transit. Our most significant commuter rail corridor,

[29] "Let's Go CT! Connecticut's Bold Vision for a Transportation Future," http://www.ct.gov/dot/lib/dot/documents/dcommunications/ctdot_30_yr.pdf (February 2015), Page 15
[30] "Let's Go CT! Connecticut's Bold Vision for a Transportation Future," Page 32

from New Haven to New York, is the beneficiary of many upgrades currently in operation or soon to be in place. Additionally, the New Haven Hartford Springfield (NHHS) Rail project will dramatically increase passenger rail in the corridor staring in late 2016 or early 2017. The entire region from New York to Montreal will benefit from this and related investments in the next decade. Travel times will be cut, and there will be peak service every 30 minutes once the project is complete.

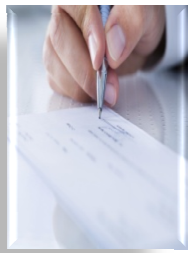
CTfastrak is a Bus Rapid Transit System – the first in Connecticut's history – that serves communities between New Britain and Hartford. Ridership on CTfastrak has surpassed initial estimates, and the system will be expanded in East Hartford and Manchester. All these transportation projects bring the potential for transit-oriented development around transit stops.

Smart Growth for Towns and Cities

"Smart growth," including sustainable development, brownfield redevelopment, historical preservation and renovation, and transit-oriented development, helps communities attract businesses and workers. These new approaches to land-use planning, transportation, housing, environment and human needs will be integrated into our strategy and action plans in a way that makes them integral to our future economic activity. By leveraging previous investments in infrastructure with new developments and remediation, existing assets can be utilized in new and creative ways. In turn, we can achieve the goal of making our urban centers net contributors to economic growth in the state, reversing their lagging performance in recent decades.

Connecticut is now embracing these new approaches to development to meet the needs of the new economy and its workforce. Three regions of the state won highly competitive U.S. Housing and Urban Development (HUD) grants under the sustainable communities program in the past two years. Only 45 awards were made nationwide. These grants dovetail well with the current efforts at the state level of DECD, DEEP, and the Department of Transportation (DOT) to direct future investments of state funds in a coordinated fashion consistent with sustainable community goals.

Over two decades, since the term "brownfield" was first applied to environmentally challenged properties, Connecticut has continuously developed increasingly beneficial public policies and tools to address regulatory and liability issues and the financial costs associated with remediation and reuse. Since 2012, Connecticut has invested approximately $125 million in brownfield properties across the state, helping to prepare more than 14,000 acres of land for development across more than 100 projects. The continued investment in redeveloping brownfield properties is expected to grow, given the current leveraging of $4 of non-state investment for every $1 in public funding spent on these important projects. The State of Connecticut has also developed a suite of liability relief programs to further ensure long-term investments in remediation and redevelopment of brownfield properties.



With the new investments in transportation that have recently been made in Connecticut, like CTfastrak, and those to come with the invigorated transportation plan set forth by Governor Malloy in 2015, transit-oriented development is becoming an increasingly important strategic component. As Connecticut's transportation infrastructure is diversified and improved, the state is committed to facilitating development that is strategically aligned with the important needs of its residents, including access to public transportation,

walkability, and ease of access to necessary goods and services. Connecticut is also making significant investments in infrastructure and other capital projects in cities and towns throughout the state, including utility and sewer expansion, streetscape improvement, and new construction projects.

Comprehensive Energy Policy

In 2013, the Governor and the Department of Energy and Environmental Protection created the Comprehensive Energy Strategy for the State of Connecticut. At the heart of the strategy is a series of policy proposals aimed at creating cleaner, cheaper, and more reliable energy sources for the state.

The plan uses limited government resources to leverage private capital and increase the flow of funds into energy efficiency, renewable power, natural gas availability, and a 21st century transportation infrastructure that promotes mobility options, transit-oriented development, and market-based opportunities for clean fuels and clean vehicles. It identifies natural gas as a bridge to a truly sustainable energy future, and puts forward a seven-year game plan for expanding access to natural gas across Connecticut with a goal of providing nearly 300,000 Connecticut homes, businesses and other facilities with an energy choice that includes natural gas. The strategy calls for an expanded commitment to "all cost-effective" energy efficiency efforts. These revised energy provision strategies have also yielded environmental benefits by lowering emissions from electricity production. Since 2007, the increased usage of natural gas has led to a 71% reduction in nitrogen oxides, 95% decrease in sulfur dioxide emissions, and 28% reduction in carbon dioxide emissions in New England.[31]

To ensure reliability, the state is also investing in "micro-grids" that allow off-grid generation of electricity for critical services and businesses. Together these efforts have resulted in a 12% decline in energy costs for the state – and more reductions are expected as the strategy is executed. Additionally, the Connecticut Green Bank administers programs like C-PACE that will continue to provide opportunities for lowering energy costs.

LEAN and Reducing Regulatory Complexity

The State of Connecticut is committed to transform its government agencies to deliver enhanced service to its constituents while keeping cost under control. To this end, all agencies are engaged in applying LEAN principles and practices to identify improvement opportunities in the way they do business and deliver services. As these agencies continue to track toward leaner, more efficient organizations, they will in turn be better positioned to pass those improvements to businesses and communities around the state. Shortening turnaround times, making it easier to get answers, and creating simpler more comprehensible programs are all goals of the LEAN effort. These efforts are already paying off for constituents:

- DEEP now issues 90% of its permits in 60 days
- DOT's State Traffic Commission has streamlined the process for permits reducing processing time 83%, with 70% of applications now being improved in 30 days or less
- DECD's Brownfield Remediation Department has reduced the time from the announcement of funding for a project to closing the contract on that project by over 68% from 2013 to 2015

[31] CT Department of Energy and Environmental Protection, May 2015.

In October 2013, the Governor issued Executive Order 37, calling for a review of all regulation in the state. Inviting the public to provide input, he also instructed all agencies to evaluate their regulations with an eye to streamline and simplify wherever possible. Recommendations were made to the Governor early in 2014, resulting in nearly 1,000 pages of superfluous sections of code removed from the Connecticut regulations.

INVEST IN THE INFRASTRUCTURE AND SUPPORT SYSTEMS THAT WILL FOSTER BUSINESS GROWTH		
Continue efforts to create a more responsive government that remakes the regulatory environment and makes it easier to do business in the state		
Action	**Responsibility**	**Metrics**
• Continually review regulatory processes and procedures to maximize efficiency and effectiveness	State agencies	• Customer satisfaction • Time to complete permitting processes
Work to reduce the cost of energy		
Action	**Responsibility**	**Metrics**
• Execute the Comprehensive Energy Strategy that will provide cheaper, cleaner, more reliable energy	DEEP	• Cost of energy and distribution • Energy outages • Improvement in CO_2 outputs
• Launch a campaign to reduce energy costs for residents and businesses while reducing our greenhouse gas emissions, especially industrial manufacturers through C-PACE	CT Green Bank	• # of transactions • Capital invested • Energy savings • Payback, NPV, IRR, SIR, and cash flow • Reduction in CO_2 emissions
Continue to strategically invest in transportation infrastructure		
Action	**Responsibility**	**Metrics**
• DOT to invest to improve transportation systems in the state	DOT	• Delivery of transportation projects on time and budget
Encourage environmentally-friendly, modern, and resilient development		
• Continue investments to make brownfields into usable and productive properties	DECD with DEEP support	• # of brownfield projects funded • # of redeveloped brownfields in state
• Transit-Oriented Development: Work with municipalities to develop a plan for the rapid transit systems in the state (ex: CTfastrack and the New Haven–Springfield line)	DOT, DECD and TOD cross-agency team (led by DECD)	• Engagement of towns in TOD work on rails/busways; development and execution of plans in TOD

Economic Development Strategic Plan

APPENDIX

TABLE OF CONTENTS

I. Review and Analysis of Factors that Impact Economic Development and Responsible Growth

In this appendix, DECD provides the background information to support our strategic plan. This section lays out information on Connecticut's economic infrastructure — areas like transportation, housing and workforce that provide the underpinnings for economic growth and prosperity. In addition, information required by the General Assembly is presented.

1. Transportation

Transportation systems are critical to the well being of individuals, the productivity of businesses, and in general the overall health of economies. Transportation provides the means for commuting to work, the purchase and delivery of goods, and recreational opportunities.

Connecticut's transportation strategy is embodied in a February 2015 release by the Department of Transportation (DOT) following the Governor's announcement of a multi-faceted, 30-year plan for transforming Connecticut's entire transportation infrastructure system encompassing all modes of transportation: highways, buses, bike- and walk-ways, rail, aviation, and ports.[32] The two-part transportation plan consists of: (1) a five-year ramp-up that utilizes $10 billion in capital funding, and leads up to (2) a 30-year vision utilizing a proposed $100 billion in funding.

What follows are some highlights of Connecticut's existing transportation system. This section considers the bus system, highways, aviation, ports and ferries, as well as passenger and freight rail and greenways.

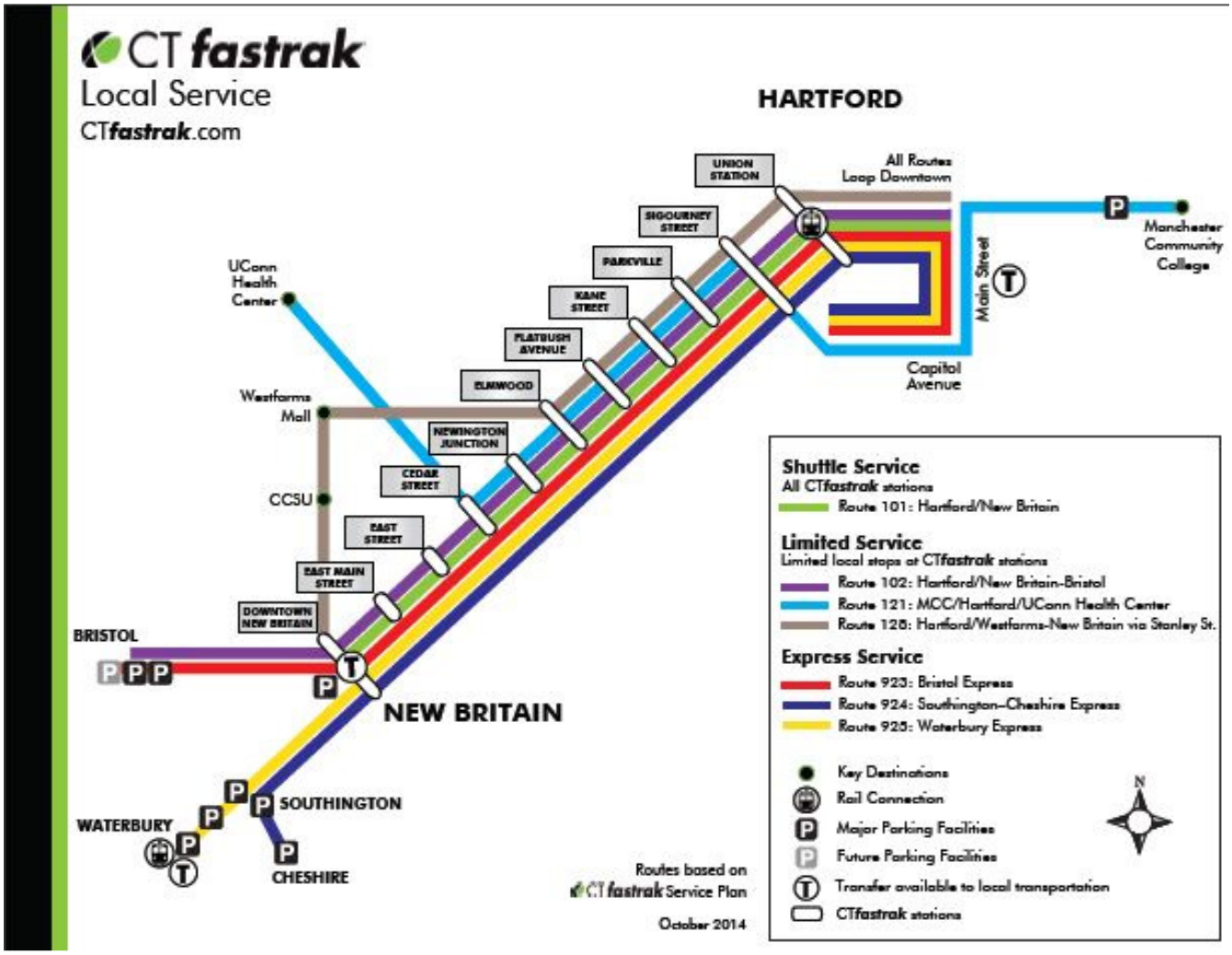
Connecticut's Bus System

Connecticut's bus system is a vital component of the overall transportation infrastructure. DOT's Bureau of Public Transportation, through the Office of Transit and Ridesharing, oversees and financially supports bus and ridesharing services. In March 2015, CTfastrak, (formerly known as the New Britain-Hartford busway) became the state's first Bus Rapid Transit (BRT) system offering high capacity, cost effective public transit that improves regional mobility by using buses on a dedicated guideway. BRT systems transport passengers to their destinations swiftly while offering system flexibility to meet changing transit demands. Ridership numbers as of July 2015 were promising.[33]

[32] *Let's Go Connecticut: Connecticut's Bold Vision for a Transportation Future*, February 2015. http://www.governor.ct.gov/malloy/cwp/view.asp?A=4010&Q=563238

[33] Don Stacom, "CTfastrak Adds Riders, But CT Transit's Figures Fall", *The Hartford Courant*, August 6, 2015

Figure A.1: CTfastrak Map



Source: Connecticut Department of Transportation

Connecticut's Highway System

Connecticut has 21,390 miles of public roads. ConnDOT is directly responsible for overseeing all design, construction, maintenance, and improvements for the 4,103 miles of state-maintained roads consisting of state routes and roads, stubs, bypasses, and ramps serving as main lines. This includes 960 miles of Interstate and other National Highway System (NHS) roads in Connecticut.[34]

The condition of state-maintained highway networks by roadway type in 2012 showed:

- While only 6% of the state-maintained roads are in poor condition, only 44.6% are in good or excellent condition.
- 60% of Interstate and other expressway are in good or excellent condition.
- 10% of Connecticut's bridges are rated poor and 1% is in such poor condition that vehicle weight is restricted.[35]

In 2010, Connecticut had 2.9 million licensed drivers and 3 million registered vehicles. Thirty-three percent of households owned a car; 38% of households had 2 cars; 20% had 3 or more cars while 9% of households did not own any vehicle. (See footnote 4, page 6)

Connecticut's highways have a major impact on economic development and responsible growth. TRIP, a national transportation group that conducts research on surface transportation issues, found in its 2014 report that "driving on deficient roads costs Connecticut motorists a total of $4.2 billion annually in the form of additional vehicle operating costs (VOC), congestion-related delays and traffic crashes."[36] Costs to the average motorist in Connecticut's largest urban areas (Bridgeport, Hartford, and New Haven) exceed $1,800 annually.

Nearly 79%[37] of commuters in Connecticut are single-riders in an automobile. It is therefore advantageous for the state to continue its successful carpooling programs, promote the use of pedestrian walkways and bike paths and expand rail options and thoughtful bus connections to facilitate a cleaner and less congested commute.

As discussed in the main body of the strategic plan, the transportation investments proposed over the next decade will address these issues.

Connecticut's Aviation System

The Connecticut Airport Authority (CAA) operates Bradley International Airport and the state's five general aviation airports (Danielson, Groton-New London, Hartford-Brainard, Waterbury-Oxford, and Windham airports). The CAA serves as an economic driver in Connecticut, making the state's airports more attractive to new routes, new commerce, and new companies who may be considering making Connecticut their home.[38]

[34] http://www.ct.gov/dot/lib/dot/documents/dcommunications/misc/2012_ConnDOTFast_Facts_online.pdf

[35] http://www.transformct.info/img/documents/Boards_TransformCT_All.pdf

[36] TRIP, *Connecticut Transportation by the Numbers: Meeting the State's Need for Safe and Efficient Mobility*, December 2014, p. 1. http://www.tripnet.org/Connecticut_State_Info.php

[37] US Department of Transportation, Bureau of Transportation Statistics, Connecticut Transportation by the Numbers, January 2015.

[38] http://www.ctairports.org/BoardInfo.aspx

Strategies focus on:

- Increasing the share of passenger and cargo traffic
- Increasing the number of domestic and international destinations and ensuring competitive fares
- Operating a state-of-the-art terminal
- Ensuring excellence in service and maximum convenience to all of our customers and tenants
- Operating as a "good neighbor" to the surrounding communities
- Operating a financially self-sustaining entity[39]
- Helping to spur economic development in the surrounding enterprise zone

Bradley International Airport is an economic facilitator—that is it allows other "economic entities" to create more economic activity than they otherwise could create without its presence. It is the value of the access that is provided by the presence of the airport that has the greatest and most far-reaching influence on an economy.[40]

Bradley International Airport is the second largest airport in New England. It served nearly 3 million passengers (enplanements) in 2014 and ranked as the 53rd busiest airport in the U.S.

Table 1: Bradley International Airport Enplanements

	Enplanements	Y/Y % change	Rank
2010	2,640,155		56
2011	2,772,315	5.0%	54
2012	2,647,610	-4.5%	55
2013	2,681,181	1.3%	54
2014	2,913,380	8.7%	53

Source: FAA, Passenger Boarding (Enplanements) and All Cargo Data for U.S. Airports
http://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/?year=all

Commercial airports like Bradley International Airport create value by acting as facilitators that provide faster, more convenient and better access to national and international markets and economic centers. This benefits business travel, tourism and transport of high value, low bulk products. It is especially valuable to many of the high tech, medical, research and educational firms and institutions located in Connecticut, but especially those in the I-91 "Knowledge" Corridor.

Connecticut's Maritime Industry

The state's maritime industry shows strong economic potential as Connecticut is one of just 12 states with 3 or more of the 105 largest deepwater ports in the country, each with $100 million or more in annual foreign trade. This resource represents a potential competitive advantage for Connecticut to connect in the global economy.[41]

[39] http://www.ctairports.org/Portals/0/Board_of_Directors_2010-2013_Strategic_Plan.pdf
[40] "The Contribution of Bradley International Airport to Connecticut's Economy," 2005, CT DECD.
[41] http://ctmaritime.com/final_conn_maritime_report_051810.pdf

Major Ports

In 2013, the Port of New Haven ranked 58th and the Port of Bridgeport ranked 119th among the top 150 ports in the nation in terms of tonnage.

Table 2: Tonnage for Connecticut's Ports 2010-2013							
Year	**Port Name**	**Total**	**Domestic**	**Foreign**	**Imports**	**Exports**	**Rank**
2010	Bridgeport, CT	4,535,476	3,254,551	1,280,925	1,280,925	0	79
	New Haven, CT	9,987,285	7,221,889	2,765,396	2,223,797	541,599	51
2011	Bridgeport, CT	2,593,420	2,147,016	446,404	446,404	0	94
	New Haven, CT	8,892,297	6,362,917	2,529,380	2,005,107	524,273	57
	Stamford, CT	675,329	675,329	0	0	0	150
2012	Bridgeport, CT	1,592,634	1,529,252	63,382	63,382	0	120
	New Haven, CT	7,807,423	5,433,989	2,373,434	1,841,019	532,415	58
2013	Bridgeport, CT	1,805,581	1,722,908	82,673	82,673	0	119
	New Haven, CT	8,350,899	5,777,649	2,573,250	2,232,138	341,112	58

Source: US Army Corps of Engineers, Waterborne Statistics

New London is one of the three deepwater ports in Connecticut (in addition to Bridgeport and New Haven). Port of New London is composed of State Pier and Long Dock. It includes warehouses, a garage, and administration building and support structures. There is a privately operated ferry service for passengers and vehicles serving Orient, Long Island.

New London state pier revenue comes from Logistec USA-Connecticut Inc. and Thames River Seafood Co-Op LLC. Table 3 below summarizes revenue from fiscal year 2008 through 2014.[42]

[42] http://www.ct.gov/ecd/lib/ecd/State_Pier_Revenue_Summary_FY_07_thru_14.pdf.

Table 3: New London State Pier Revenue Summary FY 2008- FY 2014

Logistec USA-Connecticut Inc.			
	Remitted to State	**Land Rent**	**Total**
FY 2007-2008	236,906	122,614	359,520
FY 2008-2009	188,131	178,526	366,657
FY 2009-2010	68,581	144,979	213,560
FY 2010-2011	182,283	144,979	327,262
FY 2011-2012	130,378	144,979	275,357
FY 2012-2013	203,560	120,816	324,376
FY 2013-2014	268,773	144,979	413,752
Total	1,278,612	1,001,872	2,280,484
Thames River Seafood Co-Op, LLC			
	Remitted to State	**Land Rent**	**Total**
FY 2007-2008	67,997	4,176	72,173
FY 2008-2009	69,235	4,176	73,411
FY 2009-2010	63,509	4,176	67,685
FY 2010-2011	61,149	4,176	65,325
FY 2011-2012	81,586	4,176	85,762
FY 2012-2013	58,330	4,524	62,854
FY 2013-2014	44,182	3,828	48,010
Total	445,988	29,232	475,220

Source:
http://www.ct.gov/ecd/lib/ecd/State_Pier_Revenue_Summary_FY_07_thru_14.pdf.

On June 16, 2014 Governor Dannel P. Malloy signed Public Act 14-222, An Act Establishing the Connecticut Port Authority, which was passed unanimously by both houses of the General Assembly.[43]

The creation of the Connecticut Port Authority (CPA) represents a major commitment by the Governor and the Assembly to invest in Connecticut's port infrastructure to create jobs and attract private investment to the state. Per the legislation, the CPA's primary role will be to stimulate port and maritime economic development, establish a statewide port marketing strategy, and serve as the lead agency in seeking federal and state funding for infrastructure improvements such as dredging.

Ferries

State ferry operations include Bridgeport-Port Jefferson Ferry, Port of New London Ferries, Cross Sound Ferry, Fox Navigation and Connecticut River Ferries. Through the ferry system, Connecticut's maritime industry can further provide congestion relief and energy efficient transportation options to its residents.

The two historic Connecticut River ferries; one that connects Rocky Hill to Glastonbury and another that connects Chester to Hadlyme, have positive revenue flows. The former operates from May 1st to Oct 31st on an annual budget of approximately $25,000 and annual revenue on average is

[43] http://www.ct.gov/ecd/cwp/view.asp?a=3690&Q=554456&PM=1

$33,600; the latter operates from April 1st to Nov 30th with an annual budget of approximately $48,000 and annual average revenue of $77,732.[44]

Connecticut's Passenger Rail

Connecticut is served by three passenger rail operations:

- The New Haven Line (Metro-North) commuter service operates between New Haven, Connecticut and Grand Central Terminal in New York City with connecting branches to New Canaan, Danbury, and Waterbury. Ridership on the New Haven commuter rail reached a record high in 2014, with 39.6 million passenger trips – a 1.6% increase over 2013. The Metro-North is the busiest rail line in the US.[45]

  The strategic actions of Metro-North are to increase safety; expand high frequency, high capacity, and fast service to and from New York City; and to expand station access through parking, bus, shuttle, bike and pedestrian investments. (See footnote 1, p.32)

- The Shore Line East (SLE) commuter service operates between New Haven and New London with two special SLE express trains that operate west of New Haven to Bridgeport and Stamford. In 2012, SLE totaled 624,172 total passenger trips (see footnote 4, page 9). The future expansion of SLE is to provide full service to New London and New York City (see footnote 1, p.32).

- Amtrak operates approximately 46 trains daily in Connecticut. Amtrak provides intercity passenger rail service on the Northeast Corridor (NEC) between Washington, DC and Boston, Massachusetts. The New Haven-Springfield Line connects New Haven, Hartford, and northern points to Springfield (see footnote 4, page 9).

Rail Freight

Rail freight service in Connecticut is provided by the following railroads: CSX Corporation, Providence & Worcester Railroad Company, Housatonic Railroad Company, Springfield Terminal Railroad, Connecticut Southern Railroad, Branford Steam Railroad, New England Central Railroad, Naugatuck Railroad, Central New England Railroad, and Pan Am Railways.

In 2013, America's railroads moved a ton of freight an average of 473 miles on one gallon fuel. That's like going from Hartford to Pittsburgh. On average, railroads are four times more fuel efficient than trucks. Moving freight by rail instead of truck reduces greenhouse gas emissions by 75 percent. One train can carry as much freight as several hundred trucks. It would have taken approximately 159,000 additional trucks to handle the 2.9 million tons of freight that originated in, terminated in, or moved through Connecticut by rail in 2012.[46]

In 2012, nearly half of all rail carloads originated in Connecticut were waste and scrap. Stone, sand and gravel consisted primarily crushed and broken stone. Slightly more than one-third of rail

[44] State Maritime Office, CTDOT, http://www.ct.gov/dot/cwp/view.asp?a=1386&q=530702
[45] DOT News Release 4-27-2015
[46] The Association of American Railroads, U.S. Freight Railroad Industry Snapshot, www.aar.org

carloads terminated in state consisted of primary metal products, and much of this traffic was steel and rolling mill products in the same year.

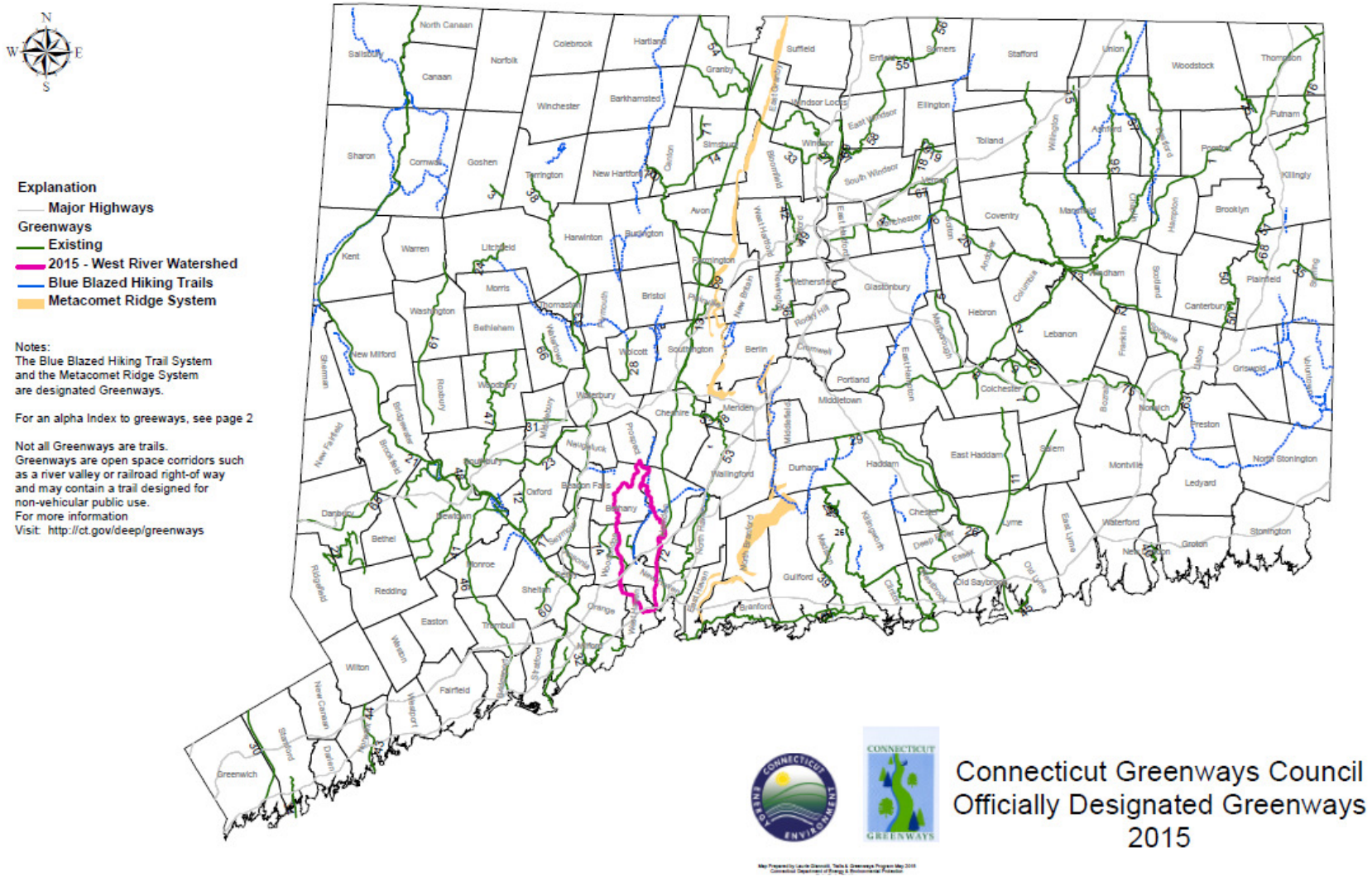
Table 4: Rail Facts, 2012

Operations		US	CT
	Number of freight railroads	575	8
	Freight railroad mileage	38,524	364
Employment and Earnings			
	Number of freight rail employees	181,264	117
	Average wages & benefits per freight rail employee	$109,570	$93,430
Railroad Retirement			
	Number of railroad retirement annuitants age 18+	522,720	2,562
	Railroad retirement benefits paid	$10.7 billion	$53 million
Rail traffic originated			
	Total tons	1.76 billion	1.3 million
	Total carloads	28,678,000	13,400
Rail traffic termination			
	Total tons	1.80 billion	1.3 million
	Total carloads	29,669,000	15,900

Source: Association of American Railroads
https://www.aar.org/

Connecticut's Greenways

A greenway is "a corridor of open space that may protect natural resources, preserve scenic landscapes and historical resources, offer recreational opportunities, and provide a place for people to walk, bicycle and move from place to place."[47] Connecticut is an important piece of the East Coast Greenway initiative, which intends to build a continuous bike path from Florida to Maine. Fourteen segments of the Greenway have been officially designated in Connecticut.


Explanation
Major Highways
Greenways
Existing
2015 - West River Watershed
Blue Blazed Hiking Trails
Metacomet Ridge System
Notes:
The Blue Blazed Hiking Trail System and the Metacomet Ridge System are designated Greenways.
For an alpha Index to greeways, see page 2
Not all Greenways are trails. Greenways are open space corridors such as a river valley or railroad right-of way and may contain a trail designed for non-vehicular public use.
For more information Visit: http://ct.gov/deep/greenways
Connecticut Greenways Council
Officially Designated Greenways
2015

Summary

Transportation systems are critical to the productivity of businesses, the well being of individuals, quality of life issues and the overall health of economies. Citizens are looking for better transportation options to get to work within the major urban areas throughout the state, as well as to areas outside Connecticut. All modes of transportation, including roads, rail, air and water, provide economic and user benefits. Connecticut's economic future is linked to its transportation system.

2. Workforce and Education

This section provides a baseline assessment of demographic, education and workforce trends in Connecticut. The section on demographics provides the latest data on population growth and projections in the state. The education section provides information about the state's educational system, such as achievement, graduation rates, and college matriculation. The final section is an overview of the workforce including characteristics such as income, unemployment, and educational levels achieved.

Demographics

There are several demographic trends with important implications for education and the workforce in Connecticut including the decline in the state's population growth rate, the increased number of non-English speaking immigrants, and the migration patterns of the state's young and educated cohort (for example, the decline in the state's 25- to 44-year old population in recent years[48]). If current trends continue unabated, Connecticut's workforce will be smaller, older, and more diverse in the coming years.

[48] Source: Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico: April 1, 2010 to July 1, 2013, U.S. Census Bureau, Population Division; Release Date: June 2014

Table 5: Ethnicity and Race in Connecticut			
	2014	**2010**	**Percentage Change**
Total Population	3,596,677	3,574,096	0.63%
Hispanic			
Non-Hispanic	3,055,525	3,095,007	-1.28%
Hispanic or Latino	541,152	479,089	12.95%
Race			
White alone	2,919,746	2,950,819	-1.05%
Black alone	413,814	392,131	5.53%
American Indian & Alaskan Native alone	18,443	16,734	10.21%
Asian alone	161,770	140,516	15.13%
Native Hawaiian & Other Pac Islander alone	3,862	3,491	10.63%
Two or more races	79,042	70,405	12.27%

- The U.S. census data in Table 5 above shows the demographic change in the state's population from 2010 to 2014. The state ranked 44th in the U.S. in relative population growth over that time period, and the nation's population growth rate was 3.3%. The significant increase in the Latino and Asian populations in the state suggests that foreign in-migration is largely offsetting domestic out-migration.

- Connecticut is among the nation's 10 oldest states ranking 7th in median age (40.2 in 2013, up from 39.5 in 2010).[49] See U.S. Census data in Table 6. Comparison of Census 2000 and Census 2010 data shows that the state's 65-and-over age cohort increased 7.7% over the decade, but the 15-24 years age group increased by 18%. Nationally, the growth rate in the two age cohorts was 15% and 11%, respectively.[50] The rise in the younger age group is also encouraging given the recent decline in the state's 25-44 years age group (see footnote 17).

[49] U.S. Census Bureau, 2009-2013 5-Year American Community Survey.
[50] U.S. Census Bureau, American Community Survey.

Table 6: Connecticut Population by Age			
Age	**2014**	**2010**	**Percentage Change**
0 to 4	189,437	202,106	-6.3%
5 to 9	210,166	222,571	-5.6%
10 to 14	229,822	240,265	-4.3%
15 to 19	252,271	250,834	0.6%
20 to 24	243,786	227,897	7.0%
25 to 29	221,880	214,145	3.6%
30 to 34	219,432	206,232	6.4%
35 to 39	208,434	222,401	-6.3%
40 to 44	231,012	262,038	-11.8%
45 to 49	262,162	291,272	-10.0%
50 to 54	285,091	284,323	0.3%
55 to 59	268,607	240,157	11.8%
60 to 64	218,654	203,295	7.6%
65 to 69	177,103	149,281	18.6%
70 to 74	127,814	105,664	21.0%
75 to 79	89,549	89,252	0.3%
80 to 84	71,672	77,465	-7.5%
85+	89,785	84,898	5.8%

- According to the Connecticut State Data Center, Connecticut's population will grow from 3.57 million in 2010 to 3.75 million in 2025.[51] The U.S. Census estimates Connecticut to rank 29th among all states in population growth through 2030, based on Census 2000 data (this ranking is not available using Census 2010 data because the Census Bureau no longer performs it).[52]

Education

Connecticut has invested significant resources to make its educational system one of the best in the nation, from early childhood to higher education. Connecticut boasts some of the best educational achievement in the nation: #3 ranking in the country for percentage of employees with advanced degrees (16.6%, just below Massachusetts and Maryland) and 50% more than the national average and 90% high school or beyond; #4 in productivity of employees; #5 for science and engineering doctorates in the workforce; and #7 in patents per 100,000 workers.[53]

Connecticut has 169 municipalities and 145 school districts each associated with a town,[54] which uses property taxes to support public education. Some towns participate in regional school systems;

[51] Connecticut State Data Center at the University of Connecticut Libraries Map and Geographic Information Center - MAGIC. (2012). *2015-2025 Population Projections for Connecticut at State, County, Regional Planning Organization, and Town levels - November 1, 2012 edition*. http://www.ctsdc.uconn.edu/Projections.html.

[52] https://www.census.gov/population/projections/data/state/projectionsagesex.html

[53] *2015 Connecticut Economic Review*, http://ct.gov/ecd/lib/ecd/finalcerc_0100_ct_economicreview_client.pdf.

Connecticut has eight regional districts at the high school level and nine districts in the lower grades (see footnote 23). In addition the state has a system of charter schools, inter-district magnet schools, regional agricultural science centers and technical high schools. The result is a highly decentralized educational system with uneven availability of financial resources.

Early Childhood Education

Many studies indicate that the long-term benefits of investing in early child care and education (ECE) programs far outweigh the costs to society without them. Research shows that high quality early care and education correlate positively with children and young adults who are better prepared for school and are more likely to perform at a higher level throughout their school years. They are more likely as adults to find higher paying jobs and their children are more likely to have better social outcomes (i.e., higher participation rates in civic and cultural life) than are children in corresponding cohorts who did not have high quality child care.[55] Thirty-one percent of Connecticut's 3- and 4-year olds are not enrolled in any Pre-K program, compared to the 40% national rate. Among children living below the poverty line, Connecticut's performance matches the national rate of 53% not enrolled. Governor Malloy has announced several initiatives to increase the quality and quantity of ECE programs in the state, including funding to create additional preschool slots and upgrade preschool classrooms.[56]

In addition to future benefits, the ECE industry immediately contributes to Connecticut's economy in two ways. The industry creates jobs for providers, and it provides a support system that permits parents to participate more fully in the labor force. Therefore, ECE is a valuable investment for the state.

Elementary and Secondary School Achievement

According to U.S. Census data, in FY 2013 Connecticut spent $10,285 per pupil on instruction in elementary and secondary schools, the third highest in the U.S. behind New York and the District of Columbia. The national average was $6,480. Within the state's school districts, the range was from a low of $8,116 in Ellington to $20,227 in Canaan.[57]

Connecticut's high-school graduation rate was 87.0% in 2014[58] and the state performs well on this measure relative to other states. State rankings of various educational measures for 2012-2013 are shown in Table 7 below. Connecticut ranked 15th among all states in graduation rates, and ranked in the top twenty in math proficiency and in the top five in reading proficiency.[59]

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[54] See http://www.csde.state.ct.us/public/csde/reports/wwwDistrict.asp for full list.
[55] Refer to the National Education Association for a list of studies. http://www.nea.org/home/18163.htm
[56] Refer to the CT Office of Early Childhood's press releases: http://www.ct.gov/oec/
[57] *Hartford Courant,* June 2, 2015.
http://www.courant.com/data-desk/hc-in-perpupil-spending-connecticut-ranks-high-20150602-htmlstory.html
[58] CT Dept. of Education, Four-Year Cohort Graduation Data, http://www.sde.ct.gov/sde/cwp/view.asp?a=2758&q=334898
[59] Data source listed with table below.

Table 7: State Rankings of Elementary and Secondary School Performance, 2012-2013

Rank	States	Regulatory Adjusted Cohort Graduation Rate	States	NAEP Math Percent Proficient and Above, Grade 4	States	NAEP Math Percent Proficient and Above, Grade 8	States	NAEP Reading Percent Proficient and Above, Grade 4	States	NAEP Reading Percent Proficient and Above, Grade 8
1	IA	89.7%	MN	59%	MA	55%	MA	47%	MA	48%
2	NE	88.5%	NH	59%	NJ	49%	MD	45%	NJ	46%
3	TX	88.0%	MA	58%	MN	47%	NH	45%	CT	45%
4	WI	88.0%	IN	52%	NH	47%	CT	43%	VT	45%
5	NJ	87.5%	VT	52%	VT	47%	VA	43%	NH	44%
6	ND	87.5%	CO	50%	CO	42%	NJ	42%	MD	42%
7	NH	87.3%	NJ	49%	PA	42%	VT	42%	PA	42%
8	IN	87.0%	IA	48%	WA	42%	CO	41%	WA	42%
9	VT	86.6%	KS	48%	ND	41%	MN	41%	MN	41%
10	ME	86.4%	ND	48%	KS	40%	PA	40%	CO	40%
11	TN	86.3%	OH	48%	ME	40%	WA	40%	MT	40%
12	KY	86.1%	WA	48%	MT	40%	FL	39%	OH	39%
13	KS	85.7%	WY	48%	OH	40%	DE	38%	UT	39%
14	MO	85.7%	ME	47%	WI	40%	IN	38%	ID	38%
15	CT	85.5%	MD	47%	IN	38%	IA	38%	KY	38%
16	PA	85.5%	VA	47%	SD	38%	KS	38%	ME	38%
17	MD	85.0%	WI	47%	TX	38%	RI	38%	WY	38%
18	MA	85.0%	HI	46%	VA	38%	ME	37%	IA	37%
19	AR	84.9%	CT	45%	WY	38%	NE	37%	NE	37%
20	OK	84.8%	MT	45%	CT	37%	NY	37%	OR	37%
21	VA	84.5%	NE	45%	MD	37%	OH	37%	IL	36%
22	MT	84.4%	NC	45%	ID	36%	UT	37%	KS	36%
23	IL	83.2%	PA	44%	IL	36%	WY	37%	MO	36%
24	UT	83.0%	UT	44%	IA	36%	KY	36%	RI	36%
25	SD	82.7%	DE	42%	NE	36%	MO	35%	SD	36%
26	NC	82.5%	RI	42%	NC	36%	MT	35%	VA	36%
27	HI	82.4%	FL	41%	RI	36%	NC	35%	WI	36%
28	OH	82.2%	KY	41%	UT	36%	WI	35%	IN	35%
29	WV	81.4%	TX	41%	OR	34%	GA	34%	NY	35%
30	CA	80.4%	AZ	40%	AK	33%	IL	34%	ND	34%
31	DE	80.4%	ID	40%	DE	33%	ND	34%	DE	33%
32	AL	80.0%	NY	40%	MO	33%	TN	34%	FL	33%
33	MN	79.8%	OR	40%	HI	32%	ID	33%	MI	33%
34	RI	79.7%	SD	40%	NY	32%	OR	33%	NC	33%
35	SC	77.6%	TN	40%	AZ	31%	AR	32%	TN	33%
36	MI	77.0%	AR	39%	FL	31%	SD	32%	GA	32%
37	WY	77.0%	GA	39%	SC	31%	AL	31%	AK	31%
38	CO	76.9%	IL	39%	KY	30%	MI	31%	TX	31%
39	NY	76.8%	MO	39%	MI	30%	HI	30%	AR	30%
40	WA	76.4%	AL	38%	GA	29%	OK	30%	NV	30%
41	FL	75.6%	AK	37%	AR	28%	AZ	28%	CA	29%
42	MS	75.5%	MI	37%	CA	28%	SC	28%	OK	29%
43	AZ	75.1%	OK	36%	NV	28%	TX	28%	SC	29%
44	LA	73.5%	SC	35%	TN	28%	AK	27%	AZ	28%
45	AK	71.8%	WV	35%	OK	25%	CA	27%	HI	28%
46	GA	71.7%	NV	34%	WV	24%	NV	27%	AL	25%
47	NV	70.7%	CA	33%	NM	23%	WV	27%	WV	25%
48	NM	70.3%	NM	31%	LA	21%	DC	23%	LA	24%
49	OR	68.7%	DC	28%	MS	21%	LA	23%	NM	22%
50	DC	62.3%	LA	26%	AL	20%	MS	21%	MS	20%
51	ID	n/a	MS	26%	DC	19%	NM	21%	DC	17%
	US	81.4%	US	41%	US	34%	US	34%	US	34%

Source: National Assessment of Educational Progress; Tabulation from NAEP Data Explorer, 4/17/2010: http://www.nces.ed.gov/nationsreportcard/naepdata/

College Preparation and Higher Education Participation

Connecticut boasts one of the highest levels of academic achievement in the nation, and can be rightly proud of its highly educated workforce. As many as 37% of adults hold a bachelor's degree or beyond, above the 29% for the U.S. as a whole, and 16% of Connecticut adults hold advanced degrees, well beyond the U.S.'s 11% (see Table 8 below).[60] Connecticut is successfully preparing students for college; however it still faces challenges. Overall, 44.7% of the state's public high school senior class of 2014 was academically ready for college, based on SAT performance. However the readiness of black and Hispanic students was considerably lower (13.4% and 19.8%, respectively).[61] Seventy-three percent of the state's Spring 2013 public high school graduates enrolled in higher education within a year[62] compared with 66% nationally.[63]

Table 8: Educational Attainment of the Population 25 years and Over, 2013

	Connecticut	United States
Bachelor's degree	20.40%	18.00%
Graduate or professional degree	16.10%	10.80%
High school graduate or higher	89.20%	86.00%
Bachelor's degree or higher	36.50%	28.80%

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

It is important to note that Connecticut has improved diversity in and accessibility to higher education in recent years. The percent of minority students in Connecticut's institutions of higher education has increased from 21.7% to 31.7% in the last ten years.[64]

Connecticut's educational system needs to provide a workforce with the knowledge/skills needed by local businesses, and has recently begun to address this issue. There have been numerous educational initiatives to develop required skills and properly train workers for careers relevant to Connecticut industries. The number of students graduating with a Bachelor's degree in engineering in 2014 was 856, up almost 27% from 2010. Over the same period Biological sciences were up by

[60] American Community Survey 5-year estimates, 2013, obtained using American FactFinder; http://factfinder.census.gov.
[61] CT Dept. of Education, *The Condition of Education in Connecticut, 2013-2014,* p. 24 http://www.sde.ct.gov/sde/lib/sde/pdf/board/boardmaterials040615/iii_c_receipt_of_the_report_on_the_condition_of_education_2013_14.pdf
[62] See footnote 28, p. 29.
[63] National Center for Education Statistics, 2013. http://nces.ed.gov/programs/coe/indicator_cpa.asp
[64] CT Office of Higher Education, *2014 Connecticut Higher Education System Data and Trends Report,* https://www.ctohe.org/News/pdfs/2015/2014SystemDataTrendsReportRev041315.pdf

37% to 1,272 Bachelor's degrees awarded, Computer Sciences were up by 41% to 271, and Physical Sciences were up by 6% to 323.[65]

Though strides have been made, there is still a need to graduate more students with degrees in areas such as healthcare, finance, pre-engineering, and teaching. Comparing the state's recent graduation data against the CT Department of Labor's employment projections through 2022 shows that the state's production of graduates in certain fields is short of the expected annual openings.[66] The state is investing to address these projected shortcomings and fill the anticipated "skills gap" with programs such as the Manufacturing Innovation Fund Apprenticeship Program and Bioscience Connecticut.

In today's knowledge-based economy, workforce development through educational initiatives will be crucial to the continued economic development of the state. Connecticut has taken strides to improve educational opportunity and accessibility, but the state recognizes that it will lose this investment in education if it fails to retain those graduates and matriculate them into its workforce, and is taking concrete steps to do so.

Teachers

Based on data collected in Fall 2012, the state identified a shortage of teachers in the several areas for the 2013-14 school year, including bilingual education, comprehensive special education, technology education and world languages.[67] The National Commission on Teaching and America's Future reported in 2009 that Connecticut was one of 18 states that may be affected the most by teacher retirements over the next decade because over half of their public school teachers are age 50 and over.[68]

Challenges for Connecticut's Education System

Connecticut has been successful in providing a high quality of education for much of its population, yet, according to the Connecticut Council for Education Reform, Connecticut has the largest achievement gap in the U.S.[69] Our education system needs to accommodate a growing population for whom English is a second language.

Table 9: Language Other Than English Spoken at Home, Connecticut Population 5 Years and Over

	Number	Percent
2000	583,913	18.3%
2012	735,548	21.6%

Source: U.S. Census Bureau, Census 2000 Summary File 3, and 2011-2013 3-Year American Community Survey

[65] CT Office of Higher Education Searchable Database, http://www.ctohe.org/HEWeb/CompletionsCE82Search.asp
[66] CT DOL, http://www1.ctdol.state.ct.us/lmi/ctoccgroups2012.asp
[67] CT State Department of Education, May 2013. http://www.sde.ct.gov/sde/lib/sde/PDF/EvalResearch/databulletinMay2013.pdf.
[68] http://nctaf.org/announcements/nations-schools-facing-largest-teacher-retirement-wave-in-history/
[69] http://ctedreform.org/whats-the-achievement-gap/cts-gap/

The disparity in educational attainment, including the achievement gap and the lower college readiness rates of certain minority groups, has severe implications for future household income and the ability of Connecticut's workforce to satisfy businesses' demand for skilled labor. More than a third (34%) of Connecticut's projected job openings requires post-secondary education, and the difference in average wage for those occupations requiring a bachelor's degree or higher and those only requiring short-term on-the-job training (such as cashiers, retail salespersons and wait-staff) is over $22 per hour.[70] The incentive to pursue higher education is clear, and Connecticut must continue to make investments in education to improve educational opportunity and outcomes.

Workforce

Currently, Connecticut labor markets are recovering after the 2008 recession. Connecticut has now recovered 108,200, or 97.0% of the 111,600 private sector jobs that were lost during the March 2008 - February 2010 employment recession. Connecticut's jobs recovery is now 65 months old and is averaging about 1,569 jobs per month since February 2010. A total of just 3,400 additional private sector positions are needed to have a fully recovered private sector. Overall, Connecticut has now recovered 85.7% of the 119,000 seasonally adjusted total nonfarm jobs that were lost in the state during the same recession.[71]

Connecticut and the nation have witnessed high productivity growth over the last decade as a result of technological advancement, which has raised mean per capita income above the median. One of Connecticut's heralded strengths is its highly productive workforce. Connecticut is ranked 4th in the nation in worker productivity, based on 2013 data.[72] The state's workforce is also characterized by a high level of educational attainment; it is ranked 3rd in the nation in percentage of the adult population which holds an advanced degree, which contributes to its productivity (see footnote 41, page 4).

Workforce Demographics

The state's labor force participation rate and the employment-to-population ratio, once among the highest in the nation, have been falling in recent years. The participation rate, which is the sum of the employed and unemployed as a percent of the working-age population, was 65% in 2013, compared to 69% in 2008. Among the various age groups, the participation rate dropped the most in the younger 16-24 category, while the 55+ year group saw an increase. This suggests that younger people are postponing entry into the labor force while older people are delaying retirement. The prime age (25-54 years) employment-to-population ratio among all ethnic groups have declined from pre-recession levels, with the highest decline for black workers (a decrease of 11%), followed by Hispanic workers (-5.5%) and white workers (-4.5%).[73]

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[70] CT DOL, *Soaring to New Heights, Ct Job Outlook by Training Level, 2006-2016.* http://www1.ctdol.state.ct.us/lmi/images/Soaring%20to%20New%20Heights%202006-16.pdf

[71] *Labor Situation,* August 2015, CT Department of Labor. http://www1.ctdol.state.ct.us/lmi/laborsit.asp

[72] *2015 Connecticut Economic Review,* Eversource Energy and CERC, page 5, http://www.ct.gov/ecd/lib/ecd/finalcerc_0100_ct_economicreview_client.pdf

[73] *The State of Working Connecticut 2014*, Connecticut Voices for Children, September 2014.

Workforce Educational Composition

Connecticut's current labor force is highly educated: of the state population of adults over 25 years, 16.6% hold advanced degrees (Master's, Professional or Doctoral degrees, 3rd in the nation behind Massachusetts and Maryland; the U.S. average is 11.1% - see footnote 41, page 4), and 37% hold bachelor's degrees or higher (the U.S. average is 29%).[74] Eighty-nine percent of the state's adults over 25 have graduated high school, compared to the U.S. average of 86% (see footnote 43 and Table 8 above). High productivity and high educational attainment go hand-in-hand. Connecticut ranks fourth in the U.S. for productivity per person (see footnote 41).

Innovation

Innovation is a key characteristic of the workforce that improves efficiency and maximizes output. Innovation is difficult to measure quantitatively, although we can measure the products of innovation through entrepreneurism, patents, and technology usage data. Connecticut ranks high relative to other states in terms of patents issued (7th), technology usage (9th), and private R&D investment per capita (5th) (see footnote 41).

Summary

A baseline analysis of Connecticut's educational system and workforce reveals enormous strengths in our current state workforce. For Connecticut to retain this strong position, it must address the inequalities in our education system. Although Connecticut maintains its position as one of the richest states in terms of GDP per person, as well as having a highly productive and educated workforce, these inequalities could threaten our future if not addressed. Our comprehensive approach to improved educational outcomes is designed to keep Connecticut at the top of the nation.

3. Availability of Capital

Many Connecticut companies need to raise capital from external investors to launch, grow and prosper. However, small- and medium-sized companies must compete for access to capital for growth. Funds for start-up companies are necessary to ensure the continuation of Connecticut's industries, especially the expanding technology and manufacturing sectors.

Start-ups are important to the U.S. economy. In the second half of the 1990s, businesses with fewer than 100 employees created 75% of all new jobs in the United States.[75] However, it must be noted that some of these new jobs may be service sector firms; not all are technology-driven industrial firms.

Throughout the state's educational institutions, there is a wealth of knowledge and a constant stream of potential innovation; however, researchers are sometimes constrained by a lack of business knowledge pertaining to converting their invention into a commercial product. A number of universities support innovation with tech transfer offices.

[74] U.S. Census Bureau, 2009-2013 5-Year American Community Survey.
[75] Chris Edwards, *Entrepreneurs Creating the New Economy*, ed. Joint Economic Committee Staff Report, 2000.

The state addresses this situation by providing (1) state-supported seed capital funds, (2) expanded angel investor networks, (3) the use of tax incentives and (4) access to technical and business support. Capital could take the form of equity investments, specialized technology facilities loans, and pre-seed proof of concept awards.[76]. Connecticut Innovations Inc. (CI), a quasi-public agency, offers several venture capital and other funding opportunities to start-up firms in various fields, including bioscience, clean tech, information technology and advanced manufacturing.

Venture Capital

Venture Capital (VC) is financial capital that helps young companies transform an idea or prototype into commercial production. An increase in the availability of early-stage venture capital is required to address the make-or-break point in moving research discoveries from concept to commercialization (see footnote 45). It is at this make-or-break point, where patents on new products and processes are completed, but more work is required before commercialization takes place, that capital is often unavailable. Connecticut Innovations helps fills this gap.

Competitiveness

Connecticut needs to stay competitive in order to keep talented entrepreneurs in the state, and stimulate them to create and grow new businesses. To do this, the state tries to attract and incubate new businesses and provide an environment that is conducive to the growth of existing firms.[77] Recognizing this, Connecticut Innovations provides "more than money,"—equity investments but also incubators, co-working spaces, strategic guidance, public relations, marketing and operations support, grants and more. Since 1995, CI has invested more than $275 million in 210 startups, leveraging more than $1 billion in additional funds from co-investors.

Current Access to Capital

Connecticut offers direct financing to growing businesses, but also acts as an intermediary for those looking for capital. Partnering with local nonprofits and angel networks, as well as creating connections to emerging industries, the state is well positioned to facilitate economic growth.

The state offers financing directly through the DECD via the Economic and Manufacturing Assistance Act (MAA), the Small Business Express and other tax credits and incentives. (See the DECD web site at http://www.ct.gov/ecd/site/default.asp for more information on these funds.) The MAA offers incentive-driven direct loans for projects when there is a strong economic development potential.

[76] Connecticut Office for Workforce Competitiveness (OWC), *A Talent-Based Strategy to Keep Connecticut Competitive in the 21st Century*, February 2007, page 11.

[77] Beacon Hill Institute, "Eighth Annual State Competitiveness Report," http://www.beaconhill.org/Compete08/BHIState08-FINAL.pdf.

The state also offers capital through its financing partners:

- CI offers mezzanine debt to growing companies in its portfolio and finances start-up bioscience firms through two specialty funds: the Connecticut Bioscience Innovation Fund and the Regenerative Medicine Research Fund.
- Connecticut Venture Group (CVG) assists the development of high-growth enterprises through the promotion of capital formation.
- Additional financing partners are listed in Section IV below (page 50).

Moreover, there is a network of local and regional revolving loan funds across the state to assist businesses with their financing needs. Along with these loan funds, researchers and existing businesses can turn to local credit markets — community banks and credit unions — for capital funding. Governor Malloy's Small Business Express and Manufacturing Innovation Fund programs have also increased capital availability.[78] Each of these programs has leveraged a significant amount of capital from the private sector as well.

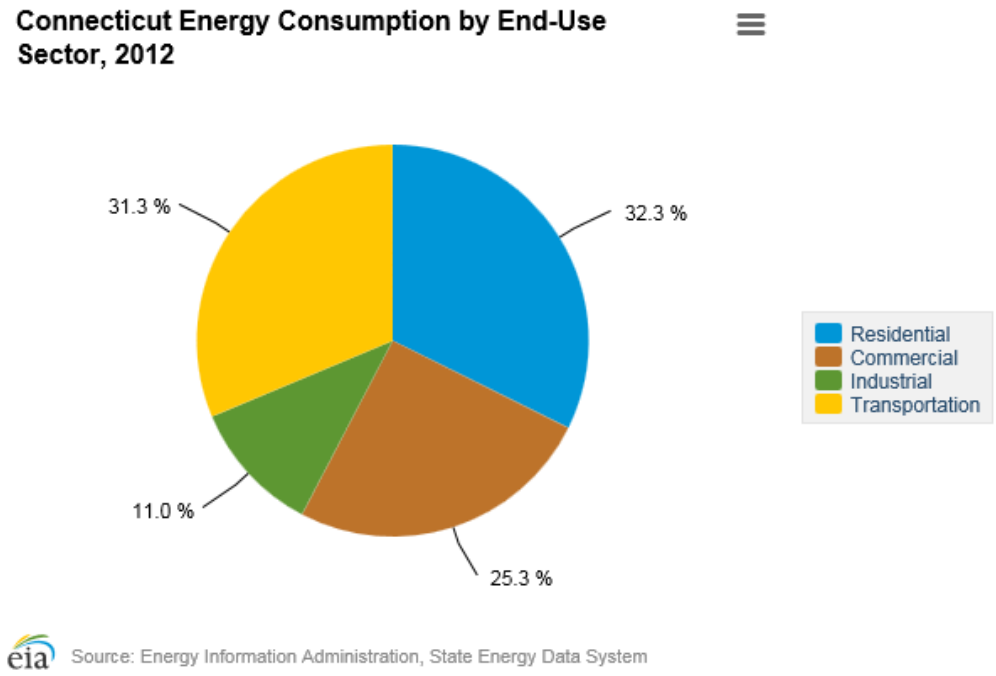
Summary

Start-up businesses in Connecticut need initial financing to blossom while young firms need capital to expand. As Connecticut has a strong technology-based industrial structure, and experiences high energy and labor costs among others, access to capital is more important than ever. The state offers direct and indirect financing opportunities for growing businesses in different disciplines. The state should continue to welcome and aid these new and young businesses as they are proven engines of economic growth.

4. Energy Costs and Supply

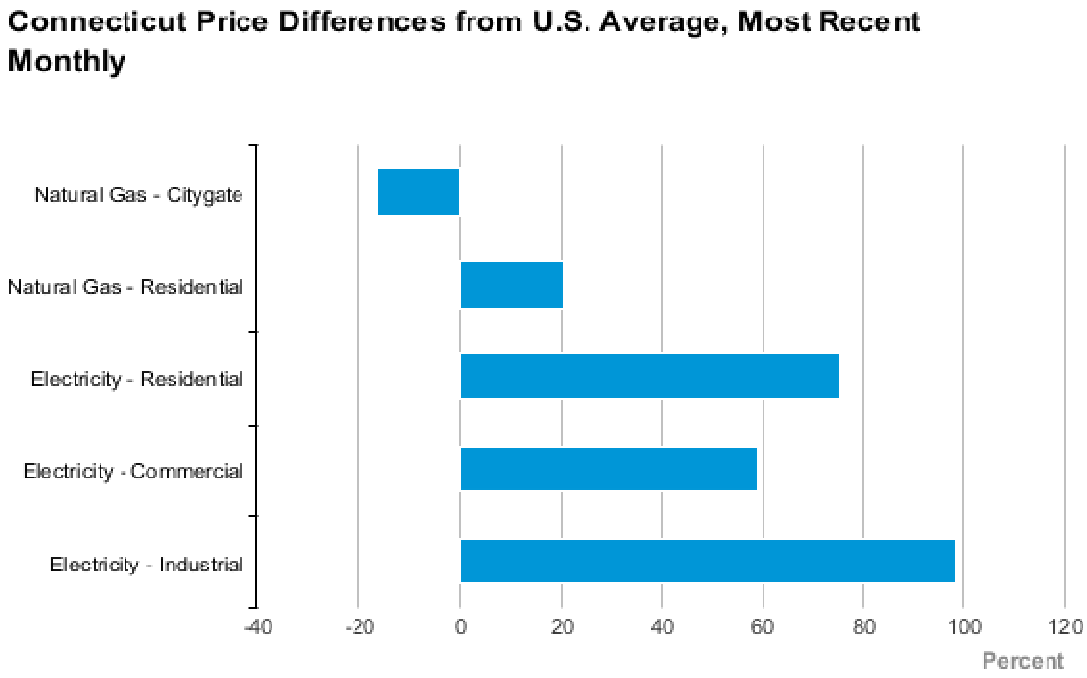
The Energy Information Administration (EIA), in its latest available *State Profile and Energy Estimates for the State of Connecticut,*[79] reports that "nearly half of Connecticut's net electricity generation in 2014 came from the 2,103-megawatt Millstone nuclear station." However, Connecticut also leads New England in committing demand resources (electricity use that can be turned off during periods of peak demand) to the New England grid. Connecticut also ranked third lowest among the states in per capita energy consumption in 2011.

[78] See DECD website (www.decd.org) for more information.
[79] Energy Information Administration, http://www.eia.gov/state/?sid=CT



The state consistently ranks in the lower 50th percentile in consumption (per capita) for each energy subcategory reflecting the state's energy efficient culture. Nevertheless, Connecticut has some of the highest relative energy prices in the nation for motor fuels, heating oil, natural gas, coal, and retail–electricity (see footnote 48). In 2012, Connecticut residents spent $28.25 per million BTU, compared to $21.65 for the nation.[80] The chart below shows the state's price difference from the U.S. average for April 2015.

[80] *FY 2016-2017 Biennium Economic Report of the Governor*, p. 44.



Connecticut's "Comprehensive Energy Strategy" (CES) establishes a clear path toward cheaper, cleaner, and more reliable energy for Connecticut consumers. It focuses on innovative approaches to energy efficiency—cost effective renewable power, smarter building management, and expanded use of low-cost natural gas, among other things.[81]

In April 2015, Gov. Malloy convened, hosted, and chaired the "Northeast Forum on Regional Energy Solutions" in Hartford to discuss strategies for addressing energy infrastructure challenges facing the New England region. The statement released by the Governors of the New England states following the meeting recognized "significant energy system challenges with serious economic consequences," and renewed a joint-commitment to "coordinated action." The New England Governors also released a six-state immediate-term action plan for a cleaner, more reliable and more affordable energy future.[82]

Finally, recognizing that implementation of the CES may take several years, CT has created the new Connecticut Green Bank, the mission of which is to leverage public sector funds with bank and other private capital in order to allow residents and businesses to access lower cost, sustainable sources of energy. Their CPACE program and several residential programs, have led the nation in

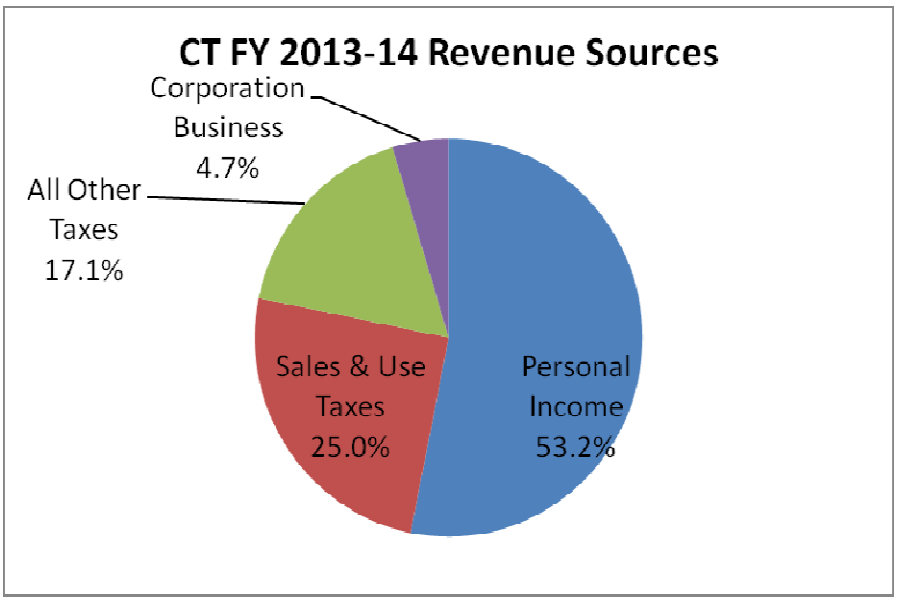
[81] *2013 Comprehensive Energy Strategy for Connecticut,* CT Department of Energy and Environmental Protection, February 2013. http://www.ct.gov/deep/lib/deep/energy/cep/2013_ces_final.pdf

[82] "New England Governors' Statement on Regional Cooperation for Energy Infrastructure," April 23, 2015. http://www.governor.ct.gov/malloy/cwp/view.asp?A=4010&Q=564604 .

providing access to low cost financing to support installation of solar, wind and other forms of energy as well as efficiencies. These programs are detailed at the Green Bank's web site: http://www.ctcleanenergy.com/.

5. Connecticut Taxation

Taxes permit governments to provide goods and services that would otherwise not be provided or provided in sufficient quantity. Taxes that pay for public goods and services are raised from income (a flow of wealth), property (a stock of wealth), consumption (sales of goods and services including conveyances), and inheritances among others. The majority of taxes paid by Connecticut residents fall into three categories: the personal property and real estate tax levied by local town governments, state and federal personal income taxes, and sales and use taxes collected primarily at the state level. Taxes paid by business include the corporation income tax and the insurance premium tax.



Source: CT Department of Revenue, Annual Report, 2013-2014.

Property Taxes

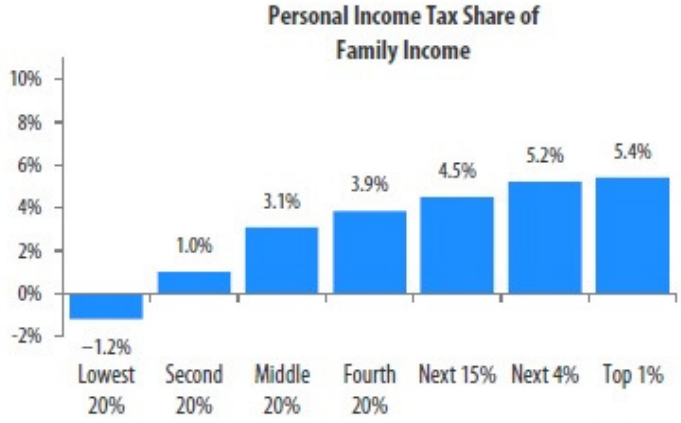
Property taxes vary across Connecticut towns according to the equalized mill rate (EMR) that accounts for the different dates of property revaluation. The EMR represents the most recent grand levy as a fraction of the current, full property value. The EMR for each of Connecticut's towns is available in the Office of Policy and Management's (OPM) *Municipal Fiscal Indicators.*[83] The equalized mill rate, however, does not paint a complete picture of property taxation across Connecticut towns. Measures of "tax capacity" and "tax effort" that are related to EMR using state and local revenues per capita and per $1,000 of personal income can be useful because they offer insight into differences in equalized mill rates across towns and across states.

[83] http://www.ct.gov/opm/cwp/view.asp?a=2984&q=383170&opmNav_GID=1807

Personal Income Tax

Taxes based on personal income include state and federal income taxes, the payroll or social security tax, unemployment insurance and workers' compensation. These taxes are independent of location of residence within Connecticut. The federal and Connecticut personal income tax burdens for a given income are the same no matter where the income is earned assuming it is earned domestically or repatriated. The Connecticut and federal personal income taxes are ostensibly progressive, that is, unless one uses some sort of effective tax planning, the fraction of income paid in tax increases with income. Social security and unemployment insurance taxes are regressive[84] because they take disproportionately larger shares of low incomes than of higher incomes. The Connecticut Department of Revenue Services (DRS) reports that 1.85 million taxpayers paid $8.7 billion in FY 2013-2014, which represents 53.0% of more than $16.4 billion in tax revenue and user fees collected that year by the Department of Revenue Services.[85] Many people think Connecticut's taxes are much higher compared to the rest of the states, but in recent years Connecticut ranks right in the middle of the 50 states. The Institute on Taxation and Economic Policy's (ITEP's) January 2015 report shows that the Connecticut's personal income tax is progressive as the personal income tax share of family income increases with income (first figure below). In comparison, the average rates of overall state and local taxes for all states are shown to be regressive (second figure below).

Connecticut Personal Income Tax Share by Income Group, 2015

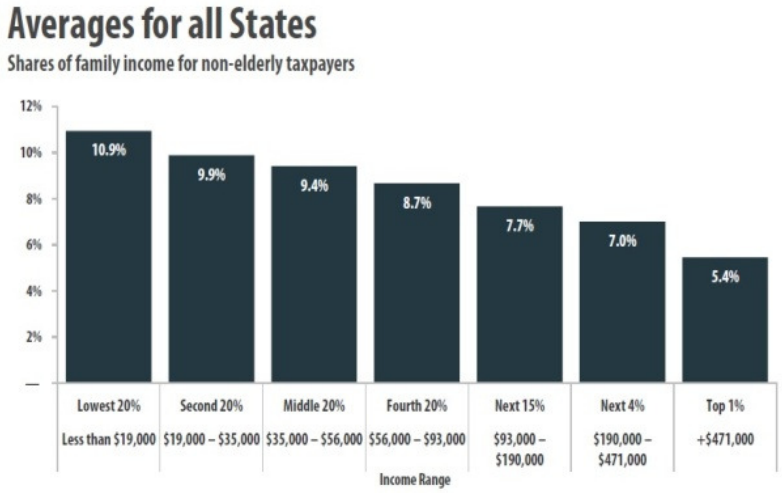


Source: Institute on Taxation and Economic Policy, January 2015, http://www.itep.org/whopays/states/connecticut.php

[84] See Anderson, P.M. and Bruce D. Meyer (2003). "Unemployment Insurance Tax Burdens and Benefits: Funding Family Leave and Reforming the Payroll Tax," NBER Working Paper 10043, http://www.nber.org/papers/w10043.

[85] *Fiscal Year 2013-2014 Annual Report,* CT Department of Revenue Services, page 10. http://www.ct.gov/drs/lib/drs/research/annualreport/drs_fy14_annual_report.pdf

Overall State and Local Tax Rates by Income Group, 2015



Source: *Who Pays? A Distributional Analysis of the Tax Systems in All 50 States,* Institute on Taxation and Economic Policy, January 2015, http://www.itep.org/pdf/whopaysreport.pdf

Sales Tax

Connecticut's 6.35% sales tax is levied on most retail sales and on some services, exempting food, prescription drugs, and non-prescription drugs. The state collected $4.1 billion in sales and use taxes in FY 2013-14, which represents 25.0% of more than $16.4 billion in tax revenue and user fees collected that year by the Department of Revenue Services (see footnote 54).

Business Taxes

The state collected $768.5 million in corporate income tax and $221.7 million in insurance premium taxes from businesses in FY 2013-14. These sums represent 4.7% and 1.4% of more than $16.4 billion in tax revenue and user fees collected that year by the Department of Revenue Services (see footnote 54, page 51).

When discussing Connecticut taxes, one needs to examine business taxes closely because they affect the state's competitive standing and influence firms' decisions to locate or expand in the state. Businesses take several forms: corporations, sole proprietorships, partnerships, S-corporations and limited liability corporations (LLCs), for example. The state's business tax environment upon which location and expansion decisions depend is influenced by several factors. These factors surface in comprehensive studies that evaluate states' business tax climates. This section summarizes key studies' recent findings on Connecticut's business tax climate.

The Tax Foundation Analysis

The Tax Foundation's *2015 State Business Tax Climate Index*[86] ranks each state based on its business climate. The business climate index is composed of five separate indices:

- the corporate tax index
- the individual income tax index
- the sales tax index
- the unemployment insurance tax index
- the property tax index

Each index is based on two sub-indices; the tax rate structure, and the applicable tax base for each type of tax. A number one rank shows that state to be the best among the 50 states' tax systems for each category, and a rank 50 is the worst. Connecticut's place in the overall ranking and in each index is listed below.

- Overall business climate index: #42
- Corporate tax index: #32
- Individual income tax index: #34
- Sales tax index: #31
- Unemployment insurance tax index: #20
- Property tax index: #49

Rankings suggest that Connecticut places in the lower mid-range among the 50 states in terms of factors that influence the Tax Foundation's characterization of the business climate.

The Ernst and Young Analysis

The *Total State and Local Business Taxes: State-by-State Estimates for 2013*[87] report published by Ernst and Young (E&Y) in conjunction with the Council on State Taxation (COST) presents two indicators that evaluate states' business tax burdens. The first is each state's business taxes as a percentage of total state and local taxes. Connecticut's business share of total state and local taxes in FY 2013 was 7.6%. The highest shares were paid by businesses in California (84.3%) and Texas (68.0%).

EY defines the second indicator in this report as "the total effective business tax rate (TEBTR) imposed on business activity by state and local governments". TEBTR is the ratio of state and local business taxes to private sector gross state product (GSP or the total value of a state's production of goods and services by the private sector). The national average TEBTR for FY 2013 was 4.7%; Connecticut's 3.4% TEBTR tied with North Carolina for the second lowest among the states. Tables 10.A and 10.B show the five lowest and highest states, respectively. The lowest business tax share of private sector GSP is Oregon's 3.3%, and the highest, Alaska's was 12.0%. Connecticut's tax burden on business was 27 percent lower than the national average. Total taxes on business in

[86] http://taxfoundation.org/article/2015-state-business-tax-climate-index.

[87] August 2014: available at www.ey.com http://www.ey.com/Publication/vwLUAssets/Total_state_and_local_business_taxes:_50_state_estimates_for_fiscal_year_2008/$File/Total_state_and_local_business_tax_fiscal_year_2008.pdf

Connecticut, as a share of total taxes levied by state and local government, at 28.9 percent, were the lowest in the country — standing at 36 percent below the national average.

Table 10.A: States with lowest business taxes as a share of state, local, and total taxes and private sector GSP, FY2013 ($ billions)

Jurisdiction	State Taxes		Local Taxes		State and Local Taxes		% of GSP
	Business	Total	Business	Total	Business	Total	
Oregon	3.1	10.2	3.1	6.1	6.2	16.3	3.30%
Connecticut	**5.3**	**17**	**2.3**	**9.3**	7.6	**26.3**	**3.40%**
North Carolina	8.8	25	4.8	11.5	13.7	36.5	3.40%
Missouri	3.8	11.8	4.6	9.2	8.5	21	3.50%
Georgia	6.2	18.7	8.1	14.9	14.3	33.6	3.70%

Table 10.B: States with highest business taxes as a share of state, local, and total taxes and private sector GSP, FY2013 ($ billions)

Jurisdiction	State Taxes		Local Taxes		State and Local Taxes		% of GSP
	Business	Total	Business	Total	Business	Total	
New Mexico	3.1	5.4	1.5	2.4	4.6	7.8	6.60%
Wyoming	1.8	2.3	0.8	1.1	2.6	3.4	6.70%
Vermont	1.5	3.0	0.3	0.4	1.8	3.5	7.40%
North Dakota	3.9	5.4	0.8	1.3	4.7	6.7	9.90%
Alaska	5.1	5.3	0.8	1.7	5.9	7.1	12.00%
United States	$366.70	$903.30	$304.10	$591.90	$670.80	$1,495.20	4.70%

Note: Amounts may not sum due to rounding.
*Average of calendar year 2012 and calendar 2013 private-industry GSP. This is the total effective business tax rate (TEBTR) on economic activity occurring within the state.
Note: District of Columbia taxes are treated as state taxes in this analysis.
Source: Ernst & Young LLP estimates based on data from the U.S. Census Bureau, state and local government finances.

Summary

Depending on which study you consider, Connecticut's tax rates are either low or mid-ranked compared to other states. The state's status as one of the highest per capita income in the country, by definition means that in absolute value, residents pay more taxes on average than other states. However, corporate taxes remain relatively competitive with strong tax credit programs that help further reduce the tax burden for targeted industries.

6. Healthcare Delivery and Costs

Affordable Care Act

Since the passage of the ACA which required states to establish insurance exchanges, Connecticut has demonstrated how well even a smaller state can do in implementing health insurance reform through its own exchange. Broad political and industry support for a state-based exchange has

resulted in one of the very best functioning exchanges in the country. Connecticut opted for a conventional exchange and market structure that keeps the individual and small group markets separate, defines small groups as those fifty and under, and has a single statewide exchange selling individual and small group plans through separate web portals. The state's exchange, Access Health CT (AHCT), is a quasi-governmental entity whose governing board is comprised of fourteen members.[88]

As of February 23, 2015, AHCT enrolled 552,603 residents. Of those, 110,095 have enrolled in Qualified Health plans and 442,508 were processed through AHCT into Medicaid. AHCT's goal for its November 15, 2014- February 15, 2015 enrollment period was 70,000 new individuals. This goal was exceeded by over 134,000.[89]

In another sign of the success of AHCT, Connecticut ranks in the top ten states in the reduction of the uninsured post ACA.

States With Largest Reductions in Percentage Uninsured, 2013 vs. 2014

"Do you have health insurance coverage?" (% No)

	% Uninsured, 2013	% Uninsured, 2014	Change in uninsured (pct. pts.)	Medicaid expansion AND state exchange/ partnership in 2014
Arkansas	22.5	11.4	-11.1	Yes
Kentucky	20.4	9.8	-10.6	Yes
Oregon	19.4	11.7	-7.7	Yes
Washington	16.8	10.1	-6.7	Yes
West Virginia	17.6	10.9	-6.7	Yes
California	21.6	15.3	-6.3	Yes
Connecticut	12.3	6.0	-6.3	Yes
Colorado	17.0	11.2	-5.8	Yes
Maryland	12.9	7.8	-5.1	Yes
Montana	20.7	15.8	-4.9	No
New Mexico	20.2	15.3	-4.9	Yes

Gallup-Healthways Well-Being Index

GALLUP

Due to the success of AHCT, the State is considering licensing or franchising the system to other states. Any profits from this venture will help pay for AHCT's continuing operation.[90]

[88] http://www.rockinst.org/aca/states/connecticut/2014-10-Connecticut_Baseline_Report.pdf

[89] http://4155l2gg5ga3d1m572z1uo2qov.wpengine.netdna-cdn.com/wp-content/uploads/2014/11/022315-AHCT-2015-OE-Final-numbers-PR.pdf

[90] http://www.nytimes.com/2014/02/25/us/connecticut-plans-to-market-health-exchange-expertise.html?_r=0

Health Care Delivery Systems

Connecticut's hospitals are a powerful economic force in the state. They employ over 55,000 workers and spend billions on salaries, equipment, food and construction on new or renovated facilities. This initial spending has a ripple down effect that generates jobs and increased spending in related industries. It is estimated that Connecticut's hospitals annually contribute $21.9 billion dollars to the state's economy[91].

For information on the utilization rates of Connecticut Hospitals, please see the Department of Public Health's Statewide Health Care Facilities and Services Plan[92]. Additional information on Connecticut's hospitals can be found on the Connecticut Hospital Association's website.[93]

Overall Health in Connecticut

America's Health Rankings[94] is a composite index of over 20 different metrics that give a annual snapshot of health of a population in each state relative to the other states. In 2014 Connecticut was ranked the 4th healthiest state in the Country. Connecticut's strengths include the low prevalence of smoking, low occupational fatalities and high immunization coverage among children.

The Department of Public Health's *Healthy Connecticut 2020* offers a detailed State health assessment. The study notes that: "Connecticut overall meets most national targets for health and has better health outcomes, compared to many other states, for many indicators, including smoking and obesity prevalence, infectious disease incidence,
teen birth rates, and health insurance coverage. Although statewide statistics indicate an overall healthy profile for Connecticut, these numbers provide a misleading description, as striking health disparities exist by age, sex, race, ethnicity, geography, and socioeconomics, highlighting areas and populations in need."[95]

Health Insurance Coverage and Cost

In Connecticut, 92% of full-time employees are offered health insurance at their place of work, compared to 88.8% nationally.[96] Moreover, 70.7% of part-time workers are offered health care coverage which is comparable to the national average of 71.4%.[97] Overall, 679,058 employees are insured by their place of work in Connecticut; however, this represents less than half of Connecticut's workforce.[98]

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[91] Connecticut Hospitals: Care We Can Count On. *Connecticut Hospitals 2015 Economic Impact Report*. February 2015. http://documents.cthosp.org/9/Economic_Impact%208p.pdf

[92] http://www.ct.gov/dph/lib/dph/ohca/publications/2014/final_2014__facilities_plan_-_2_24_15.pdf

[93] http://www.chime.org/advocacy/connecticut-hospitals-by-the-numbers/

[94] http://www.americashealthrankings.org/CT

[95] Connecticut Department of Public Health. 2014. *Healthy Connecticut 2020. 1: State Health Assessment.* Hartford, CT: Connecticut Department of Public Health.

[96] Agency for Healthcare Research and Quality. *Percent of private-sector full-time employees at establishments that offer health insurance by firm size and State* (Table II.B.3.b), year 2013. http://meps.ahrq.gov/mepsweb/data_stats/quick_tables_results.jsp?component=2&subcomponent=2&year=-1&tableSeries=2&searchText=&SearchMethod=1&Action=Search

[97] Agency for Healthcare Research and Quality. *Percent of private-sector part-time employees at establishments that offer health insurance by firm size and State* (Table II.B.4.b), year 2013. http://meps.ahrq.gov/mepsweb/data_stats/summ_tables/insr/state/series_2/2013/tiib4b.htm

[98] US Bureau of Labor Statistics. "May 2014 Occupational Employment and Wage Estimates," http://www.bls.gov/oes/current/oes_ct.htm#00-0000

Heath Insurance coverage of Connecticut's total population compared to the national rate is shown in the table below.

Table 11: Insurance Coverage Rates[99]							
Location	**Employer**	**Other Private**	**Medicaid**	**Medicare**	**Other Public**	**Un-insured**	**Total**
Connecticut	56%	5%	14%	15%	N/A	9%	100%
United States	48%	6%	16%	15%	2%	13%	100%

Source: The Henry J. Kaiser Family Foundation

Between 2010 and 2014, Connecticut family premiums increased by 22%[100] while average wages rose only 6.0%[101].

Table 12: Family Premiums				
Year	**Connecticut Family Premiums**	**Connecticut Percent Change**	**U.S. Family Premiums**	**U.S. Percent Change**
2010	$14,888		$13,871	
2011	$16,265	9.2%	$15,022	8.3%
2012	$16,891	3.8%	$15,473	3.0%
2013	$16,874	-0.1%	$16,029	3.6%
2014	$18,123	7.4%	$16,655	3.9%

Source: Agency for Healthcare Research and Quality

7. Housing Cost and Availability

Housing and the Economy

Housing is an important driver in the economy both due to its role in providing homes for the regions workforce as well as the jobs that can be generated when new housing is created or older homes are renovated. The role housing construction and maintenance as an economic driver is fairly well understood and recognized. Construction activity is economic activity – goods and materials are produced, sold and purchased and jobs are created – and the largest portion of most people's personal consumption is related to housing.

The National Association of Home Builders (NAHB) estimates that for every 100 single family homes built in a "typical U.S. metropolitan area" $28.7 million in local income and $3.6 million in taxes and other revenue for local governments are generated and 394 local jobs are created. These are "one-year impacts that include both the direct and indirect impact of the construction activity

[99] http://kff.org/other/state-indicator/total-population/?state=CT
[100] Agency for Healthcare Research and Quality, *Average total family premium (in dollars) per enrolled employee at private-sector establishments that offer health insurance by firm size and State*, (Table II.D.1), years 2009-2013. http://meps.ahrq.gov/mepsweb/data_stats/quick_tables_search.jsp?component=2&subcomponent=2&year=2013&tableSeries=-1&tableSubSeries=&searchText=&searchMethod=1
[101] Calculations based on occupational wage data from http://www.bls.gov/oes/tables.htm

itself and the impact of local residents who earn money from the construction activity spending part of it within the local area."[102] These same 100 units will also generate $4.1 million in local income, $1.0 million in taxes and other revenue for local governments, and 69 local jobs annually.

NAHB also estimates that the one-year local impacts of building 100 multifamily units in the "typical U.S. metropolitan area include, $11.7 million in local income, $2.2 million in taxes and other revenue for local governments, and 161 local jobs". These same 100 units will also generate "$2.6 million in local income, $503,000 in taxes and other revenue for local governments, and 44 local jobs." (see footnote 71)

As illustrated above, housing contributes to economic output in two ways: 1) new construction, remodeling and real estate transaction fees; and 2) personal consumption of housing-related goods and services (e.g. furniture, appliances, house cleaning, lawn care).

Housing Cost

Housing affordability is generally defined as paying no more than 30 percent of household income for housing costs, including mortgages, property taxes and insurance. According to a National Low Income Housing Coalition report[103] in 2015, the Fair Market Rent (FMR) in Connecticut for a two-bedroom apartment is $1,263. In order to afford this level of rent and utilities – without paying more than 30 percent of income on housing, a household must earn $4,210 a month or $50,515 annually. Assuming a 40-hour work week, 52 weeks per year, this level of income translates into a housing hourly wage rate of $24.29. The average renter wage in Connecticut is $16.16/hour.

Nationally, Connecticut ranks 6th in monthly median housing costs (rental and homeowner) at $1,337 per month, and 8th in median home values at $267,000.

Housing Availability

According to a study by the Partnership for Strong Communities: ". . . demand for multifamily housing, nationally and locally, continued its climb, with increased interest in smaller, denser, more affordable, energy-efficient homes within walking distance to services and, if possible, close to mass transit. . . Nationwide, the Mortgage Bankers Association reported that multifamily lending rose a startling 18% in 2013 over 2012, reflecting enormous demand."[104] Connecticut's per capita rate of housing production increased over the last two years but still ranked 50th for the last decade.

In response to this increased demand, the Department of Housing has ramped up its affordable housing production efforts. In 2011 only 100 affordable units were completed, whereas 3,498 affordable units were completed from 2012 through the first quarter of 2015. DOH has another 2,987 affordable units under construction.

Table 13.1 shows the communities with the fastest growing housing stock between 2010 and 2014. Chester showed the largest increase. Conversely, Table 13.2 shows the ten communities with the slowest growing housing stock over this same period. An additional nine towns experienced a net loss of housing stock.

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[102] The Economic Impact of Home Building in a Typical Local Area Income, Jobs and Taxes Generated, April 2015 http://www.nahb.org/~/media/Sites/NAHB/LMA/FileUploads/35601-1-REPORT_local_20150318115955.ashx?la=en

[103] National Low Income Housing Coalition, *Out of Reach 2015*

[104] http://pschousing.org/files/PSC_HousingInCT2014_Final.pdf

Table 13.1: 10 Towns/Cities With Fastest Growing Housing Stock, 2010-14			
Place/Town	**2010**	**2014**	**Percent Change**
Connecticut	1,487,891	1,501,746	.93%
Chester	1,923	2,032	5.67%
East Lyme	8,458	8,892	5.13%
Simsbury	9,123	9,510	4.24%
Ellington	6,665	6,933	4.02%
Stamford	50,573	52,429	3.67%
Danbury	31,154	32,223	3.43%
Prospect	3,474	3,588	3.28%
Shelton	16,146	16,636	3.03%
Bethel	7,310	7,530	3.01%
Somers	3,479	3,580	2.90%
Source: DOH			

Table 13.2: 10 Towns/Cities With Slowest Growing Housing Stock, 2010-14			
Place/Town	**2010**	**2014**	**Percent Change**
Trumbull	13,157	13,175	0.14%
Derby	5,849	5,857	0.14%
Meriden	25,892	25,916	0.09%
Hamden	25,114	25,134	0.08%
Ansonia	8,148	8,154	0.07%
Torrington	16,761	16,771	0.06%
Lebanon	3,125	3,125	0.00%
North Canaan	1,587	1,587	0.00%
Redding	3,811	3,811	0.00%
Woodbridge	3,478	3,478	0.00%
Source: CT Department of Housing			

For more information on the State's plan to address its housing needs please see the DOH's website for important publications such as the *State Long Range Housing Plan* and the *5-Yr Consolidated Plan for Housing and Community Development*.[105]

8. Land Use in Connecticut

Land use is crucial to economic development and transportation is crucial to land use. The critical linkage among the three necessitates a thorough understanding of the principles of growth management such that proceeding from where we are protects and sustains our vital water, land and natural resources and is supported to the extent possible by the established infrastructure.

[105]CT Department of Housing, Policy and Research Publications, http://www.ct.gov/doh/cwp/view.asp?a=4513&q=530462

Connecticut's *2013-2018 Plan of Conservation and Development*[106] is an important contribution to the understanding of the status quo and contains a comprehensive set of policies for sustaining and improving our quality of life with rational use of our land and sound economic and transportation development.

Transit-Oriented Development

State investments in public transportation equipment and operations are even more cost-effective when supportive land use planning and design is deployed. Transit-oriented land use is a process whereby communities plan and zone for intensive, mixed-use development in close proximity to transit stations or along transit corridors where physical infrastructure is typically already in place. A wide variety of transportation options, including train, bus, car, bicycle and walking should be integrated into the area's design in order to provide travel choices and improve the overall effectiveness of the transit system for all its users.

Connecticut communities that currently have stations along the New Haven Line and its branches and the Shoreline East commuter rail line, the Connecticut Fast Track and the to-be-built New Haven to Springfield train line have the greatest potential for transit-supportive land use.

Open Space

The state has an overall goal is to preserve 21% of Connecticut's land as open space by the year 2023, a total of 673,210 acres. The initiative includes 10% of open space to be state owned as additions to the state's system of parks, forests, wildlife, fisheries and natural resource management areas, with the remaining 11% owned by municipalities, private nonprofit land conservation organizations, water companies and the federal government. As of December 2013 DEEP and its partners hold 496,191 acres or close 15% of Connecticut's land area, representing 73% of the goal.[107]

9. Brownfields

Vacant and underutilized mills and industrial/commercial properties are a significant land use issue for all Connecticut towns. Brownfields potentially worsen the economic and social blight already experienced in these areas, and are contrary to the state's responsible growth strategies. There are several factors through which brownfields negatively affect local economies:

- Decrease neighboring property values;
- Create a disincentive for investment in the surrounding area;
- Create significant opportunity costs in terms of jobs and tax revenue;
- Contribute to sprawl as new business opportunities seek to develop raw land in lieu of reusing former commercial and industrial sites; and
- Are a source of contamination to ground water and soil.

[106] *Conservation and Development Policies: The Plan for Connecticut, 2013-2018,* CT Office of Policy and Management, http://www.ct.gov/opm/lib/opm/igp/org/cdupdate/2013-2018_cd_plan.pdf

[107] http://www.ct.gov/deep/lib/deep/open_space/Green_Plan_Info_Summary.pdf

Connecticut's Response to Brownfield Issues

DECD's Office of Brownfield Remediation and Development directs and manages DECD's investments to recover properties suffering blight due to contamination, in partnership with Connecticut's DEEP to help guide growth strategies moving forward. Connecticut has several financial programs to promote brownfield redevelopment as well as general-purpose programs for development and business assistance.

Brownfield remediation is an important element of economic development and in implementing the state's responsible growth strategies. It allows communities to revitalize their inventory of developed land as job generators, housing, community facilities and open space.

10. Business Regulation

In October 2013, Gov. Malloy signed an Executive Order (EO) aimed at streamlining state regulations. EO No. 37 invited public comment on all state regulations more than four years old, asking for the public's help in identifying regulations that are obsolete, duplicative, excessively burdensome, or otherwise ineffective or unnecessary. The EO also established principles of smart, cost-effective, accessible and transparent regulations for future agency endeavors.[108] In addition, under Governor Malloy's direction, state agencies have been looking to find efficiencies under the philosophy known as LEAN.

Reducing Regulation

On June 11, 2014, nearly 1,000 pages of obsolete, duplicative, or ineffective state regulations were eliminated as a consequence of a new legislation signed by Gov. Malloy. The Governor had proposed in 2012 that all regulations be made available online. With the passage and signing of Public Act 14-187, *An Act Eliminating Unnecessary Government Regulation*, all state regulations are now online at www.ct.gov/eregulations. The new legislation affects regulations contained within the Department of Labor, the Department of Administrative Services, the Department of Energy & Environmental Protection, and other regulations have since been repealed.

Some examples of regulations that were eliminated include:

- An outdated and discriminatory Department of Labor regulation of unknown age that prohibits women from working alone between the hours of 1:00 a.m. and 6:00 a.m.
- Several outdated and conflicting regulations contained within the Department of Administrative Services that have been unnecessary since the adoption of the state building code in the late 1980s
- A regulation regarding the grading of Connecticut-grown apples that duplicates USDA regulations and has never been used
- Multiple Department of Economic & Community Development regulations dealing with programs repealed by the legislature many years ago, some as far back as the late 1980s

[108] Press Release: "GOV. MALLOY: REGULATORY REVIEW AT STATE AGENCIES WILL INCREASE TRANSPARENCY AND PROVIDE GREATER OPPORTUNITIES FOR ECONOMIC GROWTH," October 16, 2013

- A Department of Energy & Environmental Protection regulation setting forth detailed standards on the use of a pesticide that has not been used in Connecticut since the late 1970s and is otherwise regulated by the department's more up-to-date pesticide regulations
- Dozens of other regulations pertaining to statutes that have long since been repealed.[109]

Permit Ombudsman

The Office of the Permit Ombudsman, located within the Department of Economic and Community Development, expedites the regulatory state agency approvals for qualifying economic development projects. The office acts as a facilitator between state regulatory agencies and businesses to prioritize projects through regulatory approvals and resolve permitting issues.

LeanCT

Reducing the steps or processes required of businesses to obtain permits and licenses can improve the regulatory climate. In this regard the "LeanCT" initiative has attempted to create a more "business friendly" environment. The Office of Policy and Management coordinates the effort and performs the following functions:

1. Works with agencies to provide and/or identify resources for the deployment of process improvement efforts, as well as foster internal capacity within agencies to undertake this work;
2. Works with agencies to promote an organizational culture that stimulates employee creativity and problem-solving skills to make real and lasting changes;
3. Coordinates efforts to maximize efficiency initiatives through the use of technology;
4. Assists in developing partnerships with private and non-profit sectors to glean information on best practices and improve the way Connecticut does business;
5. Collects data and report on agency process improvement projects, including information on completed and proposed projects, improvement outcomes and process participants;
6. Report on the progress of the implementation of the state's process improvement efforts and take other actions as are appropriate to this critical effort.[110]

A full report on lean activity and achievements by agency is available. See "Continuous Improvement in Connecticut State Government: A Focus on Lean," by the Office of Policy and Management.[111]

11. Social Services

In addition to providing a variety of support services to individuals and families, Connecticut state agencies administer programs to encourage individuals to join the workforce. For example, The Bureau of Education and services for the Blind (BESBE), within the Department of Rehabilitation Services, provides vocational services to individuals of all ages who are legally blind. The primary

[109] Press Release: "GOV. MALLOY SIGNS LEGISLATION ELIMINATING NEARLY 1,000 PAGES OF STATE REGULATIONS," June 11, 2014.
[110] http://www.ct.gov/opm/cwp/view.asp?a=4595&q=538306&opmNav_GID=2162
[111] http://www.ct.gov/opm/lib/opm/CT_Lean_Government_Report_2014_-_Final.pdf

goal of the Vocational Rehabilitation Division is to help legally blind adults obtain independence through employment. Some of the vocational services BESB provides include:

- Job-retention services enabling people to remain competitively employed;
- Assistive Technology allowing individuals to function better on the job; and
- Counseling services that help job seekers make informed vocational decisions.

DMHAS also provides employment services to persons in recovery who experience behavioral health Conditions. From the recovery perspective, meaningful employment has been shown to promote recovery from psychiatric and addiction disorders and to facilitate improvements in diverse domains from symptom relief to successful community integration. Currently, DMHAS funds 34 agencies across Connecticut to provide a broad menu of employment and education services. While employment strategies must be tailored to meet individual needs, agencies generally offer a range of services including career planning, job search assistance, job placement, on- and off-the-job coaching, and career advancement services. Over 4,000 residents per year are assisted in finding and keeping employment through the DMHAS system.

The Offender Reentry Unit within DOC has six job centers located at correctional institutions throughout the state. Job Center counselors provide assistance with resume writing, job interviewing skills and job search before offenders leave incarceration.

The following table shows the FY 2015 budget for each agency that administers social service programs. Please see the agency websites and OPM budget summary for more details.

Table 14: Social Service Provider Budgets

Agency	FY 2015 Budget[112]
Department of Social Services	$3,015,896,484
Department of Developmental Services	$1,098,710,095
Department of Children and Families	$815,802,325
Department of Corrections	$684,878,383
Department of Mental Health and Addiction Services	$614,457,068
Department of Housing	$84,398,909
Veteran's Affairs	$29,652,729
Department of Rehabilitation Services	$25,612,333

Source: State of Connecticut Office of Policy and Management

It is important to mention that Connecticut has a vast network of private and not-for-profit organizations that provide social services to the state's residents. Many non-governmental organizations are assisting to promote welfare for all of Connecticut.

12. Emergency Preparedness

Connecticut is engaged in the national effort prevent terrorist attacks within the state and nation as well as plan for natural disaster recovery. This is accomplished by four overarching goals:

[112] http://www.ct.gov/opm/lib/opm/budget/2015midterm/budget/3.section_b_final.pdf

prevention, preparedness, response and recovery.[113] Connecticut has always had a multi-hazard approach to emergency planning, including natural disasters and terrorism. This means the state has plans in place to cover all types of disasters.

The Division of Emergency Management and Homeland Security (DEMHS), within the Department of Emergency Services and Public Protections (DESPP), is charged with developing, administering, and coordinating a comprehensive and integrated statewide emergency management and homeland security program that encompasses all human-made and natural hazards, and includes prevention, mitigation, preparedness, response, and recovery components to ensure the safety and well-being of the citizens of Connecticut. The duties of DEMHS, within the DESPP are outlined in Connecticut General Statutes Title 28.

Connecticut's Emergency Response Planning

DEMHS is leading a number of multi-agency task forces charged by Governor Malloy with preparing state government plans to deal with terrorism. Each plan is compliant with the National Incident Management System (NIMS) and supportive of both state and national strategies.

DEMHS has divided the state into five emergency planning regions and is organizing planning teams in each region to develop Regional Emergency Response Plans. This effort is being spearheaded by the DEMHS regional offices and the regional planning organizations. Many local agencies are assisting in the process as well. Additionally, DEMHS is working with local agencies to establish, equip, and train five regional response teams capable of responding to any type of terrorist incident.

The agency's *State Response Framework*[114] describes the interaction of state government with local, federal and tribal governments, nongovernmental response organizations and other private sector partners, the media, and the public in implementing emergency response and recovery functions in times of crisis. In general, the Framework describes how the State of Connecticut and its partners will work together to support local governments and their residents to manage emergencies in the State of Connecticut.

The state engages all departments and municipalities in the plan including regular testing of communication systems and backup plans.

Critical Assets Identification

DEMHS has made protection of Connecticut's critical assets a top priority of the state's Homeland Security Initiative against terrorism. DEMHS has been working with its government and private sector partners to evaluate these sites and develop plans of actions to increase security at each asset. These critical assets include infrastructure (dams, power plants, etc.), locations, or events where large groups of people gather, and symbols of power, such as the Capitol. DEMHS offers these

[113] Connecticut Department of Emergency Management and Homeland Security: Overview. <http://www.ct.gov/demhs/cwp/view.asp?a=1939&q=308364&demhsNav=|> Accessed April 30, 2015.
[114] *State Response Framework, Version 4.1, September 2014,* CT Department of Emergency Management and Homeland Security, http://www.ct.gov/demhs/lib/demhs/srf_v_4_1.pdf

critical assets review to government and private sectors at no charge. A specially trained group of state troopers assigned to DEMHS conducts the assessments.

Connecticut Intelligence Center
This multi-agency center is located at the FBI's Connecticut office. The center includes federal, state and local law enforcement personnel working side by side to develop leads and solve cases. The center is connected to every local law enforcement agency by specially trained intelligence liaison officers who report to regional intelligence officers to report to and work at the Connecticut Intelligence Center (CTIC). The CTIC produces weekly intelligence bulletins that are distributed electronically to law enforcement and others (like fire chiefs, fire marshals, emergency managers and health directors) who work in the field and may come upon important information.

Standardized Incident Response
Connecticut is prepared to respond to any incident, including terrorism, using the NIMS. Training is being provided by FEMA personnel to all emergency responders in the state to standardize the system, manage incidents and will enable all Emergency First Responders to function in a multi-discipline and multi-jurisdictional response and better coordinate their efforts through a seamless integration of resources. To further this goal all equipment purchased and distributed to first responders has been standardized to ensure compatibility.

Working with Local Government Partners
The backbone of Connecticut's Homeland Security program rests with the Coordinating Council. This council has representatives from over 25 difference agencies, both state and local. The council meets monthly and provides the guidance to DEMHS on developing its statewide strategy and funding distribution models.

State Emergency Operations Center
The Emergency Operations Center is the managing arm over Connecticut's deployment of regional emergency first response teams, and would activate the responders if a terrorist event occurred. It can be activated and operational at a moment's notice.

13. Technology Transfer

Technology transfer refers to the formal licensing of technology to third parties, under the guidance of professionals employed by universities, research foundations and businesses, in departments focused on these activities.[115] Through technology incubator programs and research parks, universities are now at the forefront of development of patents and new technologies in Connecticut. Working directly with researchers, university programs, along with community colleges and local non-profits with an interest in entrepreneurial and workforce development, have helped Connecticut rank in the top 10 states in the United States under the latest State Technology and Science Index.[116]

[115] Yale University, Office of Cooperative Research. "Technology Transfer Overview," http://ocr.yale.edu/faculty/frequently-asked-questions
[116] http://statetechandscience.org/statetech.taf?page=state&state=CT

Tech Transfer in Connecticut Universities

Connecticut has impressive science and technology resources that include Yale University and the University of Connecticut (UConn), as well as major research corporations, strong financial and insurance companies, and manufacturing industries. The infrastructure is in place for development and fruition of new inventions, but it could be better. The state would benefit from additional, early-stage seeding, as well as the commercialization services surrounding the universities, relative to comparable states.

At Yale, the Office of Cooperative Research (OCR) handles the process from invention to production for eager researchers. The duties of OCR include oversight for patenting and licensing activities, university inventions, and contractual relationships between faculty and industry. OCR staff work with Yale researchers to identify inventions that may ultimately become commercial products and services useful to the public. OCR staff engage in industrial partnerships to license Yale inventions. An important goal of the Yale OCR is to identify new ideas, cultivate venture funding for them, and facilitate their development into companies that become part of the New Haven economy.[117]

At UConn, Technology Commercialization Services (TCS) under the Office of the Vice President for Research manages the commercial applications of the discoveries, inventions and technologies developed at the university. Each year the group receives and evaluates about 70 new invention disclosures, files approximately 30 new U.S. patent applications and signs nearly 15 new commercial agreements. TCS will assess an invention for its commercial potential by evaluating its technical strength, market potential, patentability and strength as if issued as a patent. Once the evaluation is completed, TCS will work with potential partners to license the technology. With UConn backing its own faculty and student researchers, the university sets a good example for the rest of the state — that promising ideas and proper promotion can lead to exposure and marketability of new inventions. These inventions could fuel the next great industry for the state. [118]

Successful tech transfer programs across the country have the following in common: strong and focused university research base, angel and early-stage capital, innovation centers, academic leadership and culture, entrepreneurship programs, technology incubator programs and research parks, and long-term development.[119] Connecticut's universities are producing new technologies every year, and financing these developments can only strengthen the state's blossoming high-tech industries.

[117] Yale University, Office of Cooperative Research, "About Yale OCR," http://www.yale.edu/ocr/about/index.html
[118] http://research.uconn.edu/technology-commercialization/commercialization-support/
[119] Innovation Associates. "A Report to the Connecticut Technology Transfer and Commercialization Advisory Board of the Governor's Competitiveness Council," October 2004.

II. Connecticut Enterprise Zones

The goal of the EZ Program includes, but is not limited to, increasing private investment, expanding the tax base and fostering job creation for residents. The program also reduces property abandonment and housing blight in these zones. Measures of performance include:

- Number of companies certified;
- Number of jobs created by industry and by town; and
- Square footage leased, purchased, expanded or renovated.

For the period November 1, 2013, to October 31, 2014 (local tax cycle), DECD certified 45 companies for EZ-related incentive benefits. Another 65 pre-applications were received and reviewed in anticipation of certifications in 2015. The gross floor space of all the projects certified in 2014 was 1,068,061 square feet. In addition 1,216 jobs were retained and 544 new positions were projected by certified businesses.

The State spends approximately $8.4 million each year to reimburse participating towns 50% of the tax abatement received by eligible businesses in the Enterprise Zone. The Enterprise Zone program offers a low cost-per job compared to DECD's loan and grant portfolio. The average Enterprise Zone cost-per-job for 2014 was $4,772 whereas DECD's dollar cost per job based on actual Job audit results for its loan and grant recipients was $11,185 in FY 2015.

The following tables provide details on Connecticut's EZ Program activity in FY 2014, (the most recent data available).

Table 15: FY 2014 Statistical Summary

	Area (in ft^2)	Existing Jobs	Projected Jobs	Total Jobs
Construction	101,425	618	0	618
Expansion	6,400	67	2	69
Leased Property	960,236	531	542	1,073
TOTAL	**1,068,061**	**1,216**	**544**	**1,760**

Source: DECD, OBD

The most active municipalities were the cities of Bridgeport and Waterbury. These represent 505,498 square feet of space and 358 new jobs in these distressed communities.

Table 16: Certifications by Municipality and by Program Code Key	
EZ	Enterprise Zone
UJ	Urban Jobs program
ECZ	Enterprise Corridor Zone
DPZ	Defense Plant Zone
RDZ	Railroad Depot Zone
ED	Entertainment District
CMZ	Contiguous Manufacturing Zone

Source: DECD, OBD

Table 17: FY 2014 Certifications by Municipalities and by Program							
Location	**EZ**	**UJ**	**ECZ**	**DPZ**	**RDZ**	**ED**	**CMZ**
Beacon Falls			1				
Bridgeport	13	1				1	
Bristol		2					
Cheshire							
East Hartford					4		
Hamden		1					
Hartford	1						
Killingly			1				
Meriden							
Naugatuck			1				
New Britain	1	4					
New Haven							
Norwalk							
Putnam			1				
Plainville							1
Southington							
Stamford	3						
Seymour							
Torrington			1				
Waterbury	6	2					
TOTAL = 45	**24**	**10**	**5**		**4**	**1**	**1**

Source: DECD, OBD

III. Development Research and Economic Assistance Matching Grant Program

DECD has provided CI with up to $137,902 within available appropriations to be used to provide matching grant funding to companies and projects that have federally supported technology through Small Business Innovation Research (SBIR), Small Business Technology Transfer (STTR) or other projects. There have been three companies funded through the DREAM program appropriation.

IV. A Review of the State's Economic, Community and Housing Development Structure

CT Department of Economic and Community Development (DECD)

- DECD is the lead agency for economic & community development and implements strategies to increase the state's economic competitiveness, business recruitment, arts, culture, and tourism.
- Recurring operating expenses - $27,881,158 (2013-14) (includes $8,804.873 of line items for individual not-for-profit organizations)
- Business and Industry Development
- Brownfield Remediation (Funding assistance, liability relief)
- Lead facilitator and strategic catalyst of international trade and export promotion activity within the state with U.S. DOC Export Assistance Center
- Partners with federal Small Business Administration (SBA) and Small Business Development Center - Connecticut (SBDC)
- Arts, Historic Preservation, Culture, and Tourism
- Connecticut Office of Film, Television, and Digital Media
- Manufacturing Innovation Fund (MIF) with CCAT and DOL
- Provides grants, loans, financial assistance for each of these program areas (e.g. MAA, URA, MIF, JET, "First Five/Next Five," EXP, arts grants, brownfield loans and grants, arts and historic preservation grants)
- Economic research (REMI, EIAs, studies) and other administrative functions

CT Department of Housing (DOH)

- DOH is the lead agency to strengthen and revitalize communities by promoting affordable housing, seeks to eliminate homelessness, catalyze creation and preservation of quality, affordable housing to meet the needs of all individuals and families to ensure Connecticut continues to be a great place to live and work.
- Recurring operating expenses - $5,513,421 (2013-14)
- Housing Development
- Individual & Family Support
- Community Development
- Policy, Research & Housing programs
- CDBG-DR Super Storm "Sandy"
- Very low, low, and moderate income housing support

CT Innovations (CI)

- CI is the leading source of financing and ongoing support for Connecticut's innovative, growing companies. Offers flexible financing, strategic guidance and introductions to valuable partners that enables promising businesses to thrive.
- Assets of $241 million (12/31/14). Leverages federal and private sources of capital (e.g. SBI).
- Venture capital
- Loans
- Support for Innovation programs through CT Next
- Industrial Revenue Bonds (IRBs)/Specialty Finance

- Partners with venture capitalists (VCs) such as Greycroft, Canaan Partners, Level Equity, Charles River Ventures, Rho Ventures, Goldman Sachs, etc.
- Collaborates with CT's banks.
- Bioscience Innovation Fund

CT Housing Finance Authority (CHFA)

- CHFA provides financing for the acquisition, construction, and/or rehabilitation of affordable rental housing for families and the elderly across Connecticut. Helps alleviate the shortage of affordable housing for low- and moderate-income families and persons in Connecticut.
- CHFA has helped more than 130,000 families and individuals achieve home ownership.
- Combined mortgage financing for CHFA's single- and multifamily housing programs exceeds $11 billion.
- Foreclosure prevention
- Rental housing
- Partners with developers, communities, state agencies & non-profits in creating innovative, affordable housing
- Launched the Connecticut Fair Alternative Mortgage Lending Initiative and Education Services Program (CTFAMLIES) and revamped the Emergency Mortgage Assistance Program (EMAP) for families in financial distress.

CT Economic Resource Center (CERC)

- Nonprofit 501(c)3 corporation and public-private partnership that provides economic development services consistent with state strategies, leveraging Connecticut's unique advantages as a premier business location. Provides research, marketing, and economic development services.
- CT's Business Response Center (BRC)
- CERC SiteFinder® and CERC Program Finder®
- CERC Town Profiles

Regional Councils of Governments (RCOGs) in Connecticut

- Connecticut's planning regions provide a geographic framework within which municipalities can jointly address common interests, and coordinate such interests with state plans and programs. State statutes authorize the secretary of the Office of Policy and Management (OPM) to designate or re-designate the boundaries of logical planning regions, whereas the member municipalities of each planning region are authorized under separate state statutes to establish a formal governance structure known as a regional council of governments (RCOG).
- Capitol Region Council of Governments, Hartford
- Greater Bridgeport Regional Council, Bridgeport
- Lower Connecticut River Valley Council of Governments, Essex
- Naugatuck Valley Council of Governments, Waterbury
- Northeastern Connecticut Council of Governments, Dayville
- Northwest Hills Council of Governments, Goshen
- South Central Regional Council of Governments, North Haven
- Southeastern Connecticut Council of Governments, Norwich

- Western Connecticut Council of Governments, Stamford

Financing Partners

- Community Economic Development Fund (CEDF) – Loans and technical assistance to small businesses, and grants to community organizations for economic development projects
- Crossroads Venture Group (CVG) – Assisting the development of high-growth enterprises through the promotion of capital formation
- Connecticut Community Investment Corporation - Provides financial expertise and practical guidance to small business entrepreneurs in Connecticut

Regional Lending Partners

NORTH CENTRAL REGION

- Hartford Economic Development Corporation (HEDCO) and Greater Hartford Business Development Center (GHBDC)
- MetroHartford Alliance
- Hartford Community Loan Fund

EASTERN REGION

- Northeast Connecticut Economic Alliance Regional Revolving Loan Fund
- South East Connecticut Enterprise Region (SECTER)

SOUTH CENTRAL REGION

- Middletown Business Loan Program
- Middlesex County Revitalization Commission

NORTHWEST REGION

- Waterbury Development Corporation
- Litchfield Hills Regional Micro-Loan Program

SOUTHWEST REGION

- Community Capital Fund
- Waterbury Development Corp

Technical Assistance Providers

- Connecticut Business Incubator Network
- Connecticut Center for Advanced Technology, Inc. (CCAT) - Helps private and public entities to apply innovative tools and practices to increase efficiencies, improve workforce development and boost competitiveness.
- Connecticut Chambers of Commerce
- Connecticut State Technology Extension Program (CONNSTEP) – Engineering and technical support for small and mid-sized manufacturing firms.
- Department of Labor (DOL) – Full range of employment and training services.
- Energy Conservation – Conservation and load management assistance
- Eversource - Supports economic development in its service territory and municipalities
- Institute for Sustainable Energy - Relating to energy education, energy policy, energy efficiency, energy conservation and load management, renewable energy, distributed

generation, protection of environmental resources, and the dissemination of information on energy alternatives and sustainability.

- Institute of Technology and Business Development (ITBD) – Technical training, skill development, industrial modernization, marketing, financial and networking opportunities.
- New England Trade Adjustment Assistance Center (NETAAC) – Cost-shared assistance for import-injured manufacturers.
- Procurement Technology Assistance Program (PTAP) – Marketing assistance for Connecticut businesses that sell or wish to sell products and services to federal, state and local government.
- SCORE – Overview and insight on the process of establishing and operating a business.
- Small Business Development Center (SBDC) **-** No-cost advising to prospective and existing business owners to start or expand their business with the U.S. Small Business Administration.
- The state's private and public universities also provide technical assistance, technology transfer capabilities, and centers for advanced manufacturing, entrepreneurship, technology, and related economic development training and know-how.
- Turnaround Management Association – Connecticut Corporate Revitalization Program.
- United Illuminating Company **-** The Connecticut Central Coast - here you can find data and reports about this region and specific industries.
- University of Connecticut Innovation Portal - Assists existing companies seeking assistance with technology related issues and/or entrepreneurs developing new tech-related products and forming new tech-based firms.

Regional Workforce Investment Boards

- Capital Workforce Partners
- Eastern CT Workforce Investment Board
- Northwest Regional Workforce Board, Inc.
- Workforce Alliance- the Regional Workforce Investment Board of the South Central Region
- The Workplace, Inc. (Southwest Region)

Private Organizations

- Connecticut Aerospace and Components Manufacturers (ACM)
- Connecticut Business & Industry Association (CBIA)
- Capital Region Development Authority (CRDA)
- Community Capital Fund, Inc. (CommCap)
- Connecticut Chapter of the American Planning Association
- Connecticut Conference of Municipalities (CCM)
- Connecticut Economic Development Association (CEDAS)
- Connecticut Green Bank
- Connecticut Housing Investment Fund (CHIF)
- Connecticut Insurance and Financial Services (IFS/CT)
- Connecticut Main Street Center
- Connecticut Maritime Coalition
- Connecticut Technology Council (CTC)
- CURE, Connecticut's BioScience Innovation Network
- Housatonic Industrial Development Corp. (HIDC)

- Greater New England Minority Supplier Development Council (GNEMSDC)
- International Economic Development Council
- Local Initiatives Support Corporation (LISC)
- Manufacturing Alliance of Connecticut (MAC)
- National Association for the Advancement of Colored People (NAACP)
- New Haven Manufacturers Association
- Northeastern Economic Developers Association (NEDA)
- Partnership for Strong Communities
- Spanish American Merchants Association (SAMA)
- The Business Council of Fairfield County
- Women's Business Development Council (WBDC)