

CRCOG CEDS Advisory Committee Meeting

March 19, 2018

AGENDA

1. Why are we here?
2. Where are we going and what has been done to date?
3. What are our initial findings?
4. What goals should we prioritize for further investigation?

The Consulting Team



Fourth Economy is a national community and economic development consulting firm that focuses on fostering action to create great communities, impactful organizations, and strong economies.



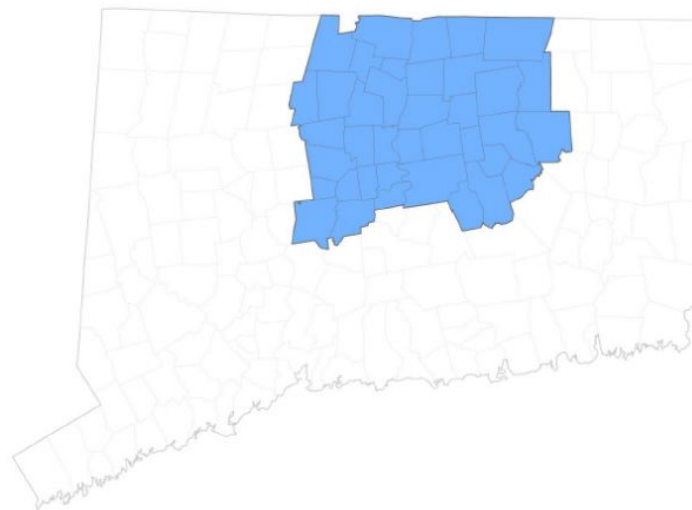
IHS Markit is a leading source of information, insight and advisory services in the pivotal areas that shape today's business and policy landscape: economics, financial markets, energy, chemicals, technology, logistics and transportation, healthcare, geopolitical risk, sustainability and supply chain management.

Advisory Committee

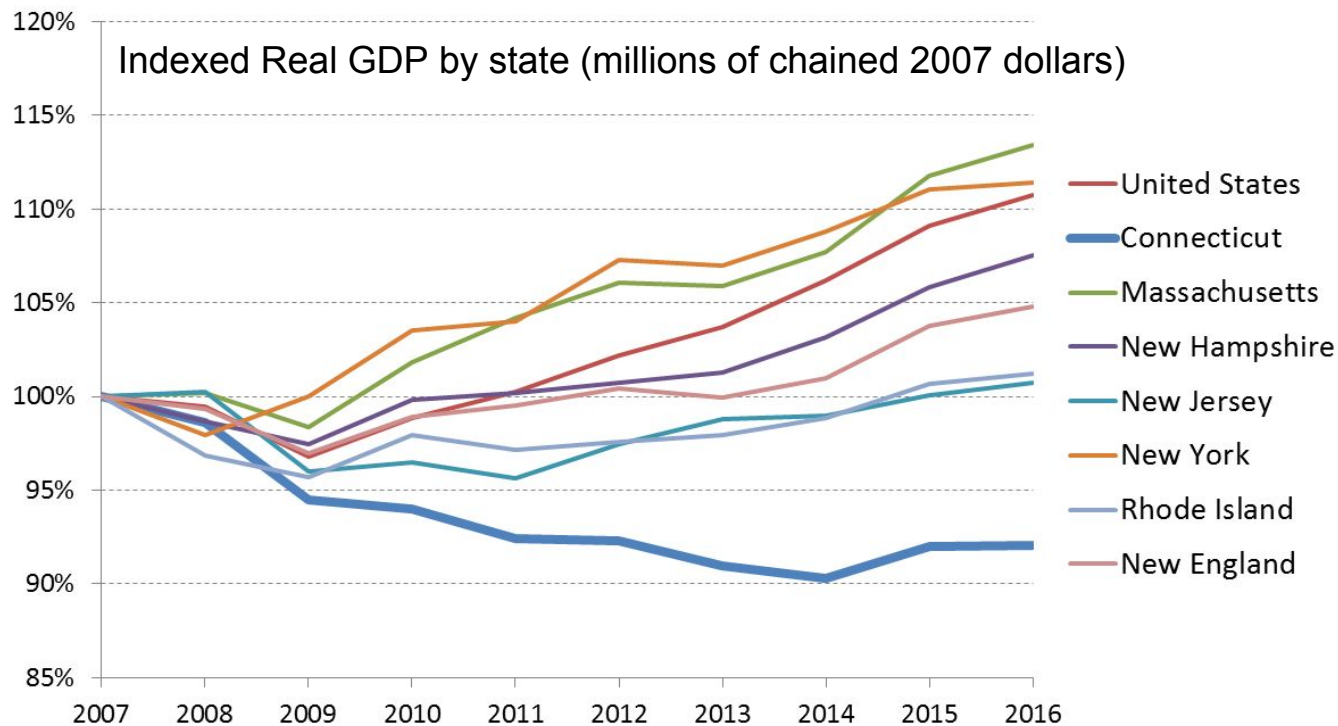
- Town of East Hartford - Marcia Leclerc
- City of Hartford - Luke Bronin
- City of New Britain - Erin Stewart
- Town of Glastonbury - Chip Beckett
- CRCOG - Lyle Wray
- Capital Workforce Partners - Alex Johnson
- Town of Windsor - Peter Souza
- Hartford Foundation for Public Giving - Jay Williams
- United Way - Paula Gilberto
- Leadership Greater Hartford - Ted Carroll
- Urban League of Greater Hartford - Adrienne Cochrane
- LISC - Andrea Pereira
- Casasnovas Consulting, LLC - Jorge Casasnovas
- Connecticut Technology Council - Bruce Carlson
- CCSU - Zulma Toro
- UCONN - Mark Overmyer-Velazquez
- Goodwin College - Mark Scheinberg
- University of Hartford - Lou Manzione
- Trinity College - Jason Rojas
- Connecticut State Colleges and Universities - Mark Ojakian
- Stanley Black and Decker - Tim Perra
- Travelers Insurance - James Scannell
- Farmington Bank - John J. Patrick, Jr.
- HYPE - Kim Bishop
- Hartford Healthcare - David Whitehead
- YWCA of New Britain - Robin Sharp
- CCAT - Elliot Ginsberg
- Capital Region Development Authority - Mike Freimuth
- Remarkable Technologies - Eric Knight
- Aerospace Alloys - Michelle Allinson
- MetroHartford Alliance - David Griggs
- The Hartford - TBD
- Thomas Dudeck - Barings

CRCOG Overview

- CRCOG serves 38 cities and towns
- Population is just under 1 million residents
- The region expanded from 30 to 38 municipalities in 2014
- Prior to 2014 four CRCOG municipalities were part of the Central Connecticut Regional Planning Agency's CEDS; four municipalities were part of the Windham/Northeast Connecticut CEDS

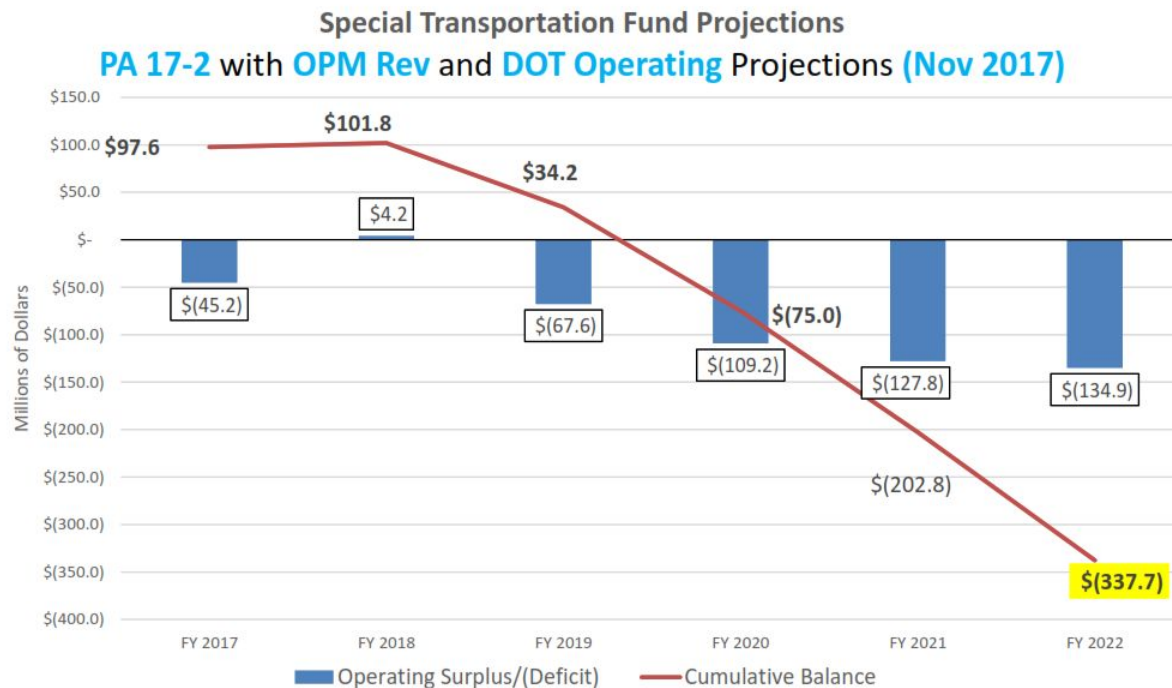


State Context



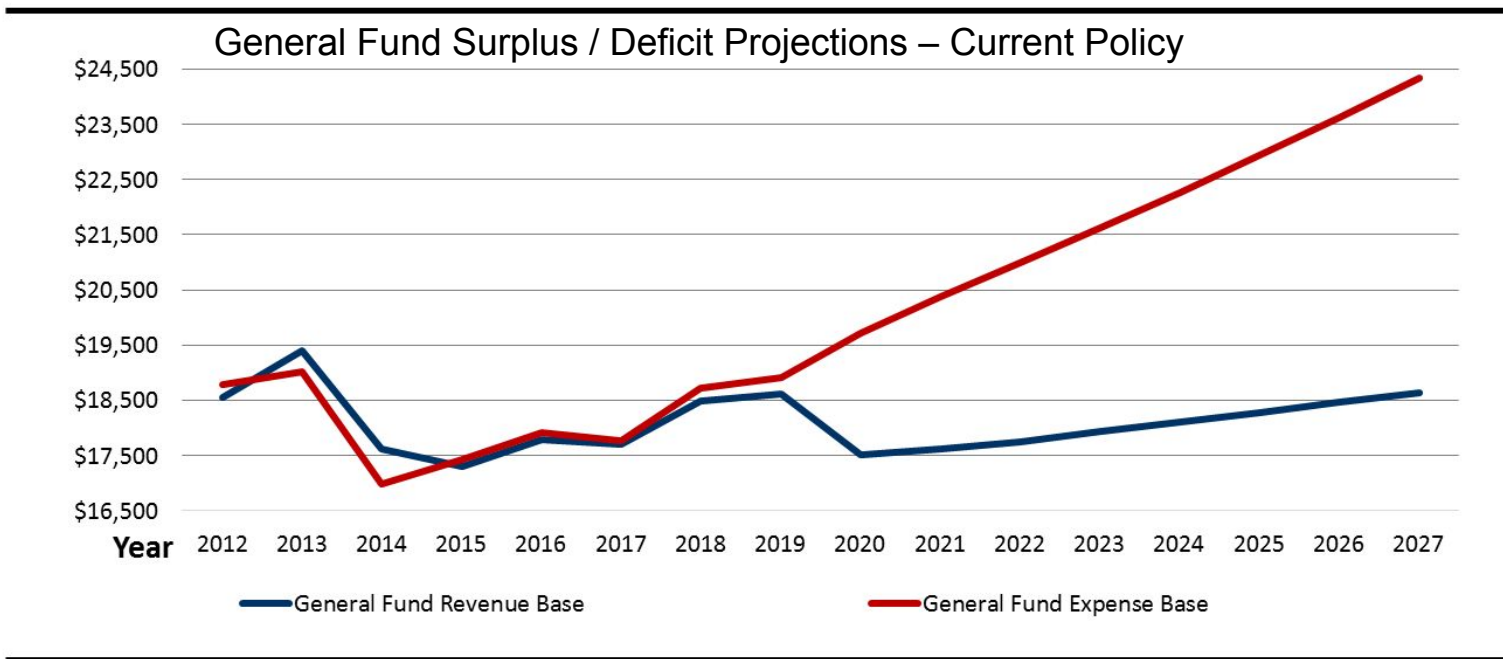
Source: Bureau of Economic Analysis, Gross State Product from a Presentation by the Commission on Fiscal Stability and Economic Development

State Context



Source: Presentation by Commissioner James Redeker

State Context



Source: Revenues – Comptroller’s Open Budget FY12 – FY17; OPM Consensus Revenue January 2018 | Expenses – OFA Fiscal Accountability Report FY17 – FY20 & October Out Year Estimates from a presentation by the Commission on Fiscal Stability and Economic Growth

Why We're Here... Themes from Transformed Regions

- ★ A Bold Vision, Tenacious Leadership, and a Broad Civic Infrastructure
- ★ A Region Rallies Around Its City
- ★ Engage and Strengthen Industry in a Whole New Way
- ★ Regional Investment Supports Quality of Place
- ★ Plans Must be Visionary, Market-based, and Action-oriented to Guide Regional Transformation
- ★ Private Sector Investment Responds to Business Climate and Talent Base
- ★ Financing Regional Transformation Requires a Multi-Faceted Approach
- ★ Long-term Partnership Requires Non-Partisan Thinking
- ★ Higher Education Partners are Critical for Regional Transformation

Why We're Here... Building Capacity to Implement

Boosting Metro Hartford's Economic Performance in the New Millennium, 2008

Central Connecticut CEDS, 2011

MetroHartford CEDS, 2012

One Region, One Future, 2014

Knowledge Corridor Talent & Workforce Strategy, 2014

Jumpstart Research & Recommendations, 2014

Metro Hartford Progress Points (2014, 2015, and 2016)

Advanced to Advantageous:
The case for New England's Manufacturing Revolution, 2015

Capital Workforce Partners WIOA Plan, 2016

CBIA Survey of Connecticut Manufacturing Workforce Needs, 2017

Baseline Assessment of CT's Innovation and Entrepreneurship Ecosystem, 2017

Innovation Places Summary, 2017

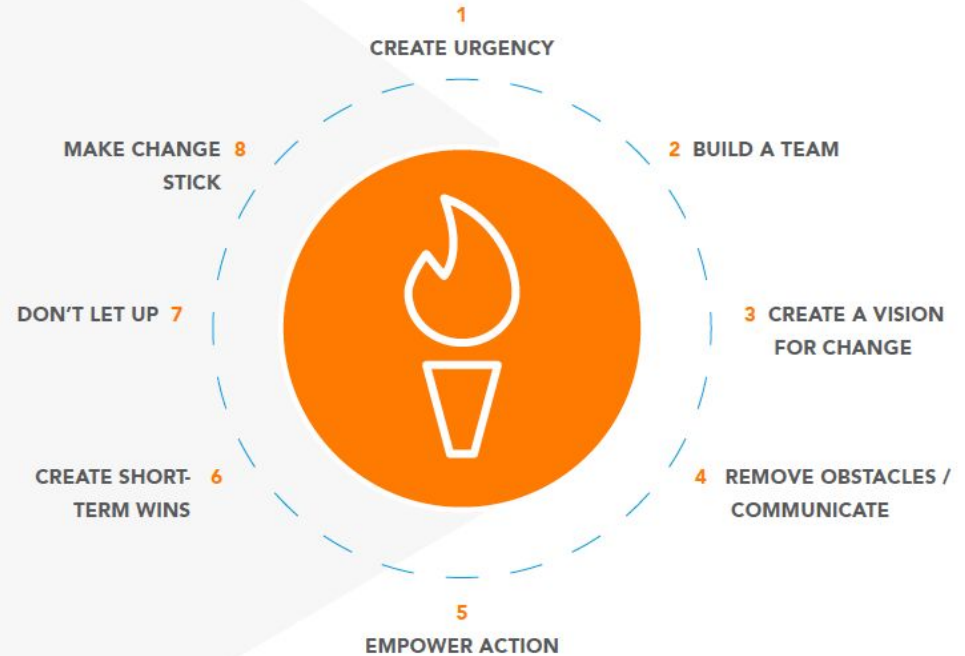
Automation and the CT Job Market, 2017

CT Workforce Assessment, 2017

Commission on Fiscal Stability and Economic Growth - slides and final report, 2018

Creating and sustaining transformational change is the bold goal

MODEL FOR TRANSFORMATIONAL CHANGE*



**Adapted from Kotter, John P., "Leading Change: Why transformation efforts fail," Harvard Business Review, 2007*

What are We Building...More Than a Plan

- Create a **Vision** for the Capitol Region that is rooted in the aspirations of residents with an eye toward the future
- Conduct a **Situational Assessment** that focuses on strengths and opportunities
- Develop **Goals** that will allow the region to realize the vision and build on strengths
- Identify **Game-changer Strategies** - the top three opportunities that the region must capture to enhance economic competitiveness
- Develop specific **Actions** that can be taken to support goals and achieve the vision
- Build the **Capacity** to implement
- **Measure** the impact of these game-changer strategies

How Will We Get There?

- **Kick-Off:** What has already been done? What direction do key stakeholders think we should head?
- **Analysis:** What does that data say about Metro Hartford's opportunities?
- **Advisory Committee:** What is the guiding vision and goals of the CEDS?
- **Research & Engagement:** What do stakeholders and national best practices suggest game-changer strategies would be to achieve our goals?
- **Advisory Committee:** What are the top game-changer strategies that should be implemented?
- **Investment Prospectus:** What actions, partners, are resources are needed to implement those strategies?
- **Capacity Building:** How do we build the capacity and partnerships required to sustain implementation?
- **Evaluation Framework:** How will we measure success?
- **Roll-out:** How do we communicate about our plan and next steps?

What's Been Done So Far?

- Review Existing Plans
- Two Working Group Meetings
- Stakeholder Interviews
- Data Collection and Analysis

Working Group

- John Shemo & Rebecca Nolan - Metro Hartford Alliance
- Scott Gaul - Hartford Foundation for Public Giving
- Mark Pellegrini - Town of Windsor Locks
- Jim Burke- Town of Windsor
- Patrick McMahon - Eversource
- John Carson - University of Hartford
- Tim Stewart - Greater New Britain Chamber of Commerce
- Elliot Ginsberg - CCAT
- Jim Boucher - Capital Workforce Partners
- Ilka Torres - RE/MAX

Stakeholder Interviews (so far)

- Commissioner Catherine Smith- Connecticut Department of Economic and Community Development
- Mark Ojakian- Connecticut State Colleges and Universities
- Alice Pritchard- Connecticut State Colleges and Universities
- Mark Scheinberg- Goodwin College
- Todd Andrews- Goodwin College
- Mike Freimuth- Capital Region Development Authority
- Andy Bessette- Travelers Insurance
- Kobi Benita- NervoMatrix
- Susan Winkler - Connecticut Insurance and Financial Services
- Matt McCooe- Connecticut Innovations
- Glen Thames- CTNext
- Kevin Dillon- Bradley Development League
- Tim Lescalleet- Griffin Industrial Realty
- Alex Johnson- Capital Workforce Partners
- Patrick McMahon- Connecticut Main Street Center

Your Role Today

- Provide feedback on strawman goals
- What did we miss?
- Prioritize strawman goals based on:
 - Collective will to address
 - Level of control / ability to impact outcomes

Ultimately... where would this group's collective resources move the needle?

Existing Regional Vision

One Region, One Future Action Agenda (2014)

- Is **connected** to Boston and New York City, to worldwide markets, and to knowledge-sector industries;
- Is **competitive** in the New England, United States, and global economy;
- Is made up of **vibrant** communities that house diverse populations, and attract and retain Millennial workers, retiring Baby Boomers, and growing businesses; and
- Is **green**, with energy efficient homes, businesses and forms of transportation, and cleaner air and water.

Strawman Goals

- **Connected**
 - Connect our region to markets in the Northeast.
 - Connect our region to the markets around the globe.
- **Competitive**
 - Create a robust pipeline of talent that has the skills and experience that industry needs to succeed in the 21st Century.
 - Ensure that businesses (in particular, second stage businesses) have the capital and technical assistance they need to scale and adapt to new technology.
- **Vibrant**
 - Enhance our Quality of Place to retain and attract more talent.
 - Develop a more robust, connected innovation ecosystem to support new business creation and growth.
- **Green**
 - Invest in Transit-Oriented Development and environmentally-sensitive development.
 - Develop a more affordable, efficient, and clean energy system.

Fourth Economy's Observations

- **Connected**
 - The region has the right assets, but they are siloed
 - Community culture is not very regional - multiple 'centers' of gravity
- **Competitive**
 - Expected to see more progress in the region's transformation - large amenities
 - Two large industry sectors have driven recent trends, but diversity exists
- **Vibrant**
 - Downtown center lacks energy, programming to drive attraction
 - Housing downtown is better, but still seems to be less than needed
 - Only recent focus on innovation-driven business; less startup activity than expected
- **Green**
 - Connection to water is limited - other cities have used it as the transformational catalyst
 - Not as much focus as seen in other markets
- **Overall**
 - A lot of planning but who leads execution

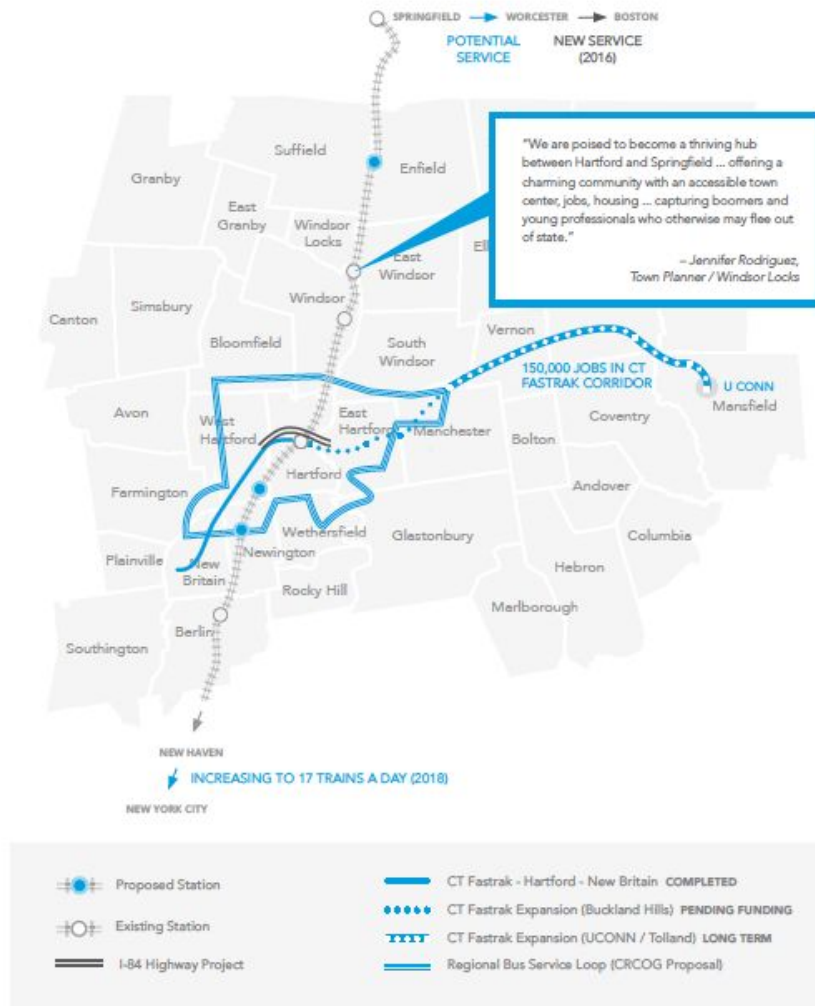
Connected

- Is **connected** to Boston and New York City, to worldwide markets, and to knowledge-sector industries

Strategic Location

- Connecticut has traditionally been home to the headquarters of major companies due to its strategic location
- Primarily located in Hartford County – 592, Middlesex – 76; and Tolland – 32
- Largest HQ companies in the Hartford MSA by global revenues include:
 - Aetna
 - United Technologies
 - Cigna
 - The Hartford Financial Services
 - Otis Elevator
 - Stanley, Black and Decker
 - Tri State Business Systems
 - Connecticut General
 - Travelers Insurance

New and Proposed Rail, Bus, and Highway Projects to Connect the Region



Initial Foreign Direct Investment Observations

- FDI is sourced most highly from **Europe**, particularly the UK, France, Germany, and the Netherlands
- Foreign owned enterprises are more concentrated in retail, architecture and engineering, insurance, metalworking machinery, and fabrics
- FDI in Hartford has been **relatively flat** since the recession
- Flights on **Aer Lingus** have been opening up new markets to the region's businesses

How do we create a more Connected Region?

Strawman Goals

- Connect our region to markets in the Northeast.
- Connect our region to the markets around the globe.

What strategies would better connect our region to the Northeast?

- Identify and secure more **stable funding** sources for transportation improvements.
- Pursue a **rail connection to Boston** through Springfield.
- Pursue **major congestion relief** projects on the region's highways.
- Improve **freight access to Bradley**.
- Encourage mode shift from trucks to rail for freight.

What strategies would connect our region to the Globe?

- Enhance and leverage Bradley, including pursuing **airport funding** enhancements, expanding **non-stop and transatlantic flights**, and establishing **improved transit** connections.
- **Coordinate and target** Foreign Direct Investment and business attraction efforts.

Competitive

The word 'Competitive' is in a large, bold, black sans-serif font. To its right is a line-art icon in a gold-brown color, depicting a graduation cap (mortarboard) with a tassel, and a wrench positioned diagonally across it.

- Is **competitive** in the New England, United States, and global economy

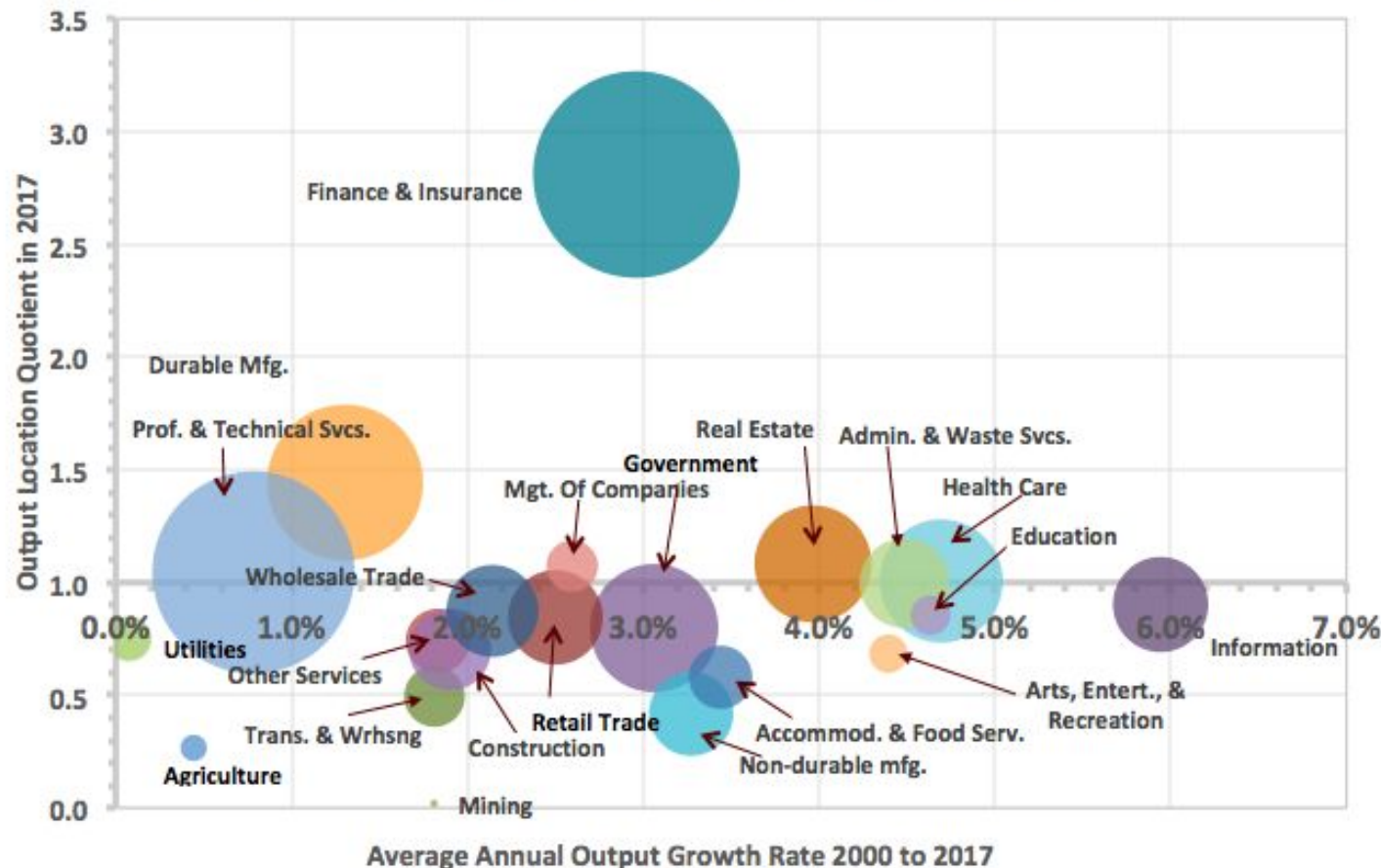
What are Metro Hartford's high-potential sectors?

- Advanced - High levels of innovation & STEM workers
- Traded - Goods & services are sold outside the region
- Above avg. employment and/or greater employment growth than U.S.

What do existing plans say about high-potential clusters?

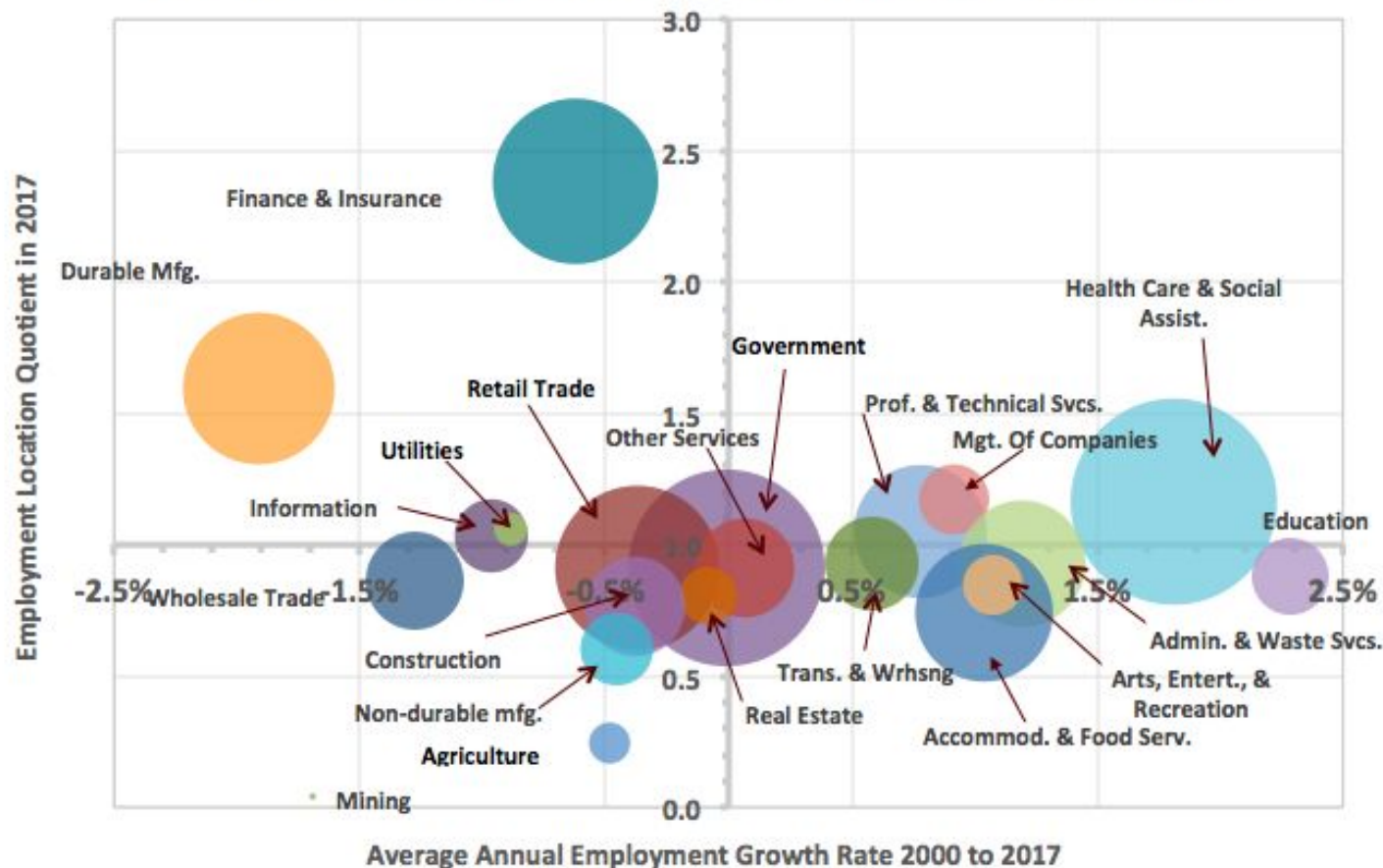
- The *Commission on Fiscal Stability and Economic Growth* identified **FinTech and Advanced Manufacturing** as targets for Metro Hartford.
- The 2017 *Innovation Places Strategic Plan* focuses on **InsurTech, MedTech, and Aerospace/Advanced Manufacturing**.
- The 2015 Deloitte study *Advanced to Advantageous* supports a focus on **Advanced Manufacturing**, specifically Digital Design and Prototyping, Additive Manufacturing, and the Internet of Things.

Structure and Performance of the Hartford MSA Economy - Output Basis



Source: IHS Economics, 2018. Business Markets Insights data base. Bubble size is sector output (millions of \$) in 2017

Structure and Performance of the Hartford MSA Economy - Employment Basis



Source: IHS Economics, 2018. Business Markets Insights data base. Bubble size is sector employment in 2017

What are Metro Hartford's high-potential clusters?

- Business Services
 - Large Legacy Legal Services sector
 - Business services supports and enhances growth in other sectors – Finance, Insurance.
 - Health Care benefits from region's cost advantages, proximity to large NE US market
- Insurance and other Financial
 - Region still has a competitive advantage for this sector – critical to maintain it
 - Insurance services creates demand for a variety of business services, and workers in financial occupations
- Printing Services
 - Creates demand for Chemical Products
 - Supports Business Services

What are Metro Hartford's high-potential clusters?

- Metal Working and Metal Products
 - Upstream and downstream - e.g. architectural and structural metals vs. cutlery and hand tools
 - Large laggard Wholesale trade sectors – hardware, electrical goods, and Misc. Durable goods
- Production Technology Machinery and Equipment
 - Electronic Instruments (3345) Large laggard sector – demand from Aerospace
 - Legacy of Region's aerospace history, major supplier to it
- Aerospace
 - Source of demand for machinery and metals products
 - Challenge will be supply of skilled workers
- Medical Devices
 - Serve large NE US health care sector, health insurance providers.
 - Region has small Pharmaceutical sector (3254), could benefit from other, but located to major pharma clusters in other NE metros

2017 Yale CT Workforce Assessment

Executive Summary

- The data does not support the public perception that Connecticut currently faces a critical workforce skills gap, however **major employers foresee an increased demand in several key skills** that could lead to future shortages
- Middle-skill jobs, requiring a minimum education of high school (or equivalent) and some on-the-job training, make up the largest part of CT's current and future labor market, and therefore **should be the focus of future workforce development programs**
- CT's vocational programs **currently require significant proactivity by participants and lack integration** across the value chain, making them less effective than vocational programs in other states
- Across every industry, companies identified **basic professional skills as their most pressing skills gap**: customer service, problem solving, and learning agility among others; data analytics, data science, and cyber security were mentioned as most critical occupational needs
- **Successful sector partnership programs help participants develop these key workforce skills** and have contributed to outperformance in job growth in several states, serving as a template for future sector partnership programs in CT
 - Sector partnerships are most effective when combining key attributes (funding, technical assistance and communication) with skill equity

What can be done to make these clusters more Competitive?

Strawman Goals

- Create a robust pipeline of talent that has the skills and experience that industry needs to succeed in the 21st Century
- Ensure that businesses (in particular, second stage businesses) have the capital and technical assistance they need to scale and adapt to new technology

What strategies would help create a 21st Century workforce?

- Enhance **integration** of programs from K-12 through Higher Ed
- Increase **industry partnerships** and apprenticeships
- Increase **soft-skill** training
- Engage more **minorities and women** - the workforce of the future
- Position Metro Hartford for the Roosevelt Island-model **STEM campus** proposed by the Commission on Fiscal Stability and Economic Growth

What strategies would help businesses scale and adapt?

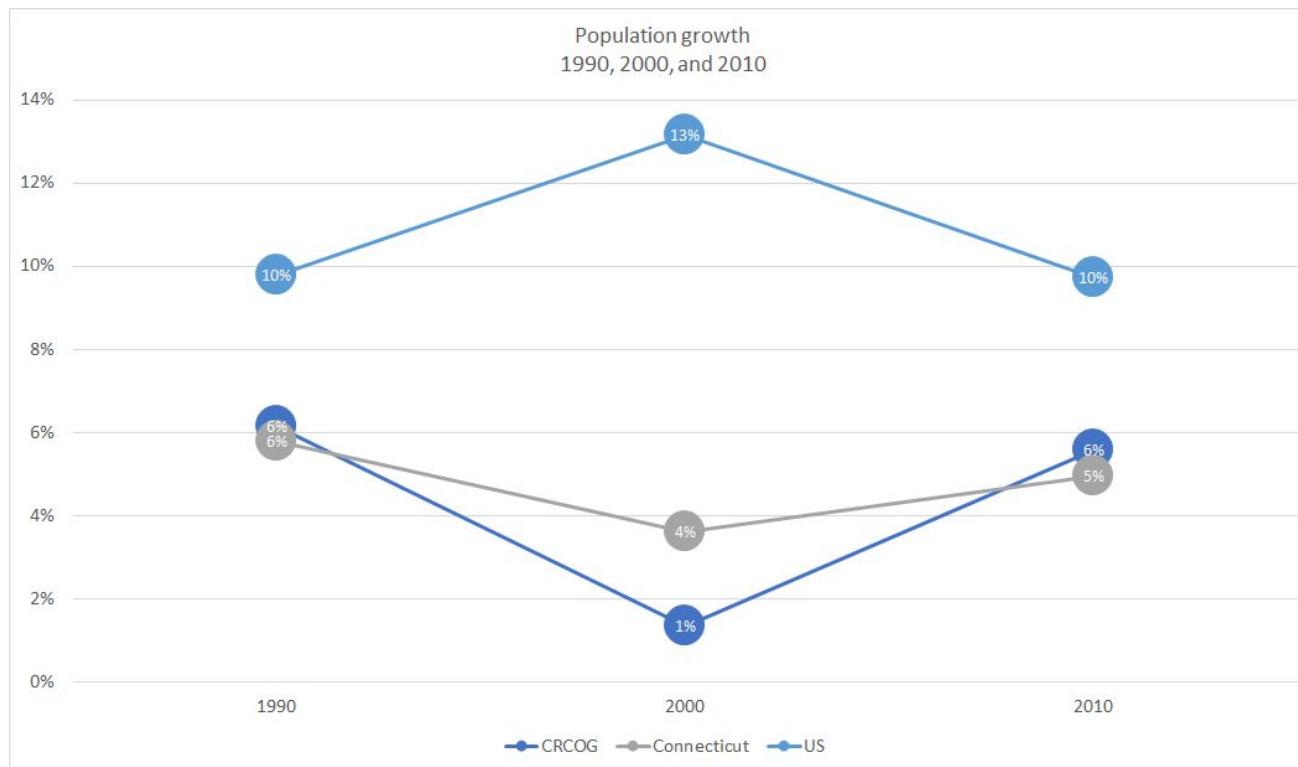
- Enhance **access to capital** for businesses (esp. second stage) to invest in technology and growth
- Enhance **programs for businesses to adapt** to new technology and transition to next generation businesses
- Enhance opportunities for businesses to **increase exports**
- Enhance **industry-university partnerships** to advance innovation

Vibrant

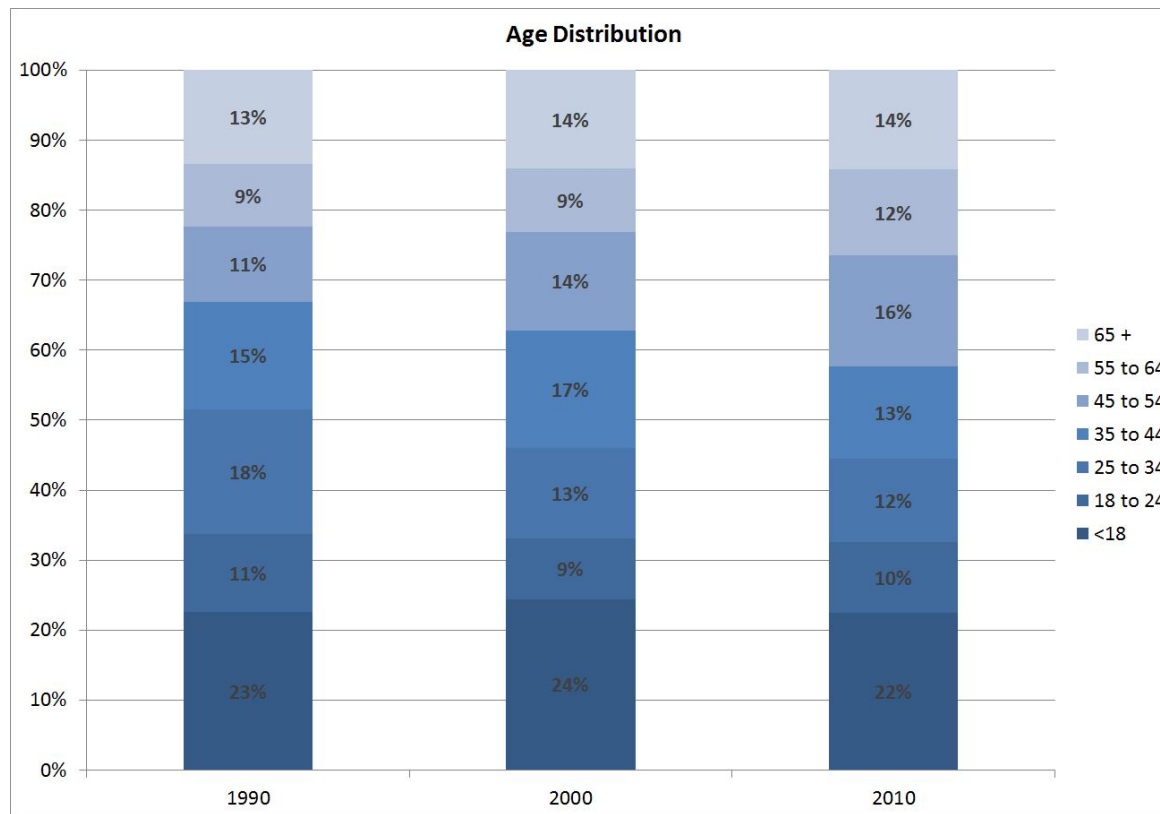


- Is made up of **vibrant** communities that house diverse populations, and attract and retain Millennial workers, retiring Baby Boomers, and growing businesses

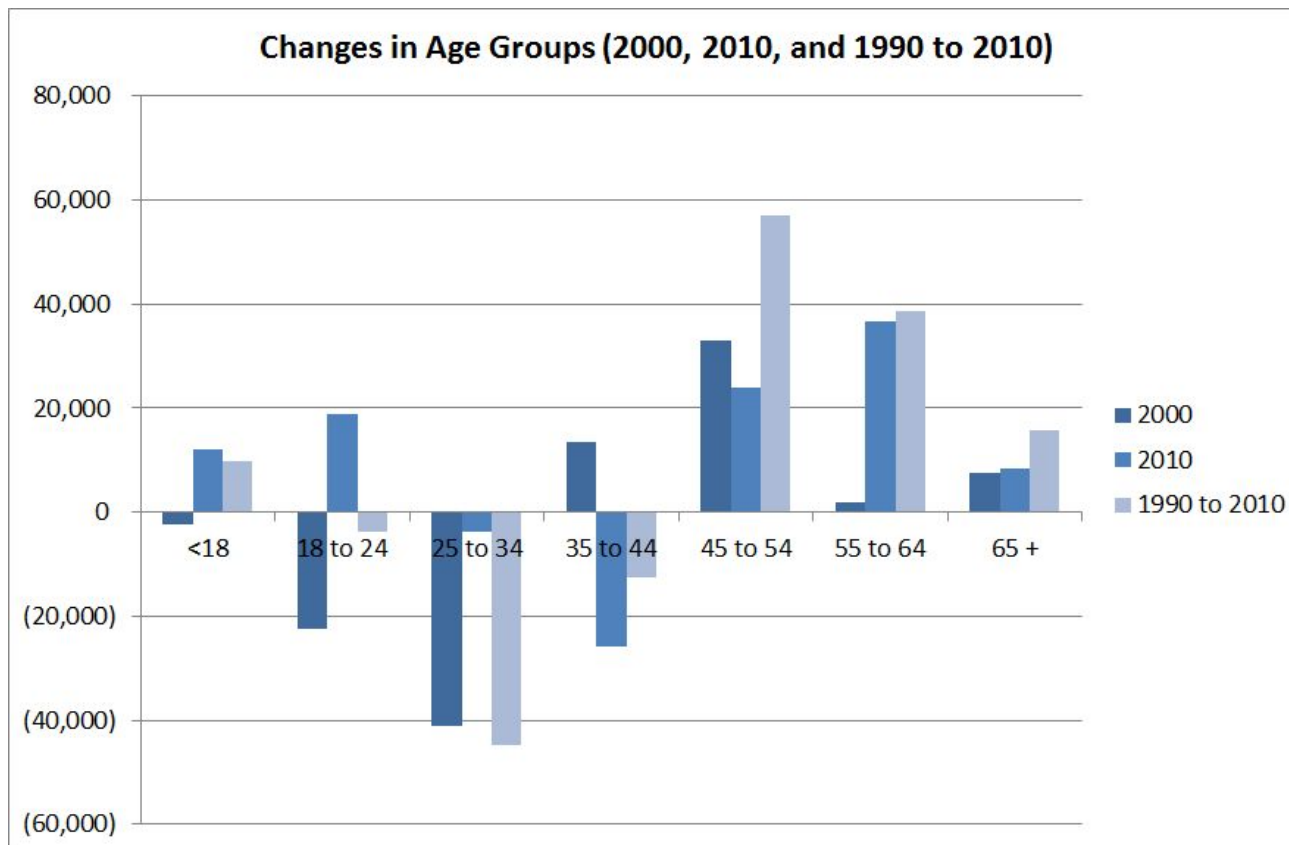
How Vibrant is our Region: Population Trends



How Vibrant is our Region: Age Distribution

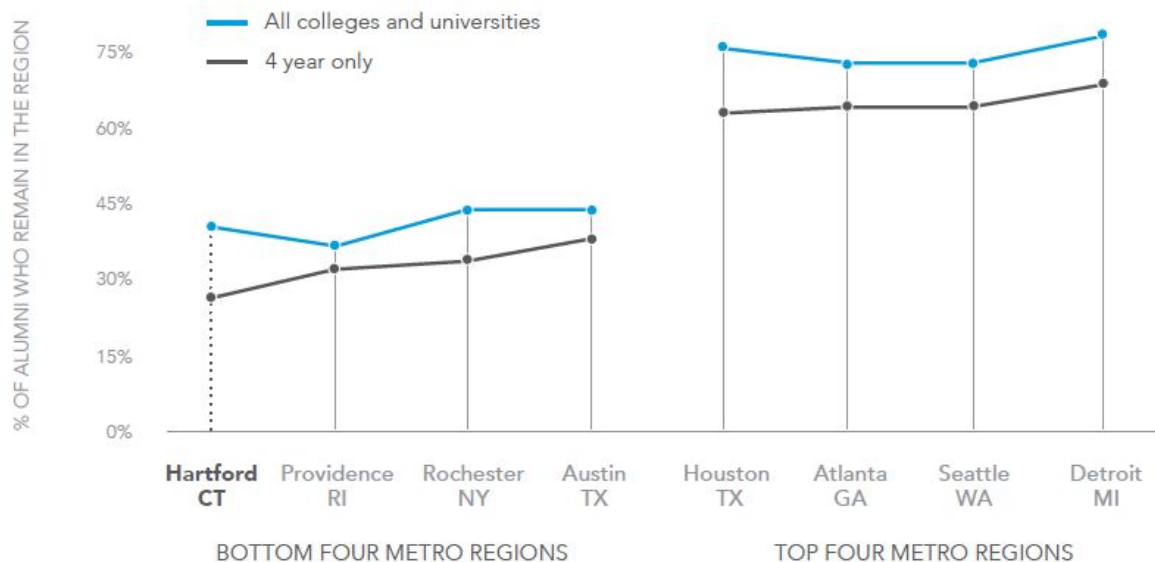


How Vibrant is our Region: Ages



How Vibrant is our Region: Talent Retention & Attraction

- The Metro Hartford region retains the fewest four-year graduates of any metro region in the country with 60% of recent graduates citing 'jobs' as their primary reason for leaving.



Source: Brookings Institution, Metropolitan Policy Program, 2014.

How Vibrant is our Region: New Business Creation

- With companies performing \$6.8 billion in R&D in 2014, Connecticut is a **leading state in industrial research**. Areas of industrial strength and research concentration reflect the presence of large, innovative Connecticut companies in pharmaceuticals and medicines, aerospace and defense, and fabricated metals.
- Compared to the national average levels and against the comparison states, **patenting is an area in which Connecticut is leading**.
- When normalized against the size of a university's research base, Connecticut **universities' startup activity still similarly ranks near the bottom** relative to the other states.
- Connecticut has a **lagging share of venture capital funding and deals going to companies at critical seed and early stages** of development.

(TEconomy Assessment of CT Innovation Ecosystem, 2017)

How Vibrant is our Region: New Business Creation

- Large Firms – those with 250 or more workers - employ about 60% of the MSA's workers.
- By contrast, small firms or those with < 50 employees account for only 25% of all jobs.
- An overwhelming majority of firms are over 11 years old.
- New businesses make up just 2% of employment.
- Accommodation & Food Services and Other Services have had a higher representation of new businesses in recent history. Other Services is also primarily small businesses.

How Vibrant is our Region: New Business Creation

Snapshot of Connecticut's small and medium enterprises



Numbers = CT's Rank among states

- VC funding as a % of GDP³ **24**
- PE investments as % of GDP⁶ **26**
- Percent of adults per month starting a business⁴ **31**
- Survival rate of new establishments after 10 years² **32**
- 0-5 year firms as % of total⁵ **37**
- Small business lending per employee⁷ **37**



Larger, older companies

Large companies (500+ employees) **make up 51% of employment** and old firms (21+ years) **make up 45% of employment**



Trailing entrepreneurship

The state is a **leader in innovation** (7th most patents per capita), and has a reasonable supply of funding (14th in venture deal volume per capita), however **ranks 37th in share of firms younger than 5 years**



Low business survival rate

Connecticut **ranks 32nd among states for company survival of 5+ and 10+ years**, and many of its small businesses **have not recovered the jobs lost in the recession**



Small business challenges

High cost of living, uncertainty of legislation and high state business taxes are hampering growth says the small and medium businesses recently surveyed

How can we create a more Vibrant Region?

Strawman Goals

- Enhance our Quality of Place to retain and attract more talent.
- Develop a more robust, connected innovation ecosystem to support new business creation and growth.

What strategies would enhance our quality of place?

- Continue to invest in new **housing options** in defined areas for density - affordable/ workforce housing and market rate
- Invest in and promote **parks and historic/ cultural assets** to both residents and regional and global audiences
- Enhance programs to **retain** the next generation workforce and to turn residents into **ambassadors** for the region
- Expand the region's **bus rapid transit system** (CT **fastrak**) to provide access to jobs

What strategies would develop a more robust, connected innovation ecosystem?

- **Increase the number** of start-ups, particularly in high-potential sectors
 - Increase access to seed and early stage venture and angel capital
- **Help young businesses** survive and thrive through mentorship, networks, and technical assistance
- **Enhance coordination** of innovation ecosystem assets, ease of access for entrepreneurs, and engagement with anchors and corporations

Green



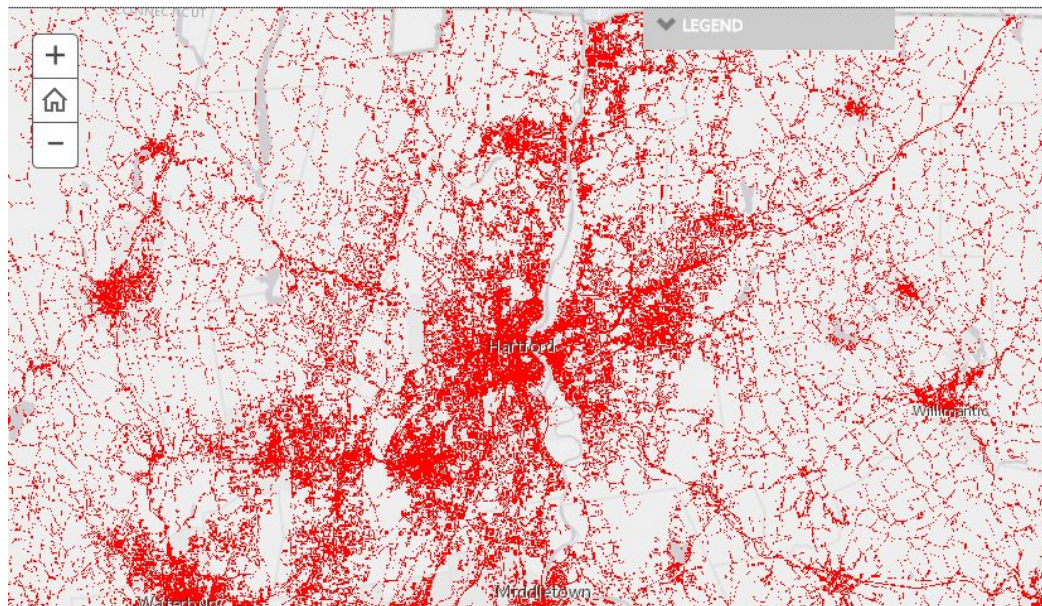
- Is **green**, with energy efficient homes, businesses and forms of transportation, and cleaner air and water

How Green is our Region: Land Use

Connecticut's Changing Landscape a study of land cover change in Connecticut, 1985-2010

UConn
UNIVERSITY OF CONNECTICUT

CLEAR
CONNECTICUT LAND AND WATER RESEARCH CENTER



Trends

Between 1985 and 2010, Connecticut



149 mi²

of developed land.

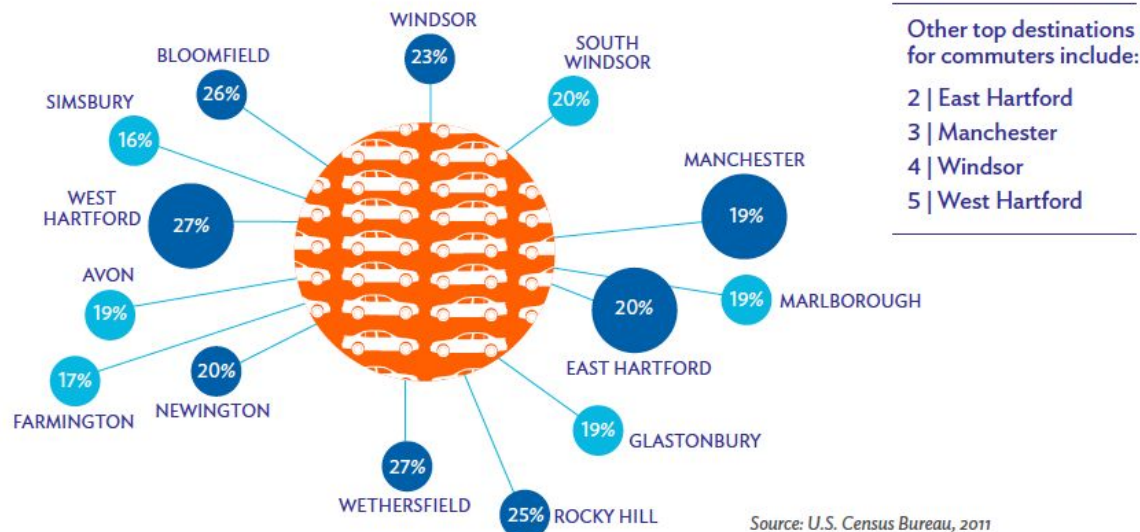
Connecticut's population has grown from about 2 million in 1950 to about 3.6 million today. With this growth has come a large increase in the amount of developed land. Averaged over the study period, the 149 square mile

gain equates to **10** acres/day.

Explore the change maps:

- [1985 developed lands](#)
- [2010 developed lands](#)
- [Gain in developed land](#) (to **developed**, dark gray was already developed)
- [Change in developed by town](#)

How Green is our Region: Commuting Trends



81%
of all Metro Hartford
workers commute
alone by car

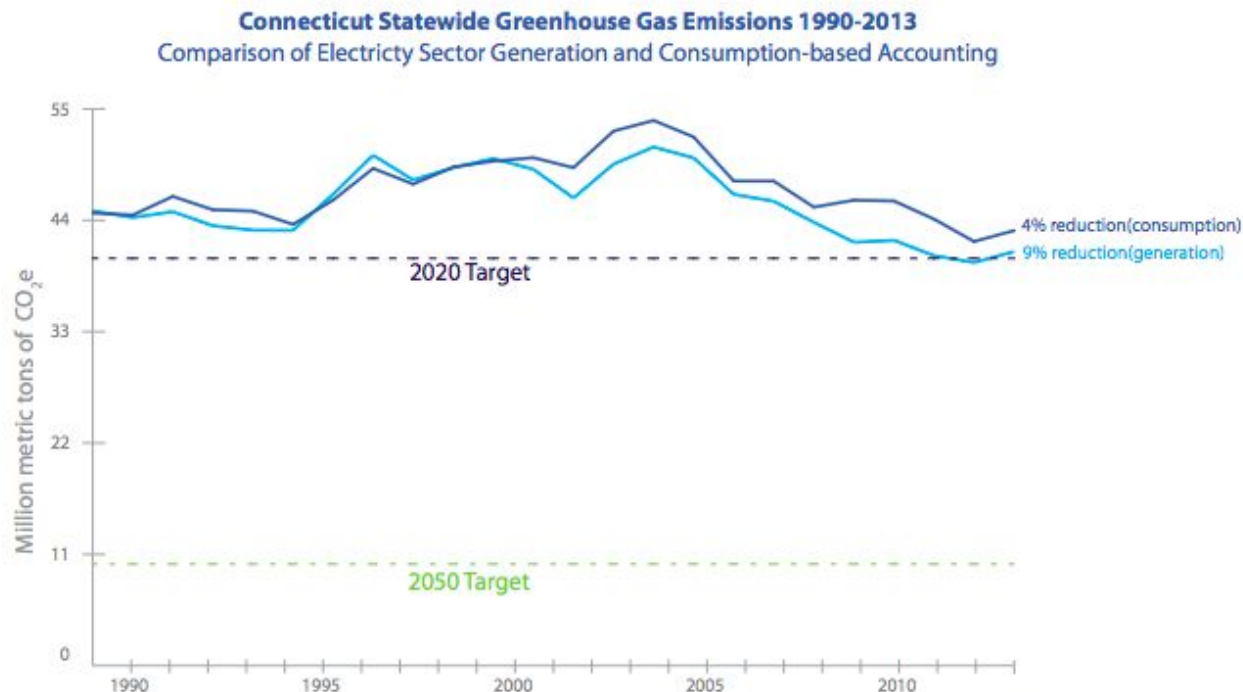
83%
of the 121,000 jobs in
Hartford are filled by
commuters

65%
of Hartford residents with
jobs are employed
outside of Hartford

75%
of Hartford workers who
commute outside of Hartford
make less than \$40K

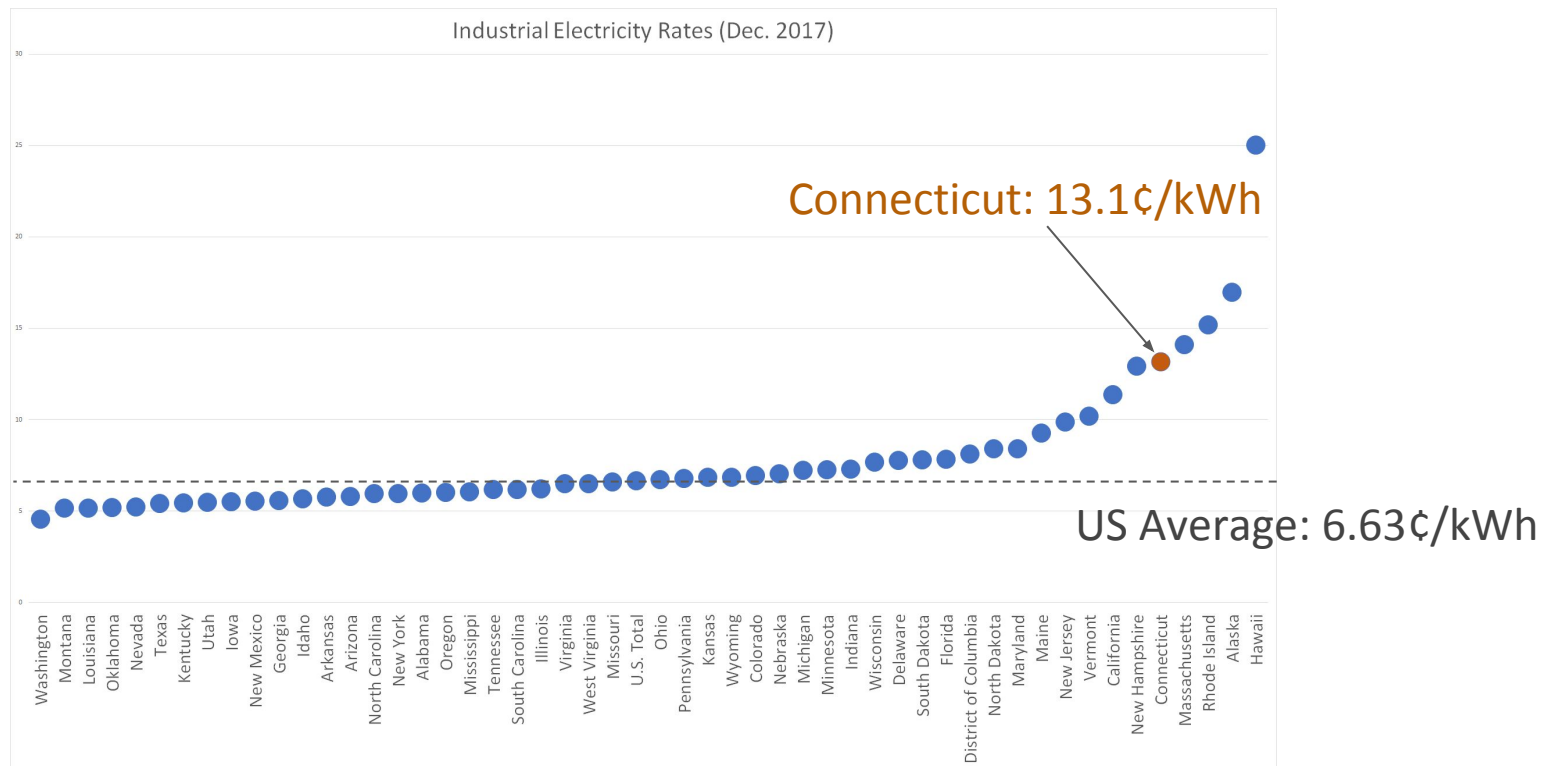
Source: U.S. Census Bureau, 2011

How Green is our Region: GHG Emissions



* Targets shown in this graph utilize the consumption-based 1990 baseline of 44.7 MMT CO₂e. The generation-based 1990 baseline is 44.9 MMT CO₂e.

Electricity Rates



Source: U.S. Energy Information Administration, Form EIA-861M (formerly EIA-826), Monthly Electric Power Industry Report.

How can we be more competitive by being Greener?

Strawman Goals

- Invest in **Transit-Oriented Development** and **environmentally-sensitive development**
- Develop a more **affordable, efficient, and clean energy** system

What strategies would support investment in TOD?

Best Practices: Five key characteristics define best practices for engaging anchors, government, and community organizations in a mutually beneficial relationship that can spur TOD and economic growth in the region.

Vision	<i>Common goals and a shared long-term plan for development.</i>
Partnerships	<i>Formalized partnerships centered around a mutually beneficial vision.</i>
Development Entity	<i>A public, private or nonprofit entity with the ability to guide development and channel multiple funding streams.</i>
Community Involvement	<i>A sustained commitment to include the community's perspective in the visioning, partnership, and implementation phases.</i>
Public Investment	<i>Government investment, including up-front financial commitments, incentives, and the physical relocation of government offices.</i>

What strategies would promote environmentally-sensitive development?

- Adopt Zoning Incentives to **Promote Compact, Mixed-Use, Mixed-Income** Village Centers and Downtowns.
- **Revitalize Urban Centers** by Attracting Jobs, Housing, and Mixed-Use Development.
- Revitalize Urban Areas through **Remediating and Reusing Brownfields**, Maximizing Access to Parks and Recreational Areas, and Maximizing Access to Local Food Sources.
- Adopt Municipal Zoning Strategies and Other Policies That Will **Reduce Our Impact on the Environment** and Help Reduce Greenhouse Gases.
- Coordinate Regional Efforts for **Land and Water Conservation**, and Protection of Key Natural Resources.

(Source: One Region, One Future)

What strategies would create a more affordable, efficient, and clean energy system?

Recommendations from the 2017 ISO Regional System Plan:

- Developing **new resources** near load centers, particularly in the Southeastern New England zone
- Development longer-term **transmission expansion** projects
- Reducing regional **reliance on natural-gas**-fired generation
- Advocating for **timely policy decisions** around carbon emissions targets and other regional and state policies
- Addressing **technical challenges** to integrating renewable sources and realizing full benefits of energy storage, microgrids, and smart grid technology

Prioritization and Next Steps

- Review goals
 - What should we change?
 - What goals did we miss?
 - Prioritization exercise
- Next steps - April Strategy Groups

Review of Strawman Goals to Prioritize

- **Connected**
 - Connect our region to markets in the Northeast.
 - Connect our region to the markets around the globe.
- **Competitive**
 - Create a robust pipeline of talent that has the skills and experience that industry needs to succeed in the 21st Century.
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