METRO HARTFORD FUTURE

ACCELERATING SHARED AND SUSTAINED ECONOMIC GROWTH

A Comprehensive Economic Development Strategy for the Capitol Region

METRO HARTFORD ALLIANCE INNOVATION DESTINATION HARTFORD

Hartford Foundation FOR PUBLIC GIVING

CRCOG CAPITOL REGION COUNCIL OF GOVERNMENTS Working together for a better region.

ACKNOWLEDGMENTS

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The following individuals served on an Advisory Committee that helped to set the vision and prioritize strategies:

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EXECUTIVE SUMMARY

The Metro Hartford region is at a unique point in its economic trajectory. Though it has suffered a decade of economic stagnation, it is poised for growth. The region boasts a strong financial/insurance cluster, a resurging advanced manufacturing cluster, and an emerging biotech cluster, among other economic strengths. Metro Hartford is home to over a dozen colleges and universities, 38 towns representing a diversity of lifestyle options, growing transit connectivity, a revitalizing riverfront, and countless other amenities that support the talent-base needed to spur economic growth.

But many regions can tout their economic strengths and assets. What makes a region truly great, and the essential ingredient for economic growth, is leadership. This strategy represents the collective efforts of the Capitol Region Council of Governments (CRCOG), the Metro Hartford Alliance (MHA), and the Hartford Foundation for Public Giving (HFPG). With new leadership at the helm of the MHA and HFPG, as well as new strategic plans that prioritize economic growth and opportunity, the region has a unique opportunity to catalyze change. This strategy, Metro Hartford Future, represents their collective will to rally the region around a focused and actionable set of goals and strategies that will truly move the needle on creating inclusive economic growth for the Hartford region.

In order to achieve the vision of inclusive growth in the Hartford region, three goals have been established:

- **Talent:** Educate, train, and retain talent - with a focus on underserved and underrepresented populations - to better meet the needs of the region's employers and to create jobs paying a family living wage.
- **Invest:** Enhance the quality of place amenities throughout our region in order to retain and attract talent.
- **Brand:** Strengthen collaboration to support and promote the region's industry strengths.

TALENT

The following points emphasize the importance of executing on the goal of educating, training, and retaining talent - to better meet the needs of the region's employers and to create jobs paying a family living wage:

- The region's population has remained relatively stagnant since 2010 and the working-age population is projected to decline due to an aging workforce.
- Over 37,000 unemployed people in the region (as of 2014) represent an "untapped" workforce opportunity including youth, or adults who are veterans, not English language proficient, disabled, or foreign-born.
- 51% of Connecticut 2010 high school graduates did not go to or stick with college, i.e. they did not receive a 2- or 4-year degree within 6 years. This represents a workforce pipeline that needs more and better opportunities for post-high school education and training.
    - Of that 51%, 18% didn't go to college at all. Nearly half of those students end up in careers in Retail Trade, Accommodations & Food Service, or Health Care and Social Assistance—making average earnings of between $15,000—$22,000 six years after graduating.
- According to the Brookings Institute, the MSA has a combined 2- and 4-year college graduate retention rate of 40% (driven largely by University of Connecticut).

To achieve this goal, the region will:

Significantly Increase the Supply of Talent for High-Opportunity Industries Using a Dual-Track Training Model

Across Connecticut and Metro Hartford, thousands of job vacancies exist in key industries and related occupations critical to sustained regional economic growth and general prosperity. This is a particular concern in traded sectors, where research documents that the concentration of businesses employing well-educated skilled workers signifies a vibrant and thriving region. To ensure that the region's education and training institutions are preparing students with the skills and experience needed to succeed in the 21st century, businesses must be given a bigger role in guiding education and training programs. Metro Hartford will follow the lead of numerous economic competitor states and countries (e.g., Colorado, Washington State, and Germany), who have pursued variants of a "dual-track" readiness strategy to systematically prepare (educate, train and support) thousands of individuals for placement and advancement in financially-rewarding jobs and careers in targeted sectors and occupations.

However, to achieve inclusive economic growth, the dual-track strategy will explicitly target untapped sources of potential talent, including (but not limited to) current high school students who are either not interested in or looking for an alternate pathway to college/post-secondary education, and recent high school graduates uncertain about future directions and career options. Furthermore, a focus on engaging women and minorities will be critical to creating inclusive economic development.

Retain Talent by Connecting College Graduates to Employers

The Hartford region boasts fourteen colleges and universities. However, according to an analysis by the Boston Federal Reserve, Connecticut ranked 41st as a state in retaining college graduates. Research shows that helping students connect to employers during college increases their likelihood of staying in the region. Connecting first generation college students with employers requires special attention. According to the National Association of Colleges and Employers 2016 student survey, the success rate in first generation students' job search is 25% versus 33% for later generation students. The use of on-campus employer representatives and on-campus career/job fairs can help first-generation students increase the success of their job searches. While some efforts are underway in the Metro Hartford region for specific industries or schools, no one organization is working broadly to coordinate between higher education and industry. To have the greatest possible impact, these efforts need to be aligned, scaled, and systematized. This effort will focus on connecting small- to mid-sized employers in traded sectors with institutions of higher education.

INVEST

Investing in quality of place is an essential component of modern economic development. Metro Hartford's ability to attract and retain talent is dependent upon its quality of place. Because talented workers are mobile and in high demand, they often decide to live and work in communities with a high quality of place. Harvard Business Review reports that among 25- to 34-year-olds with college degrees, two-thirds look for a job after they choose the community where they want to live. Furthermore, IEDC reports that "in communities where residents have developed a strong attachment to place, local GDP growth exceeds the national average."

To achieve this goal, the region will:

Create a Regional Investment Fund to Drive Investment in Quality of Place Assets

When deciding where to live, educated workers are looking for quality of place, in particular, the presence of recreational and cultural amenities. Creating such assets requires catalytic investment, and increasingly, successful regions are taking control of establishing structural, consistent, and dedicated regional funding mechanisms to power these investments. Regions such as Pittsburgh, Denver, and others are spurring population increases and economic growth through regional investment funds. Scaled and sustained funding to support regional projects, amenities, and programming would bring the successes that the Metro Hartford region has already enjoyed to a whole new level. This effort will focus on building the leadership, public support, and regional identity needed to establish a regional investment fund.

BRAND

The region's economic performance from 2007 to 2017 trailed the US economy, experiencing almost no post-recession growth. Under current trends, IHS Markit forecasts that economic growth will continue to lag. However, Metro Hartford has a concentration of key, high-opportunity industries, including advanced manufacturing and aerospace; business services, finance, and insurance; and biomedical devices, that could buck current trends and power regional growth. To promote and grow these industries, Metro Hartford must cement its reputation as a regional hub for these industries by creating a cohesive brand.

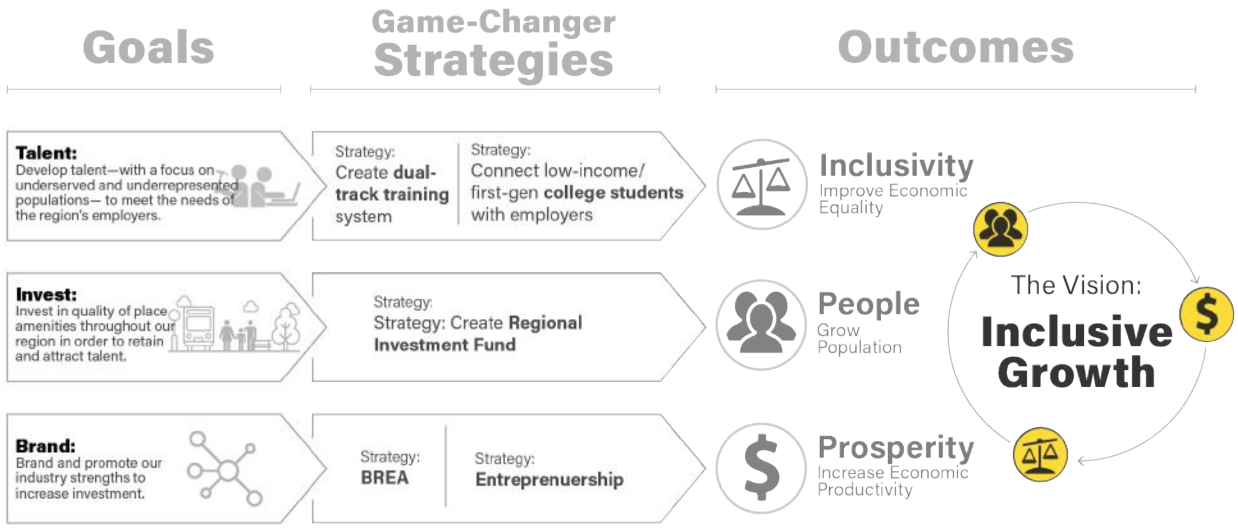
To achieve this goal, the region will:

Create a Coordinated, Regional Approach to Business Retention, Expansion, and Attraction

Successful regions around the country provide business retention, expansion, and attraction (BREA) services. This effort will focus on fostering collaboration to build and execute a unified regional promotion strategy in Metro Hartford. Shared data, tools, resources, and processes will promote regional growth by attracting, retaining, and expanding businesses in high-opportunity sectors.

Scale Efforts to Support High-Opportunity Sectors Through Entrepreneurship

The Metro Hartford region must continue to foster entrepreneurship. Entrepreneurial ecosystems foster high-growth, innovative companies that attract talent and economic growth. Metro Hartford's current ecosystem is fragmented and could be strengthened through investments in connectedness and culture. This effort will focus on strengthening the entrepreneurial community through building the capacity of existing connectivity programs, engaging a community-wide task force around talent development, and developing a physical entrepreneurship hub.



MEASURING PROGRESS

There is no more vital ingredient in an economy than people. The first goal by which the Metro Hartford region will measure the success of this plan ,therefore, refers to regional population growth. The Hartford region has seen little net change in total population or total workforce in the last fifteen years, and lags significantly behind most other MSAs, as well as all of its "benchmark regions"—which this report will discuss in more depth in Section IV. Those benchmark regions, although generally above average across all MSAs, have not been outliers in their own growth rates. In other words, Metro Hartford does not need to outrun the proverbial pack to achieve growth like its benchmark regions; instead, it simply needs to catch up.

Between 2020 and 2025, Metro Hartford should aim to achieve a similar (though, more modest) rate of growth on average annually as those benchmark regions did in recent years. Specifically, Metro Hartford should aim to **grow its population by between 3% and 4%.** Due to demographics, growth in the coming decade will be more challenging in many places than it was in the last, and as current employees retire in greater number, competition for workforce will increase. The Hartford region will need to work hard to ensure that it is attracting more residents than it loses; however, a growing population will lay the foundation for Metro Hartford's future economic success.

The second overarching goal refers to economic output, which at the broadest scale can be captured using Gross Domestic Product (GDP)—also referred to at a regional scale as Gross Regional Product (GRP). Metro Hartford's economy reached a low point in the 2008/09 recession, with a more significant year-to-year loss than most other regions in the country. It also remained sluggish (with slight losses) for several years following the recession, a period during which both its benchmark regions and peer regions (those similar in geography, demographics, and economy) saw growth. Metro Hartford'ss high rate of productivity (seen with a high GDP per capita) is an asset, but to maintain a competitive economy and avoid decline, the Hartford region must look to grow the output of its business. To do so, Metro Hartford should aim to **grow Real GDP** (meaning inflation-adjusted economic output) by more than its targeted rate of population growth—i.e., **by 5% or more between 2020 and 2025.** (This target rate of Real GDP growth is lower than the the recent rate of Real GDP growth among the benchmark regions, identified later in this report. However, the trend of Real GDP growth exceeding population growth has generally been true in those regions as well as most other growing regions.) . Achieving this growth will require the region to both continue to excel in its current high-performing sectors (e.g., Insurance/Finance) and become highly

	Hartford MSA Benchmark Metrics		
	2016 Value	5-year Goal (%)	5-year Goal (Value based on 2016)[1]
1. Population	1,206,800	3% - 4%	1,243,000 - 1,255,100
2. GDP	$90.0 billion	5% or more	$94.5 billion[2] or more
3.a) Disparity 3 in Median Household Income	White, Non-Hispanic: $80,800 Black: $45,800 Hispanic: $37,600	> 33% decrease in disparity	Black: $57,500[2] Hispanic: $52,000[2]
3.b) Disparity 3 in Poverty Rate	White, Non-Hispanic: 5.7% Black: 19.3% Hispanic: 28.2%	> 33% decrease in disparity	Black: 14.8% Hispanic: 20.7%
3.c) Disparity 3 Employment Rate	White, Non-Hispanic: 62.7% African-American: 59.1% Hispanic: 57.5%	> 33% decrease in disparity	Black: 60.3% Hispanic: 59.3%

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competitive new sectors, with high-wage labor.

The third goal refers to the level of inclusiveness within the region's economy. Inclusion is more than a socially-motivated goal; it is also a critical ingredient in sustainable economic growth. To calculate "inclusion", we rely on three measures related to income, employment, and poverty. For each of those measures, a common trend is evident. Metro Hartford does well compared to other metros. Metro Hartford is relatively strong in measures of income (median household income of $72,500 - 21st highest among all 382 U.S. metros), employment (61.8% employment rate among adults - 78th highest among all 382 U.S. metros), and poverty (10.4% poverty rate for individuals - 29th lowest among all 382 U.S. metros). Metro Hartford is also relatively equitable across lines of race. Compared to rates of disparity in other metros, Metro Hartford has relatively little disparity between its White and Black population on these measures. However, disparity exists nonetheless; across income, employment, and poverty, Black/African Americans fare worse than Whites, and the disparity is even greater (and relatively worse than most other metros) when looking at the region's Hispanic population. Metro Hartford's 2025 goal related to racial/ethnic disparity should, therefore, be to **reduce by at least one-third the rate of disparity for both Black people and Hispanics/Latinos in each of these three measures: Income, Poverty, and Employment.** It is important to note, however, that like GDP and Population, change in disparity will happen for reasons other than the impact of Metro Hartford Future. For instance, across the last five years for which data is available, disparity in the rate of poverty between White, Non-Hispanic and African American/Black households fell by over 6%% annually in the MSA, and by over 5% annually% when comparing White, Non-Hispanic and Hispanic households. To achieve its five-year goals, the annual decrease in disparity will need to be around 6–7%, meaning that, at least when it comes to poverty, Hartford simply needs to continue its trend of decreasing disparity. When it comes to Median Household Income, disparity has fallen in recent years in the region for the Hispanic population by around 5% annually on average. But disparity has risen slightly in the African-American Population, a trend that the region will need to reverse. Finally, because employment rates face relatively little disparity, generating a decrease in that disparity will require only modest gains in employment rates—less than 2% in the employment rate for both the African-American and Hispanic populations over five years. But maintaining high employment rates will require the region to maintain a robust workforce and competitive economy, despite nationwide demographic challenges. The following table details the achieving the five-year goals for Metro Hartford would look like based on 2016 data.

INTRODUCTION

This Metro Hartford Future project report was developed to fulfill the requirements for a Comprehensive Economic Development Strategy (CEDS). The larger project, however, originated in 2016 with the Capitol Region Council of Government's Next Generation Economic Development Forums and later as the Regional Futures Initiative. The original goal of the forums, and the initiative, was to explore solutions to the region's (and state's) stagnation and to help it emerge from the Great Recession, which impacted Connecticut to a much greater degree than previous recessions had.

At the same time, CRCOG recognized that Connecticut's historic growth patterns produced unequal benefits and were increasingly seen as outdated. For too long, the State's development benefited suburban areas at the expense of urban centers. Disinvestment lead to concentrated poverty in urban centers such as Hartford and New Britain. It also lead to urban environments that were less attractive to younger generations who increasingly prefer urban living.

Finally, the State of Connecticut, partially because of the recession, but mostly because of decades of deferred action, was facing a looming budget crisis. Payments required by labor contracts had been deferred for years and were finally coming due, placing an increasing burden on state finances. Regional leaders realized that the state's ability to lead on economic and infrastructure development would be significantly curtailed.

MORE THAN A CEDS

The region has previously developed economic development strategies, but implementation was always a struggle. In 1999, the Millennium Project was developed, which was a very well-funded and comprehensive plan. The committee established to carry on the work of that project had a productive several years run, but ultimately disbanded. With that history in mind, the Metro Hartford Future Project was designed with a few underlying principles:

1. It would build on previous plans and studies, borrowing their strategies and findings where possible. This was done to both honor previous work and reduce the resources spent on reinventing the wheel.

2. It would be based on a clear-eyed analysis of the region's situation. The study team would be tasked with taking a hard look at the data to determine the trends that are shaping the region's future. The high levels of wealth in Connecticut often obscure underlying trends of decline, making this task difficult.

3. It would be focused on a limited set of goals and strategies. The initial target was set at no more than five. This was done to avoid having the plan become a list of initiatives already underway or a compilation of regional wish lists. The goal was to focus on a few things that could be brought to a large enough scale to create lasting change.

4. It would be implementable and ultimately implemented. An initial goal of having an "owner" for each strategy was set at the beginning. Rather than just a name in a table of strategies, the "owner" would be engaged during the crafting of the strategies and would

start working toward implementation during the planning process. Strategies without a clear owner would be put on the back burner.

All of this leads to the goal of developing five game changer strategies that will move the region closer to its goal of inclusive economic growth.

DEVELOPMENT OF METRO HARTFORD FUTURE

This strategy is the product of months of development. The goal of the process was to ensure that it built from prior planning work, reflected a diversity of perspectives, and engaged stakeholders in developing actionable strategies. To do so, we:

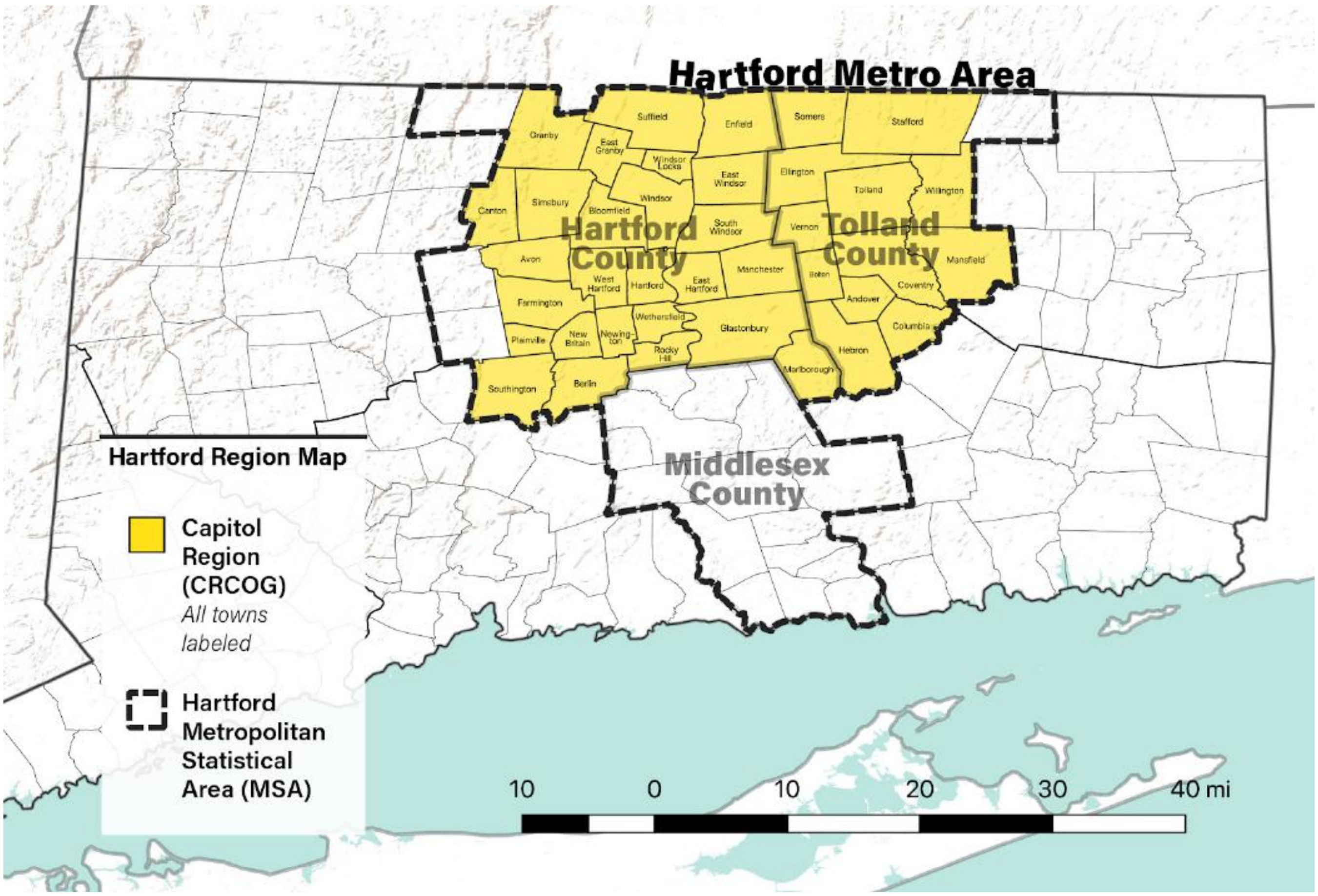
- Conducted in-depth analysis of the region's industry strengths, weaknesses, opportunities, and threats
- Conducted interviews with 34 regional leaders and stakeholders
- Reviewed the following planning documents:
    - Advanced to Advantageous: The case for New England's Manufacturing Revolution, 2015
    - Automation and the CT Job Market, 2017
    - Boosting Metro Hartford's Economic Performance in the New Millennium, 2008
    - Broadband in Connecticut - Initiatives and Updates, 2014
    - Capital City Parks Master Plan, 2014
    - Capital Workforce Partners Workforce Investment & Opportunities Act Strategic Plan 2018 (Modified)
    - Capitol Region Regional Plan of Conservation and Development, 2014
    - CBIA Survey of Connecticut Manufacturing Workforce Needs, 2017
    - Commission on Fiscal Stability and Economic Growth, 2018
    - Connecticut Economic Competitiveness Diagnostic Summary Results, 2016
    - Connecticut Workforce Assessment, Yale School of Management, 2017
    - CTfastrak Expansion Study, 2016
    - Growing Economy, Shrinking Emissions, 2010
    - Guidelines for the Development of a Strategic Plan for Accessibility to and Adoption of Broadband Services in Connecticut, 2011
    - Innovation Places Strategic Plan, 2017
    - iQuilt Plan, 2012
    - JumpStart: MetroHartford Alliance Research & Recommendations, 2014
    - Knowledge Corridor Fair Housing and Equity Assessment, 2014
    - Knowledge Corridor Talent & Workforce Strategy, 2014
    - Metro Hartford Comprehensive Transit Service Analysis, 2017
    - One Region, One Future, 2016
    - Progress Points, 2014–2016
    - Tomorrow's Framework: Connecticut Technical High School System Strategic Action Plan, 2014-2017
    - Yale CT Workforce Assessment, 2017
- Hosted Strategy Sessions around each of the goals, where approximately 85 stakeholders help to develop initial strategies
- Engaged lead and supporting organizations around each of the prioritized strategies through additional interviews and small group meetings
- Received feedback and guidance throughout from the Working Group and Advisory Committee

This strategy was developed with the support of Fourth Economy Consulting. IHS Markit provided data and analysis for the situational assessment.

DEFINING THE REGION

The Metro Hartford Future Project covers the municipalities of the Capitol Region, shown below in the map in yellow. The geography is composed of 38 towns—the members of the Capitol Region Council of Governments (CRCOG) that make up a population of just under one million.

However, in many cases, this plan also considers a slightly larger region within its analysis—the Hartford Metropolitan Statistical Area (or MSA), also shown below. The Hartford MSA encompasses the entire CRCOG region, as well as the remaining towns in Hartford and Tolland Counties, and all of Middlesex County. The MSA is used for analysis—despite extending beyond the Capitol Region's boundaries — for two reasons: it is generally representative of the region (since Hartford and Tolland counties accounted for between 85% and 90% of total economic activity and population in the MSA) and data are often only available (or comparable) for MSA geographies.



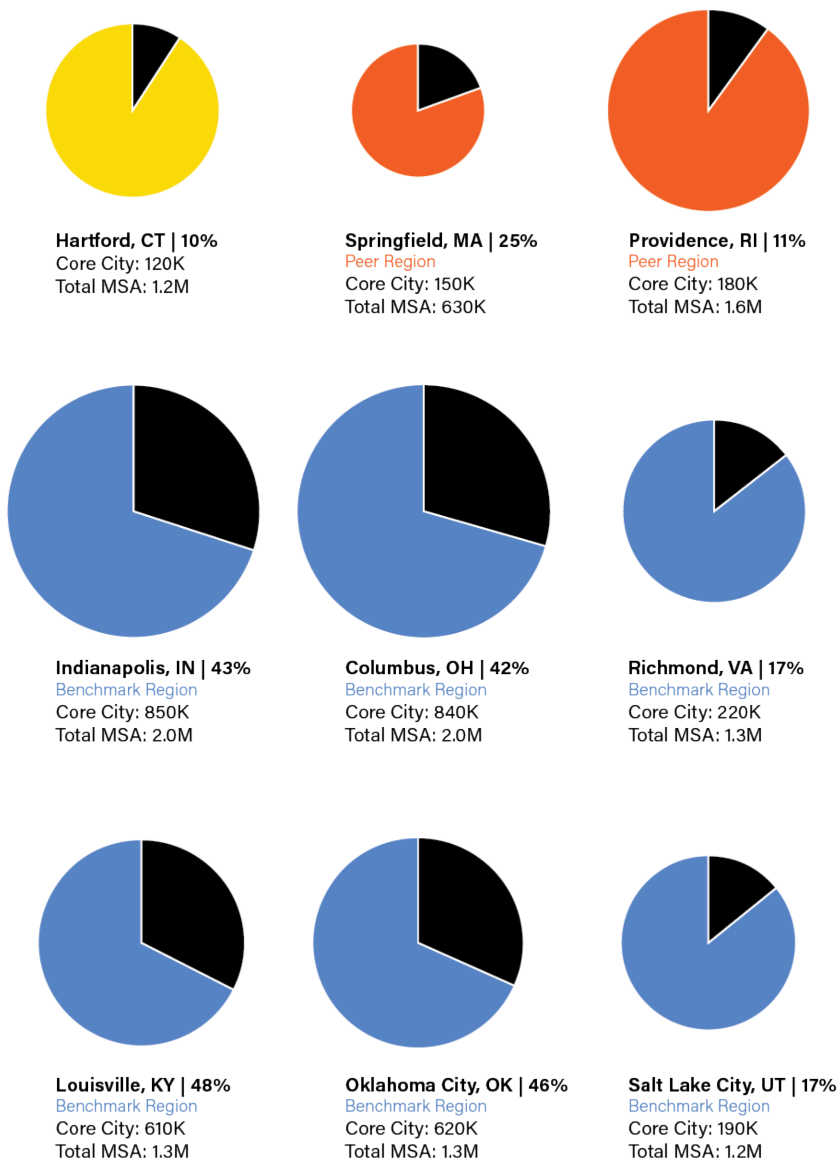
HOW DOES THE HARTFORD REGION COMPARE TO OTHER REGIONS?

The City of Hartford is the largest municipality in the Hartford Metropolitan Statistical Area (MSA), but the with only around 123,000 residents, it represents only about 12% of the total MSA population. That is an uncommonly low percentage of population for a major city relative to an MSA. In fact, it is among the lowest in the country.

To get a better sense of how Metro Hartford compares, the graphic shows the same data for Metro Hartford's peer regions and benchmark regions. (Note: the peer and benchmark regions are discussed further in the Evaluation Framework section of this plan.)

However, it is worth pointing out that much of this is attributable to geographical constraints. The city of Hartford is much smaller in physical size than other core cities. In fact, given its small size, it is even more densely populated than the other cities show in the graphic.

Core Cities as a Percentage of Metro Areas (sized by total population)



Data: US Census Burea, 2016 ACS five-year estimates

PLAN FRAMEWORK: VISION AND GOALS

VISION

A successful economic strategy requires many different players in a region to unite behind a shared vision of future success. That vision forms the foundation for all the planning and collaboration that takes place in a region, and as such that vision must be clear and compelling. For Metro Hartford, the vision of future success is summed up in two words: Inclusive Growth. Throughout the country, economically revitalized regions have focused on growth. This strategy will position the Metro Hartford region to do the same, but with an emphasis on inclusive growth—a concept which this plan defines as consisting of three parts: People, Prosperity, and Inclusion.

GOALS

To achieve the vision of Inclusive Growth in the Hartford region, three goals have been identified. These goals were vetted and prioritized by our Advisory Committee. They are organized as three simple ideas:

Talent: Educate, train, and retain talent - with a focus on underserved and underrepresented populations - to better meet the needs of the region's employers and to create jobs paying a family living wage.

Invest: Enhance the quality of place amenities throughout our region to retain and attract talent.

Brand: Strengthen collaboration to support and promote the region's industry strengths.

MOVING OUR REGION INTO THE FUTURE

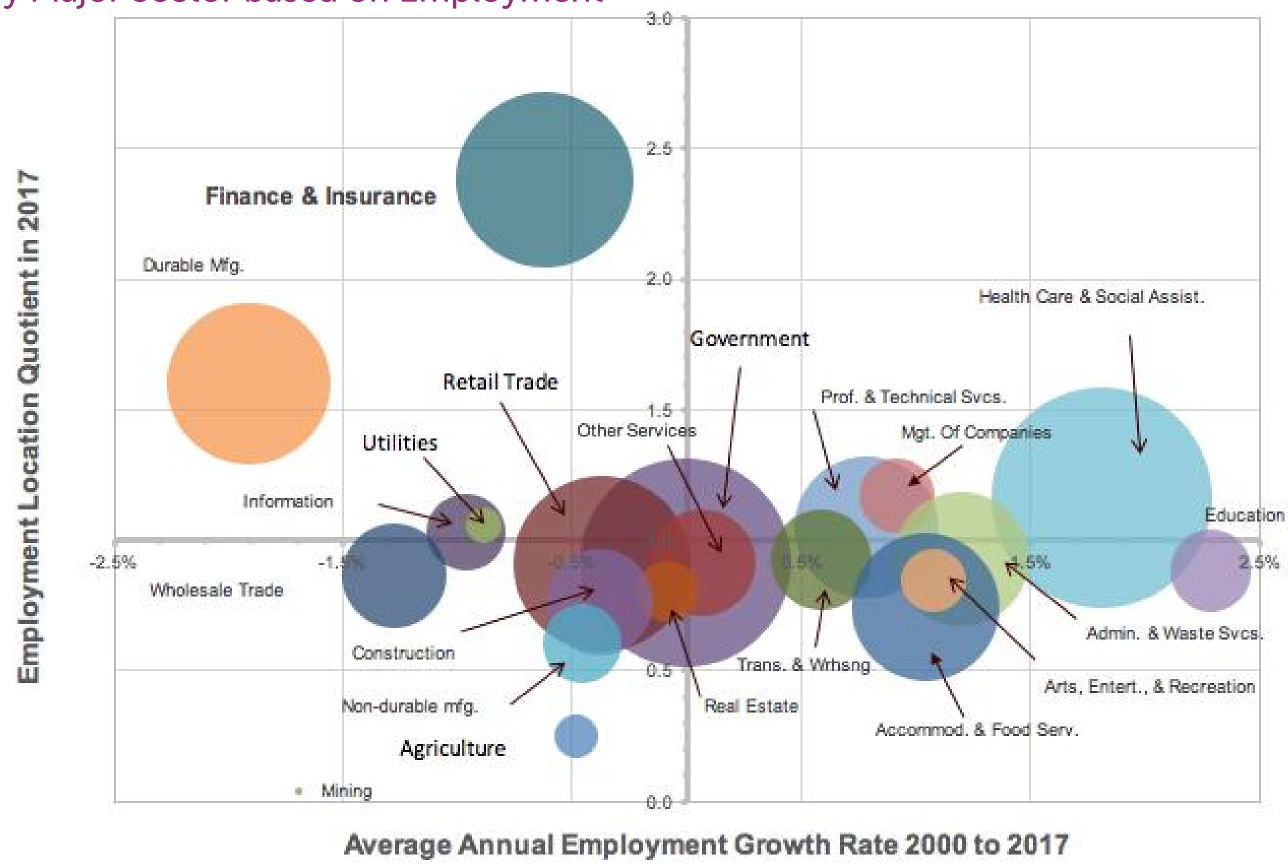
Broadly, this plan will establish key strategies across three goal areas: Talent, Invest, and Brand. The following sections of this document will detail the specific strategies within each of those areas and discuss the process by which success will be specifically evaluated for each.

This section of the CEDS will review, for each of the three goals: important takeaways in the form of a SWOT analysis, a summary of key data, and existing activities related to the goal area (already taking place or planned) in the region. These analyses were informed by various stakeholders and were used by the project team to develop the strategies that follow.

TARGET SECTORS

In order to identify target sectors, a shift-share analysis was performed for the MSA, analyzing performance by NAICS sectors from 2000 to 2017. Sectors were classified into High Performing, Emerging, Legacy, and Laggard based on employment growth, size, location quotient, and US growth of each sector. This information is displayed in two different ways in the charts below: first on an employment basis, and then on an output basis.

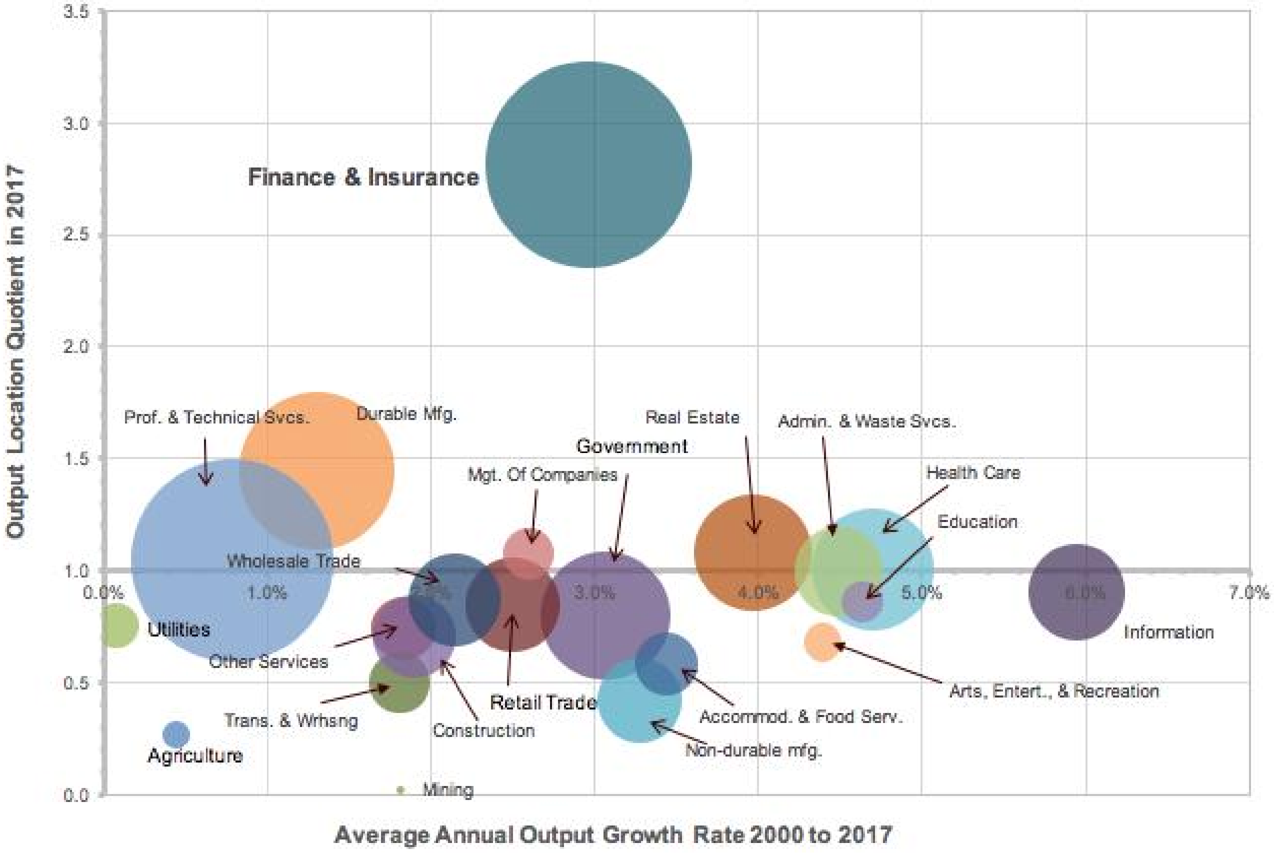
Historical Change in the Performance and Structure of the Hartford MSA's Economy by Major Sector based on Employment



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

Industries that appear larger on the previous chart have more total employment. Manufacturing, Finance and Insurance, Health Care & Social Assistance, and Government are the largest. Those that appear larger on the second chart are greater in output. So, the Professional, Scientific, and Technical Services sector (which includes a variety of "white-collar" work, e.g., accounting or engineering firms) has relatively little employment compared to its relatively significant economic output. The opposite is true for the Retail sector. In both charts, the x-axes measure the rate of growth—in employment and output, respectively—and the y-axis measure the location quotient, i.e., extent to which a certain industry's concentration exceeds the average. Finance and Insurance sector businesses are by far Hartford's most significant industry by concentration. Durable Manufacturing, which has declined in recent years both in Hartford and throughout the country, has the second highest location quotient. Both of these industries have lost workforce in recent years.

Historical Change in the Performance and Structure of the Hartford MSA's Economy by Major Sector based on Output



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

Beyond industry-level analysis, it is important to understand were specific opportunities for growth lie. The following analysis defines clusters and sub-clusters as used in the US Cluster Mapping Project (i.e., Porter Clusters), with four-digit NAICs codes mapped to cluster definitions (The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments). Traded and local clusters were differentiated, and advanced sectors were identified. Finally, forecasted output growth was assessed in order to compare performance in each sector to the level of growth expected moving forward.

The targeted sectors for the Metro Hartford region are listed below (along with NAICS codes):

Business Services

- Sub-sectors: Data Processing (5182), Architectural & Engineering (5413), Computer Systems Design (5415), Management Consulting (5416), Management of Companies (5511), Employment Services (5613)
- Large Legacy Legal Services sector (5411)
- 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

- Sub-sector: Insurance Services (5241), Other Financial Services (5329)
- 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

Metal Working and Metal Products (upstream and downstream)

- Sub-sectors: Forging and Stamping (3321), Cutlery and Hand Tools (3322), Architectural and Structural Metals (3323), Hardware (3325) Machine Shops (3327), Other Fabricated Metal Products (3329).

- Large laggard Wholesale trade sectors – hardware, electrical goods, and Misc. Durable goods

Printing Services

- Subsector: Support Activities – printing (3231)
- Creates demand for Chemical Products
- Supports Business Services

Production Technology Machinery and Equipment

- Subsectors: Industrial machinery (3332), Metalworking Machinery (3335), Electric Lighting Equip. (3351), Other Machinery (3339), Other Electrical Equipment and Computers (3359)
- Electronic Instruments (3345) Large laggard sector – demand from Aerospace
- Legacy of Region's aerospace history, major supplier to it

Aerospace

- Sub-sector: Aerospace products and parts (3364), Legacy sector, still a major presence.
- Source of demand for machinery and metals products
- Challenge will be supply of skilled workers

Medical Devices

- Subsectors: Commercial and service industrial machinery (3333), Medical Devices (3339)
- 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

The clusters identified show that the region has a concentration of activity in advanced manufacturing sectors that produce a range of complex, high-value added durable mfg. goods such as machinery, electrical equipment, electronics, tools, aerospace, transportation equipment, etc. This cluster exists, and continues to perform well, because of the legacy of producing these types goods due to such companies as Pratt and Whitney. Targeted workforce training programs should continue, and be enhanced as necessary to train workers in key occupations required by these companies.

GOAL 1: TALENT

Educate, train, and retain talent—with a focus on underserved and underrepresented populations—to better meet the needs of the region's employers.

People are the fundamental ingredient in an economy. As it seeks to achieve its vision of Inclusive Growth, Metro Hartford will rely on its workforce—the region's Talent—to drive economic growth that benefits the entire population.

High-opportunity employers need qualified talent. A recent survey of employers by the Capital Workforce Partners found a current or near-term need for over 2,500 manufacturing workers. Technology, professional services, health care, financial services, and many other sectors will also be looking for thousands of talents employees in the next decade. Connecticut state projections suggest that over 100,000 new jobs will exist in the state by 2026, with key sectors growing in workforce by 10% or more in under a decade. In combination with jobs from turnover, the potential for net growth in many key industries represents a vast opportunity for the region.

However, without people—talent—there will be no one to work those jobs. And at present, the supply of potential workers is not keeping pace:

- The region's population has remained relatively stagnant since 2010 and working-age population is projected to decline due to an aging workforce.
- Over 37,000 unemployed people in the region (as of 2014) represent an "untapped" workforce opportunity including youth, or adults who are veterans, not English language proficient, disabled, or foreign-born.
- 51% of Connecticut 2010 high school graduates did not go to or complete college, i.e. they did not receive a 2- or 4-year degree within 6 years. This represents a workforce pipeline that needs more and better opportunities for post-high school education and training.
    - Of that 51%, 18% didn't go to college at all. Nearly half of those students end up in careers in Retail Trade, Accommodations & Food Service, or Health Care and Social Assistance—making average earnings of between $15,000—$22,000 six years after graduating.
- According to the Brookings Institute, the MSA has a combined 2- and 4-year college graduate retention rate of 40% (driven largely by University of Connecticut).

The region has a lot of great programs designed to educate, train, and retain our existing workforce, but they are lacking the coordination and scale to effectively meet employer demand.

EXPOSING STUDENTS TO MANUFACTURING CAREERS

Connecticut. Dream It. Do It. (CTDIDI) exposes the state's 5th through 8th graders to the opportunities presented by manufacturing. Run by the Connecticut Center for Advanced Technologies (CCAT), CTDIDI provides over 6,000 students in the Hartford region (plus their parents and families), and educators with a wide variety of resources and programs that dispel misconceptions about the 21st century manufacturing workplace and introduces the broad range of educational and career opportunities that manufacturing offers.

Goodwin College, in collaboration with CCAT, also has the Manufacturing in Motion program targeted to high schools. Goodwin College currently works with area high schools to raise student awareness about career opportunities in advanced manufacturing. In 2016, Goodwin College unveiled a 44-foot trailer which is used as an Advanced Manufacturing Mobile Training Lab. This mobile laboratory delivers programs to introduce careers in manufacturing and to demonstrate the manufacturing flow process, including specific skillsets for careers.

SWOT ANALYSIS

STRENGTHS

- **Relatively large, diverse, regional economy.**
- **High concentration of export-oriented companies contributing to the region's economic base.**
- **Generally stable labor market.**
- **Highly-educated labor force;** which results in higher worker productivity and is a primary site selection factor for attracting companies.
- **Above-average concentration of skilled workers.**
- **Relatively low wage costs** by sector and occupation when compared to other large MSAs on the Northeast.
- **Comparable demographic and socioeconomic indicators of inequality and resiliency** with CT and the US. (However, within the MSA there are concentrations of low-income residents.)
- **Large higher-education sector.** There are 17 post-secondary institutions that, during the 2016-17 school year had a total full time equivalent enrollment of just over 79,000 students and awarded almost 39,300 certificates and degrees at all levels, 79% of which were bachelor's degrees or higher.
- **High value-add at key higher education institutions—**including both two and four-year degrees—producing alumni with above-expected wages.

WEAKNESSES

- **Little economic growth:** Between 2000 and 2017, total employment in the Hartford MSA was virtually unchanged.
- **Unfavorable economic structure:** above-average shares of economic activity in low performing sectors.
- **High business tax rates.**
- **Over-concentration of Black, Hispanic, and other Non-Asian minority residents in low paying occupations** and under-representation in high paying ones.

MANUFACTURING TRAINING FOR THE REGION'S YOUTH

Connecticut Center for Advanced Technology (CCAT) has created a pre-apprenticeship program in which they recruit, train, and place participants with participating manufacturers. Participants receive a wage subsidy throughout the 5-week training. The curriculum was designed in collaboration with the Advanced Manufacturing Employer Partnership, which represents over 270 manufacturers. CCAT is currently working with Synergy Alternative High School and will be working to embed this model in comprehensive high schools. Partners include CTDOL, Capital Workforce Partners and the East Hartford Public Schools.

Goodwin's CT River Academy (CTRA), serving 500 students throughout the region, is an Early College Model high school. In addition to a full range of high school courses, students in grade 11-12 can earn up to 30 transferable college credits through an early college model. Working hands-on with cutting-edge equipment and high-tech machinery such as 3-D printers and robotics, students gain experience in technologies including advanced manufacturing, engineering, and logistics. Internships are available with local employers. Pathways into advanced training after high school graduation are also provided and Goodwin works with local employers to provide apprenticeship opportunities.

OPPORTUNITIES

- **Presence of large corporate headquarters** to participate or fund economic development activities and participate in attraction efforts, especially the above-average share of Fortune 1000 companies.
- **Potential attractiveness of the CRCOG Region to foreign-owned companies** looking to enter the US market, especially those producing complex, high-value added manufacturing goods that require skilled workers or offer IT services.
- **Grant opportunities for qualified small businesses in manufacturing:** These businesses, working with economic development organizations, should increase efforts to obtain grants from the Federal Government's Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs.
    - There are some significant clusters like Healthcare that provide over 80,000 jobs that also have some tradability. Selective targets of opportunity with Healthcare should be pursued, especially as they involve providing business and IT services to firms like Aetna and Cigna.
- **Economic development policies and job training programs** should be directed at reducing the inequities in the labor force where non-Asian minority residents are over concentrated in low-paying occupations and under-represented in high paying ones.
- **Large number of graduates from the region's college and universities** is major opportunity to annually increase the quality of the workforce – if substantial numbers of them remain in the region.
- **"Untapped" workers**—youth not working or in school, low-skill adult workers, those without employment, those with limited English proficiency, veterans, and those with disabilities—present a significant challenge and opportunity in terms of workforce development. Altogether, in 2014 more than 37,000 potential workers in the region were "untapped."

CAMPAIGN FOR A WORKING CONNECTICUT

The Campaign for a Working Connecticut is a statewide coalition that promotes the state's economic competitiveness through the development of sustainable, effective workforce solutions to increase low-wage workers' skills and advance all individuals and families to self-sufficiency. The Campaign works to address our state's "middle skills" gap by advocating for investments in effective programs, as well as the development of innovative workforce solutions to advance Connecticut citizens to economic self-sufficiency.

THREATS

- **Projected lagging economic growth rates:** IHS Markit forecasts that the economic growth rates in both Connecticut and the Hartford MSA over the next 10 years will continue to lag that of US, which will constrain the amount of new development that will occur in the CRCOG region as personal consumption spending, or region demand generated by households, will also grow slowly.
- **Lack of new businesses:** New businesses make up just 2% of employment. Thinking about policies to encourage new business creation may be a way to help revive the economy and help bolster economic resilience with new sources of value creation.
- **Slow wage rate growth:** the amount of income received by residents of MSA will also rise slowly, and wages in some sectors may not be high enough to attract skilled workers.
- **Stagnant population:** Between 2010 and 2017, the population has remained nearly level, estimated at 974,035 for the Capitol Region in 2017.
- **Declining young adult population:** The share of total population for persons between the ages of 25 and 44 has steadily declined for years, falling from 33.4% in 1990 to the current level of 23.8%, with an absolute decline of 87,200 persons.
- **Aging workforce** will increase the number of vacancies in key traded economy sectors such as advanced manufacturing. A decline in the pool of skilled workers could result in an outflow of these companies.
- **Lack of attractive employment opportunities for college graduates:** Sectors where college graduates are likely to be hired have wages that are substantially below Connecticut averages (e.g., Professional and Business Services, Financial Activities), while those in Information are only slightly below. Those state averages, however, are largely by employers in the greater New York City area. Cost of living, quality of place, and other regional factors must be harnessed, in addition to high-wage employment, to lure college graduates and young professionals away from opportunities elsewhere.
- **Low four-year high-school graduation rate:** The four-year graduation rate in Hartford for the 2015-16 school year was 71%—much lower than the region in total (87%), as well as state and national averages.
- **Low college attainment rate:** The majority (51%) of Connecticut high school graduates have not received a college degree six years after graduating.

HIGHER EDUCATION IN THE HARTFORD REGION

The Hartford Region boasts fourteen colleges and universities (listed in order of 2016 enrollment): University of Connecticut, Central Connecticut State University, Manchester Community College, University of Hartford, Tunxis Community College, Goodwin College, Capital Community College, University of Saint, Joseph, Trinity College, Asnuntuck Community College, Charter Oak State College, Lincoln College of New England-Southington, Hartford Seminary, Rensselaer Hartford Graduate Center. Most of these institutions are represented by the Hartford Consortium for Higher Education and the Connecticut Conference of Independent Colleges. Individually, and collectively, these institutions are constantly developing new programs and initiatives to help our region create the workforce of the future.

ACTION PLAN

The following strategies address two specific opportunities related to the region's goal to educate, train, and retain its future workforce; however, fully achieving that goal will required a long-term, multi-faceted approach. A few key considerations should drive this approach:

- It should represent a **coordinated approach that provides students multiple pathways** to learn about, prepare for, and launch careers in in-demand fields. States such as Washington and Rhode Island are designing highly-integrated and rigorous programs that do just that—providing work-based learning, aligned classroom learning, and valuable credentials/credit for every student.

- It should focus on **moving underserved and underrepresented students into family living wage careers**. According to 2017 data from the Connecticut State Department of Education (CSDE), 52% of 2010 graduates working in Manufacturing were earning a family living wage job after six years—topped only by careers in Utilities and Finance and Insurance. Many manufacturing jobs don't require a four-year degree, making this career a pathway to opportunity for populations without a college degree, especially those who are Hispanic and female. The data presented in the benchmarking section of this strategy demonstrates significant disparities for the region's Hispanic population. Furthermore, the CSDE data shows that six years after graduation, female 2010 graduates without a college degree earned an average of $18,000/year, while their male counterparts earned on average $25,000. This data reinforces the need to engage minority and female students in high-opportunity careers, and the fact that manufacturing offers a viable pathway to a family living wage career for these students.

- It should focus on the region's **traded economy**. A region's traded economy is comprised of its export-oriented companies (also referred to as the "economic base"). These companies may export physical goods, such as tools, or services, such as insurance policies. Importantly, work performed in the region is used to sell products or services outside of the region. This brings new resources into the region, expanding the economy. As a bonus, jobs in these sectors tend to pay well (usually a family living wage) and actually "support" other industries that serve local needs (such as retail). It is essential that open positions in traded economy firms be filled as quickly as possible.

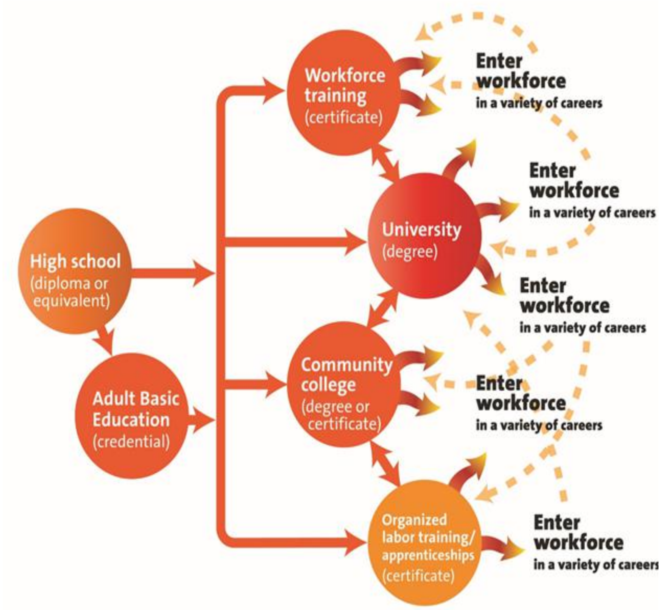
An outline of one such approach is provided below. It should be noted, however, that this is not fully fleshed out. Specifics regarding implementation still need to be worked out. It does provide the basic building blocks of a system reform that we believe will lead to a better talent development system.

CREATE A WORLD-CLASS TALENT SYSTEM

Connecticut has a large and diverse "ecosystem" of workforce entities that has evolved over time. However, key industry sectors vital to state

NEW BRITAIN HIGH SCHOOL MANUFACTURING, ENGINEERING, AND TECHNOLOGY (MET) ACADEMY

The Manufacturing, Engineering, and Technology training program will create a skilled talent pipeline to support the current and future workforce needs in New Britain and the surrounding area through pre-apprentice and apprenticeship programs. A steering committee of businesses and educators will develop the curriculum based on best-in-class programs. Partnerships with local colleges will ensure that students receive college credit towards manufacturing-related degree programs. A marketing campaign will ensure that students, teachers, parents, guidance counselors, and others are informed and engaged.



The above illustration shows a variety of "career pathways".

The National Governors Association and the Woolsey Group

economic growth and household financial se-curity are currently experiencing significant numbers of vacancies in a wide range of jobs. This brief paper suggests three key "building blocks" for a world-class skilled talent system in Con-necticut, as a starting point to further discussion on building an agile, responsive system on the foundation in place today.

BUILDING BLOCKS

Three building blocks are suggested:

- Comprehensive Labor Market Analysis
- Flexible Workforce Skills Training Fund
- Empowered Industry Sector Partnerships

Building Block One: Comprehensive Labor Market Analysis

Several recent attempts to quantify/estimate the number of current (and anticipated) advanced manufacturing job vacancies in the Metro Hartford/ North Central Region ranged from negligi-ble, to 4,000, to more than 10,000. Accurate, timely, regularly updated labor market infor-mation at state, metropolitan and regional levels is a critical foundation for effective workforce planning and strategy. Actions needed to develop this building block are:

- Produce a comprehensive labor market analysis at state and metropolitan/regional levels in the mold of the Inflection Point study recently commissioned by the Allegheny Conference on Community Development.
- Build a database of workforce information using innovative data sources to provide better information about: occupations in demand; output/supply of skilled workers pro-duced by skills training programs and higher education; inflow/outflow of skilled work-ers due to retirement, moving in and out of Connecticut; and key industry trends.
- Use this information to develop workforce targets and guide development of respon-sive short, medium, and long-term strategies.

Building Block Two: Flexible Workforce Skills Training Fund

The ability to direct funds quickly to focus tactically on workforce skills training need is a vital feature of a genuinely world-class skilled talent system. Many of Connecticut's competitor states deploy a robustly capitalized customized skills training model to help employers fill cur-rent vacancies with skilled workers and upskill their current workforce in anticipation of future needs. Required actions on a flexible fund include:

- Capitalize a flexible workforce skills training fund to support rapid action to respond to current and anticipated vacancies and new skill sets needed in the economy. A fund with $60 to 70 million would be comparable to funding available in other states.
- Ensure flexibility to fund an array of workforce training elements including (but not limited to): pre-apprenticeships and apprenticeships; certificate programs, job shadow-ing; high school dual-track/work-and-learn instruction (half-time in school, half time on the job); associates degrees, and other forms of training, learning, experience.
- Dedicate a portion of funding to be spent "upstream", on early career education and information programs targeting younger students, their parents, faculty and counselors to start preparing the workforce of tomorrow for careers that will be in-demand.
- Make funds available to both existing and new employers and industries
- Allocate funding based on demonstrated employer needs and state workforce priorities.

Building Bock Three: Empowered Industry Sector Partnerships

- Organized Industry Sector Partnerships (ISP) exist in Connecticut in several key sectors:

advanced manufacturing, healthcare, insurance/finance, construction, transportation, information technology, etc.). Conduct a review of Connecticut Industry Sector Partner-ships to ensure coverage in key existing and emerging sectors at regional and state scale.

- Industry Sector Partnerships become direct applicants for and recipients of flexible workforce skills training funding. ISPs would identify specific employer training needs and apply for funding to address them. ISPs would need to manage relationships with employers and educational providers, and require ongoing administrative support and technical assistance, which could be provided by capable existing intermediary entities (including workforce development boards).
- ISPs authorized to set curriculum standards and credentials in their respective sectors.
- ISPs empowered to select qualified, capable training providers, through RFP or qualified vendor review.
- ISPs would fund training via performance-based contracting for individual trainees with the service provider entity.
- Two ways to get into the program: 1) ad-hoc funding allocated on a per worker basis for current or anticipated openings; and, 2) future-need funding allocated based on projected needs assessed through analysis of industry trends, compa-nies recruited, or other research documenting a workforce skills gap.
- Training award period varies depending on level of need, credentials required, employer's timeframe of need, etc.
- Require training entities to report on outcomes, including successful training completion, job placement, wages, wage progression and employer satisfaction. This would be a performance-driven program, adjustable as warranted by changing conditions.

To be truly effective, ISPs will need to be engaged in more than just workforce. Other issues of common concern, such as freight movements, regulatory hurdles, or access to markets, could also be addressed through such partnerships. Support agencies should work with ISPs to identify and address other issues, especially those that can lead to quick wins.

EXPECTED BENEFITS

- Does not preclude the continuation of existing effective programs.
- State and regional needs assessed using state-of-the-art data analysis methods and summaries.
- ISPs and employers encouraged to participate directly and shape workforce skills train-ing as "owners" of the system.
- ISPs and employers empowered to set their own workforce training standards.
- Strengthens ISPs as industry organizations, providing a one-stop shop for employers to address their skilled workforce needs, as well as address other common concerns.
- Encourages training provider competition based on effectiveness and outcomes achieved for trainees.

MANUFACTURING DEGREE PROGRAMS

Goodwin College and Asnuntuck Community College both provide robust manufacturing degree programs. Asnuntuck provides two- and four-year degree programs, features partnerships with many area companies, most notably Pratt & Whitney, and has a state-of-the-art 50,000 square foot Advanced Manufacturing Technology Center. Goodwin College also boasts an array of programs—from certificates to four-year degrees, work-based learning opportunities, and is in the process of developing a new 75,000 square foot manufacturing training center to serve high school and college level training.

- Flexible enough to be used by employers of any size, in a range of sectors, with particu-lar attention to small-to-medium sized enterprises.
- Not limited to trades and production sectors but across the spectrum of advance manu-facturing, healthcare, construction and transportation, insurance and financial services, information technology and emerging sectors yet to be identified.
- Provides a flexible and easy-to-use tool for business recruitment efforts as a key feature of business attraction and retention strategy.

REMAINING ISSUES TO ADDRESS

- Entity overseeing the flexible fund must be industry agnostic and responsive to other state policy priorities (poverty alleviation, second chance community reintegration, vet-eran employment, etc.).
- Whether a statewide or metropolitan/regional framework would be the appropri-ate/preferred structure for the overall approach.
- Level of direct employer training contribution, with low match levels to start, rising to no more than 20% of the total cost.
- Mapping the building blocks onto Connecticut's existing multi-party workforce skills training "ecology" to reduce duplication of effort and maximize the chances of success.
- Ensuring the program can be tailored to different training target groups with different needs and realities, including current high school students, recent high school gradu-ates, college students, returning ex-offenders, currently employed workers desiring up-skilling, etc.

SIGNIFICANTLY INCREASE THE SUPPLY OF TALENT FOR HIGH-OPPORTUNITY INDUSTRIES USING A DUAL-TRACK TRAINING MODEL

STRATEGY DESCRIPTION

Across Connecticut and Metro Hartford thousands of job vacancies exist in key industries and related occupations critical to sustained regional economic growth and general prosperity. This is a particular concern in traded sectors, where research documents that the concentration of businesses employing well-educated skilled workers signifies a vibrant and thriving region.

Regional jobs are growing and the demand for skilled talent will continue. Data from Capital Workforce Partners show that Metro Hartford has over 3,000 current openings in manufacturing and production-related occupations, 400 installation/ maintenance/ repair-related vacancies, 2,000 construction openings and almost 4,000 healthcare openings (note: there is no official source of data for current job openings; rather these figures are based on estimates collected from a recent survey of dozens of regional employers; job posting sites and other sources may differ). As the region's rapidly aging skilled workforce moves en masse towards retirement in the decade ahead, the demand for additional skilled "replacement" workers will accelerate. Related in-demand occupations include: team assemblers; machinists; inspectors; production supervisors; CNC tool operators; assemblers; welders, etc. Many of these jobs are accessible at the entry-level, with viable pathways to rewarding careers for those with requisite skills and experience.

Most of these "middle-skill", in-demand, financially rewarding jobs require additional work-based training, instruction, experience and credentialing beyond a high school diploma to qualify as genuinely employable and get on a realistic career pathway. Although an a valuable asset, a college degree is not a requirement.

These opportunities need to be more accessible to our region's future workforce. Given that 51% of the Connecticut 2010 high school class did not attend or finish college within 6 years (according to the CT State Dept. of Education), ensuring that our secondary education system is preparing these students to enter these jobs after high school is critical. Those students are not being served by the current system, which fails to represent the full breadth of opportunity represented by careers in sectors such as advanced manufacturing and the breadth of training and education options available to pursue those careers.

To ensure that the region's education and training institutions are preparing students with the skills and experience needed to succeed in the 21st century, businesses must be given a bigger role in guiding education and training programs.

The greatest level of success, however, will not be achieved through siloed training or educational programs. The interface between private sector companies, educational/training institutions, and potential students/trainees is often complicated and takes time to cultivate. Individual siloed training or educational programs cannot efficiently develop and maintain the necessary expertise and relationships.

Some great examples of this approach exist within the region—organizations such as CCAT, Goodwin College, and Asnuntuck Community College are undoubtedly leading the way in this arena. However, our economic future demands a new approach, featuring: systemic coordination of investments and strategy to consolidate pilot programs and go to impactful scale; renewed commitment by businesses/employers to take the leadership role both as workforce system "customers" (designing and driving skills development strategies responsive to their workforce needs/employment opportunities) and as investors (to ensure system responsiveness, flexibility, and to rectify the dramatic decrease in training resources in recent years); expanded focus on "readiness" for post-secondary success, in higher-education and, ultimately, productive careers, for all youth (moving beyond a narrow focus on college acceptance).

About the Dual-Track Model

Numerous economic competitor states and countries (e.g., Colorado, Washington State, and Germany) pursue variants of a "dual-track" readiness strategy to systematically prepare (educate, train and support) thousands of individuals for placement and advancement in financially rewarding jobs and careers in targeted sectors and occupations. In many (competitor) countries, well more than half of all students participate in a dual-track approach, including many who aspire to (and do) go on to college. The dual-track model can be applied to programs serving many different populations and industries, but generally emphasizes an approach that:

- Is industry sector-specific, i.e. different dual-track programs are tailored to their specific sector. While the U.S. tends to think of these programs as purely serving sectors such as manufacturing, in countries such as Germany, there are dual-track programs for over 300 occupations.
- Focuses on financially rewarding, attainable, in-demand "middle skill" jobs offering accessible career pathways.
- Is employer-driven and employer-responsive.
- Engages employers through industry partnerships in curriculum design; career guidance/support; workplace-based instruction and experiential learning; informational outreach to students, parents, educators; ongoing technical assistance and support.
- Splits participant time (up to 50%) between classroom-based core required academic instruction (including embedded content germane to prospective job/career and targeted sector) and workplace-based experiential learning.
- Provides paid "work" (wages/stipend) for time spent learning in workplace environment, in internship, summer job, pre-apprenticeship, etc.
- This could include in-school experience if schools are equipped with the appropriate tools/machines to replicate the work environment; this approach is often easier logistically for schools, as opposed to having to transport students.
- Provides (portable/stackable) industry-validated/valued credential(s)/certification(s) upon successful completion, including college credit.
- Certifies "related instruction" credit for classroom-based learning.
- Offers appropriate full-time employment to successful participants.
- Leverages industry resources to make significant sustained resource/funding investments.
- Offers multiple dual-track modes, customized to multiple employer needs, capabilities, and interests.
- Supports participating employers/industry partnerships, and education and training institutions by coordinating a broad range of core administrative, operational and strategic responsibilities through a credible backbone entity.

Target Population

Metro Hartford is home to significant numbers of residents collectively representing an untapped source of potential talent to meet regional employers' workforce needs, sustaining regional economic growth, and increasing levels of financial security. Underused priority targets of opportunity, where a strategic "move the regional needle" impact can be achieved in the near-term, include:

- **Current high school students** who are either not interested in or looking for an alternate pathway to college/post-secondary education.
- **Recent high school graduates** uncertain about future directions and career options.
- **"Opportunity Youth"**, between 16 and 24, not enrolled in school, not employed (approximately 8,500 in the region).

- **Young adults** with stable work histories in low-wage jobs seeking opportunities for career advancement and wage progression.
- Individuals previously involved with the **justice system** seeking to productively re-enter their communities and the workforce.

Collectively these individuals are part of an untapped regional talent asset of 37,000 potential workers to meet employers' demands for a skilled workforce. We anticipate that establishing programs for those seeking an alternative to college will be more complicated and may take changes to state laws governing public schools. Therefore, the initial focus will be on recent high school graduates.

Furthermore, given the economic disparities faced by the region's minority populations (in particular, the Hispanic population, as documented in the benchmarking section of this strategy), as well as gender-based wage disparities, a **focus on engaging women and minorities** will be critical to creating inclusive economic development.

IMPLEMENTATION STEPS

- **Engage Educational Stakeholders**: While the Metro Hartford Future process provided an opportunity to engage economic development stakeholders around a vision for a dual-track system, significant work remains to engage educational stakeholders. Some schools and districts are already implementing programs that can be built off of. Understanding their lessons learned and, ultimately, what would make a dual-track system effective and easy (relatively) for them to implement will be key to designing an effective system for everyone.
- **Analyze Data to Guide Decision-Making**: A common set of facts is needed to inform the development of a dual-track system, as well as to build support for its implementation. Data is vitally needed to examine comprehensively where the economic growth potential lies in the region (existing and future job openings), what the needed credentials are to fill those positions, how training and education providers are filling that need, and what adjustments are needed to ensure the workforce that is needed is being produced. The Allegheny Conference on Community Development's Burning Glass report serves as an example of this type of analysis.
- **Confirm Initial Industry Focus**: Develop/confirm go-to-scale strategy/blueprint/action plan initially focusing on entry-level jobs and middle-skill career opportunities in regional advanced manufacturing/aerospace sector, working from the foundation established by the Advanced Manufacturing Employer Partnership of Workforce Solutions Collaborative of Metro Hartford, which is co-chaired by Capital Workforce Partners and CCAT. Over time, increase scale of current industry partnership efforts (e.g. CT IFS, MACH/Workforce Solutions Collaborative of Metro Hartford, Jobs Funnel).
- **Define and Map Roles and Responsibilities**: Both for internal and external purposes, roles must be clearly defined and shared in a way that is accessible and easily understood by all stakeholders. Execute an agreement among partners re: operating procedures, respective roles, responsibilities, and accountabilities.
- **Determine Appropriate Phasing**: While many partners are excited and ready to start, a phased approach may be necessary. Discussions with school partners have already revealed that it may be difficult to provide full implementation right away due to academic requirements of students already in school. If juniors and seniors who are interested in the program have not completed necessary math requirements, for example, they may not be able to participate in the full dual-track program. As the program matures and becomes more embedded in the educational system, students and educators will be better equipped to plan for dual-track.
- **Refine Strategy for Recruiting and Retaining Participants, with a Focus on Underrepresented Populations**: Recruitment efforts must be tailored to the target populations. Organizations working with underrepresented students (e.g. young women, minorities, and immigrants) and neighborhood centers/ neighborhood-based organizations should be engaged to support recruitment and retention efforts. Furthermore, dedicated case management is a critical element to retention and successful completion. Case management could be developed as an internal capacity or provided through partnership with a social service provider.
- **Identify Policy Needs**: While certain aspects of the dual-track program will need to differ (e.g. by population or industry), a minimum level of consistency and some basic standards will need to be employed across all programs. Therefore, there may be a need for additional policy guidance from the State Department of Education and/or Department of Labor.

KEY STAKEHOLDERS

Existing Industry Partnerships

Metro Hartford is home to several industry partnerships, where local stakeholders collaborate with employers to tailor workforce strategies, driven by and responsive to the priorities of participating businesses. These partnerships should form the basis for employer engagement in the dual-track system, rather than creating new employer entities. Examples include:

- Workforce Solutions Collaborative of Metro Hartford's three employer partnerships:
    - Advanced Manufacturing Employers Partnership (AMEP) co-convened by Capital Workforce Partners (CWP) and Connecticut Center for Advanced Technology (CCAT serving as the sector intermediary)
    - Metro Hartford Alliance for Careers in Health Care (MACH) co-convened by CWP (serving as the workforce intermediary) and Workforce Solutions Collaborative.
    - Transportation/Logistics/Distribution Partnership (TDL), convened by CT Business and Industry (CBIA) Education & Workforce Partnership (serving as sector intermediary).
- Connecticut Insurance & Financial Services (CT IFS), convened by MetroHartford Alliance
- Construction Jobs Funnel, convened by CWP
- Additional emerging sectors/occupations under consideration, where skilled talent demand is significant and growing, and employers are increasingly engaged and ripe for partnership opportunities, include Cybersecurity, Information Technology, Bioscience, etc.

Other industry organizations have a key role in building and strengthening the workforce Industry Partnerships. For example, CBIA convenes the Connecticut Manufacturer's Advisory Council. To be successful, a dual-track system will require champions to encourage employer engagement. Organizations such as the Council can work with employers to highlight their experience using the dual-track model and can encourage employers to become part of the Industry Partnerships.

Dual-Track Backbone

The essential initial step in strengthening the organizing framework for an employer-driven/employer-responsive regional dual-track industry partnership framework is building on an effective, accountable dual-track backbone organization. The backbone organization must be not only charged and authorized to coordinate and oversee planning and operational efforts, but also properly resourced to fulfill that role. The organization best-positioned to play this role in Metro Hartford, given its formal charge/mission as a regional workforce development board (under Federal and State statute) and its track record as an effective convener/facilitator/

THE PREPARE RHODE ISLAND INITIATIVE

PrepareRI is an initiative to prepare all Rhode Island youth with the skills they need for jobs that pay. It represents a strategic partnership between the Rhode Island government, private industry leaders, the public education system, universities, and non-profits across the state. PrepareRI has set some bold goals for the future of its workforce:

- All career pathway programs will be aligned to Rhode Island's high-demand career fields
- All high school students will have access to a work-based learning experience, such as an internship in a relevant career field
- All students, starting no later than middle school, will have career exploration opportunities and individualized learning plans based on their unique strengths and interests
- Over half of high school students will graduate with college credit or an industry credential
- Over half of high school students will participate in career and technical education (CTE)

intermediary in numerous instances in recent years, is Capital Workforce Partners (CWP).

Existing Training Providers

This model anticipates leveraging existing training providers. The list of training partners is See a list of Capital Workforce Partners training programs and providers on page 30.

Advisory Board

An Advisory Board will be convened by Capital Workforce Partners that represents key entities participating in sector partnership/work-based learning efforts, including, but not limited to: MetroHartford Alliance, Hartford Consortium on Higher Education, CCAT, CBIA, United Way of Central and Northeastern Connecticut, Workforce Solutions Collaborative of Metro Hartford, CRCOG, Hartford Foundation for Public Giving, CTDOL, CSCU, CTHSS, select employers from designated sectors, local school districts, and others.

Secondary Schools

K-12 schools throughout the region have begun taking steps toward a dual-track system and will be essential partners in implementation. Discussions to determine interest have already begun with New Britain, Hartford, and East Hartford schools.

COSTS

Start-up (Year 1)	**$3,342,350**
Workforce study showing the gap between production and need	$100,000
Staffing - to support 300 students in year FY20 in three school districts	$200,000 (annualized)
Program-Related	$2,817,000
Administration	$225,350
Scaling (Years 2 - 4)	**$15,451,869**
Staffing - to support 25% more participants per year (375, 470, and 587)	$953,125
Program-related costs	$13,424,764
Administration	$1,073,980
Ongoing (Years 5+)	**$15,451,869**
Staffing - to support 50% more participants (880), with an eventual goal of 1,000 per year	$585,937
Program-related costs	$8,252,928
Administration	$660,234
Total Years 1 - 5 Cost	**$28,293,318**

Key questions will need to be answered in relation to schools, such as: changes to existing laws on school credit and cost-sharing, transportation issues, and delivery of the instructional portion of the program. Schools will be key partners, though their participation will vary depending on capacity, interest, and resources. The program will need to be flexible enough to accommodate all the districts. Goodwin's CT River Academy can serve as a model.

FUNDING SOURCES

Public	• The CT Apprenticeship Initiative • CWP • Public school systems
Private	• A key tenet of a dual-track program is that employers financially contribute. The specific amount that employers would be asked to contribute is yet to be determined.
Philanthropic	• Philanthropic support may be available to support case management/wrap-around services for participants.

TIMELINE

Year 1	• Designate/strengthen CWP to play backbone entity/convener for regional dual-track system/industry partnership initiative. • Develop/confirm position/role description for proposed backbone function. • Confirm/commit resources required to perform backbone function as defined. • Establish Advisory Board. • Execute MOU among partners. • Develop/confirm go-to-scale strategy/blueprint/action plan.
Year 2	• Develop/execute funding strategy, including leveraging opportunities. • Pilot dual-track system, with focus on advanced manufacturing.
Year 3	• Develop/confirm/execute expansion strategy
Year 4-5	• Continue to perform performance accountability and continuous improvement of existing programs.

PERFORMANCE MEASURES

- Increase in number of target population in the labor force
- Decrease in number of job openings in target sectors

SAMPLE OF CAPITAL WORKFORCE PARTNERS TRAINING PROGRAMS AND PROVIDERS

Crosswalk of Programs to Organizations, Industries, and Populations Served

Partial List (for a full listing visit www.capitalworkforce.org)

ADULTS

Program	Provider(s)	Industry Supported	Target Population(s)
Workforce Investment and Opportunity Act (WIOA) - Adult	American Job Center CT Department of Labor AJC Required Partners: SDE, DORS, DSS, BRS, DOL Veterans Division KRA, Career Team & Other Providers Various Municipalities	Multiple - ETPL	Unemployed/under employed
Workforce Investment and Opportunity Act (WIOA) - Dislocated Worker	American Job Center	Multiple - ETPL	Dislocated worker
Dislocated Worker Grant	American Job Center CWP	Manufacturing Healthcare	Dislocated worker
REACH	KRA CWP MACH	Nursing Healthcare IT Other healthcare sector positions	Long-term unemployed/ underemployed
Metro Alliance for Careers in Healthcare (MACH)	CWP Workforce Solutions Collaborative of Metro Hartford	Healthcare	Low income
Mortgage Crisis Job Training Program (MCJTP)	The WorkPlace and CWP Partnership	Multiple	Homeowners 60 days or more behind on their mortgage
I-BEST Second Chance (BEST Chance) program	CT Department of Labor Hartford Foundation for Public Giving Ct Department of Corrections Capital Region Education Council (CREC) Community Partners in Action Center for Latino Progress Career Resources Ironworker's Local 15 Manchester Community College Goodwin College Chrysalis Center Billings Forge	Construction Manufacturing Culinary	Ex-offenders
Jobs Funnel	Hartford Building Trades Various community based organization	Construction	Ex-offenders Youth

Program	Provider(s)	Industry Supported	Target Population(s)
Free to Succeed	American Job Center	Multiple	Ex-offenders
Ticket to Work Program	Partner/collaborate with CTDOL's Office for Veterans Workforce Development, Departments of Rehabilitative Services, Labor, Education, Mental Health and Addiction Services, Social Services, Department of Developmental Services, Transportation, and various other public and private sector representatives.	Multiple	Individuals with disabilities
Jobs First Employment Services (JFES)	AJC	Healthcare Manufacturing Construction/ Energy	Low Income

YOUTH

Program	Provider(s)	Industry Supported	Target Population(s)
WIOA Youth	Our Piece of the Pie KRA/CCAT Billings Forge/Career Resources HRA OIC	Manufacturing Healthcare Transportation Culinary Finance	Youth - justice involved Youth - low literacy Low income
YouthBuild New Britain	Finishing Trades Institute of Southern New England Human Resources Agency (HRA) of New Britain Hartford Area Habitat for Humanity New Britain Adult Education Center	Construction	New Britain Youth not in school New Britain Youth not employed
East Hartford Pre-Apprentice Program – In School and Out of School	CT Center for Advanced Technology CT Department of Labor CT Department of Labor Office of Apprenticeship East Hartford Public Schools Advanced Manufacturing Employer Partnership (AMEP)	Manufacturing	Low income Youth - low literacy
Summer Youth Employment and Learning Program	Various Community Providers	Multiple	Low income In School and Out of School Youth
Hartford Student Internship Program (HSIP)	Center for Latino Progress Blue Hills Civic Association Hartford Public Schools (partner) City of Hartford (partner)	Multiple	Hartford Public School students

RETAIN TALENT BY CONNECTING COLLEGE GRADUATES TO EMPLOYERS

STRATEGY DESCRIPTION

The State of Connecticut is home to dozens of highly-regarded educational institutions, attracting thousands of out-of-state students. While institutions such as Yale are great draws to the region, students at these institutions do not tend to stay in the state. According to an analysis by the Boston Federal Reserve, **Connecticut ranked 41st in retaining college graduates.** Connecticut retained 48% of the 2008 graduating class. This is down from 59% in 2000. New England ranked last among Census regions in the United States. In 2018, CBRE (Coldwell Banker Richard Ellis) released their Scoring Tech Talent report, which looked at 50 large urban technology labor markets. Their data showed a **five-year decline in millennial workforce population (aged 20-29) of 8% in Hartford**—the second most extreme loss of all the cities in the report. According to the Census Bureau, Hartford County alone suffered a net out migration of over 1,500 20-29 year-olds between 2011 and 2015. There are many reasons for these trends, such as a higher-than-average concentration of "elite" institutions with low rates of local student retention, but the fact remains that these young people represent a considerable asset that is being developed in the state and the region and choosing to leave. Even small improvements could have an impact in the region.

According to the Federal Reserve, 58% of recent college graduates cite employment as their reason for leaving New England. Anecdotally, larger institutions such as the University of Connecticut attract employers looking to recruit students, but smaller, mostly private, institutions of higher education tend to be too small to attract many employers through recruitment efforts. With fewer interactions between students and employers in the state, there is less likelihood that a student at, say, Wesleyan will find employment in Connecticut. Similarly, smaller employers struggle to connect with institutions of higher education to find potential interns and new hires. The Federal Reserve's "Lasting Connections: Using Internships to Retain Recent College Graduates in New England" reinforces this: Smaller companies lack the time and resources to recruit and supervise interns; however, students that participated in an internship were more likely to stay in the area than students who did not. Therefore, an effort focused on connecting small- to mid-sized employers with institutions of higher education is

the most immediate need.

Finally, connecting first generation college students with employers requires special attention. According to the National Association of Colleges and Employers 2016 student survey:

- First generation students tend to be older and more diverse than non-first generation: 20% (vs. 8%) are 25 years old or older, and roughly 40% (vs. 18%) are minority.
- First generation students are roughly as likely as later generation students to pursue career-oriented degrees; however, first generation students tend to be underrepresented in STEM degrees such as engineering, computer science, and math.
- First generation students are more likely to be looking for a job close to home, and an employer that embraces diversity; they are less likely to enter the private sector.
- The success rate in first generation students' job search is 25% vs. 33% for non-first generation. More than two-thirds of non-first-generation students used family as a resource, but only 55 percent of first-generation students did the same. Non-first-generation students tended to use on-campus employer representatives and on-campus career/job fairs more often to aid their search. However, job offer rates among first-generation students who used on-campus services were slightly higher (2.4%) than those of non-first-generation students using services on campus.

In other communities, public or third-party entities have recognized the need to overcome this challenge and bridge the divide between current students and life after graduation. Organizations such as **Campus Philly**—which partners with over 30 colleges and universities, as well as various institutions, employers, and cultural organizations in the Philadelphia region—are taking a proactive approach to the challenge of student retention. They provide opportunities for students to connect with employers through career fairs, launch events, and internships. Recognizing the broader challenge of making students feel attachment towards the local community, they also sponsor various cultural events.

To accomplish this, Metro Hartford will need capacity. Campus Philly has been operating for 13 years. As of 2017, it had become a $1.3 million non-profit, which receives around two-thirds of its funding from grants and contributions and one-third from partnerships and sponsorships (including both schools and employers). It currently has twelve full-time staff members and spends most of its budget on staff and related expenses. Campus Philly measures their success through an annual survey that asks students if they have interacted with a career office, held an internship, or sought employment in the area, and to what extent they are considering staying in Philadelphia after school. In addition, its Board of Directors includes several key regional leaders from across the private, public, and educational sectors.

While some efforts are underway in the Metro Hartford region within specific industries or schools, no one organization is working broadly to coordinate between higher education and industry. For instance, CT Insurance and Finance Services (CTIFS) hosts an annual 5-day Banking Boot Camp that engages college students with banking companies. Trinity College planned and hosted a Hartford Law Trek for students to learn about opportunities to work for law firms in the region. Organizations such as the Hartford Consortium for Higher Education and the CT Conference of Independent Colleges are happy to assist in making connections between employers and higher education institutions. **However, to have the greatest possible impact, these efforts need to be aligned, scaled, and systematized.**

As students and parents increasingly consider post-graduate outcomes and the availability of opportunities to connect students to careers during the admissions process, a robust and coordinated program such as Campus Philly could also be beneficial for the institutions in advertising their school to prospective parents and students.

A critical step in establishing capacity in Metro Hartford, with the ultimate goal of establishing a robust organization like Campus Philly, will be to create a role for a Chief Talent Officer serving the Hartford region. The Chief Talent Officer will be responsible for organizing opportunities for college students in Connecticut to better connect with employers. They will do the following (note that some of these are program ideas that would first need to be vetted with stakeholders):

- Identify the key questions, the answers to which would help inform this overall effort, and work with participating institutions to align data tracking and analysis around those key questions.
- Create a single point of contact/organizing mechanism to connect employers with colleges and universities for recruitment. Currently, this is done in an ad hoc manner, with no formal way to solicit the entire higher education system to recruit talent.
- Work with employers and universities to organize career fairs. In the 2018-2019 school year, the Hartford Consortium on Higher Education will begin to hold fairs to connect students from all of the institutions they represent to internship, part-time, and full-time employment opportunities with regional employers.
- Organize networking and career events targeted at Connecticut residents who attend college out of state but return home for breaks.
- Develop a technical assistance program for small- to mid-sized employers to help them design and implement an internship program that is effective. Ultimately this may include “case management” services for interns.
- Regularly convene career services directors of participating institutions for meetings with industry representatives to help them stay abreast of industry hiring trends and needs.
- Plan industry-specific “treks” that are open to all students of participating institutions.
- Engage young professionals within participating companies to participate in activities with college students.
- Design programs to connect college students with the cultural, recreational, and tech-related amenities in the region.
- Develop additional financial incentive programs to encourage graduates to stay in the region, e.g. loan forgiveness, incentives for graduate school, housing assistance, etc.
- Develop a marketing strategy to ensure that both prospective and current parents and students are aware of the opportunity, and to engage employers.
- Track engagement, student-employer connections (e.g., internships), and outcomes (e.g., retention).

IMPLEMENTATION STEPS

- Metro Hartford Alliance, the Hartford Consortium for Higher Education, and the CT Conference of Independent Colleges will **establish an MOU** outlining roles and responsibilities for establishing this initiative.
- **Establish a common baseline understanding** to inform program development. While IPEDS, the DOL, and organizations such as CCIC collect relevant data, additional information is needed to better understand key information such as: the in-demand degrees/skills, how those relate to what is being produced in regional colleges and universities, and who is choosing to stay in the region after graduation. Furthermore, current college retention data is only tracked two years post-graduation; more nuanced data on if and when graduates return to the region would help to inform the program. Finally, information on where the region's students who attend college out-of-state go after graduation is even harder to come by. These and other key questions will first need to be answered in order to develop an effective program. Interviews with companies regarding their existing connections to higher education, as well as with potential funders will also be a key component of establishing a baseline understand. Leaders of this effort may wish to visit a region with a similar successful program. The data collection in this effort can be aligned with the data collection in the dual-track program.
- **Determine the initial focus** in terms of students and sectors. For instance, at least in the beginning, the focus could be on engaging Hartford Promise students (i.e., Hartford Public High School students who qualify for the

COSTS

Start-up (Year 1)	**$80,000**
Baseline understanding (data, interviews, site visits)	$80,000
Scaling (Years 2 - 4)	**$380,000 Annually**
Chief Talent Officer	$85,000
Additional staff capacity	$65,000
Marketing	$30,000
Program-related expenses	$200,000
Ongoing (Years 5+)	**$730,000 annually**
Salaries	$280,000
Marketing	$50,000
Program-related expenses	$400,000
Total Years 1 - 5 Cost	**$1,950,000**

FUNDING SOURCES

Public	• CTNext - a quasi-public subsidiary of Connecticut Innovations (CI) - has provided grant funding for talent-related initiatives.
Private	• The Metro Hartford Alliance, Hartford Consortium for Higher Education, and Connecticut Conference of Independent Colleges all solicit funding from their members, which could be used to support this initiative.

Promise scholarship). Also, three to four high-opportunity sectors should be identified for the initial launch. While these should be based on the actual career opportunities available in those sectors, it may also depend on the existence of appropriate programs and willingness of employers to participate.

- **Solicit the participation of colleges and universities**, including key departments and personnel, and industry representatives.
- **Solicit participation of businesses**. Businesses will want to see demonstrable results from similar programs, especially in terms of impact for smaller companies, so that they can see how the connectivity will really benefit them long term. The internship/career fairs being held by the Hartford Consortium for Higher Education could be an initial opportunity to engage employers.
- As this effort becomes more established, identify ways that it can be expanded to support more students in persisting through and graduating from college.
- Raise funding to **hire a dedicated Chief Talent Officer.**

KEY STAKEHOLDERS

- This effort will be led by the Metro Hartford Alliance, with strong support from the Hartford Consortium for Higher Education, and the CT Conference of Independent Colleges.
- The Capitol Region Council of Governments will support with data-related needs.
- Other supporting organizations will depend on the final target industries, student population, and suite of programs.

TIMELINE

Year 1	• Develop baseline understanding (see Implementation Steps)
	   • As referenced in Dual-Track strategy, develop complete analysis of talent needs and opportunities
	• Recruit initial group of participating schools and employers
	   • Alliance will conduct interviews to inform development of initiative (already planned)
	• Work with HCHE to launch multi-campus career fairs on behalf of members for internships, part-time, and full-time opportunities (already planned)
	• Finalize strategic plan and detailed budget

Year 2	• Hire Chief Talent Officer • Pilot core components of the initiative • Institute data tracking program • Begin to market the initiative
Year 3	• Scale core components of the initiative • Begin to add additional components • Increase marketing of the initiative
Year 4-5	• The initiative should be fully established and focused on expanding the number of students and employers engaged

PERFORMANCE MEASURES

- Number of students engaged in retention-related program activities - annual unique participant count
- Number of internships, interviews, and other employer-focused events
- Post-graduate retention rate - annual survey of participating schools one year out
- Number of employers citing ease of/ satisfaction with engaging with regional colleges and universities - annual survey of participating employers
- Number of job openings - to determine if we are meeting the needs of the employers

LONG-TERM STRATEGIES

As indicated in the introduction to the Talent section, the region's approach to creating pathways to family living wage careers and meeting employer demand must be multi-faceted. The region's employer partnerships and education and workforce leaders should look to the comprehensive programs being implemented across the country that include:

- Employer-driven / career-connected opportunities at each level: career exploration, career preparation, and career launch
- A focus on high-demand career opportunities: requires continuous, real-time data and employer engagement
- Career exploration: job shadowing/tours, career counseling, etc.
- Career preparation: internships, dual enrollment, Career and Technical Education credentials
- Career launch: dual-track, college persistence, Career and Technology Center/4-year programs with work-based learning

GOAL 2: INVEST

Invest in quality of place amenities throughout our region to retain and attract talent.

To achieve its "Talent" goal, Metro Hartford will need to retain existing residents and attract new workers from elsewhere. But doing so will depend largely on the next of this plan's three key goals: Invest. Metro Hartford must develop its physical and social infrastructure—improving ***quality of place*** in the region.

The International Economic Development Council (IEDC) is the largest membership organization for economic development professionals, with over 5,000 members. As part of their mission, they convene leaders in the industry to guide practice-oriented research under their Economic Development Research Partners program. In 2017, they released "Place Matters: The Role of Placemaking in Economic Development". According to IEDC, placemaking is the "practice of creating or enhancing a community's assets to improve its overall attractiveness and livability. This includes large-scale projects such as the creation of public spaces and alternative transportation infrastructure, but also small-scale efforts such as pop-up retail and downtown beautification."

The research paper argues that placemaking has a critical role to play in economic development. **Quality of place has become the central component of economic infrastructure in our knowledge-based economy.** This is not news to many communities, and throughout the US and the world, the competition for talent has increasingly been fought by using traditional economic advantages (like natural resources and industrial infrastructure) but by promoting place-based advantages that make communities desirable places to live for various people.

Indeed, placemaking is now widely considered a primary function of economic development. And this transition has been premised in evidence. IEDC reports that "in communities where residents have developed a strong attachment to place, local GDP growth exceeds the national average." As Metro Hartford seeks to grow its population and economy, it must begin with investments in place.

CAPITAL REGION DEVELOPMENT AUTHORITY / FRONT STREET DISTRICT

CRDA has the following mission: To stimulate economic development and new investment in and around Hartford; to develop and redevelop property to attract and retain businesses; to rebrand and promote the district as an exciting, multicultural destination for all ages to enjoy; and to expand housing development to enhance the economic and cultural vitality of the area. Perhaps one of CRDA's biggest accomplishments has been the redevelopment of Front Street. The Front Street development is a rapidly expanding area just a block from the riverfront, the Connecticut Convention Center, and the Marriott Hartford Downtown Hotel. Phase I introduced dining and entertainment venues to the District. Phase II brought housing to the District with the Front Street Lofts - 121 luxury apartments. Phase III is the new location of the Hartford branch of the University of Connecticut. Phase IV will be an additional 54 apartments.

SWOT ANALYSIS

STRENGTHS

- **Lower-cost and affordable housing stock.**
- **Competitive cost of living** when compared with other large metro regions in New England.
- **Strategic location** between Boston and New York.
- **Presence of the State Capitol**—and the associated employment base, including peripheral employment—in Hartford.
- **High concentration of jobs requiring high levels of education**, such as insurance and finance.
- **Diverse regional economy**: An IHS Markit analysis of the Shannon-Weaver Index of structure diversity yielded a value of .81 for the MSA in 2017, which is a relatively high value. (The higher the value, the more diverse a regional economy.)
- **Eleven higher education institutions.**
- **Manageable commute time**: In the metro Hartford region, travel time to work is about average both within the state and nationally.
- **Excellent transportation infrastructure**: The Hartford region has many transportation assets, including the CT***fastrak***, the Hartford Line, Bradley Airport, and the East Coast Greenway.

WEAKNESSES

- **High property tax rates and a heavy reliance on the real property tax** as a revenue source.
- **Highly concentrated housing market in higher-value homes** poses a challenge for lower-income homebuyers, often first-time buyers.
- **Fragmented municipalities** with no real regional governance or revenue generation.
- **Lack of downtown housing**: Through the work of the Capital Region Development Authority, housing opportunities in Downtown Hartford have increased dramatically, but the concentration of housing is still too low to support a vibrant retail market (one developer has estimated that Hartford is about a third of the way there).

OPPORTUNITIES

- **Expansion of housing opportunities** emphasizing in-demand rentals and quality low-to-mid-value owner-occupied homes.
- **Warehousing and distribution potential**: The region's combination of excellent highway and rail access make it potentially suitable as location for warehousing and distribution facilities, especially those handling high value, complex

RETAINING YOUNG PROFESSIONALS

HYPE was formed by the Metro Hartford Alliance in 2006 to help young professionals better understand and utilize the assets in this Region. HYPE encourages cross-collaboration among agencies and organizations that offer programs and activities for young professionals and entrepreneurs. Their membership has grown to more than 3,000 innovative young adults, and their various endeavors include social activities, professional development programs and community service.

Urban League of Greater Hartford Young Professionals (ULGH-YP) organization was designed to provide young professionals (ages 21-40) in the Greater Hartford area, with a forum that fosters professional development, community service, social awareness, equal access to opportunities and self-reliance.

The United Way's Emerging Leader Society connects young professionals (ages 21–40) around volunteerism, collaboration with peers and local leaders, fundraising and networking.

manufacturing goods.

- **Available low-skilled labor pool**: The opportunity exists to increase diversity in the workforce through targeted workforce development programs, and the provision of local area transportation services that enables low-income residents to travel to jobs.
- **Quicker rail commuting service** between Hartford and New York began in 2018.

THREATS

- **Lack of downtown amenities**: Downtown Hartford lacks the amenities and quality of life that are required to retain college graduates and, more importantly, to attract skilled technology workers in their 20s and 30s who increasingly prefer to live in center cities.
- **Rising rental costs and declining home values**: Currently, the region's housing market is relatively affordable, yet the housing stock remains high-value. But as rental demand rises and population likely declines (assuming, in both cases, that recent trends continue), rental costs risk being driven up and home values risk being driven down.
- **Unmet rental demand**: Demand in the rental market has risen in recent years, and HUD analysts forecast a demand of over 3,700 new rental units between 2017 and 2020 in the Hartford HMA.
- **Difficulty retaining college graduates**: More needs to be done to retain college graduates, including providing internships with local companies while they are in school, and making them aware of openings at local firms as they approach graduation. A key part of that puzzle means making graduates aware of affordable, suitable housing in the Region.
- **Connecticut's fiscal stability issues and looming debt crisis** imperil its municipalities who heavily rely on state grants and support. For example, all sales tax and hotel occupancy taxes are collected and allocated by the state, then distributed in the form of grants. Increasing budgetary pressures may eliminate those grants, forcing municipalities to either raise property taxes or cut back on services.

HOMECONNECTICUT

The Connecticut Housing Program for Economic Growth, known as the HOMEConnecticut program, was created in 2007. HOMEConnecticut is a statewide campaign aimed at increasing the stock of affordable housing in Connecticut. The program, administered by the state's Department of Housing and staffed by the Partnership for Strong Communities, provides towns with incentives if they choose to create an Incentive Housing Zone in a smart growth location in their community. An Incentive Housing Zone is an area which has a zoning overlay that allows developers to increase housing density in exchange for creating mixed-income housing. The Campaign also provides a forum for continued discussions about how to create more affordable housing in Connecticut and related topics like land use, transit-oriented development, foreclosure policy, preservation of affordable housing and economic development.

ACTION PLAN

CREATE A REGIONAL INVESTMENT FUND TO DRIVE INVESTMENT IN QUALITY OF PLACE ASSETS

Why Regionally-Driven Investment?

Across the nation, metropolitan areas are increasingly looking for local solutions to big challenges given the inability to rely on state and national agencies for funding and leadership. This trend has been documented in the recent book by Bruce Katz and the late Jeremy Nowak, The New Localism which highlights how communities are taking the initiative to build new networks to act and invest. The state of Connecticut's current fiscal crisis necessitates this approach for Connecticut's metro areas. While communities may not yet be feeling the immediacy of creating local solutions, most towns in the region have expressed a desire to enhance their town-centers and make their communities more active and attractive to talent and investment. Therefore, the time is now to begin planning for how to take control of funding what is most important at the regional level.

What's more, those regions who embraced control of their shared future a decade or more ago are the regions who are currently leading the country in population and economic growth. For example, in the last decade, Salt Lake City and Minneapolis/Saint Paul used regional sales and excise taxes to fund light rail systems that have driven other investment to key areas and sparked economic resurgences. Going back even further, for more than two decades, Allegheny County (Pittsburgh) and Denver have used broader regional funding districts to turn small sales taxes into catalytic investment in both physical and cultural infrastructure. Denver's Scientific and Cultural Facilities District and Pittsburgh's Regional Asset District both invest tens of millions of dollars each year in a variety of local assets and organizations (including transit facilities; parks and public spaces; arts programming; museums, libraries and other cultural institutions; and various other shared community infrastructure).

These types of investments have been critical to spurring population increases and economic growth in these regions. At an increasing rate, educated, younger workers are increasingly first seeking places to live and then finding or creating a job for themselves. They're making the decision about where to live based on many variables, but among the top are recreation amenities in the form of trails, bicycle paths and water access, and arts and culture in the form of theatres, museums, music venues, and downtown entertainment districts. Investing in place-based development has the further benefit of being attractive to families and retirees, who are also part of a larger national trend towards urban living.

Currently, the Hartford region lacks a mechanism for amalgamating capital and resources for use on regional quality-of-place projects. Certain cultural institutions are funded through line items in state and municipal budgets; however, those are subject to larger political and financial considerations. Bond money is awarded to individual entities on a case by case basis. 10% of the state room occupancy (i.e. hotel) tax goes towards the State's tourism

RIVERFRONT RECAPTURE

Many regions across the country have leveraged their waterfronts as key elements in their strategies to grow their economy and population. The Hartford region's Riverfront Recapture has been working to do that since the early 1980s. Thanks to that work, Mortensen Riverfront Plaza, Charter Oak Landing and Riverside Park in Hartford, and Great River Park in East Hartford give millions of people access to the Connecticut River. Their rowing program is one of the largest and most successful community rowing programs in New England. And events ranging from free yoga and fireworks to dance performances and Dragon Boat racing are amenities for residents throughout the region.

fund (which includes the arts). However, most other states provide some form of split to local or regional entities (in the past some of the hotel tax was made available to regions through a competitive grant program). There is no structural, consistent, dedicated funding for projects or institutions of regional significance in the Hartford region.

Strategy Description

The need for consistent, dedicated funding has been highlighted extensively by stakeholders throughout the creation of this strategy. Public art, walking/biking connections to regional cultural amenities, transit, expansion of riverfront and Bushnell Park improvements... these ideas and more were cited time and again as ways to enhance the vibrancy of the region to retain and attract talent. As one-off projects, these may not be "game changing" for the region. **But scaled and sustained funding to support regional projects, amenities, and programming** would bring the successes that the region has already enjoyed to a whole new level.

Furthermore, the other strategies that have been identified through the Metro Hartford Future Project will need funding. While some state, federal, and philanthropic funding may be available, for important initiatives, it may be beneficial to identify a locally/regionally controlled funding stream to ensure their continued sustainability.

Resources must be brought together to fund these assets and a group of decision-makers will need to direct funding. The Hartford region can learn from other communities, such as those described above. In all of these cases, investment hinged on more than just the availability of funding. Public support, capacity for advocacy, and leadership were all vital. For instance, the Denver effort was established through a public vote in 1988 following a campaign by the Denver Regional Chamber of Commerce to raise support. However, in order to build the necessary public support, several key considerations must be addressed:

- Scope: While the general focus on investment in quality of place assets is what has been articulated through this process, greater clarity is required on the range of investments that would be supported by this funding stream. For example, it may be desirable to fund other strategies in this plan through this new mechanism.
- Geography: Though this is a need that the

In 1993, Oklahoma City voters decided to turn around their struggling city by doing something about it: approving a new tax on themselves. The $350 million sales tax-funded initiative - called MAPS (Metropolitan Area Projects) was created to revitalize Downtown (including an area of empty warehouses), improve Oklahoma City's national image and provide new and upgraded cultural, sports, recreation, entertainment and convention facilities. MAPS was funded by a temporary one-cent sales tax approved by city voters in December 1993, and later extended an additional six months. The tax expired on July 1, 1999. During the 66 months it was in effect, over $309 million was collected. In addition, the deposited tax revenue earned about $54 million in interest. That was used for MAPS construction, too.

The Mayor appointed a mandated 21-member oversight board shortly after voters approved the projects. The board reviewed project components including financing and site location and then made recommendations to the City Council. The MAPS board led the public review process for the MAPS Master Plan, which the Council approved on February 14, 1995.

The original MAPS projects were also completed a few years after the last tax funds were collected.

Due to the overwhelming success of MAPS and recognizing the needs of the city's struggling public schools, Oklahoma City proposed a second MAPS initiative. MAPS for Kids went before voters in 2001 and passed with a 61% majority. The new sales tax generated $514 million along with a $180 million Oklahoma City Public Schools bond issue, which was used for school facility improvements, technology and transportation projects. Seventy percent of the sales tax funds were disbursed to the Oklahoma City Public School District and 30% to surrounding suburban districts.

In 2008, residents approved another short-term, one-cent sales tax after the MAPS for Kids tax expired to fund improvements at the downtown arena and build an off-site practice facility to accommodate the new NBA franchise, the Oklahoma City Thunder.

Hartford region has identified, should the proposed solution be statewide in nature, with other regions also developing a portfolio of projects of regional significance?

- Funding mechanism: Are there existing funding mechanisms that could be adapted, or would this require an entirely new funding mechanism? If new, what is the most equitable approach?
- Regional connectivity: Rather than purely local, managing these types of investments at the regional level is what has been shown to be most effective across the country. However, the Hartford region lacks a strong regional identity. What tools are needed to help build support for a regional approach?
- Administration: What body is best situated to administer a new regional investment fund? COGs exist statewide; however, they are not well understood by residents.

IMPLEMENTATION STEPS

- Advance research and modeling of potential funding mechanisms.
- Coordinate site visits for regional leaders to visit areas that have enacted similar mechanisms to better understand how it could work and potential impacts.
    - iQuilt has provided a model for planning for and implementing quality of place projects in Downtown Hartford. Explore if this is a model that could be utilized regionally to support investment in quality of place assets.
- As part of regional branding and marketing effort, begin to strengthen support for regional approaches to economic development. Sharing examples of how similar approaches have worked in other regions around the country accessible to the public is one possible tactic.
- Further develop and vet a model with key private, non-profit, and public-sector leaders so that the region is ready to advance this strategy when the timing is right.

KEY STAKEHOLDERS

- CRCOG will take the lead in researching and modeling funding mechanisms. As a regional body supporting local elected officials, CRCOG is also well-positioned to engage municipalities in the development of a regional investment fund. It is also well-positioned to ensure that if any public sources of funding are used, that publicly accountable entities have a say in their use.
- MHA will lead regional branding and marketing efforts.
- The Metro Hartford Future Project Implementation Committee will lead vetting the model with key leaders. The private sector leadership on this committee will be critical to creating support.

COSTS

Start-up (Year 1)	$30,000 (in-kind services)
Research and development of funding mechanism	$30,000
Scaling (Years 2 - 4)	**$50,000 annually (in-kind services)**
Regional messaging and advocacy efforts	$50,000
Ongoing (Years 5+)	**$40,000 annually**
Tracking and reporting on investments to continue public support	$40,000
Total Years 1 - 5 Cost	**$320,000**

FUNDING SOURCES

Public	• CRCOG can support research and modeling.
Private	• Metro Hartford Alliance will be raising funds from their investors to support regional branding and marketing.
Philanthropic	• The Hartford Foundation for Public Giving will be investing in projects from throughout the region that focus on creating inclusive community benefit.

TIMELINE

Note that the timeframe for this strategy is more difficult to predict. The implementation of a regional investment fund is highly dependent on public and political will. Therefore, the timeframe will be adjusted as needed to ensure that the region is positioned to successfully champion a regional investment fund when the timing is right.

Year 1	• Research and development of funding mechanism options • Vet and refine concept with Implementation Committee
Year 2	• Build public receptivity to regional solutions • Engage elected officials to vet and refine the concept
Year 3	• Implement a public campaign, with strong private sector support, to educate and advocate for the regional investment fund
Year 4-5	• If successful, track investments and report publicly on the impacts of the fund

PERFORMANCE MEASURES

- Public support for a regional investment fund - public opinion survey
- Amount invested in quality of place projects throughout the region - tracked by administering body

LONG-TERM STRATEGIES

INCREASE CONNECTIVITY WITHIN AND OUTSIDE OF THE REGION

- **Connecting the Hartford region to Boston and NYC via rail** has been identified as a potential game-changer strategy as it relates to supporting business and entrepreneurship connections in the life science and financial/insurance industries, which have strong connections to Boston and NYC. The Vision for the New England High-speed and Intercity Rail Network collectively developed by the Departments of Transportation in the six New England states provides a vision for rail in the region and a commitment to work together; this Vision includes extending the New Haven - Springfield line to Boston. Currently, the Massachusetts Department of Transportation is studying a Springfield to Boston line. US Representative Richard Neal of Springfield is now poised to chair the powerful House Ways and Means committee. Any U.S. House spending bills would go through him, and Neal is a big advocate for connecting Springfield and Boston by rail. Given the evolving nature of this issue, Hartford region stakeholders will need to be poised to advocate when the time is right.

New Haven-Hartford-Springfield Rail Map

Source: Campuspress.yale.edu

While quite successful, the Hartford Line rail service has a number of challenges that need to be addressed. Many of these will be looked at in more detail in a Strategic Rail Plan. Some of the bigger issues include:

- Amtrak guarantees regarding connections between Amtrak's service and the Hartford Line service can cause delays for Hartford Line passengers.
- Dwell times in New Haven for northbound trains to Hartford can vary between 15 and 25 minutes, adding a significant amount of time to trips originating South or West of New Haven.
- Northbound train service to Springfield is sporadic in the morning, with train service starting at 4:35 AM and not continuing until 9:47 AM.
- The Hartford Line uses old commuter train cars from Boston that have had some compatibility issues on the line.
- All around the country the trend is declining bus ridership. This is expected to continue as on-demand transportation network companies continue to make inroads, dockless bike share continues to grow, gas/fuel prices stay low, and autonomous vehicles advance. The Hartford region has seen less of a decline due to CT***fastrak***, which has provided over 10 million rides in its first three years. However, traditional bus service is leveling off or declining. Recognizing that bus service changes are sensitive and must be made gradually to avoid disruptions to this essential service, the long-run recommendation is to **concentrate bus service in five strong, high ridership corridors.** The current bus system with its frequent stops and circuitous routes will not be able to compete with autonomous vehicles on a price basis. Priority transit corridors can stay competitive and have a role to play in reducing congestion. It is assumed that bike share, car share, better walking environments, and autonomous vehicles or TCNs will provide first-mile/last-mile connections. CRCOG will be studying this strategy in greater detail through its upcoming Regional Transit Strategy.

SUPPORT INVESTMENTS IN THE REGION'S DOWNTOWNS

- Many studies, plans, and policies already exist throughout the region to advance the integration of housing and transit through transit-oriented development. However, additional capacity, technical assistance, and funding are needed to **implement transit-oriented development at the scale** necessary to drive impactful change, and in a way that fully contributes to the unique character of the region. Using tools developed through Metro Hartford TOD to build support for station area development among neighborhood-based and regional anchor institutions; communicating the benefit to the region; and engaging in more direct engagement with the community anchors and elected officials can all help build support for more transit-oriented development. Creating capacity to undertake TOD projects of regional significance will require greater private sector engagement and enhanced capacity and assistance for municipalities to package and manage larger development deals. Finally, transit-oriented development should integrate art and design that reflects the region's culture into the physical station and housing development.

- The **iQuilt Plan** is a culture-based urban design plan for Downtown Hartford. The iQuilt Plan links those assets with a vibrant and innovative pedestrian network. Its centerpiece is the GreenWalk, a one-mile chain of parks and plazas connecting the gold-domed Capitol in Bushnell Park to the waterfront of the Connecticut River. iQuilt is currently updating their strategic plan, which should be supported as part of the strategy to enhance the region's quality of place amenities.

CONTINUE MAKING SITES READY FOR DEVELOPMENT

Previous CEDS efforts focused primarily on infrastructure projects. While this CEDS has moved to strategies based more around talent, preparing sites throughout the region is still a worthy pursuit.

Two strategies are commonly pursued by municipalities:

Brownfields Remediation

Like most of the northeast, the Metro Hartford region has a plethora of brownfield sites. Due to the way transit and commuter rail corridors have been developed (using former freight corridors), many of the most promising areas for redevelopment are also brownfields. An inventory of brownfield sites created by CRCOG in 2017 identified 245 potentially contaminated parcels in just two transit corridors.

CRCOG will continue to work with municipalities and state agencies to identify potentially contaminated sites and allocate funds for remediation. CRCOG's Metro Hartford Brownfields program has successfully led to many redevelopments, including the site where Goodwin College now sits.

Infrastructure Projects

Prior waves of development have resulted not only in brownfield sites, but also sites with inadequate infrastructure. From former suburban strip malls that lack adequate transportation infrastructure to support higher density development, to underutilized parcels with no utilities, these sites need many upgrades to be profitably used. Municpalities throughout the region should continue to work with state agencies, federal agencies, and funders to improve key infrastructure at redevelopment sites.

One example is a former movie theater in East Hartford located in close proximity to Pratt and Whitney, one of the region's major employers. The site has been vacant for a decade, but there is no publicly owned access to the site. This limits potential for redevelopment. The town is currently investigating ways to secure funding to purchase an access road and upgrade it to current town standards. Hundreds, if not thousands, of sites throughout the region have similar, though not identical, constraints. Grants from the EDA can help with putting such sites back to good use and should be pursued as appropriate.

GOAL 3: BRAND

Promote the region's industry strengths to increase investment.

Historically, the region and the state have been economic leaders, emerging from recessions at faster than average rates and showing strong growth. However, the region's economic performance from 2007 to 2017 trailed the US economy, experiencing almost no post-recession growth. The region has also been trailing the state in personal income, per capita income, number of households, and GDP per worker. IHS Markit forecasts that the economic growth rates in both Connecticut and the Hartford MSA over the next 10 years will continue to lag that of US under current trends, which will limit the amount of new development that will occur in the Metro Hartford region. By working as a region under a shared Brand and towards a shared vision, the region can aim to buck its projected decline, expand its workforce (Talent) and develop its shared infrastructure (Invest).

Metro Hartford has significant opportunities to capitalize on several regional strengths. It is concentrated in several key, high-opportunity industries, including advanced manufacturing and aerospace; business services, finance, and insurance; and biomedical devices. The Hartford region has an opportunity to cement its reputation as a hub for these industries by creating a cohesive brand and collaborating to promote and grow those industries. To do so will require working as a region. Regions are the scale at which today's economies function. The workforce and innovation assets relied upon by any particular company are distributed throughout the region. When a company is looking to expand or add a new location, they look first at the region. Talent is attracted to the amenities available within the region. The number of ways that regional economies are interconnected and interdependent goes on.

SWOT ANALYSIS

STRENGTHS

- **Regional cost advantage:** Lower cost of living and doing business relative to other large metro regions in New England and Mid Atlantic.
- **Strategic location in the center of the large market of the Northeast US**—proximity to, and position between, the New York and Boston metro areas.
- **Large, diverse economy**, with diversity across business types and sectors.
- **Financial/insurance businesses hub:** The Hartford region is a hub for the financial/insurance business sector and other key sectors, especially headquarters operations.
- **Above-average shares of economic activity** in advanced sectors generally, including advanced manufacturing.
- **Above-average share of foreign exports:** In 2016 the value of merchandise exports made in the Hartford MSA was $10.4 billion, comprising 11.1% of regional GDP.
- **Above-average number of foreign companies:** 86 foreign-owned companies identified in the Harford MSA.

WEAKNESSES

- **National cost disadvantage:** Higher than average cost of living and doing business relative to the entire country, which has led to a decline in lower-skilled jobs in key industries such as insurance.
- **Relatively low level of new business formation.**
- **Difficulty retaining young talent:** Young talent (including college students in the region) are not yet filling the needs of the key industries in the region, for many are moving/working elsewhere.

NEW ENGLAND'S KNOWLEDGE CORRIDOR

New England's Knowledge Corridor is an interstate partnership of regional economic development, planning, business, tourism and educational institutions that work together to advance the region's economic progress. It comprises the Hartford, Springfield and New Haven metro areas and is centered on seven counties, linked by a shared economy, history and culture and by features including Bradley International Airport, rail lines, Interstate 91 and the Connecticut River. The group markets the regions, emphasizing the area's rich history of innovation, invention and world-class educational assets.

OPPORTUNITIES

- **Industry strengths in the following sectors present an opportunity to brand the region as a hub** for: Business Services, Insurance and other Financial, Metalworking and Metal Products (upstream and downstream), Printing Services, Production Technology Machinery and Equipment, Aerospace, Medical Devices.
- **Quicker rail commuting service:** A faster rail connection to New York recently began service and the State of Massachusetts plans to begin a study that would link the region to Boston.
- **The University of Connecticut** is classified Highest Research Activity, indicating that it is a major economic development asset, but whose potential to spur innovation in the MSA has not been fully utilized.
- **Cost advantages** make the Hartford Region especially attractive for activities where transportation cost is not an issue: business service, IT support, information processing and analytics, and digital design activities.
- **Growth in advanced manufacturing sectors** that produce a range of complex, high-value added durable mfg. goods such as machinery, electrical equipment, electronics, tools, aerospace, transportation equipment, etc.

THREATS

- **Stagnant/declining regional population and workforce** are projected in the next decade. This decline threatens the region's economy generally but is especially threatening to the key industries in the region.
- **Stagnant/declining statewide population and workforce:** The projected population/workforce decline of the rest of the state of Connecticut generally adds to the challenges faced by the region. A shared, regional effort will be needed to establish a different trajectory in Metro Hartford.
- **Increasing levels of automation** could jeopardize employment in sectors such as advanced manufacturing.
- **The State of Connecticut's challenging fiscal situation** will continue to limit its ability to contribute to workforce development, infrastructure, and other economic competitiveness initiatives.
- **Lack of downtown amenities:** The region may not be able to meet the increasing preference among younger adults for urban living (as well as a corporate preference for such environs) without a significant investment in its cities.

ENTREPRENEURIAL ECOSYSTEM

The Hartford region has many assets with which to grow its entrepreneurial ecosystem. These include: Central Row, Hartford InsurTech accelerator powered by Startupbootcamp, MakeHartford, reSET, Business Factory & Impact Accelerator, STANLEY+Techstars Additive Manufacturing Accelerator, ThinkSynergy, University of Hartford Entrepreneurial Center, University of Hartford Women's Business Center, Upward Hartford, CT Center for Entrepreneurship & Innovation, UConn , Innovation Quest Accelerator/TIP Incubation Program, and UConn Technology Incubation Program. Innovation Destination: Hartford is a website designed to showcase and serve the Hartford Region's entrepreneurial community.

ACTION PLAN

CREATE A COORDINATED, REGIONAL APPROACH TO BUSINESS RETENTION, EXPANSION, AND ATTRACTION

Strategy Description

The Metro Hartford region is currently lacking a formal regional business retention, expansion and attraction program (BREA). For the purposes of this strategy, the region is defined as the MSA, as that is a more standard definition for economic development and data analysis purposes.

Successful regions around the country provide business retention, expansion, and attraction services at the regional level for several reasons. The region is considered the unit of economic competition of a global economy. Like most regions, Metro Hartford contains municipalities of varying capacity when it comes to economic development. While some may be able to provide retention support and engage directly with the Department of Economic and Community Development on site selection requests, most do not have that capacity. When making site selection decisions, companies consider the region before a specific municipality - laborshed, logistics infrastructure, and quality of life amenities are regional in nature. This is also why regional branding is critical in attracting companies.

A regional retention, expansion, and attraction program can include the following services:

Retention and Expansion

- **Business surveying and visitation**
    - Conduct background research on companies and their industry
    - Identify the key issues that need to be addressed
    - Tailor programs and support services
- **Contact engagement** at a company's out-of-area headquarters
- **Coordinated service-team approach** to ensure that companies get the services they need from multiple agencies or programs
- **Export and trade development**: Helping local businesses identify new markets outside the host region or country can create significant growth opportunities.
- **Business Aftercare**: The term "aftercare" is typically used to describe activities and support services that help foreign investors successfully operate a business in a new country.
- **Human resource assistance**: Programs that help companies to locate, up-skill, and retain talent support business competitiveness.

Attraction

The regional entity tends to play the following roles:

- **A marketer and regional message communicator** - promoting the region to both domestic and international audiences. The regional entity develops, coordinates and manages the communication of a single message and brand for the region – one that is built upon and representative of the unique resources and assets found throughout the region. The regional entity promotes and recognizes the successes that happen in each of the partner communities, through data collection, testimonials and storytelling.
- **An outreach coordinator** - The regional entity, in consultation with the local partners, targets, coordinates and manages both domestic and international business attraction site visits related to opportunities developed by the regional entity and at the specific request of local partners. At the request of the local partner, the regional entity assists the local partners with any leads generated or other response related activity that results from those visits.
- **A deal flow partner** - The regional entity, as requested by the local partners, assists in developing (through providing regional data and story-telling) and coordinating a common regional response to leads and prospects. Though each instance is unique depending on the needs and requests of the client, once multiple communities are no longer in consideration, the local partner will assume a lead role. The regional entity may continue to support the local partner with research, company visits, etc. Local partners may elect the regional entity to provide tracking, database management and reporting on all leads generated within the region regardless of their origination.

- **A communicator of common barriers/gaps -** The regional entity works with local partners to identify common barriers to new investment and business attraction opportunities and facilitates actions that will help to reduce or eliminate those barriers when possible.
- **An aggregator and translator of data -** The regional entity collects, monitors and provides key statistical information on the region to include but not limited to, demographic trends, workforce, and industry trends. The regional entity works to translate that data for its local partners to identify new opportunities or potential challenges that may be represented in that data. The regional entity monitors best practice trends and shares those practices with the local partners.

IMPLEMENTATION STEPS

Note: The Metro Hartford Alliance is currently developing a strategic plan that will support this strategy; however, as it is not yet final, implementation steps, costs, and performance measures are subject to change.

- **Refine industry and geographic targets, and sales proposition**. Based on data compiled by IHS Markit for this strategy, several high-opportunity sectors were identified, including Insurance/ Financial, Aerospace, and Medical Devices. However, additional research will be required to refine more nuanced business attraction targets (both sector and geography). A unique sales proposition will need to be developed for each scenario. This will build off of the region's unique assets in each of those sectors.
- **Engage municipalities to define attraction process.** Currently, several initiatives are underway to help towns become "investment ready". These include CERC's municipal training, and the CT Chapter of the American Planning Association and the CT Economic Development Association's program to "certify" towns for investment. In addition to defining how municipalities would like to work with the MHA on attraction, the Alliance will identify other needs relative to marketing and supporting municipalities in attracting investment. For instance, there is currently no complete inventory and map of available sites in the region.
- **Create a regional marketing/ branding strategy.** This must include both an external and an internal marketing strategy. Engaging all of the region's municipalities via the CRCOG will be an integral step. The external marketing strategy will build off of the sales proposition, while the internal marketing strategy will be intended to promote positive economic development news in the region. Ensuring that these efforts highlight and promote the cultural diversity of the region and are targeted towards/ accessible by a diverse audience is critical.
- **Create a forum for collaboration and learning.** Previous iterations of the Regional Economic Development Forum ultimately came to an end due to a lack of clear direction and buy-in from public leadership. However, that lack of a common forum for collaboration has left a void. There is a lack of clarity in the region on who is doing and should be doing what relative to business retention, expansion, and attraction. Therefore, some new version is needed to build relationships and understanding of the ecosystem.
- **Engage municipalities to define a retention and expansion strategy.** Currently, business retention efforts are played by various stakeholders - and who those stakeholders are may differ by community. While that will likely always be the case, how can we ensure that these stakeholders have a common set of tools to support their efforts and that there is a common process in place for referring businesses to the appropriate resources/partners when necessary? The MHA will work with municipalities to define a retention and expansion strategy, including a strategy for regular visitation of businesses in key industries and a common way to track information on companies.

KEY STAKEHOLDERS

- The Metro Hartford Alliance will lead this strategy.
- The CRCOG will be a key supporting organization, in particular as it pertains to engaging municipalities.
- There are innumerable organizations in the region who support economic development and will be key partners. DECD, CERC, Capital Workforce Partners provide data and resources related to workforce development to support attraction efforts.
- For the marketing and branding strategy, the Metro Hartford Alliance will partner with other organizations working to promote the region.

COSTS

Start-up (Year 1)	$1,250,000
Staffing	$1,000,000
Marketing/Travel	$100,000
Consulting services – marketing plan/perception survey/ EDO website	$150,000
Scaling (Years 2 - 4)	**$1,250,000**
Staffing	$1,000,000
Marketing/Travel	$250,000
Ongoing (Years 5+)	**$1,500,000 annually**
Staffing	$1,000,000
Marketing/Travel	$500,000
Total Years 1 - 5 Cost	**$6,750,000**

FUNDING SOURCES

Public	• The Metro Hartford Alliance will engage municipalities/ chamber organizations, regardless of whether they are MHA members. Alliance will seek to add additional municipalities to provide financial support.
Private	• The Metro Hartford Alliance will raise funding from their private investors.
Philanthropic	• The Hartford Foundation for Public Giving may support certain components of this strategy, i.e. data/research component

TIMELINE

Year 1	• Define attraction targets (industries & geographies) • Develop unique sales proposition • Engage municipalities to define BREA process and roles • Formalize roles/responsibilities of MHA and municipalities in working together on BREA • Develop multi-year marketing plan	• Engage consultant to execute perception survey • Engage consultant to develop Alliance EDO website • Attend trade shows/site selector events • Establish metrics • Enhance working relationship with DECD/CERC
Year 2	• Begin implementation of multi-year marketing plan • Begin execution of trade missions	
Year 3-5	• Focus on maintenance and continuous improvement of strategies	

PERFORMANCE MEASURES

(Note that these are possible measures, to be further refined as part of the Metro Hartford Alliance strategic planning process in Fall 2018).

- # of existing businesses visited
- # of existing businesses expanded due to retention/ expansion services
- # of new business recruitments
- # of trade missions executed
- # of site selector visits hosted
- # of site selector events/trade shows attended/ # of contacts/leads made
- # of jobs retained
- # of jobs created
- $ of new capital investment in the region
- $ of capital raised by startups

SCALE EFFORTS TO SUPPORT HIGH-OPPORTUNITY SECTORS THROUGH ENTREPRENEURSHIP

STRATEGY DESCRIPTION

Metro Hartford has many organizations and assets that seek to support entrepreneurial and early-stage business start-up activity. These include programming, such as entrepreneur-focused events and organizations (e.g. reSET, UConn's CCEI, and the new University of Hartford/ UConn InsurTech class); marketing efforts (e.g. Innovation Destination: Hartford); physical infrastructure, like coworking and maker spaces (e.g. Upward Hartford, Makerspace CT, Trinity College's Liberal Arts Action Lab, and Spaces); and technical and financial support, including various training programs, and accelerator hubs (e.g. Hartford InsurTech Hub, Stanley + Techstars Additive Manufacturing Accelerator).

Based on an October 2018 report by Startup Genome, the Hartford region's entrepreneurial ecosystem can be categorized as being in the "Early Activation" phase. Key strategies for further development at this stage include: growing a connected community; increasing early-stage funding; and accelerating the growth of top startups. Many of these outcomes could be realized by helping the Hartford region improving its connectedness; specifically, the frequency of events and "collisions" between members of the entrepreneurial community, the amount and quality of relationships between founders and investors, and the quality and amount of relationships between founders, who may be able to offer each other support. Even though these improvements sound simple, they are not things that come naturally. Rather, they must be intentionally cultivated early in the development of an ecosystem. This was the number one recommendation coming out of the Startup Genome report.

Following that and looking ahead towards the next phase of growth for the ecosystem, focus will need to be placed on increasing the global connectedness of the ecosystem, including increasing the number of immigrant founders in the region. This was the second highest priority in the Startup Genome report.

These recent recommendations echo the 2014 Jumpstart assessment of the entrepreneurship ecosystem in the region. The top two recommendations in that study were creating a more integrated community (i.e. helping entrepreneurs navigate existing programs to identify the most

appropriate ones to suit their needs); and increasing the entrepreneurial culture and self-perception (i.e. leveraging the region's entrepreneurial assets and successes to improve the region's self-perception and external view of its entrepreneurial capabilities.) Once again, these interventions may seem "soft" to the average person, but in fact they are cited time and again by organizations with strong credibility in this space as key to building a robust entrepreneurial ecosystem. And creation of connectedness and culture in a place where it is lacking requires strategic, and appropriately-resourced investments.

The Metro Hartford region must continue to grow its entrepreneurial ecosystem in order to attract talent and economic growth. One bright spot of note for the region is its high marks in female founders and programs that support inclusion and diversity within entrepreneurship (according to Startup Genome). This lays the groundwork for inclusive economic growth. The region's strategy should focus on:

- **Increasing the capacity of existing organizations to foster a connected community**. The Hartford/East Hartford Innovation Places program was initiated by a state funding opportunity; because of highly fragmented nature of entrepreneurial community there was no apparent organization to own it. So, a new partnership structure, amongst several key anchor employers, educational institutions, and community organizations, was formed. Given the program's early success, it is well-positioned to become more formally organized, help to convene and connect existing resources, and identify and fill gaps at both a local and regional level. Attention to the regional ecosystem is important because while density of activity and resources is required to increase the rate of helpful collisions called for in the Startup Genome report, increasing connections to assets outside of the particular geography of the current Innovation Places program (Hartford and East Hartford) is needed for future growth and increasing drawing power to the region. Fortunately, there are a number of important innovation assets popping up, including but not limited to, the emerging FinTech center proposed in the old UConn campus in West Hartford.

If the region is serious about enhancing its entrepreneurial culture and developing the relationships necessary to create connections across the community, and to other global centers of innovation, that's a big lift. The partnerships and programs created through the Innovation Places program have unlocked opportunity to take those next steps, but the current level of financial and human resources dedicated to their efforts will need to be increased to do these things at scale.

- **Increasing connections with the region's high-opportunity industries** (e.g. in Nashville, as described below, a key piece of their successful entrepreneurial ecosystem has been alignment with their healthcare sector). Supporting innovation and entrepreneurship will help our anchor industries emerge stronger from what some have called the 4th Industrial Revolution, or the transformation of the global economy through digitization and the introduction of advanced technologies. The Hartford/East Hartford Innovation Places program has helped to create programs and partnerships focused on the promoting and supporting innovation in the region's key industries including the creation of the Hartford InsurTech Hub led by Cigna, Travelers and The Hartford, development of an upcoming MedTech/Digital Health led by Hartford HealthCare, and support of Advanced/Additive manufacturing innovation through higher education partnerships to address talent shortages, and provide access to new resources, and creating strong community connections to the new Stanley + Techstars program.
- New efforts to grow entrepreneurial activity in Hartford region should also pay attention to the technologies that are going to change the game in these industries and focus on recruiting more startups and more talent in each of these areas to create industry centers of innovation strength in the region. Marketing and branding of these efforts should also align with the Metro Hartford Alliance's regional marketing and branding efforts, to raise visibility and recognition of opportunities in these areas amongst both entrepreneurs and top talent.
- **Exploring the development of a central physical hub for entrepreneurship**, such as Nashville's Entrepreneur Center or Durham's American Underground (described below). This could be achieved in part through increasing the presence of University of Connecticut and other institutions of higher education downtown. Another option would be to intentionally focus resources and future planned development within a district, or districts throughout the region, and then networking those assets and communities together through both physical (transportation) and virtual connections. Natural centers of gravity for innovation and entrepreneurship seem to be appearing in downtown Hartford between Main Street and Constitution Plaza, and in Parkville. There has also been some assessment of another cluster of entrepreneurial development between Hartford Hospital and Trinity College.
- **Investing in talent development and talent recruitment.** The Hartford InsurTech Hub, and Stanley + Techstars accelerator have had a great level of success in attracting new companies to the Hartford region over the last year, based on the promise of interaction with potential customers (large corporations/anchor institutions). However, to succeed at getting them to stay, startups need proof that the Hartford region is a place where they can hire the people that they depend on to drive their next phase of growth. Achieving this level of confidence from entrepreneurs who visit our community will require developing new talent with specialized skills through our educational institutions, but also making the Hartford region an attractive place for top talent in those fields to live. We'll need to draw people from the greater Boston, greater New York, greater Philadelphia, area, as well as other tech centers around the globe.

HOW AN ENTREPRENEURIAL ECOSYSTEM CAN DRIVE ECONOMIC GROWTH

Many of the regions across the county that have experienced strong population and economic growth have done so, in part, due to their entrepreneurial ecosystems. Perhaps the best example of that potential comes from **Nashville, TN**. The centerpiece of their economic transformation started with Partnership 2000, launched in 1990. A public-private economic development initiative, the first phase was a 10-year strategy for the region. Partnership 2020 (as it's known today) is 90% privately funded. Investors meet quarterly to discuss goals and activities.

The recent success of Nashville's entrepreneurial ecosystem can be traced back to a 2005 Market Street Services report saying that Nashville needed to improve on its ability to launch, fund and build high-growth, innovative companies. That led to the creation in 2007 of a 75-member task force (put together as part of Partnership 2010) focused on aggregating and growing the region's entrepreneurial resources. That group's recommendations included drawing more capital to the region, creating the Nashville Entrepreneur Center, as well as the pooling of experienced advisors and improving networking and educational opportunities.

Today, the Entrepreneur Center (EC) stands as the hub of the region's entrepreneurial ecosystem, working with 50 other organizations and firms to connect entrepreneurs with resources. Built in restored trolley car buildings with $6 million (including a $2.5 million EDA grant), the EC has created new energy and "helped to cement Nashville's reputation among Millennial, ambitious, bright risk-takers," according to Metro Chamber veteran Janet Miller. According to Miller, the city sees its investment into the entrepreneurial sector as a talent attractor. In addition to providing funding for the EC, it also partners with them to advance public innovation. Private companies are also utilizing the EC for "innovation retreats" or as a "corporate accelerator" as they shift away from their traditional research and development models. For example, JumpWorks is a partnership between JumpStart and the Hospital Corporation of America. The Entrepreneur Center has an annual operating budget of approximately $2 million.

Durham, NC is another great example. In the early '90s, Durham was suffering from decades of blight and disinvestment. A new stadium in downtown Durham in the mid-90s set the stage for the region's revitalization and the growth of its entrepreneurial ecosystem. The owners of the Durham Bulls Athletic Park began to tackle the development of real estate around the park, starting with buying and renovating American Tobacco as the key element in making the stadium a successful anchor. Around that same time, Downtown Durham, Inc. was formed through a public-private partnership. Private-sector leaders raised $50,000, which was matched by an additional $50,000 from the City of Durham to start the organization. DDI was a key partner in the redevelopment of the American Tobacco Factory. They were supported by the corporate and academic community (including Duke University, GlaxoSmithKline, McKinney, City of Durham and the Durham Bulls), who committed to significant leases in the development.

The American Underground, started in 2010 and housed in the historic American Tobacco Campus, is a space for entrepreneurs, startups, innovators and investors to work collaboratively in a high-resource environment featuring a premier accelerator and incubator programs, a tech-training academy, and 10 to 15-person start-ups. Founding partners include Google for Entrepreneurs, Duke University, Greater Durham Chamber of Commerce, NC IDEA and The Research Triangle Park. This entrepreneurial hub brings in new talent to the region, but also serves as a way for young entrepreneurs to stay and continue to build upon the growth accelerating the region. Today, it supports 275+ startups across four locations.

The Greater Durham Chamber of Commerce also plays a strong role in supporting the entrepreneurial ecosystem. They are entrepreneurially focused and have continued to evolve very successful programming. An early signature program, in partnership with DDI, the Bull City Stampede played a big role in drawing attention to the region's entrepreneurial ecosystem. The Stampede was an open call to entrepreneurs to come to Durham free for 60 days to take advantage of local programs. From 2010 - 2012 they attracted applications from 362 cities and 42 countries; 36 companies came to Durham with 28 staying to build their companies.

IMPLEMENTATION STEPS

- Increase the capacity of the Hartford/East Hartford Innovation Places program to invest in efforts to create connectivity and helpful collisions in the community, engage more members of key industries that are ripe to lead the region's innovation economy, and connect with other global centers of excellence in these areas.
- Commission a feasibility study for the development of a physical entrepreneurship hub, or connection between current and emerging hubs of entrepreneurial activity in the region.
- Engage a community-wide task force on 21st Century talent. Emphasis should be placed on identifying the skills in demand both by new and emerging companies within key industries, and the area's anchor institutions that are undergoing transformation through innovation; identifying the factors needed to make greater Hartford attractive to this type of talent; and increasing the capacity and recognition of local educational institutions' ability to produce critical talent in these areas.

STAKEHOLDERS

- Innovation Places will lead this strategy in close collaboration with other entrepreneurship and innovation organizations in the region.

Currently, the Hartford region boasts two accelerators focused on leveraging and growing two of the region's key economic drivers: Insurance and Advanced Manufacturing.

Hartford InsurTech Hub, powered by Startupbootcamp, is an initiative that was created through a partnership of local insurers, the City of Hartford representatives, and several other community stakeholders under the Hartford/East Hartford Innovation Places program. Opportunities to help spur increased InsurTech innovation activity in the region were identified by this group, and action against these goals was catalyzed by investment from CTNext. The InsurTech Accelerator, part of Hartford InsurTech Hub, was established to attract new talent and technology to Hartford.

The Stanley+Techstars Additive Manufacturing Accelerator focuses on additive manufacturing. The first cohort of 10 companies is currently underway (Oct 2018). Companies were selected from a pool of applications that came from 11 countries, with 50% from outside of the United States, and approximately 20% from the NE North Americas region. Entrepreneurs accepted into the program will relocate to Hartford, CT for the duration of the program. This is a mentorship-driven program, with nearly 100 mentors participating.

COSTS

Start-up (Year 1)	$3,500,000
Planning	$200,000
Programmatic	$2,800,000
Staffing	$300,000
Marketing	$200,000
Scaling (Years 2 - 4)	**$19,350,000 Annually**
Programmatic	$5,600,000/year
Staffing (4 additional)	$800,000/year
Marketing	$50,000/year
Ongoing (Years 5+)	**$6,650,000 Annually**
Programmatic	$5,600,000/year
Staffing (2 additional)	$1,000,000/year
Marketing	$50,000
Total Years 1 - 5 Cost	**$29,500,000**

FUNDING SOURCES

Public	• An EDA i6 grant could potentially fund this work.
Private	• Private companies have been and are expected to continue supporting initiatives such as InsurTech, MedTech, and Stanley + TechStars. For instance, InsurTech is supported by a $1.1M/year from the program's corporate partners, which significantly reduces the need for CTNext funding to $350,000/year.
Philanthropic	• CTNext has been providing $2M per year to Innovation Places Hartford/ East Hartford. • The National League of Cities Innovation Call to Action, in partnership with Schmidt Futures will support Innovation Place's efforts to grow Hartford's emerging InsurTech ecosystem in 2019, including making introductions to its network of corporate and philanthropic partners.

TIMELINE

Year 1	• Enhance governance structure • Increase staff capacity to develop relationships with state, regional and national stakeholders • Develop region wide growth objectives for Hartford's innovation ecosystem in collaboration with community, identifying strategic priorities and corresponding investment opportunities • Convene community-wide taskforce on 21st Century Talent • Develop marketing strategy to raise awareness about the advantages of growing a business in the Greater Hartford area
Year 2	• Conduct feasibility study for entrepreneurial hub • Formalize regional collaboration model • Launch MedTech programming • Continue to grow InsurTech and Stanley + TechStars accelerators • Establish strategic objectives around 21st Century talent • Begin execution of marketing strategy
Year 3	• Execute on strategic plan around talent development initiatives • Develop strategic and fundraising plan for entrepreneurial hub • Continue to grow industry-related programs • Continue to execute on marketing strategy
Years 4 & 5	• Begin development of entrepreneurial hub • Continue to execute on regional talent development, industry-related, and marketing initiatives

PERFORMANCE MEASURES

- Number of business starts, by industry sector
- Number of businesses over five years old, by industry sector

LONG TERM STRATEGIES

Bradley Airport served 6.4 million passengers in 2017[1], facilitating military, business, and recreational travel. In 2018, Bradley released their Master Plan. Supporting the growth and expansion of Bradley Airport is critical to efforts to promote the region's industry strengths.

1 Calendar Year 2017 Passenger Numbers

IMPLEMENTATION & EVALUATION

It is anticipated that the Strategy Launch and establishment of Working Groups and an Implementation Committee, as described below, will comprise a great deal of work in 2019. Therefore, the Evaluation Framework will establish goals that will be tracked between 2020 and 2025.

STRATEGY LAUNCH

A key theme throughout the planning process has been the lack of a regional identity and collaboration. The strategies in Metro Hartford Future were selected specifically because of their regional nature. Metro Hartford Future provides a prioritized set of strategies around which regional leaders can rally to build greater regional cohesion. Many regional leaders were a part of the Advisory Committee; however, the launch of Metro Hartford Future represents an opportunity to more fully engage the organizations they represent - to secure their buy-in and support of the strategy. CRCOG, Metro Hartford Alliance, and the Hartford Foundation for Public Giving will engage their boards, as well as the boards of other regional organizations, such as Capital Workforce Partners, United Way of Central and Northeastern Connecticut, etc. to ensure that they are champions of Metro Hartford Future.

WORKING GROUPS

Working Groups will be formed around each of the priority strategies to advance implementation. CRCOG will providing staffing support to convene the Working Groups. Working Groups will select co-chairs, who will be responsible for leading the development of detailed work plans and timetables.

IMPLEMENTATION COMMITTEE

An Implementation Committee will be formed to oversee the implementation of Metro Hartford Future. This committee will be modeled after successful groups across the country, including Minneapolis-St. Pauls' Itasca Project, Nashville's Partnership 2020, and others. Key components include:

- Co-chairs will be executive/CEO level representatives of the private and public/non-profit sectors.
- Co-chairs will solicit their peers to create a high-level public-private committee, representing a diversity of stakeholders.
- The committee will be the primary advocates and champions for Metro Hartford Future.
- The committee will identify potential funding sources, coordinate with Working Groups to align funding requests, and ideally raise "unrestricted" funding that can support the implementation of all Metro Hartford Future strategies.
- The committee will meet quarterly to receive reports from the Working Groups (Working Groups may rotate), with the intent of identifying additional connections or resources to support the Working Groups.
- The committee will host an annual public meeting to report on the progress of the Working Groups towards the established goals and vision. (using the Dashboard - see next page)
- The committee will be staffed by the Capitol

Region Council of Governments.

PERFORMANCE DASHBOARD

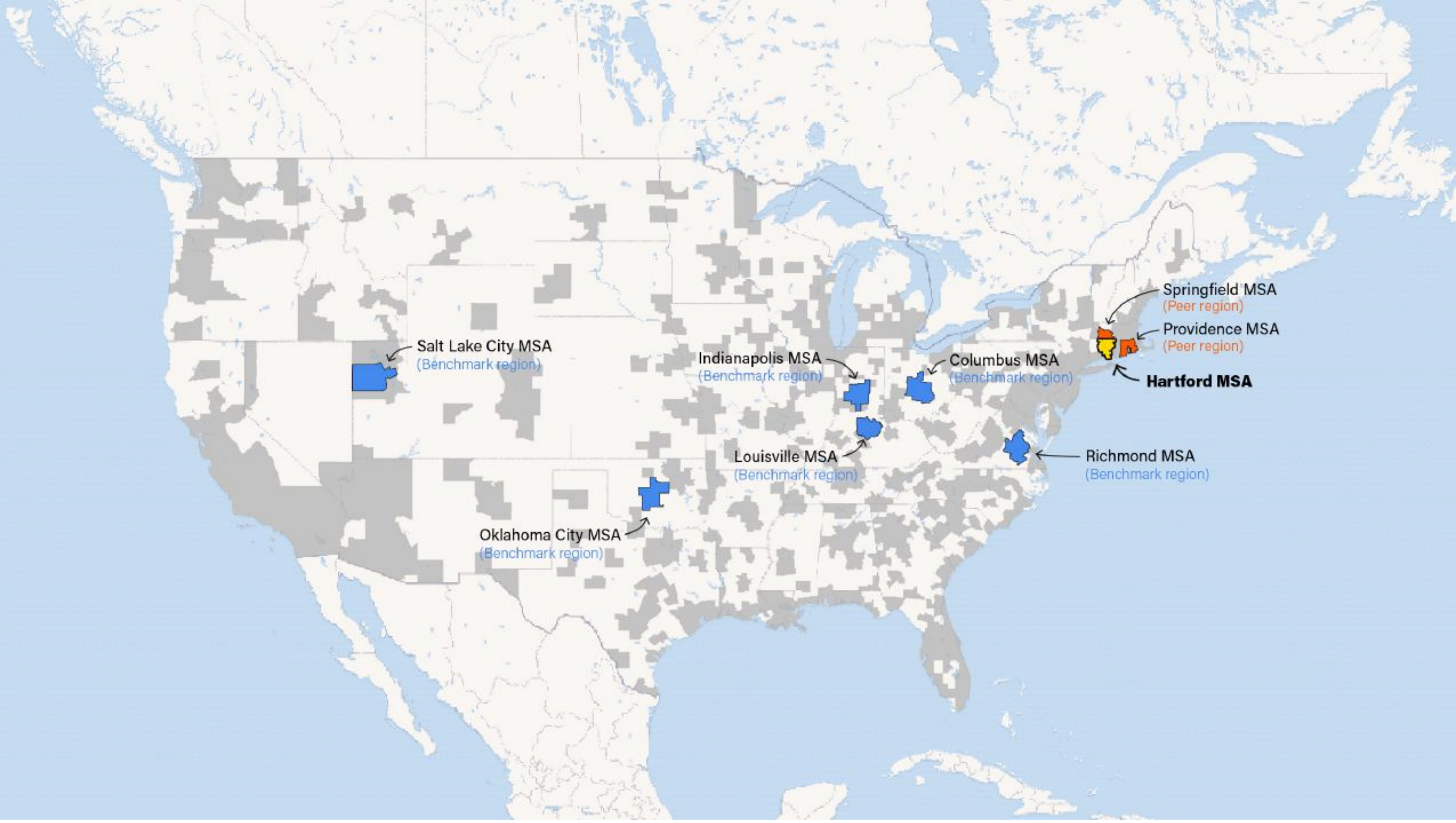
A Dashboard will be developed that will help the Implementation Committee track progress on implementation of the strategies and impact on the broader goals set forth by Metro Hartford Future (see Evaluation Framework below). While Performance Measures (inclusive of both output and outcome measures) are identified for each strategy, these will be refined both by the Working Groups and the Implementation Committee. Working Groups will use the Dashboard as a template to report on their progress to the Implementation Committee.

IMPLEMENTATION FUND

As suggested above, a key task for the Implementation Committee will be to support fundraising. Ideally, the Committee will create a dedicated Fund to support implementation of Metro Hartford Future, rather than seeking funding for each individual strategy. This is a tactic that has been successfully deployed across the country through efforts such as Nashville's Partnership 2020 and Opportunity Austin.

EVALUATION FRAMEWORK: DEFINING SUCCESS

To create shared understanding among the key stakeholders around the vision of inclusive economic growth, Metro Hartford Future has used three benchmark indicators against which the region will vet potential game-changer strategies and ultimately measure our success. While we know that inclusive growth is a complex concept to measure and should ultimately encompass many indicators, we are choosing to focus on three to create a simple, easy-to-measure, and clear guidepost for the region. Those are: people (population growth), prosperity (economic growth), and inclusion. If this plan and the strategies within are effective, the long-term results will be shown in these three measures.



BENCHMARK REGIONS

Having established the key benchmark metrics for a vision of inclusive growth, it is important to not only understand where Metro Hartford currently stands, but to consider how it comparesto other regions. To use comparable regions, we will focus on Metropolitan Statistical Areas (MSAs or metro areas). MSAs are formed by grouping adjacent counties that have a strong connection to an urban area or central city/cities. There are 382 metro areas in the US, and collectively they contain most of the US population. In addition to considering how Metro Hartford fits in broadly with all other MSAs, the project team has identified a handful of these metro areas to specifically focus on in comparison studies. These metro areas are referred to as benchmark regions and peer regions. The six benchmark regions (shown below) were selected because they were identified as having achieved recent economic success that is likely attributable to a variety of local policies. (In other words, they are doing well in ways that are likely not accidental, and which may be instructive to the Hartford region.) The peer regions (Springfield, MA, and Providence, RI) are geographically and economically like Metro Hartford.

BENCHMARK REGIONS (BLUE):

- Columbus, OH
- Indianapolis, IN
- Oklahoma City, OK
- Richmond, VA
- Louisville, KY
- Salt Lake City, UT

PEER REGIONS (ORANGE):

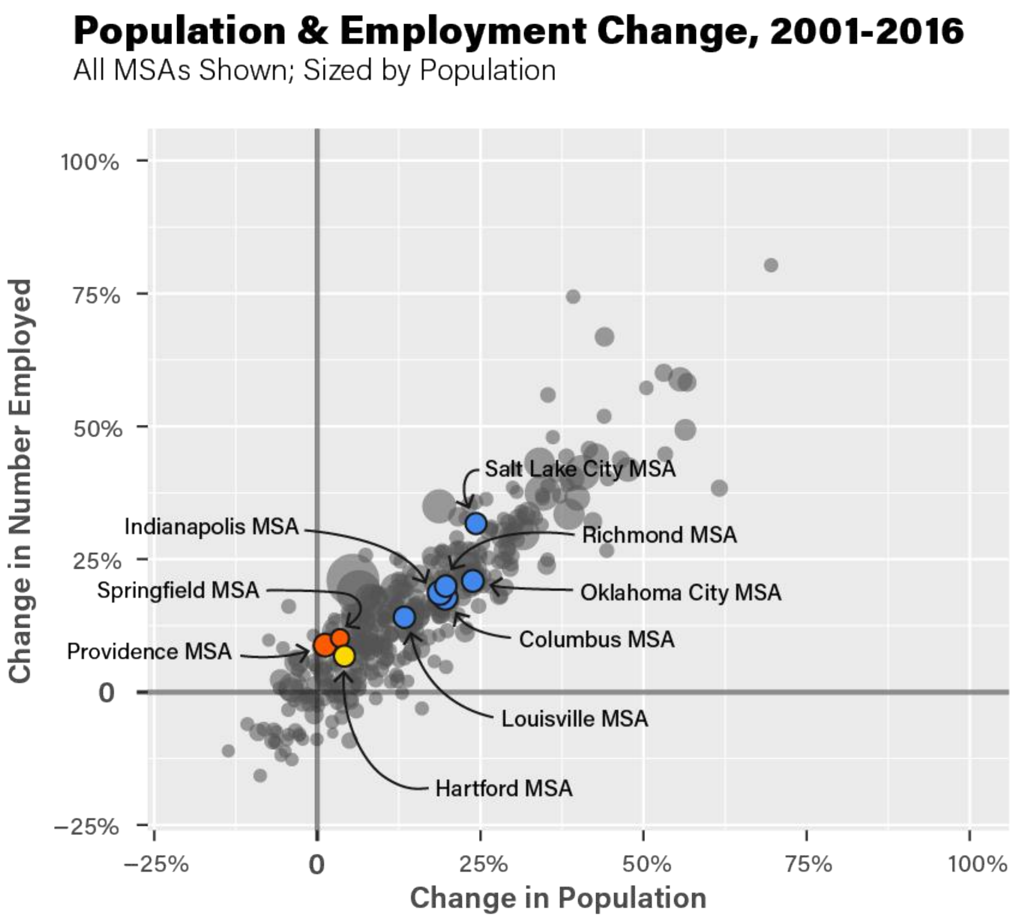
- Providence, RI
- Springfield, MA

BENCHMARK 1: PEOPLE

There is no more vital ingredient in an economy than people. The first benchmark, therefore, refers to regional growth. Hartford MSA has seen little net change in total population (estimated at about 1,206,800 people in 2016) or total workforce in the last fifteen years, and lags significantly behind most other MSAs, as well as all benchmark regions. It is also notable that those benchmark regions, although generally above average across all MSAs, have not been outliers in their own growth rates. In other words, Metro Hartford does not need to outrun the proverbial pack to achieve growth like its benchmark regions; instead, it simply needs to catch up.

Figure: Population and Employment Change, 2001-2016

All MSAs shown; sized by population

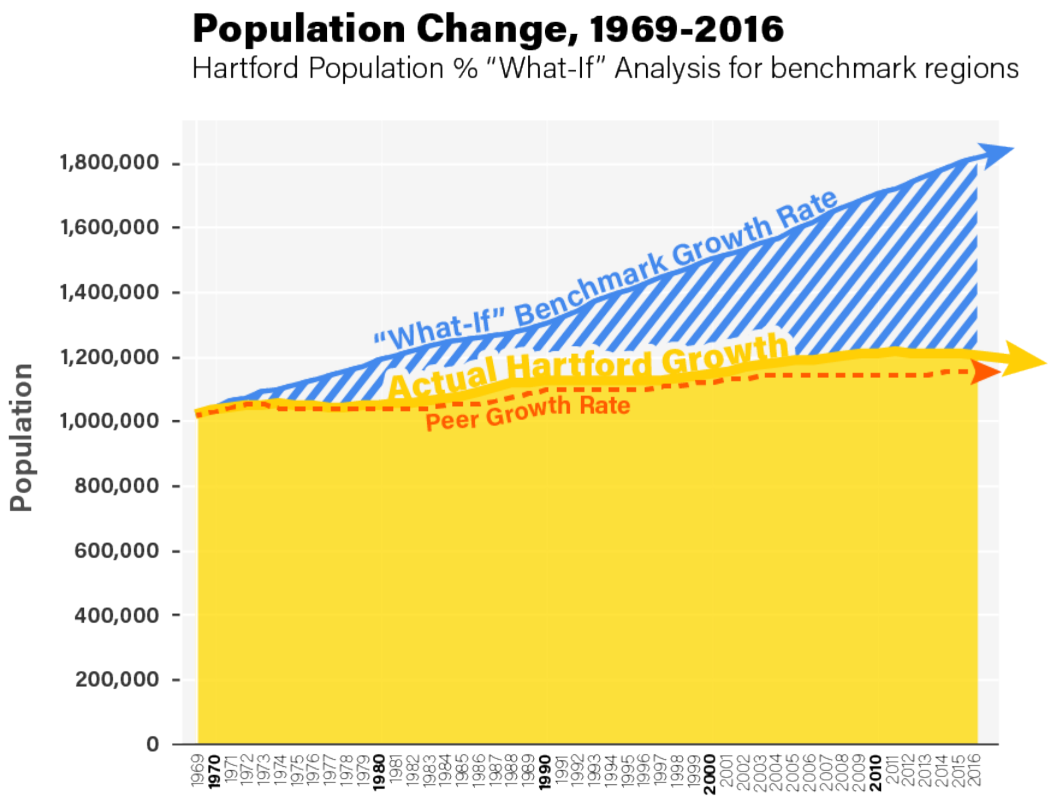


Source: US Bureau of Economic Analysis

POPULATION: WHAT IF...

The following "What-If"—or hypothetical—analysis is calculated by averaging the year-over-year change in population in Metro Hartford's benchmark regions (noted on the previous page). The blue line shows how Metro Hartford's population would have changed over the period shown (1969 to 2016) if it followed the average change of the benchmark regions. Although any given year in this hypothetical analysis would have seen only a modest change in growth (about 1% more population on average), the net effect over the long-term calls to mind a radically different region—one that is nearly twice as densely populated as Metro Hartford today.

Figure: "What-If" Analysis of Population Growth, 1969-2016



Data: Calculated from US Census Population Estimates.

BENCHMARK 1: FIVE-YEAR GOAL

The purpose of this exercise is twofold: to understand how Metro Hartford compares to other regions on these key benchmark indicators, and **to set realistic but challenging targets against which the region can measure future success.** The first of those targets will therefore relate to population growth. The Hartford MSA's population has been largely stagnant for the last decade (growing by 1% between 2006 and 2016). During that time, however, the US population grew in general and there was a significant migration to cities and urban areas (urbanization). The majority of other MSAs in the country saw over 10% growth in population in that same time span. Metro Hartford's benchmark regions grew by an average of 12.5% between 2006 and 2016.

From 2020 - 2025, Metro Hartford should aim to achieve a similar rate of growth as those other regions did in the previous decade. In other words, the **Hartford region should aim to grow its population by between 3% and 4%**. Due to demographics, growth in the coming decade will be more challenging in many places than it was in the last, but as current employees retire in greater number and competition for workforce increases, a growing population will lay the foundation for Metro Hartford's future economic success.

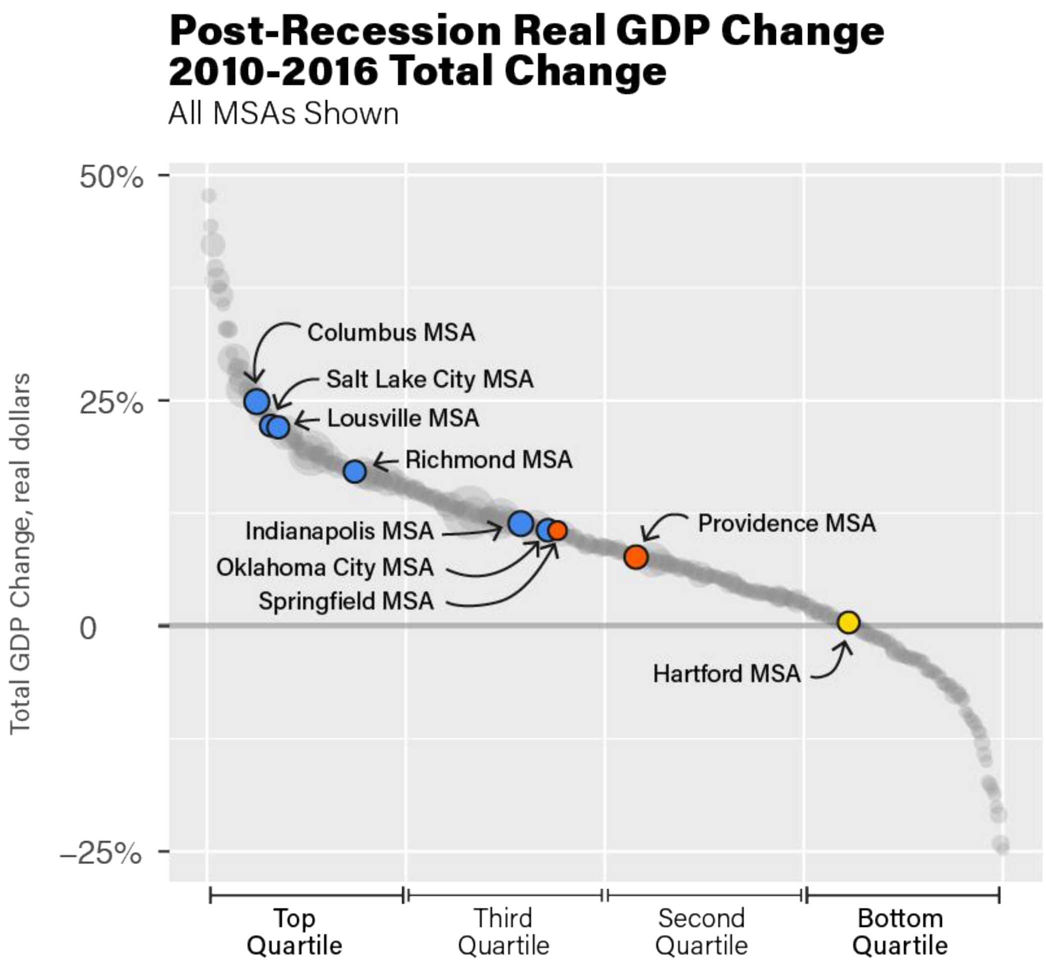
The region should also aim to see a greater concentration of its population in its urban areas. The city of Hartford itself is a relatively small core city—both in geographic size and population—compared to the surrounding region (as discussed in the Introduction). In other regions, a robust core city and densely populated urban areas are associated with strong economic conditions. (Among Metro Hartford's benchmark regions, the core cities account for, on average, 36% of regional population.) As Metro Hartford grows, therefore, it must look to its cities and large municipalities—Hartford, East Hartford, West Hartford, Manchester, and New Britain—to lead the way.

BENCHMARK 2: PROSPERITY

The second benchmark refers to economic output, which at the broadest scale can be captured using Gross Domestic Product (GDP)—also referred to at a regional scale as Gross Regional Product (GRP). Metro economies in the US are diverse, and many fluctuate from national patterns. Metro Hartford's economy reached a low point in the 2008/09 recession, with a more significant year-to-year loss than most other regions in the country. It also remained sluggish (with slight losses) for several years following the recession, a period during which both its benchmark regions and peer regions saw growth.

Metro Hartford's post-recession economic stagnation places the region within the bottom quartile (25%) of metro economies in the US in net growth following the recession (even including the region's 2015 and 2016 gains). And while there are several regions suffering from far more extreme losses over this period, the Hartford region's gradual decline cannot be explained by the national or regional trend.

Figure: Post Recession (2010-2016) GDP Change in 2016 Dollars for MSAs

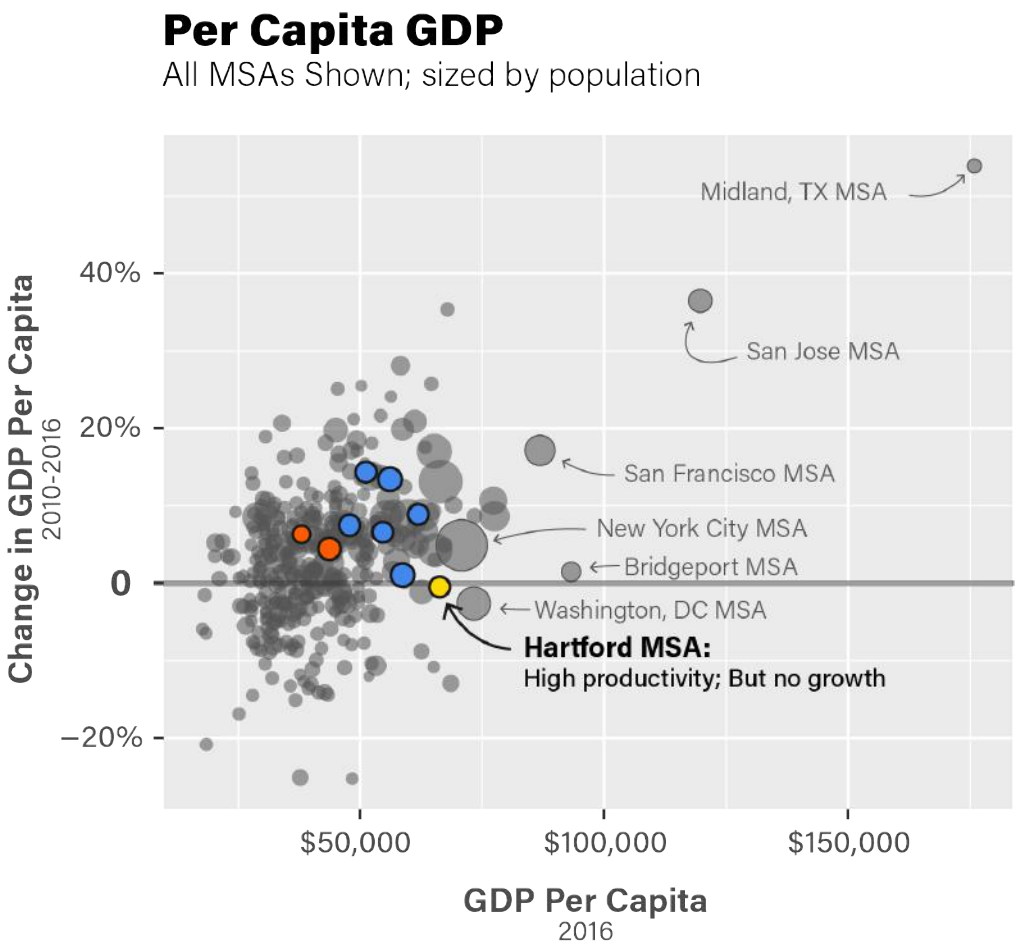


Source: US Bureau of Economic Analysis

PROSPERITY: GDP PER CAPITA

The following "What-If"—or hypothetical—analysis is calculated by averaging the year-over-year change in population in Metro Hartford's benchmark regions (noted on the previous page). The blue line shows how Metro Hartford's population would have changed over the period shown (1969 to 2016) if it followed the average change of the benchmark regions. Although any given year in this hypothetical analysis would have seen only a modest change in growth (about 1% more population on average), the net effect over the long-term calls to mind a radically different region—one that is nearly twice as densely populated as Metro Hartford today.

Figure: Post Recession (2010-2016) GDP Change in 2016 Dollars for MSAs



Source: US Bureau of Economic Analysis

BENCHMARK 2: FIVE-YEAR GOAL

Since 2010, Metro Hartford's economy has been stagnant, with little change in Real GDP—meaning, economic output adjusted for inflation—between 2010 and 2016. The region's high rate of productivity (seen with a high GDP per capita) remains an asset, but to maintain a competitive economy and avoid decline, the Hartford region must look to grow the output of its business along with its population (the first benchmark metric).

Between 2010 and 2016, Metro Hartford's peer regions all saw significant economic growth (with between 10% and 25% growth in Real GDP). Furthermore, in each case, the rate of growth in Real GDP exceeded the rate of growth in population—generally by around double the rate.

As the Hartford region sets its own sights, it should aim to **grow Real GDP** by a rate greater than its targeted rate of population growth—i.e., **by more than 5% between 2020 and 2025.** This will require the region to both continue to excel in its current high-performing sectors (e.g., Insurance/Finance) and become highly competitive new sectors, with high-wage labor.

BENCHMARK 3:
INCLUSION

The third benchmark indicator refers to the level of inclusiveness within the region's economy. Inclusion is more than a socially motivated goal; it is also a critical ingredient in sustainable economic growth. But, of the three benchmark indicators, it is the most difficult to capture concisely. In order to understand how available data could be used to create a measure of inclusion, it is important to consider how other researchers and analysts have approached the topic. One excellent example of this is United Way's ALICE project, which uses a complex methodology to create a single metric for certain geographic regions. The threshold for the ALICE measure could be considered like the idea of a "living wage"—i.e., a measure of livability that is more specific and realistic than the federal poverty threshold. Another example comes from the Brookings Institution, which publishes an annual report called the Metro Monitor. In the report, Brookings measures the rate of change across various metrics in three categories: Growth, Prosperity, and Inclusion—quite like the three-benchmark indicator used in this exercise. To calculate "inclusion", they rely on three measures related to employment, income, and poverty. For this analysis, we will use similar measures to those in Brookings' report. For each, we will consider how the Hartford MSA compares to others, and how the data break down across the major racial/ethnic groups—Non-Hispanic White, African-American, and Hispanic/Latino populations.

Note: In Census data, race (e.g., African-American) and ethnicity (i.e., Hispanic/Latino or non-Hispanic/Latino) are considered separately. For this analysis, anyone reported as being African-American and Hispanic/Latino is considered in both the African-American population and the Hispanic/Latino Population. The White, Non-Hispanic population only includes with White/Caucasian as their report race and Non-Hispanic/Latino as their reported ethnicity.

To analyze the applicable data, the following section relies on two types of graphics: boxplots and dotplots. See the Appendix for information on how to read these graphics.

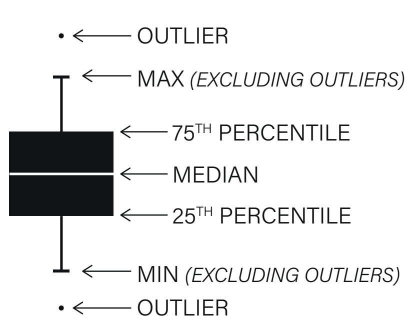
Notes on differences between the following analysis and the Brookings Metro Monitor:

1. Brookings measures the rate of change in its metrics. We will instead use the absolute values to give a clearer comparison. For instance, if a metro where poverty has consistently been very low is compared to a metro with very high poverty, but which is improving, we do not want to provide the misleading suggestion that the low-poverty metro is simply doing worse than the high-poverty metro, even if the latter has indeed shown more improvement.

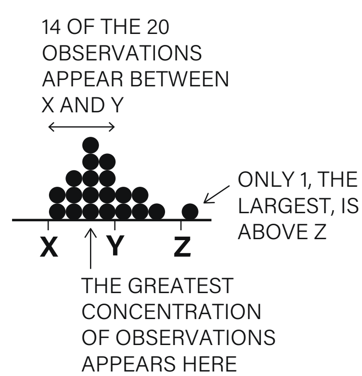
2. Brookings only looks at certain metro areas, whereas we will include all US metros.

3. Brookings use Census microdata (which is not publicly available from the Census) to calculate its metrics. We will use proxy metrics from public Census data. In the context of income, whereas Brookings can specifies the median value of income specifically from wages and salary work, we simply use the median income across all income sources. In the context of poverty, whereas Brookings can calculate a "relative poverty" measure that uses a different poverty threshold across geographies—a simplified attempt at a living wage threshold—we must use the same poverty threshold across all metros. However, because the cost of living in Hartford is roughly on par with the US average, that is unlikely to significantly influence Hartford's data. For employment, we use the Census Bureau's standard employment-population ratio across all 16-and-older population within each metro, whereas Brookings uses a more specific workforce age group

HOW TO READ A BOXPLOT:



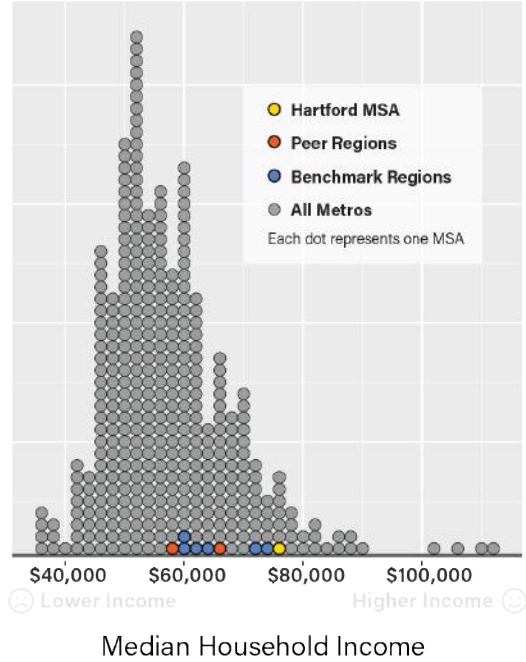
HOW TO READ A DOTPLOT:



INCLUSION: INCOME

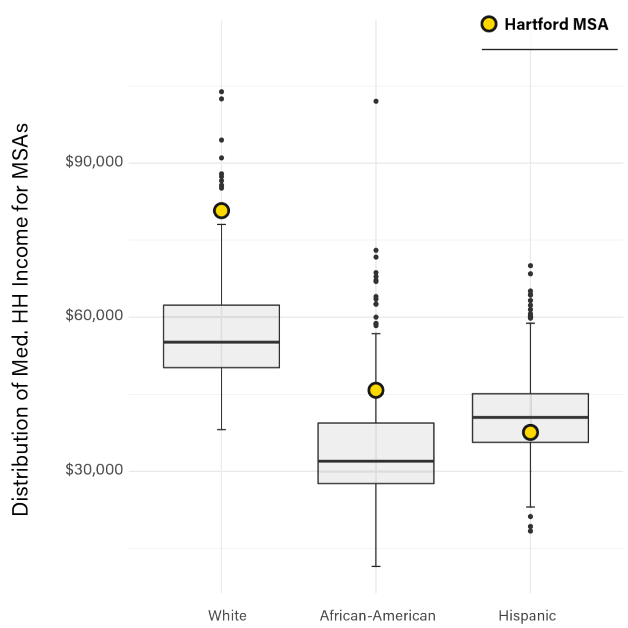
Metro Hartford is a relatively high-income metro area. Of all 382 metros, it ranks 21st highest in Median Household Income (MHI), with an MHI for all households of about $72,500. Metro Hartford is stronger on this metric than each of its peers and benchmark regions, as can be seen on the dotplot below. It also has a relatively low cost-of-living—with housing and goods prices in Metro Hartford roughly equal to the national average, unlike many other high-income metros.

Dotplot: Median Household Income for all MSAs (2016)



Data: US Census Bureau

Boxplot: Income by Race/Ethnicity



Data from the US Census Bureau. "White" refers to non-Hispanic white households. African-American refers to all races and ethnicities listing Black or African-American as race. Hispanic refers to all races listing Hispanic as ethnicity, across all races. See census.gov for more information on race and ethnicity categories.

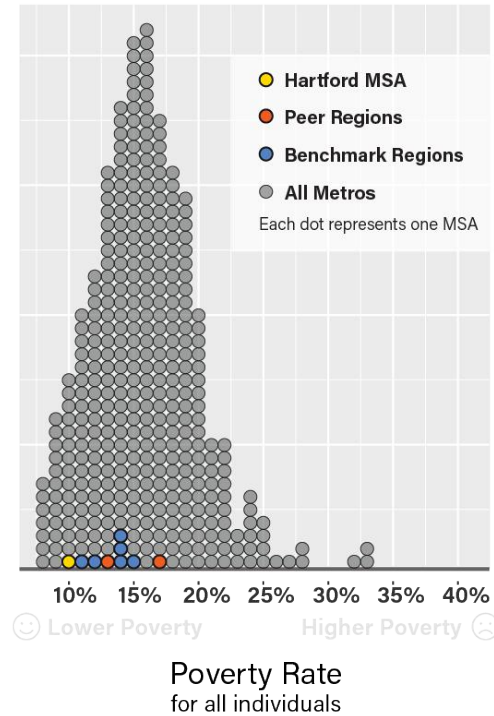
INCLUSION: INCOME BY RACE/ ETHNICITY

Income, however, is not evenly distributed by race. This is true in the Hartford region and elsewhere. In almost every metro, people who live in White households have higher incomes on average than people living in African-American and Hispanic households. Metro Hartford is no exception, with the median African-American household making about $45,800 and the median Hispanic household $37,600, compared to the median White household making about $80,800. The Hispanic income disparity is particularly glaring compared to other metros. In the region, the median Hispanic household makes 47% the income of the median White, non-Hispanic household. In the average metro area, that disparity is only 72%—much less extreme than in Metro Hartford.

INCLUSION: POVERTY

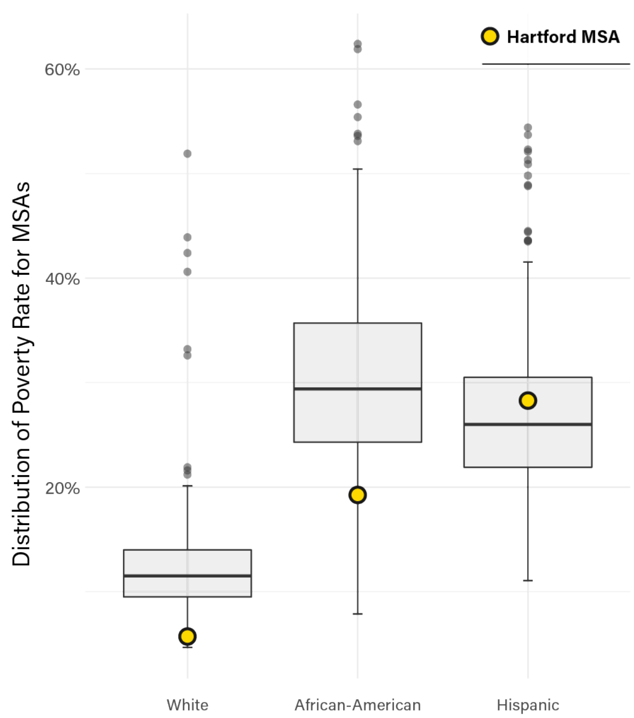
The Hartford MSA, compared to other metros as well as the country at large, has a relatively low rate of poverty, 10.4% of all individuals. The Benchmark Regions are also relatively low in their poverty rates, but none as low as Metro Hartford. While the poverty threshold does not consider cost of living differences across geographies, the Hartford region's cost of living is relatively low for large metros, so it is unlikely that a measure of "relative poverty" in Metro Hartford would look worse compared to that of other metros. In short, Metro Hartford has relatively little poverty.

Dotplot: Median Household Income for all MSAs (2016)



Data: US Census Bureau

Boxplot: Poverty by Race/Ethnicity



Data from the US Census Bureau. "White" refers to non-Hispanic white households. African-American refers to all races and ethnicities listing Black or African-American as race. Hispanic refers to all races listing Hispanic as ethnicity, across all races. See census.gov for more information on race and ethnicity categories.

INCLUSION: POVERTY BY RACE/ ETHNICITY

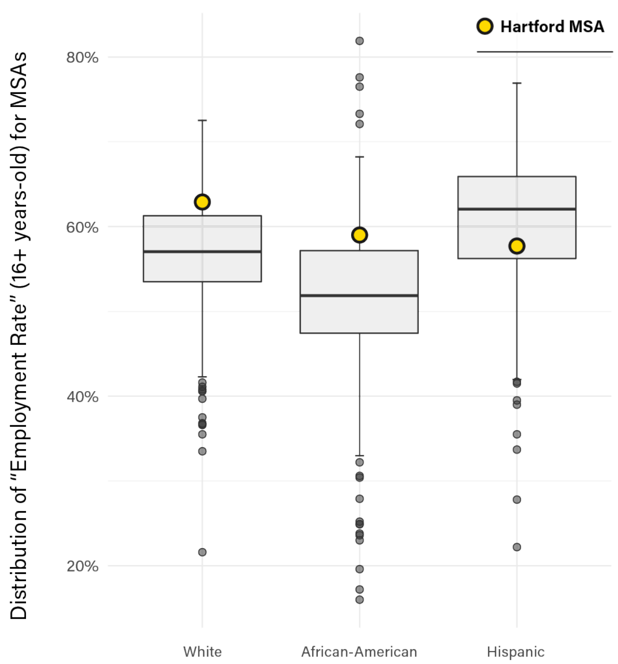
Similar to Median Income, as with almost every metro area in the country, Metro Hartford faces disparity in its poverty rate across race and ethnicity. White households are, on average, less likely to be in poverty than African-American households and Hispanic households. As with Median Income, however, the disparity in the Hartford region is generally similar to that of other communities for African-American households (with a poverty rate of 19.3%, compared to White households at 5.7%), but the disparity is uncommonly extreme for Hispanic households (with a poverty rate of 28.2%.) This makes Hispanic households five times more likely to be in poverty than White, non-Hispanic households in the region—one the worst rates of Hispanic disparity in the country.

INCLUSION: EMPLOYMENT

Similar to the previous inclusion indicators, Metro Hartford's rate of employment is relatively good. Metro Hartford does not stand out to this same extent on this metric as it has the previous two, but it is nonetheless above that of most metros and like its Benchmark Regions.

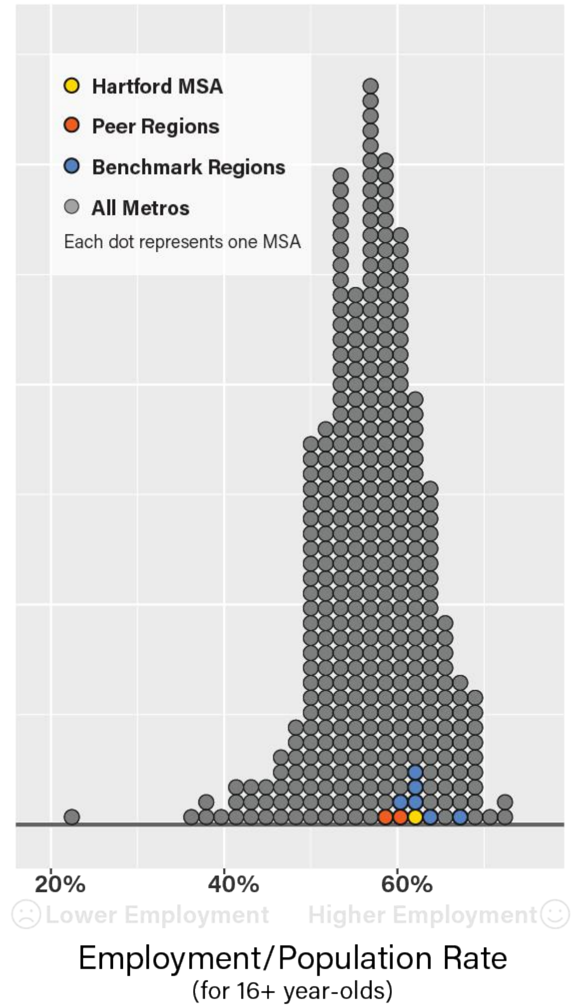
In this plan, we refer to the "employment rate" according to the US Census Bureau's Employment/Population Ratio definition—i.e., across the entire 16+ population. This allows for a more robust comparison across other geographies and allows Metro Hartford to consider the impacts of employment among residents over the age of 65. However, in considering the health of the region's workforce more robustly, it will be important to take into account the specific age brackets of its resident workforce. As the rate of employment grows, it will be vital to the region's future economic success to maintain a strong workforce among younger age groups.

Boxplot: Employment by Race/Ethnicity



Data from the US Census Bureau. "White" refers to non-Hispanic white households. African-American refers to all races and ethnicities listing Black or African-American as race. Hispanic refers to all races listing Hispanic as ethnicity, across all races. See census.gov for more information on race and ethnicity categories.

Dotplot: Employment Rate for all MSAs (2016)



Data: US Census Bureau

INCLUSION: EMPLOYMENT BY RACE/ETHNICITY

A similar pattern emerges for racial comparisons across rates of employment. Metro Hartford has a somewhat higher White employment rate than African-American employment rate (as do most metros), but the region's Hispanic employment rate—which in other metros is generally higher than the White or African-American employment rates—is lower than both in Metro Hartford. There is every reason to think that this disparity is related to the income and poverty disparities also witnessed among the region's Hispanic population.

A MORE DETAILED LOOK: INCLUSION IN METRO HARTFORD

While the Hartford MSA generally compares well with other metro areas —that is to say, does decisively better than average across key metrics for inclusion (both at large, and with respect to racial disparities)—that should not be all that we take away from this analysis. There are three key points that should be considered:

1. A successful vision will require all three components.

Even though Metro Hartford is doing relatively well, compared to most metros and its benchmark regions, on key metrics for inclusion, looking forward, inclusion must be balanced with prosperity and people. Metro Hartford continue to achieve inclusion while also growing its population, workforce, and economy. The benefits of the three components of this vision (People, Prosperity, and Inclusion) are far greater than the sum of their individual parts. And the challenge to Hartford is to be inclusive while also achieving growth.

2. Better-than-average disparity is still disparity!

Across the US, communities are struggling with inequality across lines of race, gender, and socioeconomic status. There is little solace to be had in "leading the pack" when the entire pack is doing poorly, and for residents of Metro Hartford who face disparities in the local economy, it can be no consolation to know that their struggle is similar to residents of other metro areas. The Hartford region must strive to achieve greater inclusion in its local economy, even if that means doing much better than its peers.

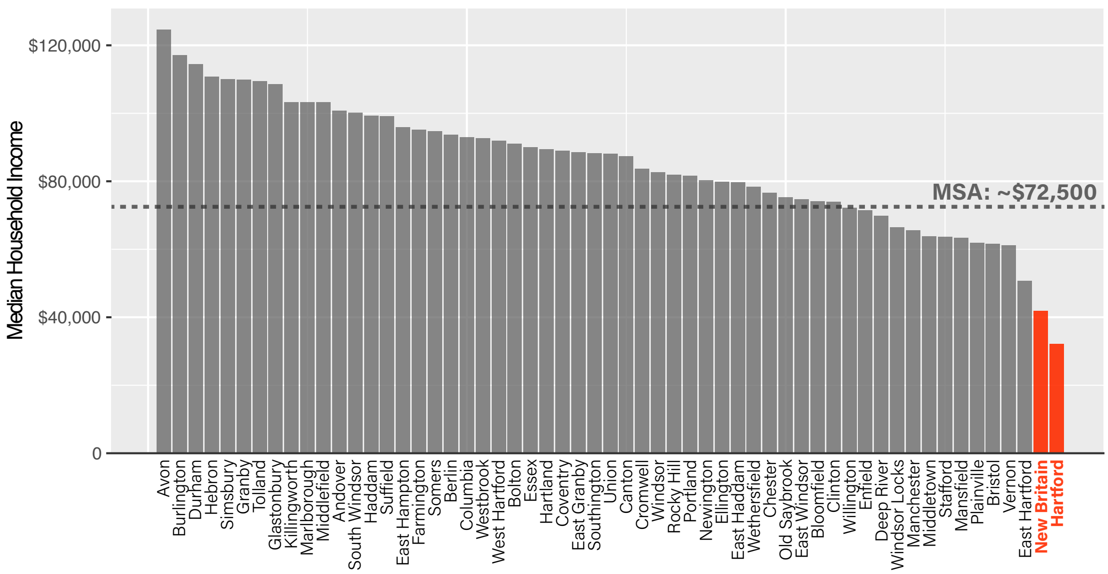
3. Inclusion varies within the region.

Like any region, Metro Hartford is made up of smaller municipalities and communities whose local economies and culture vary. And it is important to note that inclusion at a metro scale does not mean inclusion at a local scale. In Metro Hartford, a few communities—particularly the large cities, and above all, Hartford itself—struggle with the same inclusion metrics that the region does relatively well on. In the following pages, we will quickly explore those same three metrics (Income, Poverty, and Employment) among the municipalities within the Hartford MSA region.

INCLUSION WITHIN THE REGION: INCOME

Most communities in the Hartford region are relatively small (populations below 30,000) and relatively high-income (with median household incomes above $80,000). The largest two cities (Hartford and New Britain) are also the lowest-income. Because of this, median income in most communities is well above that of the region, whereas for these two large cities, as well as a few other large communities, median incomes are much lower.

Figure: Median Household Income for all cities/towns in Hartford MSA, 2016

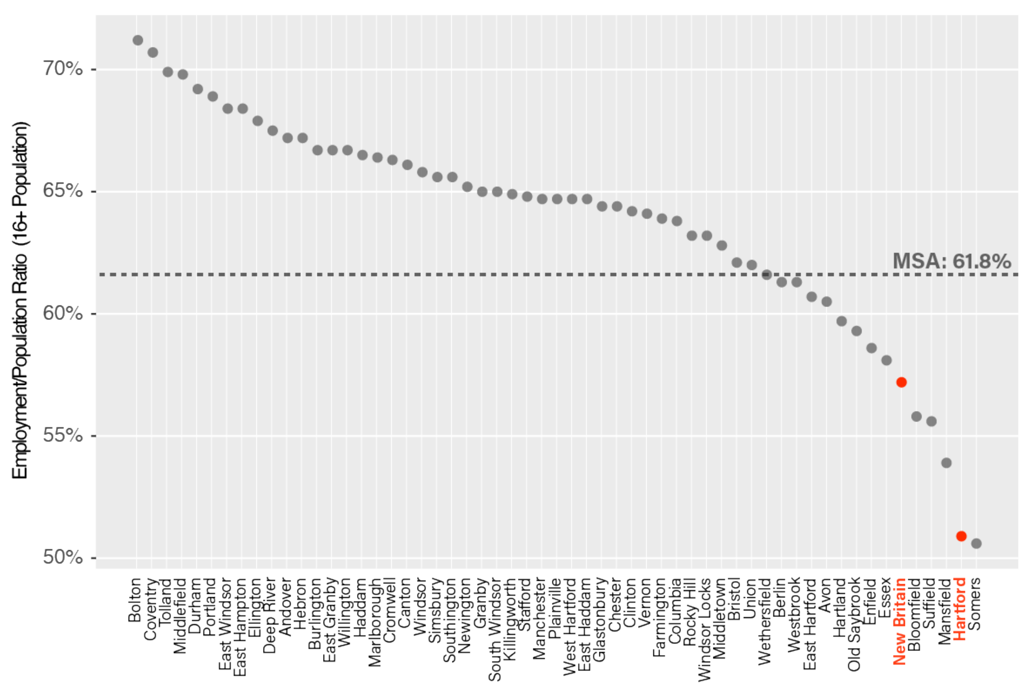


Data: US Census Bureau

INCLUSION WITHIN THE REGION: POVERTY

Most communities in the region have very little poverty. Half of the municipalities have poverty rates below 5%. The large cities, however, have high rates of poverty—much higher than that of the MSA at large. Poverty in Hartford—where one in three residents live in below the poverty threshold—is many times more common than in most of the region's more suburban communities.

Figure: Employment Rate (16+ Population) for all cities/towns in Hartford MSA, 2016



Data: US Census Bureau

INCLUSION WITHIN THE REGION: INCOME

Broadly speaking, Metro Hartford does well in the three measures within the third benchmark area—Income, Poverty, and Employment—compared to other regions. The most basic challenge in this benchmark area, therefore, is to remain strong in these three measures while also growing in population (benchmark 1) and economic output (benchmark 2).

However, there are also disparities within the region that need to be addressed if the region is to live up to its vision of Inclusive Growth. These disparities exist across race/ethnicity—most glaring among the MSA's Hispanic population. In all three measures within this benchmark area, African-Americans and Hispanics/Latinos are worse off than the Non-Hispanic White population. Metro Hartford's 2020 - 2025 goal related to racial/ethnic disparity should, therefore, be to reduce by at least one-third the rate of disparity for both Black/ African-Americans and Hispanics/Latinos in each of these three measures: Income, Poverty, and Employment. In the case of the African-American population, which faces relatively little disparity in Metro Hartford compared to other regions, that will require somewhat more modest improvements (because, in all three measures, the African American population faces slightly less disparity than the Hispanic population in Metro Hartford). For instance, in the case of poverty, this would mean a reduction of around 5% in the African American poverty rate, assuming White poverty remains level (bringing the total rate of poverty for African Americans in the region to around 15%—not great on the surface, but much better than almost all other large metro areas). In the case of the Hispanic population, which faces uncommonly high rates of disparity in Metro Hartford, the changes will need to be more dramatic. To reduce disparity within the White, Non-Hispanic population in Metro Hartford, for instance, Hispanic poverty rates would need to decrease by more than 7%.

The other major way in which the Hartford region needs to decrease disparity relates to geographic disparities (which are, of course, related to racial and ethnic disparities). Metro Hartford should focus on reducing the disparity between its urban areas and smaller communities across these same three measures. If it successfully reduces these disparities in the next five years, Metro Hartford will set itself on a path towards a truly inclusive future.

SUMMARY TABLE OF BENCHMARK METRIC GOALS

	Hartford MSA Benchmark Metrics		
	2016 Value	5-year Goal (%)	5-year Goal (Value based on 2016)[1]
1. Population	1,206,800	3% - 4%	1,243,000 - 1,255,100
2. GDP	$90.0 billion	5% or more	$94.5 billion[2] or more
3.a) Disparity 3 in Median Household Income	White, Non-Hispanic: $80,800 Black: $45,800 Hispanic: $37,600	> 33% decrease in disparity	Black: $57,500[2] Hispanic: $52,000[2]
3.b) Disparity 3 in Poverty Rate	White, Non-Hispanic: 5.7% Black: 19.3% Hispanic: 28.2%	> 33% decrease in disparity	Black: 14.8% Hispanic: 20.7%
3.c) Disparity 3 Employment Rate	White, Non-Hispanic: 62.7% African-American: 59.1% Hispanic: 57.5%	> 33% decrease in disparity	Black: 60.3% Hispanic: 59.3%

Table Notes:

1. In this table, we calculate the effect of change, corresponding to the five-year goals, relative to 2016 data (the most recent available at the time of writing). In actuality, these metrics will be measured relative to the period of implementation for this CEDS, i.e., 2019 - 2024.

2. Future Dollars would need to be inflation adjusted. The table refers to 2016 Real Dollars.

3. "Disparity" refers to the difference between the White, Non-Hispanic Population in the Hartford Region and the African American and Hispanic populations respectively. For instance, that the disparity for African Americans in Median Household Income is 43.3% means that the median African American household makes 43.3% less than the median White, Non-Hispanic household. A reduction of one-third (33% or more) in that rate of disparity would see African-American household making 28.9% less than White, Non-Hispanic households—a significant improve to the current condition.

ECONOMIC RESILIENCE

As discussed throughout this plan, the primary economic and social risks faced by the Hartford region present themselves as stresses at this time. Years of stagnant economic and population growth, combined with economic disparities, primarily within the Hispanic community. The strategies developed as part of this process were done so with the intent of mitigating those stresses.

To assess environmental risks, the Urban Adaptation Assessment (UAA) was reviewed. The UAA is an interactive database funded by the Kresge Foundation and led by the Notre Dame Global Adaptation Initiative (ND-GAIN) that collates a rich dataset within a visual platform to give leaders the data they need to make decisions on how best to adapt and prepare.

Overall, Metro Hartford received a Low Risk/ High Readiness score. Across the risks of Flood, Heat, Cold, Sea Level Rise, and Drought, Metro Hartford has the highest, though still medium, risk in the Sea Level Rise and Heat categories. In both cases, an aging and lower-income population means that the city's population is more sensitive to these potential shocks, again reinforcing the strategies to attract talent and ensure that there are multiple pathways to family sustaining careers. Of the three categories of readiness - social, governmental, and economic - Metro Hartford scores lowest in the economic category for its bond worthiness and debt per resident. Strategies to brand and promote the region's industry strengths - specifically to grow the region's GDP, as well as strategies to grow the population (and therefore, the tax base) - will help to enhance the city's readiness.

The Capitol Region Council of Governments (CRCOG) leads Get Ready Capitol Region. This website, combined with outreach activities, provides a robust resource for residents and businesses to learn how to prepare for an emergency. Furthermore, the CRCOG is currently updating the region's Hazard Mitigation Strategy. While not yet complete, strategies fall under the following objectives:

- Improve stormwater management and ground water recharge throughout the region to prevent increased flooding and lessen the effects of drought.
- Assist municipalities in implementing hazard mitigation strategies.
- Assist municipalities in minimizing risks associated with power disruptions.
- Assist municipalities in minimizing risks associated with droughts.

PUBLIC INPUT

Throughout the process of developing this plan, CRCOG sought the input of dozens of stakeholders as well as the general public. As noted earlier, a series of strategy group sessions were instrumental in fleshing out the potential strategies for this plan.

After the draft plan was completed, CRCOG released it for public input. The public comment period ended on March 8 and began in January. On February 6, 2019, CRCOG held a public information meeting at its offices in Hartford. Below is a list of comments recieved, along with CRCOG's responses.

There aren't enough strategies focused on inclusive growth.

While it is certainly true that few of the strategies focus solely on inclusiveness, they all work in concert to reduce disparities and increase economic opportunity. The workforce strategies in particular are focused on providing opportunities for people to earn a family living wage.

In response to this comment, we have rearranged the talent section to make it clearer that the dual track program is one piece of a larger system reform that CRCOG envisions. The larger system reform would focus on providing flexible funding programs that could be adapted to changing needs and could be used for innovative programs. We believe this is a fundamental need for the state and that it will open up opportunities to craft programs designed to increase inclusivity.

Population growth is a meaningless goal.

We respectfully disagree. Population growth is essential to the region's ability to replace its retiring workforce and fill future vacancies.

In the area of "talent", what I see is a continuation of what has been, and is being, done in the area of workforce development. That is; providing services and support to help people develop skills and advance their education. On the face of it, there's nothing wrong with that. However, when coupled with a focus on preparing people for employment in high-opportunity, targeted sectors (computer, internet, AI, robotics, advanced manufacturing, etc.), many people will still be left behind.

We respectfully disagree. The approach outlined in this plan is specifically designed to ensure that resources are available to train disadvantaged populations for jobs in high opportunity sectors. Poverty will never be alleviated if we accept that certain populations are destined for low-wage jobs.

That said, we have reorganized the talent section to emphasize that a larger system reform is needed in order to provide a more flexible and effective system.

Decreasing income disparity metric is not realistic. The commenter went on to detail some of the difficulties with achieving the metric.

This is certainly a valid point and we will carefully consider the metric as we proceed with our annual reviews of the CEDS.

The specific sources of figures such as $45,800 household income need to be indicated so that those same sources can be referenced in

the future as progress is monitored.

Sources have been cited.

Much more has to be done to create opportunities for people in disadvantaged situations to earn income. In simple terms, this means having more businesses and growing businesses that will hire these people.

We agree and this is the central goal of the branding and marketing strategy.

Focused local plans are a better approach.

While localized plans are certainly a part of the solution, CRCOG is a regional agency and is focused on solutions that lift the broader economy. We do support the creation of local plans and are happy to assist whenever possible.

Concern that money is being pulled out of strategies that currently work, such as the magnet school system.

This is a good point and we encourage the state to continue funding programs that work.

Need to reference internal marketing; people feel like they don't have access to all the great stuff happening.

While it was not discussed thoroughly in the public meeting presentation, internal marketing is a key component of the branding efforts outlined in this plan. In fact, much of the direction we took came from a discussion of the lack of cohesiveness in the region and the generally negative attitude that is often expressed.

In the CEDS plan, there is an emphasis for having 'Innovation Places (Hartford)' as a stakeholder to harbor entrepreneurship and innovation in the Hartford region. I believe CRCOG-CEDS should review the 'Innovation Places (Hartford)' organization, performance, and its breach of State and Federal statutes since 2016. I am in correspondence with the Office of the UConn General Counsel, State and Federal offices regarding this matter... The 'InsurTech Accelerator' contract was awarded to a foreign firm under questionable RFP procedures. The governance of the 'Innovation Places Hartford' continues with a lack of transparency – no public meetings nor meeting minutes made available over the past two years. Quarterly reports are also not available – one has to file a FOIA request with a state agency. (full letter available upon request).

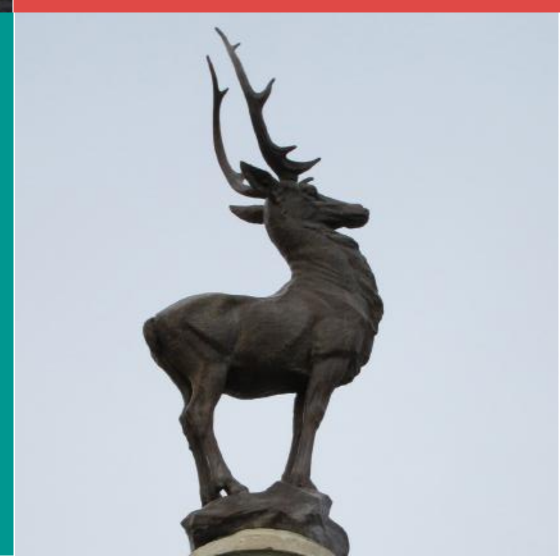
While the above concerns are serious and should be looked into, regardless of the outcome, the general idea behind the Innovation Places programs are sound. Having incubators/accelerators with close ties to industry leaders can help jumpstart the innovation ecosystem in the region and the state. It takes advantage of one of the region's strengths (the presence of large corporate headquarters) and leverages that strength to attract entrepreneurs. In our opinion this is the best approach to building an innovation ecosystem in the region.

Dual track is definitely what we need to do in this region.

CRCOG fully supports the creation of a dual track program in the region and is working with various stakeholders to implement this strategy. We do note, however, that dual track should be implemented as a part of a broader system that works toward common goals.

The plan overlooks the educational technology industry, which is growing.

While we do not have time to add this to the plan at this point, we will certainly consider this in future updates.



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