

# Descriptions of MSAs and their Workforce Ecosystem Profiles

Creating actionable solutions to diversifying the clean energy workforce requires understanding workforce development within metropolitan areas. The United States Office of Management and Budget defines metropolitan statistical areas as standardized county or equivalent-based areas having at least one urbanized area of 50,000 or more population, plus adjacent territory that has a high degree of social and economic integration with the core, as measured by commuting times.<sup>41</sup> Most of the activity within labor markets occurs within metropolitan areas. This is where workers receive training and get connected to opportunities. Workers often commute to jobs within the boundaries of metropolitan areas, often crossing city, state, and county boundaries.

American Job Centers, funded by the Workforce Innovation and Opportunity Action (WIOA) of 2014 are often organized to provide a variety of services to residents of a metropolitan region. This is typically done in conjunction with government agencies, community-based organizations and educational institutions and employers. Employment opportunities are more likely to be found in metropolitan areas. Each local workforce system is different, so an analysis of career pathways within metropolitan areas provides a more textured picture of the character of the workforce system and a roadmap of the potential place-based strategies to enhance pathways into clean energy.

<sup>41</sup> Bureau of Economic Analysis, *How is a metropolitan area defined?* <https://www.bea.gov/help/faq/459> January 10, 2008. Page last modified April 25, 2010.

## Descriptions of MSAs and their Workforce

### Ecosystem Profiles *continued*

Finally, the problem of increasing diversity can be addressed more directly. A geospatial analysis of the location of disadvantaged communities in relation to training and employment opportunities in clean energy provides additional insights about access to clean energy pathways.

## Methodology

Six MSAs were prioritized for this study. Priority locations were identified in consultation with the Barr Foundation Climate Team. A geospatial analysis of MSAs was used to identify the most disadvantaged locations in terms of social and economic vulnerability and exposure to environmental risk factors. The Geospatial analysis calculated an Environmental Justice Index (EJ Index) across the six New England states. This analysis applied the US Environmental Public Agency (EPA) EJSCREEN for calculating the EJ Index by combining demographic and environmental indicators, to represent historically underrepresented communities that are vulnerable to an environmental pollutant. In this case, the analysis used particulate matter as it is closely related to fossil fuel combustion for electricity. The following are demographic indicators used to define historically underrepresented communities:

- Minority Population
- Low Income
- Less than a High School Education
- Non-English-Speaking Households
- Unemployed Population

The team then used Barr grantees to narrow down to the final set of MSAs for case studies. Emerald Cities Collaborative conducted 37 interviews with representatives from different organizations within each priority MSA.

Interviews included stakeholders across the six regions in the following categories:

- Industry Representatives and Businesses
- Advocacy and EJ Organizations
- Community-Based Organizations
- Community Colleges and Technical Colleges
- Pre-Apprenticeship and Apprenticeship Programs
- State Building and Construction Trades Councils
- State Organizations and Leaders

## Descriptions of MSAs and their Workforce Ecosystem Profiles *continued*

Interviews focused on the levels of awareness about clean energy career pathways, the activities that prepared individuals for career pathways, and the types of formal or informal partnerships each organization had with others in the workforce ecosystem. The way these partnerships were described led to inferences about the degree to which an organization was connected to others. Connectivity was an important indicator of the effectiveness of the workforce ecosystem. Indicators of connectivity included:

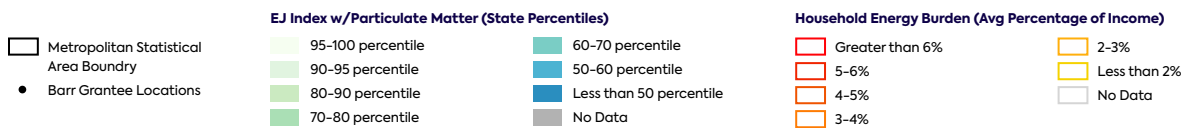
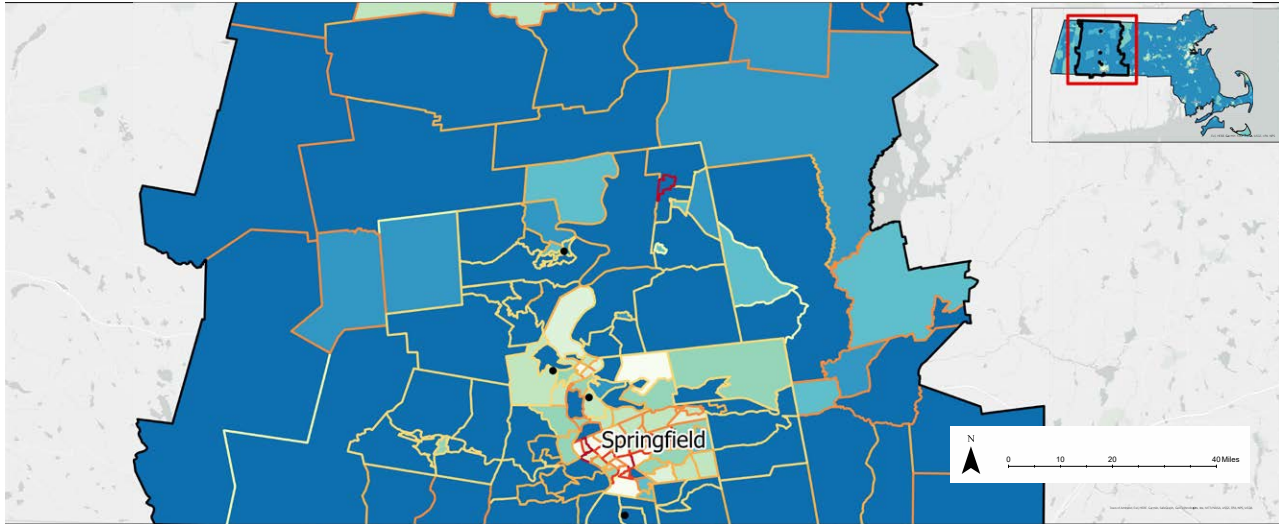
- The number of public-facing partnerships the organization had in place. These were determined through the interviews and by examining the websites of these organizations.
- Descriptions of memoranda of understanding, articulation agreements or other formal statements of agreements with other organizations situated in the workforce ecosystem.
- Descriptions of referral networks where the organization either gained participants from others or where the organization referred participants out.



*Emerald Cities Collaborative. Photo credit: Marilyn Humphries*

# Springfield MSA Workforce Ecosystem

## Springfield MSA Environmental Justice Index and Energy Burden By Census Tracts 2020



### SPRINGFIELD, MA METROPOLITAN STATISTICAL AREA GEOSPATIAL PROFILE

Population (in 2020): **698,537**

Unemployment Rate: **4.6%**

Average Particulate Matter  
2.5 percentile in State: **25**

Average Traffic Proximity Percentile  
in State: **50**

Average Energy Costs  
(% of household income): **4%**

**Springfield** metropolitan area is located in the western region of Massachusetts. This metropolitan region consists of Hampden County and Hampshire County.<sup>55</sup> In 2020, the population was 698,537, a slight decrease from 2019 at 0.13 percent.

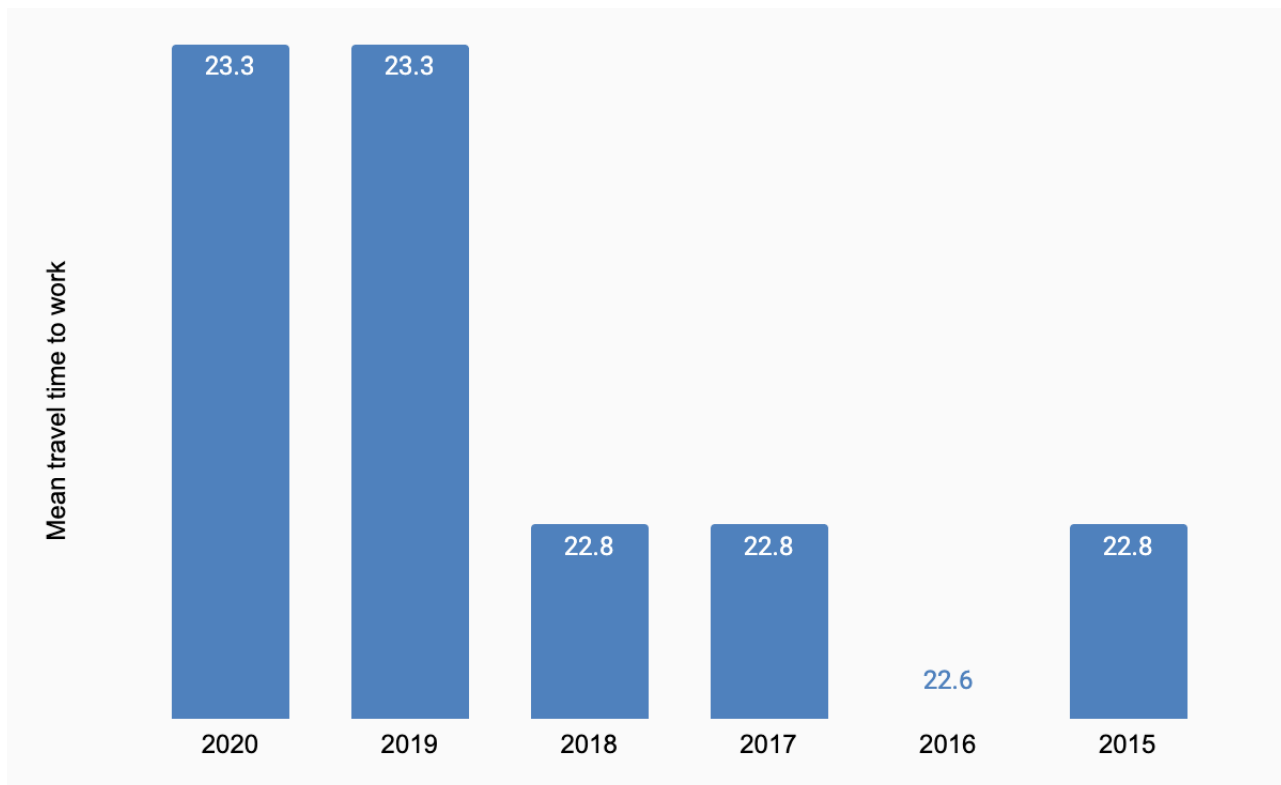
When compared to the state, the Springfield metropolitan area ranked in the 25th percentile for particulate matter 2.5 pollution levels and the 50th percentile when measuring communities proximate to traffic. On average, residents traveled less than a half hour to work, with 31 percent of households owning three or more vehicles.

<sup>55</sup> <https://www.bls.gov/cew/classifications/areas/county-msa-csa-crosswalk.htm>

## Springfield MSA

### Workforce Ecosystem *continued*

**FIGURE 1. Mean Travel Time to Work**  
Springfield MSA 2016–2020



Source: 2016–2020 ACS 5-year estimates

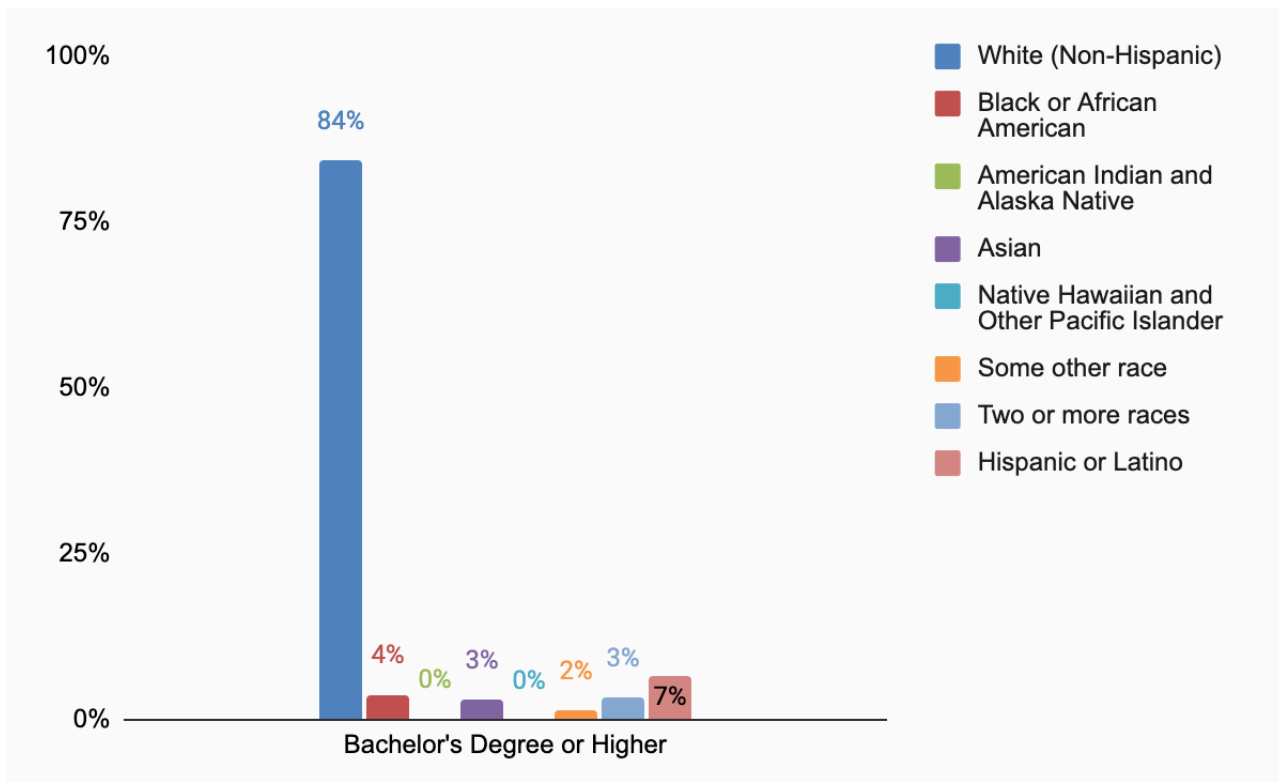
Disproportionate impacts to health and pollutant exposure is largely associated with race/ethnicity and income. Historically under-represented communities represent 13 percent of the Springfield metro population. Overall, nearly 30 percent of the residents identify as non-White, 11 percent have less than a high school education, 4.6 percent are unemployed, 16 percent have incomes at or below 65 percent below the state median income, and 5 percent live in limited English speaking households.

On average, there were 13 times more White (Non-Hispanic) residents than any other race or ethnicity in 2020. Of the total population, 70 percent of the residents identify as White, 19 percent Hispanic or Latino, 6 percent Black or African American and 3 percent Asian America. The share of Hispanic or Latino is higher compared to the state population. In Massachusetts, 12 percent of residents identify as Hispanic or Latino.

## Springfield MSA

### Workforce Ecosystem *continued*

**FIGURE 2. Race/Ethnicity by Educational Attainment**  
Springfield MSA 2020



Source: 2016–2020 ACS 5-year estimates

Knowing the educational attainment of the population can provide valuable insight about a specific area. Areas with high rates of low educational attainment usually face challenges such as higher rates of unemployment. Overall, 11 percent of residents earned less than a high school diploma, while nearly 30 percent have high school diplomas with no other formal

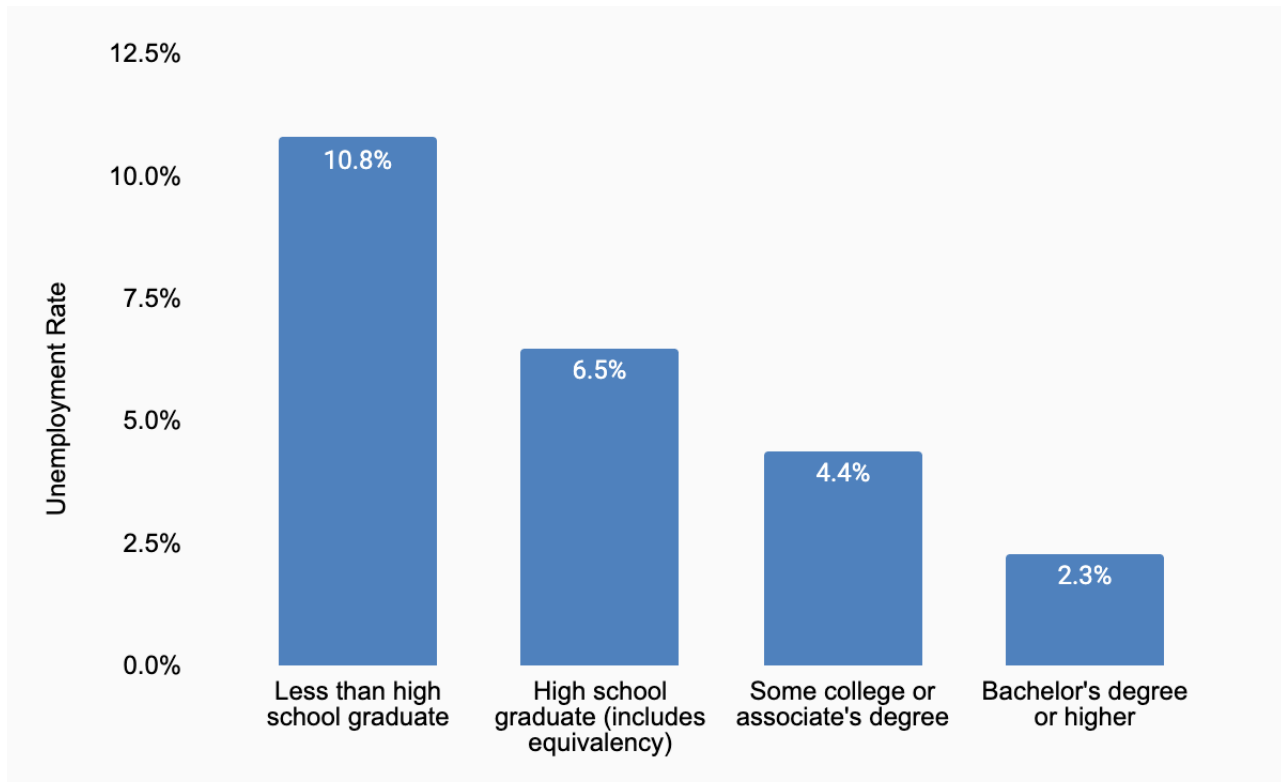
education. Figure 2 shows race & ethnicity by distribution for the Springfield metro area in 2020. Of those who attained a bachelor's or higher, only 7 percent identify as Hispanic or Latino and 4 percent identified as Black or African American.



## Springfield MSA

### Workforce Ecosystem *continued*

**FIGURE 3. Unemployment Rate by Educational Attainment**  
Springfield MSA 2020



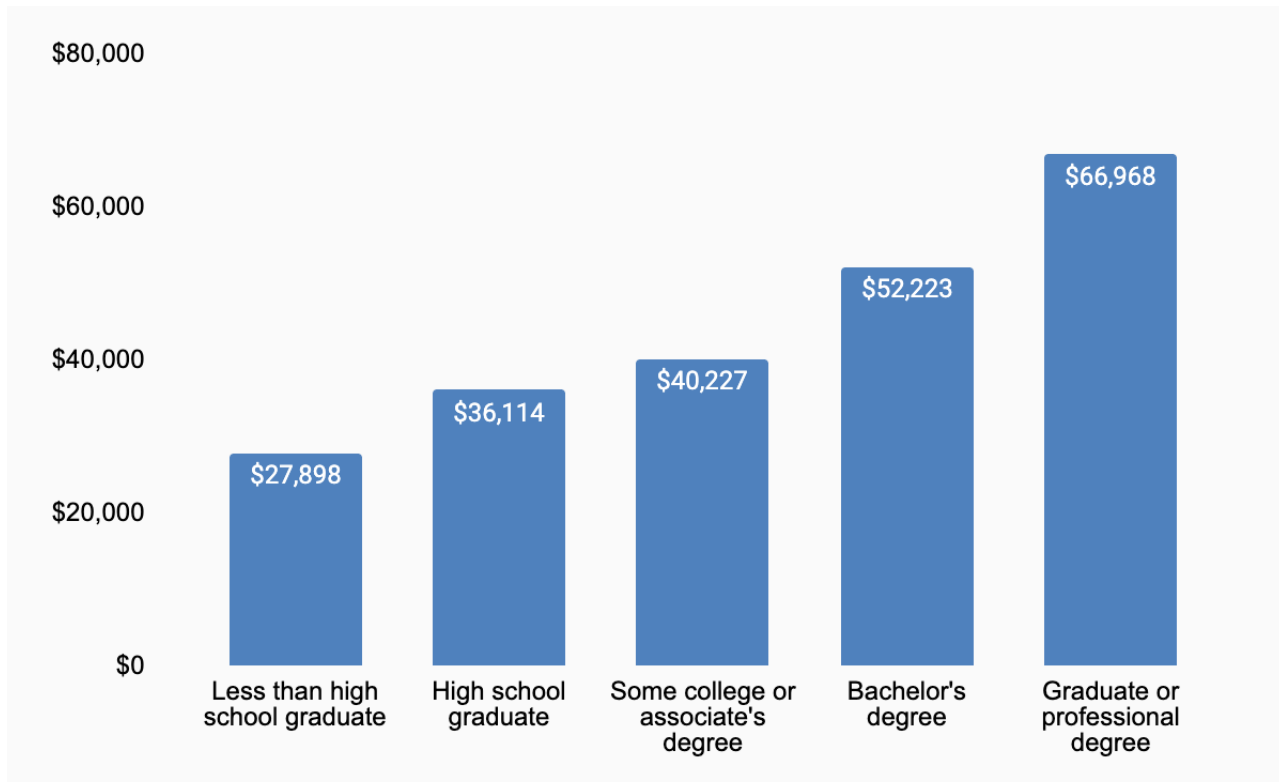
Source: 2020 ACS 5-year estimates

The unemployment rate in 2020 for individuals 25 to 64 years and older was 4.6 percent. However, for those who attained less than a high school diploma or earned a high school diploma, the rate is disproportionately higher at 10.8 percent and 6.5 percent, respectively. Unemployment rates among residents with a bachelor's or higher is significantly lower than the Springfield metro unemployed population at 2.3 percent (Figure 3)

## Springfield MSA

### Workforce Ecosystem *continued*

**FIGURE 4. Median Earnings and Educational Attainment**  
Springfield MSA 2020



Source: 2020 ACS 5-year estimates

Higher earnings also correlates with educational attainment. Workers with a bachelor's earned \$24,300 more in annual wages than those with less than a high school education (Figure 4).

English-language capability is an important aspect of employment participation. Overall, 23 percent of the Springfield metropolitan population speak a language other than English at home, with Spanish being the most common language at 14 percent, followed by Indo-European-speaking households at

6 percent and Asian and Pacific Island households at 2 percent. Collectively, 6 percent of residents speak limited English at home.

### **Springfield MSA Workforce Ecosystem**

The collective impact literature provides a good grounding in terms of what it takes for a local workforce system to function well. We adapted this approach to produce a connectivity rubric (on the next page). This helped in developing questions that discerned the nature of connectivity with each MSA.



## CONNECTIVITY ASSESSMENT RUBRIC

	Description	Key Indicators
<b>Ecosystem Manager AKA “Backbone Team”</b>	Ecosystems are anchored by an action oriented organization with the ability to convene frontline organizations and connect them with private sector and public sector opportunities, in addition to demonstrating the capacity to facilitate pass through funding opportunities to smaller organizations and funding to support partnership participation and investment in equity initiatives	<ul style="list-style-type: none"> <li>• Have experience managing diverse stakeholder interests and facilitating and convening the partnership</li> <li>• Are trusted in the community and perceived as an ally to people from frontline and impacted communities</li> <li>• Intentionally and regularly convene community based groups and private and public sector groups within the workforce ecosystem with explicit inclusion of marginalized identities.</li> <li>• Collect or support the collection of disaggregated data across the system</li> <li>• Have access to funding or capacity to apply for grants to support the partnership</li> </ul>
<b>Public Facing Partnerships</b>	Ecosystems have established relationships with regional organizations such as CBOs, training organizations, pre-apprenticeships, apprenticeships, community colleges, universities, building trades, and employers to ensure equitable access to in demand clean energy careers	<ul style="list-style-type: none"> <li>• Have MOUs and/or articulation agreements between partners</li> <li>• The partners are representative of the different organizations along a career pathway (CBOs, pre-apprenticeships, high schools, community colleges, apprenticeships, employers)</li> <li>• The partnership has a vision, mission and goals</li> <li>• The partnership prioritizes equity and pathways to quality careers (high road)</li> <li>• The partnership works to calibrate training to labor market demand</li> <li>• The partnership is demand-side driven</li> </ul>
<b>Centering Equity</b>	<p>Established commitment to diversity, equity and inclusion among supply-side and demand-side actors by addressing barriers to employment opportunities in clean energy, as well as building equity in leadership and accountability.</p> <p>The work should include equity strategies for collective impact such as, strategies grounded in data and context, solutions focused on systems change, in addition to programs and services that listen to and act with the community.</p> <p>This might include active outreach to underrepresented communities, providing wrap-around services to enable program participation such as (subsidized child care, transportation, application fees, etc.)</p>	<ul style="list-style-type: none"> <li>• Ecosystem manager leadership and the collaborative is led by members of the community and centers the lived experience of community members.</li> <li>• Operate using a systems based approach</li> <li>• Use of disaggregated racial data to understand where the ecosystem is and where it needs to go</li> <li>• Sets goals for quality equity initiatives</li> <li>• Investment in capacity of frontline organizations/CBOs</li> <li>• Training organizations are based in underrepresented communities</li> <li>• Public procurement policies are in place to promote utilization of MDWBEs</li> <li>• Public policies set targets for apprenticeship utilization</li> <li>• Public policies in place for targeted or local hire</li> <li>• Providing training opportunities that prevent occupation segregation</li> <li>• Inclusive hiring policies</li> <li>• Organizations provide participants with comprehensive exposure to a career pathway</li> </ul>
<b>Mutual Reinforcing Actions</b>	WEs enable mutual reinforcing actions (referrals, stakeholder engagement, advocacy, work-based learning), among partner organizations through shared values, defined common standards that create industry recognized credentials	<ul style="list-style-type: none"> <li>• Develop shared vision, mission and goals</li> <li>• Work on local, state and/or federal policies that support equity goals and job quality as well as clean energy accessibility for impacted communities</li> <li>• Evidence of alignment of credentials certifications, curriculum, and credits to create industry standards</li> <li>• Provide work based learning and on-the-job training opportunities as well as career exposure through field trips, shadowing and presentations</li> <li>• Review critical documents such as: Climate Actions Plans, Building Performance Standards, etc. to include strategies and language that support equity and economic inclusion</li> <li>• Develop and implement community workforce agreements and community benefit agreements</li> <li>• Engage impacted communities in policy and program design</li> <li>• Work with employers to develop retention strategies for women and BIPOC employees</li> <li>• Develop and adopt labor standards to ensure job quality and equitable access</li> </ul>
<b>Share Information and Best Practices</b>	WEs share information and best practices that help ecosystem partners understand and navigate the landscape	<ul style="list-style-type: none"> <li>• Learn from national best practices that include equity and economic inclusion principles in their climate action and workforce development policies and programs development</li> <li>• Map the workforce ecosystem and understand assets, gaps, and opportunities</li> <li>• Transparent and share critical documents to help align the ecosystem</li> </ul>

## Springfield MSA

### Workforce Ecosystem *continued*

Based on interviews and desk audits, the team drew these conclusions about the nature of connectivity within each MSA. Since this was based on single interviews, and the rubric was not shared with the interviewees, the conclusions are more impressionistic. An improved methodology would have included self-assessments of connectivity among staff from different workforce development organizations.

#### CONTEXT OF LOCAL POLICY

The City of Springfield's Climate Action and Resilience plan builds upon previous planning documents with the aim of reducing greenhouse gas emissions by 80 percent in 2050. Given the City's rich African American cultural history and function as gateway city for migrant Puerto Ricans, immigrants, and refugees from Vietnam, Eastern Europe and Africa, Springfield is committed to ensuring residents equitably recover from climate disasters by promoting economic stability, environmental security and multi-benefit projects in the lower income communities.<sup>56</sup> A recent report from the Pioneer Valley Planning Commission indicates that 81 percent of the Climate Action plan has either been completed or is underway, and all strategies for managing the Urban Forest have been implemented.<sup>57</sup> In 2021, Massachusetts awarded Springfield a grant totaling \$2 million for "Trees, Homes, People/Creating a More Resilient Living Environment."<sup>58</sup>

Of the strategies proposed to maximize energy efficiency and investing in renewable energy, 6 out of 15 have been collectively completed. The city aims to increase building retrofits by

expanding the Springfield 'Healthy Homes' initiative which encourages property owners to fully participate in Mass Save programs in addition to creating incentives to encourage residential and commercial installation of solar panels among other initiatives.

#### STRENGTHS

Springfield's infrastructure is emerging to meet clean energy demand, especially roles in energy efficiency. Programs like the energy systems program at Energy Systems Technology Program at Springfield Technical Community College offer a training model for short-term credentialing that is less than six months and rapid attachment to employers such as HVAC contractors. The Energy Systems Springfield Tech Community College has a well-established network of employers. Regionally, the University of Massachusetts in Amherst has established the Community Works pre-apprenticeship program in connection with the carpenters and local building trades unions for transportation and highway projects. Actors within the workforce ecosystem appear to be aware of each other and are able to work in parallel. Also, all these organizations appear to be implicitly—if not explicitly—focused on training a diverse workforce.

#### CHALLENGES

It is unclear how these actors are working towards any level of connected, coordinated activity. Also, the local policy landscape doesn't appear to have made the link that leverages climate action for economic opportunity. One

<sup>56</sup> [https://www.pvpc.org/sites/default/files/SHJ\\_REPORT\\_FINAL\\_REV\\_2017.pdf](https://www.pvpc.org/sites/default/files/SHJ_REPORT_FINAL_REV_2017.pdf)

<sup>57</sup> <https://www.springfield-ma.gov/dr/disaster-recovery/resilient-springfield-climate-action-and-resilience>

<sup>58</sup> <https://www.mma.org/administration-awards-21m-in-climate-change-funding-to-cities-and-towns/>

## Springfield MSA

### Workforce Ecosystem *continued*

environmental justice organization reported experiencing challenges getting climate action on the radar of local city officials in Holyoke. When the City finally embraced Climate Action, there were no provisions for workforce in the ordinance.

#### OPPORTUNITIES

The Springfield metropolitan area appears to have the organizational assets to provide training and support to new entrants. There is an opportunity for a regional entity to emerge to provide leadership by convening key actors in the workforce system and facilitating connectivity.

#### CONSIDERATIONS

According to the C40 Mayors publication [Climate Action and the Inflation Reduction Act: A Guide for Local Leaders](#), the legislation plans to invest \$369 billion for climate solutions and environmental justice.<sup>59</sup> A spirited advocacy campaign could influence the Commonwealth to direct more of these federal investment dollars in the Springfield Metropolitan area. If this occurs, more visionary regional leadership could emerge to help convene a table for a regional workforce strategy.

The Barr Foundation has an established portfolio of advocacy organizations. Continuing to invest in advocacy focused on leveraging climate action for community benefits could make a difference in the Springfield Metropolitan area.

**Assessment:** Based on these findings, the team assessed the Springfield MSA based on the rubric presented. Here is a summary of the findings compared to the other MSAs in New England. To review findings from other MSAs, please see the full report or another MSA profile.

#### Connectivity Characteristics at the Regional Level: A Snapshot

	Ecosystem Manager	Public Facing Partnerships	Centering Equity	Mutual Reinforcing Action	Sharing Information & Best Practice
<b>Metropolitan Region</b>					
Hartford MSA (CT)	X*	X*	X*	?	?
New Haven MSA (CT)	X*	X*	X*	?	?
Portland MSA (ME)	X*	X	X	?	?
Boston MSA (MA)	X	X	X	X	?
<b>Springfield MSA (MA)</b>	?	?	?	?	?
Providence MSA (RI)	?	X	X	X	?

X = Present    X\* = Significant presence    ? = Could not be confirmed

<sup>59</sup> Climate Action and the Inflation Reduction Act: A Guide for Local Government Leaders, August, 2022 [https://www.c40knowledgehub.org/s/article/Climate-action-and-the-Inflation-Reduction-Act-A-guide-for-local-government-leaders?language=en\\_US](https://www.c40knowledgehub.org/s/article/Climate-action-and-the-Inflation-Reduction-Act-A-guide-for-local-government-leaders?language=en_US)

#### LEARN MORE

Access the full New England Clean Energy Workforce Assessment Report and supporting materials at: [barrfoundation.org/ceworkforcedev](https://barrfoundation.org/ceworkforcedev)