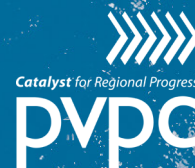


2024

BUILDING AN ECONOMY THAT WORKS FOR EVERYONE

The Pioneer Valley Region's
Comprehensive Economic Development Strategy (CEDS)

June 2024



Prepared by:

**Pioneer Valley
Planning Commission**

BUILDING AN ECONOMY THAT WORKS FOR EVERYONE

THE PIONEER VALLEY'S COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY (CEDS)

2024-2029

PIONEER VALLEY PLANNING COMMISSION
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SPRINGFIELD, MA 01104-3419

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EXECUTIVE SUMMARY

The Pioneer Valley of 2024 reflects many of the economic trends that are occurring at the national level: a changing workforce; challenges in available and affordable housing options; and a gradual shift away from “knowledge-based” professions toward skilled-based careers, including jobs that require certificate training or license-degrees. While the Pioneer Valley’s top three industries continue to be in healthcare/ social assistance, educational services, and advanced manufacturing, the region’s future economy will likely broaden to encompass more technology-based industries. We are seeing emerging opportunities in quantum and quantum-adjacent fields, Artificial Intelligence, financial technology, green and clean energy technologies, and food science.

Although the Pioneer Valley’s economy was hit hard by the global pandemic during 2020-2021, the region has shown signs of sustained recovery since mid-2022. Unemployment rates have been steadily declining and new industries are eyeing the region for investment and growth. From the perspective of leadership in several key sectors, the Pioneer Valley looks ripe for new development and redevelopment.

There are, however, areas of serious concern which will require cross-sectoral action. The region’s population is stagnant and, in many areas, becoming older. Springfield, the largest city in the Pioneer Valley, is one of the most segregated communities in the United States; recent data analysis confirms that race and

ethnicity continue to determine economic opportunities and outcomes for too many of the Pioneer Valley’s residents. And although the area is home to 13 highly ranked colleges and universities, the region is not “sticky” – many graduates do not remain here to start their professional careers and families.

The 2024-2029 Pioneer Valley Comprehensive Economic Development Strategy (CEDS) is titled Building an Economy that Works for Everyone because it is intended to address both poles of this economic reality. It outlines goals and objectives that address equity, leverage opportunities, build capacity, and recognize the need for increased regional collaboration. As part of the plan, Building an Economy that Works for Everyone sets forth performance measures that can evaluate the region’s progress – or lack of progress – toward attaining these goals. Great care was given to craft performance measures that were specific and meaningful to our region. Our hope is that the CEDS is a practical and tactical tool that can support the Pioneer Valley in maximizing the opportunities that lie ahead while ensuring that such opportunities benefit all of our residents.

RESEARCH AND PUBLIC ENGAGEMENT

The Pioneer Valley Planning Commission (PVPC) designed an inclusive CEDS process to gather a wide range of quantitative and qualitative inputs. Many of our regional stakeholders have been

involved in previous CEDS or other economic developments plans, but we wanted our 2024-2029 inputs to include the voices of people who bring other levels of professional or lived experiences.

Quantitatively we analyzed regional, state, and national data, and incorporated relevant studies and reports:

1. On the regional and state level, we analyzed and integrated the results of more than two dozen reports that studied the region's infrastructure, housing, transportation, workforce, education, broadband, energy, public health, and climate resiliency.
2. Nationally, we used data from the American Community Survey, the Census Bureau, Argon National Labs, ESRI, and the Climate and Economic Justice Screening Tool.
3. We conducted original data analyses of the Pioneer Valley's demographic and socio-economic trends, and incorporated the results of internal research that was conducted through the CARES Act in the immediate post-COVID period. Much of that research is presented in Attachments A and D.
4. We included economic analyses conducted by allied agencies, such as Governor Healey's office, the Western Massachusetts Economic Development Council, and the CEDS from neighboring regions, in particular Berkshire County, Franklin County, and the Capital Region Council of Governments in Hartford, Connecticut. The reports and studies that we integrated are listed in Attachment E.

Qualitatively, we gathered inputs from one-on-one interviews, focus groups, and surveys:

1. We spoke individually with more than thirty leaders in local government, state government, higher education, the private sector, and real estate. In the interviews, we obtained the leaders' candid feedback about the region's strengths, weaknesses, opportunities, and threats (S-W-O-T). The list of interviewees is presented in Attachment C.
2. We conducted S-W-O-T-based focus groups on six specific topics that directly tie to the region's economic capacity and potential, including the gamut of education from pre-K to higher education; housing, spanning low-income public housing authorities to private developers in residential and commercial properties; current and developing workforce and training programs; economic conditions faced by smaller and rural communities; and future opportunities.

Our aim was to engage the professionals and practitioners who are actively involved in both executive leadership and the on-the-ground implementation. One of the more interesting focus groups we convened was called, "The Future Economy." This panel of cross-sector thought leaders shared their insights on how the Pioneer Valley's strengths could be creatively leveraged into new opportunities.

3. We conducted surveys with local governments throughout the region to understand their perspectives. The Pioneer Valley encompasses 43 separate communities ranging in size from the smallest rural town of Middlefield with 385 residents to the largest urban center of Springfield with more than 155,000 people. Of the 43 communities, 24 have populations of less than 10,000, 14 have populations of 10,000-40,000, and 5 have populations of more than 40,000. The economic challenges faced by smaller and rural communities are very different than those faced by their urban neighbors.

PVPC convened a cross-sector CEDS Strategy Committee to oversee and guide the process. The Committee was comprised of leaders in education, economic development, workforce development, government, housing, and private foundations. The Committee provided input to the S-W-O-T process as well as the identification of the priority areas, goals and objectives, and the metrics that would be used to monitor and track the implementation of the CEDS.

Snapshot of Economic Conditions in the Pioneer Valley

Using this approach, we identified current and emerging trends in the region. The following two sections, Current Conditions and Findings, provide more detailed information. Some highlights of what we learned from the data and other reports and plans included:

- The region's population in 2024 has grown by less than 1% since 2019. In fact, it has grown by less than 1% since 2010.
- The region's major employers in 2024 are substantially unchanged from 2019.
- The region's infrastructure (roadways, municipal buildings, and broadband) has had inadequate support because of constrained local resources.
- In addition to the region's established strengths in healthcare/social assistance, educational services, and manufacturing, we are seeing emerging strengths in technology fields, in particular quantum and quantum-adjacent fields, green and clean energy technologies, financial technology, food science, and applied materials manufacturing.
- In Springfield, the largest city in the Pioneer Valley, 67% of population is BIPOC (46 % Latino and 21% Black). Ten years ago, Springfield was ranked by the University of Michigan as the most segregated city in the United States for White/Hispanic separation. Segregation remains a serious factor in the city's current economic conditions, and for the region, because one in four Pioneer Valley residents lives in Springfield.

Some highlights of what we learned from the stakeholders' included:

- Our diversity and pluralism are an economic asset, differentiating the region from other areas and appealing to a broader demographic.
- Our location in the Knowledge Corridor that straddles Western Massachusetts and Connecticut is a major asset. The Pioneer Valley is home to 13 highly ranked colleges and universities, including the University of Massachusetts, Amherst, the flagship of the "U Mass" system, and a center for world-class research and development.
- There are exciting opportunities emerging in applied technologies that could re-energize the regional economy and attract new investments and residents.
- With shrinking populations resulting in shrinking tax revenues, many smaller communities report significant challenges in maintaining public services, especially with respect to K-12 education.
- Based on educational attainment, labor force participation, and small business formation, structural racism is a major factor impacting equal access to economic opportunity.

Synthesizing the quantitative and qualitative inputs, some issues that will require regional action to address include:

- The Pioneer Valley has persistent poverty among people of color.
- The labor force is not matching industrial demand in key sectors (e.g., healthcare) and public service (e.g., government, education)
- Housing is not matching regional needs, especially with respect to affordability and keeping pace with new household formation.
- The population growth is stagnant, and, in some areas, declining. If not for in-migration, primarily from immigrants and refugees, the region's population would have shrunk.
- The region's infrastructure, which is vital to all the communities in the Pioneer Valley, needs investment to continue functioning effectively.
- There are more than 50 spoken languages in the region, including in the smaller communities. While this is an asset with respect to the region's diversity and pluralism, limited English proficiency is impacting K-12 education and workforce development.

Strategic Direction and Goals

Using the inputs gathered through our data analysis and stakeholder engagement, the Pioneer Valley Strategy Committee formed a vision for the Pioneer Valley of 2034:

Our vision for the future is to build an economy that works for everyone who lives and works in the Pioneer Valley. We will build on the Pioneer Valley's regional assets and many strengths, as well as set our sights on new areas for success, in order to build a robust and thriving economy in which all our residents have equal access to prosperity.

Sustainable, equitable, and substantive economic development will not be easy, but it is necessary. It will require a diverse set of strategies tailored to the diverse needs of the 43 communities in the Pioneer Valley. There is no easy solution for some of our weaknesses and no single approach that will overcome issues such as deep-seated structural racism or the region's housing shortages. Many of the strategies we are recommending may require years, if not decades, to mature. We are, however, committed to addressing these weaknesses and moving toward the realization of our vision.

We recognize that desiring different outcomes means doing things differently. We must work together to shift mindsets so that we don't merely create access to opportunity, but address structural inequities in economic, social and public policies. To catalyze this change, we propose to be guided by the following:

- ***Building the capacity of the Pioneer Valley Planning Commission and our partners to acquire tools and address barriers to advance racial equity, economic resilience, and climate resilience in the region.***
- ***Proactively developing collaborative partnerships with a range of stakeholders from the public, non-profit, and private sectors, in urban and rural communities, with a focus on coalition-building to improve economic opportunities for all our residents throughout the region.***
- ***Shifting the paradigm via access to capital for underserved populations from philanthropic giving and lending to investing in people and communities.***
- ***Recognizing that immigrants to our region are a unique and valuable resource, not only adding to the Pioneer Valley's population but contributing talent, experience, and energy to the regional economy.***
- ***Establishing a learning community where stakeholders, including residents, share their experience and build capacity to implement strategies that result in an equitable economy.***
- ***Conducting analyses of both traditional data sources and alternative ones, such as data gathered through storytelling, focus groups, lived experiences, and annual evaluation of the CEDS implementation process.***

In order to achieve this vision, bold action will be required during the next five years. The Strategy Committee identified eight strategic priorities that will be implemented through the CEDS' goals and actions.

Strategic Priorities

- Equity
- High-growth and emerging opportunities
- Workforce development
- Urban and rural strategies
- Business environment

- Population
- Infrastructure
- Economic investment

Goals:

- **Prioritize equity**, acknowledging that poverty and structural racism continue to determine economic opportunities and outcomes for too many of the Pioneer Valley's residents.
- **Pursue high-growth and new opportunities**, adding new applied technologies, e.g. quantum and quantum-adjacent technologies, green and clean technologies, Artificial Intelligence (AI), financial technology, food science, and advanced materials to the region's existing strengths in healthcare/ social assistance, educational services, and manufacturing.
- Recognize that urban and **rural communities** need different and complementary economic development strategies tailored to their needs.
- **Support small and mid-sized businesses** (SMEs) and entrepreneurs.
- Increase the number of people who make the Pioneer Valley their home, **reversing long-standing stagnant population growth**.
- Strengthen the region's infrastructure, both "hard" (e.g., water systems, broadband) and "soft" (e.g., access to childcare) to enable communities small and large, urban, suburban and rural alike, to pursue development opportunities and related investment, attract newcomers, and promote equity. This goal recognizes that deferred maintenance and lack of investment in these forms of infrastructure are threats that will continue to inhibit the region's growth if not addressed.
- Increase **economic investment** from the Commonwealth, the federal government, and the private sector to facilitate development in the region and grow jobs that provide sustainable wages by developing a strong, effective regional voice to advocate for the Pioneer Valley.

Future Opportunities

The next five years offer an array of unique opportunities to expand and broaden the region's economy. There is consensus that the Pioneer Valley has the resources and assets to excel in key areas that could improve many of the current economic conditions by creating good-paying jobs, reducing unemployment rates, improving workforce participation rates, increasing the regional Gross Regional Product, and helping to reverse flat population trends. Done thoughtfully, these opportunities will be environmentally compatible with the region's natural resources and quality of life, strengths that were identified by stakeholders across the board. Some of these include:

1. The technologies of tomorrow, including financial technology, green and clean technologies, life sciences, AI, quantum and quantum-adjacent technologies, food science, and specialized engineering, e.g., aeronautics, have the potential to spin off new companies, attract new talent, and grow the regional workforce.
2. There are existing sectors with high-growth potential, including food science, non-pharmaceutical biomanufacturing, advanced materials, and the transition to clean energy.
3. Increased collaboration between institutions of higher education and communities they are in or near could establish the Pioneer Valley as a successful research and entrepreneurial environment.
4. A new coalition of 68 stakeholder organizations are collaborating with the Massachusetts Technology Collaborative to reposition Western Massachusetts as a leader in quantum technologies. The Pioneer Valley Quantum Innovation Hub will leverage research centers, businesses, and entrepreneurs and will expand workforce pipelines, including the BIPOC workforce.

Evaluation Framework

Building an Economy that Works for Everyone will be evaluated using two sets of benchmarks. The first set consists of quantitative metrics of key socio-economic indicators that will allow PVPC to identify economic trends and measure progress toward implementing the priority areas and their accompanying goals and objectives. The second set consists of qualitative measures that will assess the progress of the programs and initiatives that support the goals. Both sets are presented in the Action Plan Matrix, Attachment B.

Each key indicator is assigned a rating of positive, negative, or neutral based on the most recent available data. An improvement of at least 1% is considered a positive trend; a decrease of least 1% is considered a negative trend; and trends between 1% positive and 1% negative are considered neutral. This will be effective in understanding regional changes over time. Rather than evaluating current-year statistics in isolation, this method will look at changes over a broader period, indicating whether trends are increasing or decreasing.

The qualitative benchmarks measure progress toward implementing projects and programs that are collaborative in nature. The CEDS will be the common agenda used by PVPC and participating stakeholder organizations to activate the strategies that will enable the Pioneer Valley to meet its goals of becoming more equitable, more robust, and more economically resilient.



WHAT IS A CEDS?

A Comprehensive Economic Development Strategy – or CEDS – is a tool to organize and coordinate a region’s economic development goals for the next five years. Built with the direct input from leaders and community members, the CEDS is a living document that increases a region’s access to funding resources, including those through the U.S. Department of Commerce, Economic Development Administration, and the U.S. Department of Agriculture.

The Pioneer Valley Planning Commission (PVPC) is the federally designated Economic Development District for Hampden and Hampshire Counties – the Pioneer Valley in Western Massachusetts – and is responsible for developing the Pioneer Valley CEDS. Using an inclusive and analytical process, the Pioneer Valley CEDS identifies the region’s economic development goals for 2024-2029 and lays out a suite of realistic, tactical actions to achieve them.

A CEDS is not meant to compete with, replace, or modify a region’s other economic development planning efforts. Rather, it is intended to comprehend them, incorporating their research, findings, and recommendations in the formulation of a region’s overarching economic development goals. In PVPC’s case, we incorporated more than two dozen other plans and reports that had a nexus to economic development, the most recent of which, *Accelerating Inclusive Growth in the Pioneer Valley: A Prospectus for Transformative Economic Investment* and *The Pioneer Valley Labor Market Blueprint 2024-2025*, were completed, respectively, by the Western Mass Economic Development Council in March 2024 and the MassHire Hampden County Workforce Board in April 2024. We also incorporated information from PVPC’s *Redlines, Black Neighborhoods* report, completed in June 2024.



INTRODUCTION: AN EQUITY LENS

In June 2019, the Pioneer Valley Planning Commission (PVPC), the Economic Development District for the Pioneer Valley, released the Pioneer Valley Comprehensive Economic Development Strategy (CEDS) for 2019-2024. Titled *The Plan for Progress*, it presented goals and opportunities for prosperity and expansion that would create jobs and improve the entire region's economic outlook. Hopes were high.

By June 2020, the world's economy had shuddered to a halt.

As the dust was settling from the global pandemic, PVPC took a hard look at COVID-19's impact on the Pioneer Valley. In late 2020, with grant funding from the Economic Development Administration (EDA) through the CARES Act, PVPC began a project to identify factors affecting regional economic recovery. The work was multi-pronged. PVPC evaluated conditions in small and rural towns; undertook evidence-based economic-development scenario planning to identify industrial opportunities; convened a 35-member task force of cross-sector economic leaders to gather input and feedback; and canvassed 20 key members of underserved and BIPOC communities to align our efforts with these communities' needs. The full results of those efforts are presented in Attachment D.

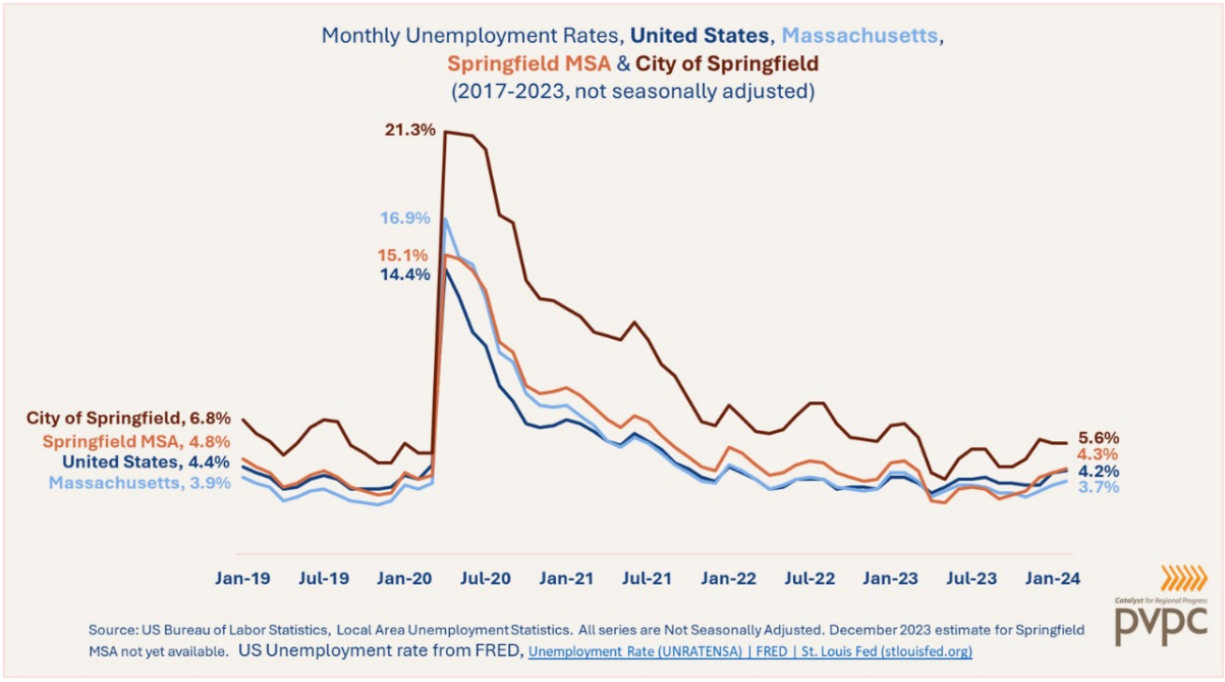
A central question that threaded through the work was the extent to which aspects of the pre-COVID economy had exacerbated the impacts of the pandemic. For example, in the year leading

up to the pandemic, unemployment rates in the Pioneer Valley were higher than the rest of the Commonwealth and the United States as a whole. The graph on the next page shows the overall unemployment rates from January 2019 to January 2024 across all demographics in the City of Springfield compared to the Springfield MSA (Hampshire, Hampden and Franklin Counties), the Commonwealth, and the United States.

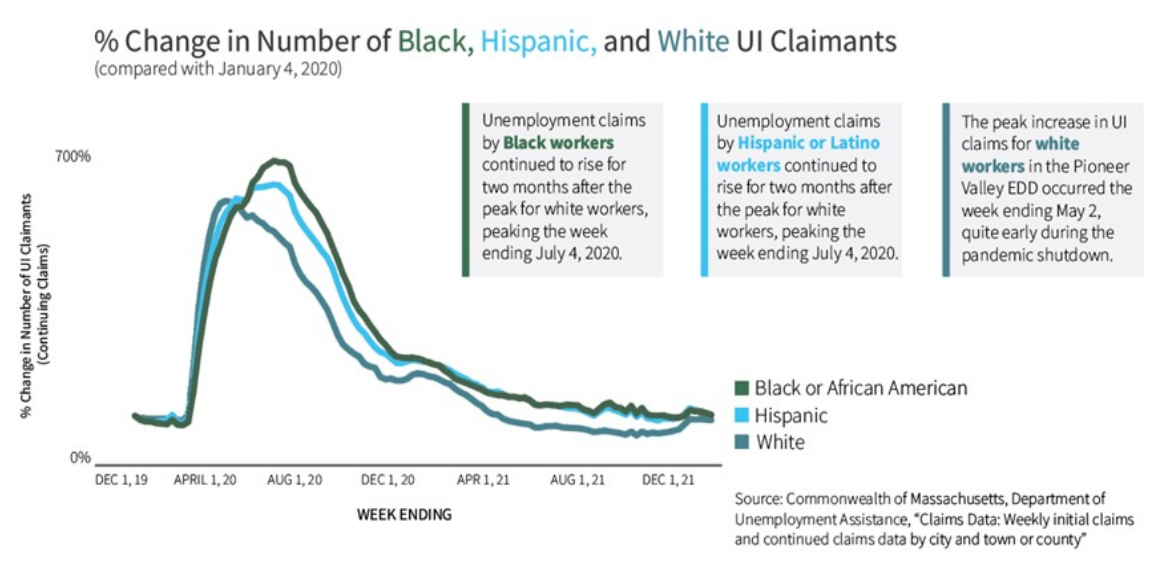
At the beginning of the pandemic, unemployment rates in Springfield peaked at a whopping 21.3%. This was 4.4 percentage points higher than Massachusetts, and 6.9 percentage points higher than the US. The bigger disparity, however, was the difference between Springfield and the Springfield MSA. At the beginning of the pandemic, the city's unemployment rate was 6.2% higher than the overall MSA in which it resides. This large difference continued through approximately January 2023, but even now, Springfield consistently has a higher unemployment rate. Springfield also has the highest percentage of people in the Pioneer Valley who identify as BIPOC. Is there a correlation?

Looking "underneath" the unemployment data in the graph below, a disaggregated comparison across Black, Hispanic and White unemployment insurance claims during the pandemic illustrates the differences experienced by each of these groups. The disaggregation of data helps to paint a truer picture of who was unemployed and for

how long. Unemployment claims for White workers peaked the week of May 2, 2020, while claims for Black and Hispanic peaked almost two months later. Additionally, claims were at a higher rate across Black and Hispanic populations throughout this timeframe.



Our data told us that the very people who had been hit hardest by COVID were the people who had historically been excluded from participating equally in the creation and distribution of the region's wealth. Underserved communities, encompassing low-income and BIPOC households, including the growing Hispanic/Latino population, have had unequal access to wealth-building opportunities, including well-paying jobs and the resources that facilitate homeownership and successful small business creation.



While this reality would not have struck anyone in the region as new information prior to 2020 – and, indeed, was highlighted as a weakness in the previous CEDS from 2019 – COVID forced a reckoning with the ramifications of these inequities. These ramifications became even more urgent – and more incontrovertible – through analyses similar to the examples above. In summary, the work conducted through the CARES Act grant has led to a new understanding of the dynamics of the local economy and has provided a solid foundation for the new CEDS.

The many community leaders and organizational representatives who participated in the creation of the 2024-2029 CEDS echoed and reinforced the findings of the CARES Act work. The inequities and poverty caused by structural racism are significant factors in the region's current economic health and will be limiting factors in its future growth. The CEDS Strategy Committee agreed that as we frame the region's goals and priorities for the next five years, we need to address the disparities caused by structural racism and acknowledge them as a threat to our economic future. We need to build the regional economy to be as equitable, robust and resilient as it has the potential to become.

The 2024-2029 CEDS charts strategies for the region to leverage current and emerging opportunities while incorporating the inescapable lessons we learned from the global pandemic. The 2024-2029 CEDS is titled *Building an Economy that Works for Everyone* because the glaring reality is that the Pioneer Valley's economy has not worked for everyone – in fact, it has systematically excluded a significant percentage of its residents. The time has come for that to change. This region cannot become more resilient or move forward economically without policies and strategies that are intentionally inclusive. This year's Pioneer Valley CEDS has goals and strategies that directly address and promote equity. Equity is not merely the focus of the Pioneer Valley's new CEDS, it is the cornerstone.

Note:PVPC has made every effort to use data that were disaggregated by race and ethnicity. At this writing, standardized terminology for race and ethnicity is still evolving. There can be inconsistencies from one data source to another, and even some confusion within a single source.

For example, one of our primary sources was the U.S. Census Bureau. Because race and ethnicity questions have up until the present been separate on the Census, individuals can identify as both "White" and "Hispanic/Latino." This duality produces responses that can be difficult to characterize. People who identify as "Hispanic/Latino" can face inequities regardless of how they identify their race, while life experiences for those who are "White" but also "Hispanic/Latino" are likely very different from the experiences of those who are "White" but not also "Hispanic/Latino."

Among data analysts, the standard practice is to use the categories "Non-Hispanic White," "Hispanic/Latino" regardless of race, and "Non-Hispanic Black." Some data sets only provide the "Non-Hispanic White" option for White people. The terminology PVPC uses in various charts and graphs maintains fidelity to the source information. For purposes of this report, PVPC uses the term "Hispanic/Latino" to refer to persons who identify as "Hispanic," or "Latino."

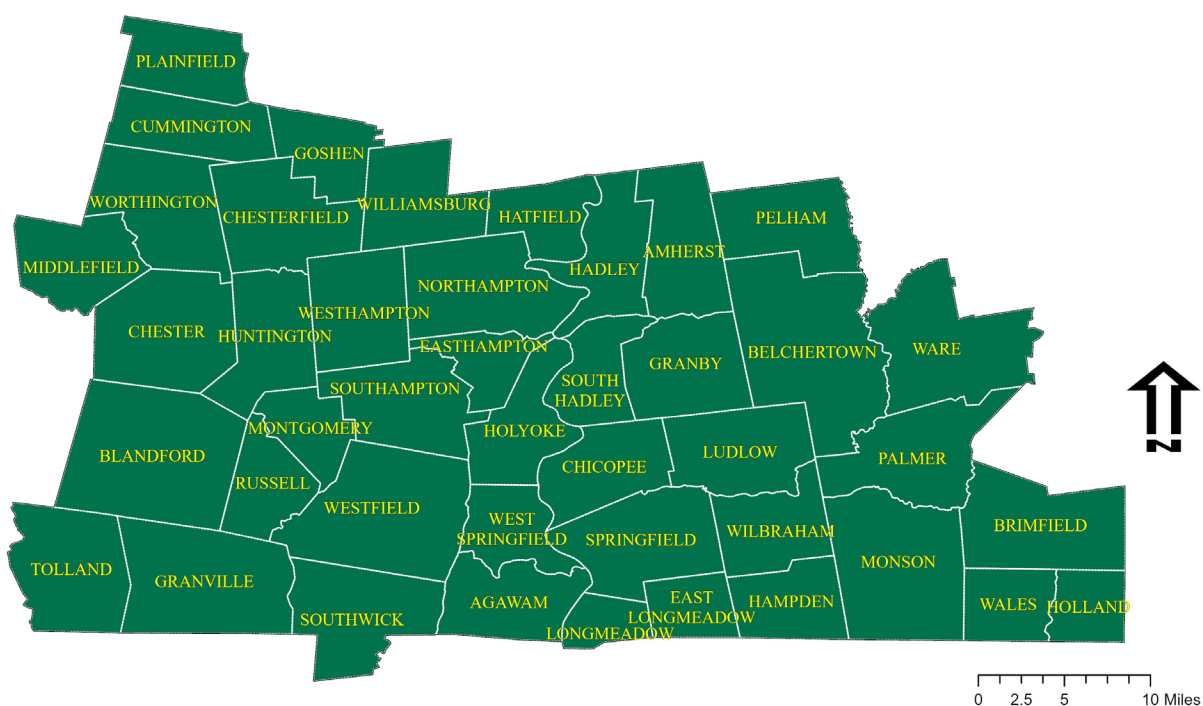


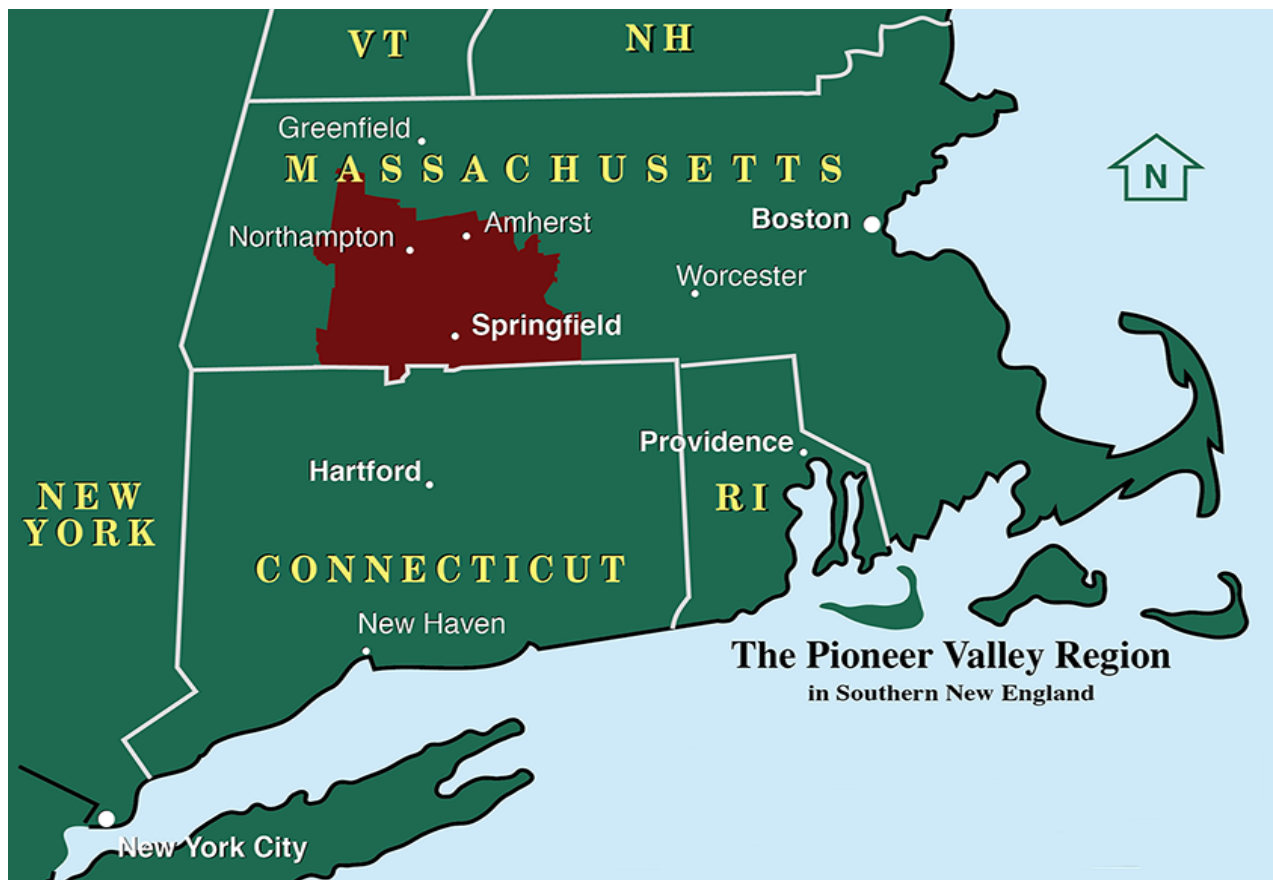
CURRENT CONDITIONS: WHERE ARE WE NOW?

A full presentation of the Pioneer Valley's current conditions and economic indicators, including demographics, income levels, industry sector activity, labor force, educational attainment, natural resources, and transportation is provided in the Summary Background (Attachment A) of this report.

The Pioneer Valley has many strengths and opportunities in its future, but the region's overall economic resilience shows vulnerabilities in several key areas: 1) stagnant population growth and poverty; 2) an overreliance on two primary sectors that are experiencing challenges in workforce recruitment and retention, and 3) the labor force, including labor force

The Pioneer Valley Region





participation rates, unemployment, and educational attainment. The following section provides the context for these conditions, with a discussion of some highlights, and a “deep dive” into the status of the Pioneer Valley’s climate and economic resiliency planning, broadband implementation, workforce development programs, and new projects aimed at increasing equity.

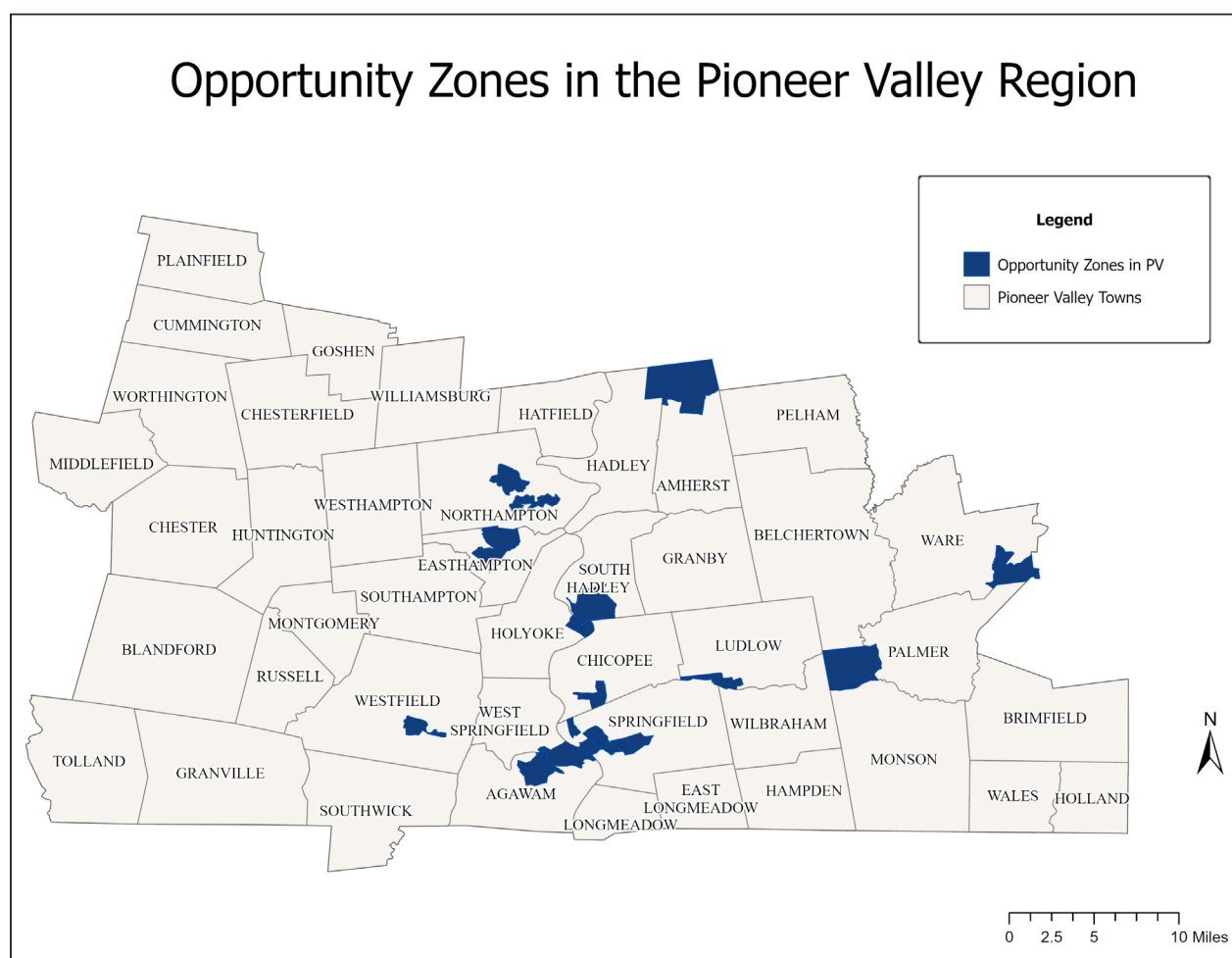
GEOGRAPHIC OVERVIEW

The Pioneer Valley region, comprised of Hampden and Hampshire Counties in Western Massachusetts, is nestled between Berkshire County to the west, Franklin County to the north, and Worcester County to the east. Its southern boundary is formed by the state line between Massachusetts and Connecticut. The region’s most prominent geographic feature is the Connecticut River, which bisects both counties on its way south from Canada into Connecticut and ultimately Long Island Sound. The region also includes significant areas of prime farmland, some of the most fertile in the nation, due to the richness of the glacial soils along the river.

The Pioneer Valley’s strategic location is an important regional asset. It sits at the crossroads of Interstates 90 and 91, providing excellent east-west and north-south connectivity. Bradley International Airport, the 2nd largest airport in New England, is within an hour of most of the Pioneer Valley’s communities. The region is connected by rail to points south, into Hartford, Connecticut, and the New York metro area; east, into the Boston metro area; and west into Albany, New York. Expansion of the east-west rail system is underway.

The region contains a mix of 43 urban, small, and rural communities, ranging in size from smallest rural town of Middlefield with 385 residents to the largest urban center of Springfield with more than 155,000 people. Of the 43 communities, 24 have populations of less than 10,000, 14 have populations of 10,000-40,000, and 5 have populations of more than 40,000.¹

The Tax Cuts and Jobs Act of 2017 created Opportunity Zones in 15 of the Pioneer Valley's 43 communities. Seven of the Zones are in the City of Springfield, with the balance distributed among Northampton (2), Chicopee (1), North Amherst (1), South Hadley (1), Ware (1), West Springfield (1), and Westfield (1). The Act provides a variety of tax incentives for the reinvestment of capital gains into businesses and development projects within the Zones. In Springfield, for example, the Zones are clustered in the downtown and north end of the city, encompassing the neighborhoods of Memorial Square, Old Hill, Liberty Hights and the Metro Center. In Westfield and Holyoke, the Zones are in the downtown districts, serving as a financing tool to bolster the cities' urban revitalization efforts.



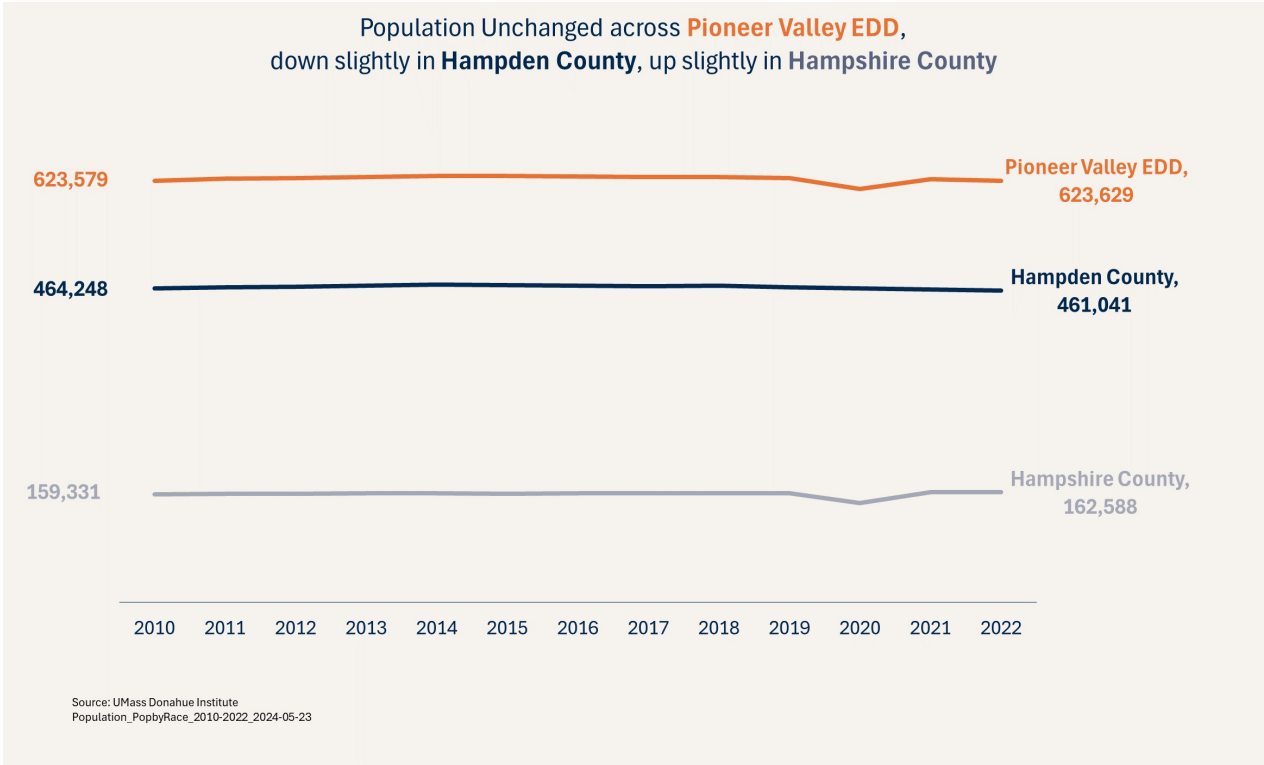
¹ U.S. Census Bureau, 2020

DEMOGRAPHIC OVERVIEW

The most recent census data show that 623,629 people live in the Pioneer Valley, but the population is not spread evenly throughout the region. Hampden County’s population at 461,041 is almost three times the size of Hampshire County’s at 162,588. The majority of the population, approximately 57%, live in the region’s five most populous communities. Hampden County has four of those communities – Springfield, Chicopee, Westfield, and Holyoke – while Hampshire County has one – Amherst. Hampshire County is the home of the University of Massachusetts, Amherst, and multiple private “name” colleges, including Smith, Mt. Holyoke, and Amherst; the presence of so many institutions of higher education is a factor in Hampshire County’s demographic make-up as well as its economy.

POPULATION GROWTH

The Pioneer Valley’s overall population growth is stagnant. It has been stagnant for more than ten years. Almost every year since the late 1990s has seen an out-migration of population; if not for immigration from a range of countries, the local population would have dropped to the point where it impacted state and federal funding.



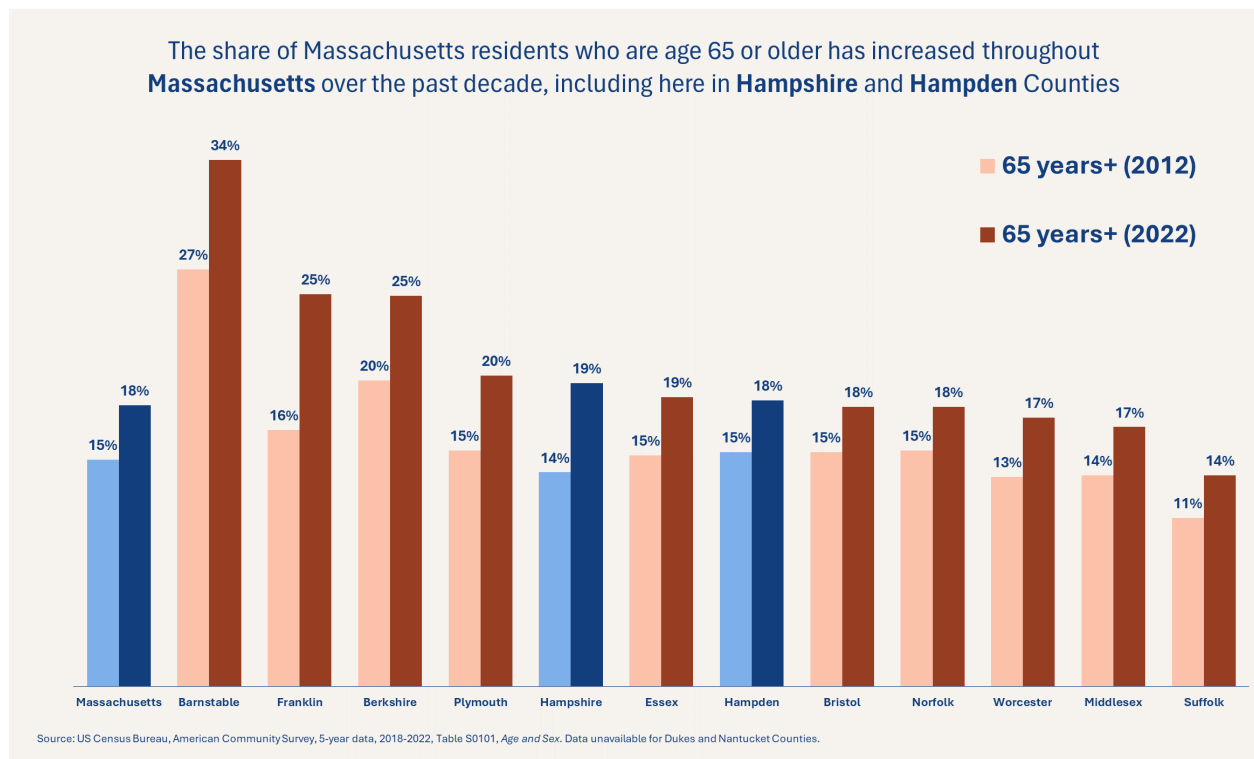
In some of the region’s smaller and rural communities, the population has actually declined. The chart below shows select smaller communities which have lost population during the last twelve years. Within these communities, the population is also trending older, discussed in greater detail under Age.

Town	2010	2022	Change 2010-2022	% Change 2010-2022
Blandford	1,227	1,210	-17	-1.4%
Chester	1,339	1,220	-119	-8.9%
Huntington	2,184	2,069	-115	-5.3%
Montgomery	846	818	-28	-3.3%
Russell	1,784	1,631	-153	-8.6%

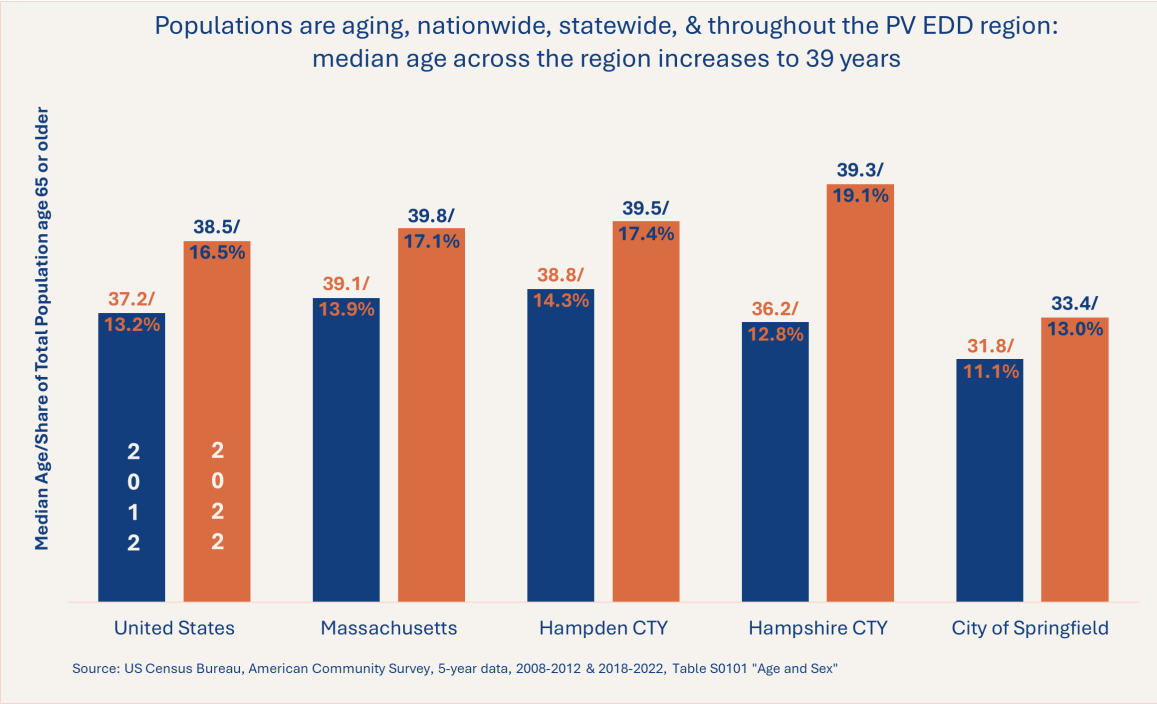
AGE

In addition to stagnant growth, the Pioneer Valley's population has a higher percentage of older adults than Massachusetts averages. This is especially true for smaller and rural communities, where over 13% of the population is 75 and over.

A “graying” population has immediate impacts for K-12 education and long-term impacts for workforce development and labor force participation. With fewer families with children coupled with an increasing number of retirees and empty-nesters, the character of some of the smaller and rural communities is changing. The chart below shows the percentage of persons aged 65 and over in Hampden and Hampshire Counties compared with other counties in the Commonwealth.

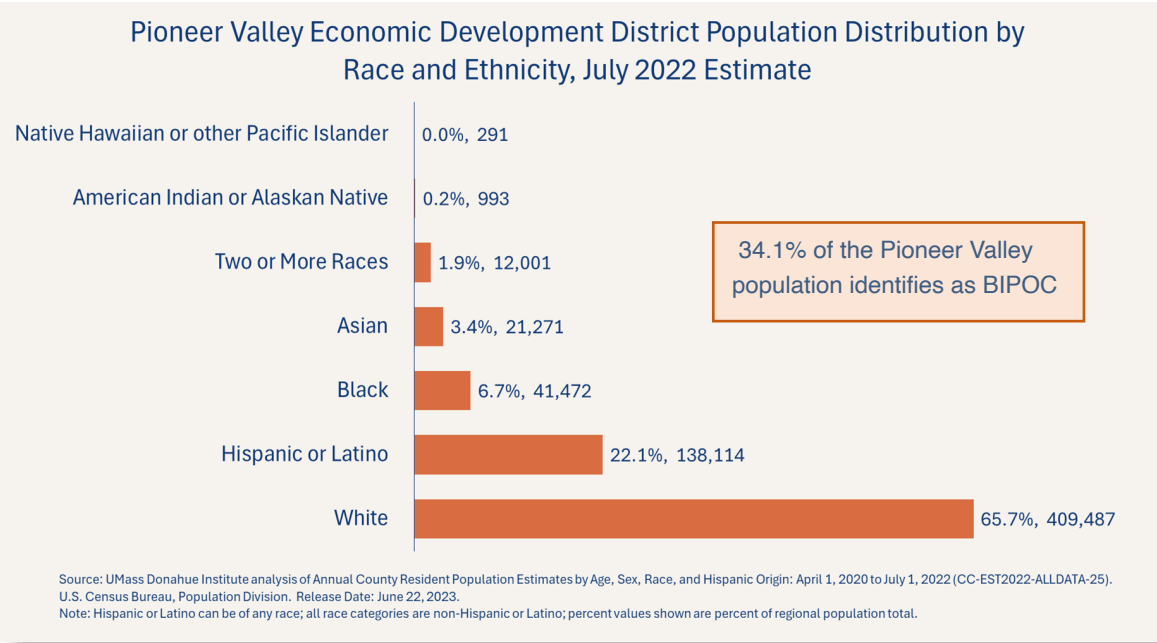


The City of Springfield and the overall population of the Pioneer Valley is also aging at a greater rate than either the Massachusetts or United States averages. The chart below shows that Hampshire County, has become progressively “gray” in the ten-year period between 2012-2022.



RACE AND ETHNICITY

More than 34% of the region’s residents identify as BIPOC, with the majority of these individuals identifying as Hispanic/Latino or Black. Geographically, the smaller and rural communities in both counties are overwhelmingly White while the urban centers are far more diverse, with two cities in Hampden County – Springfield and Holyoke – having a majority of BIPOC residents. In Hampshire County, approximately 19% of the residents are BIPOC and in Hampden County, approximately 40%.



POVERTY

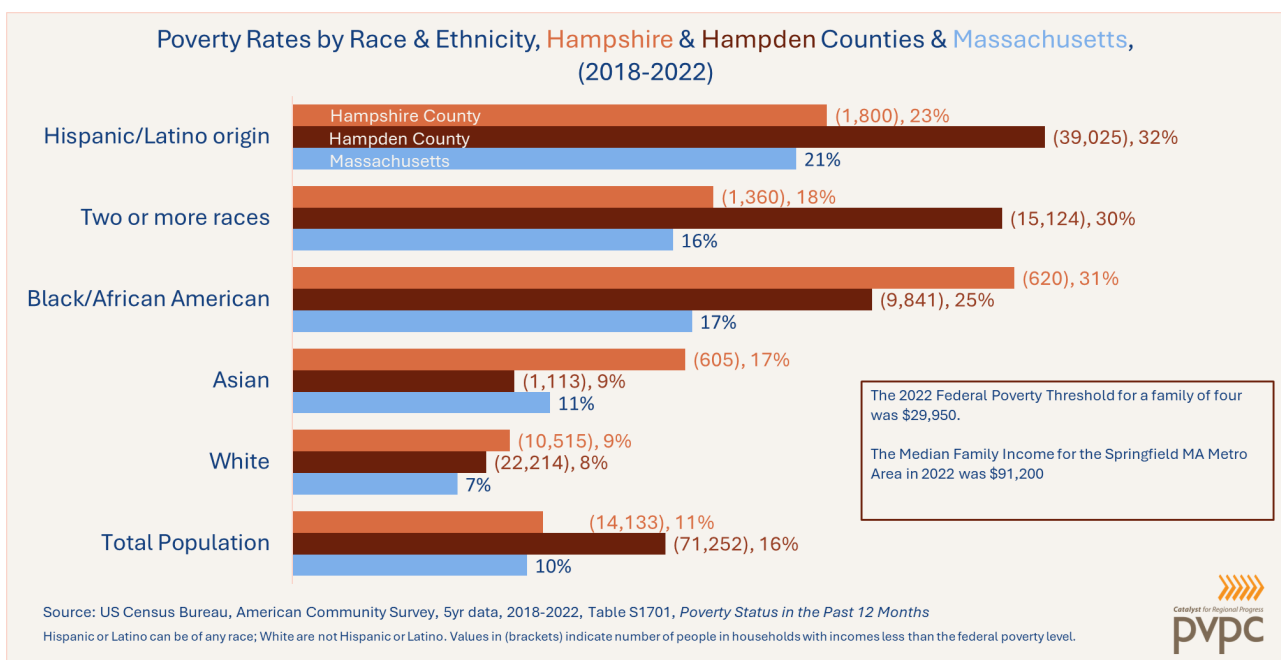
Poverty in the Pioneer Valley is largely tied to race and ethnicity. Springfield, Massachusetts, the region's largest city, is in the top third of the most segregated cities in the United States (<https://belonging.berkeley.edu/roots-structural-racism>). Data from the five years leading up to the pandemic show that poverty rates for communities of color were double the poverty rates for Whites in the same area and more than triple the rates of Whites in the Commonwealth overall. For persons who identified as Hispanic/Latino, the poverty rates were even higher.

City/County/Region	Overall Poverty Rate	Black or African American alone	Two or more races	Hispanic or latino origin (of any race)	White alone, not Hispanic or Latino
Springfield	25.5%	24.3%	29.5%	35.2%	12.5%
Massachusetts	9.8%	17.6%	15.5%	23.0%	6.7%
Hampden County	15.7%	24.1%	26.2%	33.5%	7.6%
Hampshire County	10.6%	20.2%	16.8%	17.9%	9.4%

Source: US Census Bureau, American Community Survey, 2016-2020

Additional research revealed that these disparities have been long-standing. The Census Bureau released a report on May 9, 2023 (<https://www.census.gov/newsroom/press-releases/2023/persistent-poverty.html>) which listed census tracts with persistent levels of poverty from 1989-2019. PVPC overlaid these tracts with demographic data regarding BIPOC populations to gain a better sense of disadvantaged communities in Springfield. This analysis revealed that census tracts with persistent levels of poverty correlated 1:1 with areas where the majority of residents were BIPOC.

The most recent data available show that five-year regional poverty trends continue to show significant disparities. Compared to Massachusetts averages, with the exception of the Asian community, current poverty rates in the Pioneer Valley are higher across all demographics. In Hampden County, poverty rates for people who identify as Hispanic/Latino are four times higher than the rates of people who identify as White; in Hampshire County, poverty rates for people who identify as Blacks were more than three times higher than people who identify as White.



Although masked by statistical averages, there are pockets of poverty in some of the Pioneer Valley's smaller and rural communities, which are predominantly White. Based on income levels which establish eligibility to receive Community Development Block Grant funds from the U.S. Department of Housing and Urban Development, the communities of Ware and Chester have a number of households which are at or below 60% of the Area Median Income.

Business and Industry Overview

The Pioneer Valley region has been a hub of industrial activity since the 18th century. Today, the area is served by the Connecticut River – a navigable inland waterway – an international airport, an excellent road network, and an extensive east-west and north-south rail system that is slated for investment and expansion.

During the 18th and 19th centuries, the power of the Connecticut River was harnessed for mills of all varieties. A skilled labor force developed, leading to technological advancements, particularly in metal crafting, that in turn supported industries such as machine manufacturing and printing. Starting in 1839, Springfield – the largest city in the Pioneer Valley then and now – was connected by rail to other cities and additional strengths in insurance and finance took hold.

The 19th century saw two industrial concentrations emerge which gained momentum during the 20th century and remain major players today: healthcare and education. Baystate Health is the largest healthcare provider in Western Massachusetts and is consistently one of the region's top employers. The Pioneer Valley is home to 13 highly ranked colleges and universities, the largest of which is the University of Massachusetts in Amherst, the "flagship" of the UMass system. At this writing, "meds and eds" are key sectors of the Pioneer Valley's economic identity.

In 2018, a new industry sector arrived in the region: casino gaming, including a new sportsbook. Originally slated to employ 3,000 workers, the MGM Springfield as of 2024 employed 1,500. Although currently much smaller than other sectors, it was the first of its kind in the Pioneer Valley and represented a change in the region's leisure hospitality and entertainment capacity.

The regional economy also includes agriculture and food production. Although this sector employs only 1,935 people, approximately .6% of the region's workforce, the Pioneer Valley accounts for 57% of statewide agricultural productivity. One of the largest food distribution centers in Massachusetts is in Springfield and supplies consumers throughout the Commonwealth. Pioneer Valley farmers produce vegetables, dairy products, meat, maple syrup, tobacco, and fiber. At the present day, many of them are still small family-run enterprises that sell direct to the consumer via farm stands, farmers markets and CSAs (community supported agriculture), as well as directly to food banks and restaurants. There has also been some development of value-added facilities to process local foods to create additional products.

MAJOR EMPLOYERS

Currently, the region's top three industries by employment are healthcare and social assistance, educational services, and manufacturing. People across all demographics are employed in these sectors, but there are key differences in employment rates when viewed through the lens of race and ethnicity, discussed below. Multiple stakeholders, including members of the Strategy Committee, expressed concern that there was an overreliance on two of the industries – meds and eds – and that this overreliance could be detrimental to the region's future economic resiliency. The data bear this out. Meds and eds account for 66.83% of the Pioneer Valley's total employment – 35.33% in meds, and 31.5% in eds. The manufacturing sector, by comparison, accounts for 10.35% of the region's total employment.

1. Healthcare and social assistance

The healthcare/social assistance sector is the largest employer across all demographic groups in Hampden County and the second largest across all demographic groups in Hampshire County. In Hampden County, approximately 18.94% of all people who are employed work in this sector; in Hampshire County, the percentage is 16.39. Recent statistics from the Massachusetts Executive Office of Labor and Workforce Development show that in Hampden County, which is 40% BIPOC, 36.2% of workers in this sector are BIPOC, while in Hampshire County, which is 19% BIPOC, 10.73% are.

Healthcare administrators report that there are concerning shortages in this sector. Recent specialized hiring programs have not attracted a sufficient number of applicants and retention of existing workers has been problematic. In order to increase workforce participation in this sector, Baystate Health and a consortium of partner agencies submitted a grant application in April 2024 to the EDA's Recompete Program; more information about the EDA proposal can be found in the **Workforce Development in Hampden and Hampshire Counties** section on page 33.

2. Educational services

The educational services sector is larger in Hampshire County, but is one of the prime industries across the region. In Hampshire County, approximately 19.5% of all people who are employed work in this sector, while in Hampden County, the percentage is almost 12. Recent statistics from the Massachusetts Executive Office of Labor and Workforce Development show that the sector is predominantly White: in Hampden County, which is 40% BIPOC, 23.7% of workers in this sector are BIPOC, while in Hampshire County, which is 19% BIPOC, 14.6% are. In smaller and rural communities in both counties, administrators in K-12 education report that they are experiencing workforce shortages, both in terms of qualified teachers and support staff.

UMass Amherst as an Economic Engine

According to a recent report from the Donahue Institute, the University of Massachusetts, Amherst contributed \$2.8 billion in economic activity to the region's economy in FY2022. As the report indicates: "UMass not only makes a direct contribution to the Massachusetts economy through the spending and jobs supported by its academic, administration, and construction activities, but also generates a 'ripple effect' that leads to an even larger impact in the economy as a result of demand on suppliers of goods and services as well as employee spending."

How does this look in our communities? The impact can be as specific as students revisioning the architecture of the Hampshire Mall, or as broad as thousands of students hitting the streets to volunteer in our region. One-third of the University's alumni stay in the region, bringing their talents, knowledge and skills to bear as members of our extended community.

UMass Amherst is the flagship and largest university in the system and has a unique role serving as a unifying convener, providing spaces and resources across Hampshire and Hampden Counties. The school is a magnet for talent both in and outside of the region, marked by an entrepreneurial spirit guided by UMass Amherst's research.

In addition to being the second-largest employer in the region, the institution is a major contributor to the innovation economy through leadership in advanced materials and manufacturing, applied life and health sciences, data and computational science, the arts and creative economy, climate science and sustainability, and equity and inclusion.

The partnerships among UMass Amherst and regional organizations like chambers of commerce and economic development councils inform the work done across the region, supported by the intellectual capital drawn to UMass Amherst, are critical to the success of this region's economy, present and future.

3. Manufacturing

The manufacturing cluster, encompassing materials, precision, and advanced manufacturing, is one of the Pioneer Valley's long-standing strengths. Today, the sector employs approximately 11.15% of the workforce in Hampden County and 8.37% in Hampshire County. Recent statistics from the Massachusetts Executive Office of Labor and Workforce Development show that in Hampden County, which is 40% BIPOC, 29.8% of workers in this sector are BIPOC, while in Hampshire County, which is 19% BIPOC, 7.65% are. The manufacturing sector, in particular advanced materials, was identified in the Western Massachusetts Economic Development Council's March 2024 "white paper" as ripe for investment and growth.

RETAIL AND SMALLER EMPLOYERS

Retail, encompassing mom-and-pop storefront businesses up to and including big-box national chain stores, is present throughout the Pioneer Valley. Many of the smaller and rural communities which participated in our stakeholder input hoped to increase retail activity in their local economies. Approximately 11.3% of all people who are employed in Hampden County work in retail. In Hampshire County, it is 10.4%. Recent statistics from the Massachusetts Executive Office of Labor and Workforce Development show that in Hampden County, which is 40% BIPOC, 25.9% of workers in retail are BIPOC, while in Hampshire County, which is 19% BIPOC, 11.2% are.

The small business sector plays an important role in the national economy.² Small businesses have accounted for approximately 66% of all job growth during the past 25 years and 50% of the national GDP.³ In general, small businesses have not been one of the Pioneer Valley's strong suites. In 2012, compared to the U.S. average of 30%, the percentage of small- and micro-businesses in the Pioneer Valley was 15%, approximately half. The percentage of BIPOC-owned small- and micro-businesses, however, was even lower than the overall regional average; PVPC's research showed that in 2012 only 14.0% of small businesses in the Pioneer Valley were BIPOC-owned.⁴ Research is currently underway to assess the status of small businesses, including BIPOC-owned small businesses, in the post-COVID regional economy.

WORKFORCE OVERVIEW

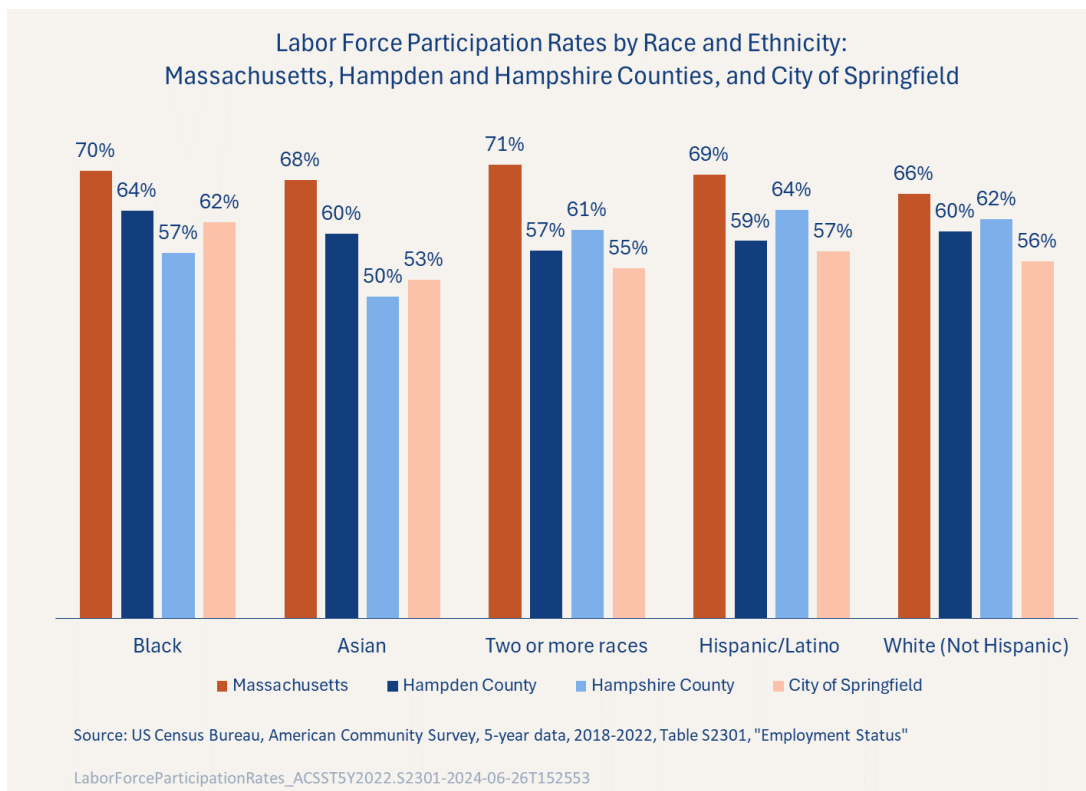
Labor Force Participation Trends

The Industry Overview section above describes overall differences in employment between the number of White and BIPOC workers in the region's major industrial sectors. The chart on the next page provides a disaggregated comparison of labor force participation rates within the BIPOC population. Compared to Massachusetts, the Pioneer Valley's overall labor force participation is lower, possibly due to the increasing number of older persons and retirees, but it is markedly lower for persons who identify as Black, Hispanic/Latino, and Asian, and it is the lowest for persons who identify as two or more races. Notably, within each region, labor force participation rates are fairly consistent across race and ethnic groups. In most geographies participation rates for Black and Hispanic/Latino workers slightly surpass rates for non-Hispanic white workers.

² PVPC is using the Small Business Administration's criteria to define the size of micro and small businesses.

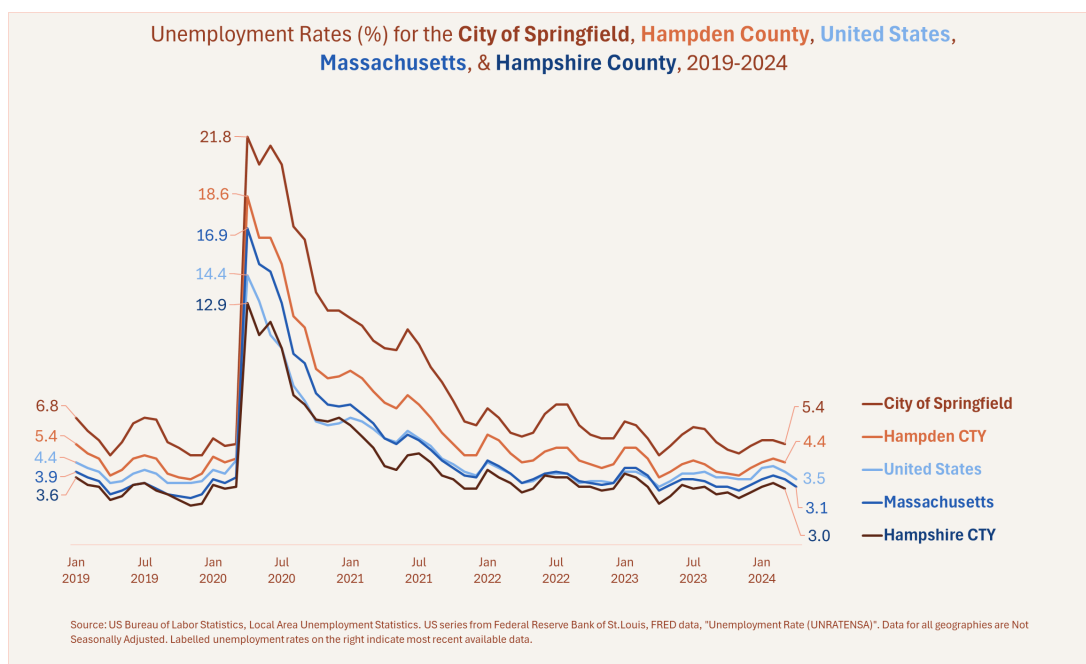
³ "Exploring Business," University of Minnesota (2016) at <https://open.lib.umn.edu/exploringbusiness/front-matter/publisher-information/>

⁴U.S. Census Bureau, 2010

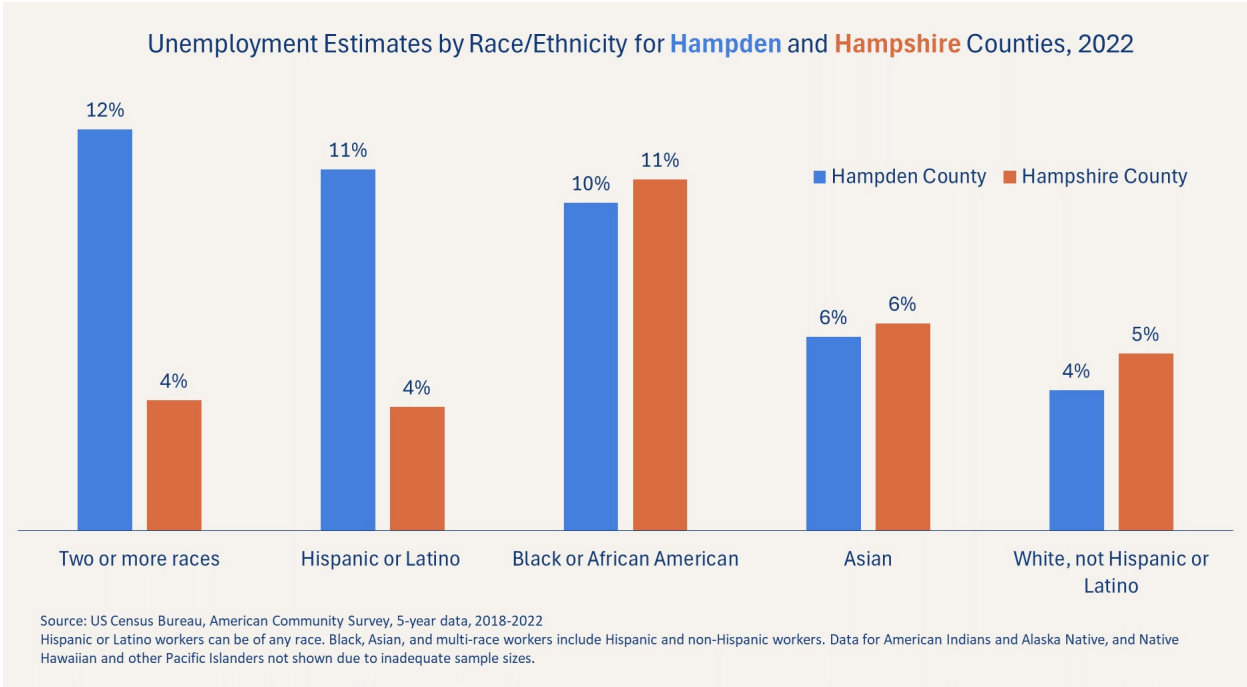


UNEMPLOYMENT TRENDS

Although the region's current unemployment rates are lower than the period that preceded COVID-19, and certainly during COVID-19, the rates for the City of Springfield and Hampden County are still stubbornly higher than both Massachusetts and United States rates. The chart below shows unemployment rates for the five-year period 2019-2024. Markedly higher across all periods are the rates for the City of Springfield. Hampshire County's rates are lower than Massachusetts and United States rates for the five-year period, again likely reflecting the higher-than-average percentage of persons who are not in the labor force due to age.



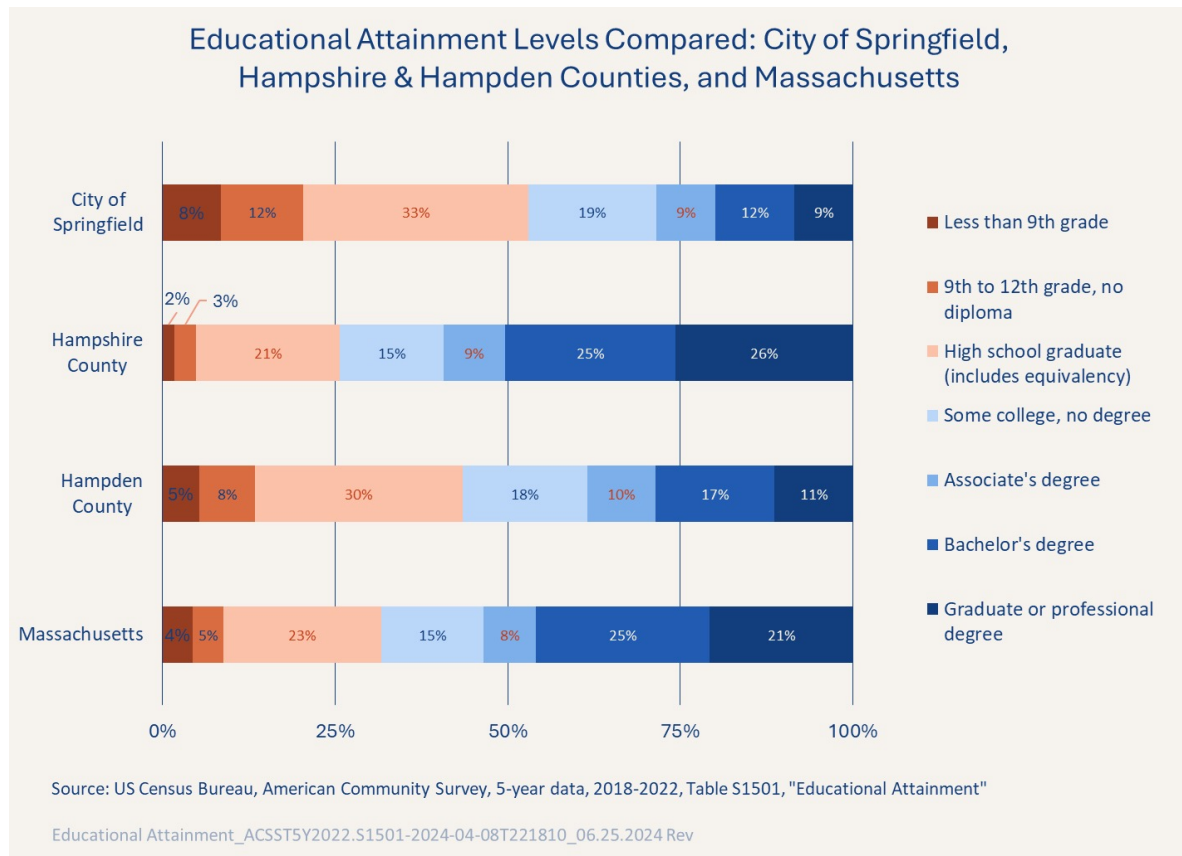
In reviewing the most recent disaggregated data for unemployment in the two Pioneer Valley counties alone, rates in Hampden County, where 40% of the residents identify as BIPOC, are 2-3 times higher for Blacks, Hispanic/Latino, and two or more races than for Whites.



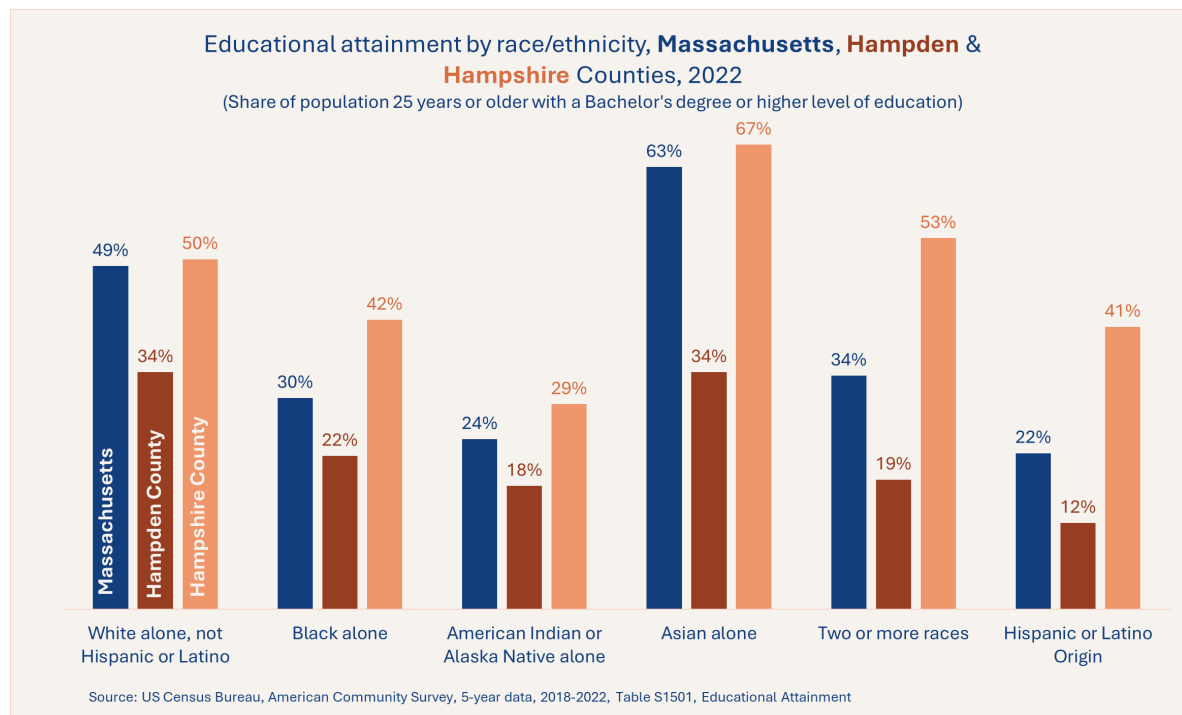
EDUCATIONAL ATTAINMENT

The overall educational attainment percentages of the Pioneer Valley’s population lags Massachusetts’ percentages. Hampshire County, whose population is almost 1/3 the size of Hampden’s, has more than double the percentage of people who obtain graduate or professional degrees. The disparity between the two counties is due to the presence of the University of Massachusetts and multiple private colleges in Hampshire County. In aggregate, the institutions of higher education in the Pioneer Valley generate more than 10,000 undergraduate and advanced degrees each year.

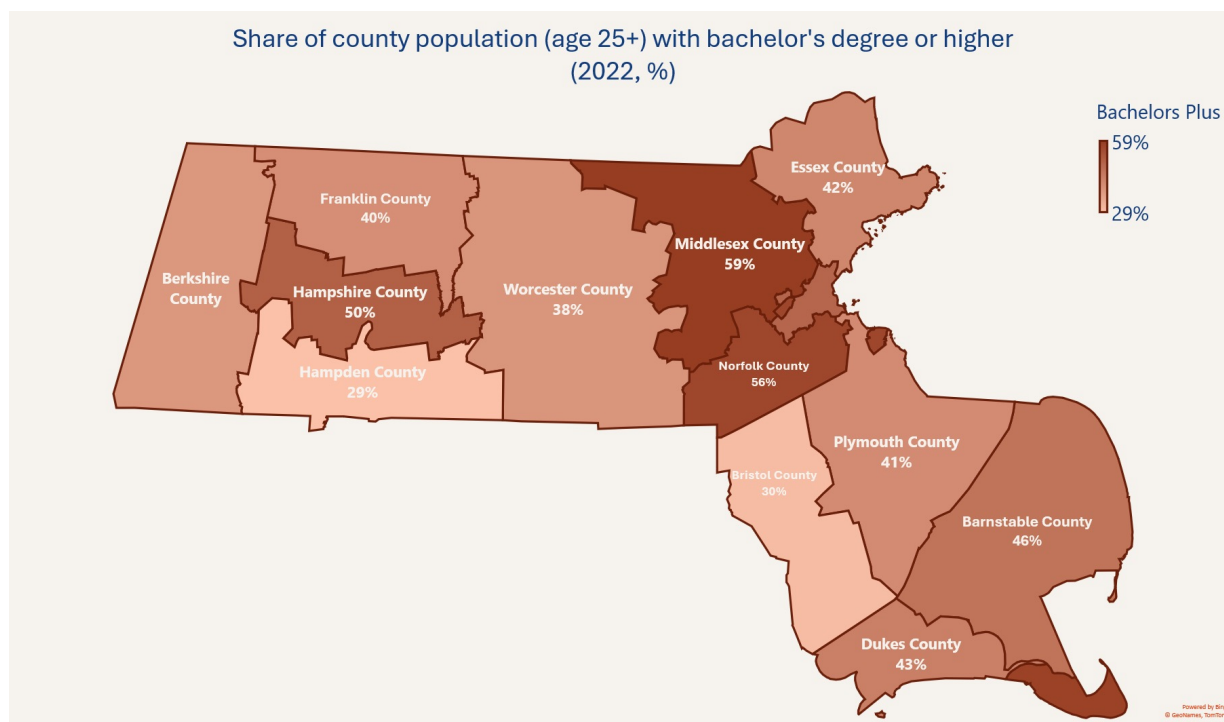
The City of Springfield has the highest percentage of persons with less than a 9th grade education and the lowest percentage of persons who obtain a graduate or professional degree. It exceeds Massachusetts averages in the percentage of persons whose attainment level ends with a high school degree.



Disaggregated data by race and ethnicity for persons who obtain a bachelor's degree or higher show that Hampshire County's statistics across all races and ethnicities are higher than Hampden County and Massachusetts averages, but they soar for students who identify as Asian, Hispanic/Latino, Black, and two or more races.



Looking more broadly at counties across the Commonwealth, Hampden County has the lowest percentage of residents with a bachelor's degree or higher.



The majority of the stakeholders who participated in this year's CEDS community engagement were aware of the populational, industrial, and workforce conditions described above. They were equally aware of the conditions' ramifications on the long-term economic health of the Pioneer Valley. In particular, the ramifications of the unemployment and educational attainment trends are on the radar of the region's community colleges, business leaders, workforce development providers, local elected officials, and wraparound service providers.

Collaborative efforts are underway to create innovative educational and workforce programs that will focus on the specific needs of the BIPOC population and other underserved communities. Those efforts are discussed in detail in the section on Workforce Development in Hampden and Hampshire Counties on page 33. Other efforts to address these communities' unequal access to wealth-building opportunities, especially with respect to resources for successful small business creation, are discussed in the section on Creating an Equitable Economy on page 36. Lastly, this collective awareness formed the basis for many of the regional goals and objectives that are identified in the Strategic Direction section on page 57.

ECONOMIC RESILIENCE, CLIMATE ACTION, AND PRE-DISASTER MITIGATION PLANNING

The PVPC has connected clean energy and climate action to economic development since first starting to work on sustainability. Beginning in the early 2000's, the Pioneer Valley region has been working to adapt to the climate crisis and transition to clean, safe, sustainable energy. From 2012 to 2014 the PVPC collaborated with the Capitol Region Council of Governments in Hartford to secure \$4.4 million in regional sustainability planning funds which advanced catalytic projects in our core cities and funded updates to our existing regional plans as well as supporting developments of missing plans including our award winning regional housing plan. Our clean energy and climate action planning contributes to community resilience by creating an environment for regional economic prosperity by managing risk and anticipating the future.

The climate crisis manifests in our region as extreme temperatures and inland flooding, with extreme heat recently over-taking concerns about extreme cold. Changes in precipitation patterns, and consequent changes in the patterns of river flows, particularly in the Connecticut River and its network of tributaries are the major causes of flooding. Changes in temperatures can have impacts on the rural beauty that drives seasonal tourism and characterizes this region. Summer season temperature changes may threaten the attractiveness of the region as both a haven from urban heat and an area with pristine recreational lakes as elevated lake temperatures increase the risk of algal blooms.

Thanks to our forward-thinking regional plans that have effectively catalyzed regional and local action our municipalities have agreed to site significant amounts of clean energy in our region. The 2008 Pioneer Valley Clean Energy Plan identified approximately 100 million kWh/year of renewable energy being generated in the region. The plan set a goal to increase the amount of clean energy produced in the Pioneer Valley by an additional 654 million kWh/yr by 2020 to a total 754 million kWh/year. When PVPC last analyzed progress toward this goal in 2020 we were at approximately 800 million kWh/yr.

We have been proactive in Green Communities certification, a state initiative that incentivizes greenhouse gas (GHG) emissions reductions in Massachusetts municipalities and have assisted our member municipalities to apply for millions of dollars of federal funds to take further action.

Unintended Consequences of Colliding Policies

Investing in new tools and technology can often result in conflicting policies that have both short-term and long-term implications. While the goal of modernization and sustainability is crucial for future generations, the immediate economic impact on local businesses can be significant. This delicate balance between progressive environmental policies and economic development is a challenge many cities face today.

A prime example of this complex dynamic can be seen in Northampton, Massachusetts. The city has imposed a moratorium on expanding its natural gas infrastructure to align with its smart energy policies and reduce fossil fuel dependency. While this initiative is commendable for its long-term environmental benefits, it has inadvertently created substantial short-term economic challenges.

Alan Wolf, Chief of Staff to Northampton Mayor Gina-Louise Sciarra, noted the downtown's empty storefronts, many without any natural gas hookups or with hookups of the wrong size. Every dollar counts for small startup shops and businesses, and they often cannot afford the significant costs associated with a full energy upgrade before they can even start operating. The decision to stop expanding natural gas infrastructure means no new investments are being made, leaving potential business owners facing the daunting prospect of substantial initial costs to retrofit their spaces with alternative energy sources.

The financial burden of these upgrades can be overwhelming, discouraging new business ventures and causing prime downtown storefronts to remain vacant. This lack of vibrant business activity affects the local economy and undermines the city's overall economic health. Northampton's experience underscores the need for new policy to be implemented incrementally and with careful navigation. Providing incentives or financial support for energy upgrades could help mitigate these unintended consequences, ensuring that the push for sustainability does not come at the expense of economic vitality. The experience in Northampton serves as a valuable lesson in the complexities of policy planning, emphasizing the importance of supporting a green and thriving local economy.

ECONOMIC RESILIENCE

A decrease in agricultural productivity and reduction in the availability of affordably priced housing are two of the most urgent climate-related economic concerns for the region. The Greater Connecticut River Valley is home to the most farmland in any region of the Commonwealth, coming in at 130,000 acres. Farming and agricultural revenues are important parts of the economy and identity of the region. Temperature and precipitation pattern changes may make it difficult to continue the cultivation of crops historically grown in the area while creating the opportunity to transition toward new crops. Pressures such as loss of pollinators, extreme storms, and invasive species and pests introduce further uncertainty into the agriculture industry, which is already facing economic pressures. An increase in demand for housing and a decrease in supply negatively impact housing affordability. Relocation due to direct damage to existing housing or climate-related economic pressures drives increasing demand. Direct physical damage from climate impacts and higher construction costs needed to increase climate resilience may limit the availability of affordably priced housing. This region has a high potential inland flood risk to housing. Both demand and supply effects raise rental and ownership prices, which can effectively limit options for affordably priced housing, particularly for low-income populations.⁵

PVPC is working to mitigate risks and build the capacity of our member municipalities and collaborators in the private sector. We worked with the city of Northampton and the town of Longmeadow to integrate GHG emissions reductions into their capital improvement planning process and are collaborating with the Emerald Cities Collaborative and the Western Mass Economic Development Council to train minority and women owned business enterprises to take advantage of the work coming to decarbonize the region.

With respect to human vulnerability, reduction in food safety and security and health effects of extreme storms and power outages are the most urgent impacts in the Greater Connecticut River Valley region. Here, local agricultural supplies and economies are more heavily dependent on local food production. The region accounts for 57 percent of statewide agricultural productivity and could see key commodity crop yields decline by eight percent by 2030 and 20 percent by 2070. Food safety concerns such as spoilage and bacterial contamination are also associated with high temperature events and risk of power outages.

As mentioned previously, one of the largest food distribution centers in Massachusetts is located in Springfield and supplies consumers throughout the Commonwealth. It is located within the 100-year floodplain of the Connecticut River, making it vulnerable to flooding and potentially leading to interruption of food supply chains. Flood risks also directly threaten human health through increased risk of injury and disease both during and after the event. These impacts are also disproportionately distributed in the region. Linguistically isolated populations and minority populations are respectively 20 percent and 21 percent more likely to experience health effects of extreme storms and power outages in the region compared to the rest of the population. This disproportionality comparatively elevates the urgency of these impacts when compared with others in the Human sector.⁶

With respect to infrastructure vulnerability, the Greater Connecticut River Valley region has a high risk for inland flooding when measured as a percentage of the total structure value in the region, although this risk is widely differentiated across the region. Language isolated populations are exposed to a 3.5 times higher risk (350 percent higher) than other populations in the region, and populations in block groups designated as low income or minority are exposed to 26 percent and 30 percent higher risk of inland flooding than other populations in the region. Springfield and other neighboring communities (e.g., Holyoke, Chicopee) have invested in flood control, but adaptation efforts, particularly those aimed at residential properties, are currently limited across much of the region. The region is also expected to have the largest absolute annual economic impact of inland flooding in the Commonwealth by 2030, with \$12 million in added

⁵ MA Climate Change Assessment

⁶ Top Impacts in the Greater Connecticut River Valley Region | Mass.gov MA Climate Change Assessment

annual costs. These economic damages attributed to climate change could double by 2090 to \$24 million despite the finding that some more sparsely populated portions of the eastern portion of the region could see a decline in flood risk.

A range of climate stressors including extreme temperature, extreme storms, lightning, vegetation growth, wildfire activity, and coastal flooding threaten transmission and distribution lines, poles/towers, and transformers, making damage to electric transmission and distribution infrastructure another key impact in the region. Added annual repair costs are projected to exceed \$6 million by 2030 and reach nearly \$23 million by 2090. Clean water supply is also a critical issue in the region, particularly as compared with the rest of the Commonwealth, as many households and businesses rely on groundwater supply which may become more unreliable. Damages to roads could pose the highest magnitude of consequence if current adaptation actions are not continued.

With respect to environmental vulnerability, the region's natural resources are expected to face significant pressure from climate change. The most urgent natural environment sector risks are shifting distribution of native and invasive species, freshwater ecosystem degradation, and forest health degradation. The three are closely related—climate change will alter existing biogeochemical cycles that support viable forest and freshwater habitats for native species to thrive and may consequently make it viable for invasive flora and fauna to thrive. Changes to temperature and precipitation regimes will shift growing seasons and impact nutrient availability, forcing forest ecosystems to transition and potentially diminishing the ecosystem services they provide. Changing flow patterns of waterways due to seasonal shifts, increased nutrient loading and harmful algal bloom growth, and increased contaminant concentrations during drought conditions threaten freshwater ecosystems. All of these ecosystem impacts could shift the competitive balance of native and invasive species, and extreme weather events could make ecosystems more vulnerable to pests and disease, weakening the ability of native flora and fauna to adapt to a new climate.

Natural resources play an important role in this region in terms of the abundance of natural areas compared to the rest of the Commonwealth, and connection of natural resources to the economy through tourism and agriculture. Berkshire County and parts



of the Pioneer Valley region are home to the most miles of cold-water fisheries streams of any region in the Commonwealth. Coldwater species occurrence probability may decrease 42 to 77 percent by 2070. Forests cover over one million acres in the region. Climate change threatens to degrade ecosystem service flows from forests through habitat transition (driven by changing temperature and precipitation regimes) and increased mortality from pests, pathogens, and invasive species as well as more extreme weather (e.g., ice and windstorms). Adaptation to these impacts is ongoing, however the scale of resources in the region requires significant attention to adequately address these risks.⁷

With respect to governance, the key impacts will be an increase in the costs of responding to climate migration and a reduction in state and municipal revenues. Climate migration is an emerging risk for Massachusetts, but the Pioneer Valley has direct experience with this impact in the region. In 2017 and

⁷MA Climate Change Assessment

2018, Holyoke—the Massachusetts city with the highest concentration of people of Puerto Rican descent in the contiguous U.S.—welcomed 142 Puerto Rican households permanently displaced and hundreds more temporarily displaced by Hurricane Maria.

Climate impacts on governance are exacerbated in portions of our region by the relatively small municipal operating budgets. Regional cooperation will be important for facing the challenges posed by this aspect of climate change. The region could face significant costs as receivers of climate migrants from other areas of the Commonwealth (particularly areas at risk of sea level rise) and beyond. While new populations can bring benefits to receiving communities, the potential costs of climate migration include specialized housing provision, both short-term and medium-term; social services; increased educational costs to school systems; and pressure on existing public infrastructure related to potentially abrupt population increases. Increase in demand for State and Municipal Government Services, even for the existing population, is another impact with projected major consequences, with the potential for disproportionate exposure. For this region there could be increased need for MassHealth, food security support, and emergency response as a result of climate change. Many of these impacts can be expected to be concentrated among those residing in low-income block groups.⁸

PRE-DISASTER MITIGATION PLANNING

While western Massachusetts is not prone to natural disasters, we are a region well-known for our commitment to regional planning because we want to understand threats and mitigate and manage risks. In the early 2000's the Commonwealth of Massachusetts committed to hazard mitigation planning, and the PVPC has worked with our member municipalities to assure that all 43 cities and towns have up to date Hazard Mitigation plans. A review of these plans, as well as the Massachusetts Climate Change Assessment, shows that localized flooding due to increased and unpredictable precipitation events, temperature extremes, including slow but steady increases in extreme heat, and snow and ice storms are the most common natural hazards in our region.

PVPC, the State, and each municipality is working to mitigate these risks. When the State launched the Municipal Vulnerability Preparedness (MVP) initiative, PVPC was once again out front assisting our member municipalities to apply for certification to understand local risks and make the cities and towns eligible to apply for MVP Action grants. Our region has secured more than \$18.7 million in MVP Action grant funding, specifically designed to mitigate climate risks and assist municipal officials and collaborators to plan for recovery before disasters happen. We are continuing to lead with work on the Commonwealth Resilience Handbook as well as facilitating several MVP 2.0 processes on behalf of our member, municipalities and neighboring communities.

DIGITAL EQUITY AND BROADBAND IMPLEMENTATION

Identifying the Telecommunication Needs of the Pioneer Valley

In 2023, the Massachusetts Broadband Institute (MBI), the state's broadband agency, engaged in a community engagement process to gather information to inform the state's digital equity plan. As part of this process, stakeholders and residents in Hampden and Hampshire counties provided information through online surveys and in-person focus groups regarding the digital equity needs of the region. The needs identified in the state's digital equity report accurately reflect the needs of the region.

In its state digital equity plan, Massachusetts established a framework to provide context for these needs. Similarly, this framework also applies to the needs of the region. To have digital equity for residents of Hampden and Hampshire counties, the following conditions must exist:

⁸ MA Climate Change Assessment

- Availability – every location has high-speed internet that is available.
- Adoption – every resident can utilize and afford the internet.
- Quality of Service – every location has reliable service.

The lack of these conditions directly maps to five specific categories of digital equity needs for the Pioneer Valley region:

1. Broadband availability and affordability – the need for availability and affordable access to fixed and wireless broadband technology.
 - Availability: A significant number of residents do not have internet at home. 45% of respondents access the internet at libraries or community centers; 43% access the internet from a friend or family member's home.
 - Affordability: Statewide, 61% of respondents without internet subscriptions cited cost as a reason for not having an internet subscription at home. The regional average in Western Massachusetts for an internet plan is \$72/month. Statewide, 52% of respondents shared that it was either somewhat hard or very hard to pay their internet bill.
 - Quality: Of those respondents with internet service at home, only 72% indicated that the service is good enough to meet their households' needs. This is likely higher in certain neighborhoods in urban areas and in rural areas of Hampden and Hampshire counties.
2. Device availability and affordability – the need for availability and affordability of consumer devices and technical support for these devices.
 - Devices: 15% of survey respondents reported having insufficient devices at home to meet all the needs of their households. 33% of respondents statewide cited a lack of devices as a reason for not having an internet subscription at home. Only 57% of respondents can pay for a laptop or desktop computer that costs at least \$250; 14% of respondents indicated they can afford a device exceeding \$1,000. Of those with devices, respondents identified the inability to keep up with technical developments regarding their devices as significant.
3. Digital literacy – the need for skills and knowledge to use the internet and devices.
 - Digital Literacy/Skills: Respondents reported an interest in a broad range of digital skills support. There is frustration with the lack of digital skills and many respondents, especially older adults, reported relying on family and friends for help. There is a need for more classes and opportunities to learn digital skills and effectively use the internet, including in formats and languages appropriate to different demographic groups.
4. Online privacy and cybersecurity – the need for awareness and use of measures on the part of individuals to maintain online privacy and maximize cybersecurity.
 - Privacy and cyber security: Statewide, 86% of respondents were somewhat or very concerned about internet safety. Fear of stolen data ranked highest as the cause for concern over internet safety, with 91% of respondents citing this concern. Statewide, 27% of respondents reported that they are unaware of ways to stay safe online.
5. Online accessibility and inclusivity – the need for online access and inclusivity to public resources and services.
 - Accessibility and Inclusivity of Public Resources: 85% of respondents reported poor performance while accessing online government services.

The marginalized populations in the Pioneer Valley that disproportionally experience digital equity barriers are the eight federally designated “covered” populations as well as other known population groups. These include older adults, low-income residents, veterans, individuals with disabilities, residents with

limited English or low levels of literacy, BIPOC residents, incarcerated and recently released residents, residents of rural areas, Indigenous residents, religious minority groups, women, LGBTQIA+ residents, and residents adversely affected by persistent poverty or inequality, including unhoused individuals. While these digital inequities might present differently for different people given their situation or the profile of their community, it is important to recognize that digital equity needs exist throughout the Pioneer Valley region.

Leveraging High-Speed Broadband to Support Economic Growth, Development, and Equity

Since 2020 there has been active discussion and action taken to leverage broadband infrastructure and digital equity more broadly. The primary entities advancing this work are the regional coalition comprised of the Alliance for Digital Equity and its backbone organization, Baystate Health, and the PVPC, which has worked independently and as a member of the broader Alliance coalition. Similarly, in a variety of forums, an array of community-based organizations, municipalities, school districts, libraries, and others have discussed ways to enhance broadband infrastructure since the pandemic in 2020.

Digital equity profoundly impacts the quality of life of residents; as such, it is understood to be a “super social determinant of health”. Creating digital equity solutions and addressing digital equity needs will support economic growth and development by enabling residents’ access to health services, education, workforce training, transportation, finances, and other functions essential for a healthy and thriving community.

This understanding is best reflected by the hosting of the Alliance for Digital Equity at Baystate Health, the region’s largest health care provider. Similarly, the broad membership in the Alliance demonstrates the cross-sector understanding of the importance of digital equity for the vibrancy of the region. Active participating organizations include higher education, the workforce board, K-12 education, libraries, Councils on Aging, the Community Action Program (CAP) agency, disability service organizations, immigrant service organizations, private and public housing agencies, and many others. Similarly, the interest in municipal digital equity planning by the three largest municipalities in the region, as well as smaller towns, demonstrate a municipal appreciation for the need to identify needs and promote and implement solutions.

The primary resources that have been leveraged are federal funds distributed through MBI. These funds resulted in two state funding streams focused on regional capacity building and implementation, and municipal planning and implementation. Taken together, digital equity work has been significantly advanced in the Pioneer Valley region.

Intersection of Regional Broadband Needs with State-Level Plans for Vulnerable Communities

In both vision and implementation of programs, MBI and entities in the Pioneer Valley region are fully in sync. The stated digital equity vision for Massachusetts is that, “Every resident in Massachusetts has high-speed, high-quality internet availability and can confidently adopt and use the internet regardless of who they are or where they live. This universal connectivity will ensure that everyone has the support they need to enjoy full personal, civic, and economic digital participation throughout their lives with safety and security.” This vision holds true for the Hampden and Hampshire Counties.

The work toward digital equity in the Pioneer Valley preceded the passage of the American Rescue Plan Act (ARPA) and its digital equity funding. This initial work occurred with support from local philanthropy. It included a 2020-21 assessment of the region’s digital equity need, released by the Alliance for Digital Equity. Subsequently, organized pilot interventions were implemented in 2021 and 2022. This included understanding the need for devices, affordable internet connectivity, and digital skills.

With the Bipartisan Infrastructure Law (BIL), including the Broadband, Equity, Access and Deployment (BEAD) program, as well as the Digital Equity Act, the state and the region gained additional tools and

funding to take greater tangible steps to promote digital equity. In winter 2022, the Pioneer Valley region expanded its efforts to promote and enroll residents into the Affordable Connectivity Program (ACP) which was a major component of the BIL. This involved the Alliance for Digital Equity and multiple partner organizations in the region's larger cities, including Springfield Partners for Digital Equity in Springfield, Center for New Americans in Northampton, New North Citizens Council in Springfield, Tech Foundry in Holyoke, and Way Finders in both Springfield and Holyoke. These organizations assisted residents in these and surrounding communities to obtain federally subsidized internet plans. This work addressed one of the region's core barriers to the internet – affordability. In 2023, MBI launched two parallel initiatives funded by ARPA in the Pioneer Valley region. These were a Regional Partnership grant which the Alliance received and Municipal Digital Equity Planning for which PVPC was designated as a consultant for municipalities. The Regional Partnership grant significantly advanced the work of providing digital skills training, device distribution, enrollment assistance into the Affordable Connectivity Program, and the expansion of wifi for community access. In addition, the Alliance launched organized networks to support the digital equity work occurring at the region's libraries and Councils on Aging, as well as to support and enhance the digital equity work of these key community-based entities. ARPA funds were also directed to Tech Foundry of Springfield to launch the Tech Hub in Holyoke in 2023, a physical location to provide a digital workspace and training opportunities for residents. Similarly, Boston-based Tech Goes Home received ARPA funds to expanding digital skills training in Springfield.

PVPC used ARPA funds to provide municipal digital equity planning work. In 2023, these planning services were provided to the cities of Springfield and Holyoke and the town of Wilbraham. In 2024, this work continues with additional municipalities queued up for digital equity planning, including Chicopee, Hampden, Hadley, and Westfield.

Looking ahead to 2024 and beyond, the region is poised to leverage additional BEAD funds that will be used to build out remaining broadband connectivity infrastructure to locations that are unserved or underserved. Additionally, the region awaits Digital Equity Planning, Capacity and Competitive funding which should be available from MBI in late 2024.

WORKFORCE DEVELOPMENT IN HAMPDEN AND HAMPSHIRE COUNTIES

Hampden and Hampshire Counties have a long list of state, federal, and local workforce development funding and programs. At the center of workforce development efforts in each county are the workforce boards. The MassHire Hampden County and Franklin Hampshire Workforce Boards were established by Federal and State legislation and are business-led, non-profit corporations that engage their members from business, education, labor, and community-based agencies to set public policies that will build a better workforce. Each has a one-stop career center and provides Workforce Innovation and Opportunity Act programming throughout their services areas.

The area has a well-established Job Corps program, and many nonprofits have Transitional Assistance for Needy Families (TANF) or welfare-to-work programs as part of their comprehensive service delivery. In addition, there are several after-incarceration programs addressing the workforce needs of residents reentering their communities. The Economic Development Council of Western Massachusetts oversees SpringfieldWorks, a workforce program funded by the Federal Reserve Bank of Boston. Dress for Success works exclusively with women entering or re-entering the workforce and each public school district has an established workforce training department. Public and quasi-public institutions like the Springfield Water and Sewer Commission also have established workforce development projects designed to increase the diversity of their workforce. Each sheriff's department and Roca, Inc., a regional nonprofit, provide workforce training to formerly incarcerated individuals. Lastly, the local community colleges work closely with employers to help meet sector-specific workforce needs.

These efforts all include technical training combined with wraparound services that address clients' needs, including resume writing, childcare, transportation, food insecurity, and housing. However, only a few work closely with employers. Some provide access to mental health treatment and others include emotional intelligence skillset building. Success among these and other programs varies. Yet, to date, they collectively have not succeeded in moving the needle in workforce participation or made a considerable difference in socio-economic indicators, including measures of poverty. This could be attributed to the fragmentation among and at times within organizations providing workforce development services.

EDA 2023 Recompete Pilot Program Finalist and Strategic Development Grant Recipient

The MassHire Hampden County Workforce Board (WFB) is an EDA 2023 Recompete Pilot Program Finalist and Strategic Development Grant Recipient. The WFB and its partners proposed the formation of a Workforce Training System in which schools, training institutions, and employers mutually equip, commit to, and credential one another to create an ecosystem in which partners are using the same approaches, systems, and practices that most effectively recruit, promote, and retain historically excluded prime-age adults. This cross-sector collaboration aspires to mitigate the fragmentation of programming to ensure positive results for program participants.

The Workforce Training System will include three interrelated components that will provide a single point of entry that harnesses our efforts and provides a fixed point of responsibility across administrative and organizational boundaries. Each component integrates with and across the others to ensure that people's needs will be met, and they receive the training and support they need toward good employment and growing into career jobs, moving away from a transactional approach to a transitional and transformational solution:

- Shared Services HUB will provide needed services for all marginalized prime-age adults with the focus to get them employed. Services include outreach, intake, and recruitment; wrap around supports; career counseling and life planning; case management and coaching/mentoring/therapeutic support; and a cliff effect mitigation action plan.
- Anchor Collaborative Inclusive Hiring Activities will expand employer commitments around hiring and pathway development and integration with WFD partners, grow career opportunities, and provide worker-friendly policies to remove barriers to employment and create worker-friendly workplaces.
- Workforce Development and Training will seamlessly integrate all workforce training for community members, so they get the shared services needed to assimilate with Anchor Collaborative hiring structures.
- Data tracking and management system that shares information among partners including shared metrics, indicators, outputs, and outcomes and assimilates with state/federal data and local systems.⁹

Addressing Gaps in Services

In 2024, PVPC was awarded funding to address the need for quantum and quantum adjacent workforce training among residents in the Springfield area by the Innovation Institute at MassTech Collaborative. The MassTech Collaborative is a public agency that supports business formation and growth in the state's technology sector. Its Innovation Institute is charged with doing so in the Quantum Computing sector.

⁹ MassHire Hampden County Workforce Board. Springfield-Holyoke Recompete Narrative https://www.eda.gov/sites/default/files/2023-12/MassHire_Hampden_County_Workforce_Development_Board_Inc_Recompete.pdf (accessed May 29, 2024).

The Pioneer Valley Quantum Training Academy (Training Academy) developed by PVPC to prepare for this emerging sector addresses two gaps in regional workforce development programming, skills gaps and learned helplessness.

In Springfield, only 32% of high school graduates enroll in college or university. This is indicative of a lack of college readiness or even interest. The result is a skills gap that hinders the expansion of emerging sectors. The Training Academy program model includes skillset enhancement curriculum developed by community college faculty based on entry level job descriptions at quantum and quantum adjacent employers. This reverse engineering of the job descriptions provides job seekers with job-specific, skillset remediation necessary for successful early college participation, college enrollment, or direct-to-industry job placement.

The Training Academy model utilizes positive psychology to address the persistence of learned helplessness experienced by individuals living in generational poverty. Learned Helplessness is a state that occurs after a person has experienced a stressful situation repeatedly. They believe that they are unable to control or change the situation, so they do not try, even when opportunities for change are available. Positive psychology focuses on fostering positive emotions, strengths, and virtues to improve overall well-being and quality of life. By integrating positive psychology into workforce development, individuals can learn to cultivate resilience, optimism, and a sense of purpose, which are crucial for overcoming challenges associated with poverty. A series of training modules designed to introduce the effects of generational poverty on one's decision-making process will be provided to all program participants. The corresponding activities will outline a new vocabulary and the application of those concepts to everyday life. Those concepts include growth mindset, proactivity, optimism, and social emotional intelligence.

The Pioneer Valley Quantum Training Academy is a 12-week program designed to address the skills gap (80 hours of instruction) and learned helplessness (24 hours of instruction) among students living in poverty in Springfield by integrating these services into existing workforce development programs. By doing so, we hypothesize that at-risk youth and young adults will experience an increase in their chances of success in obtaining living wages within the quantum sector. We anticipate that these integrated interventions will not only enhance academic proficiency but also foster resilient mindsets and positive attitudes, thereby equipping participants with the skills and psychological resources necessary to navigate challenges and thrive in the quantum industry. PVPC will work collaboratively with employers, local community colleges, and workforce development partners to prepare program participants for either early college participation, college enrollment, or direct-to-industry job placement.

EQUITY IN WORKFORCE DEVELOPMENT

The PV Quantum Training Academy proposed by PVPC and the Workforce Training System proposed by the MassHire Hampden County Workforce Board are examples of local initiatives adopting a human-centered approach. This is a shift from the employer-centered stance embraced by the region for generations. Workforce development is a critical element in ensuring that individuals and communities thrive in a rapidly changing economic landscape. Adopting a human-centered approach in workforce development focuses on designing and implementing programs that meet the actual needs and aspirations of people, rather than imposing top-down solutions. This approach emphasizes empathy, inclusivity, and adaptability, making the development efforts more effective and sustainable. Embracing this approach can transform workforce development from a series of programs into a dynamic and responsive ecosystem that supports lifelong learning and growth.

CREATING AN EQUITABLE ECONOMY

The creation of a resilient, inclusive and equitable economy in the Pioneer Valley is a significant multi-year undertaking that will require aligning the efforts of numerous regional agencies and organizations whose work is directed at benefitting underserved and marginalized communities, in particular BIPOC communities. The PVPC will help facilitate the ongoing alignment of community efforts and investments to benefit these communities, especially with respect to expanding the number and growth of BIPOC-owned small businesses, and increasing workforce participation rates through targeted training programs.

These efforts are meant to address and overcome the Pioneer Valley's long history of economic exclusion directed at communities of color. Underserved communities, including the region's growing Hispanic/Latino population, have historically had unequal access to wealth-building opportunities, including good-paying jobs or the resources that facilitate homeownership and successful small business creation. The impacts of that exclusion became even more obvious during and after the economic crisis created by COVID-19. A significant percentage of BIPOC residents struggled to recover economically from the pandemic. Unemployment insurance claims data from that period showed that women and BIPOC workers had shouldered a disproportionate share of the unemployment burden.

Community Engagement

In 2022, PVPC partnered with the Healing Racism Institute of Pioneer Valley to conduct twenty personal, one-on-one interviews with leading members of the BIPOC and other underserved communities ("Community Connectors"). Through these interviews, we solicited and obtained the Connectors' direct feedback on how to develop an inclusive and equitable economy in our region, including specific strategies for wealth-building. These conversations included a frank discussion of the structural changes which need to be made in order to break down barriers and overcome existing inequities.

These are the primary challenges the Community Connectors identified:

- Barriers to access to capital.
- A lack of information about available resources.
- Disproportionate unemployment.
- Skills, education and training gaps.
- Barriers to creating and growing small businesses.
- Barriers to homeownership/wealth building.
- Unequal access to transportation.
- Affordable and market rate housing challenges
- Child care needs and challenges

These are the recommendations the Community Connectors proposed to address the challenges:

To Support Workforce Development

- Use a **skillset development outlook and a corresponding assessment** as part of job training.
- Design and scale **short-term, employer-specific programming** for skillsets that lead to immediate employment or higher-wage opportunities.
- Establish **apprenticeship programs** in industries with high-earning potential.
- Develop **pathways into unions**.
- Undertake intentional **recruitment and succession planning** at the executive level.

To Increase BIPOC Homeownership

- Provide **financial literacy** education in high school or sooner.
- Implement **housing initiatives** that create equity or income for first-time homeowners; **advocate for funding and policy** at the State and local level that make these attractive opportunities for developers.
- Work with banks and lenders so that **rental history** is part of the criteria for first-time homeowners.

To Increase BIPOC Micro and Small Business Development

- Develop micro-business specific initiatives and funding opportunities.
- **Advocate** for specific policy changes that provide BIPOC micro and small businesses entry into the market.
- Provide **technical assistance** so that BIPOC micro and small businesses can successfully compete for municipal RFPs for contracts.
- **Enforce legislation** regarding participation of minority/woman/veteran-owned businesses at the State and local level.
- Provide more **comprehensive dissemination of information** regarding funding and other opportunities.
- Assist with building **social capital** through networking opportunities.
- Create opportunities to engage investors or other avenues for **capital**.

The Community Connectors also urged the region to explore the feasibility and benefit of creating an ongoing consortium to ensure a mechanism for cross-sector communication and coordination. Such a forum will be helpful in developing and maintaining mutually beneficial relationships where economic growth is at the center of the effort.

Regional Benefits of an Equitable Economy

It is important to recognize that in the Pioneer Valley, the BIPOC and Hispanic/Latino poverty rates range between 24% and 46% in the larger cities of Springfield, Holyoke, and Chicopee. (For more information on poverty, please see Attachment A). These rates are disproportionately higher than the rest of the region and disproportionately higher than the rates for Whites. Furthermore, people of color are the majority of residents in Springfield, which notably is in the top 33% of the most racially segregated cities across the United States. Creating a more equitable and resilient economy will help to reduce the poverty rates for these populations and will improve economic conditions in the larger cities.

Equity-Focused Efforts Underway

In order to rebuild a more resilient and sustainable regional economy there needs to be a collaborative, targeted effort which will provide specific assistance to address systemic inequities affecting the BIPOC communities. We need to bring agencies together to cooperate, move forward, and overcome fragmentation. Based on the leaders' input, it is essential that we formally establish a permanent mechanism for access to information and to facilitate robust regional communication. This can only be done by breaking down silos in both the public and private sectors and by encouraging existing programs and organizations to communicate and cooperate with one another.

PVPC

PVPC is currently implementing five equity-focused initiatives that address the needs of the underserved business community, the need for short-term, specific workforce training, and the need for increased access to capital for micro and small businesses, especially access for BIPOC and marginalized communities. The initiatives were formulated based on the input from the PVPC's research into existing equity-focused programs developed by other organizations, most notably Global Detroit, and in coordination with other regional organizations so as not to duplicate efforts. The five initiatives are being funded by grants from new resources.

1. **Gap Analysis:** PVPC is conducting a gap analysis and evaluation of the small business landscape to assess the impact of the new MGM hotel/casino in Springfield on the region's BIPOC and underserved business community, including small businesses. This work is being funded through a \$485,600 grant from the Massachusetts Gaming Commission Community Mitigation Fund program.
2. **Disaggregated Data:** With a second grant of \$98,400 from the Massachusetts Gaming Commission Community Mitigation Fund, PVPC is digging deeper into the data to gain a clearer understanding of the current status of BIPOC- and women-owned small businesses in the region, and to identify the unique systemic barriers that they face.

3. **Equity Fund:** PVPC has as part of the initial mitigation grant of \$485,600 earmarked approximately over \$325,000 in funding to create a new Equity Fund for the Pioneer Valley. Using the technical assistance provided by Ascendant Global through a grant from the New Growth Innovation Network and the EDA, the Fund will provide BIPOC and minority-owned small businesses with access to capital, overcoming a barrier identified by the Community Connectors, and shifting the paradigm from “lending” to investing.” The work is being supported by the Federal Reserve Bank of Boston which awarded PVPC a grant of \$75,000 dollars to pursue these efforts..
4. **Quantum Workforce Development Program:** PVPC is partnering with the Massachusetts Innovation Institute, part of the Massachusetts Technology Collaborative, to create the Pioneer Valley Quantum Training Academy, a new high-tech training academy for people from low-income households (described in the previous section on **Workforce Development**). The goal is to train workers for future high-tech jobs which will be ushered in by the growing number of companies which use clean, quantum, and quantum adjacent technologies. The Academy is supported by a two-year grant of \$500,000 from the Innovation Institute.
5. **Emerald Cities Decarbonization Program:** Funded by a grant from the Massachusetts Clean Energy Center, the decarbonization program trains local trades people on the installation and activation of decarbonization technologies, including window retrofits, insulation, solar energy, etc. The program has a training academy component and a data base creation component.

There are many regional community-based groups which touch specific aspects of this work. Organizations that are working on separate but interrelated programs that advance equity include:

Black Economic Council of Massachusetts (BECMA)

Among other efforts, BECMA is involved with the Browning the Green Space (BGS) initiative which was born from the realization that people of color often receive more than their fair share of “environmental bads” like brownfields, pollution, and asthma while they receive less than their fair share of “environmental goods” like cleantech jobs in energy efficiency, renewable energy, water, wasted food, and urban farming. The BGS Initiative operates at the intersection of environmental justice, economic justice, and social justice. Browning the Green Space is a coalition of leaders and organizations, primarily in the New England region, that share the passion to advance diversity, equity, and inclusion in clean energy. The goal is to increase BIPOC participation and leadership in the clean energy space and beyond (e.g., wasted food, water, agricultural technology) in the Northeast.

Coalition for an Equitable Economy (CEE)

Created in response to the COVID-19 pandemic, the mission of the Coalition for an Equitable Economy is to, “cultivate a highly collaborative, inventive and effective small business ecosystem that assures equitable access to capital, business networks, education, technical support, and other resources to start, stabilize and grow Black, Hispanic/Latino, Indigenous, and other underserved small businesses in Massachusetts.” The organization is headed up by Tracye Whitfield, who is a member of the Pioneer Valley CEDS Strategy Committee and serves as Councilor-at-Large for the City of Springfield. The Coalition has been working with several multiple small businesses in the region to support investment and growth in BIPOC communities.

Latino Economic Development Corporation (LEDC)

The Latino Economic Development Corporation has created a one-stop location in Springfield where small businesses from the BIPOC community can get assistance with loan applications, completing and filing tax forms, creating business plans and obtaining technical support on how to run a business.

Mass Development

Mass Development is working on the implementation of an SSCBI (State Small Business Credit Investment) program. SSCBI is a \$10 billion federally-funded program through the U.S. Department of the Treasury that provides capital and technical assistance to small businesses and entrepreneurs in underserved communities.



FINDINGS

PVPC reviewed numerous plans, reports, and data sets, and received a wide range of qualitative inputs that have been used to formulate a CEDS that truly addresses both the Pioneer Valley's needs and opportunities. This process entailed research, analysis, reflection, and a willingness to face some uncomfortable truths. The findings from this process were synthesized and used to inform the priority areas in the new CEDS that are presented in the following section, Strategic Direction.

Some of the issues that our process identified are not unique to the Pioneer Valley and are beyond the scope of economic development planning alone. The availability and affordability of appropriate housing, for example, is a national challenge impacting communities in every quadrant of the country. The same is true for increases in the rates of crime and violence. Virtually all large and mid-sized cities are grappling with solutions to homelessness, and virtually all local and state governments are aware of needed but costly infrastructure improvements. The Pioneer Valley CEDS acknowledges these challenges in our region and assists in the multi-year efforts to address them through proactive and ongoing planning and collaboration.

The first part of our analysis encompassed a review of regional, state, and national data, and incorporated relevant studies and reports:

1. On the regional and state level, we analyzed and integrated the results of more than two dozen reports that studied the region's infrastructure, housing, transportation, workforce, education, broadband, energy, public health, and climate resiliency.
2. Nationally, we used data from the American Community Survey, the Census Bureau, Argon National Labs, ESRI, and the Climate and Economic Justice Screening Tool.
3. We conducted original data analyses of the Pioneer Valley's demographic and socio-economic trends, and incorporated the results of internal research that was conducted through the CARES Act in the immediate post-COVID period. This information is presented in Attachments A and D.
4. We included economic analyses conducted by allied agencies, such as the Healey-Driscoll Administration's Economic Development Plan, the Western Massachusetts Economic Development Council, and the CEDS from neighboring regions, in particular Berkshire County, Franklin County, and the Capital Region Council of Governments in Hartford, Connecticut. The full list of reports and studies that we integrated are listed in Attachment E.

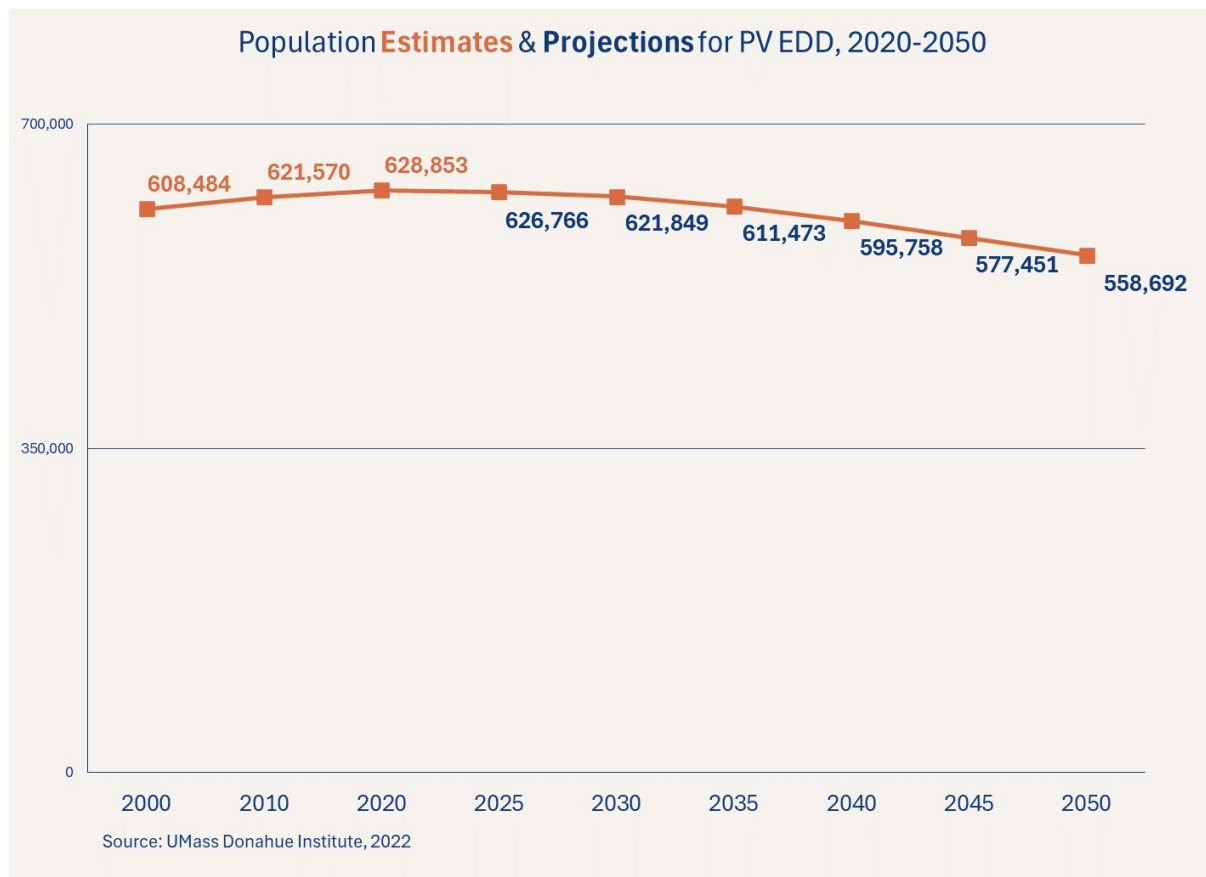
WHAT THE DATA SHOWED US

The previous section discussed some of the region's current economic trends. Putting these trends into larger contexts and looking at their long-term implications, we can see how five key aspects of the Pioneer Valley's economy are faring in comparison to the Commonwealth and the nation:

1. Population
2. Immigration
3. Income inequality
4. Disadvantaged communities
5. Small business ecosystem

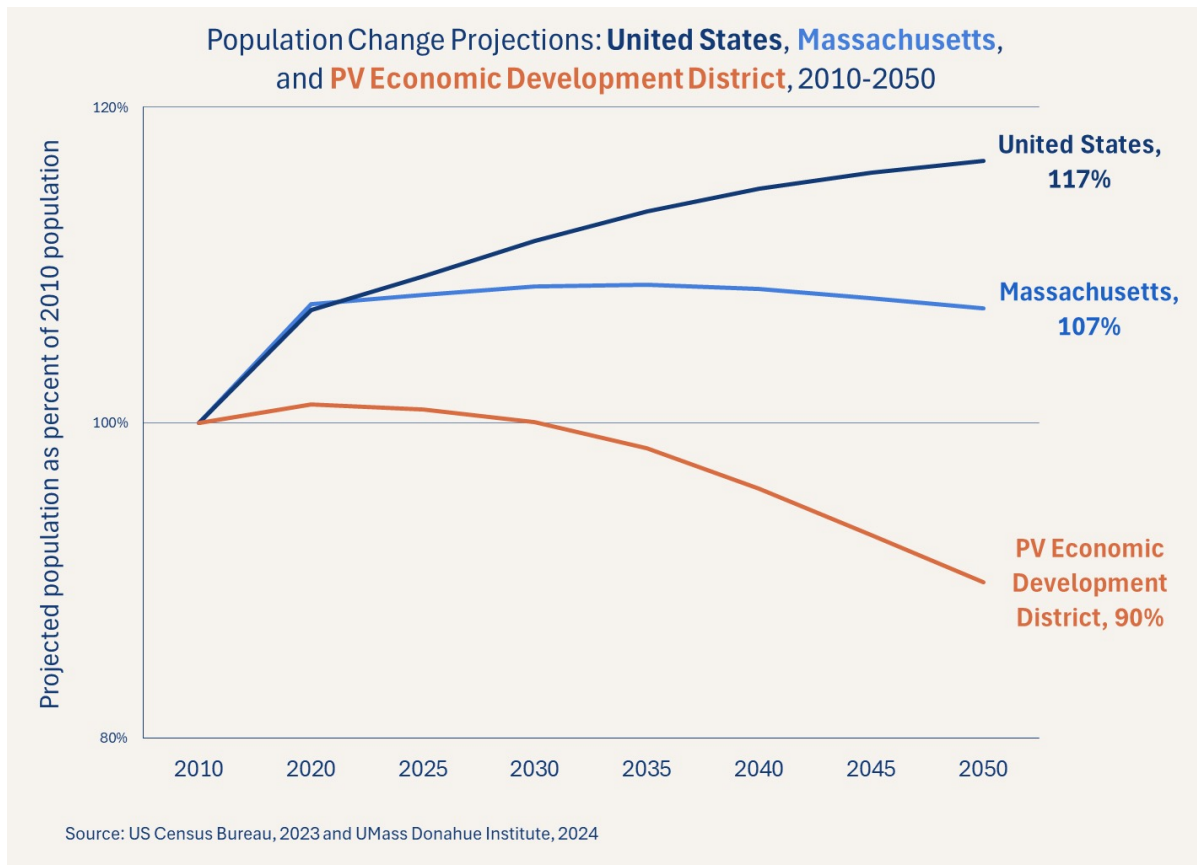
1. The Pioneer Valley's overall population is projected to decline.

The previous section provided data showing that the region's population has been flat for more than ten years. Projections for the next 25 years show that the population will start declining by 2025 and by 2050 will be approximately 10% less than current levels.



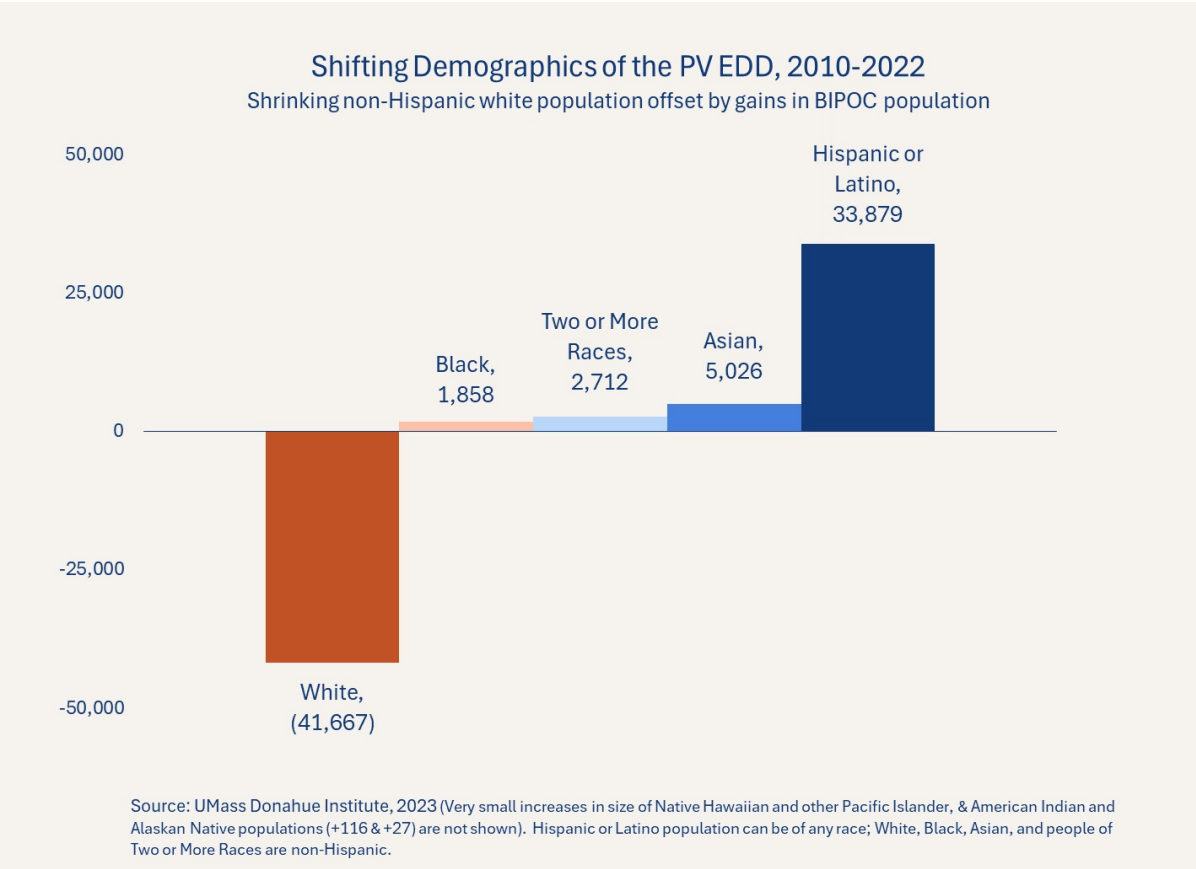
The Pioneer Valley's population decline is more extreme than what is projected for Massachusetts and is distinct from the rest of the United States, which is projected to increase its population by 17% during the same period.

For our region, less population will have serious economic implications. A shrinking population will lead to shrinking local revenues, affecting local governments, the labor force, and the educational system. Fewer people will also lead to reduced funding levels from the state and federal government and may impact industrial interest from potential employers.

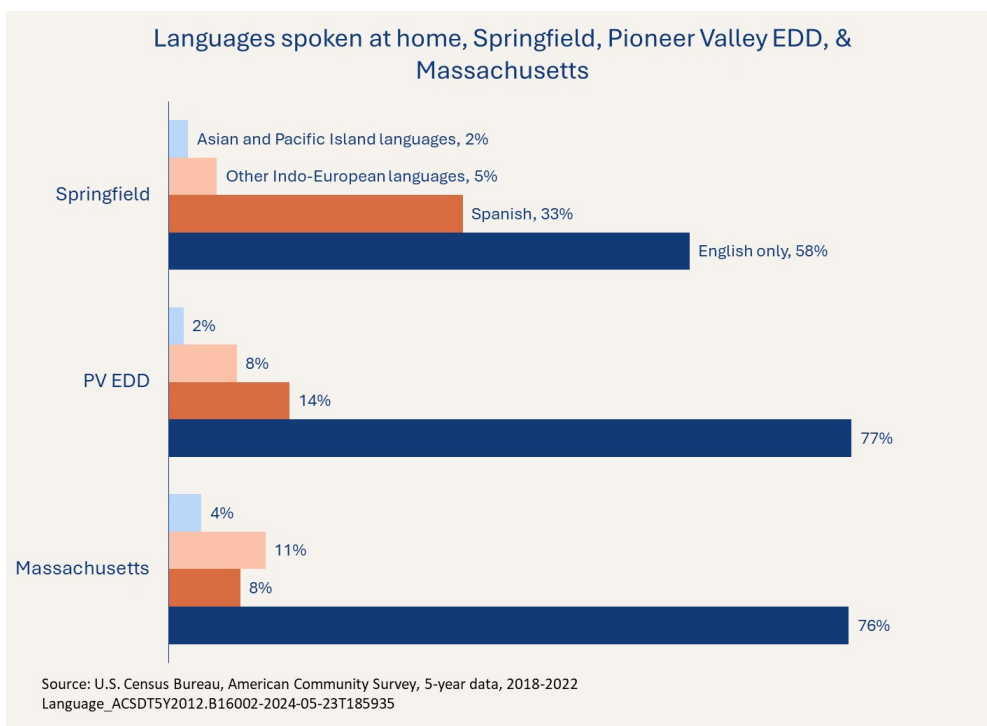


2. BIPOC and immigrant communities are the source of the Pioneer Valley’s population growth since 2010.

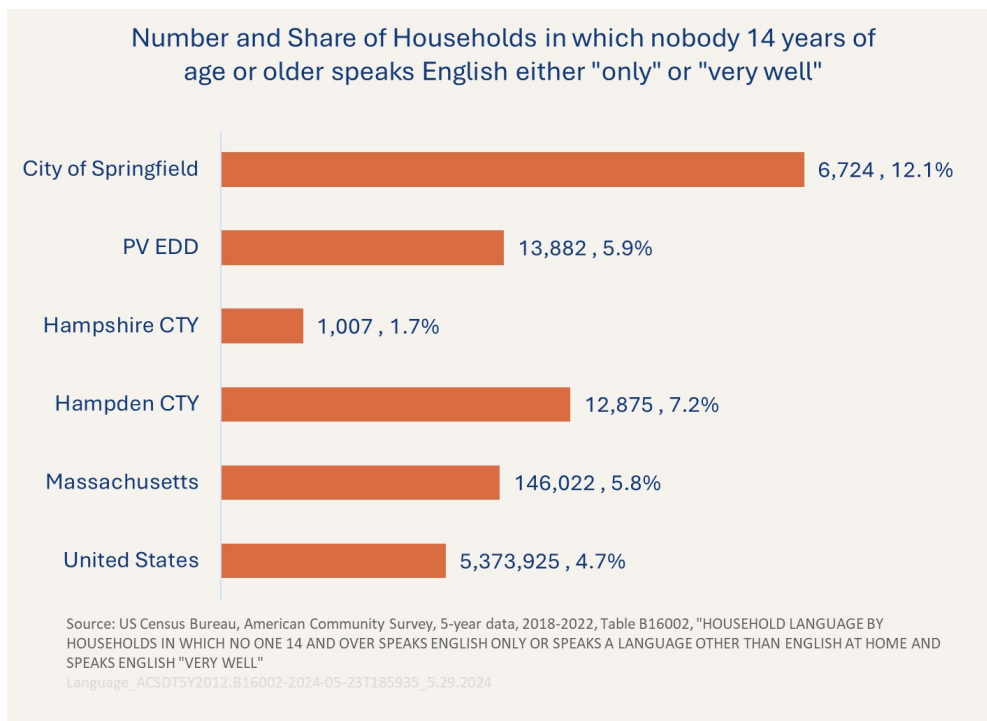
The chart below shows that all the population growth in the region has been from BIPOC and immigrant communities. The White population during the same period declined by nearly 15,000 people. The region is home to a large and growing Puerto Rican community. In fact, Hampden County is ranked 3rd/4th of all 3,143 U.S. counties for persons with Puerto Rican heritage. In Hampden County, 16% of the population is foreign-born and in Hampshire County, 11%. The fastest-growing immigrant segment is the Hispanic/Latino community, primarily from the Dominican Republic, El Salvador, Mexico, and Guatemala, followed by the Asian community, primarily from China and Vietnam. Other immigrant groups arriving include East African and Eastern Europeans.



In the City of Springfield, 39.7% of the population speak a language other than English in their homes. In correlation with the figures above showing a high Hispanic/Latino population, Spanish is the most commonly spoken language – more than double the percentage spoken in the full Pioneer Valley Economic Development District and three times the percentage in the Commonwealth as a whole.

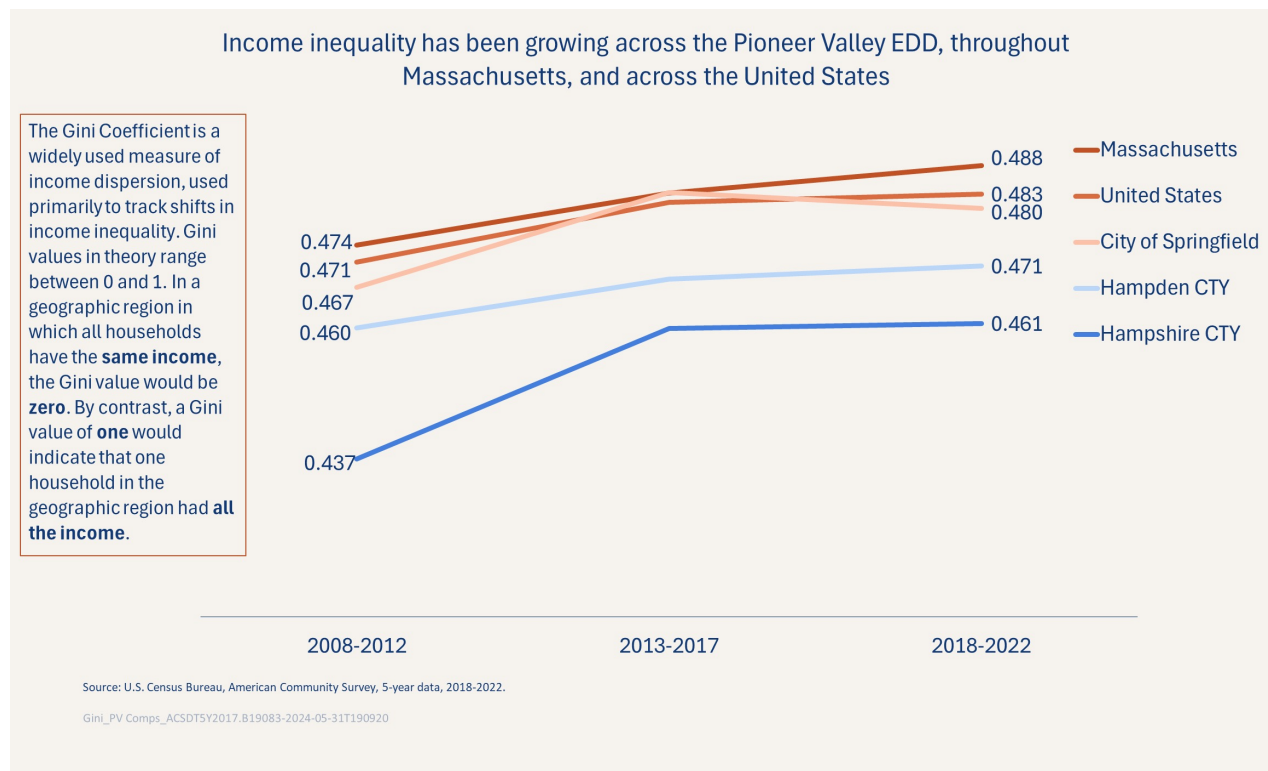


In many cases Spanish is the only language spoken; lack of English language fluency affects 12% of the population in Springfield. This percentage is higher than both the Commonwealth and the nation. The high percentage of persons who are not fluent in English is affecting outcomes in K-12 education, workforce development, and labor force participation.

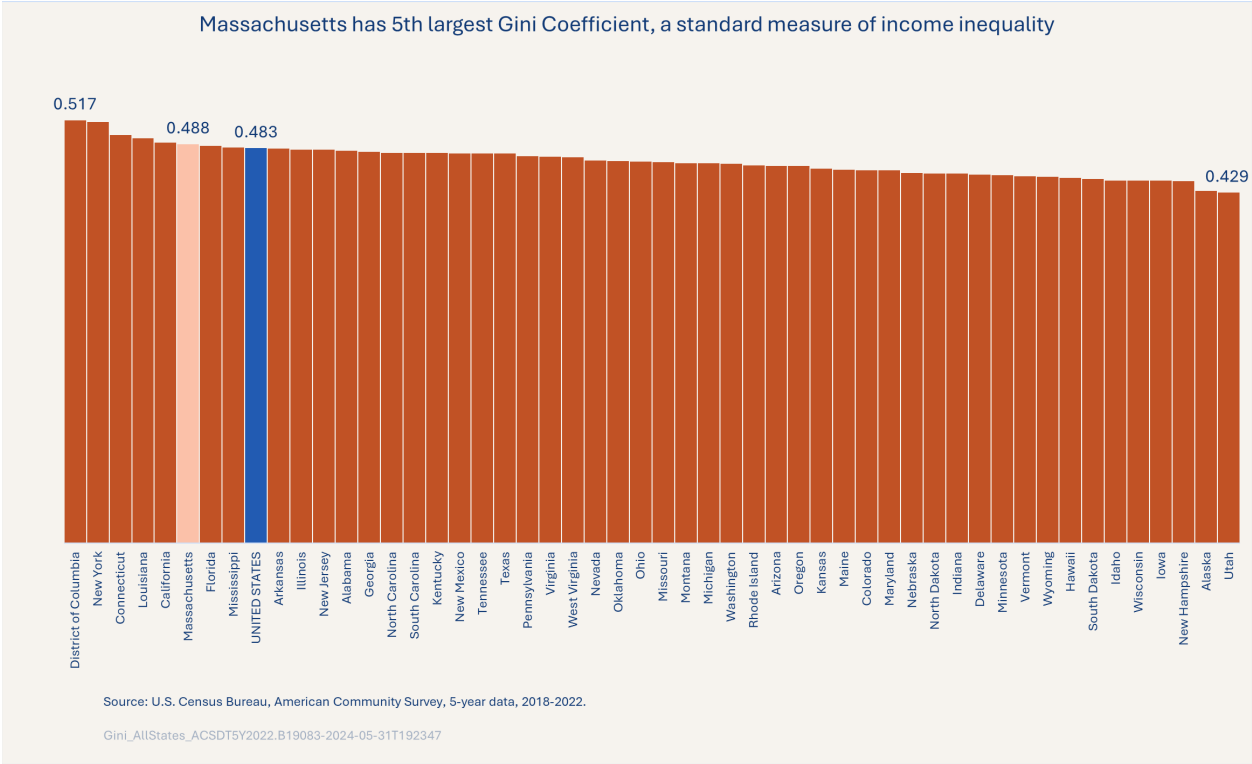


3. The Pioneer Valley has significant levels of income inequality.

The Gini Coefficient measures income inequality. Income inequality refers to how unevenly income is distributed throughout a population; the less equal the distribution, the greater the income inequality. As the chart below shows, income inequality is increasing statewide and nationally. In the Pioneer Valley, income inequality in Hampshire County, which has generally been an area of higher incomes, has risen sharply since 2008. Of the indicators shown below, income inequality is worst in Massachusetts as a whole, closely followed by the United States and the City of Springfield.

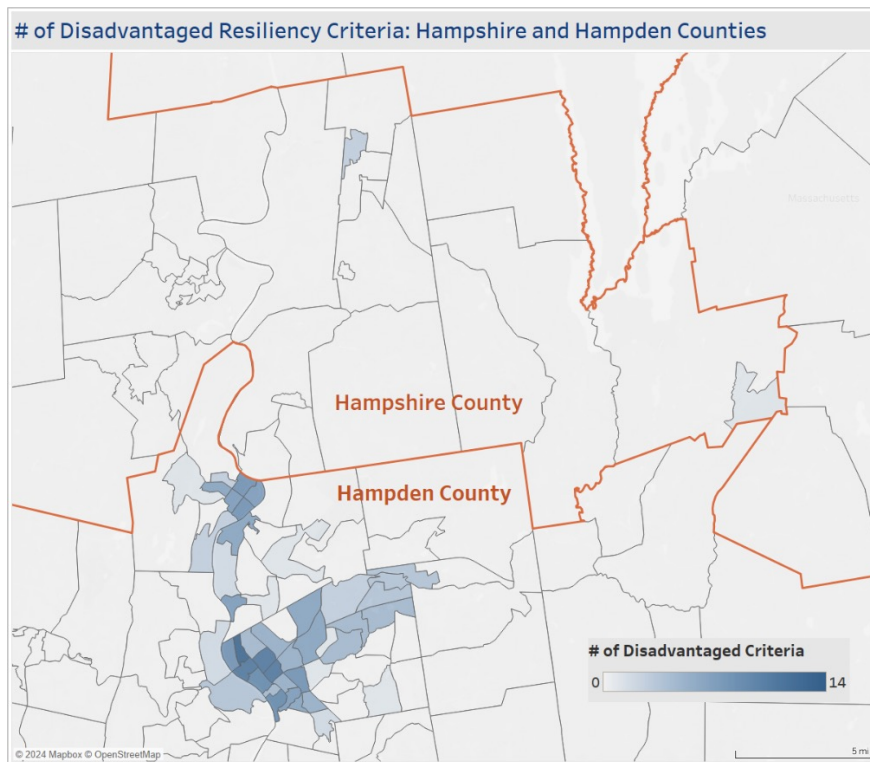


In the state-by-state chart below, Massachusetts’s Gini Coefficient is the fifth highest in the United States. Thus, Springfield, which at 0.48 is just below Massachusetts’s income level (see chart above), would also have one of the highest Gini Coefficients in the country.

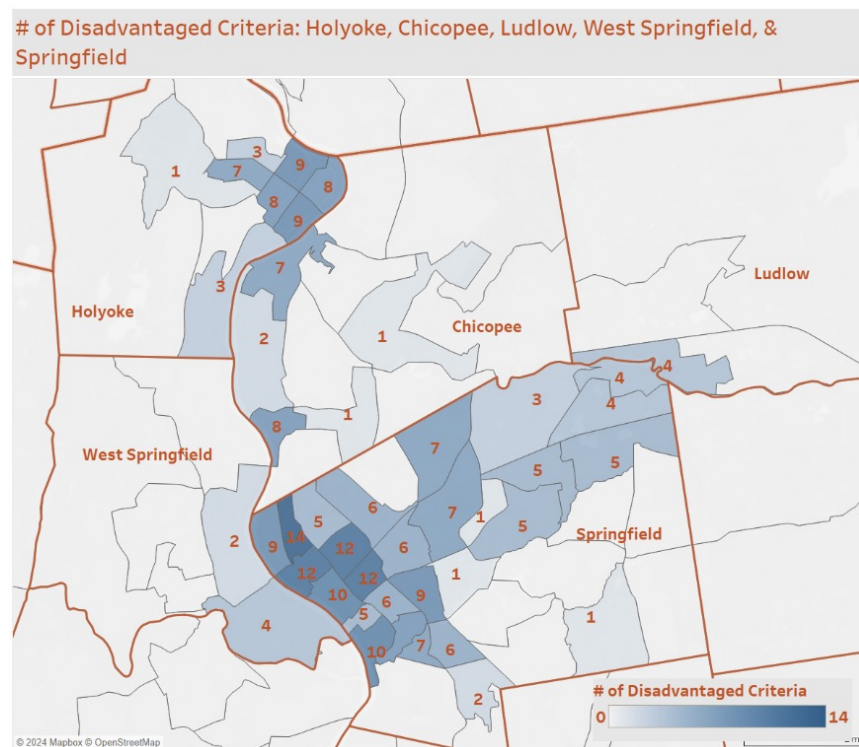


4. More than 40% of the tracts in Hampden County, home to approximately 2/3 the Pioneer Valley’s population, are economically disadvantaged compared to the rest of the Commonwealth and the nation.

The **Climate and Economic Justice Screening Tool** is a national database that sheds light on the other factors that affect economic viability. Of the 139 tracts in the Pioneer Valley, 46 meet the tool’s criteria to be determined disadvantaged for eight indicators of burden: climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development. Two of the tracts are in Hampshire County and correlate to areas in the city of Amherst (to the north), a city of approximately 40,000 people, where many students at the University of Massachusetts live, and Ware (to the east), a town of less than 10,000 people.



Within Hampden County, the 44 other disadvantaged tracts in the Pioneer Valley are located in the cities of Springfield, Chicopee, Holyoke, and Ludlow, with the most deeply disadvantaged tract in Springfield's north end. The map below provides more detail about these areas of need.



The most disadvantaged tracts in Springfield and Holyoke are also areas with the region's highest percentages of people of color. In addition, these tracts correlate to areas of persistent poverty from 1989-2019 as identified by the Census Bureau (<https://www.census.gov/newsroom/press-releases/2023/persistent-poverty.html>). Although the Climate and Economic Justice Screening Tool is a recent product, the disparities it reveals in the Pioneer Valley are not new; these disadvantages have been present for decades.

How does this level of disadvantage compare to other parts of the Commonwealth? Hampden County has the second highest percentage of disadvantaged tracts in Massachusetts, while Hampshire County is close to the bottom.

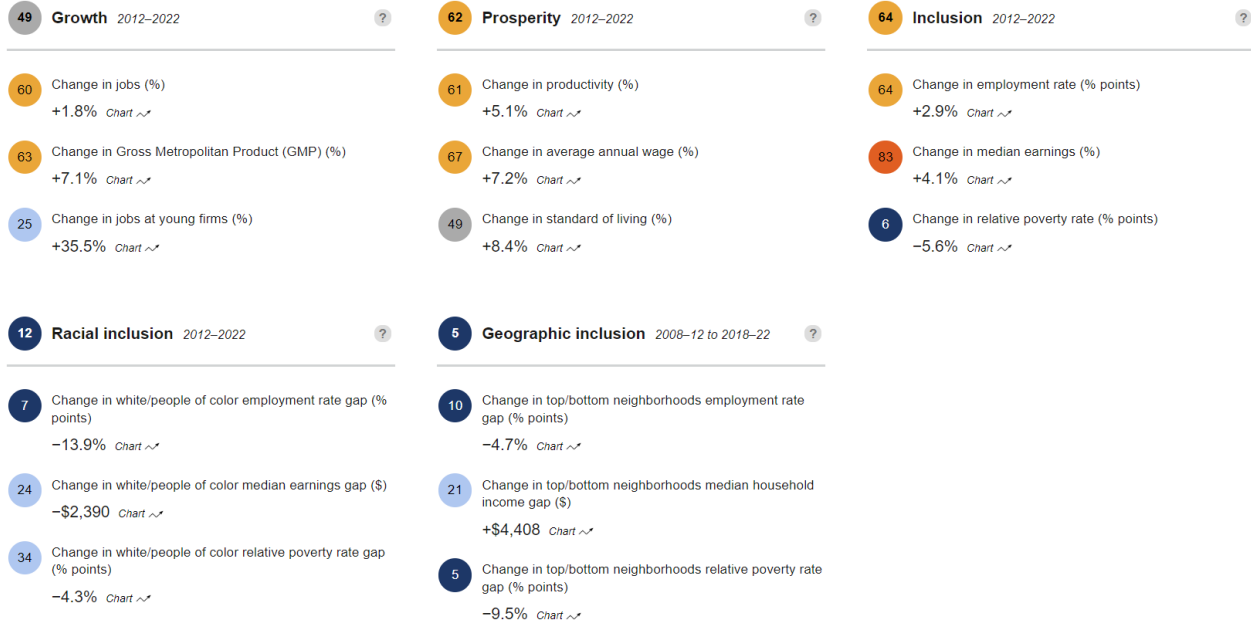
County	Tract Count	Count of disadvantaged tracts	% of tracts that are disadvantaged
Suffolk	204	93	46%
Hampden	103	44	43%
Bristol	126	45	36%
Essex	163	43	26%
Berkshire	39	9	23%
Worcester	172	37	22%
Franklin	18	3	17%
Middlesex	318	38	12%
Plymouth	101	10	10%
Norfolk	130	8	6%
Hampshire	36	2	6%
Barnstable	57	3	5%
Dukes	5	0	0%
Nantucket	6	0	0%

The **Prosperity Index** is another gauge of the region's economic health. The Springfield Metropolitan Statistical Area (MSA) encompasses the three counties of Hampden, Hampshire and Franklin, and is the 88th largest MSA nationally. The chart below, from the Brookings Institute, ranks the region nationally for growth, prosperity, inclusion, racial inclusion, and geographic inclusion. The chart shows that the Springfield MSA's overall prosperity ranks in the second to last quintile of 85 midsize metro areas, with one score – change in median earnings under Inclusion – coming in at 83 out of 85.

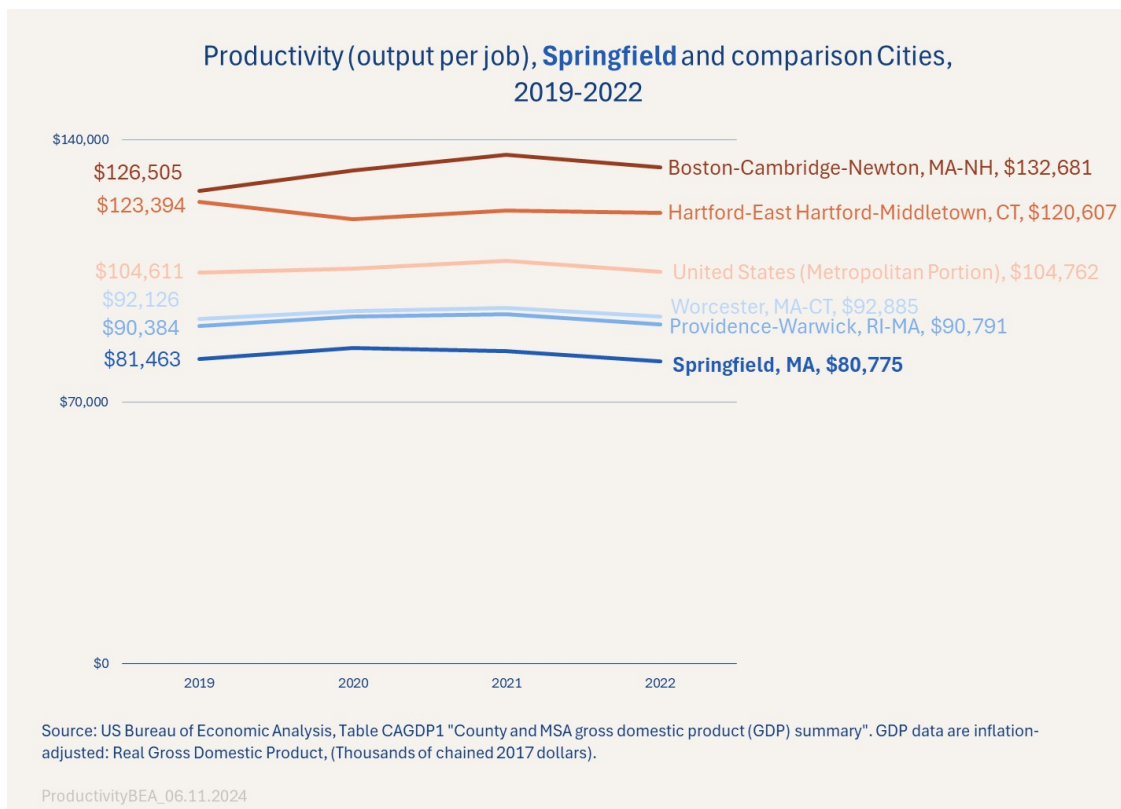
Springfield, MA Metropolitan Statistical Area

Population: 461,041 | One of 85 **mid-sized** metro areas with 250,000–500,000 residents

Ranks* 1–17 18–34 35–51 52–68 69–85



Looking more closely at the productivity of the region's economy, the Pioneer Valley ranks lower than other cities in New England and below U.S. averages.



5. There needs to be a deeper understanding of the Pioneer Valley’s small business ecosystem, including entrepreneurs and BIPOC-owned micro and small businesses, to better support their growth and success. This sector of the regional economy has enormous potential to increase jobs, reduce poverty, and enhance wealth-building in marginalized communities.

The Pioneer Valley does not have current information on the number and type of micro and small businesses in the region, let alone the ownership of those businesses. In 2012, census data show that 14% of the Pioneer Valley’s small businesses were BIPOC-owned, which was lower than Massachusetts and United States averages at that time. In 2017, census data for all employer firms, small and large, show that a regional average of 11.8% were BIPOC-owned. It is not known how many of the employer firms were small businesses or how many of the small businesses were BIPOC-owned. It is also not known how many of these businesses survived the pandemic.

	Total Population	% BIPOC Population	Total All Employer Firms	Total BIPOC-Owned Employer Firms	% BIPOC-Owned Employer Firms
Springfield	153,672	53.9	2,094	339	16.2
Chicopee	54,838	23.5	687	66	9.6
Holyoke	37,628	32.5	652	63	9.7
Massachusetts	7,001,399	20.6	138,829	15,015	10.8
United States	334,914,895	24.5	5,744,643	1,014,958	17.7

Source: U.S. Census Bureau, 2017

We know from other sources that BIPOC-owned small businesses were disproportionately impacted by the pandemic. A national study in June 2020 found that while the overall decline in small businesses during the height of COVID-19 was 22%, Black-owned businesses dropped by 41%, Hispanic/Latino-owned businesses dropped by 32%, Asian-owned businesses dropped by 26%, and immigrant-owned businesses dropped by 36%.¹ In the first months of the pandemic, Black-owned businesses declined at approximately three times the rate of other demographic groups.² It is likely that similar impacts were experienced by BIPOC-owned small businesses in the Pioneer Valley.

The Coalition for an Equitable Economy, a Massachusetts-based initiative started in the immediate post-COVID period, is focused on growing the BIPOC-owned small business ecosystem and has identified needed resources. Given that small businesses account for most of the job creation in the United States, bolstering this part of the regional economy could be effective in reducing the unemployment rate, increasing workforce participation, and enabling BIPOC households to amass wealth. PVPC is currently undertaking an assessment and gap analysis of the current, post-COVID-19 small business landscape to inform the region’s understanding of this sector, especially with respect to BIPOC-owned small businesses. Additionally, the U.S. Census Bureau is scheduled to release updated 2022 data on this issue at the end of 2024.

¹ Robert Fairlie, “The Impact of COVID-19 on Small Business Owners: Evidence of Early-Stage Losses from the April 2020 Current Population Survey,” National Bureau of Economic Research (June 2020) found at https://www.nber.org/system/files/working_papers/w27309/w27309.pdf

² Daniel Wilmoth “Black Business Owners Hit Hard by Pandemic,” U.S. Small Business Administration Office of Advocacy, (August 2020) <https://cameonetwork.org/wp-content/uploads/2020/11/Black-Business-Owners-Hit-Hard-By-Pandemic.pdf>

WHAT WE LEARNED FROM OTHER PLANS AND REPORTS

PVPC analyzed and incorporated the research, findings, and recommendations of more than two dozen reports and plans from the Pioneer Valley region and the Commonwealth to inform the new Pioneer Valley CEDS (Attachment E). Some of these included:

1. Team Massachusetts: Leading Future Generations by the Healey-Driscoll Administration, 2023

The Pioneer Valley CEDS priorities align with the Administration's priorities of increased housing production, improved public transportation, investments in infrastructure, the attraction and retention of talent, and growing the advanced manufacturing and technology sectors.

2. 2023 Massachusetts Clean Energy Industry Report by the Massachusetts Clean Energy Center

PVPC analyzed how the Massachusetts CEC's focal areas supporting early-stage clean technologies, decarbonization, offshore wind, and workforce training could be integrated into the region's economic development plans, in particular the CEC's interest in creating new clean industrial centers using repurposed facilities.

3. Pioneer Valley Labor Market Blueprint 2024-2025 by the Hampden County Workforce Board and Franklin/Hampshire County Workforce Board

PVPC relied on the Boards' "Blueprint" report for the most recent and accurate assessments regarding regional labor force participation rates, particularly participation rates by race and ethnicity. This information factored heavily into the formulation of several CEDS objectives.

4. Public Infrastructure in Western Massachusetts: A Critical Need for Regional Investment and Revitalization by the Massachusetts State Auditor, 2021

The findings of this report echoed many of the inputs PVPC received during the S-W-O-T phase of the Pioneer Valley CEDS. There is an urgent need for investment in the region's transportation systems, including roads, bridges, and culverts; broadband; and municipal facilities, including public safety facilities. Infrastructure needs affect all the Pioneer Valley's communities alike, urban, rural, large, and small. Both the CEDS focus groups and the CEDS Strategy Committee prioritized infrastructure as a key economic development issue.

5. Unleashing the Potential of Entrepreneurs of Color in Massachusetts: A Blueprint for Economic Growth and Equitable Recovery and **The Color of Capital** by, respectively, MassInc and the Boston Indicators, in partnership with the Coalition for an Equitable Economy, 2021

In light of the Pioneer Valley's income inequalities and small business ecosystem, especially with respect to communities of color, PVPC integrated the recommendations of these two reports that support the creation of a more equitable economy.

6. CARES Act Reports: BIPOC Community Connectors and Moving beyond the Pandemic: Economic Development Assessment of Small Towns and Rural Communities by the PVPC

The results of the reports that PVPC commissioned shortly after the pandemic were integrated into the Pioneer Valley CEDS strategies regarding equity and inclusion, and tactics to improve the economies of small and rural communities.

7. Accelerating Inclusive Growth in the Pioneer Valley: A Prospectus for Transformative Economic Investment by the Western Massachusetts Economic Development Council, 2024

The recommendations on opportunities for growth and job creation that could be achieved through targeted investments into the region were incorporated into the Pioneer Valley CEDS goals and objectives.

8. Redlines, Black Neighborhoods by PVPC, 2024

PVPC used the historical context for Springfield's communities of color to have a deeper understanding of the impacts of decades of disinvestment, and to frame some of the Pioneer Valley CEDS strategies to improve equitable access to wealth-building opportunities.

WHAT WE HEARD FROM THE STAKEHOLDERS

Qualitatively, we cast a wide net. Many of our regional stakeholders had contributed to previous CEDS or other economic development plans, but we wanted our 2024-2029 inputs to include the voices from new people to bring other levels of professional insight or lived experiences. Attachment C lists all the individuals who participated in our stakeholder engagement.

Focus Groups

PVPC convened six focus groups on topics with a nexus to the regional economy, including housing; workforce development; education; small and rural towns; local funders; and future directions. The groups were eclectic and spanned different organizational levels. For example, our education group had local administrators in K-12 as well as a Provost from the University of Massachusetts.

Interviews

PVPC conducted 30 one-on-one interviews with the Presidents and CEOs of the region's major employers, state and local government elected and appointed officials, philanthropic leaders representatives from leading BIPOC businesses and organizations, key service providers, and experts with specialized knowledge on new technologies.

Community Surveys

PVPC surveyed the communities within the region to gauge their perspective on their economic assets, challenges, and future opportunities, especially as they are losing access to one-time federal resources that became available during and immediately after the COVID-19 pandemic.

CEDS Strategy Committee

PVPC assembled a diverse CEDS Strategy Committee with members who had deep subject-matter knowledge on equity, workforce development and employment, higher education, healthcare, industrial strengths, and regional funding resources. Fifty percent of the members were women, and forty percent were Hispanic/Latino and Black. All the members had experience working collaboratively throughout the service region.

The four types of stakeholder engagement resulted in the following assessment of the Pioneer Valley's Strengths, Weaknesses, Opportunities, and Threats (SWOT). The majority of the stakeholders pointed out that today's weaknesses, if not adequately addressed, had the potential to blossom into tomorrow's threats. The findings provided below represent consensus from at least five points of input.

SWOT ANALYSIS

Strengths

- Location in the Knowledge Corridor, the region's higher education ecosystem is a major asset: 13 highly ranked institutions, including U Mass and world-class R&D.
- Proximity to large metropolitan areas, including Albany, New York; Hartford, Connecticut; and Boston, Massachusetts.
- Excellent macro-transportation infrastructure, e.g. airport access, interstate highways, rail.
- Established industrial strengths in healthcare/social assistance, education, and manufacturing.
- "Coalition-of-the-willing" mindset. Multiple sectors are forging successful and effective cross-sector collaborations and partnerships, including education, social services, workforce development, and economic development.
- Relatively lower costs of living and doing business.
- Availability of developable land.
- Availability of buildings that can be re-purposed with existing infrastructure.
- Assets for increased tourism.
- Quality of life.
- Diversity and pluralism.
- Regional planning in hazard mitigation, sustainability, and climate resiliency has been effective and has positioned the region to withstand the impacts of natural disasters and climate change.

Weaknesses

- Structural racism
- Labor force is not keeping pace with industrial demand, especially in healthcare and education.
 - ✓ Fastest growing jobs in the region are low wage.
- Small and medium-sized (SME) business development issues
 - ✓ Post-COVID decline in number of small businesses.
 - ✓ Lack of an effective mechanism to include SMEs in conversations about regional issues that affect them, e.g., access to lending, difficulties in hiring.
 - ✓ The small business model for retail is being impacted by the larger trend toward online sales. Affects viability of "main street" small business model in downtown revitalization.
- Housing is mismatched to area needs.
- Infrastructure, in particular water and sewer systems.
- Limited or declining funding in key sectors, especially education.
- Limited English proficiency is impacting K-12 education and workforce development.
- Lack of local transit/transportation, especially in rural areas.
- Lack of investment by the Commonwealth— state has focused its energies and investments on Eastern Mass and Boston area.
- Lack of visionary/strategic leadership to advocate for the region.
 - ✓ Need for a single, strong, regional voice to overcome fragmentation across multiple entities.
 - ✓ Need for a realistic, coordinated, "backbone," economic development plan for region.
 - ✓ Need for a high-level "convener" to facilitate ongoing cross-sector communication and coordination to execute the plan.
 - ✓ Established relationships and organizations exclude "new blood;" not open to new members.
- Different levels of need among communities and different types of governance throughout the region require the development of different strategies that are tailored more specifically. Will call for different tools and potentially proportional investments.

Opportunities

Across the Region

- Time to create a sharper toolset – a tailored set of new strategies because previous strategies have not succeeded.
- Pursue high-growth and new opportunities.
 - ✓ Opportunities for growth and investment in technology, including quantum and quantum-adjacent, fintech, AI, biotech, life sciences, cybersecurity, specialized engineering, e.g. aeronautics.
 - ✓ Opportunities for growth and investment cited by EDC, including food science, non-pharmaceutical biomanufacturing and food ecosystem, the clean energy transition, and advanced materials and R&D manufacturing.
 - ✓ Align workforce development with new and/or expanding industrial strengths.
- Identify turnkey opportunities that will facilitate investment.
 - ✓ Develop an array of shovel-ready locations to site new businesses, e.g., food science, clean tech, applied smart materials, quantum.
 - ✓ Become location for branches or “second sites” for major companies.
- Reverse long-standing stagnant population growth.
 - ✓ Lead with our diversity and pluralism: our multi-racial, multi-ethnic, multi-cultural identity differentiates our urban areas from many others in New England. Could attract a younger demographic, especially recent university graduates. Marketing opportunity for tourism.
- Establish stronger connections between educational institutions and the communities that they are located in or near to leverage opportunities coming out of higher education.
- Support SME business development.
 - ✓ Harness the energy and skills of immigrants in small business development and workforce.
 - ✓ Work with SMEs to identify their needs and explore creative strategies to meet those needs, e.g. pathways to work for justice-involved individuals.
- Develop additional data sources and analysis to better tell the story of poverty and economic development in the region.
 - ✓ Develop a more robust and innovative data management system which disaggregates key data points and is broadly available.
 - ✓ Maximize technical expertise of Holyoke Computing Center
- Grow collaborations.
 - ✓ Continue pursuing Knowledge Corridor relationships.
 - ✓ Collaborate with neighboring Economic Development Districts, in particular Franklin County, Berkshire County, and the Capital Region Council of Governments, on issues that straddle our service regions and require cooperative strategic solutions.
- Reuse underutilized buildings for housing or industrial purposes.
- Improve access to
 - ✓ Childcare.
 - ✓ Transportation, especially in rural areas and within cities.
 - ✓ Broadband.
- Address shortage of available, affordable housing.
 - ✓ Develop alternatives to single-family residences.
 - ✓ Address needed changes to local zoning.
 - ✓ Explore multi-generational housing options.
 - ✓ Explore ADU options.
 - ✓ Under active review by legislature.

In Urban Areas

- Revitalize downtowns, especially Springfield: will better serve existing residents and will attract investment, younger workforce, and residents.
 - ✓ Leverage existing assets, e.g. in Springfield the Basketball Hall of Fame, Volleyball Hall of Fame.

- ✓ Strengthen ties between institutions of higher education and the communities they are in or near to facilitate a successful research and entrepreneurial environment.
- ✓ Create Arts and Culture programs to attract a younger demographic.
- ✓ Provide spaces for young entrepreneurs to work and connect with peers.
- Address poverty differently.
- ✓ Develop a way to measure diversity, planning, and inclusion; consider bringing in new players.

In Smaller and/or Rural Communities

- Pursue travel and tourism opportunities for regional marketing and small-town revitalization, especially heritage, recreational, and/or eco-tourism.
- Expand shared-services model in smaller communities to meet local service needs and improve efficiencies, potentially including partnerships between systems, e.g., school districts and local governments.

Threats

- Persistent poverty in Springfield, Holyoke, and Chicopee.
 - ✓ The intersection of poverty/housing/opioid crisis.
 - ✓ Climate change will have disproportionate impact on poor people.
- Continued structural racism.
- Stagnant population/depopulation/outmigration.
 - ✓ Workforce is aging and retiring.
 - ✓ Fewer families with children.
 - ✓ Shortages in educational staff, both teachers and support staff.
 - ✓ Declining enrollments in schools.
- Aging infrastructure.
- Continued loss of small businesses – impacts jobs, vibrant downtowns.
- Continued shortage of childcare.
- Continued shortage of available and appropriate housing.
- Continued lack of priority investment/support from the Commonwealth.
- Continued lack of private investment.
- Overreliance on healthcare industry.
- Potential reduced funding at federal and state levels in next few years.
- Parochialism of communities.
- Social networks are disintegrating and polarization is increasing. Increased pressure on schools, police, and employers to provide supportive services.

PROMISING OPPORTUNITIES

The data and stakeholder comments point to some daunting challenges that face the Pioneer Valley. The next five years, however, also offer an array of unique opportunities to expand and broaden the region's economy. There is consensus that the Pioneer Valley has the resources and assets to excel in key areas that could improve many of the current economic conditions by creating good-paying jobs, reducing unemployment rates, improving workforce participation rates, increasing the Gross Regional Product, and helping to reverse flat population trends. Done thoughtfully, these opportunities will be environmentally compatible with the region's natural resources and quality of life, strengths that were identified by stakeholders across the board.

Focus on Equity

- There are opportunities for regional and statewide organizations to collaborate on equity initiatives. For example, PVPC received technical assistance through the New Growth Innovation Network on strategies to start a successful equity fund to increase access to capital for marginalized communities. The Coalition for an Equitable Economy, the Business Equity Initiative, the Small Business Development Center Network, and others throughout the Commonwealth are working on parallel programs.

- There is an opportunity to create a new network of Trusted Community Connectors to facilitate effective engagement with marginalized communities, including BIPOC, Latinx, and immigrant communities, to increase access to and utilization of economic resources.
- There are new workforce development programs in the pipeline that will provide pathways for low-income and BIPOC households to participate in the future economy.

Increase Micro and Small Business Development

- Continued assessment of the micro- and small business ecosystem, especially BIPOC- and immigrant-owned businesses, will enable the region to develop and deliver targeted programs that meet these businesses' needs.
- We can create new mechanisms for micro and small businesses to access capital.
- We can grow and support the micro- and small business ecosystem by creating spaces for entrepreneurs to work and connect with peers.

Revitalize Downtown Springfield

- There is a widespread interest in repurposing existing buildings and facilities to meet housing demand and potential industrial needs.
- There is the potential to increase marketing of existing assets, including the Basketball Hall of Fame, the Volleyball Hall of Fame, and the city's many diverse restaurants, to attract visitors, tourists, and a younger demographic.
- New initiatives, such as an Arts and Culture program or riverfront improvements, have the potential to improve the appearance of downtown and draw new businesses and residents into the city.

Seize Opportunities in New and Emerging Technologies

Clean Crop Technologies

Recognizing the global challenge of roughly 30% (1.3 billion tons) of crops being lost to pathogens, toxins, and pests, Clean Crop Technologies ("Clean Crop") is on a mission to reduce food waste and improve food safety with their innovative Clean Current technology. Located in Holyoke, Massachusetts, Clean Crop leverages the power of electricity to treat seeds and food surfaces, eliminating pathogens, toxins, and mold without compromising quality. Thus, they are offering a crucial advantage: effective decontamination that preserves food integrity. Their novel cold plasma treatment, "Clean Current," a rapid process using food-grade gasses and electricity, immediately eliminates contaminants without leaving harmful residues. This translates to several key benefits:

- **Enhanced Crop Yields:** Clean Current safeguards seeds from pathogens, leading to improved germination rates and overall crop health.
- **Improved Food Safety:** Clean Current neutralizes harmful bacteria and contaminants, ensuring safer food for consumers.
- **Reduced Food Waste:** Clean Current extends shelf life, minimizing food spoilage and waste throughout the supply chain.

Clean Crop's decision to locate in Holyoke was driven by strategic considerations. The Pioneer Valley offered several advantages:

- **Cost-Effective Expansion:** Affordable space allowed Clean Crop to construct a comprehensive, 14,000+-square-foot facility with dedicated research and development labs, a prototyping machine shop, and the world's first cold plasma Seed Tolling Facility.
- **Skilled Workforce:** The region boasts a strong talent pool with expertise relevant to Clean Crop's operations.
- **Advanced Manufacturing Ecosystem:** The established network of engineering, materials science, and machine shops in Holyoke prove invaluable for building and maintaining Clean Crop's technology and ambitious scale plans.
- **Partnership with Holyoke Gas & Electric (HG&E):** Local utility HG&E provides financial incentives and access to clean, affordable electricity.

With a focus on sustainability, Clean Crop is helping to reduce food waste with a minimal environmental footprint.

- Regional universities and colleges are developing strengths in the technologies of tomorrow, including financial technology, green and clean technologies, AI, quantum and quantum-adjacent technologies, food science, and specialized engineering, e.g., aeronautics.
- Western Massachusetts produces a robust talent pipeline and the cost of doing business is relatively lower than the Boston metro area. The region is an excellent location for companies to start up and/or scale businesses that use these new technologies. For the same reasons, the Pioneer Valley also offers opportunities for businesses to create second locations.

Increase Regional Collaboration

- There is an appetite for more collaboration between higher education and local governments to establish the Pioneer Valley as a successful research and entrepreneurial environment.
- The small and rural towns support the creation of regularly scheduled roundtables to share information, challenges, and trends, and brainstorm potential partnerships that could advance their economic goals.

FinTech Incubator (FTI)

Hosted by Western New England University's College of Business, the FinTech Incubator (FTI) focuses on Financial Technology and Artificial Intelligence to improve the competitiveness and economic growth of the Massachusetts economy.

The FTI offers the first affordable state-of-the-art resource in the Western Massachusetts region that supports integrated resources for entrepreneurs and existing businesses developing AI-driven FinTech solutions, and serves as a training ground for students and current employees in finance-related fields through enhanced coursework and experiential learning enabled by the FTI's infrastructure.

The FTI acts as a matchmaker by bringing together enterprises, entrepreneurs, students, data services, training and consulting services, and AI/ML processing services in a way that benefits students, entrepreneurs, and the local and state FinTech ecosystem. The FTI:

- 1. Assists in the growth of the FinTech talent pool in Massachusetts through a two-fold approach that prepares students to enter the workforce as well-qualified FinTech professionals, while also upskilling the existing labor force.*
 - 2. Maximizes the economic impact of a healthy, thriving, and growing business sector. This can be achieved by:*
 - o Helping local enterprises improve their financial and operational performance through AI/ML-based FinTech applications.*
 - o Developing and supporting strategies for Small and Mid-size Enterprises (SMEs) for business transition and sustainability.*
 - o Providing targeted support to SMEs, nonprofit organizations, and underserved businesses to facilitate equity, diversity, and inclusion in the marketplace.*
 - 3. Incubates and hatches Massachusetts-based FinTech start-ups.*
-

Explore New Ideas and Technical Assistance

- PVPC received crucial technical assistance from Ascendant Global regarding best practices to structure and launch a successful regional equity fund. This assistance connected PVPC with existing programs and thought leadership in other parts of the country. PVPC is eager to continue bringing new and promising ideas that are being piloted in these areas to the Pioneer Valley for potential consideration.
- Outreach to successful economic-equity programs in other areas, e.g. Global Detroit's programming for immigrants, to explore the feasibility of starting similar programs in the Pioneer Valley.

Conduct New Economic Research

- An Industrial Lands Needs Analysis will provide the region with the ability to ensure that our industrial land-use is tracking with industrial capacity and future needs.

Support Strategic Investments in the Region

- Support the Healey-Driscoll administration's funding priorities for housing, infrastructure, technology, and clean energy.
- Continue the region's coordination with the federal government and the Commonwealth on regional infrastructure improvements, including broadband implementation and transportation.
- Continue the investments that small and rural towns are making to their downtowns to increase walkability, grow tourism, and increase retail activity.
- Support the Western Massachusetts Economic Development Council's investment recommendations to bolster and grow the Pioneer Valley's existing strengths in food science, production and processing; advanced manufacturing; and the transition to green and clean energy.
- Support "Buy Local" initiatives as a way to strengthen the region's agricultural sector.

Blueprint Easthampton: Revitalizing a Mill Town's Entrepreneurial Spirit

In the heart of Pioneer Valley, Mayor Nicole LaChapelle is spearheading a transformative initiative called Blueprint Easthampton. This ambitious project aims to transform the City of Easthampton into a hotbed of entrepreneurship by leveraging the town's unique geography, resources, and history.

In early 2020, the National League of Cities selected Easthampton to be part of the City Innovation Ecosystems program, a joint effort by the National League of Cities and the Ewing Marion Kauffman Foundation, designed to drive regional entrepreneurship and innovation. Partnering with Kansas City-based firm SourceLink, they identified and cataloged each of the entrepreneurial support organizations in the region, making them easily accessible to the community through the central hub of Blueprint Easthampton.

Mayor LaChapelle says the "city needs to build supports other than just helping with a business plan. It needs to be on the ground; we need to give folks the opportunity and confidence to create and work in markets to generate wealth for the next generation. It's about building trust in the pursuit of equity."

One of LaChapelle's strengths is her ability to find external resources and financial support for city projects. A key component of Blueprint Easthampton is the Business Blueprint Program, launched in 2021 to provide personalized mentorship and training to small businesses in the Valley. Led by local entrepreneurs, the program has helped over 50 businesses build resilience in the face of the pandemic's economic challenges. "The Business Blueprint Program is a holistic approach to business building," says LaChapelle. "We are co-creating the experience. It's interactive because we want to create transformation." The Business Blueprint Program offers each qualifying business a \$2,500 grant. These funds can be used to improve or develop business infrastructure, a critical component for growth and efficiency.

Looking ahead, Blueprint Easthampton continues to seek new funding opportunities to expand economic development and help existing businesses succeed while preserving the city's historic charm. Easthampton is fostering a vibrant, equitable economy that serves as a model for other small cities.



STRATEGIC DIRECTION: BUILDING AN ECONOMY THAT WORKS FOR EVERYONE

Using the integrated results of the input process, the CEDS Strategy Committee developed a vision for the Pioneer Valley of 2034.

Our vision for the future is to build an economy that works for everyone who lives and works in the Pioneer Valley. We will build on the Pioneer Valley's regional assets and many strengths, as well as set our sights on new areas for success, in order to build a robust and thriving economy in which all our residents have equal access to prosperity.

Sustainable, equitable, and substantive economic development will not be easy, but it is necessary. It will require a diverse set of strategies tailored to the diverse needs of the 43 communities in the Pioneer Valley. There is no easy solution for some of our weaknesses and no single approach that will overcome issues such as deep-seated structural racism or the region's housing shortages. Many of the strategies we are recommending may require years, if not decades, to mature. We are, however, committed to addressing these weaknesses and moving toward the realization of our vision.

We recognize that desiring different outcomes means doing things differently. We must work together to shift mindsets so that we don't merely create access to opportunity, but address structural inequities in economic, social and public policies. To catalyze this change, we propose to be guided by the following:

- Establishing a learning community where stakeholders, including residents, share their experience and build capacity to implement strategies that result in an equitable economy.
- Recognizing that immigrants to our region are a unique and valuable resource, not only adding to the Pioneer Valley's population but contributing talent, experience, and energy to the regional economy.
- Proactively developing collaborative partnerships with a range of stakeholders from the public, non-profit, and private sectors, in urban and rural communities, with a focus on coalition-building to improve economic opportunities for all our residents throughout the region.
- Shifting the paradigm in access to capital for underserved populations from philanthropic giving and lending to investing in people and communities.
- Building the capacity of the Pioneer Valley Planning Commission and our partners to acquire tools and address barriers to advance racial equity, economic resilience, and climate resilience in the region.
- Conducting analyses of both traditional data sources and alternative ones, such as data gathered through storytelling, focus groups, lived experiences, and annual evaluation of the CEDS implementation process.

Utilizing the input and consensus from the CEDS Strategy Committee, we believe that to realize this vision the Strategic Direction for the region will rely on eight priority themes to implement CEDS goals that we believe position the Pioneer Valley for increased equity, economic growth, and resiliency against future economic threats.

PRIORITY THEMES

- Equity
- High-growth and emerging opportunities
- Workforce development
- Rural strategies
- Business environment
- Population
- Infrastructure
- Economic investment

The Pioneer Valley's economic goals and objectives are summarized below. While some of these can be implemented by PVPC alone, others will need to be in partnership with other organizations, and others will require multi-agency, cross-sectoral collaboration. The Action Plan Matrix, Attachment B, provides information on the specific actions that will be used to implement the goals and objectives, including descriptions, lead agencies, partner agencies, and desired results.

GOAL

Prioritize equity, acknowledging that poverty and structural racism continue to determine economic opportunities and outcomes for too many of the Pioneer Valley's residents.

Objective: Increase economic opportunities for BIPOC and other marginalized communities.

Actions:

- Establish a learning community around an **equitable economy** and engage with national partners who successfully implement best practices, e.g., Global Detroit.
- Shift paradigm from lending to investing in creating **access to capital** for marginalized groups through establishing the Pioneer Valley Equity Fund to support small business development.
- Create **workforce development programs** that meet the needs of underserved communities.
- Ensure that workforce programs expand to match underserved communities to living wage jobs and career/skill growth opportunities.
- Develop and implement new mechanisms for direct communication with BIPOC, women, and other marginalized communities to ensure that resources are aligned with needs and will help overcome systemic economic challenges related to **business ownership and homeownership**.
- Develop a **new regional data management system** that disaggregates data by race and ethnicity.
- Develop mentoring program to **increase BIPOC participation** in civic and government leadership roles.

GOAL

Pursue **high-growth and emerging opportunities**, adding emerging technologies, e.g. quantum and quantum-adjacent technologies, green and clean technologies, AI, financial technology, food science, and advanced materials to the region's existing strengths in healthcare/social assistance, educational services, and manufacturing.

Objective:

- Leverage opportunities to grow the regional economy.
- Create sustainable jobs.

Actions:

- Support **opportunities in emerging applied-technology industries**, including but not limited to financial technology; AI; biotech; life sciences; quantum and quantum-adjacent technology; cybersecurity; food science; and specialized engineering, e.g. aeronautics.
- Undertake a regional industrial lands analysis in order to identify turnkey opportunities that will facilitate **economic investment** by developing an array of shovel-ready locations to site **new businesses**.
- Strengthen connections between educational institutions and the communities that they are located in or near by increasing collaboration, e.g. identifying community sites for companies or technologies incubated by higher education.
- Coordinate **workforce development** efforts with expanding and emerging industrial opportunities by collaborating with institutions of higher education and others.
- Support the **economic investment** recommendations of the EDC, which include food science; non-pharmaceutical biomanufacturing and food ecosystem; the clean energy transition; and advanced materials and R&D manufacturing.

GOAL

Pursue **high-growth and emerging opportunities**, adding emerging technologies, e.g. quantum and quantum-adjacent technologies, green and clean technologies, AI, financial technology, food science, and advanced materials to the region's existing strengths in healthcare/social assistance, educational services, and manufacturing.

Objective:

- Leverage opportunities to grow the regional economy.
- Create sustainable jobs.

Actions:

- Support **opportunities in emerging applied-technology industries**, including but not limited to financial technology; AI; biotech; life sciences; quantum and quantum-adjacent technology; cybersecurity; food science; and specialized engineering, e.g. aeronautics.
- Undertake a regional industrial lands analysis in order to identify turnkey opportunities that will facilitate **economic investment** by developing an array of shovel-ready locations to site **new businesses**.
- Strengthen connections between educational institutions and the communities that they are located in or near by increasing collaboration, e.g. identifying community sites for companies or technologies incubated by higher education. One example would be creating centers of excellence tied to emerging technologies.
- Coordinate **workforce development** efforts with expanding and emerging opportunities by collaborating with institutions of higher education and others.
- Support the **economic investment** recommendations of the EDC, which include food science; non-pharmaceutical biomanufacturing and food ecosystem; the clean energy transition; and advanced materials and R&D manufacturing.

GOAL

Recognize that rural communities need different and complementary economic development strategies tailored to their needs. As a region, the economic vitality of our urban centers impacts rural communities, which need their own set of strategies.

Objective: Create a set of unique, complementary strategies for rural communities.

Actions:

- Convene regularly scheduled regional round tables that focus on economic development opportunities, innovations, and ways to optimize interlocal cooperation.
- Work with smaller communities to expand shared-services model to meet local service needs and improve efficiencies.
- Pursue travel and tourism opportunities for regional marketing and small-town revitalization, especially heritage, recreational, and/or eco-tourism.
- Develop a regional housing plan that incorporates twenty-first century zoning, including a locally focused needs assessment and market analysis for each town.
- Develop basic permitting guides for each town that clarify and facilitate business and commercial development.

GOAL

Support small and mid-sized enterprises (SMEs) and entrepreneurs.

Objective: Strengthen the regional **business environment** by increasing the number of successful SMEs and entrepreneurs.

Actions:

- Map the existing micro- and small business, and entrepreneurial ecosystem.
- Work with SMEs and their associations, e.g., the Center for Women's Enterprise, to identify their needs and explore creative strategies to meet those needs, e.g., hiring and retention, to help them open, stay open, and establish sustainable business practices. Recognize that SMEs that are BIPOC- and women-owned may face different challenges.
- Harness the energy and skills of immigrants in small business development through the use of the Community Connectors model.
- Identify spaces for young entrepreneurs to work and connect with peers.

GOAL

Reverse long-standing stagnant population growth to increase the regional workforce capacity.

Objective:

- Increase the number of people who live and work in the Pioneer Valley

Actions:

- Provide jobs and professional opportunities for all, including residents and graduates from the region's institutions of higher education and training programs.
- Embrace the region's ethnic, racial, and cultural diversity and recognize its positive contributions to the quality of life in the Pioneer Valley.
- Collaborate with state agencies and other organizations that are working to make Massachusetts more competitive and attractive.
- Showcase the region's relatively lower cost of living compared to other parts of the Commonwealth.

- Showcase the region's geographic centrality to major metropolitan areas, including Boston, Hartford, and New York, with proximity to major interstate highways.
- Revitalize downtown environments to attract people with jobs, entertainment, and housing opportunities.

GOAL

Strengthen the region's infrastructure to enable communities small and large, urban, suburban and rural alike, to pursue development opportunities and related investment, attract newcomers, and promote equity. We are defining two types of infrastructure: "hard" (e.g., water systems, rail, broadband) and "soft" (e.g., services, programs). This goal recognizes that deferred maintenance and lack of investment in these forms of infrastructure are threats that will continue to inhibit the region's growth if not addressed.

Objective:

- Improve the hard infrastructure that enables communities to thrive.
- Strengthen the soft infrastructure programs and services that support residents and workers.

Actions:

Hard infrastructure

- The region has been improving roads, water and sewer infrastructure for decades. These improvements are large, expensive, multi-year collaborative efforts and they need to remain a priority.
- Continue regional planning efforts that address pre-disaster mitigation, climate resiliency, sustainability, and environmental vulnerability mitigation.
- Support the Compass Rail plan to increase rail connectivity.
- Complete a Drinking Water plan for the region.
- Continue supporting MBI's efforts across the Commonwealth to build out broadband.

Soft Infrastructure

- Assist with comprehensive and integrated service delivery to improve workforce participation rate.
- Advocate for increase in access to childcare.
- Continue coordinating transit schedules with local need/demand.

GOAL

Develop a strong, effective regional voice to advocate for the Pioneer Valley in order to communicate regional priorities and increase **economic investment** from the Commonwealth, the federal government, and the private sector.

Objective:

- Create and communicate regional economic priorities that are developed through a collaborative process.
- Increase economic investment in the Pioneer Valley.

Actions:

- Collectively identify regional priorities for **equitable** economic investment.
- Coordinate the development of a single, strong regional voice at the state and federal level, and with the private sector, to advocate for and secure state, federal, and private **investments** in the regional priorities.
- Develop a mechanism for higher education, local governments, and regional planning agencies to communicate and collaborate on identifying and planning for **emerging opportunities**.
- Continue collaborating on the Knowledge Corridor initiative.



FRAMEWORK FOR EVALUATION

Building an Economy that Works for Everyone will be evaluated using two sets of benchmarks.

- The first set consists of quantitative metrics of key socio-economic indicators that will allow PVPC to track economic trends that measure progress toward implementing the priority areas and their accompanying goals and objectives.
- The second set consists of qualitative measures that will assess the progress of the collaborative programs and initiatives that support the goals.

Both sets are presented in the Action Plan Matrix, Attachment B.

Each key indicator is assigned a rating of positive, negative, or neutral based on the most recent available data. An improvement of at least 1% is considered a positive trend; a decrease of at least 1% is considered a negative trend; and trends between 1% positive and 1% negative are considered neutral. This will be effective in understanding regional changes over time. Rather than evaluating current-year statistics in isolation, this method will look at changes over a broader period, indicating whether trends are increasing or decreasing.

The qualitative benchmarks measure progress toward implementing projects and programs that are collaborative in nature. The CEDS will be the common agenda used by PVPC and participating stakeholder organizations during the next five years to activate the strategies that will enable the Pioneer Valley to meet its goal of becoming more equitable, more robust, and more economically resilient.

