

# TEAMMA

Leading Future Generations.



# ECONOMIC DEVELOPMENT PLAN

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To the Honorable Senate and House of Representatives,

The Healey-Driscoll Administration is pleased to submit the 2023 economic development plan, *Team Massachusetts: Leading Future Generations*.

In recent years, Massachusetts has faced a complex economic landscape defined by the COVID-19 pandemic, global conflicts, high inflation, and the looming threat of climate change. In the face of these bold macroeconomic forces, Massachusetts stands poised to adapt, innovate, and lead future generations. We can do this leveraging the strengths in all of our sectors and regions.

Massachusetts is primed to lead an innovative, mission-oriented, high-growth economy. We are world leaders in many sectors, such as higher education, health care and hospitals, life sciences, and financial and intellectual capital. We can tackle global issues like diseases and climate change, improve health care, and educate and develop young talent. We can accomplish all of this while creating a compassionate community that embraces diversity, celebrates freedoms, prioritizes scientific advancement, and values safety for everyone.

*Team Massachusetts: Leading Future Generations* is drafted with this strong history and record of success in mind, and with an eye towards a vibrant future for our state, its economy and its people. This plan reflects a vision for Massachusetts which is organized around three main priorities, supported by specific initiatives for each:

- 1. Fundamentals:** Investing in the fundamentals to enable economic growth,
- 2. Talent:** Retaining and attracting the world's best talent across all backgrounds, and
- 3. Sectors:** Supporting businesses that power the state's economy

And at the center of this plan, as in all of our work, are the Healey-Driscoll Administration's core principles of equity, affordability, and competitiveness.

The Healey-Driscoll Administration is proud of our strong partnership with the Legislature. In just under a year, our collaboration led to meaningful tax cuts for Massachusetts families and businesses – the first in more than 20 years – and a budget that made historic investments in education, workforce development, climate innovation and local aid. We look forward to working with our legislative partners to bring our full economic vision to life over the coming years.

Massachusetts can be the best place in the nation for individuals to pursue rewarding careers and for companies to start, scale, and succeed. Achieving this vision will ensure that we lead for future generations and deliver the results our communities deserve.

Sincerely,

Maura Healey  
Governor

Kim Driscoll  
Lt. Governor

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## **THE VISION:** Team Massachusetts: Leading Future Generations

Almost 250 years ago, the shot was heard around the world. Our state took the first step and started a revolution for our country. Of course, a lot has happened since 1775. In fact, a lot has happened since Massachusetts' last state economic development plan in 2019. The world has experienced a global pandemic, destabilizing armed conflicts, supply chain disruptions, and inflation. Interest rates have risen, some states have rolled back reproductive and civil rights, and we continue to live with growing impacts from climate change, with annual temperatures the warmest they've ever been.

It is again our state's time to lead. The Healey-Driscoll Administration is pleased to put forth the 2023 economic development plan, Team Massachusetts: Leading Future Generations.

Massachusetts has a unique opportunity to demonstrate to the rest of our country a better path forward. To do so, we need to work together as a team, leveraging the strengths in all of our sectors and regions. We believe Massachusetts can be an innovative, mission-driven, high-growth economy that solves the big problems facing our world by curing disease, addressing climate change, improving health care, and educating our young talent. And we can do this while being a humane place to live, where we embrace diversity, celebrate freedoms, reinforce science, take care of all communities, and value safety for everyone. Achieving this vision will ensure that we lead for future generations by making Massachusetts the best place in the nation for individuals to pursue rewarding careers and for companies to start, scale, and succeed.

The Healey-Driscoll Administration, through the Executive Office of Economic Development (EOED), has spent the past several months working with many stakeholders on this bold vision for our state's economic development – our north star – and we are committed to bringing this vision to life over the coming years. As we developed this plan, we kept in mind several guiding principles.

**First**, we must achieve this vision in a way that focuses on the administration's priorities of equity, affordability, and competitiveness.

**Second**, we must be intentional about ensuring our plan reaches residents in all regions, across a diversity of all backgrounds and experiences.

**Finally**, we must focus our plan on areas where the state is best positioned to make a difference. In many ways, economic development is largely driven by the private sector, nonprofit organizations, and communities. However, in state government, we have unique powers we can use to effectively drive economic development in partnership with our colleagues in the Legislature and other members of our state's economic development ecosystem:



**Convene:** We can bring people together to communicate, align, and collaborate



**Resources:** We allocate state funds, resources, and incentives



**Regulations & Laws:** We can pass, repeal, and amend laws & regulations

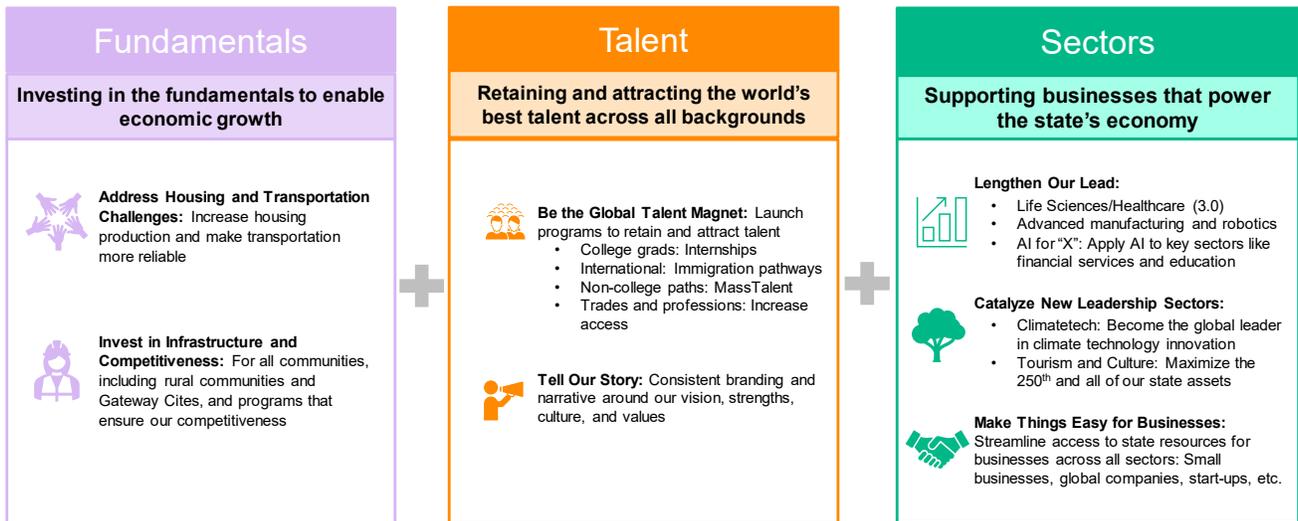


**Customer:** We have state purchasing power around goods and services



**Message & Communicate:** We have an ability to amplify and convey messages

With this in mind, we are proposing three main priorities for our economic development plan, supported by specific initiatives for each.



The initiatives supporting these three priorities were chosen through the work of the Economic Development Planning Council,<sup>1</sup> comprised of leaders and stakeholders from key industries in our state's economy; from feedback gathered during 10 regional meetings held across the state attended by stakeholders and members of the public and more than a dozen sector-specific meetings attended by industry leaders; and from substantial data analysis undertaken by the EOED team. These initiatives are broad enough to move the needle for the state in a meaningful way over the next three years. They also leverage the unique powers the state can employ to be effective in supporting economic development. And our vision is flexible enough that, when other economic development issues and priorities arise over the next several years, we can proceed with eyes wide open to best support the state's economy.

Our ability to implement this plan requires working as a team across our cabinet. Given the critical nature of the housing and transportation challenges in our state, these priorities are highlighted in the Fundamentals section of this plan and provide the essential foundations for economic growth. The Executive Office of Housing and Livable Communities and the Massachusetts Department of Transportation lay out their plans in that section. Secretariats from elsewhere in the cabinet will collaborate across other initiatives. For example, the Talent priority closely aligns with the work of the Executive Office of Labor and Workforce Development (EOLWD) and includes initiatives that coordinate with the four-year plan that EOLWD is working on for the U.S. Department of Labor.

For the Sectors priority, the Executive Office of Health and Human Services will play a big role in lengthening the lead in life sciences and healthcare, while the Executive Office of Energy and Environment Affairs and the state's Climate Office are key partners for advancing our state's climate tech sector. For all three priorities, EOED will work across secretariats to implement plans successfully.

In Massachusetts, we are fortunate to have another tool in our economic development toolkit with our quasi-public agencies, which serve as key implementation vehicles for this plan. The quasis operate independently from the state in many ways and can therefore move more nimbly and creatively on certain programs. Yet they are largely funded by and aligned closely with the state. Many initiatives within this plan will be managed and implemented by economic development quasis, which include:

- **Massachusetts Growth Capital Corporation:** Focuses on small businesses and offers technical assistance, loans, and grants.
- **MassVentures:** Focuses on early stage “deep tech” startups being spun out of universities and that have manufacturing elements, diverse founders, and a broad footprint across the state.
- **Massachusetts Technology Collaborative:** Focuses on our innovation sectors and administers grants and programs around workforce, research, and other areas for sectors such as advanced manufacturing, robotics, AI, quantum, digital health, cybersecurity, broadband, and others.
- **Massachusetts Life Sciences Center:** Focuses on our life sciences industry and provides grants and workforce programs to support diversity, R&D, and collaboration across the regions and life science ecosystem.
- **MassDevelopment:** Focuses on real estate as the state's development finance agency and land bank that provides a variety of financing tools, such as grants and loans, to support development across municipalities and regions.
- **Massachusetts Clean Energy Center:** Focuses on the clean energy and climate technology space and works with startups as well as large companies on areas such as workforce and R&D.

Importantly, this economic development plan factors in regional input and differences around the Fundamentals, Talent, and Sectors priorities and we are excited to tailor the initiatives in our plan to best leverage the strengths and opportunities of each region in our state.

As we implement these initiatives, we will track key metrics and indicators and will know we are making progress in achieving our state's vision when:

- Massachusetts is one of the highest GDP per capita states and we grow GDP faster than the national average.
- All regions rise with the rising tide: Economic growth happens across all regions and GDP per capita rises in every region.

- Our overall population starts to increase and returns to pre-pandemic growth trends.
- More talent stays here. For example, we see an increase in the percent of high school and college graduates who stay in Massachusetts.
- More companies start and expand here.
- We create more opportunities for all of our talent: Income inequality gap closes, especially across race, gender, and educational backgrounds.
- Workforce participation increases and we start to see more people entering the job market.
- We grow in a way that is consistent with protecting our climate: We achieve climate targets.
- Our state ranks as one of the most competitive in terms of friendliness to families and businesses.
- We continue to innovate and solve big problems in mission-driven areas around health care, life sciences, climate, defense, and other areas. This will be reflected in our leadership in attracting venture funding and federal grants, in filling patents, and in Massachusetts-based companies advancing initial public offerings (IPOs) and acquisitions.

In the rest of this section, we lay out the macroeconomic perspective and the macroeconomic implications for our state. We also provide an overview of the economic development planning process. Then, we will dive into each of the three priorities of Fundamentals, Talent, and Sectors, and describe the specific initiatives under each. Finally, we summarize how we will use metrics to track our progress and how we will implement the plan.

The Healey-Driscoll Administration knows that this is the moment for our state to lead. This is an inflection point, and the stakes are high. What we do with this plan will set us on a path for the future. We have a chance to show our country that we can continue to solve the biggest problems facing our world while doing so in a way that celebrates and respects freedoms and community. Now is the moment for Massachusetts to lead for future generations.

We are tremendously grateful for all of the work that has been done and we are excited about sharing this plan with legislators, stakeholders, and the public. We look forward to bringing this plan to life for our state.

## **MACROECONOMIC CONTEXT:**

How has the world changed  
since the last economic  
development plan?

It has been an eventful four years since the last state economic development plan was completed. In many ways large and small, the world has changed significantly since 2019.

The most notable event has of course been the global COVID-19 pandemic, which shut down the world economy and resulted in several million deaths around the world. Over the course of the public health emergency, there were more than two million confirmed cases and over 22,000 deaths linked to COVID-19 in Massachusetts.<sup>2</sup>

Now, in 2023, with vaccines and significant federal government support, life and the economy are trending back to pre-pandemic levels. But there are fundamental shifts and still unknown impacts on our state economy from the pandemic. For example, many downtown office buildings remain largely empty as companies, especially in the tech sector, have shifted to remote or hybrid work. Supply chain disruptions have been another consequence of the pandemic. The shutdowns meant that many factories fell behind in production, creating scarcity of key components and product shortages and inflation across many areas. The pandemic exposed the interdependency and weaknesses of the global supply chain.

The last several years have also seen an increase in global uncertainty and volatility. Russia invaded Ukraine in February 2022, triggering a large outflow of Ukrainians across Europe and the rest of the world. The war also has resulted in a spike in energy and other commodity prices given the restrictions on trade with Russia. In addition to this actual physical war, there have been increased tensions with China that have resulted in the federal government enacting more stringent trade restrictions. In early October 2023, the attack on Israel by Hamas resulted in the tragic loss of innocent lives and ignited regional conflict with widespread implications.

Many of these factors have contributed to high levels of inflation. To offset this, the Federal Reserve started increasing interest rates to their highest levels since 2001. This has raised the cost of borrowing for all businesses and has also exposed the fragility of certain financial institutions, such as Silicon Valley Bank. During this time of heightened interest rates, strong risk management practices are important for the banking sector and its customers.

With the Biden Administration assuming office in January 2021, we now have a concerted national industrial policy to address many of these challenges. With the support of Congress, including the Massachusetts federal delegation, the administration has created a historic amount of federal funding that states can compete for, including through the \$250 billion CHIPS and Science Act, the \$750 billion+ Inflation Reduction Act, the \$2 billion for Advanced Research Projects Agency for Health (ARPA-H), and several others.

Many states have taken different approaches post-pandemic and are aggressively working to grow their populations and economies. For example, some states had less restrictive COVID-19 public health restrictions and opened their economies earlier. Others have focused on reducing taxes and building more homes to attract individuals and businesses with lower costs. Many states have been increasing investments in education and workforce development. And many are aggressively leveraging tax incentives to woo businesses and win federal grants.

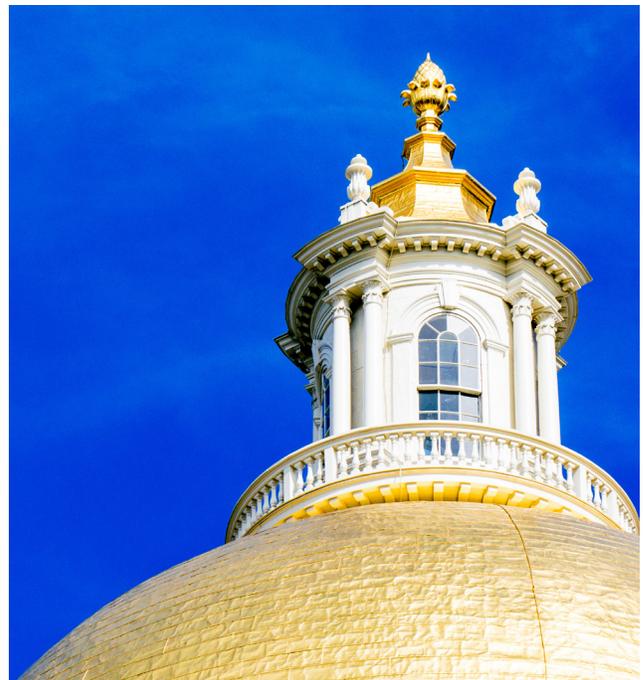
In addition, there have been some important shifts in the national climate. The Dobbs decision<sup>3</sup> overturned Roe vs. Wade and has enabled many states to put forward legislation restricting reproductive rights. The death of George Floyd and the Black Lives Matter movement have highlighted the inequities and injustices that are still very present in our country. We now see many states pushing for further restrictions on individual rights and civil liberties, particularly around the transgender community. There has also been a disconcerting surge in some states banning books and challenging school curriculum.

Against this backdrop, the existential threat of climate change has increased. The last few years have seen the increasingly disruptive effects of climate change around the U.S. and the world, including catastrophic fires, heat waves, marine heat waves, floods, storms, droughts, and other impacts. Massachusetts has experienced recent climate-driven weather extremes; for example, in 2023, historically intense rainstorms caused flooding across inland-New England, including western Massachusetts, where more than 10,000 acres of farmland have been damaged across the region.

A Merrimack Valley storm resulted in over six inches of rain within six hours, causing approximately \$30 million in damages in North Andover in early August,<sup>4</sup> and in September, Leominster experienced life-threatening flooding when about ten inches of torrential rain fell in the span of about six hours.<sup>5</sup>

According to the National Oceanic and Atmospheric Administration, in 2023 alone, the U.S. has so far experienced 25 confirmed climate disaster events costing more than 1 billion dollars each, including two in Massachusetts: the February winter storm/cold snap, and the July flooding.<sup>6</sup> These events are imposing increasing costs on the state and municipalities.<sup>7</sup>

It has indeed been an eventful four years since the last plan: a global pandemic, a war, global supply chain issues, inflation, rising interest rates, bank failures, climate change-related natural disasters, significant federal funding opportunities, and an increasingly divisive view on values. These issues constitute the macroeconomic backdrop for the 2023 economic development plan. While these macro issues pose barriers to growth, they also present real opportunities for Massachusetts to thrive and lead.



# IMPLICATIONS FOR MASSACHUSETTS: Where are we now?

Given all the macroeconomic events, where does Massachusetts stand now and what is our starting point in 2023 as we consider our economic development plan for the next four years?

We are starting from a place of many relative and unique strengths. And, on the surface, many of the economic indicators show that we are starting with a healthy economy.

We are world leaders in many sectors, such as higher education, healthcare and hospitals, life sciences, and financial and intellectual capital. The financial and intellectual sector alone generates approximately 25 percent of the state’s GDP (\$157 billion) and represents 15 percent of the state’s employment base (533,000 employees).<sup>8</sup>

**Financial Capital**

Massachusetts is a global leader across every asset class, including banking, asset management, insurance, private equity, and venture capital. This is a hugely important part of funding and financing all of our ecosystem.

**Intellectual Capital**

Massachusetts is home to the global headquarters and large presence for leaders in consulting, legal, accounting, and other professional services. These firms attract intellectual capital, and are a key part of our ecosystem across every industry.

We are the number one state per capita in venture funding and in National Institutes for Health (NIH) grants received on a per capita basis. Eighteen of the top 20 largest global life sciences companies are headquartered in our state. We have over 100 universities and colleges and draw talent from around the world. We are the most educated in terms of percentage of population with college degrees and the richest in terms of per capita income. Each year, Massachusetts is a national leader in research and development on a per capita basis across federal grant programs, such as NIH, Small Business Innovation Research and Small Business Technology Transfer programs.

We are strong on values and quality of life. Historically, Massachusetts is a pioneer when it comes to firsts: first public school, first public library, first state to have universal health care, and first to recognize marriage equality. The state invests heavily in its public K-12 education system. The Healey-Driscoll Administration stepped in after the Dobbs decision to help ensure access to reproductive rights in our state. Bold measures are underway to confront the climate crisis and we are the first state with a cabinet-level position dedicated to climate change.

We have a history of balanced, responsible governance across Democratic and Republican administrations. The state is fiscally responsible and has worked closely with the private sector to support key initiatives and sectors, such as life sciences. In 2023’s CNBC ranking, we moved up nine spots nationally to number 15 in business competitiveness.<sup>9</sup> Wallethub’s 2023 survey confirmed that Massachusetts is the number one place to live in the country.<sup>10</sup>

<p><b>#1 Venture Capital Invested per capita</b></p>	<p>For the fourth consecutive year, Massachusetts was home to the most venture capital (VC) invested on a per capita basis, with \$21.5 billion in VC investments in the state in 2022. (Pitchbook)</p>
<p><b>#1 NIH Awards per capita</b></p>	<p>Massachusetts continues to hold the #1 spot for National Institutes of Health (NIH) award funding and number of awards on a per capita basis, receiving 5,810 NIH awards totaling \$3.3 billion in FY2022.</p>
<p><b>18 out of 20 largest life sciences companies HQs</b></p>	<p>As the world leader in life sciences, Massachusetts is home to 18 out of the 20 largest life sciences companies in the world.</p>
<p><b>#1 Small Business Innovation Research (SBIR) &amp; Technology Transfer (STTR) per capita award funding</b></p>	<p>Massachusetts receives the most SBIR and STTR award funding on a per capita basis, with total obligated awards in Massachusetts of \$443 million in 2022. SBIR and STTR are federal programs that fund startups and small businesses across technology areas and markets to stimulate technological innovation and research.</p>
<p><b>#1 Best Business Environment (US News 2023)</b></p>	<p>Massachusetts ranked #1 in US News &amp; World Report's 2023 state ranking of business environments, which evaluates factors including private sector business creation rates, number of patents granted per capita, tax burden, venture capital investment, and how many top businesses are headquartered in a state.</p>
<p><b>#1 Strongest Knowledge Economy (Milken Institute 2022)</b></p>	<p>Massachusetts ranked #1 on Milken Institute's 2022 State Technology and Science Index, which compares states' relative performances in critical components of the knowledge economy.</p>
<p><b>#1 Most Educated</b></p>	<p>With the highest percentage of population aged 25 years and over with a bachelor's degree or higher, Massachusetts is home to the most educated workforce in the country. (American Community Survey 2022 1-year estimates)</p>
<p><b>#1 Highest Personal Income per capita</b></p>	<p>Massachusetts has the highest per capita personal income in the country, sitting at \$84,561 in 2022. Personal income is the income that people living in the state get from wages, proprietors' income, dividends, interest, rents, and government benefits. (Bureau of economic Analysis)</p>
<p><b>#1 Best State to Live in (WalletHub 2023)</b></p>	<p>Massachusetts is rated as the best state to live in, according to WalletHub's 2023 analysis of livability indicators, including income growth, housing costs, education rate, and quality of hospitals, among others.</p>
<p><b>#1 Best State to Raise a Family (WalletHub 2023)</b></p>	<p>Massachusetts ranked as the #1 state to raise a family according to WalletHub's 2023 state ranking of family-friendliness.</p>
<p><b>#1 Healthiest State (Sharecare 2022)</b></p>	<p>For the third consecutive year, Massachusetts has been named the "healthiest state" in the Sharecare Community Well-Being Index of overall well-being, including physical, financial, healthcare, economic security, among other factors. In the 2022 index, Massachusetts also took the #1 spot for best healthcare access.</p>
<p><b>#1 Best Health Care System (The Commonwealth Fund 2023)</b></p>	<p>Massachusetts's health care system ranked #1 in the country in the 2023 Scorecard on State Health System Performance.</p>

The state is also home to historically diverse leadership. Massachusetts is one of only three states to have ever elected a Black governor, Deval Patrick, and we have the nation's first openly lesbian governor, Maura Healey. We are proud that our executive branch is led by an all-woman leadership team and our cabinet is comprised of individuals from a diversity of backgrounds. The City of Boston is led by a Asian American woman mayor, Michelle Wu, and the state has the first Black woman attorney general in Massachusetts history, Andrea Campbell. Susan Collins, leading the Boston Federal Reserve, is the first Black women leader in any Federal Reserve branch.

There are woman leaders at Harvard, MIT, Boston University, and across many of our other higher education institutions, and Mass General Brigham and Dana Farber are now led by women. In the summer of 2023, Boston hosted the national NAACP conference as well as a national Asian American Pacific Islander conference.

We saw Massachusetts leverage its many strengths during the COVID-19 pandemic. Massachusetts was one of the first COVID-19 epicenters in the country and was also one of the first to respond with requirements around social distancing, masks, and vaccines. We were among the first states to identify the unequal effects of COVID-19 on disadvantaged communities as we experienced the highest rates of infection in those communities.<sup>11</sup> In response, our leading hospitals and healthcare systems developed protocols and were creative and dedicated in doing what was necessary to take care of patients. Our life sciences sector expedited the research and techniques necessary to bring vaccines to market. Manufacturers stepped up to produce personal protective equipment. Our academic institutions, nonprofit organizations, municipal governments, and private businesses all coordinated with each other and the state to communicate information to communities and operationalize testing.

Today, there is real momentum building in this first year of the Healey-Driscoll Administration. While working on this economic development plan, we have started putting points on the board. Early this year, this administration decided to compete for significant federal funding opportunities, with the intention to capitalize on these once-in-a-generation federal programs. As the end of 2023 approaches, we have already secured several federal wins on behalf of the state.

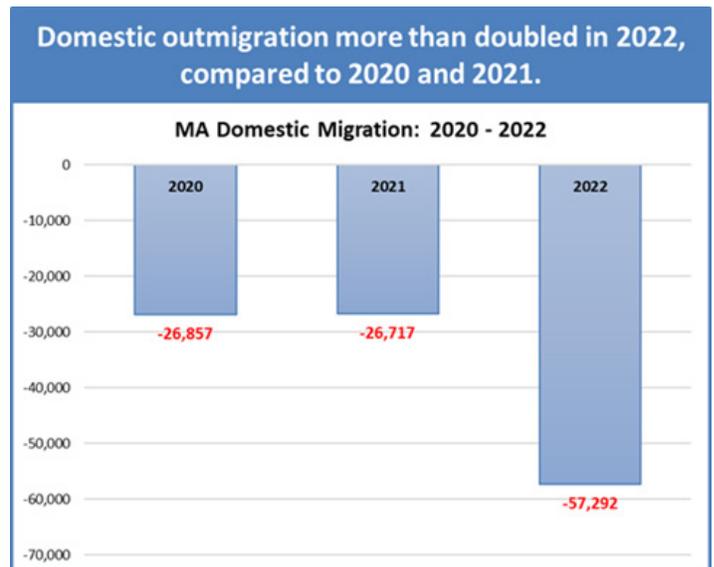
In August 2022, prior to Governor Healey and Lieutenant Governor Driscoll taking office, President Biden signed the CHIPS and Science Act into law. The bill aims to onshore the manufacturing of microelectronics and semiconductor technologies in America and support workforce training for these industries. By January 2023, the federal government started to roll out competitive programming authorized under the CHIPS and Science Act and our quasi partner MassTech Collaborative had already begun assembling a broad coalition of more than 90 partners across the public and private sectors to develop a proposal to the U.S. Department of Defense (DoD) Microelectronics Commons program through CHIPS and Science, which aims to advance the microelectronics needs of the DoD while spurring new jobs, workforce training, and investment in advanced manufacturing and technology sectors.

This opportunity plays to our strengths as it is focused on the most cutting-edge areas of science and advanced manufacturing. Bringing together leaders from across the state's private and public sectors, with major companies, universities, research centers, startups, and nonprofits represented, the state leveraged this group – Team Massachusetts – to put forth its strongest proposal. Massachusetts further expanded this coalition by bringing in neighboring states, and the Healey-Driscoll Administration also committed \$40 million in matching funds to make the bid more competitive. In September, the Biden Administration announced Massachusetts as one of eight winners chosen out of 83 applicants to host a hub as part of the Microelectronics Commons program. This win will help us further strengthen our advanced manufacturing, technology, and innovation ecosystems. The hub, which will be based out of MassTech and receive up to \$100 million in funding over the next five years, will advance the economic and national security needs of the DoD and this nation.

This year, Massachusetts also pursued an opportunity through the Advanced Research Projects Agency for Health, or ARPA-H, a new agency created by the Biden Administration to advance transformative innovations and breakthroughs in health care and life sciences. The Biden Administration announced in March that it would be choosing two hubs to support ARPA-H's mission, and our state jumped into action. Employing our Team Massachusetts approach again, we assembled a coalition of public and private partners, including all of our state's leading hospitals, universities and medical schools, venture firms and startups, and private sector industry groups, all led by our quasi agency the Massachusetts Life Sciences Center, to submit a proposal to ARPA-H. In September, ARPA-H announced our state was selected to host its Investor Catalyst Hub, which will foster collaboration among researchers, entrepreneurs, and investors to accelerate innovative ideas that transform health care.

Massachusetts has also built momentum with the passage of the first broad-based state tax relief package in 20 years. These tax cuts will make Massachusetts more affordable and competitive, keeping more wealth here, stimulating our economy, and attracting more investment. We are grateful for the partnership with the Legislature for passing this comprehensive tax package that is key to enabling continued economic growth.

Despite this recent momentum, the last few years have also led to some underlying trends that are less positive for our state. The most concerning metric is around population. Prior to the pandemic, Massachusetts steadily grew its population consistently. While the state experienced some out-migration domestically to other states, that trend was more than offset by incoming international immigration. However, this trend has reversed post-pandemic and we are now losing population. Domestic outmigration has doubled and in 2022 and nearly 1,100 people left the state per week on average. Some of those leaving the state are retirees, but the majority are recent graduates and families.

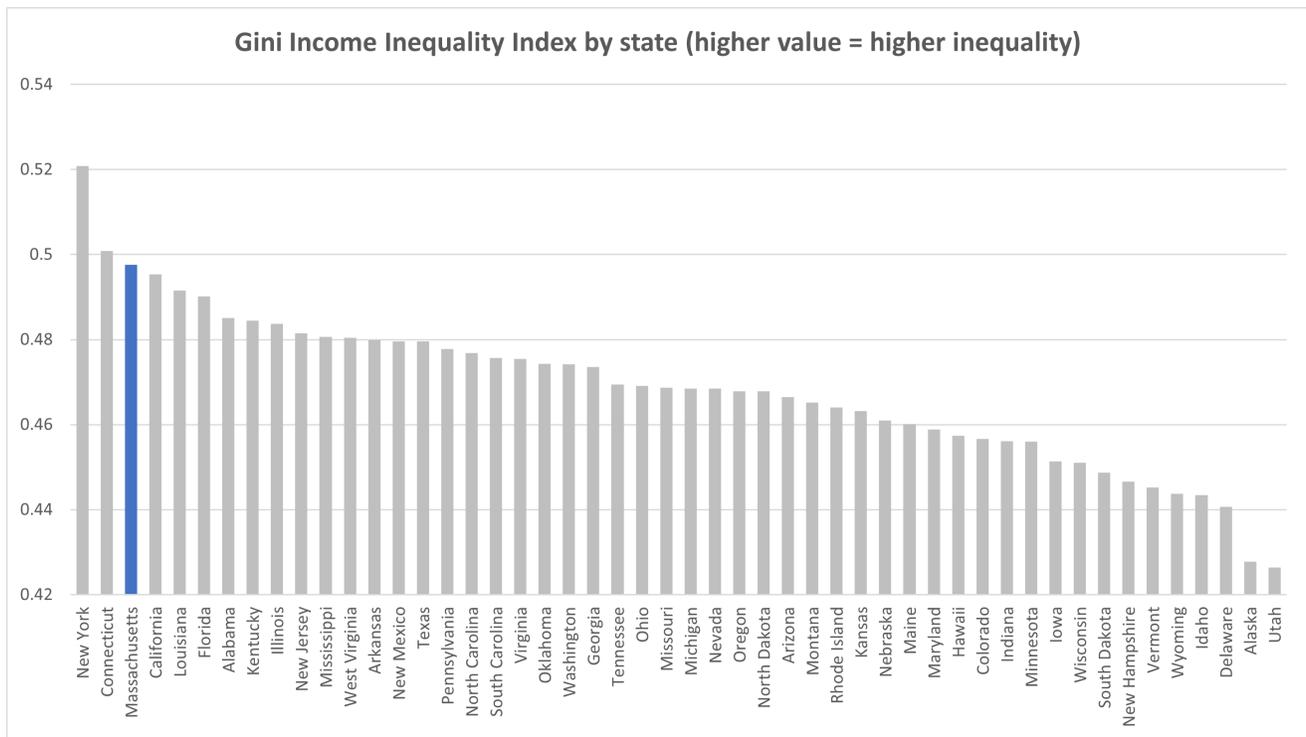


Remote work, particularly for tech companies, has given people freedom to live elsewhere while working for Massachusetts-based companies.

Massachusetts is also seen as expensive, which could explain why the two states that residents are most frequently moving to are New Hampshire and Florida, neither of which have state income tax. At the same time, international immigration to Massachusetts has slowed, in part due to the pandemic and more stringent federal policies. If these trends continue, our workforce will continue to age and shrink.

While Massachusetts is the most educated<sup>12</sup> and wealthiest<sup>13</sup> state in the country, we are also one of the most unequal states, with the third highest Gini coefficient in 2022.<sup>14</sup>

Beneath the statewide per capita averages, Black and Latino residents in Massachusetts have lower per capita income, compared to White and Asian household incomes.



The perception that Massachusetts is one of the more expensive states in the country is supported by data: We have some of the highest and fastest growing rental costs and home prices in the nation, a housing shortage of an estimated 200,000 units at a time when other major metros are producing new housing at much higher rates, and childcare costs are among the highest in the country.<sup>15</sup> There is also a view that we are becoming less competitive and friendly towards business. The cost of doing business is regularly cited by employers and highlighted in state-by-state evaluations. The October 2023 report from the national Tax Foundation shows Massachusetts dropping from 34th to 46th place in the ranking of states' attractiveness for businesses.<sup>16</sup>

Massachusetts is also struggling to address ongoing transportation issues. In 2022, Boston was considered the second worst city in the country for traffic. The MBTA transit network is hampered by capital needs and maintenance issues, which negatively impact both operations and the commuter experience for riders.

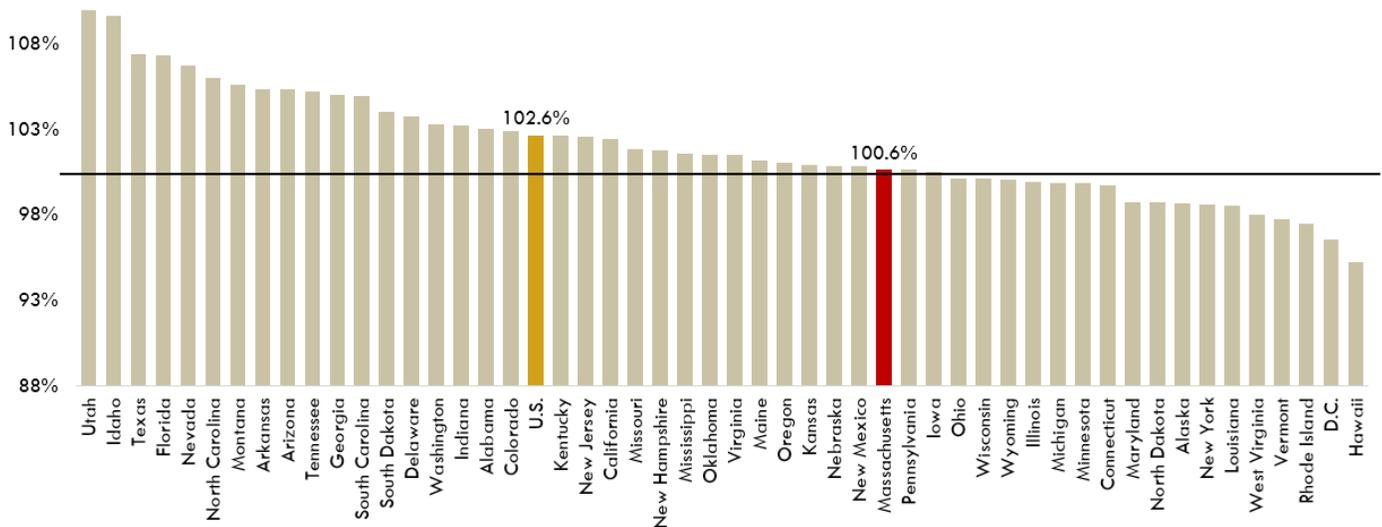
We have a workforce skills shortage, evident by the continuing gap between hiring rates and job openings throughout industries and sectors. This gap spans from biomanufacturing to restaurants and tourism and is an issue throughout the state. Further, the state has a shrinking labor force and an aging population.

This administration recognizes that access to affordable childcare is a key driver in the state’s economy, enabling families of all income levels to participate in our workforce and achieve their economic mobility goals. The early education and care sector is the workforce behind the state’s workforce and serves as the beginning of the educational journey for many of our youngest learners, including children in communities that have been historically marginalized or lack equitable educational opportunities.

Today, the state’s childcare system includes capacity to serve approximately 230,000 children through licensed, center-based, family childcare and after school programs across the state. While licensed capacity has nearly returned to pre-pandemic levels, the actual staffed capacity of programs across the state is much lower due to teacher shortages and significant challenges recruiting and retaining staff at all program levels. As the state’s childcare sector continues to rebound, the Healey-Driscoll Administration is committed to pursuing interventions that not only support continued stabilization across the sector but increase access and affordability for all families.

Overall, while the Massachusetts economy is now back to pre-pandemic levels, our recovery has been slower than many other states. In March 2023, our job count finally returned to pre-pandemic levels. It took approximately three years for Massachusetts to regain those lost jobs. Our growth post-pandemic is below the U.S. average and well below states such as Utah, which has experienced much faster growth of its population and the economy over the past few years.

*Job recovery rates in Massachusetts and all states, February 2020 and May 2023 (Seasonally adjusted)*



Source: UMass Amherst Donahue Institute Analysis; Bureau of Labor Statistics, Current Employment Statistics

So, while our administration is starting from a strong foundation and our state still has a healthy economy in many ways, this is not the time to rest on our laurels. This is the time to act quickly to address these issues, reverse some of these concerning trends, and lengthen our lead. This is the focus of this 2023 economic development plan and our three priority areas of Fundamentals, Talent, and Sectors.

# THE ECONOMIC DEVELOPMENT PLANNING PROCESS

Massachusetts state law requires that each new gubernatorial administration create a formal economic development plan in its first year. Previous plans have been thoughtful and have resulted in the implementation of important economic development policies.

For this 2023 process, the Executive Office of Economic Development (EOED) worked across all regions to engage with stakeholders, experts, businesses, residents, communities, legislators, and our cabinet colleagues to gather feedback about our state's economic development needs.

Over this past year, EOED assembled a 30-member Economic Development Planning Council, with representatives from all sectors of our economy and all regions of our state. In addition, EOED organized nine regional engagement sessions that were open to the public. These regions included: Berkshires, Pioneer Valley, Central, Metrowest, Greater Boston, Cape and Islands, Merrimack Valley, Southeast, and Northeast.<sup>17</sup> Each regional session focused on five main discussion areas: business climate, community and neighborhood development, key clusters and innovation, workforce and talent, and equity and opportunity. EOED also held its first ever Spanish language engagement session. All told, more than 1,300 attendees participated in these conversations. EOED also held sector-specific meetings across 11 sectors, with CEOs and leaders from many organizations. These sectors included areas such as life sciences, small businesses, financial services, rural, hospitals and healthcare, advanced manufacturing, and others.<sup>18</sup>



This economic development plan focuses on three priority areas of Fundamentals, Talent, and Sectors, each of which are supported by specific initiatives.

### **Fundamentals:**

- Address Housing and Transportation Challenges: Increase housing production and make transportation more reliable.
- Invest in Infrastructure and Competitiveness: For all communities, including rural communities and Gateway Cities, and projects and programs that ensure our competitiveness.

### **Talent:**

- Be the Global Talent Magnet: Launch programs to retain and attract talent, including college graduates, immigrants, non-college grads, and trades/professions.
- Tell Our Story: Champion consistent branding and narrative around our vision, strengths, culture, and values.

### **Sectors:**

- Lengthen Our Lead: Advance bold leadership in life sciences and healthcare, advanced manufacturing and robotics, and in the application of AI for all key sectors.
- Catalyze New Leadership Sectors: Capitalize on the opportunity to become new leaders in climatetech and tourism & culture.
- Make Things Easy for Businesses: Streamline access to state resources for businesses across all sectors.

Across these initiatives are consistent themes: As a state, we need to make things simpler for businesses and individuals to thrive; we need to use our convening power in state government and be more coordinated to gain the power of scale by working together; we need to be more proactive, intentional, and aggressive; we need to be more focused and go big on areas where we have a right to win; and we need to be more assertive and consistent in trumpeting our strengths and successes as a state.

This plan outlines how we can work together as Team Massachusetts on the programs, funding, legislation, and messaging that will allow us to address these themes and bring the Healey-Driscoll Administration's economic development vision to life on behalf of Massachusetts.

## **FUNDAMENTALS:** Investing in Housing, Transportation, Infrastructure, and Competitiveness to Enable Economic Growth

In order for Massachusetts to succeed, the state must invest in the fundamentals that enable its residents, businesses, and regions to succeed. Presently, housing costs, transportation challenges, and infrastructure shortfalls are inhibitors to economic opportunity. These issues hinder productivity and put significant strain on key components of the state's economy. Participants in the regional listening sessions clearly conveyed the negative impact of these issues on their daily lives. These challenges are felt by restaurants on Cape Cod, manufacturers in the Merrimack Valley, college graduates in Greater Boston, farmers in the small, rural towns of western Massachusetts, and everywhere in between.

With focus on and dedication to this first priority of Fundamentals, the administration will steer Massachusetts towards a more affordable, equitable, and competitive future. The following imperatives are vital for achieving this objective: **Address Housing and Transportation Challenges** and **Invest in Infrastructure and Competitiveness**.

### **Address Housing and Transportation Challenges**

Throughout the regional listening sessions, residents consistently and persistently raised housing and transportation as major issues impacting the economic development goals of the state. Similarly, council members and industry leaders involved with sector meetings cited housing costs and transportation shortfalls as significant concerns for their businesses, their employees, and their competitive footing. While these issues extend beyond the Executive Office of Economic Development, it became evident that the Healey-Driscoll Administration cannot put forth a complete economic development strategy without addressing housing and transportation challenges. If it is too expensive to live here and too hard to get to where you need to be, the state's economy will suffer.

The transportation and building sectors are also large sources of greenhouse gas emissions and are among the four key sectors that are the focus of the state's Clean Energy and Climate Plans.

Aligning housing production goals with our emissions reductions mandate and spurring public transportation ridership with investments in service quality and expanded options demonstrates we can achieve both our economic development objectives and our steep emissions reduction goals.<sup>19</sup>



## Confront the State's Housing Challenges

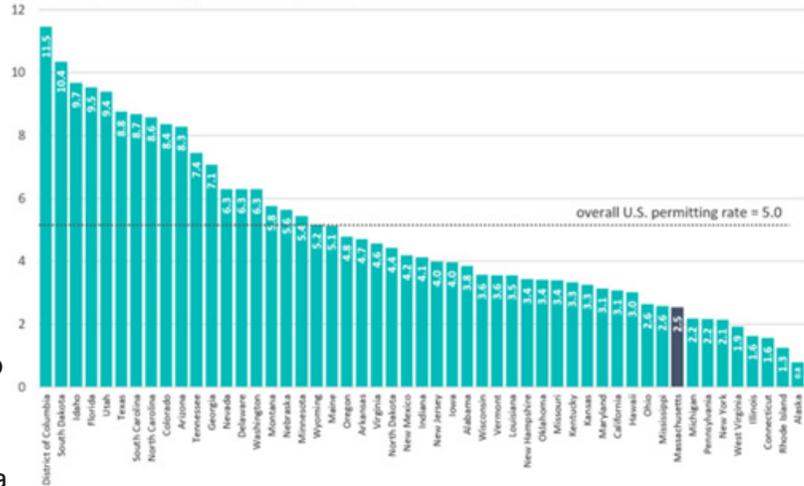
### Current Situation

For decades, Massachusetts failed to produce enough housing. The consequence of this inaction are rents and home prices among the highest in the nation. The status of the housing market serves as an impediment to economic opportunity and negatively affects the state's economy, especially as other growing metro areas have lower housing costs. The state needs approximately 200,000 housing units to restore a healthy housing market.

Despite gaining roughly 400,000 residents between 2010 and 2020, Massachusetts saw only approximately 160,000 permits issued for new housing units during that same period.<sup>20</sup> While we are making progress, the state remains 40 to 50 percent below the per capita national average in new housing production.<sup>21</sup> The problem impacts individuals and families across the entire state that are cost burdened and forced to make sacrifices to get by each month.

These conditions make it difficult to build a sustainable and vibrant economy:

Per capita housing production by state, 2022



Sources: U.S. Census Bureau Annual Building Permit Survey & U.S. Census Bureau Annual Estimates of the Resident Population for the United States, Regions, States, District of Columbia, and Puerto Rico. Credit: Mass Housing Partnership

Companies struggle to attract and retain talent that can find better housing options in peer states, small businesses hustle to find adequate workforce as rising rents push out desirable candidates, and young families and aging residents are forced to make hard decisions about their future.

### Proposed Initiatives

The Healey-Driscoll Administration recognizes that Massachusetts needs to produce more housing in order to give residents across all incomes an opportunity to build a life here. From the very outset, Governor Healey and Lieutenant Governor Driscoll have made addressing Massachusetts' housing crisis a top priority. The Governor established the Executive Office of Housing and Livable Communities (EOHLC) in June 2023 with the goal to create more homes and lower housing costs for residents in every region.

The newly formed EOHLC is tasked with boosting housing production, preserving and producing affordable housing, advancing neighborhood stabilization efforts, and creating more equitable homeownership pathways in a manner that is consistent with our Clean Energy and Climate Plan. To make a meaningful dent in this major assignment, the Administration intends to be aggressive and bold with policy and leadership.

In that spirit, Governor Healey filed a \$4 billion housing package on October 18 that will supercharge capital accounts for strategic housing investments while advancing several policy initiatives. The Affordable Homes Act represents the largest housing bond bill in the state’s history. It includes \$1.6 billion for public housing, \$1.8 billion for housing production and preservation, and several notable outside sections, including enabling accessory dwelling units (ADUs) by-right. This package was filed on the heels of the passage of a tax reform bill that included a significant expansion of the Housing Development Incentive Program (HDIP) to unlock market rate housing in Gateway Cities<sup>22</sup> and an increase in the state Low Income Housing Tax Credit to spur more affordable housing. Notably, the bill also includes incentives for new energy efficient housing production and retrofits of existing housing.

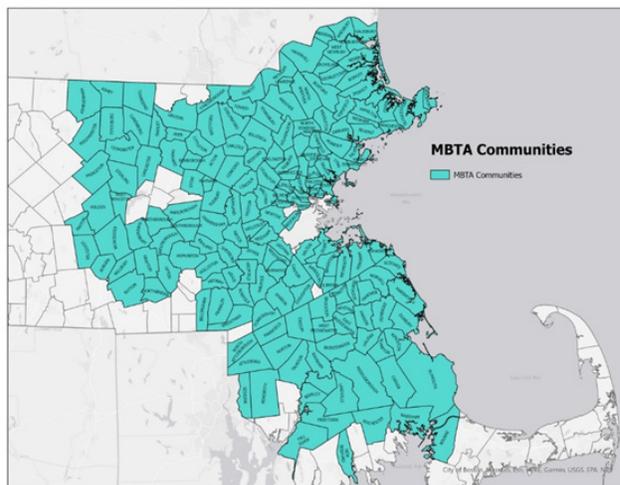


# AFFORDABLE HOMES ACT



Zoning will also continue to be an area of emphasis. Rezoning for housing projects is an incredibly unpredictable and time-consuming process for developers.

Communities determine local zoning decisions, which have a direct impact on capacity for new housing. This underscores the importance of the new multi-family zoning requirement for MBTA Communities.<sup>23</sup> Under the MBTA Communities law, 177 municipalities within the MBTA service areas are required to create “as of right” zoning for multifamily housing. By enabling the development of new housing near transit, municipalities will allow for new housing in walkable neighborhoods, downtowns, and town centers, maximizing public transit investment.



The law will also boost local economic development as new residents will generate foot traffic and patronage for nearby restaurants, supermarkets, stores, and entertainment venues.

As communities come into full compliance with the MBTA Communities Law over the next two years, the state will begin to see widespread benefits. The zoning has the potential to create new apartments and condominiums for young workers looking to settle down and new options for aging residents looking to downsize from a single-family home. There is also abundant evidence that households living near transit, downtowns, and village centers drive less than their counterparts in single family homes and outlying locations, which will mean fewer cars on the road, less traffic congestion, and reduced greenhouse gas emissions.

The Healey-Driscoll Administration plans to target homeownership programs as another avenue to create economic opportunity and more equity in the state. By incentivizing the production of affordable homeownership and supporting first-time homebuyers, EOHLC and its partners are working to open pathways to the middle class for hardworking residents. These efforts are particularly focused on supporting homeownership among Black and Hispanic communities that have much lower homeownership rates. This will help ensure that Massachusetts' future economic prosperity has widespread and equitable benefits.

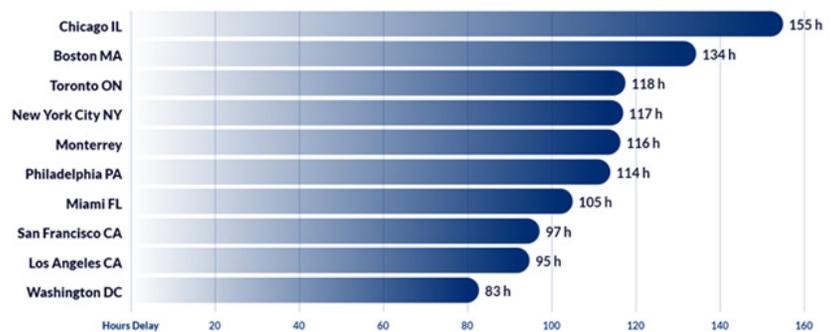
EOHLC will also explore ways to leverage surplus state land for affordable housing production. A problem created over several decades will not be resolved easily, but this Administration, through the leadership and dedication of EOHLC, will take on the challenge with intentionality and urgency.

## Taking on Transportation Shortfalls

### *Current Situation*

Congestion on the state's roadway and transit network is frustrating for all who experience it. Unreliable network conditions can lead to varying travel times for the same trips, which can undermine people's confidence in the system and can make the state less attractive to companies, both as employers and as commercial entities.

According to the 2022 Global Traffic Scorecard, Boston is considered the second worst city in North America in terms of traffic delays.<sup>24</sup> An August 2023 poll concluded that more than 60 percent of MBTA subway riders described the quality of their service experience as fair or poor.<sup>25</sup>



The current status quo is serving as an impediment to the productivity and reputation of the state's economy.

These issues are not new, but the Healey-Driscoll Administration recognizes that the status quo cannot continue if the state wants to advance a successful economic development strategy.

### *Proposed Initiatives*

A connected, safe, and reliable transportation network is critical to meeting the Healey-Driscoll Administration's vision for a successful economic development plan. The Massachusetts Department of Transportation (MassDOT) is cognizant of this imperative as it manages state transportation activities and operations. The state agency is committed to service delivery improvements, including the safety and reliability of the roadway and transit network.

MassDOT includes the Highway Division, which has jurisdiction over nearly 10,000 roadway miles in the state; the Rail and Transit Division, which manages freight, passenger, and seasonal rail lines and coordinates activities with the state's 15 Regional Transit Authorities (RTAs);

the Registry of Motor Vehicles, which maintains approximately 5.3 million vehicle registrations and licenses over six million drivers; the Aeronautics Division, which maintains and oversees 35 public use airports; and the Massachusetts Bay Transportation Authority (MBTA), which delivers over 750,000 transit trips per week on bus, subway, commuter rail and ferries.

MassDOT also works in partnership with the Massachusetts Port Authority (Massport), which owns and operates Logan Airport—a world class airport that serves as the primary airport of New England and is minutes from downtown Boston—as well as Flynn Cruiseport Boston, the Conley Container Terminal, Worcester Regional Airport, and Hanscom Field.

Core to its mission of improving the state’s transportation network is maximizing the Administration’s annual Capital Investment Plan (CIP). The current fiscal year (FY) 2024-28 CIP is centered around a framework that prioritizes reliability and modernization. Collectively, these priorities emphasize investments to keep the network in a state of good repair and meet the state’s travel needs.<sup>26</sup> The CIP includes large-scale investments that, among other goals, are intended to improve operational efficiencies on major corridors, such as South Coast Rail, West-East Rail, and the I-495/I-90 interchange project in Hopkinton and Westborough.

MassDOT is also investing in new tools to manage state and local roadway operations via enhanced Transportation Systems Management and Operations activities. These activities include deployment of intelligent transportation systems (ITS) elements like cameras and variable message signs that monitor roadways and inform first responders and the public about impacts. The FY2024-28 CIP includes \$60 million in planned spending for ITS improvements, including a prioritization in Gateway Cities to accommodate the state’s most significant centers of growth.

Public transportation is a key component of the transportation network in terms of helping our state to thrive. Transit drives economic development in many ways, most directly by transporting a region’s workforce and enabling access to goods and services, especially for those without access to personal vehicles. Additionally, when more people can choose transit, the negative externalities of traffic, such as emissions, traffic congestion, and roadway injuries and deaths, decrease.

The Bus Network Redesign, a multi-million-dollar project to completely reimagine the MBTA bus network to better serve riders, will increase frequency and reliability. Related investments include a 25 percent increase in bus service across the network; a doubling of the number of high frequency corridors (buses every 15-minutes or less, all-day, seven days a week); and a 31 percent increase in high-frequency service on weekends. The Bus Network Redesign project also reflects a dedication to equity by structuring service to provide 125,000 more low-income households and residents of color with high-frequency service than are served today. The five-year implementation is ongoing with the first transit priority projects and route changes coming in 2024.

Bus Network Redesign is an initiative of the Better Bus Project, which will improve bus service through bus stop improvements and station renovations, fleet and facility improvements, and accessibility improvements for the entire system. As an example of this larger effort, MassDOT and the MBTA have piloted transit signal priority and bus lanes on the Tobin Bridge, saving everyone, not just bus riders, a collective 28 hours every weekday via improved traffic flow.

The MBTA is also increasing capacity and reliability through safety and maintenance improvements, such as a \$285 million effort to replace signals on the Red and Orange Lines, and through a landmark collective bargaining agreement with the Boston Carmen's Union Local 589, the MBTA's largest workers' union. This new agreement will enable not only the financial security of the MBTA's workforce, but will also attract new bus operators, maintenance workers, and others who the agency depends on to provide the frequent, reliable service people need.

MassDOT and the MBTA are already experiencing impacts of climate change, including track and station flooding, and have taken steps to assess vulnerability and make improvements. These investments will continue to be a priority for the agencies as the effects of climate change worsen.<sup>27</sup>

As highlighted in the regional listening sessions, Regional Transit Authorities (RTAs) are also a vital component to ensuring reliable travel in our communities. MassDOT's FY 2024-28 CIP includes \$306.4 million in planned capital spending to support RTAs and other small transit providers in the state, including funding for new vehicles, facility enhancements, and technical assistance. This investment complements appropriations made via the annual operating budget process, in partnership with the Legislature.

MassDOT's ultimate purpose is to enable people to safely travel between places and reach opportunities. This is an essential policy area for all stakeholders in economic development initiatives, including businesses, employees, and customers. MassDOT recognizes it has a role not only in supporting connectivity between places, but also in enhancing the viability of housing, commercial, and other transportation-friendly site developments across the entire Commonwealth.

The 2020 US Census reported that over 200,000 Massachusetts households do not have access to a vehicle, and that the share of households without a car is largest in urban communities, low-income communities, and communities of color. Where transit is available, these families and individuals are dependent on the access that it provides. This further underscores the link between transportation and economic development.

To support bicycle and pedestrian connectivity, MassDOT plans to spend a combined \$528 million on expansions and enhancements to the Commonwealth's bicycle and pedestrian network, Complete Streets implementation, and support for the Safe Routes to School and the Shared Streets and Spaces programs, the latter of which fund quick-launch improvements to support public health, safe mobility, and strengthened commerce.

Now and into the future, MassDOT is dedicating significant effort to planning work and capacity building to respond, inform, and work with partners on destination accessibility. MassDOT is investing in data platforms and systems that allow the agency to better understand accessibility opportunities and challenges. The Office of Transportation Planning is leading a study with the MBTA to reexamine its fare policy and identify ways to improve and simplify fares on all services. The state agency also supports metropolitan planning organizations and municipalities in developing programs and funding projects that improve access to critical destinations.

Overall, the work of MassDOT, the MBTA, and its partners to improve access and connectivity, when partnered with making the transportation network we have safer and more reliable, lay the groundwork for the Commonwealth's future economic vitality.

## Invest in Infrastructure and Competitiveness

### Current Situation

In addition to housing and transportation, the other key part of Fundamentals is the continued investment in infrastructure. The state has invested historically in these areas with the successful Community One Stop for Growth model, and it has made a positive difference in places like Gateway Cities. However, there is more work to be done to unlock economic development opportunities across Massachusetts. In addition to continued support for Gateway Cities, there are many infrastructure needs in rural communities, historically disadvantaged neighborhoods, and large transformation projects that can unleash untapped potential. This Administration recognizes that its decisions around policy and infrastructure investments can contribute in meaningful ways to the economic development prospects and the overall vibrancy of communities. These investments include several strategic initiatives.

### Proposed Initiatives

#### **Building on Successful Models for Infrastructure Support to Help All Communities**

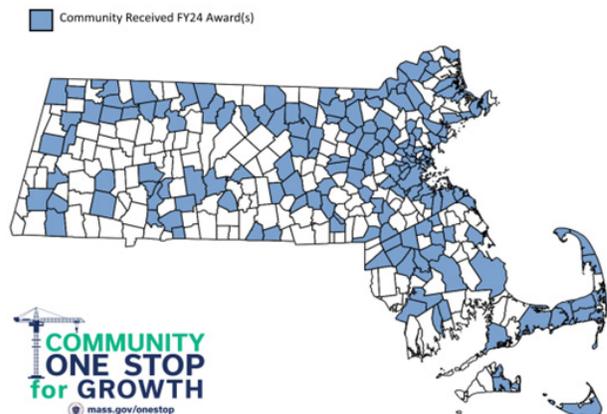
Massachusetts is comprised of 351 towns and cities, spanning 10,555 square miles of land. Each municipality, including our rural and coastal communities, and Gateway Cities, have unique charm and a proud history. Every day, businesses and residents are working in these communities to participate in and grow the economy. Downtowns, business districts, and neighborhoods are underpinned by the investments made in the roads, utilities, water, and sewer infrastructure of their cities and towns, and in the community and business development activities that activate these shared resources.

The Healey-Driscoll Administration is committed to building on the success of the Community One Stop for Growth, which is run by the Executive Office of Economic Development (EOED) and is currently the main vehicle for public economic development investment in the Commonwealth. It is an annual, year-long collaborative process across grant programs within EOED, Executive Office of Housing and Livable Communities (EOHLC), and MassDevelopment.

The One Stop includes critical funding that spurs economic development by investing in public infrastructure, preparing sites and cleaning up brownfields to prepare them for development, and supporting vibrant downtowns. The One Stop serves as a model to advance equitable and easy access to resources that support the economic foundation of the state.

#### **FY24 Community One Stop for Growth**

On October 25, 2023, Governor Healey and Lieutenant Governor Driscoll announced \$164 million in grants across 338 projects in 161 communities.



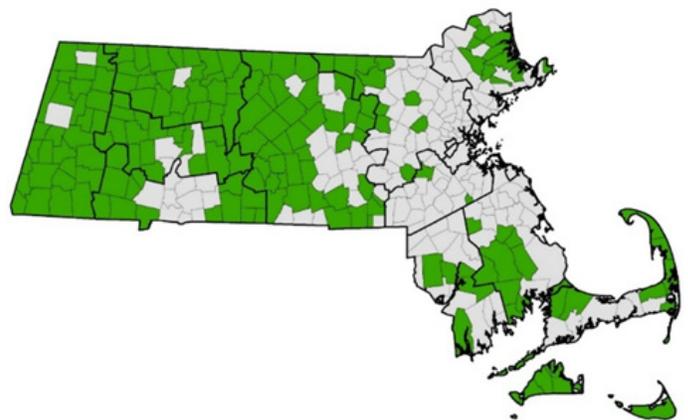
Equally as important are EOED's Seaport Economic Council grants and dredging programs, which invest in the state's 78 coastal communities, and other programs and initiatives managed by MassDevelopment, including the Transformative Development Initiative (TDI) program, real estate programs, the agency's management of real estate assets as the state's land bank, and investments made through the agency's bonding and lending services. The suite of programs offered at EOED and partner agencies are vital to making progress on infrastructure access and reliability in our communities.

### **Uplift Rural Communities**

Of the 351 municipalities in the state, 181 communities are considered rural and small towns.<sup>28</sup> Collectively, these communities make up nearly 60 percent of the state's land area and approximately 13 percent of the state's population. These communities have experienced population and employment declines and residents have lower incomes compared to the statewide averages. Governor Healey and Lieutenant Governor Driscoll are committed to supporting rural municipalities, from the Berkshires to the outer Cape, and creating the conditions necessary for economic development in these areas. In May 2023, the Administration announced the new position of the Director of Rural Affairs within EOED to support communities and help cultivate economic development opportunities. To deepen this commitment, the Healey-Driscoll Administration will do the following:

### **Massachusetts Rural and Small Towns**

Vision: Strong rural communities in Massachusetts have stable populations and businesses. Rural residents have access to jobs and income. The assets within the community are used in alignment with community aspirations.



### *Enable a Livable and Workable Rural Massachusetts to Stabilize Population*

- **Unlock Funding to Improve Rural Infrastructure:** Unlock funding to ensure the state is meeting rural communities' needs around roads, water sewer capacity, and other infrastructure to better enable growth.
- **Rural Designation to Funnel Resources:** Create a workable rural economic designation like the Gateway Cities designation to direct resources, increase opportunities for private funding, and improve visibility for rural communities.
- **Reduce Burden to Access Funds:** Make funding easier to access to achieve quick wins in rural communities.

### *Champion Businesses and Key Rural Projects that Grow Jobs*

- **Cross-Secretariat Collaboration to Remove Barriers:** Work across secretariats to address roadblocks to key projects that grow jobs in rural areas. While the scale of projects may be small, they will have a significant impact on rural communities.

- **Convening:** Assist communities in their economic sustainability by facilitating connections among parties and leveraging community assets and actors to elevate strengths and partnerships.
- **Strong Sectors and Career Pipelines:** Invest in economic strengths such as eco-tourism, farming, fishing, and arts and culture, and create career pathways from traditional and vocational high schools and community colleges to municipal jobs.
- **Targeted Support for Space Utilization:** Direct funds toward space utilization and mill demolition and redevelopment, including through Community One Stop funding.

### *Hit the Basics*

- **Relationship-building:** Interact with all 181 Rural Communities by building and maintaining open lines of communication with the town administrators, managers, select boards, executive secretaries so they know they are being heard.
- **Information:** EOED has created a dedicated rural economic development section of the EOED website to streamline communication.

The Healey-Driscoll Administration will know we are successful in achieving this vision for rural economic development when there is a stable business presence and populations in rural areas and rural populations have access to good jobs and living wages.

### **Invest in Projects and Programs that Ensure Competitiveness:**

#### Large Transformational Projects

##### *Current Situation*

It can be challenging to advance complex development projects in Massachusetts. This is particularly true for very large, complicated development projects that involve multiple stakeholders, and require a long time for planning and completion. These projects have significant economic benefit, but are hard to get started, and slow or uncertain in terms of the time required to navigate all of the required processes. We believe the state has an important role to play in initiating these projects, and prioritizing them to accelerate the timelines.

##### *Proposed Initiatives*

Massachusetts must make strides to improve transparency and predictability in the siting and permitting process for development prospects across the state. The status quo consumes too much time and resources, which increases the cost of doing business in the state, especially for large projects. The Healey-Driscoll Administration understands that this issue will require a whole government approach. Together, we are forming a Competitiveness Cabinet, similar to the existing Workforce Skills Cabinet led by the Executive Office of Labor and Workforce Development. This cross-secretariat cabinet will include five secretariats: the Executive Office of Economic Development (EOED), the Executive Office of Administration and Finance, the Executive Office of Energy and Environmental Affairs (EOEEA), the Executive Office of Housing and Livable Communities, and the Massachusetts Department of Transportation.

This Competitiveness Cabinet will be chaired by the Secretary of Economic Development and will address issues such as permitting and zoning while building upon the foundation of 43D Expedited Permitting to develop a “Growth District Initiative” to create an inventory of development-ready sites for new and expanding businesses. The Competitiveness Cabinet will also partner with municipalities to identify one or more areas within their communities as appropriate locations for significant new growth, whether commercial, residential, or mixed-use. The objective will be to create a level of “development readiness” in Massachusetts that will make our state highly attractive to new development and truly competitive at a national and international level. Working closely with EOEEA and Department of Public Utilities, and utility companies, EOED will also support these efforts by exploring ways to expedite access to the necessary electric utility infrastructure for sites. The Commonwealth aims to be the “go-to” state for user-friendly, efficient, and streamlined siting, permitting and utilities. Importantly, there is work underway already on this aspiration with the state’s Commission on Clean Energy Infrastructure Siting and Permitting under the leadership of EOEEA.

The Healey-Driscoll Administration seeks to support transformational projects across the Commonwealth. Left to the markets, these complicated projects might have difficulties getting started. The goal of the state would be to help initiate and coordinate in order to enable local municipalities and the private sector to then invest. The Competitiveness Cabinet will also lead and accelerate these large projects. The Cabinet will explore creative financing solutions and streamlined permitting procedures will be explored to better help transformational projects become reality. Most importantly, the Healey-Driscoll Administration recognizes that good, smart public infrastructure investments create conditions for subsequent private investment that can be truly transformative.

## Internet and Cell Service Access

### *Current Situation*

While great progress has been made relative to broadband access in recent years, there are still gaps in the availability, adoption, and quality of service across Massachusetts. These shortfalls impact individuals, families, and businesses that are seeking to learn, work, and compete. In addition, lack of consistent cell service is also a hindrance to residents and businesses.

Reliable and accessible broadband and cell service are fundamentals for our economic competitiveness.



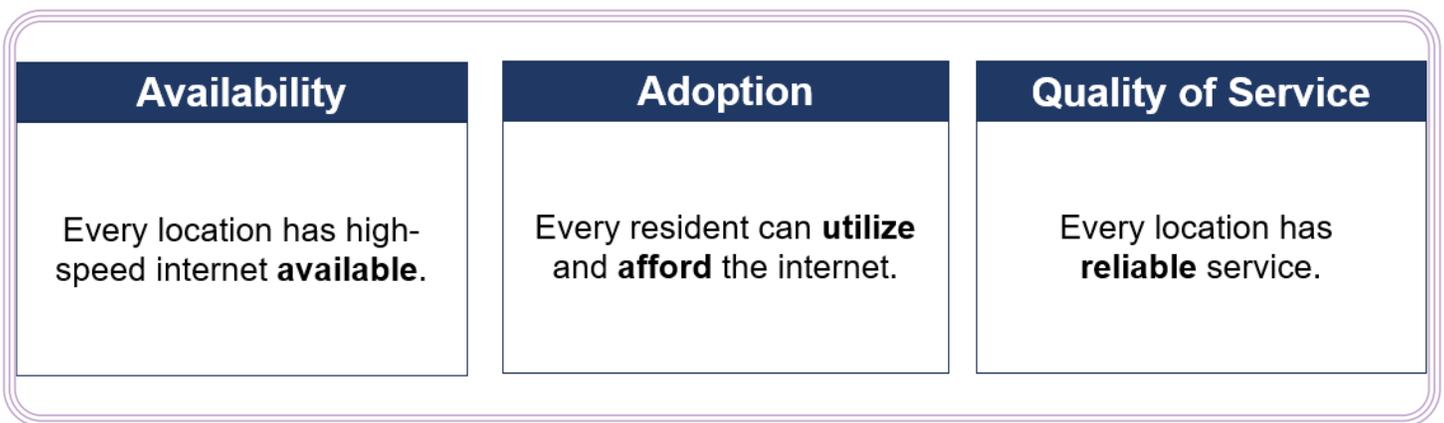
*Proposed Initiatives*

To support our state’s competitiveness, we must ensure consistent and high-quality access to internet and cell service for all our residents. Due to Massachusetts’ deep focus and investment in deploying broadband and internet accessibility, over 98 percent of the Commonwealth is considered served by high-quality internet and cell service today. However, the remaining 18,000 Broadband Serviceable Locations (BSL) that are unserved or underserved still experience a lack of connectivity, creating a digital divide that hinders residents’ ability to fully participate in today’s connected world. In addition, the BSL are highly dispersed across the state with many of them located in small groups, in low density areas, and in markets that currently lack competition.

With a strong foundation of broadband investments to date, and new sources of funding on the horizon, Massachusetts has a once-in-a-generation opportunity to close the digital divide for all residents. Our state is in a unique position to leverage proven broadband deployment models and invest unprecedented amount of federal broadband funding through the Infrastructure Investment and Jobs Act’s Broadband Equity, Access, and Deployment Program and the federal Capital Projects Fund. Digital literacy, access to devices, and affordable plans through the federal Affordable Connectivity Program (ACP) are also key to moving beyond access to ensuring economic participation among all residents.

This is the state’s moment to address remaining coverage gaps, while pursuing the larger goal of digital equity, and the Healey-Driscoll Administration is committed to 100 percent of serviceable locations having a pathway to broadband access by 2026. Further, the Administration is committed to finding a pathway for the locations that may be experiencing internet quality of service issues, particularly those in affordable and public housing. Finally, the state will provide support for households that are struggling to afford and use the internet with digital equity services, including by providing devices, digital literacy training, and by getting residents enrolled in the Affordable Connectivity Program, which supports households in achieving connectivity.

**Healey-Driscoll Administration Broadband and Digital Equity Vision**



*There is an opportunity for Massachusetts to continue to be a leader in connectivity among all states.*

Additionally, cell coverage is still a challenge for residents and employers across the state. Working with the Executive Office of Technology Services and Security and major cell service providers, EOED will work to identify coverage and quality of service gaps to address the challenges of providing stable and reliable cell service.

In summary, economic growth for our state starts with the Fundamentals, both around housing and transportation, and around continued investment in infrastructure and competitiveness. This first priority of Fundamentals lays the foundation for the next two priorities around Talent and Sectors.



*Governor Healey, Lt. Governor Driscoll tour affordable housing development in Worcester.*

## **TALENT:** Retaining and Attracting the World's Best Talent Across All Backgrounds

The Healey-Driscoll Administration intends to reinforce our state's position as the global talent hub for individuals from every kind of background. To do this, we propose specific initiatives to retain and attract all types of talent, from college students to international immigrants and high school graduates to tradespeople. The state must also do better championing our state's unique story, values, and vision in a consistent and authentic way so our residents feel proud to be part of Team Massachusetts and talent outside of our state wants to join us.

While we propose new initiatives that demonstrate the urgency and tenacity that are necessary to achieve these goals, the Healey-Driscoll Administration also recognizes the importance of cross-secretariat collaboration to reach this imperative and has elected to continue the state's Workforce Skills Cabinet. The Cabinet brings together the Executive Offices of Labor and Workforce Development (EOLWD), Education (EOE), EOED, and the Executive Office of Health and Human Services (HHS).

Teamwork and partnership within and beyond government are paramount for the Administration to successfully execute this talent strategy. Our approach will be built around two components: **Be the Global Talent Magnet** and **Tell Our Story**.

### **Be the Global Talent Magnet**

#### *Current Situation*

For our state, economic growth starts with talent: the people of Massachusetts have long driven the state's economy. Talent is our secret sauce and our biggest competitive advantage. We have talent across every kind of background, thanks to some of the best K-12 education in the country that develop our homegrown talent and the best colleges and universities on the globe that attract the world's best talent. However, we need to do a better job of retaining this talent, as it is the fuel for our economic engine. We propose initiatives around each type of talent in our state.

#### *Proposed Initiatives*

##### **College Students – Statewide Internship Program**

Massachusetts has so many of the world's best colleges and universities that, each year, draw nearly 500,000 of the best college students from around the country and world to our state. The University of Massachusetts System has more than 330,000 alumni in the state and awards approximately 20,000 undergraduate and graduate degrees each year across its five campuses.<sup>29</sup> The Healey-Driscoll Administration aims to retain as many college graduates here as possible through a new statewide internship program.

We propose creating a tax incentive for Massachusetts companies that are willing to host and support college interns. The state will work with our quasis to promote these tax credits and onboard more companies to offer internships. This approach will ease the financial burden for companies that wish to participate in internship programs and will aim to draw large and small companies alike. A second component of this work will involve better organizing many internship grants and subsidies that already exist across our state, such as through the Mass Life Sciences Center, MassTech Collaborative, and MassCEC. The state will also partner with college and university career centers to market these internships to students.

Our long-term aspiration is for every college student studying in Massachusetts to participate in at least one internship with a Massachusetts company during their time in the state and that their internship experience converts to a full-time job placement that will help them stay here post-graduation.



**Internships are an effective tool for attracting and retaining young talent in Massachusetts.**

- The Mass Life Sciences Center has funded more than **6,000 internships** at **more than 1,000 companies** since 2009.
- MassTech's internship program has supported more than **1,200 college level interns** at nearly **400 tech firms** in Massachusetts since 2013.
- The MassCEC Internship Program has placed **over 5,000 students** and **recent graduates** at more than **600 clean energy companies** since 2013.

These internships will also help our companies attract and retain talent and boost local economies across the state. The program is a win-win, where young adults get a better opportunity to see what makes Massachusetts special and employers get access to a pipeline of future talent.

### **Immigrants – Visa Navigation and Global Entrepreneur in Residence Program**

Given the world class colleges and universities in the state, Massachusetts is a popular destination for some of the best and brightest international students. The Healey-Driscoll Administration recognizes that immigrants are integral to the Massachusetts story. It is for that reason that connecting our immigrant talent to Massachusetts' workforce is a key priority of the Workforce Skills Cabinet, and will be a component of the forthcoming State Workforce Plan. Within that effort, EOED is focused on helping international students find ways to stay here after graduation to pursue careers and build lives in this state.

Immigrants make up approximately 20 percent of the state's workforce.<sup>30</sup> There are over 70,000 international students in Massachusetts, the third largest population of international students in the United States that contributes \$3.2 billion to state economy.<sup>31</sup> International students also comprise about 30 percent of all master's degree candidates at the 10 largest universities in Massachusetts.<sup>32</sup>

Yet approximately 7,000 international student graduates leave Massachusetts each year. For many of these students, federal immigration policy drives them to leave. The H1-B visa program is heavily oversubscribed for those seeking to work in the United States: today, the program is capped at 85,000 nationally, yet in FY2024, a record 780,884 people applied for the H1-B visa, an increase of 61 percent from last year's 438,927 applicants.<sup>33</sup> When demand exceeds supply, which is the case most years, a lottery determines H1-B visa winners and the chance of success is now well below 20 percent. The lack of available H1-B visas limits the state's ability to retain highly skilled foreign workers, many of whom are likely to become founders and entrepreneurs.

Massachusetts cannot change the federal visa regulations, but the state can explore ways to leverage the existing federal framework to create opportunity and economic gain. Since 2015, UMass Boston has operated a Global Entrepreneur in Residence (GEIR) program on its campus to help immigrant students navigate the federal visa system and find ways to stay in this country, and in Massachusetts, after graduation.

To ensure Massachusetts remains a global talent hub, the Healey-Driscoll Administration proposes to build on the existing success of the GEIR Program and scale it across the state by partnering with additional colleges and universities. The Healey-Driscoll Administration will dedicate resources, including through quasi-public agencies such as MassTech Collaborative and MassVentures, to work with the higher education institutions and industry partners to improve program capacity and offer concierge-like immigration services to keep more foreign graduates here.

Retention rates for top performing areas in the U.S. reach 85 percent; Massachusetts retains only 66 percent of international graduates.<sup>34</sup> The aspiration is for us to change that and become the best state in the country for international students to find ways to stay in Massachusetts beyond graduation and make valuable contributions to our economy.

### Massachusetts High School Grads – Scale MassTalent

The Healey-Driscoll Administration is committed to being the national leader in workforce training and development by connecting job seekers to meaningful career pathways and high-quality jobs. Leveraging the collective reach and leadership of the Workforce Skills Cabinet is central to this effort, including the Healey-Driscoll Administration’s MassTalent initiative to connect employers to skilled, diverse jobseekers for in-demand, high growth industries and occupations.



Massachusetts’ workforce system and workforce partners represent a wide range of training programs and collaborative industry leaders to prepare untapped, diverse talent with the skills to excel at employers across industries. Many career pathway programs only require a minimum of a high school diploma, providing alternative pathways for adult learners to pursue meaningful careers in Massachusetts.

But, navigating this system can be a challenge for both jobseekers and employers. That is why MassTalent aims to streamline resources to help residents find job training and employers find the skilled talent they need; when fully developed, MassTalent will serve as a central tool for companies to access multiple talent pipelines in four high-growth industries:



- **Life Sciences:** Curing disease
- **Advanced Manufacturing:** Defending our country
- **Healthcare:** Caring for each other
- **Clean Energy:** Protecting our planet

For MassTalent’s work to support the life sciences industry, the Healey-Driscoll Administration is supporting programs such as Pathmaker, which is run by the MA Life Sciences Center (MSLC). Pathmaker funds new training partnerships between industry and training providers, creating industry standardized training programs that are free and accessible to students and adults with a high school education and no previous experience. Biomanufacturing is a particular area of focus of this program.

In this space, there are also other established workforce programs through external organizations that we will engage through Pathmaker, including MassBio’s Bioversity, Jewish Vocational Services, Gloucester Marine Genomics Institute, Worcester Polytechnic Institute, Quincy College, MassBioED, Middlesex Community College, and many others. Over time, the goal will be for 75 percent of Pathmaker graduates to be gainfully employed in the life sciences field.

For MassTalent’s efforts to support advanced manufacturing, the Healey-Driscoll Administration plans to scale up the existing MassMakes program, run by the quasi MassTech through its Center for Advanced Manufacturing. Using the model of “core competencies,” the industry has identified the following occupation training priorities: computer numerical control technicians, maintenance technicians, mechanical engineering technicians/mechanical drafters, electrical engineering technicians, industrial engineering technicians, and chemical/materials technicians. Several of these skillsets are relevant for the growing needs of the robotics and automation industry.

For MassTalent’s work to support the healthcare and human services industry, the administration is partnering with employers, training providers, and educational organizations to increase the pipeline, streamline credentialing processes, promote registered apprenticeship, and accelerated training programs, and retain workers. Given where the shortages are most acute and we can have the most impact, we are prioritizing nursing, direct care entry-level occupations like certified nursing assistants, and behavioral health roles.

For MassTalent’s work to support clean energy, the Massachusetts Clean Energy Center is partnering with companies, labor, and workforce providers to train and fill in-demand roles, such as green electricians, green HVAC workers, and electric power line installers and repairers. The state needs to add approximately 36,000 clean energy jobs by 2030. Since 2010, the Massachusetts clean energy industry has experienced 73 percent job growth, adding 44,016 new workers, demonstrating the significant demand for these roles. These roles are necessary for achieving our state’s ambitious climate goals.

**Trades and Professions – Increase Pathways**

Another important pathway for retaining and attracting talent is with our trades and professions, including roles such as plumbers, electricians, hairdressers, real estate professionals, and many others. Almost 500,000 licenses are currently issued to people and businesses in Massachusetts by the Division of Occupational Licensure (DOL) within EOED’s Office of Consumer Affairs and Business Regulation. Today, many of the systems and processes by which talent working in the trades obtain a license are outdated and result in inefficiencies, a cumbersome experience for users and even a barrier to entry. To grow our economy and remain competitive, the Commonwealth needs to modernize its licensing systems and increase pathways for talent to enter trades and professions.

**Licenses Issued by the Division of Occupational Licensure**

500,000 active licenses across 34 practice areas in 2023	
<b><u>Practice areas (only top 20 by licensing volume displayed):</u></b>	
Architecture	Massage Therapy
Barbering	Pipefitting
Construction Supervision	Plumbing and Gas Fitting
Cosmetology	Public Accountancy
Drinking Water Supply	Real Estate
Electrical	Refrigeration
Elevator	Security Systems
Engineering and Land Surveying	Sheet Metal
Funeral and Embalming	Sprinkler Fitting
Hoisting	Veterinary

Currently, the DOL maintains several independent, non-integrated licensing systems that are unable to communicate with each other. Responding to user requests then requires significant manual work, which results in long response times and makes it difficult to track customer service metrics.

Many other states have newer, easier to use systems. Massachusetts cannot afford to lag in this area. To remain competitive and ensure the strength of our workforce pipeline in the trades, the Healey-Driscoll Administration will improve licensure technology through updates and streamlining. The DOL will work closely with the Executive Office of Technology Services and Security on this information technology modernization project.

In addition to these systems improvements and to meet the changing needs of Massachusetts residents, the licensing boards need to update relevant regulations so the boards are more effective at safeguarding consumers while also becoming simpler for businesses to navigate. The Healey-Driscoll Administration proposes three main initiatives in this area: embracing modern learning methods; opening doors to new and returning residents; and increasing entry-level workforce opportunities.

- **Embracing modern learning methods:** As the state continues its recovery from the COVID-19 pandemic, there is a significant and unique opportunity to benefit from the lessons learned through that challenging time – among them that hybrid education is a viable and beneficial educational option in many disciplines. While there will always be the need for on-the-job training, the option for hybrid learning will open the door to components of training for many career-seekers that could not previously pursue such an opportunity due to child-care, transportation, or mobility challenges. Currently, such educational arrangements are made on an ad-hoc basis without consistent and predictable standards. The DOL will work with the 26 independent boards of registration and various other licensing units that make up the agency’s portfolio to have more consistent open access to hybrid education options to meet educational requirements.
- **Opening doors to new and returning residents:** To responsibly open Massachusetts up to the rest of the country and the world, the administration proposes establishing a dedicated Reciprocity Ombudsperson and unit at the DOL to guide those seeking licensure from other jurisdictions through the process here in Massachusetts. This would help many segments, such as veterans, their spouses, and the families of active-duty military stationed in the Commonwealth. Currently, the process is managed on a board-by-board, case-by-case basis utilizing a standard of “substantial equivalency” – which can vary by license, jurisdiction, and issuing authority. By developing a single point of contact that can research applications from outside Massachusetts for consistency with our established standards and shepherding them through the local license recognition process, Massachusetts can make a stressful process easier for applicants and licensing authorities – all while establishing clear, predictable standards and making access easier.
- **Increasing entry-level work opportunities:** To increase entry-level workforce opportunities, DOL will examine how to adjust existing regulatory and licensing standards to industry needs, including how the state can increase access to apprenticeship and entry-level opportunities for trades in the most in-demand sectors. To do so, the administration will take the opportunity to engage with partners across government and organized labor to determine if the current requirements – including apprentice ratios, licensure prerequisites, and on the job training hours – meet the balanced needs of labor, industry demand, and consumer confidence. This is particularly relevant for industries where demand will continue to grow, such as the green economy. In addition, this represents a unique window of time where the state must meet the moment for employers, employees, and aspiring

tradespeople. To seize the opportunity, the state in partnership with industry, trades, and licensing boards can explore new, limited license types that require fewer hours of training and education to obtain but are strategically focused in areas where the workforce is needed most. With the right balance, the Commonwealth can help deploy specialized skills much more quickly to support the state's economy and open doors to individuals across the state seeking a rewarding career pathway.

## **Tell Our Story**

### *Current Situation*

A key part of retaining and attracting talent involves telling our Massachusetts story about who we are as a state, and why this is the best place to start and grow a career, and the best state to start and scale a business.

As mentioned in the introduction, the state and its people have much to be proud of, and we have a unique opportunity to lead for the country and the world. Massachusetts can be a high growth, strong, vibrant, innovation and mission-driven economy that solves important problems around curing disease, climate change, education, defense, and many other areas while also being a humane place to live, where we celebrate and protect freedoms and are committed to embracing our communities.

However, the perception of our state is lagging, and does not reflect the realities of our strengths and our vision. Far too often, the coverage and commentary are solely focused on the negative here in Massachusetts. While we have problems, so do other places, and we are working hard to address and fix these issues. The state must do a better job of sharing the positives.

### *Proposed Initiatives*

The Healey-Driscoll Administration is here to tell our story in an authentic, proactive way. We will coalesce and convene across all members of our community, to share a concise and consistent view of our state, in an organic way. This narrative campaign will bring together "Team Massachusetts" and engage and enlist our large companies, small companies, investors, state government, legislators, municipal leaders, and nonprofits so that all of these key stakeholders are invested in and helping sell our state to talented people and to companies. As part of this, we will consider forming a cross-ecosystem Team MA Council, that will work together on private-public programs to help us tell our story and retain talent. The goal is two part: 1) for us to attract and retain talent and enable them to live their best lives here; and 2) for us to attract and retain companies, and to support their expansion and their success here. This administration wants people to think about Massachusetts as a leader, and the BEST place to live and work in the country, and maybe the world.

To summarize, this second priority area of our economic development plan is all around retaining and attracting talent, by creating opportunities for all of our talent, and by telling our story. We now turn to the third and last priority area of our plan, Sectors.

## **SECTORS:**

Supporting businesses that power the state's economy

Now that we have covered the first two priority areas of the plan: Fundamentals and Talent, we will dive into the third priority: Sectors. Massachusetts' economy is powered by a diverse set of industries and businesses. In order to succeed going forward, the Healey-Driscoll Administration intends to deploy sector-specific initiatives to address unique issues by sector. We are not a huge state, and we need to focus on the sectors where we have competitive advantages, and a natural right to win. To do this, we are focusing our strategy around three components: Lengthen the Lead in Key Sectors; Catalyze New Leadership Sectors; and Make Things Easy for Businesses across every sector to access resources from the state.

### **Lengthen the Lead in Key Sectors**

#### *Current Situation*

There are three sectors where this state is already a national and global leader. These three leadership sectors are: life sciences and healthcare; advanced manufacturing and robotics; financial services and education. These sectors are powered by industry-leading companies, world-class institutions and organizations, and some of the brightest minds on the planet. However, just because we are leaders today does not mean we will be leaders forever. The state should recall its cautionary tale in the past, when at one point, Massachusetts led in software and technology, with prominent companies along the Route 128 corridor, such as DEC and Wang Computing. However, over time, this sector shifted to California. To ensure that this does not happen again, we cannot rest on our laurels, and we cannot simply maintain and tread water. Instead, the Healey-Driscoll Administration plans to invest, convene, and ensure that these three leading sectors lengthen their leads as national and world leaders.

#### *Proposed Initiatives*

##### **Life Sciences & Healthcare**

Today, in 2023, we are the undisputed global epicenter for the life sciences industry. Eighteen of the top 20 global pharmaceutical companies are headquartered in the state. Greater Boston is the global hub for life sciences activity and Worcester is the #15 hub in the country, surpassing many other larger cities. We receive the largest amount of venture funding for life sciences startups. The state's life sciences ecosystem showed the world its capabilities during the pandemic when companies like Moderna, organizations like the Broad Institute, and many others worked together to discover and deploy vaccines and testing. In September 2023, the Biden Administration cemented this leading position with its decision to place one of the just three regional hubs for its ambitious health care program in ARPA-H within Massachusetts.<sup>35</sup>

However, this success did not happen purely by accident. This state had many of the proper ingredients in place, with our universities, research centers, leading hospitals, and investment community. Massachusetts was also the first to implement universal health care, which then became the template for President Obama's Affordable Care Act.

Intentional actions, including the deployment of proactive public-private partnerships, then accelerated this momentum to grow a leading sector. Under Governor Patrick, the state launched the Life Sciences Initiative, and committed \$1 billion over ten years, across a combination of operating and capital funds, tax incentives, and policy initiatives to foster the industry. This early vision also involved the formal creation of the Massachusetts Life Sciences Center to lead on this work as a quasi-public agency. Governor Baker further strengthened this success with his renewal of key authorizations 2018, in partnership with the state legislature.

While there is much to be proud of as the global leader, we still have much work to do. This past summer, a study released by the Blue Cross Blue Shield of Massachusetts Foundation and the Health Equity Compact concluded that health inequities experienced by people of color in Massachusetts are costing the state an estimated \$5.9 billion each year.<sup>36</sup> The Boston Public Health Commission found a 23-year life expectancy gap between two census tracts in Back Bay and Nubian Square in 2023, which are neighborhoods separated by just a few miles.<sup>37</sup> Massachusetts must improve on health disparities with the global epicenter for life sciences in its backyard.

Meanwhile, many other states are trying aggressively to replicate and overtake our success in life sciences. North Carolina has made significant investments in the Research Triangle Park, and in biomanufacturing. Texas is the winner of the other competitive ARPA-H hub, and has gained the commitment of several philanthropic donors, alongside a 20-year, \$6 billion investment in its Cancer Prevention & Research Institute of Texas (CPRIT). California continues to grow its ecosystem, as it has since the early 2000s.



Very much in the spirit of ARPA-H, Massachusetts must endeavor to do better for patients by taking on the biggest, most challenging problems: health equity and reducing disparities in health care. This state can play an outsized role in diagnosing diseases earlier, preventing disease, getting drugs and treatments to market faster, helping find sustainable financial models for hospitals, and pushing the science around cell and gene therapy and new diagnostics. We want to shift the focus to keeping people healthy, not waiting until they're sick. We are differentially able to help on these issues because our state has leaders across the ecosystem, and because we are large enough to have enough scale, but small enough to run pilots and experiments quickly. If we can solve these issues here, we can again be a model for the country and the world, similar to our universal health care, and our Covid vaccine and testing rollouts.

The Healey-Driscoll Administration has already committed to a reauthorization of our Life Sciences Initiative, which would be 3.0.<sup>38</sup> Rather than simply continue the same programs with some additional funding, Massachusetts has an opportunity now with ARPA-H and our ecosystem to raise the bar again. This administration intends to use 3.0 to reimagine and to think bigger. To solve these next set of problems will require two fundamental changes. First, we need to think beyond silos and just drug discovery, and think more holistically across life sciences, providers (i.e., hospitals and community care), payors (i.e., private and government), medical device manufacturers, and academia. Second, to accelerate improvements in health care, we need to adopt new technologies even faster, particularly around data analytics, machine learning, and artificial intelligence. As this administration prepares the next life sciences proposal, these focus areas will be emphasized in the approach.

For example, as part of the 3.0 initiative, the Healey-Driscoll Administration will explore the assembly of an ARPA-H inspired fund for Massachusetts that would be overseen by the Secretary of Economic Development, in collaboration with the Executive Office of Health and Human Services and the Massachusetts Life Sciences Center, and guided by a small advisory council of leaders from every part of the healthcare ecosystem. This group could allocate grants for pilots and experiments that are tackling these big problems, with the requirement that participants work across different players in the ecosystem, and that they incorporate new technologies. As an example, there could be a multi-dimensional partnership that involves a medical diagnostic company, a biotech company, a hospital, a community partner, a payor, and an AI software company that work together on running a concrete project, such as:

- Finding solutions to better treat and support brain health: steer focus on identifying better ways to treat mental and behavioral health issues for better interventions and stronger outcomes.
- Getting medicines to market faster: identifying and eliminating bottlenecks in pharmaceutical discovery, curing disease, and reducing financial barriers for patients.
- Eliminating barriers for clinical trials, including access: expanding upon the pathways for preventative care and improving long-term community health outcomes.
- Predictive health care modeling: in medicine, AI is being employed using analytics to review patient datasets and forecast the likelihood of certain diseases and disorders. When utilized, AI can detect difficult to identify conditions, diagnose, and serve as an important tool for preventative care.
- Fetal and maternal health care outcomes: understanding and addressing the geographical and cultural disparities in health outcomes for mothers and infants.
- Early disease detection: determine ways to improve the timing and accuracy of early disease detection to treat problems sooner, such as on-site at the hospital.

In addition, information and data will be paramount in order to solve these complex problems. As a first key step in the process, the Healey-Driscoll Administration will explore how to improve data-sharing and coordination in a safe, practical, and responsible manner. Inspired by the 2019 Digital Health Council Report,<sup>39</sup> this administration will revisit the concept around the “Distributed Data Network,” which is designed to allow for sharing of key electronic records across the Commonwealth. The concept aims to unlock innovation through real time aggregation of health care data.

The Distributed Data Network (DDN) will enable the ability to supplement electronic medical records and hospital system data and change the discussion between patients and physicians – focusing less on capturing information and more on providing care. The DDN would serve to address existing gaps and create a framework for data exchange for care coordination and patient access. The DDN will also be a competitive advantage and tool for everyone in the ecosystem to develop and run better pilots around the big problems above. It is also very complementary to the ARPANET-H concept that ARPA-H is working towards, and similar to what other countries, such as the United Kingdom and Israel, have done with shared records. The Healey-Driscoll Administration will re-engage the leaders who worked on the 2019 DDN efforts, and follow through on implementing as part of life sciences and healthcare 3.0 vision.

Through Life Sciences and Healthcare 3.0, and ARPA-H, we can lengthen our lead in this space, and help patients in our state, country, and the world.

### **Advanced Manufacturing & Robotics**

Another area where Massachusetts is already a leader is in specialized advanced manufacturing and robotics. The manufacturing sector generates \$56 billion of the state's GDP (9%) and employs approximately 230,000 residents, of which advanced manufacturing accounts for about 80% of the sector's GDP and roughly 75% of employment. There are leading advanced manufacturing companies with significant footprints in this state. This includes Raytheon Technologies, General Dynamics, Analog Devices, Boston Scientific, Waters, and many others.

For Robotics, the ecosystem includes more than 400 companies and 35 robotics research and development programs across 18 higher education institutions. Massachusetts is also home to some of the world's leading robotics companies. Leading in the areas of fulfillment and development of specialized hardware, Massachusetts is a pioneer in robotics. Major players in the emerging industry, such as IRobot, Symbotic, Boston Dynamics, Amazon Robotics, and Brooks, have robust operations in the state.

It is hard for Massachusetts to compete in commodity, low skill, low tech manufacturing, but these advanced manufacturing and robotics areas play to our strengths. They require leading research and development, which is coming nearby universities and labs in Massachusetts. These sectors require a skilled, stable, and well-educated labor force. They require both hardware/mechanical and software/digital engineering skills. And, these are growth areas, as advanced manufacturing and robotics are increasingly important across several areas, such as defense, semiconductors, and national security. Quantum computing is another revolutionary technology that will transform computing power and prove critical to the long term strategy in lengthening the lead in these areas, and other key sectors.

This fall, the Department of Defense selected the Northeast Microelectronics Coalition Hub (NEMC) as one of just eight hubs (out of 83 applicants) for the CHIPS Microelectronics Commons award. Led by MassTech Collaborative, this hub involves more than 90 organizations and companies from across the region. This hub will focus on leading edge technologies and manufacturing. It validates the strengths in the region, particularly in Massachusetts.

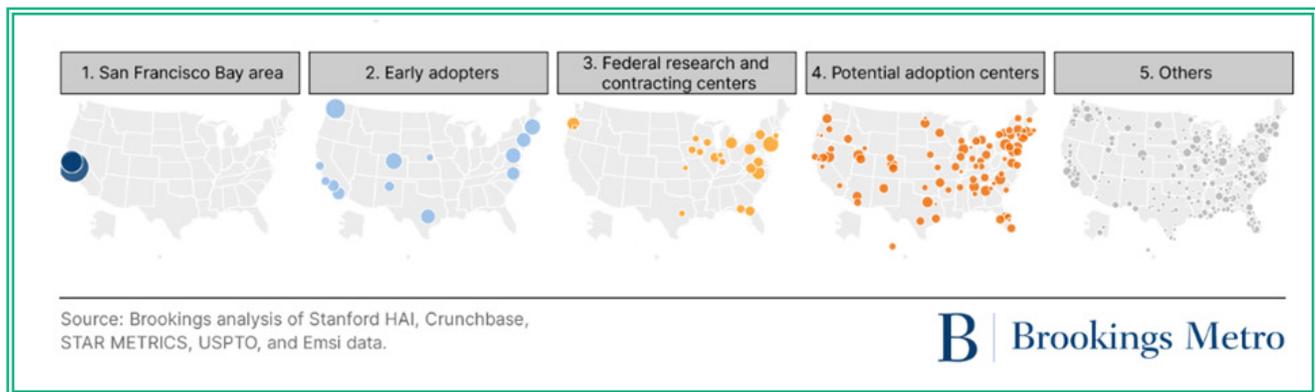
Building off this momentum, the Center for Advanced Manufacturing at the Mass Tech Collaborative will spur better connectivity within the industry and grow an ecosystem that helps both early-stage companies and established incumbents. This includes helping small and medium-sized manufacturers adopt digital technology and scale in this state. Massachusetts can lead in key areas, like aerospace and defense, additive manufacturing, and cutting-edge precision manufacturing. It is evident that semiconductor innovation is hugely important for the country and this state is particularly well-positioned to lead in this area.

Again, our goal is to lengthen our lead. To do this, we intend to leverage public-private partnerships. Working with industry and government partners like the Department of Defense, the Healey-Driscoll Administration will convene industry and academic leaders to establish a Center for Robotics at Massachusetts Technology Collaborative – focused on funding innovation in the ecosystem, with an emphasis on the integration of artificial intelligence and autonomous systems. Massachusetts has an edge in this growing cluster, but the state must continue to work at it in order to lead.

### **AI for “X”: Leveraging Artificial Intelligence in Leading Sectors, such as Education and Financial Services**

Innovations that increase productivity have consistently generated GDP growth in Massachusetts, the United States, and across the world. Some innovations, such as the telephone, automobile, and the internet, generated seismic expansions for the global economy. While it is still early innings, artificial intelligence (AI) is likely one of these game-changing technologies. In March 2023, Goldman Sachs estimated that AI could drive approximately \$7 trillion in global economic growth over ten years.<sup>40</sup>

Presently, there is a strong AI ecosystem in the Commonwealth.<sup>41</sup> Harvard and MIT are in the top ten institutions globally for AI research.<sup>42</sup> However, many other cities, states, and countries are also aggressively investing in AI.



*A 2023 study by the Brookings Institution found that nearly half of generative AI job postings in the country were published in six metro areas: San Francisco, San Jose, New York, Los Angeles, Boston, and Seattle. The report identified Boston as an “early adopter”, but also acknowledged that other regions are on the radar as “potential adoption centers”.*

When examining the AI sector, there are several areas for potential leadership – and it is important for Massachusetts to be intentional, and to focus on where the state has the strongest right to win. There are the chips and hardware that go into enabling AI – this is largely owned today by companies such as Nvidia, Qualcomm, and other large tech companies, which are mostly West Coast-based.

Another area of AI development involves horizontal, open source, software AI – this area is being led by companies such as OpenAI, Google, Microsoft, and other largely West Coast-based companies. However, the game changing future of AI is when it creates value by being embedded in specific industries, and applied to solve specific problems - this is where Massachusetts is, can, and will lead in AI.

The Healey-Driscoll Administration will help lead in this AI applied to “X” problems for our existing leaders in places like life sciences, health care and hospitals, advanced manufacturing, robotics, and also education and financial services. For our incumbent leaders, if they do not rapidly adopt AI, they will be at risk of being outpaced by others that do. For example, the financial services industry will continue to leverage “FinTech” as a key enabler for the sector, and it will be necessary for the state’s established financial service companies to tap into machine learning and AI to continue to succeed.

In addition, a new generation of industry-specific AI companies should emerge that serve and partner with the leading incumbents to apply AI to improving core business areas, such as operations or customer service. We want to nurture more of these industry-specific AI startups in our state, to help them become the next Toast, Hubspot, Klaviyo, Jellyfish, and Whoop. The state must also be cognizant of the potential impact of rapidly evolving technologies, such as quantum computing, and how the anticipated convergence with AI will have significant impact across industry.

To help us lengthen the lead in AI for “X”, the administration will issue an Executive Order to create an AI advisory council, made up of leaders from large companies, startups, academia, investors, and nonprofits. The state will partner with key stakeholders, such as the City of Boston and leaders from across the state. The council will be co-chaired by the Secretary of Economic Development and the Secretary of the Executive Office of Technology Services and Security. Over the course of the next year, the council will come up with specific recommendations for how the state can best support both our incumbents around AI adoption; and also our startups around scaling and succeeding here. The council will culminate its work with an AI convention here in our state, likely in summer of 2024. The recommendations will be announced and launched then.

In summary, these initiatives above will help us Lengthen Our Lead in the three key sectors where we already lead: life sciences and healthcare; advanced manufacturing and robotics; and AI for “X” to propel the state’s key sectors forward.

## **Catalyze New Leadership Sectors**

### *Current Situation*

Just as we’ve had the ingredients and taken intentional steps to build leadership in life sciences and healthcare, advanced manufacturing and robotics, and AI for “X”, there are two other sectors where this state can become new leaders. These two areas are: Climatetech; and Tourism & Culture. We are well positioned in both, but these are competitive spaces, and the status quo will not be enough. The Healey-Driscoll Administration is committed to taking proactive steps, and making investments to ensure we lead in these two new sectors.

## **Climatetech: Create a Leading Global Climatetech Ecosystem and Drive Innovations to Fight Climate Change**

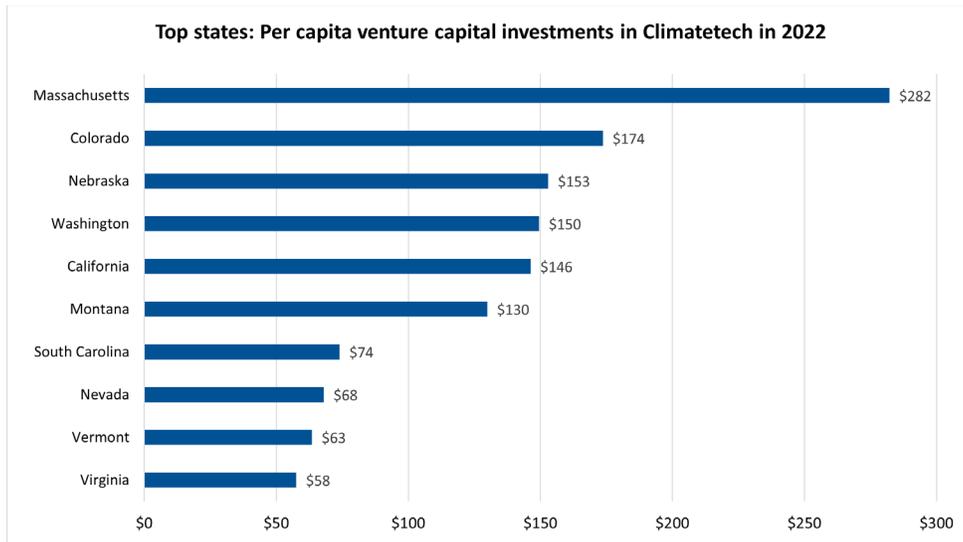
According to a recent survey, 85% of Massachusetts voters say climate change is a problem, with 62% calling it a crisis or a very serious problem. Massachusetts has the opportunity – and a moral imperative – to help the world respond to the climate crisis while creating equitable economic opportunities for its businesses, communities, and residents.

A 2022 report by Deloitte estimated that unabated climate change leading to an increase of 3 degrees C over pre-industrial levels could cost the U.S. \$14.5 trillion by 2070, “affecting every industry and region in the country [and] making it harder for people to live and work due to heat stress, rising sea levels, damaged infrastructure and reduced agricultural productivity.”<sup>43</sup> A loss of this scale, according to Deloitte, is equivalent to nearly 4 percent of GDP and could result in the loss, over the next 50 years, of nearly 900,000 jobs *annually*.<sup>44</sup> However, with accelerated decarbonization, the U.S. could gain \$3 trillion over the next 50 years and add a million new jobs to the economy by 2070.<sup>45</sup>

The Commonwealth has long been a national leader in addressing climate change through legislation that continues with its goal to achieve net-zero statewide greenhouse gas emissions by 2050. The Healey-Driscoll Administration demonstrated its commitment on day one with the creation of a first-in-the-nation cabinet-level Office of Climate Innovation and Resilience, charged with leading an all-of-government approach to addressing climate change. And, for the first time, the Commonwealth’s 2023 Economic Development Plan includes an intentional strategy to make the Commonwealth a world leader in combating the climate crisis through its greatest strength, innovation, through the development and deployment of climate technology or “climatetech.”

Massachusetts is currently a world leader in life sciences, health care, advanced manufacturing, robotics, financial services, and education, and the Healey-Driscoll Administration is committed to adding climatetech to that list. Climatetech encompasses innovative technological solutions that mitigate the impacts of climate change, help communities adapt, and build resilience in systems and infrastructure. Massachusetts is uniquely positioned to lead the world in climatetech innovation, while ensuring equitable opportunities for its citizens:

- **Pioneering Industry Strength:** Massachusetts has demonstrated an early leadership role in the deployment of climate technology and clean energy job creation. This state has the largest utility-scale offshore wind project in the US rising 15 miles off our shores which will produce enough wind to power 400,000 homes. There are nearly 500 solar businesses operating in the state, with over 34 gigawatts of installed capacity with potential to power over 700,000 homes. We have 104,000 clean energy workers, and clean energy employment has grown 73%, or over 44,000 jobs, since 2010.
- **Strong Startup Ecosystem:** The state is already home to a dynamic climatetech innovation ecosystem, with leading research universities, the most venture capital deployed in the climatetech sector on a per capita basis<sup>46</sup> (and second only to California in total dollars), nation-leading incubator and accelerator organizations, such as Greentown Labs and The Engine, and prominent thought leaders in corporate sustainability. This existing ecosystem has already resulted in hundreds of start-ups and many large companies operating in the state committed to reducing greenhouse gas emissions through innovation.



Source: SSTI, Pitchbook, EOED calculations

- Equitable Opportunity Focus:** Jobs associated with climatetech are diverse in respect to the educational background and training requirements. Many efforts are already underway to engage and provide opportunities for wealth creation in environmental justice communities and those that have been underserved in the past. For example, we have a wealth of independent, community, and state colleges providing, or gearing up to provide clean energy workforce training.

Massachusetts alone can't solve the climate crisis, but we can help create pathways to scale for the technological breakthroughs needed to rapidly reduce greenhouse emissions as the leading *climatetech innovation lab for the world*. While the Commonwealth has many strengths, it faces challenges in achieving this vision. Too many young companies are leaving the state, attracted by resources and facilities to demonstrate and deploy their technologies elsewhere, and incentives to locate their manufacturing operations outside of Massachusetts. Talent, especially recent graduates, is leaving the state, unaware of the opportunity to have a significant impact on a global problem while earning a competitive wage. Other residents need new skills or re-skilling to fully participate in climatetech wealth creation opportunities.

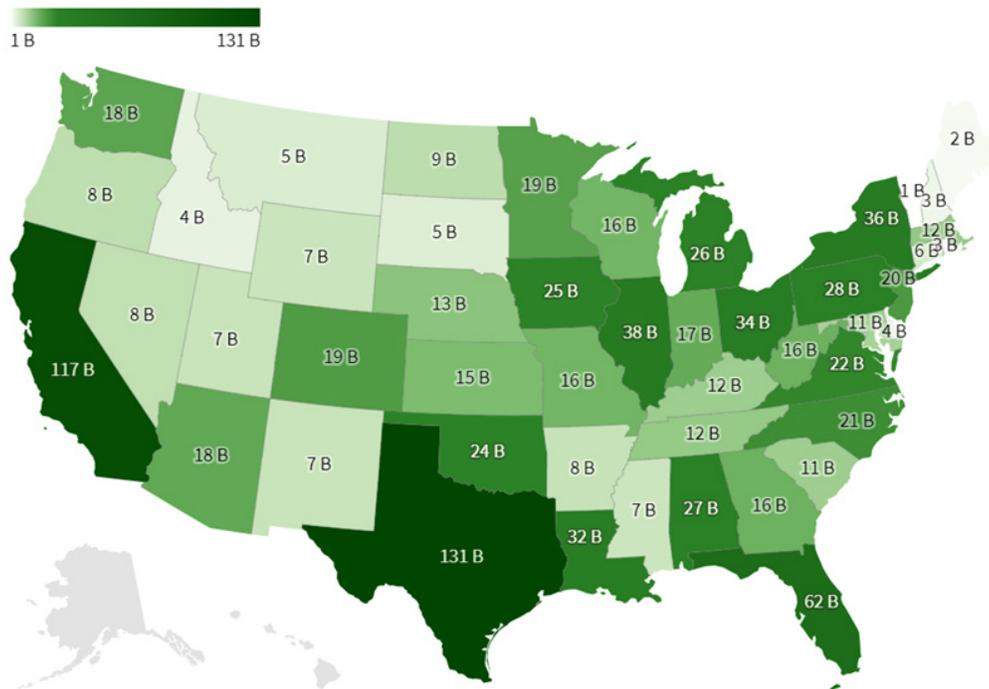
Moreover, although Massachusetts is currently the leader alongside California in attracting venture capital investments in the climatetech sector, historic levels of climate-related federal funding through the Inflation Reduction Act (IRA) could shift that dynamic in favor of other states.

Analysis by the Rocky Mountain Institute (RMI) shows that other climatetech-competitive states, including

Texas, New York, Colorado, and Washington stand to gain significantly more in IRA funding compared to Massachusetts. To keep the center of gravity of this burgeoning new industry in Massachusetts, we must double down on our unique strengths, while addressing the weaknesses that keep us from world leading industry status.



**Investment in states through the Inflation Reduction Act under Climate Ambitious Scenario (\$) by 2030**



Source: RMI

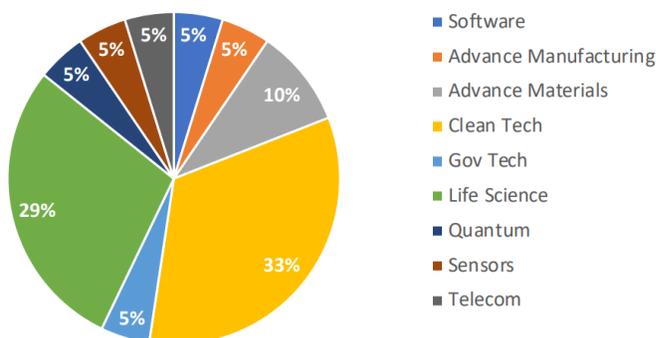
To accomplish this, the Healey-Driscoll Administration, led by the Executive Office of Economic Development (EOED) and the Executive Office of Energy and Environmental Affairs, will partner with the MassCEC on its economic development mission:

- Flexible Financial Support for Climatetech Innovation and Deployment:** The MassCEC must have a toolkit like the resources available through the Massachusetts Life Sciences Center, including more predictable, robust funding on an annual basis, tax incentives, and adding capital funding to its portfolio to further its impact and reach. With additional resources, MassCEC can expand its support for investments in infrastructure, equipment, testing and demonstration facilities, commercialization, and deployment of climate technology.
- Increased Coordination and Support for Climatetech Businesses:** EOED will work closely with MassCEC to coordinate and maximize available resources to attract climatetech companies to Massachusetts and help companies born in the state to grow and expand here. The MassCEC will amplify its existing efforts to act as a navigator, supporting demonstration and deployment through convening industry actors and facilitating partnerships across the Commonwealth, including with utilities and manufacturers.

- **Creation of a Climate Corridor:** A regional economic development approach with a focus on creating a “Climate Corridor” can help ensure that each region benefits economically. The EOED will work with the MassCEC to identify and map regional strengths and opportunities for cities and towns to be part of the climatetech revolution. As part of this effort, MassCEC can provide technical assistance to municipalities to help them engage with emerging climate technologies across the Commonwealth, including supporting their efforts to streamline complex permitting in order to move these technologies forward through testing, demonstration and deployment.



Investment Focus FY21-FY23  
21 Companies



MassVentures, an economic development quasi, has recently shifted to a seed stage “deep tech” focus with an emphasis on academic spinouts, diverse geographies and diverse teams:

- 86% of portfolio companies over last three years are academic spinouts.
- Within that same period, one in three portfolio companies operate in the clean technology space.

Innovation is playing out across the many different sectors, therefore MassCEC must have the flexibility to support the climate technologies of both today and tomorrow, including technologies that empower the world to decarbonize electricity, buildings, transportation, agriculture, and manufacturing as well as ensure the resilience of people, property and infrastructure. Finally, in order to attract and keep businesses and talent in the state, MassCEC must tell the story of Massachusetts’ leadership on addressing climate change and amplify its role as the climatetech innovation lab for the world.

With these actions above, we are confident that Massachusetts can become the clear global leader in climatetech, similar to how we are in life sciences and so many other areas. And, in doing so, we will also help achieve our mission of fighting climate change in our state and across the world.

### Tourism & Culture: Own the 250th Celebration of the Founding of the Country

Massachusetts has so much to offer, across all of its regions—with its natural beauty and outdoor activities, history, world-class arts and culture, sports teams, and a diversity of food and communities. And, we are coming up on a historic milestone: the 250th anniversary of the founding of the nation, which started with the “shot heard ‘round the world,” the Boston Tea Party, Paul Revere’s ride, the Battle of Lexington and Concord, and so many other iconic historical moments from our state. With all of this, we have an opportunity to leverage tourism and culture into a much bigger impact economic driver, and should be a national leader.

In 2022, the tourism industry accounted for \$24.2 billion in domestic and international spending, 21 million domestic and international travelers, \$1.9 billion in state and local taxes, and 131,200 jobs in Massachusetts. The industry is still recovering from the COVID-19 pandemic.

Recent spending and focus on tourism have been limited and fragmented in the state. To become a leader, and to own the 250th, the Healey-Driscoll Administration proposes stronger convening and coordination and increased investments in marketing and branding to the Massachusetts Office of Tourism and Travel (MOTT). This additional funding to MOTT will also enable more meaningful destination marketing, and amplifying our Gateway Cities, coastal towns, and rural communities as tourism destinations.



To make Massachusetts a leader in tourism – the Healey-Driscoll Administration is committed to prioritizing the tourism economy by making the following strategic initiatives:

- **Align the Massachusetts tourism industry by increasing the annual funding to MOTT:** Additional funding to MOTT will allow focus on destination marketing, and proactive revenue generation. MOTT will further leverage the regional tourism councils (RTCs) to amplify marketing, deploy industry best practices, and strengthen communication and coordination.
- **Bring back the annual Governor’s Conference on Travel & Tourism.** Use the Massachusetts Marketing Partnership to accept sponsorships and ticket sales, using the revenue to underwrite the conference. Bringing back the Governor’s Conference will align industry and create marketing and communication cohesion.
- **Use the 250th anniversary of the American Revolution as a catalyst to increase travel to and through Massachusetts:** Through the hiring of a 250th Special Events Coordinator and in partnership with the Legislature’s 250th Commission, MOTT will plan statewide celebrations beginning in 2024, with culminating events in 2025 and 2026. This presents an opportunity to amplify underrepresented stories from the Revolution and increase international and domestic visitation, including groups and students. The goal is to make Massachusetts the national celebration for the 250th anniversary!
- **Create a new campaign for Massachusetts that increases travel to Massachusetts across segments and resonates with residents:** With additional funding, MOTT will be able to expand opportunities to grow programs based on food, agricultural, sports, and rural tourism. A bold, new statewide campaign will increase target markets to include long-haul domestic markets and lengthen stays for visitors in Massachusetts.

We believe these actions will ensure that we maximize our potential for tourism and culture as an economic driver, and also enable us to lead on the country’s 250th celebration.

## **Make Things Easy for Businesses**

### *Current Situation*

The Healey-Driscoll Administration is committed to competing for businesses from every sector to stay, grow, and relocate to Massachusetts. Employers, from the small downtown convenience store to the large manufacturer, to the farmer, or tech start-up, drive the economy and their success is vital to the state's economic growth. The Commonwealth can and must do better to compete and assist the employers that are the backbone of our economy.

Presently, the onus is largely on individual businesses to navigate state agencies and quasi-public entities to secure resources and incentives for their companies. Through the regional listening sessions, it became clear that businesses are often confused by, and unaware of, the incentives and resources available from the state. Massachusetts can do a better job of engaging and supporting businesses of all sizes and from all sectors. To actualize this vision, the Healey-Driscoll Administration will simplify and streamline access to state resources for businesses through several initiatives:

### *Proposed Initiatives*

#### **Business Front Door**

Modeled after the Community One Stop for Growth, this new centralized portal will create one online "front door" to access state resources, and to enable more coordinated, organized responses from the Commonwealth of Massachusetts. In essence, this new system aspires to operate as a concierge for new and existing businesses seeking to expand in Massachusetts. The system will start with a very simple landing page, where businesses – whether a small hair salon, a farm, a startup, or a large global public company – can answer a set of simple questions and tell us what help they are looking for from the state (e.g., tax incentives, R&D grants, loans, land, regulatory guidance etc.). EOED will then leverage staff and technology, such as AI, to funnel the company to the right sector resources, and ensure a timely and helpful response. Businesses will be able to engage state government more easily, and will also enable us to have a dashboard around issues and responses.

### *International Businesses*

The Business Front Door is also going to help us attract more international businesses. Massachusetts is already a large and vibrant economy, with active trade and investments from companies from a wide diversity of countries. In 2022, Massachusetts handled approximately \$114.6 billion in exports and imports, which equals roughly 20 percent of the state's total GDP. According to the Global Business Alliance, Massachusetts has over 1,000 foreign companies operating throughout the state that support over 200,000 jobs.

When foreign companies choose to do business in Massachusetts, it means well-paying jobs for Massachusetts residents. Our strengths with education, talent, research, culture, and leading ecosystems all make us an attractive location for a foreign company. In addition, Logan is a direct flight for many international locations, and the time difference and closer distance to European companies is also an advantage.

However, in recent years, other states have been much more proactive and aggressive in recruiting international companies. For example, competitor states have made frequent visits to other countries, to meet with their large companies, and to market their states. Other states have also set up offices in key countries, to help woo foreign investments.

To stay competitive, the Healey-Driscoll Administration is committed to reenergizing the Massachusetts Office of International Trade and Investment (MOITI) as a premier international business development agency focusing on generating new foreign investors and business and retaining current foreign stakeholders to create jobs, increase the tax base, and support local economies, while also maintaining relations with the local Diplomatic Corps. MOITI will coordinate with the Business Front Door to help prioritize foreign companies and the support they need from our state.

### *Small and Micro Businesses*

The Business Front Door will also be particularly helpful for the companies that have the least resources for navigating state government – small and micro businesses. People from all backgrounds should be able to create and run businesses in any industry in the state, hiring the people they need and accessing the capital they require, to generate wealth for all residents. Small businesses employ nearly half of our workforce and make up most of our businesses.<sup>47</sup>

These businesses are often family-owned, generational, including many owned by women, people of color, immigrants, and veterans, and are a critical element to the Commonwealth's ecosystem. Small businesses contribute so much to the vibrancy of our Main Streets, town centers, downtowns, and neighborhoods. Retailers, restaurants, grocers and farmers markets, barber shops and salons, and other small and micro businesses are woven into the unique charm and fabric of communities across this state.

There is a lot of momentum coming out of the COVID-19 pandemic for small businesses, and this administration intends to capitalize on this opportunity to make Massachusetts a place where small businesses can thrive. To increase support for small and micro businesses, the Healey-Driscoll Administration will:

- Create a user-friendly Small Business Process as part of the Business Front Door
- Reinforce equity lens on all programs and services, including language and cultural access
- Increase access to all levels of the capital stack, as well as investment in Community Development Financial Institutions (CDFIs)
- Provide more robust technical assistance for small business, including increased funding to the Small Business Technical Assistance (SBTA) Program
- Promote Massachusetts as a welcoming and competitive place to start and grow a small business

Under this plan's framework, this administration will closely monitor small and micro businesses starts, growth by existing small and micro businesses, and starts and growth rates across regions and demographics. We must strive for parity for all

## *Team Massachusetts*

The Business Front Door will also act to increase proactive communications with companies, especially new and early-stage startups. The Executive Office of Economic Development is proactively contacting founders and executives, and welcoming them to “Team Massachusetts.” This will serve two purposes: first, to express gratitude and appreciation for the company being headquartered here; and second, share the resources that we have and communicate our commitment to helping them grow and scale here.

As part of the Team Massachusetts approach and the Business Front Door, the Healey-Driscoll Administration will maximize new and existing resources, in partnership with the Legislature, to support high priority, high growth companies in the Commonwealth of Massachusetts.

In summary, this third and last priority around Sectors focuses on **Lengthening the Lead in Key Sectors; Catalyzing Leadership in New Sectors; and Make Things Easy for Businesses** across all sectors. We want everyone to be on Team Massachusetts, and to thrive here in our state.



*Governor Healey joins with House Ways and Means Chairman Aaron Michlewitz at a tax relief celebration event at State Street's global headquarters in October.*

## DATA METRICS & ACCOUNTABILITY

Now that we have shared the three priorities around Fundamentals, Talent, and Sectors, and gone through the initiatives in each, we want to discuss how we will track success across all of these areas.

The Healey-Driscoll Administration is committed to an equitable, inclusive approach to economic development and opportunity creation in the Commonwealth. This effort is and must be shaped by the principles of transparency and accountability. The key elements of this work will include:

- Creating a public-facing dashboard to track key economic, demographic, financial, and equity-related data related to the Commonwealth's economic development goals and objectives
- Providing accountability with tracking and measuring of performance and outcomes related to economic development programs in the Commonwealth, leveraging existing work of the Office of Performance Management and Oversight (OPMO) in the Executive Office of Economic Development.

The Massachusetts Legislature provided strong leadership on metrics, data reporting, and equity during the public health emergency caused by COVID-19. Legislators enacted laws that required the Commonwealth to publish a website describing federal resources dedicated to the response and recovery efforts<sup>48</sup> and quarterly reports describing certain financial data.<sup>49</sup> This initiative can serve as inspiration for continued transparency and consideration for all regions and all humans across the state.

The Healey-Driscoll Administration will adopt some of these best practices from the COVID-19 era and apply them to the Commonwealth's economic development initiatives going forward.

The Executive Office of Economic Development will create and publish a public-facing dashboard with metrics to track progress toward the Commonwealth's economic development goals, including, but not limited to, those listed below.

- Access to housing and improvements to the state's transportation and transit systems:
  - » Housing unit production; median home price/rent
  - » Traffic/ congestion metrics; volume of public transit users; investments in capital projects
- Investments in and outcomes of grantmaking in infrastructure and economic conditions across communities:
  - » Regional data on growth in GDP, businesses, population, and employment; broadband access and coverage; income inequality including Gini coefficient

- » Number of grants awarded across communities; federal funding leveraged by state dollars; jobs created by infrastructure investments
- Trends in the workforce population and increases in access and connections to jobs for talent:
  - » Workforce population growth; college graduate retention rates; labor force participation and hiring rates;
  - » Number of internships supported; outcomes of MassTalent participants; access to occupational licensing; immigration & visas
- Indicators on the state's ability to attract and keep people and businesses:
  - » Populations levels and net migrations levels, domestic and international; state's position on key state rankings on business and living environments
- Investments in and indicators of growth in key sectors, including life sciences and healthcare, advanced manufacturing and robotics, AI, climatetech, and tourism:
  - » Employment and output by industry; new business activity; innovation indicators including patents; VC investments and federal funding leveraged with state dollars
  - » Visitations across regions; visitor spending; occupancy rates
- Streamlined access for businesses to start and grow:
  - » Number of businesses assisted by the Business Front Door service
  - » New business formations, especially among small and micro businesses

The Executive Office of Economic Development will leverage its existing work through the Office of Performance Management and Oversight (OPMO) to provide accountability through tracking and measuring performance and outcomes related to economic development programs in the Commonwealth. Expansions of this work will include:

- Incorporate performance measurement, tracking, and data collection into all new or revised economic development programs included in subsequent economic development legislation
- Create and publish a dataset of performance measurements collected through OPMO
- Leverage business intelligence tools to gain key insights into the OPMO data
- Map investments to ensure an equitable distribution of funds across the Commonwealth to the communities that need it most, such as rural communities.

## CONCLUSION

We are very grateful for all of the work and contributions across so many teams and so many members of our community, over the past year, to create this economic development plan. We are Team Massachusetts, and we are committed to Leading Future Generations.

We tried to focus on a manageable set of three priority areas that can have the biggest impact for our state, across all regions, and across all types of humans. We have confidence in these initiatives around:

### Fundamentals

- Address Housing and Transportation Challenges
- Invest in Infrastructure and Competitiveness

### Talent

- Be the Global Talent Magnet
- Tell Our Story

### Sectors

- Lengthen Our Lead
- Catalyze New Leadership Sectors
- Make Things Easy for Businesses

However, this plan, and these priorities and initiatives, are only as good as our ability to bring them to life. To make these a reality, and to have impact on our state and our companies and residents, we will need the proper funding, alignment, ownership, and accountability. We are excited to translate this plan into an economic development bill, and to partner with the State Legislature to fund and implement these initiatives in the coming years.

We believe strongly that executing this plan will ensure that our state is the best place for people to start and grow their careers, and the best place for companies to start and scale.

We are living in uncertain times in the world, and this is the moment for our state to lead and set the example, by solving these important mission-driven problems...and by reaffirming our commitment to protecting freedoms and celebrating our communities. We will be a strong economy, and a great place to live. We started a revolution almost 250 years ago, and it is now again the time for us all to work together as Team Massachusetts and lead again for the country and the world!

## Appendix

### 2023 Economic Development Planning Council

First Name	Last Name	Organization
Ed	Augustus	Massachusetts Secretary of Housing and Livable Communities
Frank	Callahan	President, Massachusetts Building Trades Council
Julie	Chen	Chancellor, University of Massachusetts Lowell
JD	Chesloff	President and Executive Director, Massachusetts Business Roundtable
Roger	Crandall	Chairman, President and CEO, MassMutual
Steven	Ellis	Town Administrator, Town of Montague
Amy	Fagerlund	MassDOT Chief of Operations, Secretary of Transportation Designee
Ann-Margaret	Ferrante	Massachusetts House of Representatives, House Speaker Designee
Barry	Finegold	Massachusetts State Senate, Senate President Designee
Ruthanne	Fuller	President, Massachusetts Municipal Association; and Mayor of Newton
Matthew	Gorzkowicz	Massachusetts Secretary of Administration and Finance
Yvonne	Hao	Massachusetts Secretary of Economic Development; and EDPC Chair
Sarah	Hodges	General Partner, Pillar Venture Capital
Melissa	Hoffer	Massachusetts Climate Chief
Laura	Hooks	Ph.D., Vice President and General Manager, Maritime & Strategic Systems, General Dynamics Mission Systems
Lauren	Jones	Massachusetts Secretary of Labor and Workforce Development
Julie	Kim	President, Takeda U.S. Business Unit and U.S. Country Head
Glynn	Lloyd	Executive Director, Mill Cities Community Investments
Paul	Niedzwiecki	CEO, Cape Cod Chamber of Commerce
Jason	Park	Chief Financial Officer, DraftKings
Andrew	Rebello	Principal, Diman Regional Voc-Tech High School
Elisabeth	Reynolds	Ph.D., Partner, Unless; and MIT Lecturer
Antonio	Rodriguez	Partner, Matrix Venture Capital

Tamara	Small	CEO, NAIOP Massachusetts
Kevin	Tabb	M.D., President and CEO, Beth Israel Lahey Health
Rebecca	Tepper	Massachusetts Secretary of Energy and Environmental Affairs
Brooke	Thomson	President, Associated Industries of Massachusetts
Son	Vo	Owner, Chashu Ramen + Izakaya
Kate	Walsh	Massachusetts Secretary of Health and Human Services
Mary Kay	Wydra	President, Greater Springfield Convention & Visitors Bureau

## Regional Listening Sessions

<b>Regional Listening Session</b>	<b>Date &amp; Time</b>	<b>Location</b>
Pioneer Valley	May 19, 2023, at 2:00pm	Springfield College, Springfield
Central	May 22, 2023, at 10:00am	Worcester Polytechnic Institute (WPI), Worcester
Southeast	May 25, 2023, at 9:00am	Bridgewater State University, Bridgewater
Northeast	June 5, 2023, at 1:00pm	North Shore Community College, Danvers
Greater Boston	June 12, 2023, at 11:30am	Roxbury Community College, Boston
Cape Cod & Islands	June 20, 2023, at 1:00pm	Chatham Community Center, Chatham
Berkshire	July 10, 2023, at 11:30am	Berkshire Innovation Center, Pittsfield
Merrimack Valley	July 11, 2023, at 2:00pm	Northern Essex Community College, Haverhill
MetroWest	July 17, 2023, at 2:00pm	Framingham State University, Framingham
Spanish Language	July 31, 2023, at 5:30pm	Virtual (Zoom)

*The Healey-Driscoll Administration would like to thank the institutions and organizations that hosted these valuable regional sessions. Additionally, the administration is grateful for the more than 1,300 residents that participated in this process.*

## **Subsector Participants**

### **Education**

<b>First</b>	<b>Last</b>	<b>Affiliation</b>
Julie	Chen	UMass Lowell; and EDPC
Yvonne	Hao	MA EOED; and EDPC
Patrick	Tutwiler	MA EOE Secretary
Lauren	Jones	MA EOLWD Secretary; and EDPC
Andrew	Rebello	Diman Regional Vocational Technical; and EDPC
Tonja	Mettlach	Mass Business Roundtable
Pam	Eddinger	Bunker Hill Community College
Rob	McCarron	AICU Mass
John	Keenan	Salem State University
Grace	Wang	Worcester Polytechnic Institute (WPI)
Glen	Comiso	Massachusetts Institute of Technology (MIT)
Christina	Royal	Holyoke Community College
Jim	Kurose	UMass Amherst

### **Healthcare & Hospitals**

<b>First</b>	<b>Last</b>	<b>Affiliation</b>
Kevin	Tabb	Beth Israel Lahey Health; and EDPC
Brooke	Thomson	AIM; and EDPC
Yvonne	Hao	EOED Secretary; and EDPC
Kate	Walsh	EOHHS Secretary; and EDPC
Steve	Walsh	MA Health & Hospital Association
Sam	Skura	Baystate Medical Center
Lauren	Jones	EOLWD Secretary; and EDPC
Anne	Klibanski	Mass General Brigham
Joanne	Marqusee	EOHHS
Aimee	Brewer	Sturdy Memorial Health
Tara	Gregorio	MA Senior Care Association
Tracy	Palandjian	Social Finance
Aimee	Brewer	Sturdy Memorial Health

## Financial Capital

First	Last	Affiliation
Roger	Crandall	MassMutual; and EDPC
Yvonne	Hao	EOED Secretary; and EDPC
Matt	Gorzkowicz	ANF Secretary; and EDPC
Layla	D'Emilia	EOED Undersecretary
Ashley	Stolba	EOED Undersecretary
Barry	Finegold	State Senate; and EDPC
Gary	Anderson	MA Division of Insurance
Mary	Gallagher	MA Division of Banks
Bob	Rivers	Eastern Bank
Kathleen	Murphy	Mass Bankers Association
Grace	Lee	M&T Bank
Joe	Casey	HarborOne
Young	Lee	Audax
Ron	O'Hanley	State Street
Pamela	Everhart	Fidelity
Lisa	Murray	Citizens Bank
Brooks	Tingle	John Hancock
Paul	Quaranto	Boston Mutual
Edmund	Kenealy	Liberty Mutual
Luke	Dillon	Life Insurance Association
Chris	Stark	MA Insurance Federation

## Life Sciences

First	Last	Affiliation
Julie	Kim	Takeda; and EDPC
Yvonne	Hao	EOED Secretary; and EDPC
Sarah	Stanton	EOED Undersecretary
Ann-Margaret	Ferrante	MA House of Representatives; and EDPC
Kenn	Turner	Mass Life Sciences Center
Kendalle	O'Connell - Burlin	MassBio
Brian	Johnson	MassMEDIC
Jason	Kelly	Ginkgo Bioworks
Reshma	Kewalramani	Vertex
Thea	James	Boston Medical Center
Jon	Weaver	Mass. Biomedical Initiatives
Aisha	Francis	Franklin Cummings Institute
Steve	Boyd	Boyd Biomedical
Jennifer	Griffin	Mission BioCapital

David	Kolstad	Genuity
Udit	Batra	Waters Corporation
Bill	Sibold	Sanofi
Sheila	Dodge	Broad Institute

### Tech/Venture

First	Last	Affiliation
Sarah	Hodges	Pillar Venture Capital; and EDPC
Yvonne	Hao	EOED Secretary; and EDPC
Sarah	Stanton	EOED Undersecretary
Antonio	Rodriguez	Matrix; and EDPC
Jason	Park	DraftKings; and EDPC
Charlie	Hipwood	MassVentures
Tiffany	Freitas	PathAI
Anantha	Chandrakasan	MIT
Andrew	Lau	Jellyfish
Andrew	Bialecki	Klaviyo
Beth	Clymer	Jobcase
Brian	Halligan	HubSpot
Brian	Zitin	Reggora
Chris	Comparato	Toast
Christina	Luconi	Rapid7
Claire	Johnson	Stripe
Colin	Angle	iRobot
Corey	Thomas	Rapid7
Helen	Adeosun	CareAcademy
Jeff	Glass	Hometap
Kelly	Reidel	Lightforce Orthodontics
Mike	Massaro	Flywire
Pamela	Aldsworth	JP Morgan Chase
Ryan	Neu	Vendr
Steve	Conine	Wayfair
Will	Ahmed	Whoop
Frank	Leighton	Akamai
Eric	Paley	Founder Collective
Katie	Burke	HubSpot
Paul	Morville	Parrot
Dharmesh	Shah	HubSpot
Diane	Hessan	Communispace

## Climate

First	Last	Affiliation
JD	Chesloff	Mass Business Roundtable; and EDPC
Yvonne	Hao	EOED Secretary; and EDPC
Frank	Callahan	MA Building Trades Council; and EDPC
Julie	Chen	UMass Lowell; and EDPC
Joe	Curtatone	Northeast Clean Energy Council (NECEC)
Jen	Daloisio	MassCEC
Layla	D’Emilia	EOED Undersecretary
Hilary	Flynn	MassCEC
Kate	Hardin	Deloitte
Elizabeth	Henry	Environmental League of Massachusetts
Melissa	Hoffer	MA Climate Chief
Jim	Hunt	Eversource
Paul	Niedzwiecki	Cape Cod Chamber; and EDPC
Katie	Rae	The Engine
Emily	Reichert	Greentown Labs
Kara	Runsten	EEA MVP Coordinator
Ashley	Stolba	EOED Undersecretary
Rebecca	Tepper	EEA Secretary
Steve	Woerner	National Grid

## Real Estate & Development

First	Last	Affiliation
Doug	Arsham	Mill Creek Residential
Ed	Augustus	EOHLC Secretary; and EDPC
Jonathan	Butler	1Berkshire
Frank	Callahan	MA Building Trades Council; and EDPC
Jeffrey	Daly	Westmass
Gina	Fiandaca	MassDOT Secretary
Ben	Fierro	HomeBuilders
Colleen	Fonseca	Builders of Color Coalition
Ruthann	Fuller	Newton Mayor; MMA; and EDPC
Kurt	Gaertner	Undersecretary, EEA
Yvonne	Hao	EOED Secretary; and EDPC
Ed	Marsteiner	National Development
Gina	Martinez	Beacon Communities
Jeffrey	Myers	Colliers
Young	Park	Berkeley Investments
Andrew	Rebello	Diman Voc-Tech Regional High School
Levi	Reilly	Marcus Partners

Melissa	Schrock	Hilco
Ashley	Stolba	Undersecretary, EED

### Small Business

First	Last	Affiliation
Qingjian (Q.J.)	Shi	Asian Business Empowerment Council
Larry	Andrews	Mass Growth Capital Corporation
Amanda	Converse	Love Live Local
Yvonne	Garcia	Small Business Strong; and State Street
Yvonne	Hao	EOED Secretary; and EDPC Chair
Doug	Howgate	Mass Taxpayers Foundation
Abdul	Hussein	ACEDONE
Deeqo	Jibril	EOED Small Business Director
Joe	Kriesberg	MassINC
Glynn	Lloyd	Mill Cities
Grace	Moreno	MA LGBT Chamber of Commerce
Nicole	Obi	BECMA
Eneida	Román	Amplify LatinX
Son	Vo	Chashu Ramen + Izakaya
Tracye	Whitfield	Coalition for Equitable Economy
Raymond	Lanza-Weil	Common Capital
Sophan	Smith	EforAll - Merrimack Valley
Carmen	Panacopoulos	Federal Reserve Bank of Boston
Angela	Brown	Metropolitan Area Planning Council (MAPC)
Dan	Rivera	MassDevelopment
Tuyet	Tran	Southeast Asian Coalition of Central MA
Auric	Enchill	Elegant Stiches
Socrates	De La Cruz	De La Cruz Real Estate
Kimberly	Lyle	Dorchester Bay Economic Development Corporation
Ashley	Stolba	EOED Undersecretary

## Tourism

First	Last	Affiliation
Mary-Kay	Wydra	Greater Springfield Convention & Visitors Bureau; and EDPC
Yvonne	Hao	EOED Secretary; and EDPC
Sarah	Stanton	EOED Undersecretary
Peter	Rosskothan	The Log Cabin and Delaney House
Jessica	Muradian	MA Restaurant Association
Martha	Sheridan	Meet Boston
Charlayne	Murrell-Smith	Boston Children's Museum
Reed	Passafaro	Massport
Chryssaldo	Thomas	Hyatt Regency Boston
Leverett	Wing	Commonwealth Seminar
Linda	Dunleavy	Franklin Regional Council of Governments
Paul	Niedzwiecki	Cape Cod Chamber; and EDPC
Cindy	Brown	Boston Duck Tours
Kate	Fox	Destination Salem
Ben	Lamb	1Berkshire
Michael	Bobbitt	Mass. Cultural Council
Emily	Ruddock	Mass. Creative
Paul	Sacco	Mass. Lodging Association
Jason	Alves	East Cambridge Business Association

## Advanced Manufacturing

First	Last	Affiliation
Laura	Hooks	General Dynamics; and EDPC
Liz	Reynolds	Unless/MIT; and EDPC
Christine	Nolan	Mass. Tech - Center for Advanced Manufacturing
Julie	Chen	UMass Lowell
Brooke	Thomson	AIM
David	Piperno	SparkCharge
Tim	DelGiudice	Raytheon
Michelle	Lampa	Riverlane
Neeraj	Magotra	Western New England College
Colin	Angle	iRobot
Tom	Ryden	MassRobotics
Kristin	Carlson	Peerless Precision
William	Roper	Istari, Inc.
Barry	Canton	Ginkgo Bioworks
Prem	Singh	Insulet
Jason	Fullmer	Form Labs
Nick	Cardillicchio	Vulcan Forms

Doug	Carlson	MACOM
Rebecca	Diaz	Analog Devices

**Rural**

<b>First</b>	<b>Last</b>	<b>Affiliation</b>
Yvonne	Hao	EOED Secretary; and EDCP
Ashley	Stolba	EOED Undersecretary
Steven	Ellis	Town Administrator Montague; and EDCP
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Anne	Gobi	EOED Rural Affairs Director
Bob	Wilber	EEA Land Protection Director
Laura	Hooks	General Dynamics; and EDCP
Linda	Dunlavy	FRCOG; and MARPA

*Note, this subsector working group leveraged the existing Rural Policy Advisory Commission to inform findings and recommendations.*

# Special Acknowledgements

In this economic development plan, we talk a lot about “Team Massachusetts.” This plan was the result of the hard work of so many talented, mission-driven, and committed people from across our state. We are lucky to have such a dream team!

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# Endnotes

- 1 The full Economic Development Planning Council is outlined in the appendix.
- 2 <https://www.mass.gov/info-details/covid-19-reporting>
- 3 *Dobbs v. Jackson Women’s Health Organization*, 597 U.S. \_\_\_\_ (2022)
- 4 Allison Kuznitz, North Andover tallies flood damage at \$30 million, WBUR (Aug. 22, 2023), <https://www.wbur.org/news/2023/08/22/north-andover-flood-damage-merrimack-valley-rain>
- 5 Michael Casey & Kathy McCormack, Heavy rain brings flash flooding in parts of Massachusetts and Rhode Island, Associated Press (Sept. 12, 2023), <https://www.wgbh.org/news/local/2023-09-12/heavy-rain-brings-flash-flooding-in-parts-of-massachusetts-and-rhode-island>; Paulina Villegas, ‘Catastrophic’ flooding causes damage and evacuations in Massachusetts, Washington Post (Sept. 12, 2023), <https://www.washingtonpost.com/weather/2023/09/12/leominster-massachusetts-flash-flooding-fitchburg/>.
- 6 <https://www.ncei.noaa.gov/access/billions/>
- 7 Recent research by the Federal Reserve Bank of Boston concludes that a 1-degree rise in average temperature could result in a 3.2 percent increase in per capita municipal spending on average.
- 8 U.S. Bureau of Economic Analysis and Massachusetts Labor Market Information data
- 9 CNBC. com. (2023, July 11). 15. Massachusetts. America’s Top States for Business 2023 CNBC. <https://www.cnbc.com/2023/07/11/top-states-for-business-massachusetts.html>
- 10 McCann, A. (2023, August 14). Best states to live in 2023. WalletHub. <https://wallethub.com/edu/best-states-to-live-in/62617>
- 11 Massachusetts Attorney General’s Office, Covid-19’s Unequal Effects in Massachusetts (2020), <https://www.mass.gov/doc/covid-19s-unequal-effects-in-massachusetts/download>
- 12 Educational Attainment, American Community Survey 2022 1-year estimates
- 13 2022 Per Capita Personal Income, Bureau of Economic Analysis
- 14 SHADAC analysis of 2022 American Community Survey data
- 15 [https://info.childcareaware.org/hubfs/Demanding%20Change%20Appendices.pdf?utm\\_campaign=Budget%20Reconciliation%20Fall%202021&utm\\_source=website&utm\\_content=22\\_demandingchange\\_append](https://info.childcareaware.org/hubfs/Demanding%20Change%20Appendices.pdf?utm_campaign=Budget%20Reconciliation%20Fall%202021&utm_source=website&utm_content=22_demandingchange_append)
- 16 2024 State Business Tax Climate index. Tax Foundation. (2023, October 25). <https://taxfoundation.org/research/all/state/2024-state-business-tax-climate-index/>
- 17 The regional listening sessions are outlined in the appendix, including date and location for each public session.
- 18 Please see the appendix for the full list of the sector-specific topics and the individuals that participated in those conversations.
- 19 Massachusetts Clean Energy and Climate Plan for 2025/30, <https://www.mass.gov/info-details/massachusetts-clean-energy-and-climate-plan-for-2025-and-2030>; Massachusetts Clean Energy and Climate Plan for 2050, <https://www.mass.gov/info-details/massachusetts-clean-energy-and-climate-plan-for-2050>
- 20 U.S. Census Bureau, New Private Housing Units Authorized by Building Permits for Massachusetts
- 21 Building Momentum - Massachusetts Housing Partnership, Aug. 2023
- 22 A “Gateway City” has a population greater than 35,000 and a median household income and educational attainment level less than the state average, as defined by M.G.L. ch. 23a, section 3A. There are 26 Gateway Cities in Massachusetts: Attleboro, Barnstable, Brockton, Chelsea, Chicopee, Everett, Fall River, Fitchburg, Haverhill, Holyoke, Lawrence, Leominster, Lowell, Lynn, Malden, Methuen, New Bedford, Peabody, Pittsfield, Quincy, Revere, Salem, Springfield, Taunton, Westfield, and Worcester.
- 23 M.G.L. ch. 40A, section 3A

- 24 Inrix 2022 Global Traffic Scorecard
- 25 <https://www.massincpolling.com/the-topline/poll-residents-sound-the-alarm-on-mbta-service-quality-safety>
- 26 <https://www.mass.gov/capital-investment-plan-cip>
- 27 <https://www.mbta.com/sustainability/climate-change-resiliency>
- 28 Rural and small towns are defined as municipalities with populations less than 7,000 or with a population density of less than 500 persons per square mile.
- 29 FY22 University of Massachusetts Economic Contribution Analysis (October 2023)
- 30 American Communities Survey via 2022 Boston Consulting Group (BCG) – Immigration Report
- 31 <https://www.nafsa.org/isev/reports/state?year=2021&state=MA>
- 32 MassTLC: The Economic Impact of Immigration on the U.S
- 33 <https://www.uscis.gov/working-in-the-united-states/temporary-workers/h-1b-specialty-occupations-and-fashion-models/h-1b-electronic-registration-process>
- 34 Workforce Skills Cabinet calculations via IPEDS & BCG
- 35 <https://arpa-h.gov/news-and-events/arpa-h-launches-nationwide-health-innovation-network>
- 36 The Time Is Now: The \$5.9 Billion Case for Massachusetts Health Equity Reform (June 2023)
- 37 Health of Boston 2023 Report (May 2023) by the Boston Public Health Commission
- 38 1.0 = Governor Patrick’s 2008 initiative; and 2.0 = Governor Baker’s 2018 extension.
- 39 [https://massdigitalhealth.org/sites/default/files/2022-04/MA%20Digital%20Health%20Council%20Report%20FINAL\\_WEB%2009102019.pdf](https://massdigitalhealth.org/sites/default/files/2022-04/MA%20Digital%20Health%20Council%20Report%20FINAL_WEB%2009102019.pdf)
- 40 <https://www.goldmansachs.com/intelligence/pages/generative-ai-could-raise-global-gdp-by-7-percent.html?chl=em&plt=briefings&cid=407&plc=body?chl=em&plt=briefings&cid=407&plc=body>
- 41 <https://www.brookings.edu/articles/building-ai-cities-how-to-spread-the-benefits-of-an-emerging-technology-across-more-of-america/>
- 42 <https://thinkml.ai/artificial-intelligence-research-labs/>
- 43 Deloitte, The turning point: a new economic climate in the United States (Jan. 2022), <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/about-deloitte/us-the-turning-point-a-new-economic-climate-in-the-united-states-january-2022.pdf>
- 44 Id.
- 45 Id.
- 46 State Science & Technology Institute (SSTI) Key Technology Area Investment Data Tool, Pitchbook, EOED calculations
- 47 Small businesses comprise 98% of the business firms in the state and make up 46% of employment, under the SBA definition.
- 48 Chapter 288 of the Acts of 2020
- 49 Section 81 of Chapter 102 of the Acts of 2021