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Massachusetts Workforce Investments: Sector-Based Programs

The following brief provides an analysis of state workforce investments in the FY 2019 to FY 2023 budgets focusing on sector-based training programs. As MTF noted in our earlier introductory [brief](#), these programs prioritize creating talent pipelines to critical job sectors by providing financial assistance for training and streamlined credentialing courses. The brief provides an overview of sector-based programs and highlights the five largest programs that represent two-thirds of all funding within this category in FY 2023.

The approach of these sector-based workforce programs ranges from providing after-hours career technical training to providing high school students with education and job training tailored to in-demand sector workforce needs. Our analysis of each major program includes an overview of its purpose, the level of expenditure over the past five years, and what data are available for policymakers and the public to determine the program's performance.

Finally, the brief highlights several themes particularly true of sector workforce investments that emerge when considering these programs individually and as part of the workforce system as a whole. These themes include the broader distribution of funds compared to individual workforce programs, the impact of increased funding on participation, and the connection of regional workforce needs that have important policy implications for legislators and the administration.

Sector Needs Workforce Programs

Since FY 2019, the annual budget has included a total of 22 line items that support sector-based programs. All but one of the line items fall under the Workforce Skills Cabinet including the Executive Office of Labor and Workforce Development (EOLWD), Executive Office of Education (EOE), Executive Office of Economic Development (EOED), and the Executive Office of Health and Human Services (EOHHS) with the majority of all programs under EOLWD and EOE. Sector-based workforce programs are either administered by departments under those secretariats or by two quasi-public agencies - the Commonwealth Corporation (CommCorp) and the Massachusetts Technology Collaborative (MassTech).

These programs vary in the type of sector-based support they provide; some focus on creating talent pipelines through training opportunities for unemployed and underemployed individuals, while others introduce career pathways for high school students interested in critical industries such as healthcare and skilled manufacturing. Programs approach these goals by providing tailored skill training opportunities and work-based learning experiences to prepare individuals for employment in specific sectors.

Policymakers have increased the investment in these programs significantly in recent years, as funding in FY 2023 (\$78.6 million) more than doubled FY 2019 spending (\$34.2 million). As demonstrated in the table below, funding has increased across each secretariat and for nearly every sector-based workforce program. EOLWD's FY 2023 budget experienced the greatest increase over FY 2019 (\$32.8 million), with 62 percent (\$20.4 million) of this increase dedicated to Career Technical Institutes. Additionally, EOE's

sector-based workforce budget increased by \$9.8 million in FY 2023 compared to FY 2019 funding, with nearly half of the funding increase dedicated to the Innovation Career Pathways program.

Sector Needs Line Items by Department FY 2019 – FY 2023

Program	FY19 GAA	FY20 GAA	FY21 GAA	FY22 GAA	FY23 GAA	FY 19-23 Change
Executive Office of Labor and Workforce Development	\$11.94	\$12.20	\$19.25	\$37.43	\$44.75	\$32.81
<i>Career Technical Institutes</i>	\$0.00	\$0.00	\$4.00	\$15.38	\$20.40	\$20.40
<i>Transfer to Workforce Competitiveness Trust Fund</i>	\$5.00	\$7.00	\$10.00	\$17.00	\$17.00	\$12.00
<i>Massachusetts Service Alliance</i>	\$3.24	\$1.40	\$1.40	\$1.40	\$2.20	-\$1.04
<i>Massachusetts Manufacturing Extension Partnership</i>	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$0.00
<i>Health Care Worker Training</i>	\$.20	\$.20	\$.20	\$.20	\$1.00	\$.80
<i>Registered Apprenticeship Expansion</i>	\$.50	\$.50	\$.50	\$1.00	\$1.00	\$.50
<i>Learn to Earn</i>	\$1.00	\$.95	\$1.00	\$.30	\$1.00	\$0.00
<i>AFL-CIO Workforce Development Programs</i>	\$0.00	\$.15	\$.15	\$.15	\$.15	\$.15
Executive Office of Education	\$18.20	\$13.70	\$20.70	\$17.80	\$28.03	\$9.83
<i>EEC Provider Higher Education Opportunities</i>	\$10.00	\$5.00	\$10.00	\$5.00	\$10.00	\$0.00
<i>Innovation Career Pathways</i>	\$0.00	\$0.00	\$0.00	\$.60	\$4.83	\$4.83
<i>STEM Starter Academy</i>	\$4.75	\$4.75	\$4.75	\$4.75	\$4.75	\$0.00
<i>Career and Technical Education Program</i>	\$0.00	\$.50	\$1.50	\$2.50	\$3.50	\$3.50
<i>High Demand Scholarship Program</i>	\$.50	\$.50	\$1.50	\$2.00	\$2.00	\$1.50
<i>STEM Pipeline Fund</i>	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$0.00
<i>Workforce Development Grants to Community Colleges</i>	\$1.45	\$1.45	\$1.45	\$1.45	\$1.45	\$0.00
Executive Office of Housing and Economic Development	\$1.83	\$1.78	\$1.75	\$1.35	\$1.35	\$1.83
<i>Workforce Development Grant</i>	\$1.58	\$1.53	\$1.50	\$1.35	\$1.35	-\$0.23
<i>Small Business Association Layoff Aversion Grant Program</i>	\$.25	\$.25	\$.25	\$0.00	\$0.00	-\$0.25
<i>Big Data Innovation and Workforce Fund</i>	\$.50	\$.50	\$.50	\$0.00	\$0.00	-\$0.50
Executive Office of Health and Human Services	\$.60	\$1.60	\$1.10	\$1.81	\$2.48	\$1.88
<i>Home Care Aide Training Grant Program</i>	\$0.00	\$1.00	\$.50	\$1.21	\$1.21	\$1.21
<i>Nursing and Allied Health Workforce Development</i>	\$.35	\$.35	\$.35	\$.35	\$1.00	\$.65
<i>Train Vets to Treat Vets</i>	\$.25	\$.25	\$.25	\$.25	\$.28	\$.03
Executive Office of Administration and Finance	\$.00	\$.78	\$.78	\$.78	\$.78	\$.78
<i>Training and Career Ladder Programs</i>	\$0.00	\$.78	\$.78	\$.78	\$.78	\$.78

\$ in millions

A Closer Look at the Largest Sector-Based Workforce Programs

As noted above, two-thirds of FY 2023 sector-based workforce funding supports five programs. Therefore, to understand how the state supports sector-based workforce needs, it is critical to understand these programs and how they relate. The descriptions below provide policymakers with basic information on the largest sector-based programs and how they address the need for specialized training for specific industries and occupations.

Career Technical Institutes¹ (\$20.4 million in the FY 2023 budget)

What is it?

The Career Technical Initiative (CTI) was launched in 2020 by the Workforce Skills Cabinet (WSC) to expand access to Career Technical Institutes at vocational high schools and to incumbent workers through after-hours shifts and utilize the existing training equipment. The goal of the initiative is to improve the current training infrastructure in vocational-technical high schools and upskill workers in high-demand sectors, such as manufacturing, construction, and trade. While funding for CTI is provided within an EOLWD line item, as well as a subsidy through DESE, CommCorp ultimately receives these resources to administer a competitive grant program to support the planning and implementation of programming at Career Technical Institutes.

Vocational high schools are awarded funding over a two-year programming period to offer training programs through evening and weekend courses. Career Technical Institutes offer 16 different training pathways to participants that cover a range of technical roles, such as carpentry, welding, and metal fabrication. Career Technical Institutes also incorporate wrap-around services and job placement to support accessibility for employed participants and training and retraining for in-demand positions.

Since funding was first awarded in FY 2021, 27 vocational high schools have received funding to become a Career Technical Institute. A total of \$20.3 million has been awarded through seven rounds of grant funding that have resulted in a total of 1,301 participants enrolled in Career Technical Institutes since the launch of the program. Nearly half of the participants have enrolled or are currently enrolled in the welding and metal fabrication, carpentry, and heating, ventilation, and air conditioning (HVAC) career pathways.

How has the funding level changed since the FY 2019 Budget?

The program received \$20.4 million in FY 2023, an increase of \$16.4 million (410 percent) over the initial FY 2021 funding amount. Funding for the CTI has more than quadrupled since it launched as part of a multi-year strategy to train 20,000 individuals in key trades and technical jobs. This funding increase has led to more than 700 additional program enrollments that received funding in rounds five through seven compared to the enrollments in the first four grant award rounds.

Funding Beyond EOLWD

In addition to EOLWD's funding for Career Technical Institutes, DESE has a separate line item to support Career Technical Education partnership programs. These programs target the school-aged population and take place at high schools with state approved Career Technical Education Chapter 74 programs, which also host CTI-related programs. In FY 2023, \$3.5 million was dedicated to this line item, an increase of \$3 million (600 percent) over the initial investment made in FY 2020. While funds do not directly support Career Technical Institutes, funded programs provide an additional way to expand access to career technical education.

Are annual reports required by law and what efficacy data is publicly available?

Yes, language in the line item requires EOLWD to submit a report to the Joint Committee on Labor and Workforce Development and the House and Senate Committees on Ways and Means.

¹ Career Technical Institutes are categorized as a sector needs line item because funding is for the infrastructure of sector-based credentialing instruction. It does not fund individual training programs and therefore is not considered an individual workforce training program.

The report must include the following data points:

- A list of vocational-technical schools that operate career technical institutes.
- The amount of funding each vocational-technical school will receive.
- The number of students served by career technical institutes.
- The employment outcomes of the graduate training programs.

Performance data for the first four grantee rounds are available in CommCorp's latest [report](#), where it found that 12 vocational high schools received funding and offered 11 career pathways, such as welding, HVAC, and carpentry, which aligned with regional workforce needs².

A few notable data points included in CommCorp's report:

- 1,301 participants enrolled in CTI programs between 2020 - 2023.
- 86% employment rate for individuals who participated in 2020.
- 77% employment rate for individuals enrolled in grant programs funded in 2021 and 2022³.
- 46% of participants who completed the program reported a salary range of more than \$20 per hour.

The initiative has seen a rapid increase in support over the past three years, and recent annual reports include several metrics crucial to understanding if the program is achieving intended policy goals. These data metrics include program enrollment, completion, employment outcomes, and a salary range based on individuals who have completed the program. Recent reports have not included a general range of wages upon beginning a program, but this information could be a helpful addition to future public reports, as would information on a participant's employment by sector.

Workforce Competitiveness Trust Fund Transfer (WCTF) (\$17 million in the FY 2023 budget)

What is it?

Unlike other line items, this appropriation transfers funds to the WCTF, a trust fund established in 2006. Funds from the WCTF are awarded through several competitive grant programs administered by CommCorp. Funds are used to support direct job training, placement activities, and professional advancement for underemployed and unemployed individuals in specific sectors (see below). Awardees include schools, employers, and community organizations that are awarded funding over three years and can receive a maximum award of \$500,000.

The goal of these competitive grant programs is to expand training capacity to upskill new workers and diversify the workforce in healthcare, information technology, transportation, hospitality, and other high-demand industries driven by regional needs identified by the MassHire Workforce Boards. Applications are considered based on meeting these regional needs and the workforce needs of employers.

Notable WCTF programs include:

- **Senator Donnelly Workforce Success Grants (\$8.3M awarded in FY 2023):** These grants account for most of WCTF's funding to businesses, schools, and community organizations. There

² Performance metrics for programs that received funding in rounds 5-7 are not included in the report, as they are in the midst of their two-year programming cycle.

³ Programs part of award rounds 3 and 4 are in the process of job placements and therefore this data may be incomplete.

are a variety of smaller programs under the Donnelly Success Grants to target specific populations or provide specialized vocational training. For example, ESOL-Enhanced Training and Placement Programs offer sector-based training for individuals whose primary language is not English. Additionally, the Health Care Workforce Hubs program is an effort led by the MassHire Workforce Boards to build the necessary training infrastructure and capacity for healthcare training.

- **Replenishing Employer Investment in Education and Workforce Training Demonstration Grant (RENEW) (\$300,000 awarded in FY 2023):** This competitive grant program was first awarded in April 2022 to train individuals from underserved communities, based on the needs of local employers. Employers partner with a training provider and commit to paying half of the training costs, while state funds cover the remaining portion of training costs to offer services at no cost to the participant. Employers can custom-build the curriculum to train workers for their workforce needs.
- **Scaling Capacity and Leveraging Employers (SCALE) Planning Grants (\$235,651 awarded in FY 2023):** This competitive grant program awards funding to organizations to create education-to-employment pathways that prepare participants for in-demand jobs. Partnerships between training providers and employers are awarded between \$10,000-\$30,000, with a match requirement of 30 percent to implement and scale programming over three months. After that period, programs can apply for implementation grants through other programs, such as the Donnelly Success Grants.
- **Learn to Earn (\$1M earmark in FY 2023)⁴:** This competitive grant program partners with organizations to offer training to individuals who receive public assistance benefits. Organizations receive small grants to design a sector-based training and placement program that offers wrap-around support services such as case management, mentoring, and family support services to address employment barriers. LTE also receives funding through a small line item for data work expenses.

How has the funding level changed since the FY 2019 Budget?

The FY 2023 budget appropriated a transfer of \$17 million to the trust fund, an increase of \$12 million (240 percent) over FY 2019 funding. Transfer amounts have more than tripled as the WCTF has become a major funding source for new and existing workforce programs⁵. While the transfer to the WCTF has increased markedly, there has not been a consistent increase in the number of participants served across programs. In FY 2022, 637 additional individuals were served through the Donnelly Success Grants, while LTE served 67 fewer individuals compared to FY 2019 enrollment.

Are annual reports required by law and what efficacy data is publicly available?

Yes, there is language in the line item requiring an annual report on the use of funds to be sent to the Secretary of Administration and Finance and several joint legislative committees. Reports are regularly released by CommCorp and include the metrics below, as required in the line item.

- Status of awarded grants.
- Number of recipients.
- Number of participants receiving services.
- Number of participants placed in employment.
- Salary and benefits that participants receive after placement.

⁴ LTE is considered a sector-needs workforce program because it focuses on filling in-demand positions and receives funding from the WCTF, which is a sector-based trust fund.

⁵ At the end of FY 2023, the WCTF balance was \$67.1 million.

- Cost per participant.
- Job retention or promotion rates the year after training ends.

The most recent 2022 WCTF [annual report](#) includes an evaluation of programs that reached the end of their grant cycle, as CommCorp does not release data on ongoing programs. The performance data in the FY 2022 annual report focuses on programs that reached the end of their programming cycle in FY 2021. Data is available on LTE, Donnelly Success Grants for Training and Placement, and the Digital Innovation and Lifelong Learning programs. When combining each of the programs, there were a total of 851 participants enrolled at an average cost per participant of \$5,784⁶. Highlighted in the table below are notable metrics from each of the closed programs.

Performance Breakdown by Program, 2022

	Learn to Earn ⁷	Success Grants for Training and Placement	Digital Innovation and Lifelong Learning
# of Programs Funded	2	18	3
\$ Awarded	\$650,000	\$4.21 million	\$250,000
# of Participants Enrolled in a Program	85	698	68
Completion Rate	95%	90%	57%
Employment Rate	76%	82%	74%
Avg. Wage	\$14.57 per hour	\$18.97 per hour	\$22.19 per hour
Cost per Participant	\$7,647	\$6,031	\$3,676

While a three-year reporting lag can be challenging for policymakers to evaluate the impact of increased funding on current programs, the data available on programs that reached the end of their grant cycle provides several key metrics, as shown above. However, information such as the impact on wages or career advancement following the completion of each program could be helpful to see the impact on specific sectors. CommCorp has consistently published reports detailing the progress of WCTF programs, which allows policymakers to use some performance data as a guide when determining transfer amounts.

EEC Provider Higher Education Opportunities (\$10 million in the FY 2023 budget)

What is it?

The majority of the funding from this line item is for the Early Childhood Career Pathways program administered by the Department of Early Education and Care (EEC) to grow and retain the early educator workforce. Funding is provided to the 15 Massachusetts community colleges to provide tuition-free courses, course materials, and appropriate wrap-around support services to help students attain achieve a Child Development Associate (CDA), college-level Early Childhood Education (ECE) certificate, or the courses towards educator qualification levels required by EEC. To receive Career Pathways Grant program-funded support, an individual must be an educator, a recent or near future graduate of a vocational technical education program or intend to join the early educator workforce within six months. The CDA certificate is a nationally recognized credential that allows an individual to be a lead teacher, while an ECE certification allows an individual to be a lead teacher or center director, depending on the certificate

⁶ The cost per participant includes factors such as purchasing training equipment and program instruction.

⁷ This only includes 2 programs that closed in 2022, while three other LTE programs will conclude in 2023.

obtained. The program also aims to streamline pathways towards degrees in higher education at four-year institutions by leveraging the Early Childhood Educators Scholarship⁸.

In addition to the Early Childhood Career Pathways Grant program, the line item supports two smaller programs focused on growing the early educator workforce⁹:

- Credit-Bearing Courses in Languages Other than English - EEC partners with Urban College of Boston to offer free courses to students in five different languages that will allow individuals to receive their EEC certification or CDA credential and to teach in early childhood programs in Massachusetts¹⁰. The program aims to support the diverse early educator workforce and upskill the current workforce that has a higher rate of workers whose primary language is other than English.
- Professional Pathways – EEC partners with Neighborhood Villages, a non-profit community-based organization, to help EEC providers across the state find college-level courses to achieve their professional and educational goals. While the program does not directly provide college courses or enroll students in classes, Student Support Associates connect students with college administrators to begin their higher education pathway.

How has the funding level changed since the FY 2019 Budget?

The FY 2023 budget allocated \$10 million and is consistent with FY 2019 funding levels. In FY 2019, funds were dedicated to support the recommendations made by the Early Education and Care Workforce Council to support the early education and care workforce.

EEC Provider Higher Education Opportunities Funding, FY 2019 – FY 2023

FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
\$10	\$5	\$10	\$5	\$10

\$ in millions

As the table above demonstrates, funding has alternated over the past five years and averaged \$8 million a year. A vast majority of funding is used to support the Career Pathways Grant program (\$8 million), while the Credit-Bearing Coursework in Languages Other than English program received \$1 million, and the Professional Pathways program received \$700,000.

Are annual reports required by law and what efficacy data is publicly available?

There is no language in the line item requiring a report, but some performance data is included in EEC’s annual report. Below are notable metrics provided by EEC¹¹:

- Career Pathways Grant
 - Between Fall 2019 and Fall 2022, close to 10,000 students received tuition assistance or wrap around services.
- Professional Pathways

⁸ The Early Childhood Educator Scholarships program is administered by the Department of Higher Education and provides financial assistance to early education and care providers who are pursuing an associate’s, bachelor’s, or master’s degree.

⁹ The line item supports a third program that will provide an evaluation of the grant program.

¹⁰ Urban College of Boston offers early educator courses in English, Haitian Creole, Mandarin, Portuguese, and Spanish.

¹¹ This information was obtained through a Public Data Request made to the department.

- Between November 2021 and June 2023, the program has successfully served 738 educators.
- Credit-Bearing Coursework in Languages Other than English
 - Between April 2019 and July 2023, 1,303 students were enrolled in courses funded by the line item.

As highlighted above, EEC provides the number of educators served in each program funded by the line item thus providing policymakers with a general understanding of how the program supports early education educators. Additional levels of data, such as the number of educators who obtain a relevant certificate or join and are retained within the early educator workforce could be helpful to see how the program impacts the early educator workforce.

Innovation Career Pathways (\$4.8 million in the FY 2023 budget)

What is it?

The line item funds Innovation Career Pathways Grants administered by DESE to fund the development, implementation, operation, and expansion of Innovation Career Pathways programs. The program launched in 2018 and is currently offered by 78 high schools with 183 different career pathways. Innovation Career Pathways is a five-year performance-based program offered by DESE for a partnership between a K-12 school district, their local MassHire workforce board, and at least one employer. Once DESE awards funding to an Innovation Career Pathways partnership, high school students can select from one or more pathways that aim to create a seamless transition into postsecondary opportunities. As a compliment to the designation process, the partnerships can apply for a maximum award amount of \$25,000 to support program planning and apply for implementation and support grants once they are designated. Each pathway offers students an applied and career-focused curriculum that leads to achieving industry-recognized credentials for an in-demand sector.

Below are the six allowable pathways designated programs offer:

- Advanced Manufacturing
- Business and Finance
- Clean Energy
- Environmental and Life Sciences
- Health Care and Social Assistance
- Information Technology

The department relies on local, regional, and state workforce needs to determine the pathways highlighted above. If a pathway in a high school has reached capacity, a lottery system determines student enrollment. This does not happen often, as schools add sections based on student interests. Before high school graduation, students develop skills in a chosen career by participating in two advanced-level courses, two related technical courses, and 100 hours of an internship or capstone course. Participants are engaged in an individualized planning process to decide which pathway best suits their interests.

How has the funding level changed since the FY 2019 Budget?

While the program was first funded in FY 2022, funding in FY 2023 increased by \$4.2 million, from \$600,00 to \$4.8 million. This funding increase is for the continued expansion of the program and has resulted in serving an additional 633 participants compared to the 2021-22 school year.

Are annual reports required by law and what efficacy data is publicly available?

No, there is no language in the line item requiring an annual report, but DESE releases a statewide enrollment report by school district and requires designated programs to submit an annual self-reflection. Public school districts report their total enrollment by each grade and include the number of students enrolled in a pathway. Enrollment data from the 2022-2023 school year shows 5,672 students were enrolled in the program, representing 2 percent of all high school students in the state. This is more than double the number of enrollees in the first year of programming during the 2021-2022 school year¹².

Aside from a district breakdown of enrollment data, DESE requires a mid-designation Program Partnership Review to ensure that a program is following the Innovation Career Pathways' guiding principles and performance metrics are included in the Memorandum of Understanding (MOU). However, metrics related to the number of students who stay enrolled in a pathway or the number of students who change pathways could provide further insight into the efficacy of the program. Additional information that could be helpful to understanding the program's impact on the workforce could be including data on the number of graduated students who were enrolled in an allowable pathway that are now employed in a related sector or pursuing a related postsecondary degree. Given that this is a newer program, DESE plans to make longitudinal data available in future reports that could enable policymakers to see the program's impact on the workforce.

STEM Starter Academy (\$4.8 million in the FY 2023 budget)

What is it?

This line item funds the STEM Starter Academy (SSA) program, an initiative administered by the Department of Higher Education (DHE) that launched in 2014. Funding for the SSA is equally divided amongst all community colleges to recruit, retain, academically prepare, and support a student's completion of a STEM program. The goal is to ensure that community college students interested in STEM fields remain on track to achieving a relevant professional certificate or pursuing a related four-year degree program. Additionally, the program works to diversify the STEM workforce by promoting careers to individuals who are traditionally underrepresented in STEM fields. While community colleges work collaboratively to identify best practices and scale programs, programming and support services vary by campus. Students are recruited into SSA if they are enrolled in a related program, exploring STEM pathways, or attend an SSA outreach event.

The program primarily supports students through a case management approach that helps identify barriers to success and connects students with existing resources, such as tutoring, academic advising, and food assistance, and follow up with students to ensure connections are successful. Aside from case management, SSA services vary by campus and include paid tutoring for advanced STEM courses and exposing high school students to STEM courses through the Summer Bridge program. Furthermore, DHE and the community colleges leverage SSA performance to secure federal funding, thus expanding services available to STEM students. For instance, the department recently received a \$1.5 million grant from the National Science Foundation's Noyce Scholarship program¹³.

How has the funding level changed since the FY 2019 Budget?

Since FY 2019, funding has remained consistent at \$4.8 million. The number of participants in the program peaked at 6,500 during the 2016-17 school year but has declined since, with less than 4,000 students served during the 2020-21 school year. The overall decrease in community college enrollment exacerbated by the pandemic may have contributed to fewer students participating in SSA. Additionally, decreases in SSA

¹² This data is from DESE's School and District Profiles [database](#) where enrollment is compiled at the district level.

¹³ The grant funding is not included in the line item therefore it is not reflected in the overall funding analysis.

participation were a result of DHE focusing on increasing achieved outcomes for students through the case management approach, which is resource intensive.

Are annual reports required by law and what efficacy data is publicly available?

Yes, language in the line item requires a report to be submitted to several joint legislative committees on the evaluation of the program, which is completed annually by the University of Massachusetts Donahue Institute (UMDI). The institute acts as an independent evaluator of the SSA by collecting data from all community colleges to analyze the outcomes of SSA students compared to the general community college population. Each community college dedicated a portion of SSA funding to support UMDI's evaluation and technical assistance services, including internal-use data dashboards and further data analysis on initiatives like case management.

Below are notable metrics on students who participated in the academy from 2014 through 2021¹⁴:

- 30,965 participants were served.
- 14,456 participants received STEM pathway/career counseling.
- 9,571 participants earned degrees/certificates.
- Outcomes measure breakdown for case-managed students since Fall 2019:
 - In 2021, 24% of all SSA students were case-managed.
 - 72% of case managed students have achieved at least one of the four positive outcomes after one year, compared to 55% of non-SSA students.¹⁵
- 65% of SSA students are retained, transfer, or complete the program one year after entry vs 56% of non-SSA students.

While the annual reports provide several performance metrics, there is little data on the program's impact on STEM-related workforce sectors. To address this research question, UMDI evaluators are analyzing statewide employment data to identify long-term employment outcomes for SSA students. This additional layer of data should allow DHE to see the program's impact on STEM-related workforce sectors, which has not been previously available. The annual report includes the number of achieved educational outcomes but there is limited data on the specific degrees or certificates earned or the programs students are entering at a four-year institution. This information is available to DHE and community colleges through internal reports that can be drilled down to a specific group of students. The reporting structure of the SSA could be a starting framework for other workforce programs to adopt to ensure that policy goals are met.

Summing Up

The three themes highlighted in MTF's earlier workforce briefs related to significant increases in spending, a vast network of programs, and limited an inconsistent performance data can also be seen in the sector-based programs highlighted above.

- **Support for sector-based programs has increased at the fastest rate over the past five fiscal years** - Investments have increased by \$44.4 million (130 percent), with the creation of CTI and Innovation Career Pathways representing \$25.2 million of that total.
- **There is a vast network of sector-based programs** – 22 sector-based workforce programs span 11 administering entities, with six programs being created over the past five years.

¹⁴ This data on program participation and outcomes is reflected in an upcoming report that will be released by EOE.

¹⁵ A positive outcome is considered when a student stays on track to completing a program, completes a program, enters the STEM workforce, or transfers to a four-year institution.

- **The scope of data is limited and inconsistent-** Reports provide a basic level of understanding of program outcomes, but there is a general lack of long-term data showing how these programs impact the in-demand sectors and an individual's professional growth. For example, there is a wide range of performance metrics available for student outcomes after participating in the SSA, while there is limited data included in the EEC Annual Report on the impact of the Career Pathways Grant program on the early educator field.

In addition to these shared themes, several themes emerged that are specific to sector-based workforce programs:

Broader Distribution of Funds

Our earlier brief found that 90 percent of funding for individual workforce programs was dedicated to six programs, but only five sector-based programs make up a third of the funding in this category. Sector-based programs can be found under six different secretariats and supported by 22 different line items, double the number of individual workforce training line items that fall under three different secretariats.

More Participants Served

Funding for sector-based programs has increased since FY 2019, but support has grown at a larger rate since FY 2021. The creation of CTI and Innovation Career Pathways, two of the largest sector-based workforce programs, have played a large role in additional individuals being served. For instance, in FY 2023 more than 17,000 individuals were enrolled in the largest sector-based workforce programs highlighted above. This reflects an increase of roughly 6,000 additional individuals being served by the same programs in FY 2019. The recent increases in funding have likely had a significant impact on the number of participants served through sector-based workforce programs.

Addressing Regional Needs

Given that sector-based workforce programs focus on specific industries and saw large funding increases as a result of the pandemic's impact on critical sectors, many programs rely on current labor market needs. Several programs including CTI and Innovation Career Pathways align their programming per their region's regional blueprint, developed by EOLWD and was a key initiative of the WSC. Regional blueprints have been developed by leaders in government, business, and the community to identify labor gaps and strategies on how to address shortages. Other programs, like the SSA, engage with employers and community colleges directly to expand the awareness of in-demand sectors and develop talent pipelines to STEM sectors.

Next Steps

MTF's next workforce brief will focus on state investments in training programs for state-serving populations. These workforce initiatives focus on providing access to vocational training and employment stability for individuals already interacting with state agencies. Similar to this brief, an overview of the largest training opportunities for state-serving populations will be provided by looking at what the program does, its funding history, and what data is available to determine its efficacy. Across those programs, trends, and themes will emerge as spending in these programs has received the most workforce spending over the past five years.

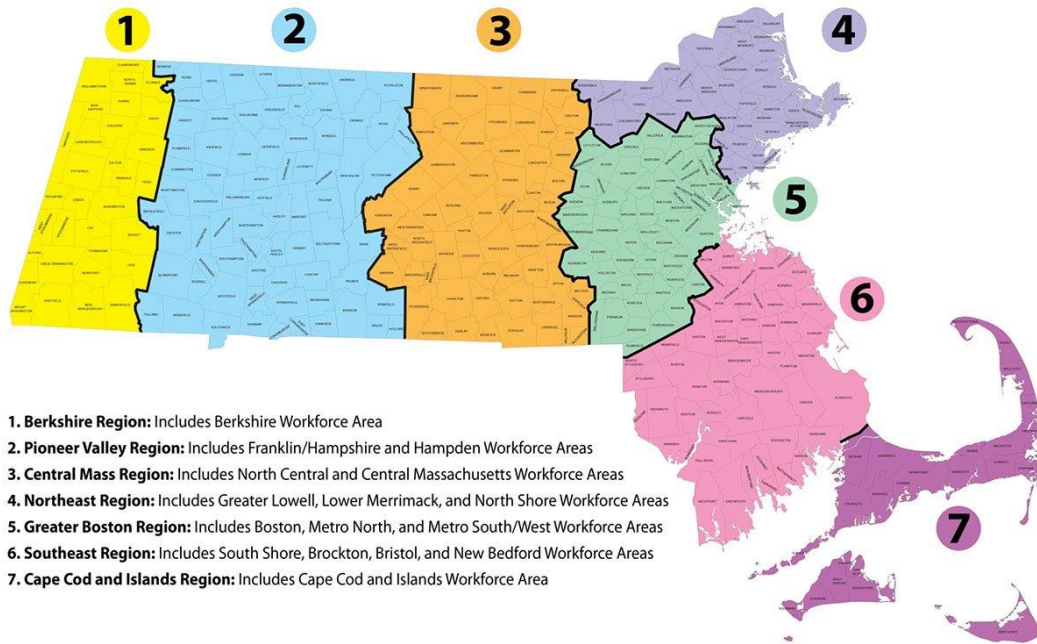
Appendix

Appendix 1. Sector-Based Workforce Programs Funding Levels FY 2019 – FY 2023

Program	Dept.	FY19 GAA	FY23 GAA	\$ Difference	CAGR
Career Technical Institutes	Executive Office of Labor and Workforce Development	\$0.00	\$20.40	\$20.40	72%
Transfer to Workforce Competitiveness Trust Fund	Executive Office of Labor and Workforce Development	\$5.00	\$17.00	\$12.00	28%
EEC Provider Higher Education Opportunities	Dept. of Early Education and Care	\$10.00	\$10.00	\$0.00	0%
Innovation Career Pathways	Dept. of Elementary and Secondary Education	\$0.00	\$4.83	\$4.83	184%
STEM Starter Academy	Dept. of Higher Education	\$4.75	\$4.75	\$0.00	0%
Career and Technical Education Program	Dept. of Elementary and Secondary Education	\$0.00	\$3.50	\$3.50	63%
Workforce Development Grant	Dept. of Economic Development	\$2.69	\$2.50	-\$0.19	-1%
Massachusetts Service Alliance	Dept. of Career Services	\$3.24	\$2.20	-\$1.04	-7%
High Demand Scholarship Program	Dept. of Higher Education	\$0.50	\$2.00	\$1.50	32%
Massachusetts Manufacturing Extension Partnership	Dept. of Career Services	\$2.00	\$2.00	\$0.00	0%
STEM Pipeline Fund	Dept. of Higher Education	\$1.50	\$1.50	\$0.00	0%
Workforce Development Grants to Community Colleges	Dept. of Higher Education	\$1.45	\$1.45	\$0.00	0%
Home Care Aide Training Grant Program	Executive Office of Elder Affairs	\$0.00	\$1.21	\$1.21	5%
Learn to Earn	Executive Office of Labor and Workforce Development	\$1.00	\$1.00	\$0.00	0%
Nursing and Allied Health Workforce Development	Executive Office of Health and Human Services	\$0.35	\$1.00	\$0.65	23%
Registered Apprenticeship Expansion	Executive Office of Labor and Workforce Development	\$0.50	\$1.00	\$0.50	15%
Health Care Worker Training	Dept. of Career Services	\$0.20	\$1.00	\$0.80	38%
Training and Career Ladder Programs	Human Resources Dept.	\$0.00	\$0.78	\$0.78	0%
Train Vets to Treat Vets	Dept. of Veterans' Services	\$0.25	\$0.28	\$0.03	2%
AFL-CIO Workforce Development Programs	Dept. of Career Services	\$0.00	\$0.15	\$0.15	0%
Small Business Association Layoff Aversion Grant Program	Office of Business Development	\$0.25	\$0.00	-\$0.25	-100%
Big Data Innovation and Workforce Fund	Dept. of Economic Development	\$0.50	\$0.00	-\$0.50	-100%
Grand Total		\$34.18	\$78.55	\$44.37	11.47%

\$ in millions

Appendix 2. Map of the seven MassHire Super Workforce Regions:



- 1. Berkshire Region:** Includes Berkshire Workforce Area
- 2. Pioneer Valley Region:** Includes Franklin/Hampshire and Hampden Workforce Areas
- 3. Central Mass Region:** Includes North Central and Central Massachusetts Workforce Areas
- 4. Northeast Region:** Includes Greater Lowell, Lower Merrimack, and North Shore Workforce Areas
- 5. Greater Boston Region:** Includes Boston, Metro North, and Metro South/West Workforce Areas
- 6. Southeast Region:** Includes South Shore, Brockton, Bristol, and New Bedford Workforce Areas
- 7. Cape Cod and Islands Region:** Includes Cape Cod and Islands Workforce Area