

Massachusetts Department of Higher Education

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Noe Ortega
Commissioner
Chris Gabrieli
Board Chair

December 27, 2024

The Honorable Aaron Michlewitz
Chair, House Committee on Ways and Means
State House, Room 243
Boston, MA 02133

The Honorable Michael Rodrigues
Chair, Senate Committee on Ways and Means
State House, Room 212
Boston, MA 02133

Dear Chair Michlewitz and Chair Rodrigues:

As directed by line item 7066-0036 of Chapter 28 of the Acts of 2023, I am pleased to submit to you a report that describes the method for distributing funds; program implementation; and impacts as measured by an external evaluator of the STEM Starter Academy Program. The goal of STEM Starter Academy is to grow and diversify the Massachusetts STEM workforce by supporting more community college students to earn STEM degrees and certificates. Positive outcomes for students include retention, transfer to a university, graduation, and/or STEM employment. The Department of Higher Education is committed supporting best practice design elements from established STEM career pathways initiatives along a student's academic throughline from the time of enrollment to completion. This translates to all community college students who are STEM majors, interested in STEM, or undeclared being actively recruited into STEM Starter Academy programing. Strategies along the throughline include a Summer Bridge program, advising, tutoring, career counseling, case management, paid internships+, and transfer academy. FY24 allotments to the institutions support program staffing needed to implement the STEM Starter Academy program at all fifteen community colleges, the purchasing of materials, and funding student resources as needed.

The Department of Higher Education provides equal funding to all community college campuses. In FY24, each campus's final budget was \$160,000, with six schools receiving supplements to support Transfer Academy programs at partner public universities: Bunker Hill Community College-University of Massachusetts Boston, Cape Cod Community College-Bridgewater State University, Greenfield Community College-University of Massachusetts Amherst, Middlesex Community College-University of Massachusetts Lowell, Mount Wachusett Community College-Fitchburg State University, and Quinsigamond Community College-Worcester State University. All campuses have submitted their final expense reports and spent 97.6% of funding cumulatively allocated to them.

The Department of Higher Education procures external evaluation services through a contract with the University of Massachusetts Donahue Institute (UMDI). Data were collected from all institutions and UMDI used quasi-experimental design, as well as descriptive statistics to determine the impact of the program on

desired outcomes for the last ten years of data. Highlights of outcomes are described below and the full UMDI Year 10 SSA report is available on the DHE's website.

SSA has served more than 36,000 students over 10 years. Overall, SSA students are twice as likely as non-SSA students to achieve positive educational or workforce outcomes—including being twice as likely to earn a STEM degree or certificate. These results have been realized at a per-student cost of approximately \$1,250.

Overall, 62% of SSA participants have achieved positive outcomes (degree/certificate, 4-year transfer, retention) and have achieved those outcomes at higher rates than their non-SSA peers. Black SSA participants, Latinx SSA participants, and women SSA participants have achieved positive outcomes and earned STEM degrees and certificates at significantly higher rates than their non-SSA peers. SSA case management improved positive outcomes 1, 2, and 3 years after entry. Compared with their peers, SSA case-managed students earned STEM degrees and certificates at higher rates.

According to the most recent data available, 21% of the Massachusetts workforce is employed in a STEM industry, compared with the national average of 14%. Moreover, the projected rate of growth for STEM occupations in Massachusetts is 7.2%, while the projected rate of growth for all occupations is only 3%. After 10 years, the need for SSA is only more evident. This program is critical and proven to be effective in providing academic and wraparound supports to community college students desiring a STEM degree or certificate. As community colleges see an increase in enrollment through Mass Reconnect and Mass Educate, STEM Starter Academy is crucial to ensuring they graduate and can find gainful employment. If you have any questions about STEM Starter Academy, please feel free to contact Alex Demou, Director of Constituent and Legislative Affairs for the Department of Higher Education, at ademou@dhe.mass.edu.

Sincerely,

Noe Ortega, PhD
Commissioner