STEM Starter Academy Annual Evaluation Report, Year 8

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STEM Starter Academy

Annual Evaluation Report—Year 8

The goal of STEM Starter Academy is to recruit, ready, retain, and graduate a diverse group of students earning STEM degrees and certificates who go on to transfer to 4-year STEM programs and/or enter the STEM workforce.

STEM Starter Academy

The Department of Higher Education (DHE) launched STEM Starter Academy (SSA) at all 15 Massachusetts community colleges in January 2014. This system-wide initiative is designed to support students through community college STEM pathway programs that result in job placement within STEM professions or transfer to university STEM programs. SSA has brought together a learning community of state initiative leaders, college program staff, and college administrators to do this work.

The initiative connects students to STEM opportunities within the larger STEM ecosystem (e.g., 4-year colleges and universities, and STEM employers) to enhance students' awareness of STEM, readiness for rigorous study, and planning for careers in the STEM workforce. Through interventions and supports aimed at increasing equity in access and outcomes for underrepresented and underserved student populations, SSA seeks to meet current and projected workforce demands.

This report

The UMass Donahue Institute (UMDI) has partnered with DHE as an external evaluator of the initiative since the program began. This report summarizes findings related to the SSA initiative's overall effectiveness in terms of key student outcomes, based on data from SSA Years 1–8 (2014–2021). These findings include descriptive data about SSA participants as well as results from rigorous statistical analyses to assess the impacts of SSA on student success. To contextualize these findings, the first part of this report provides background on the STEM workforce and an overview of the SSA initiative.

Spotlight: Key findings

Overall, 64% 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 one year after entry**.** Grantees also reported that case management helped to tether students to their community college in challenging times.

Contents

SSA at a glance: Strategies, students, impacts

SSA promotes student success through a curated program of learning experiences that are sequenced from recruitment to completion

SSA serves a diverse range of student needs, ensuring that participants are accessing:

- rigorous academic curriculum
- wrap-around supports
- campus, peer, and industry relationships

Through a set of core strategies focused on supporting students along a throughline—including case management—SSA advances students toward the goal of a career in the STEM workforce.

30,965 SSA participants through Fall 2021

65% of SSA participants retain, transfer, or complete after one year

14,456 received STEM pathway/career counseling

1,020 students case managed

72% of case managed students retain, transfer, or complete after one year

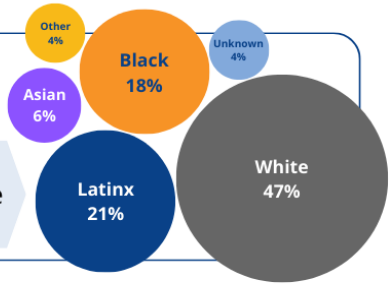
9,571 earned degrees or certificates

35% of participants were **25 years old or older** when they first joined SSA

56% of participants were **part-time students** when they first joined SSA

54% of SSA participants are **women**

SSA participants mirror the **racial/ethnic diversity** of the overall community college population



SSA Students Have Better Outcomes Than Their Peers

More likely than similar peers to EARN A STEM DEGREE OR CERTIFICATE

3 times as likely

*This illustration shows odds ratios for earning a STEM degree or certificate among SSA participants 5-years after joining SSA, compared to similar peers. SSA participants are **statistically significantly** more likely to earn STEM degrees and certificates 3, 4, 5, and 6 years after joining SSA.*

More likely than similar peers to have a POSITIVE EDUCATIONAL OUTCOME

Positive outcomes include completion, retention, transfer, or STEM employment. Case managed participants had only one year of outcome data available.

Context

Building the STEM Workforce

SSA is helping to meet a growing need for a diverse population of STEM-skilled graduates across the Commonwealth

As open-access institutions, community colleges provide a critical on-ramp and connection to STEM education and career pathways.

STEM jobs are vital to the MA economy, and demand for STEM workers will continue to grow in MA

According to a 2021 report from Commonwealth Corporation, **21% of the Massachusetts workforce is employed by STEM industry**. This exceeds the national average (14%). It is expected that this number will increase to more than 37% by 2028, with STEM jobs accounting for 40% of all job growth in the state. The projected growth rate for STEM jobs is more than double the projected rate for job growth overall.[1]

It is widely known that it is important to have a diverse workforce—including a diverse STEM workforce—because diversity allows for a variety of perspectives, creativity and innovation in the workplace, and the ability to connect to a wider range of communities and consumers.

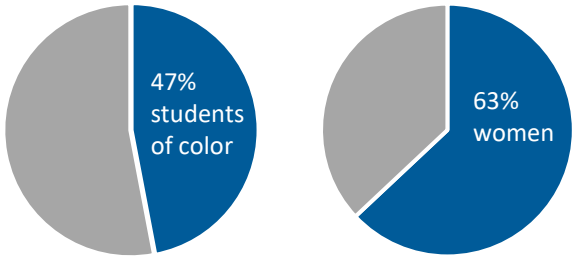
However, **diversity in the MA STEM workforce is making uneven progress**. At present, only 5% of STEM industry workers in MA are Black and only 6% are Latinx,[2] while Black and Latinx communities represent approximately 9% and 11% of the total workforce in the state, respectively.[3]

Structural inequities in the educational system have contributed to lack of diversity in STEM disciplines and, by extension, the STEM workforce. For example, DHE reports a 33-percentage point gap in graduation rates between White women and Latino men at MA public colleges or universities (2018).[4] Educational institutions need to continue to adapt to support higher rates of attainment of degrees and certificates by underrepresented populations. This adaptation is key to bolstering the STEM workforce.

Community college students differ from students at 4-year colleges

Among public institutions of higher education in Massachusetts, community colleges serve the largest proportion of students of color, low-income students, women, and adult learners.[5] Given this diversity, community colleges are a logical and essential place to invest in developing a diverse STEM workforce.

Racial/Ethnic and Gender Diversity at Massachusetts Community Colleges (Fall 2021)



By providing supports that increase retention, transfer, and completion, including among student groups underrepresented in STEM, SSA contributes to a more diverse pool of STEM-skilled graduates.

SSA fits into the STEM ecosystem by offering students the opportunity to connect to business and industry, and other parts of the educational system. Through research experiences and internships, students gain relevant STEM knowledge and skills while building relationships with industry partners. The SSA-funded 2-to-4 Year Transfer Academies help prepare transferring community college students for a successful transition to STEM programs at 4-year institutions. Similarly, SSA Summer Bridge programs connect incoming college students to community college staff, faculty, and peers, while offering an orientation to the college, STEM-related courses, and career exploration opportunities.

The COVID-19 Pandemic

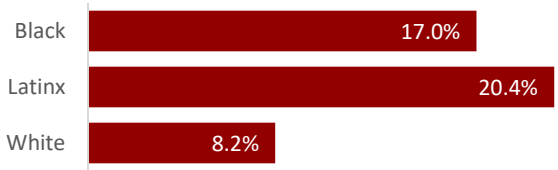
SSA's flexible and adaptive approach to supporting STEM and STEM-interested students has been well-suited for meeting students' needs during the COVID-19 pandemic

COVID impacts on the community colleges and on students are far-reaching

Enrollment at Massachusetts community colleges (and state universities) has been declining since 2013, a trend related to changing demographics in the Commonwealth.[6] Starting in spring 2020, the COVID-19 pandemic prompted additional declines, which were especially dramatic at community colleges,[7] where the student body is made up largely of groups disproportionally impacted by the pandemic (e.g., communities of color, low-wage workers, individuals facing food and housing insecurity). Over the seven years from fall 2012 to fall 2019, community college enrollment for degree seeking students decreased by 24%, from 100,798 to 76,327. From fall 2019 to fall 2021, enrollment decreased an additional 15%, from 76,327 to 64,988.[8]

Educators and researchers have described an increase in student disconnection resulting from the pandemic. The youth disconnection rate refers to the share of young people between the ages of 16 and 24 who are neither working nor in school, and it is calculated using US Census data. After a decade-long decline, the pandemic fueled an increase in the youth disconnection rate, nationally and in Massachusetts.[9] The 2020 rate, which researchers assert is likely an underestimate due to pandemic-related difficulties with Census data collection, is 10.6% for MA. This represents 88,400 disconnected youth. The rate varied dramatically by race/ethnicity, with 17.0% of Black youth and 20.4% of Latinx youth disconnected, compared to 8.2% of White youth. [10]

MA Youth Disconnection Rate 2020



Flexible and timely support helps keep students on track

Given these disconnection rates, the responsibility of the educational system—and community colleges in particular—to support the students who do enroll is all the more critical.

The pandemic-induced needs of enrolled community college students are wide-ranging. With the onset of the pandemic, many community college students faced significant changes in life circumstances, such as loss of income, illness, shifting family obligations, as well as food and housing insecurity. Further, in an academic sense, students faced an unexpected transition to a remote instructional format. For some, this presented challenges in terms of access to and/or engagement with (1) technology; (2) hands-on instructional activities integral to STEM learning; and (3) faculty, peers, and relevant material. Individualized supports and a flexible approach enabled continued engagement and academic progress in this context.

> *"SSA has helped create/maintain a culture of emphasizing the importance of STEM and STEM fields, especially during a time when students needed it—when they were disconnected. It's helped support students when they couldn't go to the lab, get hands-on experiences, do that type of work." (Roxbury)*

Through SSA's flexible and adaptive policies and practices, and its use of the case-management model for supporting students from entry through to completion, SSA was well-positioned to help students connect to their community college, engage in STEM, and achieve positive outcomes.

About SSA

SSA Overview

SSA differentiates approaches to improve equity in access and outcomes

SSA is an important piece of a larger STEM ecosystem that aims to increase diversity along STEM pathways by addressing needs for student support, connection, and engagement in STEM fields of study.

Launched at-scale with local flexibility

From its system-wide launch at all 15 Massachusetts public community colleges in 2014, SSA has been committed to the core principles of flexibility for site-level adaptation, a collaborative learning community, cycles of innovation, and a focus on equity to support student success (see Appendix A for more detail).

An evolving focus

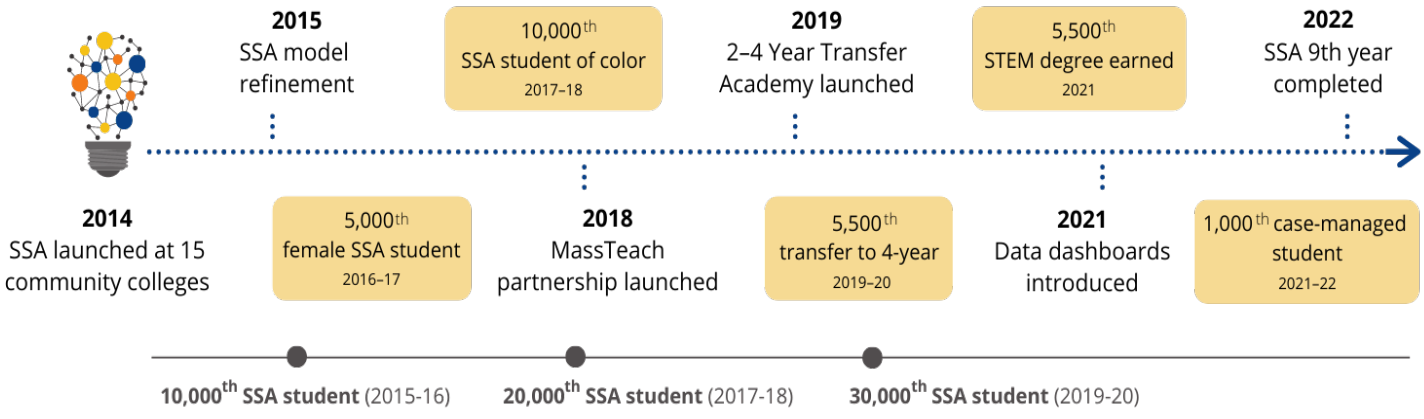
SSA's core principles have guided 9 years of program design and implementation. In Years 1-3 (Phase 1), SSA focused on recruitment into and readiness for STEM pathways and promoted community colleges as entry points to STEM careers. In Years 3-5 (Phase 2), the focus shifted to increasing retention and readying students for completion by addressing academic and non-academic factors with an emphasis on relationship-building. Beginning in Year 6, SSA transitioned to a third phase, characterized by adoption of a student-centered case management model of support. Along the way, key developments have shaped the initiative's evolution. (See timeline of some key milestones below.)

Student connection and engagement

SSA provides STEM-declared and STEM-interested community college students with a range of experiences and supports within and beyond the community college, including:

- STEM-focused bridging experiences (summer bridge-to-college programs, 2- to 4-year transfer academies)
- Academic support (math readiness activities, academic tutoring)
- Financial support (scholarships, paid internships, stipends, tuition waivers, in-kind support)
- Cohort activities, peer mentoring
- STEM advising
- STEM pathway and/or STEM career counseling
- Career exploration and preparation (STEM-related internships, work experience with industry partners, professional mentorship, resume review sessions, networking events, speakers)
- Research opportunities
- STEM leadership opportunities
- Case management

Timeline: Key SSA Milestones



Program Development: Case Management

The SSA community is implementing a case management model to support students from entry through graduation or transfer

Phase 3 (Year 6+): Case management and through-line

Since Year 6, SSA programs have transitioned from discrete interventions focused on recruitment, readiness, retention, and completion to case management as a strategy for **connecting STEM students—or those thinking about STEM—and supporting them along a through-line from entry to completion**. Having been effective at providing access, the SSA initiative moved to the next level: actively facilitating student success.

At the heart of SSA case management is a personalized, proactive, and strengths-based approach emphasizing communication and collaboration. It involves connecting students to appropriate academic and non-academic services, following up to ensure that student needs are being met, and tracking their progress.

The goal of case management is to identify and resolve barriers and challenges that inhibit student success in STEM. Personal and institutional connections and relationships central to this model help students feel integrated into the college community and engaged in the progression toward successful completion or transfer.

The flexibility and responsiveness of case management have been particularly helpful in the face of pandemic-related challenges affecting students personally and academically, including financial stress, physical and mental health needs, and a sudden transition to remote learning.

SSA case managed students were retained at even higher rates (56% vs 47%) *compared to non-case-managed SSA students.*

SSA case management components

SSA case management provides a comprehensive set of supports spanning the semesters and phases of a student's time at community college—including planning for the transition to the STEM workforce or further education. Implementation of the SSA case management model includes:

- ✓ Identification, development, and monitoring of an individualized student success plan with clearly established transfer and/or career goals;
- ✓ an intensive and proactive ("intrusive") advising approach, with personalized problem-solving support and guidance;
- ✓ referral to campus resources, with follow-up to ensure a connection is made;
- ✓ facilitated participation in STEM leadership and professional opportunities;
- ✓ community-building activities with STEM peers; and
- ✓ post-community-college transition support.

Case management involves advocating for students until they develop the confidence and agency to independently pursue academic and non-academic supports. It also involves following up with students who have disengaged and persistently reminding them of opportunities to reengage.

As the SSA case management model continues to evolve, it holds promise as a strategy for addressing equity gaps in STEM outcomes. Some research-based strategies included in the SSA case management model are considered particularly effective with traditionally underserved populations. For instance, research has shown that providing transparency and structure to students has led to positive results.[11]

Program Development: Future Focus

SSA is applying proven principles to innovate amid unforeseen demands

SSA used its flexibility, adaptability, and innovation orientation to embrace hybrid service delivery and create new and effective ways to meet student need. Moreover, SSA is developing as a bridge between the realities of students and future STEM employers.

Adaptation during COVID

SSA grantees recognized "silver lining" opportunities presented amid the many challenges of COVID-19 and adapted their strategies to incorporate new offerings that will continue to serve students in the future.

"Adding more technology—texting students, using electronic calendars for students to book appointments—has been a good outcome from the pandemic." (MassBay)

Virtual/remote options for individual student meetings (advising, case management), academic supports, and speaker events increased the accessibility of these services, and grantees reported positive results.

"Positives would be increasing accessibility for our students with online classes and events and access to tutoring online. That's opened up a lot of doors for our students." (NECC)

Virtual internships are another example of a pandemic-induced alternative that is likely to last. According to SSA program staff, these internships offer more scheduling flexibility and eliminate the need to travel, providing opportunities to students who have previously been unable to fit internships into their schedules or to access transportation.

SSA grantees also learned important lessons about student needs, during a time when needs were intensified. Because case management is inherently student-centered, grantees were committed to identifying and addressing individual needs, whether academic or non-academic. Referral pathways were formed and strengthened, and new relationships were established across campus departments to better serve students. Case managers were patient and persistent when students lapsed.

Positioned for success in an evolving higher education landscape

SSA grantees were able to look back over the COVID-19 pandemic and reflect on how SSA survived the unexpected challenges, and how the initiative is set up for success in a post-COVID higher education context. The strengths of SSA that were evident during COVID signal promising practices for this and other initiatives: flexibility and adaptability; hybrid formats for the delivery of curriculum, enrichment, and support; and active consideration of equity and diversity at every decision point.

Readiness for industry

While operating with these features, SSA incorporated practical strategies to connect future STEM workers with business and industry. Some SSA grantees described facilitating matches between STEM students and internships or employment opportunities. Additionally, they prepared students to recognize and market their skills. For example, workshop offerings addressed soft skills, such as how to talk about relevant skills in an interview for a technical position.

SSA grantees also educated employers about the students who make up the talent pool. Employers who approached community colleges with hopes of recruiting students to increase racial diversity were advised about the realities students navigate. As one grantee described, part of a commitment to equity is ensuring internships are a good fit for students. In a successful internship relationship, for instance, the college advised the employer to begin the internship in late June, when summer camps start, so that student-parents would have childcare.

Findings

SSA Participant Characteristics

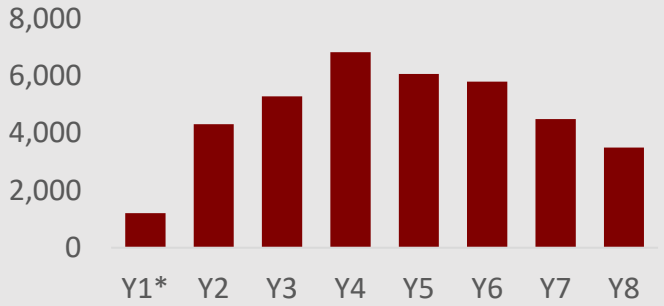
SSA participants reflect the diversity of community college students

SSA consistently serves a higher proportion of Black students compared to the community college population overall.

SSA Participation

Through fall 2021, SSA directly served a total of 30,965 participants. The number of SSA participants, over the years, peaked in Year 4 of the initiative (2016-17), remained relatively steady in Year 5 and Year 6, then declined in Years 7 (2019-20) and 8 (2020-21). Contextual factors such as the COVID-19 pandemic (effects starting in spring 2020); declining college enrollment; and programmatic factors, such as a shift to the case management model (starting fall 2019), likely contributed to this decline. Despite these contextual and programmatic factors, the SSA model continued to serve STEM and STEM-interested students.

As of fall 2021, SSA has directly served 30,965 students

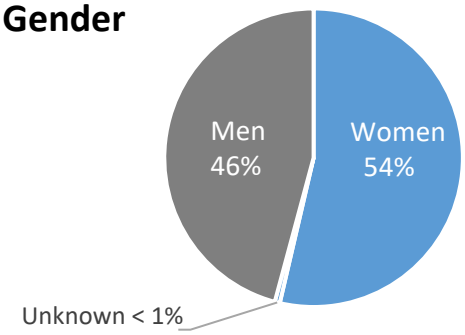


Demographic characteristics

SSA participants come from a broad range of backgrounds, lived experiences, and perspectives, into which quantitative descriptive data offer a small window. Overall, just over one-third (35%) of SSA participants are considered non-traditional aged students (not shown). These students are age 25 and older when they first participate. More than half of SSA participants (56%) attend school part time (not shown).

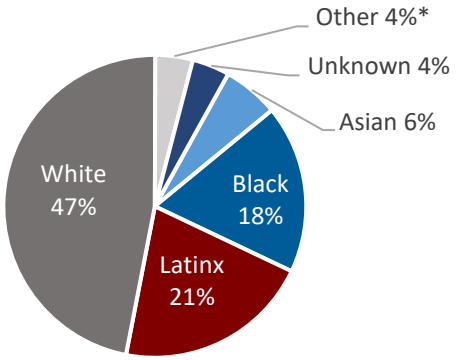
Just over half (54%) of SSA participants are women. While representation varies by year, this is important because women continue to be underrepresented in many STEM fields. [12]

Gender



Regarding race/ethnicity, participants are generally similar to the community college population, though SSA serves a slightly larger proportion of students of color. Slightly under half (47%) of all SSA participants are White, a smaller proportion than for community college students overall. Knowing the demographic identities of SSA students is essential for tracking progress toward the initiative's goals of supporting students from entry through to completion and increasing diverse representation in the workforce.

Race/ Ethnicity



*Includes American Indian and Alaska Native, Two or more races, and Non-resident alien

SSA Participant Characteristics

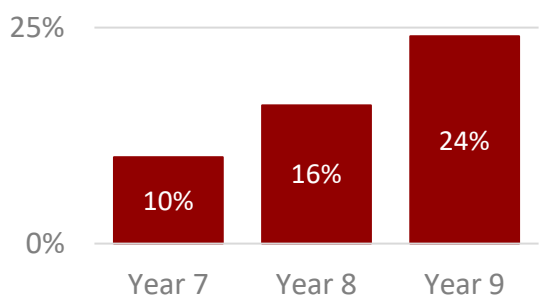
SSA case management participants reflect the diversity of SSA students and of community college students

An increasing proportion of SSA students have participated in case management over time, and these students are more likely to be STEM-at-entry than comparison groups.

Participation in case management

In fall 2019, community colleges began providing case management to students through SSA; as such, case managed students are a subset of all students served by SSA. Since fall of 2019, 15% of SSA students have been case managed through the initiative. The percentage of SSA students who were case managed increased each year, from 10% (455 students) in Year 7, to 16% (552 students) in Year 8, and to 24% (439 students) in the fall of Year 9.

SSA Case Management Participants



Case-managed student characteristics

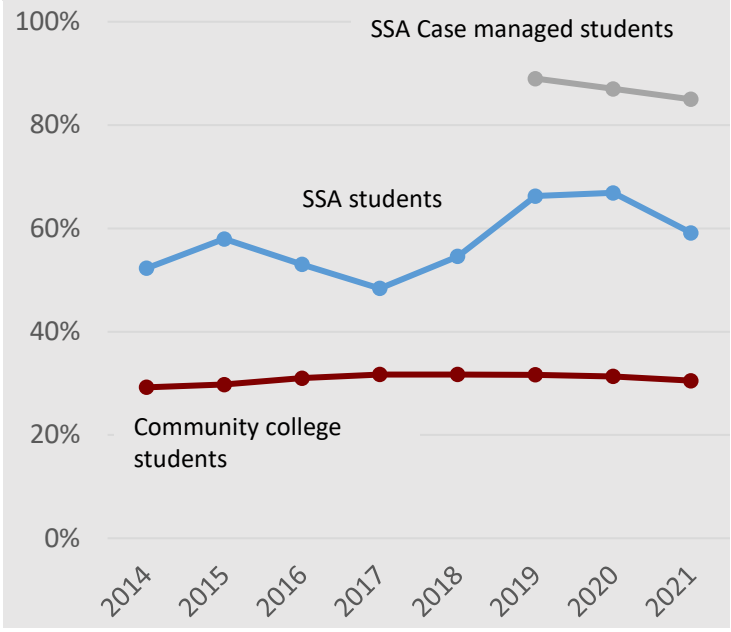
In terms of race/ethnicity and age, case managed students are very similar to their SSA peers. However, case managed students are more likely to be full time than SSA students overall (53% compared to 44%). The percentage of case managed students who are women has increased over time, from 35% in Year 7 to 53% in Year 9.

STEM status

SSA was designed to serve STEM students, as well as those who are STEM-interested but may be undeclared. STEM-at-entry students make up a consistently higher proportion of SSA participants than they do of the entire community college population

Among case-managed students, the overwhelming majority (85-89%) each year were STEM-at-entry. Approximately one-half to two-thirds (48-67%) of SSA participants were STEM-at-entry. Among community college students overall, approximately one-third have been STEM-at-entry over the span of the SSA initiative.

STEM-at-entry Status:
Proportions of SSA, Case-Managed, and Community College Students (Fall terms only)



Evidence & Outcomes

SSA students have continued to advance toward higher-level outcomes despite the pandemic

Participant data were analyzed to determine the highest outcome achieved as of Fall 2021. Each SSA participant was counted once, under the highest outcome achieved by that student. "Earned degree or certificate" was considered the highest outcome. "Transferred to 4-year institution" was the second highest outcome, followed by "Retained at original CC in Fall 2021," and then "Transferred to 2-year institution." Thus, a student who transferred and then earned a degree or certificate was only counted as having earned a degree or certificate.

Table 1 shows the results of this analysis. Overall, **almost two thirds (64%) of participants tracked since 2014 earned a degree or certificate, transferred to a 4-year institution, or continued their education at a community college** (see "Overall" row). The percentage of students achieving the highest-level outcome peaked at six years after their first participation (Year 3 cohort, 49%), and then plateaued (Year 1 and 2 cohorts, 47% each). SSA students continued to progress toward higher level outcomes despite pandemic-era challenges.

Table 1: Highest Outcome Achieved as of Fall 2021, by Year of First SSA Participation†

SSA Year First Participated	Earned degree or certificate	Transferred to 4-year institution	Retained at original CC in Fall 2021	Transferred to 2-year institution	Total Positive Outcome Achieved	Indeterminate status
Year 1	47%	8%	2%	4%	**60%**	40%
Year 2	47%	9%	2%	4%	**62%**	38%
Year 3	49%	10%	3%	3%	**65%**	35%
Year 4	44%	11%	4%	3%	**62%**	38%
Year 5	36%	12%	8%	3%	**59%**	41%
Year 6	27%	11%	16%	3%	**58%**	42%
Year 7	16%	9%	33%	3%	**61%**	39%
Year 8	6%	4%	63%	2%	**75%**	25%
Year 9	0%	0%	99%	0%	**99%**	1%
Overall	**34%**	**10%**	**17%**	**3%**	**64%**	**36%**

†Mutually exclusive outcomes are listed from left to right in order of priority (e.g., "earned a degree or certificate" is considered a higher outcome than "transferred to 4-year institution"). Some primary participants are not trackable (i.e., are not found in HEIRS). This includes those who do not have an SSN, and those who were assigned a student ID number but had not registered for a course.[13]

Methods note: Quasi-experimental modeling procedures

In addition to completing descriptive analyses like those in Table 1, UMDI evaluated the effectiveness of the SSA intervention using a rigorous, quasi-experimental comparison group design. These statistical analyses compared the outcomes of SSA participants with those of similar students who did not participate in the intervention. The methodology used ensured that pre-intervention differences in characteristics between SSA participants and non-participants—including STEM at entry status—were taken into account. A full description of quantitative methods is included in Appendix B.

Two outcomes were assessed using this design:

1. Positive educational outcomes—a broad measure of student progress and retention that includes those who were retained, completed, transferred to a 4-year institution, or joined the STEM workforce.
2. STEM degree and certificate earning at 2-year and 4-year institutions—an important measure of success that is part of the SSA initiative goals.

Results from these analyses are discussed on the following two pages.

Evidence & Outcomes

SSA participants have achieved positive outcomes at higher rates than their peers, at all time points and across nearly all student groups

Overall and student group results

SSA participants were statistically significantly **more likely than their peers to achieve a positive outcome at every time point assessed** (1, 2, 3, 4, 5, and 6 years after entry).

Data for various student groups were also analyzed, as shown in Table 2. Student groups were based on **STEM at entry status**, **SSA supports received**, **race/ethnicity**, and **gender.** Assessing the statistical significance of modeling results allows for more certainty that the demonstrated impacts are not due to chance alone.

*Across all but one student group, **SSA participants out-achieved their peers** to a statically significant degree at multiple time points.*

Spotlight: Positive outcomes and equity

Advancing racial equity by supporting students of color to progress and complete their education is an important goal of the SSA initiative.

Black and Latinx SSA participants achieved positive outcomes at higher rates than Black and Latinx students not in SSA at each time point that could be assessed (1, 2, 3, 4, and 5 years after entry). This represents improvement compared to earlier analyses, when Latinx SSA participants at longer follow-up periods were not statistically significantly more likely to achieve a positive outcome. However, **Asian SSA participants were only statistically significantly more likely to achieve a positive outcome 1 year after entry**.[14]

Table 2: Students Achieving Positive Outcomes 1 to 6 Years After Entry

SSA vs. Non-SSA, by Student Group, with Model Results ♈

	1 Year After		2 Years After		3 Years After		4 Years After		5 Years After		6 Years After	
Student Groups	SSA	non-SSA	SSA	non-SSA	SSA	non-SSA	SSA	non-SSA	SSA	non-SSA	SSA	non-SSA
All Students	65%***	56%	55%***	44%	52%***	40%	53%***	40%	56%***	41%	58%**	42%
STEM at Entry	67%***	55%	58%***	44%	53%***	39%	54%***	39%	55%**	40%	58%*	41%
Not STEM at Entry	63%***	53%	52%***	44%	50%***	40%	53%***	39%	57%***	40%	61%***	43%
SSA Aid	69%***	56%	60%***	44%	55%***	40%	58%***	40%	63%***	41%	64%***	36%
SSA Extra Support	69%***	56%	58%***	44%	55%***	40%	56%**	40%	Did Not Converge		60%**	43%
SSA Counseling	69%***	56%	61%***	45%	58%***	40%	60%***	40%	64%***	41%	63%***	43%
SSA Case Managed	72%**	55%	Insufficient Sample		Data Not Available							
Low Dose	73%***	55%	57%***	43%	53%***	39%	54%**	37%	Insufficient Sample			
Not Low Dose	60%***	56%	49%***	43%	46%***	39%	49%***	39%	Insufficient Sample			
Asian	70%*	60%	59%	50%	57%	46%	Insufficient Sample					
Black	62%***	53%	54%***	42%	48%***	36%	56%***	33%	54%*	34%	Insufficient Sample	
Latinx	60%***	49%	49%***	37%	48%***	33%	45%***	32%	48%***	30%	Insufficient Sample	
White	68%***	60%	59%***	48%	55%***	45%	55%*	44%	58%*	45%	62%	38%
Men	64%***	53%	55%***	41%	51%***	37%	50%***	36%	54%***	36%	57%*	38%
Women	66%***	59%	55%***	47%	53%***	43%	57%***	44%	59%**	44%	63%*	37%

♈ First-time students registered at their institutions in a fall term and enrolled either full or part time. SSA participants include those who first participated in SSA in summer or fall. Positive outcome includes retained, completed, transferred to 4-year, or joined the STEM workforce. Statistically significant results from quasi-experimental modeling are indicated with asterisks (*p < .05, **p < .01, ***p < .001).

Evidence & Outcomes

SSA students, including Black students, Latinx students, and women, earned STEM degrees and certificates at higher rates than their peers

Overall and student group results

SSA participants were statistically significantly **more likely than their peers to earn a STEM degree or certificate** from a 2- or 4-year institution at 3, 4, 5, and 6 years after entry, as shown in Table 3.

Across twelve student groups (excluding Case Managed, Asian, and White), STEM degree or certificate attainment was statistically significantly higher for SSA participants than for non-participants at multiple time points.

For STEM-at-entry students, those who participated in SSA earned STEM degrees or certificates at higher rates than those who did not participate. Differences were statistically significant 3, 4, 5, and 6 years after entry.

Spotlight: Critical successes in STEM completion

Results for STEM degrees and certificates were positive and significant for three groups typically underrepresented in STEM:

Black SSA participants earned STEM degrees and certificates at higher rates than their non-SSA peers 2, 3, 4, and 5 years after entry.

Latinx SSA participants earned STEM degrees and certificates at higher rates than their non-SSA peers 3, 4, and 5 years after entry.

Women SSA participants earned STEM degrees and certificates at higher rates than their non-SSA peers 3, 4, and 5 years after entry.

Table 3: Students Earning STEM Degrees and Certificates 2 to 6 Years After Entry
SSA vs. Non-SSA, by Student Group, with Model Results ♈

	2 Years After		3 Years After		4 Years After		5 Years After		6 Years After	
Student Groups	SSA	non-SSA	SSA	non-SSA	SSA	non-SSA	SSA	non-SSA	SSA	non-SSA
All Students	5%	2%	10%*	4%	16%**	5%	20%**	7%	19%*	8%
STEM at Entry	8%	7%	15%*	10%	22%**	14%	27%**	17%	27%*	19%
Not STEM at Entry	1%	0%	3%***	1%	6%***	2%	6%***	3%	6%	4%
SSA Aid	10%**	3%	16%***	4%	22%***	6%	26%***	7%	25%*	9%
SSA Extra Support	6%	2%	11%*	4%	17%**	5%	Did Not Converge		19%	9%
SSA Counseling	8%**	2%	15%***	4%	22%***	6%	26%***	7%	26%***	8%
SSA Case Managed	Insufficient Sample		Data Not Available							
Low Dose	6%	2%	12%**	4%	19%*	6%	Insufficient Sample			
Not Low Dose	6%**	2%	9%***	4%	13%***	6%	Insufficient Sample			
Asian	8%	3%	11%	5%	Insufficient Sample					
Black	3%**	1%	9%**	3%	15%*	4%	19%*	4%	Insufficient Sample	
Latinx	4%	2%	9%*	3%	14%***	4%	17%**	5%	Insufficient Sample	
White	7%	3%	10%	4%	16%	6%	20%	8%	19%	9%
Men	7%	3%	12%	4%	17%*	5%	21%*	7%	22%*	8%
Women	4%	2%	8%***	3%	14%***	5%	18%***	7%	15%	8%

♈ First-time students, registered at their institutions in a fall term, beginning with Year 3 of the initiative. For 2 Years After, only full-time students are included; all other years include part-time and full-time. SSA participants include those who first participated in SSA in summer or fall. Statistically significant results from quasi-experimental modeling are indicated with asterisks (*p < .05, **p < .01, ***p < .001).

Conclusion

SSA has been effective in addressing the initiative's goals

STEM Starter Academy was designed as a flexible and adaptive initiative to enable community colleges to bolster the STEM workforce in Massachusetts. Since its launch at all 15 Massachusetts community colleges in 2014, SSA has served over 30,000 students. Just over half of these students have been women, and half have been students of color.

Analyses based on data collected through Year 8 of implementation suggest that SSA has been effective in addressing the initiative's goals: SSA participants have achieved positive outcomes and earned STEM degrees and certificates at statistically significantly higher rates than similar non-participating peers. This is true for various student groups as well, including Black, Latinx, and women participants.

SSA is supporting growth in the number of STEM degree and certificate holders in Massachusetts at a time when STEM industry employs 21% of the Massachusetts workforce, and the projected growth rate for STEM jobs is more than double the projected rate for job growth overall.[15] It is worth emphasizing that SSA participants and completers are more diverse than Massachusetts' current STEM workforce, with greater representation of women and people of color. As such, SSA is responding to the Commonwealth's goal for a more diverse STEM workforce; one that reflects its diverse constituents and communities.

End Notes

1. Commonwealth Corporation. (n.d.). *STEM Brief 2021: See what you can do in STEM.* https://commcorp.org/wp-content/uploads/2021/10/STEM-BRIEF-2021-uploaded.pdf
According to Commonwealth Corporation 2018-2028 job growth projections based on analysis of Massachusetts Economic Research Department, Executive Office of Labor and Workforce Development, Occupational Projections, STEM occupations will grow at 7.2% vs.
3% across all occupations.
2. Ibid.
3. Massachusetts Department of Economic Research. (2022). *MA workforce by race/ethnicity*. https://public.tableau.com/app/profile/maeconomicresearch/viz/QWI_0/Ethnicity
4. Massachusetts Department of Higher Education. (2019). *Equity spotlight: Race & gender*. https://www.mass.edu/datacenter/equityspotlight-latinomales.asp
5. Massachusetts Department of Higher Education. (n.d.). *Adult learners at Massachusetts public colleges & universities: Realities & opportunities*. https://www.mass.edu/datacenter/2017adultlearners.asp
6. Massachusetts Department of Higher Education. (n.d.). *2021 early enrollment report for Massachusetts public colleges & universities*. https://www.mass.edu/datacenter/2021enrollmentestimates.asp
7. Massachusetts Department of Higher Education. (2021). *2020 enrollment at Massachusetts public colleges & universities: Trends, challenges & opportunities*. https://www.mass.edu/datacenter/2020enrollmentestimates.asp
8. Massachusetts Department of Higher Education. (2022, January 11). *Community colleges—Fall unduplicated student headcount*. DHE Data Center. https://www.mass.edu/datacenter/access/CCFallUndHC.asp
9. Lewis, K. (2022*). A disrupted year: How the arrival of Covid-19 affected youth disconnection*. Measure of America, Social Science Research Council. https://ssrc-static.s3.us-east-1.amazonaws.com/moa/ADisruptedYear.pdf
10. Laderman, L. (2022). *Youth disconnection in America* [Interactive tool]. Measure of America, Social Science Research Council. https://www.measureofamerica.org/DYinteractive/#State
11. Rassen, E., Chaplot, P., Jenkins, P. D., & Johnstone, R. (2013). *Understanding the student experience through the loss/momentum framework: Clearing the path to completion*. Community College Research Center, Columbia University. https://doi.org/10.7916/D8N58JC7
12. Commonwealth Corporation. (n.d.). *STEM Brief 2021: See what you can do in STEM.* https://commcorp.org/wp-content/uploads/2021/10/STEM-BRIEF-2021-uploaded.pdf; Funk, C. & Parker, K. (2018, January 9). *Women and men in STEM often at odds over workplace equity*. Pew Research Center. https://www.pewresearch.org/social-trends/2018/01/09/women-and-men-in-stem-often-at-odds-over-workplace-equity/
13. Joining the STEM workforce is not included as a positive outcome in Table 1 due to the limited availability of these data. DHE will continue to explore options for assessing this outcome.
14. For Asian students, results from Year 2 and Year 3 are positive but not statistically significant.
15. See End Note 1.

STEM Starter Academy

Year 8 Evaluation Report
Appendices

STEM Starter Academy Year 8 Evaluation Report Appendices: Table of Contents

Appendix A: Core Principles and Program Development (excerpted from Year 6 SSA Evaluation Report)

Core Principles

At-scale launch, local adaptation, and collaboration foster innovation

Through a combination of system-level leadership, multi-site collaboration, and local flexibility, the SSA initiative has fostered a unique context in which innovations at the system and institution levels inform one another. This allows for the testing, adaptation, and replication of best practices to support student success.

Launched at-scale with local flexibility

DHE launched SSA simultaneously across all 15 Massachusetts public community colleges in 2014. The initiative's design included both system-wide guiding principles and flexibility for local site-level adaptation, elements supported by research on best practices for scaling educational reforms.[25]

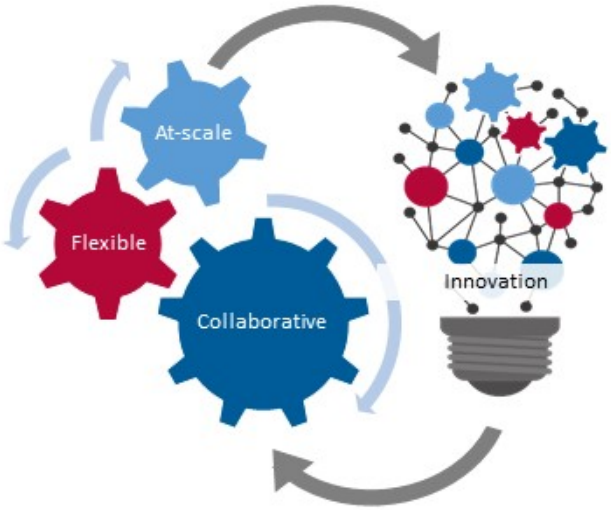
Cycles of innovation

Iterative innovation has been an important part of SSA from its inception. In the original RFP, DHE encouraged SSA sites to test innovative strategies in order to "refine the definition and implementation of the STEM Starter Academy as a model of student success across the Massachusetts community college system."[26]

Attending to equity

The SSA community has come to recognize that engaging with equity is key to supporting community college student success. This is especially true in STEM fields, which pose particular access challenges for students who have been in underserved educational settings. As SSA has evolved, the initiative's design and implementation have been increasingly attentive to issues of equity and diversity.

> *"We need a robust workforce that reflects our core strengths as a Commonwealth—diverse, well educated, innovative and collaborative. SSA provides all students, statewide, the opportunity to access, grow, and thrive through STEM."*
>
> *David Cedrone, Associate Commissioner of Workforce Development, DHE*



Collaborative learning community

From the beginning, SSA has been a collaborative endeavor. Representatives from the 15 institutions regularly convene to share information about practices, resources, and insights into implementation.

This learning community has persisted for 6 years, providing continuity to the initiative and sustaining connections between institutions. SSA institutions, through participation in working groups, have also advised DHE on initiative design, implementation, and evaluation.

When combined with flexibility for local adaptation, this kind of collaboration supports a positive feedback loop between design and implementation that is key to successful reform—with benefits that accrue both to the participants and their serving institutions.[27]

Program Development

Over time, SSA has evolved through an iterative process of learning, evaluation, and application

From the outset, DHE envisioned that a collaborative SSA community would continue to refine the STEM Starter Academy as a model for promoting student success.

Phase 1 (Years 1–3): Recruitment and readiness

In the early years, SSA implementation focused broadly on recruitment into and readiness for STEM pathways. This was key, as students considering and attending community college are less likely than their 4-year counterparts to have been exposed to a wide array of occupational choices within STEM fields.[28]

SSA sites worked to **build interest in and awareness of STEM** fields—and specifically to raise awareness of community colleges as entry points to STEM careers. Practices included high school outreach, hands-on challenge events, and visits to college laboratory spaces.

Building readiness for college and for STEM involved programming such as STEM-focused summer bridge-to-college programs and math readiness activities—practices that the literature suggests can help smooth students' transition from high school to college.[29]

In an effort to bolster recruitment, **SSA developed relationships, reputations, and name recognition** within their institutions and in their surrounding communities.

As of Fall 2019, SSA has directly served 30,964 students

SSA participation has remained steady, despite overall declines in community college enrollment.

Phase 2 (Years 3–5): Retention and relationships

In Years 3–5, SSA programs turned their focus to **increasing retention and readying students for completion.** This focus included attention to both academic and non-academic factors.

To support student persistence, SSA sites emphasized **building relationships to connect students to each other and to faculty, program administrators, and support resources.**[30] Practices included, for example, cohort activities, leadership opportunities, and chances for casual interaction with peers, faculty, and staff.

Cultivating a sense of belonging—specifically conveying a sense of being known and cared about by institutional actors—can be particularly important for retaining underrepresented students in STEM fields.[31]

Acknowledging that money is often a factor in college student attrition, some SSA programs offered financial support to participants, through scholarships, paid internships, stipends, tuition waivers, or in-kind help.[32]

To **prepare students for career and transfer**, sites created or connected students to internships, research opportunities, and professional mentorships.[33] They also offered resume review sessions, networking events, field trips, and 2- to 4-year transfer academies.

Program Development

The SSA learning community is developing its latest innovation: a focus on supporting students along a through-line from entry to completion

Phase 3 (Year 6+): Case management and through-line

Beginning in Year 6, DHE began developing a case management model that would transition SSA programs from discrete interventions focused on particular elements of a student's academic trajectory (recruitment, readiness, retention, completion) to a model with **a core focus on supporting a set of students along a through-line from entry to completion.**

The introduction of this model marked **a data-driven change in emphasis and practice for SSA.** At launch, SSA focused on filling gaps in services for students at individual points along their paths from entry to completion. By the end of Year 5, SSA data showed that the majority of participants (over 75%) had been actively engaged with SSA for only a single term. Based on such findings and on STEM completion data, DHE and the SSA community broadened that original focus, embracing a model that **ensures supportive connections at *every* point along a student's trajectory** (see page 11).

In depth connections and relationships inherent in this model help students feel integrated in the college community. This may be particularly helpful for nontraditional students—and especially for those who are floundering in the current circumstances being shaped by the COVID-19 pandemic.

The SSA Case Management model is sustained, strategic, and personalized—features that the literature suggests helps students have better long-term outcomes.[34]

Spotlight: SSA case management

At the heart of the SSA case management model is an intensive approach to supporting community college STEM students—or those thinking about STEM—and connecting them to appropriate academic and non-academic services. **The goal of the model is to identify and resolve barriers and challenges that inhibit student success in STEM and to support students from entry through to completion.** Both the model and its implementation are in their early stages.

In fall 2019, DHE began collaborating with SSA colleges to identify core elements of its case management model. In its prototypical form, this model includes:

- ✓ the identification of an academic pathway (with clearly established career or transfer goals);
- ✓ the development and monitoring of an academic plan;
- ✓ monitoring math and gateway course completion;
- ✓ participation in STEM professional or STEM leadership opportunities;
- ✓ community-building activities with peers; and,
- ✓ post-community-college support.

As the SSA case management model continues to evolve, it holds promise as a strategy for addressing equity gaps in STEM outcomes. Some research-based strategies included in the SSA case management model are considered particularly effective with traditionally underserved populations. For instance, research has shown that providing transparency and structure to students has led to positive results.[35]

Appendix B: Glossary of Terms

First-time student	Student that is new to an institution and has never enrolled previously in an institution of higher education.
Full-time student	Student enrolled 12 credit hours or more in the Fall term.
HEIRS ID	ID assigned by DHE used to track student enrollment, transfer, and completion. This is not the same as the institutional ID.
Low Dose	Student participated in fewer than 6 hours of SSA-related activities in any term.
Part- time student	Student enrolled in 1–11 credit hours during the Fall term.
Positive outcome	Completed a degree/certificate, transferred to a 4-year institution, joined the STEM workforce, or was "retained" (i.e. still enrolled in the community college). Students who transferred to another 2-year institution are excluded from this metric.
Quasi-experimental	Please refer to Appendix C (Quantitative Methods).
Similar non-participant	Student that did not participate in SSA activities but has similar demographics as SSA participants who joined SSA in the fall or summer as a first-time, full-time freshman (gender, race/ethnicity, STEM status at time of admission, and college-math-ready status at time of admission).
SSA Aid	SSA-subsidized financial support (e.g., grant, stipend, tuition or fee waiver).
SSA Case Managed	SSA-subsidized case management support that is provided to students during their remaining time at the community college. Case management includes a cohesive set of supports that includes at least one service from each of the following categories: Academic Advising, Academic Success, Post-graduate Success, STEM Community, and STEM Support/Leadership.
SSA Counseling	SSA-related targeted STEM pathway and/or STEM career counseling.
SSA Extra Support	SSA-related extra or targeted supports (e.g., academic tutoring, peer mentoring).

SSA Group 1–3 participant	Community college student who participates in STEM Starter Academy grant-funded programs/events/activities (i.e., participant who has an ID number assigned by their college).
SSA Group 4 participant	Individual who is not currently enrolled at a community college and participates in STEM Starter Academy grant-funded programs/events/activities (i.e., participant who does not have an ID number assigned by his/her college). In some cases, students with college IDs may be considered Group 4 participants, if their engagement with SSA-funded activities is limited. For example, current students might have contact with SSA only during a classroom recruitment visit or an email blast. This could also include students who participate in a STEM class that was made accessible online through the use of SSA funds or that used software or materials supported with SSA funds (e.g. Labster, science kits) but that did not benefit from other SSA programming.
SSA Years	Year 1 includes Spring and Summer 2014; Year 2 includes Fall 2014 and Spring and Summer 2015; Year 3 includes Fall 2015 and Spring and Summer 2016; Year 4 includes Fall 2016 and Spring and Summer 2017; Year 5 includes Fall 2017 and Spring and Summer 2018; Year 6 includes Fall 2018 and Spring and Summer 2019; Year 7 includes Fall 2019 and Spring and Summer 2020; and Year 8 includes Fall 2020 and Spring and Summer 2021. Year 9 includes Fall 2021 (and this is the latest available data) and will run through Summer 2022.
Statistical Analysis	Systematic analysis of data used to make inferences and identify trends and impacts. To be distinguished from descriptive analysis, which summarizes data.
Statistical Significance	A result has statistical significance when it is very unlikely to have occurred by chance.
STEM	DHE identified 12 general fields of study as STEM areas and their related CIP codes. These areas include: agriculture, architecture, biological and biomedical sciences, computer and information sciences, engineering, health professions, mathematics, mechanical and repair technologies, military technologies/technicians, physical sciences, precision production, and science technologies/technicians. Each year (starting in Year 4) UMDI and DHE work with SSA colleges to refine the definition to capture all programs that fall under these 12 general fields, regardless of CIP codes.
STEM at entry status	For SSA students, being “STEM at entry” means the student had a declared STEM major, based on SSA or HEIRS data sources, at the time they first participated in SSA; for non-SSA students, “STEM at entry” means the student had declared a STEM major, based on HEIRS data, at the time they first enrolled at the community college.

STEM degree/certificate	Student earned a degree or certificate in a STEM field from their home institution within the specified time period (1, 2, 3, or 4 years from initial SSA participation (for SSA students) or initial enrollment to the college (for non-SSA students)).
STEM students	This includes students that either (1) enrolled in a STEM program when they were admitted into an institution or (2) students who were subsequently indicated to be in a STEM major in HEIRS or the SSA data collection.
STEM workforce	Student reported joining the workforce in a STEM field, based on their exit survey, within the specified time period (1, 2, 3, or 4 years from initial SSA participation (for SSA students) or initial enrollment to the college (for non-SSA students)).

Appendix C: Quantitative Methods

Differences in treatment and comparison group students were assessed using a quasi-experimental matched comparison group design. Multi-level mixed-effect logistic regression analyses were conducted to assess the impact of participation on two outcomes—any positive educational outcome (i.e., graduation, retention, transfer to a 4-year institution, joining the STEM workforce), and STEM graduation/program completion status—where students were nested within sites. Carefully selected covariates were included in each analysis to minimize the potential for bias. These covariates included gender, race/ethnicity, and STEM status at time of admission. This design enabled strong inferences about the performance of students who participated in the intervention as compared to the expected level of student performance in the absence of the intervention.

Students were not randomly assigned to the intervention. Each site applied its own criteria to assign students to treatment. Therefore, it is likely that there were pre-intervention differences between participating students and non-participating students. In order to avoid a significant threat (i.e., selection bias) to the validity of the study's findings. To reduce these differences substantially, propensity score weighting procedures were used, thereby improving the validity of the estimates of program impacts.

In total, 465 models—comparing SSA participants to non-participants—were analyzed. For all of the models assessed in this study, propensity score weighting results were within the parameters specified in the U.S. Department of Education's What Works Clearinghouse "Standards Handbook Version 4.1" (2020). To analyze program impacts data were pooled across years, reflecting an assumption that the effects of participation in SSA were similar across years of the study.

Sample selection

Effects of participation were assessed one, two, three, four, five, and six years after initial participation. Depending on the time period and outcome indicator, different groups of students were included in the analyses. Specifically:

1. **Positive outcomes** (i.e., graduation, retained at same institution, transferred to a 4-year institution, joined STEM workforce) were assessed one, two, three, four, five, and six years after initial entry into SSA. Outcomes for students who joined SSA in the summer or fall of 2015, 2016, 2017, 2018, 2019, and 2020 as first-time, degree-seeking freshmen (and that were enrolled full- or part-time) were compared to similar students who did not participate in the intervention. Students were included in analyses at different time periods if sufficient time had passed since their first enrollment; for example, only students who joined SSA as first-time freshmen in the summer or fall of 2015 were included in the sample used to determine outcomes six years after joining SSA.
2. **STEM Degree/Certificate** status was assessed two, three, four, five, and six years after initial entry. Outcomes for students who joined SSA in the summer or fall of 2015, 2016, 2017, 2018, and 2019 as first-time, degree-seeking freshmen (who were also enrolled full-time) were compared to similar students who did not participate in the intervention. Students were included in analyses at different time periods if sufficient time had passed since their first

enrollment; for example, only students who joined SSA as first-time freshmen in the summer or fall of 2015 were included in the sample used to determine outcomes six years after joining SSA.

Analyses included students who joined SSA as first-time freshmen in the summer or fall of the years 2015–2020 as follows:

Cohort	Sample Size for Positive Outcomes Analyses (Full- or Part-time)	Sample Size for STEM Degrees and Certificates (Full-time)
2015	131	101
2016	621	431
2017	605	415
2018	662	424
2019	711	478
2020	769	537
Comparison	73,267	43,277

The comparison sample when conducting analyses of positive outcomes included all 73,267 students who were full- or part-time first-time freshmen at the same institutions during the fall of 2015, 2016, 2017, 2018, 2019, and 2020 that did not participate in SSA. Analyses of STEM degrees and certificates drew from a comparison sample of 43,277 students who were full-time first-time freshmen at the same institutions during the same time period as above and did not participate in SSA. When possible, students from all 15 sites were included in the analyses.

Each site applied their own recruitment and selection criteria to identify students for participation in SSA: in other words, students were not randomly assigned. To minimize any differences that may have existed between the treatment and comparison groups prior to the intervention, rigorous propensity-score-weighting procedures were used to weight each of the comparison students according to their similarities with the treatment group.[1]

Description of modeling procedures

Mixed-effects logistic regression models were developed to assess the impact of the intervention on the likelihood of achieving a positive educational outcome (graduation/completion, retained, transferred to 4-year, or joined STEM workforce). Mixed-effects logistic regression contains both fixed effects and random effects. The following equation represents the general modeling procedure:

$$Y_{ij} = \beta_0 + \beta_1(Participant_{ij}) + \beta_2(\text{Asian}_{ij}) + \beta_3(Black_{ij}) + \beta_5(Hispanic_{ij}) + \beta_6(White_{ij}) + \beta_7(Male_{ij}) + \beta_8(STEM\_at\_time\_of\_admin_{ij}) + u_{0j} + e_{ij}$$

For $i = 1, \ldots, n_j$ students, and $j = 1, \ldots, 15$ sites.

Random effects were included to account for site and individual student effects by adding a random error term for each site (u_i), and individual observations (e_{ij}). β_0 represents the intercept. The coefficients

[1] Rubin, Donald B. (2001). Using propensity scores to help design observational studies: Application to the tobacco litigation. *Health Services & Outcomes Research Methodology 2* (3), 169–188.

β_1 through β_8 represent the fixed effects of a given covariate on the outcome (Y_{ij}).

For this study, the coefficient of greatest interest was β_1, which represents the estimated impact of program participation on students' performance on the outcome of interest. Outcomes of interest included any positive educational outcome (i.e., graduation, retention, transfer) one, two, three, four, five, and six years after joining SSA, and STEM graduation status two, three, four, five, and six years after joining SSA.

Outcomes (i.e., values for Y_{ij}) were binary, and multi-level logistic regression analyses were conducted.

Appendix D: STEM Starter Academy Participant Data

Table 4: SSA Participant and Event Count by Term and Year				
SSA Year	**Term**	**Group 1–3 (primary) participants**	**Group 4 (secondary) participants**	**Events and activities**
Year 1	Spring 2014	448	5,662	173
	Summer 2014	786	2,545	49
Year 2	Fall 2014	2,140	1,741	56
	Spring 2015	2,263	5,018	156
	Summer 2015	999	1,742	40
Year 3	Fall 2015	2,213	4,192	100
	Spring 2016	2,472	6,161	187
	Summer 2016	1,710	2,237	76
Year 4	Fall 2016	2,773	4,649	305
	Spring 2017	4,151	5,779	246
	Summer 2017	1,518	3,083	80
Year 5	Fall 2017	2,593	3,745	112
	Spring 2018	3,065	6,521	205
	Summer 2018	1,551	2,505	107
Year 6	Fall 2018	2,835	5,129	141
	Spring 2019	2,995	5,317	202
	Summer 2019	1,120	1,074	65
Year 7	Fall 2019	2,495	2,897	104
	Spring 2020	1,807	3,661	113
	Summer 2020	1,313	592	33
Year 8	Fall 2020	1,687	1,395	82
	Spring 2021	1,646	3,066	162
	Summer 2021	1,318	853	65
Year 9	Fall 2021	1,313	1,719	141
Total		**30,965**	**81,283**	**3,000**

*Total for Group 1–3 (Primary) participants is the total number of unique participants over the lifetime of the program. Group 4 (Secondary) participants cannot be tracked and may include dupilcates within and between terms.

Table 4A: SSA Participant and Event Count by Institution, Term, and Year					
Institution	**SSA Year**	**Term**	**Group 1–3 (primary) participants**	**Group 4 (secondary) participants**	**Events and activities**
Berkshire	Year 1	Spring 2014	0	84	26
		Summer 2014	21	144	5
	Year 2	Fall 2014	67	343	15
		Spring 2015	28	178	17
		Summer 2015	32	0	0
	Year 3	Fall 2015	66	702	25
		Spring 2016	68	676	14
		Summer 2016	47	56	4
	Year 4	Fall 2016	61	435	16
		Spring 2017	65	739	36
		Summer 2017	99	244	1
	Year 5	Fall 2017	110	475	12
		Spring 2018	158	738	30
		Summer 2018	105	0	0
	Year 6	Fall 2018	109	467	24
		Spring 2019	119	473	55
		Summer 2019	69	185	3
	Year 7	Fall 2019	68	651	26
		Spring 2020	47	89	15
		Summer 2020	48	0	0
	Year 8	Fall 2020	61	16	16
		Spring 2021	57	380	24
		Summer 2021	84	16	4
	Year 9	Fall 2021	102	497	37
Bristol	Year 1	Spring 2014	13	392	11
		Summer 2014	76	219	10
	Year 2	Fall 2014	59	348	10
		Spring 2015	71	422	20
		Summer 2015	81	279	3
	Year 3	Fall 2015	52	245	6
		Spring 2016	108	727	25
		Summer 2016	142	147	8
	Year 4	Fall 2016	97	482	16
		Spring 2017	116	533	15
		Summer 2017	156	170	9
	Year 5	Fall 2017	96	418	14
		Spring 2018	94	344	16
		Summer 2018	119	212	9
	Year 6	Fall 2018	58	211	7
		Spring 2019	55	268	5
		Summer 2019	46	7	1
	Year 7	Fall 2019	94	51	2
		Spring 2020	82	0	0
		Summer 2020	86	0	0
	Year 8	Fall 2020	63	0	0
		Spring 2021	65	11	1
		Summer 2021	103	0	0
	Year 9	Fall 2021	65	0	0

Table 4A: SSA Participant and Event Count by Institution, Term, and Year					
Institution	**SSA Year**	**Term**	**Group 1–3 (primary) participants**	**Group 4 (secondary) participants**	**Events and activities**
Bunker Hill	Year 1	Spring 2014	0	0	0
		Summer 2014	61	0	0
	Year 2	Fall 2014	40	0	0
		Spring 2015	90	0	0
		Summer 2015	57	0	0
	Year 3	Fall 2015	108	0	0
		Spring 2016	105	0	0
		Summer 2016	130	14	3
	Year 4	Fall 2016	60	10	1
		Spring 2017	104	0	0
		Summer 2017	117	0	0
	Year 5	Fall 2017	100	0	0
		Spring 2018	89	0	0
		Summer 2018	106	0	0
	Year 6	Fall 2018	10	0	0
		Spring 2019	31	0	0
		Summer 2019	78	0	0
	Year 7	Fall 2019	39	0	0
		Spring 2020	31	0	0
		Summer 2020	50	0	0
	Year 8	Fall 2020	7	0	0
		Spring 2021	32	0	0
		Summer 2021	71	0	0
	Year 9	Fall 2021	20	0	0
Cape Cod	Year 1	Spring 2014	0	299	7
		Summer 2014	5	405	6
	Year 2	Fall 2014	300	151	7
		Spring 2015	320	875	24
		Summer 2015	103	1,212	19
	Year 3	Fall 2015	348	1,541	26
		Spring 2016	406	823	36
		Summer 2016	112	320	12
	Year 4	Fall 2016	364	629	23
		Spring 2017	464	411	32
		Summer 2017	108	83	14
	Year 5	Fall 2017	422	183	12
		Spring 2018	482	334	15
		Summer 2018	20	137	13
	Year 6	Fall 2018	553	0	0
		Spring 2019	562	257	1
		Summer 2019	50	0	0
	Year 7	Fall 2019	197	100	3
		Spring 2020	160	300	1
		Summer 2020	36	0	0
	Year 8	Fall 2020	154	254	15
		Spring 2021	71	745	32
		Summer 2021	34	0	0
	Year 9	Fall 2021	117	219	35

Table 4A: SSA Participant and Event Count by Institution, Term, and Year					
Institution	**SSA Year**	**Term**	**Group 1–3 (primary) participants**	**Group 4 (secondary) participants**	**Events and activities**
Greenfield	Year 1	Spring 2014	0	115	4
		Summer 2014	18	235	9
	Year 2	Fall 2014	4	305	3
		Spring 2015	9	214	12
		Summer 2015	19	0	0
	Year 3	Fall 2015	11	0	0
		Spring 2016	28	500	15
		Summer 2016	27	70	1
	Year 4	Fall 2016	28	426	120
		Spring 2017	29	525	38
		Summer 2017	43	50	3
	Year 5	Fall 2017	205	51	5
		Spring 2018	273	600	39
		Summer 2018	71	100	24
	Year 6	Fall 2018	297	165	8
		Spring 2019	256	825	35
		Summer 2019	92	163	32
	Year 7	Fall 2019	194	223	15
		Spring 2020	78	220	18
		Summer 2020	90	120	20
	Year 8	Fall 2020	44	185	19
		Spring 2021	58	155	12
		Summer 2021	82	63	7
	Year 9	Fall 2021	22	43	12
Holyoke	Year 1	Spring 2014	0	770	24
		Summer 2014	72	15	5
	Year 2	Fall 2014	149	18	1
		Spring 2015	22	1,262	13
		Summer 2015	66	0	0
	Year 3	Fall 2015	0	0	0
		Spring 2016	14	0	0
		Summer 2016	41	14	3
	Year 4	Fall 2016	11	0	0
		Spring 2017	6	0	0
		Summer 2017	38	13	2
	Year 5	Fall 2017	60	0	0
		Spring 2018	47	114	9
		Summer 2018	34	73	6
	Year 6	Fall 2018	44	440	9
		Spring 2019	103	345	8
		Summer 2019	30	115	1
	Year 7	Fall 2019	76	450	8
		Spring 2020	98	65	4
		Summer 2020	177	7	2
	Year 8	Fall 2020	152	47	5
		Spring 2021	143	65	3
		Summer 2021	54	35	2
	Year 9	Fall 2021	115	11	2

Table 4A: SSA Participant and Event Count by Institution, Term, and Year					
Institution	**SSA Year**	**Term**	**Group 1–3 (primary) participants**	**Group 4 (secondary) participants**	**Events and activities**
Mass Bay	Year 1	Spring 2014	0	477	5
		Summer 2014	154	0	0
	Year 2	Fall 2014	374	4	2
		Spring 2015	490	417	14
		Summer 2015	145	133	8
	Year 3	Fall 2015	447	350	14
		Spring 2016	454	590	25
		Summer 2016	183	211	8
	Year 4	Fall 2016	493	422	14
		Spring 2017	432	1,285	26
		Summer 2017	115	320	11
	Year 5	Fall 2017	431	485	18
		Spring 2018	444	1,160	20
		Summer 2018	106	311	12
	Year 6	Fall 2018	296	836	19
		Spring 2019	299	364	13
		Summer 2019	86	154	7
	Year 7	Fall 2019	246	83	7
		Spring 2020	157	61	5
		Summer 2020	119	16	2
	Year 8	Fall 2020	206	74	7
		Spring 2021	198	152	15
		Summer 2021	94	14	3
	Year 9	Fall 2021	226	32	6
Massasoit	Year 1	Spring 2014	0	850	23
		Summer 2014	48	110	3
	Year 2	Fall 2014	14	0	0
		Spring 2015	29	40	10
		Summer 2015	29	0	0
	Year 3	Fall 2015	91	0	0
		Spring 2016	127	0	0
		Summer 2016	20	0	0
	Year 4	Fall 2016	37	0	0
		Spring 2017	51	0	0
		Summer 2017	125	0	0
	Year 5	Fall 2017	67	0	0
		Spring 2018	121	0	0
		Summer 2018	16	0	0
	Year 6	Fall 2018	27	0	0
		Spring 2019	54	0	0
		Summer 2019	18	0	0
	Year 7	Fall 2019	40	0	0
		Spring 2020	45	0	0
		Summer 2020	12	0	0
	Year 8	Fall 2020	31	0	0
		Spring 2021	34	0	0
		Summer 2021	8	0	0
	Year 9	Fall 2021	42	0	0

Table 4A: SSA Participant and Event Count by Institution, Term, and Year					
Institution	**SSA Year**	**Term**	**Group 1–3 (primary) participants**	**Group 4 (secondary) participants**	**Events and activities**
Middlesex	Year 1	Spring 2014	101	152	3
		Summer 2014	45	0	0
	Year 2	Fall 2014	172	0	0
		Spring 2015	173	204	9
		Summer 2015	137	31	1
	Year 3	Fall 2015	158	493	6
		Spring 2016	151	1,341	7
		Summer 2016	142	353	7
	Year 4	Fall 2016	120	174	5
		Spring 2017	656	279	8
		Summer 2017	213	0	0
	Year 5	Fall 2017	199	0	0
		Spring 2018	222	190	2
		Summer 2018	70	206	5
	Year 6	Fall 2018	235	230	3
		Spring 2019	186	113	6
		Summer 2019	79	0	0
	Year 7	Fall 2019	184	58	3
		Spring 2020	21	258	7
		Summer 2020	53	0	0
	Year 8	Fall 2020	43	71	1
		Spring 2021	61	208	34
		Summer 2021	27	255	17
	Year 9	Fall 2021	420	494	26
Mt. Wachusett	Year 1	Spring 2014	236	449	43
		Summer 2014	137	0	0
	Year 2	Fall 2014	337	0	0
		Spring 2015	416	288	10
		Summer 2015	18	0	0
	Year 3	Fall 2015	385	11	1
		Spring 2016	120	50	1
		Summer 2016	69	0	0
	Year 4	Fall 2016	475	300	3
		Spring 2017	521	433	21
		Summer 2017	75	53	4
	Year 5	Fall 2017	157	615	13
		Spring 2018	103	792	25
		Summer 2018	64	0	0
	Year 6	Fall 2018	128	1,002	30
		Spring 2019	73	381	23
		Summer 2019	46	0	0
	Year 7	Fall 2019	141	597	15
		Spring 2020	129	1,897	32
		Summer 2020	18	0	0
	Year 8	Fall 2020	38	111	5
		Spring 2021	52	0	0
		Summer 2021	57	40	4
	Year 9	Fall 2021	40	82	5

Table 4A: SSA Participant and Event Count by Institution, Term, and Year					
Institution	**SSA Year**	**Term**	**Group 1–3 (primary) participants**	**Group 4 (secondary) participants**	**Events and activities**
North Shore	Year 1	Spring 2014	0	250	3
		Summer 2014	55	1,220	4
	Year 2	Fall 2014	75	400	7
		Spring 2015	126	250	4
		Summer 2015	67	30	5
	Year 3	Fall 2015	275	30	1
		Spring 2016	226	75	8
		Summer 2016	76	250	8
	Year 4	Fall 2016	199	300	15
		Spring 2017	728	500	20
		Summer 2017	193	345	10
	Year 5	Fall 2017	147	75	10
		Spring 2018	347	78	8
		Summer 2018	182	350	11
	Year 6	Fall 2018	75	14	8
		Spring 2019	251	231	10
		Summer 2019	118	78	2
	Year 7	Fall 2019	59	30	1
		Spring 2020	267	0	0
		Summer 2020	300	0	0
	Year 8	Fall 2020	286	0	0
		Spring 2021	220	17	1
		Summer 2021	435	19	2
	Year 9	Fall 2021	208	23	2
Northern Essex	Year 1	Spring 2014	2	209	6
		Summer 2014	16	0	0
	Year 2	Fall 2014	233	138	4
		Spring 2015	117	13	1
		Summer 2015	108	11	1
	Year 3	Fall 2015	64	1	1
		Spring 2016	213	19	2
		Summer 2016	255	41	2
	Year 4	Fall 2016	132	0	0
		Spring 2017	159	82	4
		Summer 2017	111	67	8
	Year 5	Fall 2017	193	0	0
		Spring 2018	251	4	2
		Summer 2018	100	44	3
	Year 6	Fall 2018	321	60	1
		Spring 2019	301	8	6
		Summer 2019	56	18	3
	Year 7	Fall 2019	226	56	1
		Spring 2020	225	37	3
		Summer 2020	82	6	1
	Year 8	Fall 2020	146	0	0
		Spring 2021	257	64	6
		Summer 2021	55	32	7
	Year 9	Fall 2021	188	0	0

Table 4A: SSA Participant and Event Count by Institution, Term, and Year					
Institution	**SSA Year**	**Term**	**Group 1–3 (primary) participants**	**Group 4 (secondary) participants**	**Events and activities**
Quinsigamond	Year 1	Spring 2014	79	845	8
		Summer 2014	36	197	7
	Year 2	Fall 2014	265	34	7
		Spring 2015	311	114	2
		Summer 2015	0	29	2
	Year 3	Fall 2015	97	389	7
		Spring 2016	71	926	22
		Summer 2016	201	741	18
	Year 4	Fall 2016	215	1,220	14
		Spring 2017	434	525	34
		Summer 2017	34	1,673	15
	Year 5	Fall 2017	119	569	23
		Spring 2018	273	1,321	26
		Summer 2018	414	968	13
	Year 6	Fall 2018	286	1,043	22
		Spring 2019	304	1,497	26
		Summer 2019	210	259	10
	Year 7	Fall 2019	523	356	9
		Spring 2020	126	640	19
		Summer 2020	104	393	6
	Year 8	Fall 2020	77	269	10
		Spring 2021	67	361	15
		Summer 2021	94	138	5
	Year 9	Fall 2021	75	74	7
Roxbury	Year 1	Spring 2014	17	240	2
		Summer 2014	9	0	0
	Year 2	Fall 2014	7	0	0
		Spring 2015	7	0	0
		Summer 2015	59	0	0
	Year 3	Fall 2015	32	0	0
		Spring 2016	294	0	0
		Summer 2016	136	0	0
	Year 4	Fall 2016	322	0	0
		Spring 2017	267	0	0
		Summer 2017	40	0	0
	Year 5	Fall 2017	268	0	0
		Spring 2018	72	98	3
		Summer 2018	53	40	7
	Year 6	Fall 2018	304	89	5
		Spring 2019	252	55	4
		Summer 2019	48	40	2
	Year 7	Fall 2019	280	147	11
		Spring 2020	229	64	8
		Summer 2020	66	0	0
	Year 8	Fall 2020	252	308	1
		Spring 2021	171	258	15
		Summer 2021	65	206	11
	Year 9	Fall 2021	146	244	9

Table 4A: SSA Participant and Event Count by Institution, Term, and Year					
Institution	**SSA Year**	**Term**	**Group 1–3 (primary) participants**	**Group 4 (secondary) participants**	**Events and activities**
Springfield Technical	Year 1	Spring 2014	0	530	8
		Summer 2014	33	0	0
	Year 2	Fall 2014	44	0	0
		Spring 2015	54	741	20
		Summer 2015	78	17	1
	Year 3	Fall 2015	79	430	13
		Spring 2016	87	434	32
		Summer 2016	129	20	2
	Year 4	Fall 2016	159	251	78
		Spring 2017	119	467	12
		Summer 2017	51	65	3
	Year 5	Fall 2017	19	874	5
		Spring 2018	89	748	10
		Summer 2018	91	64	4
	Year 6	Fall 2018	92	572	5
		Spring 2019	149	500	10
		Summer 2019	94	55	4
	Year 7	Fall 2019	128	95	3
		Spring 2020	112	30	1
		Summer 2020	72	50	2
	Year 8	Fall 2020	127	60	3
		Spring 2021	160	650	4
		Summer 2021	55	35	3
	Year 9	Fall 2021	0	0	0

Table 5: STEM Status at Entry for Full and Part Time Community College Students*								
	Fall 2014	**Fall 2015**	**Fall 2016**	**Fall 2017**	**Fall 2018**	**Fall 2019**	**Fall 2020**	**Fall 2021**
Full time STEM at entry	13%	14%	14%	15%	15%	15%	14%	14%
Part time STEM at entry	16%	16%	17%	17%	17%	17%	17%	17%
Full time non-STEM at entry	32%	31%	30%	29%	28%	28%	26%	25%
Part time non-STEM at entry	39%	39%	39%	39%	40%	41%	42%	44%
Total full time and part time students	**95,330**	**90,245**	**84,615**	**80,302**	**76,587**	**72,734**	**64,184**	**61,724**
Total STEM degrees and certificates earned**	**7,345**	**7,197**	**7,521**	**7,497**	**7,334**	**6,748**	**6,930**	***

*Counts only include students with valid HEIRS IDs who were enrolled in at least one credit hour in the given fall term.

**Includes all STEM degrees and certificates awarded at any institution after students' intial enrollment and within the same fiscal year as the Fall term indicated. Degrees and certificates are not limited to one per student.

***Data are not yet available.

Table 5A: STEM Status at Entry for Full and Part Time Community College Students by Institution*									
		Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
Berkshire	Full time STEM at entry	16%	17%	17%	15%	15%	15%	16%	17%
	Part time STEM at entry	19%	19%	21%	20%	19%	20%	22%	23%
	Full time non-STEM at entry	23%	24%	22%	24%	24%	22%	18%	17%
	Part time non-STEM at entry	42%	39%	39%	41%	42%	43%	44%	43%
	Total full time and part time students	**2,194**	**2,070**	**1,910**	**1,807**	**1,628**	**1,557**	**1,387**	***
	Total STEM degrees and certificates earned**	**231**	**221**	**217**	**241**	**0**	**0**	**189**	***
Bristol	Full time STEM at entry	7%	7%	8%	8%	8%	9%	9%	9%
	Part time STEM at entry	5%	5%	5%	5%	5%	6%	6%	7%
	Full time non-STEM at entry	44%	44%	43%	42%	41%	40%	40%	38%
	Part time non-STEM at entry	45%	44%	44%	45%	46%	46%	45%	47%
	Total full time and part time students	**9,086**	**8,580**	**8,218**	**7,405**	**6,981**	**6,643**	**5,991**	***
	Total STEM degrees and certificates earned**	**550**	**580**	**680**	**637**	**0**	**0**	**690**	***
Bunker Hill	Full time STEM at entry	8%	9%	10%	11%	12%	12%	12%	12%
	Part time STEM at entry	9%	11%	11%	12%	12%	13%	12%	11%
	Full time non-STEM at entry	30%	29%	28%	28%	27%	27%	27%	27%
	Part time non-STEM at entry	52%	52%	50%	48%	49%	48%	48%	49%
	Total full time and part time students	**13,885**	**13,497**	**12,724**	**12,340**	**11,950**	**11,279**	**9,374**	***
	Total STEM degrees and certificates earned**	**802**	**871**	**895**	**898**	**0**	**0**	**1037**	***
Cape Cod	Full time STEM at entry	11%	10%	10%	11%	10%	12%	12%	12%
	Part time STEM at entry	21%	21%	21%	21%	19%	19%	20%	20%
	Full time non-STEM at entry	26%	27%	25%	25%	25%	25%	26%	25%
	Part time non-STEM at entry	42%	42%	44%	44%	46%	44%	43%	43%
	Total full time and part time students	**3,868**	**3,671**	**3,371**	**3,195**	**2,973**	**2,827**	**2,575**	***
	Total STEM degrees and certificates earned**	**279**	**330**	**296**	**336**	**0**	**0**	**351**	***

Table 5A: STEM Status at Entry for Full and Part Time Community College Students by Institution*									
		Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
Greenfield	Full time STEM at entry	13%	14%	14%	12%	11%	11%	11%	9%
	Part time STEM at entry	21%	20%	20%	21%	22%	22%	21%	20%
	Full time non-STEM at entry	26%	26%	25%	23%	23%	23%	20%	20%
	Part time non-STEM at entry	40%	41%	41%	44%	45%	44%	48%	51%
	Total full time and part time students	**2,016**	**1,958**	**1,871**	**1,751**	**1,708**	**1,665**	**1,509**	***
	Total STEM degrees and certificates earned**	**169**	**181**	**215**	**167**	**0**	**0**	**176**	***
Holyoke	Full time STEM at entry	15%	15%	15%	15%	15%	15%	15%	13%
	Part time STEM at entry	15%	14%	14%	15%	15%	16%	17%	17%
	Full time non-STEM at entry	40%	40%	38%	36%	36%	34%	30%	30%
	Part time non-STEM at entry	30%	31%	33%	34%	34%	35%	38%	40%
	Total full time and part time students	**6,695**	**6,316**	**5,850**	**5,484**	**5,073**	**4,847**	**4,256**	***
	Total STEM degrees and certificates earned**	**388**	**406**	**473**	**477**	**0**	**0**	**500**	***
Mass Bay	Full time STEM at entry	18%	18%	20%	19%	19%	19%	18%	19%
	Part time STEM at entry	23%	21%	21%	22%	23%	21%	22%	23%
	Full time non-STEM at entry	23%	24%	23%	23%	21%	22%	21%	20%
	Part time non-STEM at entry	35%	36%	37%	36%	37%	37%	39%	38%
	Total full time and part time students	**5,296**	**4,775**	**4,677**	**4,475**	**4,255**	**3,919**	**3,583**	***
	Total STEM degrees and certificates earned**	**470**	**441**	**507**	**518**	**0**	**0**	**498**	***
Massasoit	Full time STEM at entry	13%	14%	15%	15%	15%	16%	15%	14%
	Part time STEM at entry	12%	14%	14%	14%	15%	15%	15%	15%
	Full time non-STEM at entry	39%	37%	35%	34%	31%	30%	28%	26%
	Part time non-STEM at entry	36%	35%	36%	37%	38%	39%	42%	44%
	Total full time and part time students	**7,623**	**7,193**	**6,997**	**6,668**	**6,481**	**6,046**	**5,146**	***
	Total STEM degrees and certificates earned**	**464**	**446**	**582**	**561**	**0**	**0**	**490**	***

Table 5A: STEM Status at Entry for Full and Part Time Community College Students by Institution*									
		Fall 2014	**Fall 2015**	**Fall 2016**	**Fall 2017**	**Fall 2018**	**Fall 2019**	**Fall 2020**	**Fall 2021**
Middlesex	Full time STEM at entry	11%	10%	10%	11%	10%	10%	10%	9%
	Part time STEM at entry	9%	9%	9%	9%	8%	9%	8%	8%
	Full time non-STEM at entry	35%	35%	34%	34%	31%	31%	29%	25%
	Part time non-STEM at entry	45%	46%	47%	46%	51%	50%	53%	59%
	Total full time and part time students	**8,981**	**8,735**	**8,250**	**7,830**	**7,725**	**7,075**	**6,455**	***
	Total STEM degrees and certificates earned**	**695**	**681**	**734**	**763**	**0**	**0**	**892**	***
Mt. Wachusett	Full time STEM at entry	19%	19%	19%	19%	19%	19%	19%	19%
	Part time STEM at entry	22%	22%	23%	23%	23%	23%	24%	23%
	Full time non-STEM at entry	30%	30%	28%	25%	25%	24%	23%	21%
	Part time non-STEM at entry	30%	30%	30%	33%	33%	34%	34%	37%
	Total full time and part time students	**4,224**	**3,909**	**3,734**	**3,585**	**3,428**	**3,347**	**2,870**	***
	Total STEM degrees and certificates earned**	**516**	**465**	**461**	**471**	**0**	**0**	**429**	***
North Shore	Full time STEM at entry	14%	14%	14%	15%	15%	16%	17%	17%
	Part time STEM at entry	19%	19%	21%	21%	21%	22%	23%	24%
	Full time non-STEM at entry	29%	29%	27%	27%	26%	25%	24%	23%
	Part time non-STEM at entry	38%	38%	38%	37%	38%	37%	37%	36%
	Total full time and part time students	**7,313**	**6,815**	**6,160**	**5,859**	**5,484**	**5,077**	**4,498**	***
	Total STEM degrees and certificates earned**	**611**	**613**	**598**	**665**	**0**	**0**	**575**	***
Northern Essex	Full time STEM at entry	14%	15%	18%	19%	20%	19%	16%	16%
	Part time STEM at entry	25%	25%	26%	27%	27%	27%	24%	23%
	Full time non-STEM at entry	26%	25%	23%	22%	22%	22%	20%	20%
	Part time non-STEM at entry	35%	35%	32%	33%	32%	32%	39%	41%
	Total full time and part time students	**6,985**	**6,583**	**5,922**	**5,718**	**5,216**	**4,934**	**4,666**	***
	Total STEM degrees and certificates earned**	**654**	**617**	**620**	**595**	**0**	**0**	**605**	***

Table 5A: STEM Status at Entry for Full and Part Time Community College Students by Institution*									
		Fall 2014	**Fall 2015**	**Fall 2016**	**Fall 2017**	**Fall 2018**	**Fall 2019**	**Fall 2020**	**Fall 2021**
Quinsigamond	Full time STEM at entry	15%	15%	15%	15%	15%	15%	15%	15%
	Part time STEM at entry	20%	21%	22%	23%	24%	23%	23%	21%
	Full time non-STEM at entry	31%	29%	28%	27%	25%	23%	23%	22%
	Part time non-STEM at entry	34%	34%	34%	35%	35%	39%	39%	42%
	Total full time and part time students	**8,305**	**7,840**	**7,432**	**7,108**	**6,979**	**6,920**	**6,556**	***
	Total STEM degrees and certificates earned**	**642**	**763**	**781**	**931**	**0**	**0**	**937**	***
Roxbury	Full time STEM at entry	18%	18%	17%	16%	19%	20%	19%	17%
	Part time STEM at entry	32%	35%	35%	36%	38%	34%	34%	33%
	Full time non-STEM at entry	20%	18%	17%	19%	16%	18%	19%	18%
	Part time non-STEM at entry	30%	29%	31%	29%	28%	29%	28%	32%
	Total full time and part time students	**2,417**	**2,259**	**2,102**	**1,955**	**1,974**	**1,785**	**1,286**	***
	Total STEM degrees and certificates earned**	**183**	**214**	**236**	**242**	**0**	**0**	**184**	***
Springfield Technical	Full time STEM at entry	27%	26%	27%	28%	26%	24%	23%	21%
	Part time STEM at entry	20%	19%	20%	19%	19%	16%	16%	15%
	Full time non-STEM at entry	25%	25%	23%	24%	24%	26%	26%	25%
	Part time non-STEM at entry	29%	29%	30%	30%	31%	34%	36%	39%
	Total full time and part time students	**6,442**	**6,044**	**5,397**	**5,122**	**4,732**	**4,813**	**4,032**	***
	Total STEM degrees and certificates earned**	**722**	**632**	**678**	**689**	**0**	**0**	**636**	***

*Counts only include students with valid HEIRS IDs who were enrolled in at least one credit hour in the given fall term.

**Includes all STEM degrees and certificates awarded at any institution after students' intial enrollment at the given community college and within the same fiscal year as the Fall term indicated (for the institution of students' first HEIRS record only). Degrees and certificates are not limited to one per student.

***Data are not yet available.

Table 6: STEM Status at Entry for Full and Part Time SSA Participants*								
	Fall 2014	**Fall 2015**	**Fall 2016**	**Fall 2017**	**Fall 2018**	**Fall 2019**	**Fall 2020**	**Fall 2021**
Full time STEM at entry	25%	26%	27%	26%	27%	28%	29%	29%
Part time STEM at entry	34%	33%	31%	30%	31%	31%	35%	35%
Full time non-STEM at entry	17%	17%	17%	18%	17%	16%	14%	14%
Part time non-STEM at entry	25%	24%	24%	26%	26%	24%	23%	22%
Total SSA participants enrolled in CC	**6,757**	**8,528**	**9,953**	**10,699**	**10,616**	**9,484**	**7,121**	**5,741**
Total STEM degrees and certificates earned**	**253**	**562**	**961**	**1,334**	**1,492**	**1,572**	**1,795**	***

*Counts only include students with valid HEIRS IDs who were enrolled in at least one credit hour in the given fall term.

**Includes all STEM degrees and certificates awarded at any institution after students' intial participation in SSA and within the same fiscal year as the Fall term indicated. Degrees and certificates are not limited to one per student.

***Data are not yet available.

Table 6A: STEM Status at Entry for Full and Part Time SSA Participants, by Institution*									
		Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
Berkshire	Full time STEM at entry	20%	39%	33%	22%	29%	33%	39%	44%
	Part time STEM at entry	10%	14%	16%	11%	15%	21%	22%	25%
	Full time non-STEM at entry	9%	13%	18%	29%	23%	21%	12%	10%
	Part time non-STEM at entry	61%	34%	33%	38%	33%	25%	27%	22%
	Total SSA participants enrolled in CC	**107**	**123**	**165**	**277**	**300**	**251**	**171**	**165**
	Total STEM degrees and certificates earned**	**0**	**3**	**0**	**17**	**44**	**42**	**31**	***
Bristol	Full time STEM at entry	26%	31%	26%	19%	18%	17%	15%	19%
	Part time STEM at entry	31%	24%	21%	17%	21%	20%	22%	26%
	Full time non-STEM at entry	7%	8%	13%	10%	12%	14%	13%	12%
	Part time non-STEM at entry	36%	36%	40%	55%	49%	49%	50%	43%
	Total SSA participants enrolled in CC	**240**	**334**	**392**	**444**	**382**	**322**	**220**	**189**
	Total STEM degrees and certificates earned**	**34**	**31**	**34**	**63**	**65**	**70**	**61**	***
Bunker Hill	Full time STEM at entry	27%	31%	32%	29%	32%	38%	41%	43%
	Part time STEM at entry	38%	36%	31%	32%	34%	37%	40%	42%
	Full time non-STEM at entry	11%	11%	11%	8%	7%	7%	5%	3%
	Part time non-STEM at entry	23%	22%	26%	31%	27%	19%	14%	12%
	Total SSA participants enrolled in CC	**398**	**518**	**557**	**585**	**481**	**396**	**292**	**206**
	Total STEM degrees and certificates earned**	**0**	**21**	**0**	**63**	**75**	**89**	**104**	***
Cape Cod	Full time STEM at entry	12%	13%	12%	13%	13%	16%	22%	20%
	Part time STEM at entry	29%	28%	28%	27%	23%	25%	30%	31%
	Full time non-STEM at entry	21%	21%	20%	21%	21%	18%	11%	8%
	Part time non-STEM at entry	37%	38%	40%	39%	43%	40%	37%	40%
	Total SSA participants enrolled in CC	**849**	**1,104**	**1,104**	**1,163**	**1,146**	**848**	**528**	**376**
	Total STEM degrees and certificates earned**	**19**	**54**	**19**	**114**	**133**	**126**	**164**	***
Greenfield	Full time STEM at entry	20%	22%	26%	19%	15%	15%	18%	16%
	Part time STEM at entry	28%	25%	23%	21%	21%	22%	28%	28%
	Full time non-STEM at entry	14%	19%	21%	27%	30%	28%	20%	16%
	Part time non-STEM at entry	38%	35%	30%	33%	35%	35%	33%	40%
	Total SSA participants enrolled in CC	**100**	**200**	**312**	**504**	**615**	**581**	**401**	**251**
	Total STEM degrees and certificates earned**	**0**	**2**	**0**	**14**	**48**	**59**	**49**	***
Holyoke	Full time STEM at entry	15%	15%	18%	17%	21%	24%	22%	20%
	Part time STEM at entry	21%	21%	23%	25%	28%	37%	45%	43%
	Full time non-STEM at entry	32%	32%	28%	25%	21%	19%	15%	17%
	Part time non-STEM at entry	31%	32%	31%	33%	30%	20%	19%	21%
	Total SSA participants enrolled in CC	**267**	**257**	**324**	**381**	**456**	**500**	**528**	**369**
	Total STEM degrees and certificates earned**	**2**	**3**	**2**	**23**	**21**	**45**	**74**	***
Mass Bay	Full time STEM at entry	29%	28%	31%	32%	35%	38%	40%	42%
	Part time STEM at entry	27%	29%	27%	26%	28%	30%	33%	35%
	Full time non-STEM at entry	21%	21%	22%	20%	17%	12%	10%	7%
	Part time non-STEM at entry	22%	21%	21%	21%	20%	19%	17%	15%
	Total SSA participants enrolled in CC	**939**	**1,071**	**1,160**	**1,096**	**941**	**767**	**598**	**498**
	Total STEM degrees and certificates earned**	**31**	**76**	**31**	**128**	**140**	**165**	**159**	***
Massasoit	Full time STEM at entry	38%	42%	47%	42%	45%	47%	46%	45%
	Part time STEM at entry	29%	35%	31%	23%	30%	35%	37%	42%
	Full time non-STEM at entry	23%	13%	12%	13%	11%	9%	4%	3%
	Part time non-STEM at entry	10%	10%	9%	21%	14%	10%	14%	10%
	Total SSA participants enrolled in CC	**125**	**190**	**201**	**233**	**180**	**141**	**111**	**91**
	Total STEM degrees and certificates earned**	**4**	**16**	**4**	**36**	**34**	**39**	**51**	***

Table 6A: STEM Status at Entry for Full and Part Time SSA Participants, by Institution*									
		Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
Middlesex	Full time STEM at entry	37%	32%	31%	30%	28%	31%	30%	21%
	Part time STEM at entry	30%	29%	27%	26%	24%	22%	21%	17%
	Full time non-STEM at entry	13%	17%	18%	20%	22%	21%	22%	35%
	Part time non-STEM at entry	21%	22%	23%	24%	27%	26%	28%	27%
	Total SSA participants enrolled in CC	**804**	**963**	**1,091**	**1,024**	**887**	**702**	**516**	**635**
	Total STEM degrees and certificates earned**	**80**	**126**	**80**	**218**	**217**	**176**	**236**	***
Mt. Wachusett	Full time STEM at entry	27%	26%	27%	26%	29%	34%	39%	40%
	Part time STEM at entry	19%	21%	16%	12%	13%	19%	23%	25%
	Full time non-STEM at entry	21%	26%	29%	29%	28%	21%	16%	15%
	Part time non-STEM at entry	32%	26%	28%	33%	30%	26%	21%	20%
	Total SSA participants enrolled in CC	**248**	**289**	**372**	**480**	**434**	**412**	**239**	**187**
	Total STEM degrees and certificates earned**	**16**	**14**	**16**	**32**	**55**	**54**	**75**	***
North Shore	Full time STEM at entry	21%	24%	24%	26%	28%	28%	29%	29%
	Part time STEM at entry	40%	36%	37%	35%	38%	37%	41%	42%
	Full time non-STEM at entry	11%	15%	15%	13%	10%	10%	10%	11%
	Part time non-STEM at entry	28%	25%	24%	26%	25%	25%	20%	19%
	Total SSA participants enrolled in CC	**566**	**926**	**1,095**	**1,146**	**984**	**926**	**921**	**824**
	Total STEM degrees and certificates earned**	**5**	**40**	**5**	**134**	**144**	**176**	**161**	***
Northern Essex	Full time STEM at entry	24%	29%	37%	38%	40%	40%	37%	39%
	Part time STEM at entry	52%	52%	49%	51%	50%	50%	51%	51%
	Full time non-STEM at entry	11%	8%	5%	5%	5%	5%	4%	3%
	Part time non-STEM at entry	13%	11%	8%	6%	5%	6%	8%	7%
	Total SSA participants enrolled in CC	**759**	**829**	**1,019**	**1,061**	**1,075**	**906**	**706**	**609**
	Total STEM degrees and certificates earned**	**13**	**55**	**13**	**154**	**177**	**190**	**213**	***
Quinsigamond	Full time STEM at entry	29%	30%	31%	29%	26%	26%	27%	27%
	Part time STEM at entry	35%	35%	34%	35%	33%	30%	34%	38%
	Full time non-STEM at entry	20%	17%	16%	17%	19%	20%	17%	14%
	Part time non-STEM at entry	16%	18%	19%	18%	22%	24%	21%	21%
	Total SSA participants enrolled in CC	**768**	**888**	**1,018**	**1,079**	**1,303**	**1,252**	**708**	**500**
	Total STEM degrees and certificates earned**	**42**	**90**	**42**	**223**	**200**	**191**	**229**	***
Roxbury	Full time STEM at entry	17%	19%	18%	17%	19%	23%	21%	23%
	Part time STEM at entry	45%	44%	42%	43%	43%	40%	39%	39%
	Full time non-STEM at entry	14%	14%	16%	18%	17%	17%	18%	17%
	Part time non-STEM at entry	23%	23%	25%	22%	21%	20%	22%	20%
	Total SSA participants enrolled in CC	**430**	**586**	**790**	**774**	**908**	**886**	**678**	**522**
	Total STEM degrees and certificates earned**	**0**	**23**	**0**	**70**	**75**	**79**	**81**	***
Springfield Technical	Full time STEM at entry	40%	36%	35%	32%	30%	31%	30%	31%
	Part time STEM at entry	26%	20%	24%	25%	28%	22%	23%	24%
	Full time non-STEM at entry	13%	23%	21%	24%	21%	23%	21%	18%
	Part time non-STEM at entry	21%	21%	20%	19%	21%	24%	25%	27%
	Total SSA participants enrolled in CC	**157**	**250**	**353**	**452**	**524**	**594**	**504**	**319**
	Total STEM degrees and certificates earned**	**7**	**8**	**7**	**45**	**64**	**71**	**107**	***

*Counts only include students with valid HEIRS IDs who were enrolled in at least one credit hour in the given fall term.

*Includes all STEM degrees and certificates awarded at any institution after students' intial participation in SSA at the given community college and within the same fiscal year as the Fall term indicated (for students' first SSA institution only). Degrees and certificates are not limited to one per student.

***Data are not yet available.

Table 7: Number of Students in the Community College STEM Pipeline*									
Institution	Fall 2014			Fall 2015			Fall 2016		
	# of students in the STEM pipeline	SSA participants		# of students in the STEM pipeline	SSA participants		# of students in the STEM pipeline	SSA participants	
		Total #	# STEM at entry		Total #	# STEM at entry		Total #	# STEM at entry
Berkshire	766	107	32	751	123	65	734	165	82
Bristol	1,055	240	137	1,009	334	185	1,029	392	183
Bunker Hill	2,439	398	261	2,589	518	350	2,744	557	354
Cape Cod	1,233	849	351	1,126	1,104	451	1,043	1,104	446
Greenfield	683	100	48	658	200	93	639	312	154
Holyoke	1,977	267	97	1,844	257	92	1,750	324	131
Mass Bay	2,181	939	530	1,893	1,071	615	1,891	1,160	667
Massasoit	1,874	125	83	1,970	190	146	2,022	201	157
Middlesex	1,796	804	534	1,692	963	585	1,608	1,091	637
Mt. Wachusett	1,700	248	116	1,578	289	138	1,574	372	158
North Shore	2,386	566	346	2,245	926	553	2,171	1,095	675
Northern Essex	2,698	759	576	2,673	829	669	2,625	1,019	883
Quinsigamond	2,880	768	491	2,869	888	574	2,791	1,018	662
Roxbury	1,209	430	269	1,205	586	370	1,102	790	471
Springfield Technical	2,991	157	104	2,748	250	140	2,521	353	208
Total across sites	**27,868**	**6,757**	**3,975**	**26,850**	**8,528**	**5,026**	**26,244**	**9,953**	**5,868**

*The STEM pipeline includes students that are STEM enrolled at entry, have a valid HEIRS ID, and are enrolled in a community college full or part time during the given Fall term. SSA participants include those that have a valid HEIRS ID and are enrolled in a community college full or part time during the given Fall term.

Table 7: Number of Students in the Community College STEM Pipeline*									
Institution	Fall 2017			Fall 2018			Fall 2019		
	# of students in the STEM pipeline	SSA participants		# of students in the STEM pipeline	SSA participants		# of students in the STEM pipeline	SSA participants	
		Total #	# STEM at entry		Total #	# STEM at entry		Total #	# STEM at entry
Berkshire	632	277	92	553	300	132	543	251	137
Bristol	980	444	158	901	382	149	963	322	119
Bunker Hill	2,909	585	357	2,867	481	318	2,761	396	295
Cape Cod	1,013	1,163	465	875	1,146	415	859	848	354
Greenfield	581	504	201	560	615	220	555	581	217
Holyoke	1,647	381	159	1,515	456	223	1,493	500	305
Mass Bay	1,848	1,096	640	1,784	941	596	1,582	767	526
Massasoit	1,988	233	153	1,975	180	135	1,856	141	115
Middlesex	1,557	1,024	572	1,410	887	458	1,335	702	373
Mt. Wachusett	1,488	480	181	1,437	434	179	1,391	412	218
North Shore	2,116	1,146	699	1,974	984	643	1,923	926	608
Northern Essex	2,593	1,061	947	2,419	1,075	972	2,273	906	815
Quinsigamond	2,743	1,079	692	2,781	1,303	776	2,626	1,252	709
Roxbury	1,019	774	465	1,121	908	565	958	886	560
Springfield Technical	2,367	452	258	2,124	524	304	1,901	594	312
Total across sites	**25,481**	**10,699**	**6,039**	**24,296**	**10,616**	**6,085**	**23,019**	**9,484**	**5,663**

*The STEM pipeline includes students that are STEM enrolled at entry, have a valid HEIRS ID, and are enrolled in a community college full or part time during the given Fall term. SSA participants include those that have a valid HEIRS ID and are enrolled in a community college full or part time during the given Fall term.

Table 7: Number of Students in the Community College STEM Pipeline*						
Institution	Fall 2020			Fall 2021		
	# of students in the STEM pipeline	SSA participants		# of students in the STEM pipeline	SSA participants	
		Total #	# STEM at entry		Total #	# STEM at entry
Berkshire	529	171	104	526	165	113
Bristol	907	220	83	881	189	85
Bunker Hill	2,294	292	235	2,044	206	175
Cape Cod	813	528	274	770	376	194
Greenfield	480	401	185	383	251	112
Holyoke	1,365	528	352	1,154	369	230
Mass Bay	1,449	598	439	1,372	498	384
Massasoit	1,536	111	92	1,483	91	79
Middlesex	1,176	516	262	1,102	635	240
Mt. Wachusett	1,215	239	150	1,200	187	121
North Shore	1,780	921	642	1,780	824	580
Northern Essex	1,884	706	619	1,814	609	547
Quinsigamond	2,461	708	434	2,371	500	327
Roxbury	683	678	410	597	522	324
Springfield Technical	1,544	504	269	1,345	319	177
Total across sites	**20,116**	**7,121**	**4,550**	**18,822**	**5,741**	**3,688**

*The STEM pipeline includes students that are STEM enrolled at entry, have a valid HEIRS ID, and are enrolled in a community college full or part time during the given Fall term. SSA participants include those that have a valid HEIRS ID and are enrolled in a community college full or part time during the given Fall term.

Table 8: SSA Participants' Service Descriptions by Year and Term*							
SSA Year	**Term**	**SSA participants**	**Received direct (SSA grant subsidized) financial support**	**Received extra or targeted supports**	**Received targeted STEM pathway and/or STEM career counseling**	**Case Managed**	**Low-Dose**
Year 1	Spring 2014	448	111	103	101	N/A	N/A
	Summer 2014	786	710	548	505	N/A	N/A
Year 2	Fall 2014	2,140	712	1,359	927	N/A	N/A
	Spring 2015	2,263	380	1,201	958	N/A	N/A
	Summer 2015	999	493	662	574	N/A	N/A
Year 3	Fall 2015	2,213	257	1,297	896	N/A	N/A
	Spring 2016	2,472	264	1,604	983	N/A	N/A
	Summer 2016	1,710	933	833	846	N/A	N/A
Year 4	Fall 2016	2,773	321	1,709	796	N/A	195
	Spring 2017	4,151	222	2,606	1,813	N/A	2,344
	Summer 2017	1,518	860	858	718	N/A	258
Year 5	Fall 2017	2,593	379	1,659	843	N/A	934
	Spring 2018	3,065	488	1,295	1,074	N/A	1,112
	Summer 2018	1,551	766	1,097	775	N/A	540
Year 6	Fall 2018	2,835	448	1,627	1,142	N/A	1,040
	Spring 2019	2,995	551	1,705	1,098	N/A	1,087
	Summer 2019	1,120	603	841	684	N/A	297
Year 7	Fall 2019	2,495	476	1,434	1,268	240	753
	Spring 2020	1,807	348	812	888	299	597
	Summer 2020	1,313	606	960	1,044	303	458
Year 8	Fall 2020	1,687	421	827	1,049	338	615
	Spring 2021	1,646	562	894	828	418	593
	Summer 2021	1,318	425	961	782	343	616
Year 9	Fall 2021	1,816	381	710	750	439	833
Unduplicated Totals		**30,965**	**9,194**	**19,861**	**14,456**	**1,020**	**7,697**

*Group 1–3 (Primary) participants

Table 8A: SSA Participants' Service Descriptions by Institution, Year, and Term*								
Institution	**SSA Year**	**Term**	**SSA participants**	**Received direct (SSA grant subsidized) financial support**	**Received extra or targeted supports**	**Received targeted STEM pathway and/or STEM career counseling**	**Case Managed**	**Low-Dose**
Berkshire	Year 1	Spring 2014	0	0	0	0	N/A	N/A
		Summer 2014	21	21	21	21	N/A	N/A
	Year 2	Fall 2014	67	67	21	18	N/A	N/A
		Spring 2015	28	23	19	19	N/A	N/A
		Summer 2015	32	32	32	32	N/A	N/A
	Year 3	Fall 2015	66	57	31	45	N/A	N/A
		Spring 2016	68	54	16	33	N/A	N/A
		Summer 2016	47	36	32	28	N/A	N/A
	Year 4	Fall 2016	61	49	46	34	N/A	N/A
		Spring 2017	65	35	15	38	N/A	0
		Summer 2017	99	88	37	40	N/A	0
	Year 5	Fall 2017	110	49	64	34	N/A	0
		Spring 2018	158	93	56	68	N/A	0
		Summer 2018	105	100	43	42	N/A	0
	Year 6	Fall 2018	109	68	67	53	N/A	0
		Spring 2019	119	67	34	34	N/A	0
		Summer 2019	69	59	52	52	N/A	0
	Year 7	Fall 2019	68	52	47	47	0	0
		Spring 2020	47	12	14	41	0	0
		Summer 2020	48	25	35	48	0	0
	Year 8	Fall 2020	61	24	35	45	0	0
		Spring 2021	57	25	14	40	0	0
		Summer 2021	84	45	49	44	0	0
	Year 9	Fall 2021	102	78	40	59	0	0
Bristol	Year 1	Spring 2014	59	13	13	13	N/A	N/A
		Summer 2014	13	76	34	45	N/A	N/A
	Year 2	Fall 2014	76	17	39	49	N/A	N/A
		Spring 2015	71	18	52	29	N/A	N/A
		Summer 2015	81	35	21	27	N/A	N/A
	Year 3	Fall 2015	52	15	22	37	N/A	N/A
		Spring 2016	108	21	44	64	N/A	N/A
		Summer 2016	142	77	56	47	N/A	N/A
	Year 4	Fall 2016	97	0	58	53	N/A	N/A
		Spring 2017	116	58	32	37	N/A	0
		Summer 2017	156	123	17	44	N/A	0
	Year 5	Fall 2017	96	69	22	14	N/A	0
		Spring 2018	94	33	26	57	N/A	0
		Summer 2018	119	80	16	57	N/A	0
	Year 6	Fall 2018	58	0	21	39	N/A	0
		Spring 2019	55	0	21	34	N/A	0
		Summer 2019	46	45	4	41	N/A	0
	Year 7	Fall 2019	94	22	20	83	0	0
		Spring 2020	82	0	7	77	0	0
		Summer 2020	86	36	3	82	0	0
	Year 8	Fall 2020	63	7	9	56	0	0
		Spring 2021	65	1	4	59	0	0
		Summer 2021	103	46	101	99	0	0
	Year 9	Fall 2021	95	24	25	83	0	0

Table 8A: SSA Participants' Service Descriptions by Institution, Year, and Term*								
Institution	**SSA Year**	**Term**	**SSA participants**	**Received direct (SSA grant subsidized) financial support**	**Received extra or targeted supports**	**Received targeted STEM pathway and/or STEM career counseling**	**Case Managed**	**Low-Dose**
Bunker Hill	Year 1	Spring 2014	0	0	0	0	N/A	N/A
		Summer 2014	61	61	61	61	N/A	N/A
	Year 2	Fall 2014	40	40	40	40	N/A	N/A
		Spring 2015	90	90	90	90	N/A	N/A
		Summer 2015	57	57	57	57	N/A	N/A
	Year 3	Fall 2015	108	108	108	108	N/A	N/A
		Spring 2016	105	0	105	105	N/A	N/A
		Summer 2016	130	114	130	130	N/A	N/A
	Year 4	Fall 2016	60	0	60	0	N/A	N/A
		Spring 2017	104	0	104	33	N/A	0
		Summer 2017	117	83	93	93	N/A	0
	Year 5	Fall 2017	100	12	19	11	N/A	0
		Spring 2018	89	40	49	34	N/A	0
		Summer 2018	106	62	94	36	N/A	0
	Year 6	Fall 2018	10	10	0	0	N/A	0
		Spring 2019	31	9	22	22	N/A	0
		Summer 2019	78	34	78	42	N/A	0
	Year 7	Fall 2019	39	0	36	0	0	0
		Spring 2020	31	0	31	31	0	0
		Summer 2020	50	50	50	50	0	0
	Year 8	Fall 2020	7	6	0	0	0	0
		Spring 2021	32	22	0	0	0	0
		Summer 2021	71	62	46	46	0	0
	Year 9	Fall 2021	20	0	0	20	0	0
Cape Cod	Year 1	Spring 2014	0	0	0	0	N/A	N/A
		Summer 2014	5	5	5	5	N/A	N/A
	Year 2	Fall 2014	300	29	300	46	N/A	N/A
		Spring 2015	320	37	98	98	N/A	N/A
		Summer 2015	103	31	103	103	N/A	N/A
	Year 3	Fall 2015	348	20	273	99	N/A	N/A
		Spring 2016	406	28	330	89	N/A	N/A
		Summer 2016	112	38	110	55	N/A	N/A
	Year 4	Fall 2016	364	10	313	67	N/A	N/A
		Spring 2017	464	20	402	94	N/A	0
		Summer 2017	108	35	103	22	N/A	0
	Year 5	Fall 2017	422	42	343	125	N/A	0
		Spring 2018	482	0	97	60	N/A	0
		Summer 2018	20	20	0	20	N/A	0
	Year 6	Fall 2018	553	18	455	121	N/A	0
		Spring 2019	562	30	403	148	N/A	0
		Summer 2019	50	11	37	0	N/A	0
	Year 7	Fall 2019	197	44	60	122	0	0
		Spring 2020	160	24	18	0	0	0
		Summer 2020	36	18	83	81	0	0
	Year 8	Fall 2020	154	45	81	61	0	0
		Spring 2021	71	21	22	14	0	0
		Summer 2021	34	1	10	0	0	0
	Year 9	Fall 2021	117	40	18	3	0	0

Table 8A: SSA Participants' Service Descriptions by Institution, Year, and Term*								
Institution	**SSA Year**	**Term**	**SSA participants**	**Received direct (SSA grant subsidized) financial support**	**Received extra or targeted supports**	**Received targeted STEM pathway and/or STEM career counseling**	**Case Managed**	**Low-Dose**
Greenfield	Year 1	Spring 2014	0	0	0	0	N/A	N/A
		Summer 2014	18	18	12	18	N/A	N/A
	Year 2	Fall 2014	4	0	4	4	N/A	N/A
		Spring 2015	9	0	7	0	N/A	N/A
		Summer 2015	19	19	19	19	N/A	N/A
	Year 3	Fall 2015	11	11	11	0	N/A	N/A
		Spring 2016	28	28	4	0	N/A	N/A
		Summer 2016	27	27	22	22	N/A	N/A
	Year 4	Fall 2016	28	5	28	0	N/A	N/A
		Spring 2017	29	10	29	19	N/A	0
		Summer 2017	43	43	7	43	N/A	0
	Year 5	Fall 2017	205	0	205	0	N/A	0
		Spring 2018	273	0	0	0	N/A	0
		Summer 2018	71	71	71	71	N/A	0
	Year 6	Fall 2018	297	0	222	43	N/A	0
		Spring 2019	256	0	205	0	N/A	0
		Summer 2019	92	92	92	92	N/A	0
	Year 7	Fall 2019	194	0	194	49	0	0
		Spring 2020	78	12	78	38	0	0
		Summer 2020	90	88	90	90	0	0
	Year 8	Fall 2020	44	8	42	42	0	0
		Spring 2021	58	25	53	53	0	0
		Summer 2021	82	75	16	16	0	0
	Year 9	Fall 2021	22	9	22	22	0	0
Holyoke	Year 1	Spring 2014	0	0	0	0	N/A	N/A
		Summer 2014	72	72	71	71	N/A	N/A
	Year 2	Fall 2014	149	141	149	7	N/A	N/A
		Spring 2015	22	17	17	19	N/A	N/A
		Summer 2015	66	41	66	66	N/A	N/A
	Year 3	Fall 2015	0	0	0	0	N/A	N/A
		Spring 2016	14	14	14	14	N/A	N/A
		Summer 2016	41	41	41	41	N/A	N/A
	Year 4	Fall 2016	11	11	11	7	N/A	N/A
		Spring 2017	6	6	0	6	N/A	0
		Summer 2017	38	38	38	38	N/A	0
	Year 5	Fall 2017	60	60	60	35	N/A	0
		Spring 2018	47	47	47	33	N/A	0
		Summer 2018	34	34	34	34	N/A	0
	Year 6	Fall 2018	44	44	44	44	N/A	0
		Spring 2019	103	103	103	82	N/A	0
		Summer 2019	30	30	30	30	N/A	0
	Year 7	Fall 2019	76	76	76	76	0	0
		Spring 2020	98	98	98	98	0	0
		Summer 2020	177	177	177	177	0	0
	Year 8	Fall 2020	152	152	152	152	0	0
		Spring 2021	143	143	143	143	0	0
		Summer 2021	54	54	54	54	0	0
	Year 9	Fall 2021	115	115	115	115	0	0

Table 8A: SSA Participants' Service Descriptions by Institution, Year, and Term*								
Institution	**SSA Year**	**Term**	**SSA participants**	**Received direct (SSA grant subsidized) financial support**	**Received extra or targeted supports**	**Received targeted STEM pathway and/or STEM career counseling**	**Case Managed**	**Low-Dose**
Mass Bay	Year 1	Spring 2014	0	0	0	0	N/A	N/A
		Summer 2014	154	154	154	154	N/A	NA
	Year 2	Fall 2014	374	5	306	70	N/A	N/A
		Spring 2015	490	15	292	264	N/A	N/A
		Summer 2015	145	14	83	72	N/A	N/A
	Year 3	Fall 2015	447	1	271	197	N/A	N/A
		Spring 2016	454	1	214	244	N/A	N/A
		Summer 2016	183	32	73	147	N/A	N/A
	Year 4	Fall 2016	493	2	247	252	N/A	N/A
		Spring 2017	432	4	181	255	N/A	0
		Summer 2017	115	46	65	72	N/A	0
	Year 5	Fall 2017	431	5	217	220	N/A	0
		Spring 2018	444	22	195	257	N/A	0
		Summer 2018	106	34	29	77	N/A	0
	Year 6	Fall 2018	296	15	53	243	N/A	0
		Spring 2019	299	24	63	253	N/A	0
		Summer 2019	86	37	43	74	N/A	0
	Year 7	Fall 2019	246	4	14	237	0	0
		Spring 2020	157	5	13	147	0	0
		Summer 2020	119	28	25	59	0	0
	Year 8	Fall 2020	206	2	6	206	0	0
		Spring 2021	198	26	0	198	0	0
		Summer 2021	94	38	38	92	0	0
	Year 9	Fall 2021	226	1	0	222	0	0
Massasoit	Year 1	Spring 2014	0	0	0	0	N/A	N/A
		Summer 2014	48	0	48	0	N/A	N/A
	Year 2	Fall 2014	14	14	0	14	N/A	N/A
		Spring 2015	29	16	13	16	N/A	N/A
		Summer 2015	29	16	13	16	N/A	N/A
	Year 3	Fall 2015	91	15	0	91	N/A	N/A
		Spring 2016	127	18	0	127	N/A	N/A
		Summer 2016	20	20	0	20	N/A	N/A
	Year 4	Fall 2016	37	12	0	37	N/A	N/A
		Spring 2017	51	18	0	51	N/A	0
		Summer 2017	125	13	26	13	N/A	0
	Year 5	Fall 2017	67	13	0	43	N/A	0
		Spring 2018	121	17	0	121	N/A	0
		Summer 2018	16	16	0	16	N/A	0
	Year 6	Fall 2018	27	20	0	27	N/A	0
		Spring 2019	54	20	0	54	N/A	0
		Summer 2019	18	18	0	18	N/A	0
	Year 7	Fall 2019	40	17	0	40	0	0
		Spring 2020	45	19	0	45	0	0
		Summer 2020	12	12	0	12	0	0
	Year 8	Fall 2020	31	18	0	31	0	0
		Spring 2021	34	19	0	34	0	0
		Summer 2021	42	8	0	8	0	0
	Year 9	Fall 2021	8	15	0	42	0	0

Table 8A: SSA Participants' Service Descriptions by Institution, Year, and Term*								
Institution	**SSA Year**	**Term**	**SSA participants**	**Received direct (SSA grant subsidized) financial support**	**Received extra or targeted supports**	**Received targeted STEM pathway and/or STEM career counseling**	**Case Managed**	**Low-Dose**
Middlesex	Year 1	Spring 2014	101	26	20	45	N/A	N/A
		Summer 2014	45	33	45	33	N/A	N/A
	Year 2	Fall 2014	172	16	144	148	N/A	N/A
		Spring 2015	173	9	173	97	N/A	N/A
		Summer 2015	137	4	137	120	N/A	N/A
	Year 3	Fall 2015	158	47	158	146	N/A	N/A
		Spring 2016	151	7	151	66	N/A	N/A
		Summer 2016	142	113	142	64	N/A	N/A
	Year 4	Fall 2016	120	8	117	36	N/A	N/A
		Spring 2017	656	15	154	332	N/A	0
		Summer 2017	213	32	80	21	N/A	0
	Year 5	Fall 2017	199	0	0	0	N/A	0
		Spring 2018	222	76	145	0	N/A	0
		Summer 2018	70	65	70	22	N/A	0
	Year 6	Fall 2018	235	2	0	100	N/A	0
		Spring 2019	186	11	62	16	N/A	0
		Summer 2019	79	54	78	51	N/A	0
	Year 7	Fall 2019	184	57	0	42	0	0
		Spring 2020	21	21	6	15	0	0
		Summer 2020	53	51	15	12	0	0
	Year 8	Fall 2020	43	0	23	13	0	0
		Spring 2021	61	43	43	4	0	0
		Summer 2021	27	3	2	5	0	0
	Year 9	Fall 2021	420	30	30	58	0	0
Mt. Wachusett	Year 1	Spring 2014	236	0	0	0	N/A	N/A
		Summer 2014	137	137	0	23	N/A	N/A
	Year 2	Fall 2014	337	0	0	235	N/A	N/A
		Spring 2015	416	0	0	8	N/A	N/A
		Summer 2015	18	18	2	16	N/A	N/A
	Year 3	Fall 2015	385	0	50	76	N/A	N/A
		Spring 2016	120	0	32	83	N/A	N/A
		Summer 2016	69	69	69	56	N/A	N/A
	Year 4	Fall 2016	475	0	21	161	N/A	N/A
		Spring 2017	521	0	208	343	N/A	0
		Summer 2017	75	75	75	75	N/A	0
	Year 5	Fall 2017	157	111	80	103	N/A	0
		Spring 2018	103	103	8	50	N/A	0
		Summer 2018	64	50	50	50	N/A	0
	Year 6	Fall 2018	128	122	86	86	N/A	0
		Spring 2019	73	73	73	73	N/A	0
		Summer 2019	46	46	46	46	N/A	0
	Year 7	Fall 2019	141	141	106	106	0	0
		Spring 2020	129	29	60	45	0	0
		Summer 2020	18	18	18	18	0	0
	Year 8	Fall 2020	38	17	22	38	0	0
		Spring 2021	52	0	0	52	0	0
		Summer 2021	57	33	26	21	0	0
	Year 9	Fall 2021	40	1	11	23	0	0

Table 8A: SSA Participants' Service Descriptions by Institution, Year, and Term*								
Institution	**SSA Year**	**Term**	**SSA participants**	**Received direct (SSA grant subsidized) financial support**	**Received extra or targeted supports**	**Received targeted STEM pathway and/or STEM career counseling**	**Case Managed**	**Low-Dose**
North Shore	Year 1	Spring 2014	0	0	0	0	N/A	N/A
		Summer 2014	55	55	55	31	N/A	N/A
	Year 2	Fall 2014	75	75	75	0	N/A	N/A
		Spring 2015	126	126	126	0	N/A	N/A
		Summer 2015	67	32	67	18	N/A	N/A
	Year 3	Fall 2015	275	22	253	0	N/A	N/A
		Spring 2016	226	13	226	103	N/A	N/A
		Summer 2016	76	76	11	39	N/A	N/A
	Year 4	Fall 2016	199	199	199	0	N/A	N/A
		Spring 2017	728	19	728	228	N/A	0
		Summer 2017	193	193	193	193	N/A	0
	Year 5	Fall 2017	147	17	147	147	N/A	0
		Spring 2018	347	0	183	142	N/A	0
		Summer 2018	182	117	130	51	N/A	0
	Year 6	Fall 2018	75	22	56	0	N/A	0
		Spring 2019	251	16	239	45	N/A	0
		Summer 2019	118	96	49	21	N/A	0
	Year 7	Fall 2019	59	4	7	1	0	0
		Spring 2020	267	14	6	7	0	0
		Summer 2020	300	25	300	266	0	0
	Year 8	Fall 2020	286	3	30	280	0	0
		Spring 2021	220	0	220	166	0	0
		Summer 2021	435	4	435	309	0	0
	Year 9	Fall 2021	208	56	134	39	0	0
Northern Essex	Year 1	Spring 2014	2	2	0	0	N/A	N/A
		Summer 2014	16	0	0	16	N/A	N/A
	Year 2	Fall 2014	233	5	233	228	N/A	N/A
		Spring 2015	117	20	100	0	N/A	N/A
		Summer 2015	108	71	34	0	N/A	N/A
	Year 3	Fall 2015	64	0	0	0	N/A	N/A
		Spring 2016	213	7	152	0	N/A	N/A
		Summer 2016	255	0	26	0	N/A	N/A
	Year 4	Fall 2016	132	0	101	0	N/A	N/A
		Spring 2017	159	12	109	0	N/A	0
		Summer 2017	111	15	24	0	N/A	0
	Year 5	Fall 2017	193	1	187	0	N/A	0
		Spring 2018	251	43	180	0	N/A	0
		Summer 2018	100	29	40	0	N/A	0
	Year 6	Fall 2018	321	35	192	0	N/A	0
		Spring 2019	301	48	188	0	N/A	0
		Summer 2019	56	16	28	0	N/A	0
	Year 7	Fall 2019	226	6	208	0	0	0
		Spring 2020	225	32	131	0	0	0
		Summer 2020	82	6	28	0	0	0
	Year 8	Fall 2020	146	12	131	0	0	0
		Spring 2021	257	77	89	0	0	0
		Summer 2021	55	1	15	0	0	0
	Year 9	Fall 2021	188	12	160	0	0	0

Table 8A: SSA Participants' Service Descriptions by Institution, Year, and Term*								
Institution	**SSA Year**	**Term**	**SSA participants**	**Received direct (SSA grant subsidized) financial support**	**Received extra or targeted supports**	**Received targeted STEM pathway and/or STEM career counseling**	**Case Managed**	**Low-Dose**
Quinsigamond	Year 1	Spring 2014	79	53	53	26	N/A	N/A
		Summer 2014	36	36	0	18	N/A	N/A
	Year 2	Fall 2014	265	265	0	58	N/A	N/A
		Spring 2015	311	0	177	311	N/A	N/A
		Summer 2015	0	0	0	0	N/A	N/A
	Year 3	Fall 2015	97	0	89	83	N/A	N/A
		Spring 2016	71	71	15	38	N/A	N/A
		Summer 2016	201	201	0	148	N/A	N/A
	Year 4	Fall 2016	215	1	102	137	N/A	N/A
		Spring 2017	434	5	388	363	N/A	0
		Summer 2017	34	25	9	13	N/A	0
	Year 5	Fall 2017	119	0	93	92	N/A	0
		Spring 2018	273	0	199	201	N/A	0
		Summer 2018	414	18	413	200	N/A	0
	Year 6	Fall 2018	286	0	269	184	N/A	0
		Spring 2019	304	1	245	178	N/A	0
		Summer 2019	210	9	210	136	N/A	0
	Year 7	Fall 2019	523	8	523	292	0	0
		Spring 2020	126	9	118	118	0	0
		Summer 2020	104	0	104	104	0	0
	Year 8	Fall 2020	77	0	77	77	0	0
		Spring 2021	67	0	67	65	0	0
		Summer 2021	94	0	94	88	0	0
	Year 9	Fall 2021	75	0	75	64	0	0
Roxbury	Year 1	Spring 2014	17	17	17	17	N/A	N/A
		Summer 2014	9	9	9	9	N/A	N/A
	Year 2	Fall 2014	7	7	7	7	N/A	N/A
		Spring 2015	7	7	7	7	N/A	N/A
		Summer 2015	59	52	0	0	N/A	N/A
	Year 3	Fall 2015	32	0	12	0	N/A	N/A
		Spring 2016	136	0	267	0	N/A	N/A
		Summer 2016	294	42	67	0	N/A	N/A
	Year 4	Fall 2016	322	0	322	0	N/A	N/A
		Spring 2017	267	0	236	0	N/A	0
		Summer 2017	40	0	40	0	N/A	0
	Year 5	Fall 2017	268	0	203	0	N/A	0
		Spring 2018	72	0	21	34	N/A	0
		Summer 2018	53	0	16	29	N/A	0
	Year 6	Fall 2018	304	0	70	202	N/A	0
		Spring 2019	252	0	45	152	N/A	0
		Summer 2019	48	0	0	32	N/A	0
	Year 7	Fall 2019	280	0	15	173	0	0
		Spring 2020	229	0	55	145	0	0
		Summer 2020	66	0	25	66	0	0
	Year 8	Fall 2020	252	0	92	0	0	0
		Spring 2021	171	0	74	0	0	0
		Summer 2021	65	0	20	0	0	0
	Year 9	Fall 2021	146	0	80	0	0	0

Table 8A: SSA Participants' Service Descriptions by Institution, Year, and Term*								
Institution	**SSA Year**	**Term**	**SSA participants**	**Received direct (SSA grant subsidized) financial support**	**Received extra or targeted supports**	**Received targeted STEM pathway and/or STEM career counseling**	**Case Managed**	**Low-Dose**
Springfield Technical	Year 1	Spring 2014	0	0	0	0	N/A	N/A
		Summer 2014	33	33	33	0	N/A	N/A
	Year 2	Fall 2014	44	31	41	3	N/A	N/A
		Spring 2015	54	2	30	0	N/A	N/A
		Summer 2015	78	28	28	28	N/A	N/A
	Year 3	Fall 2015	79	4	19	14	N/A	N/A
		Spring 2016	87	2	34	17	N/A	N/A
		Summer 2016	129	47	54	49	N/A	N/A
	Year 4	Fall 2016	159	24	84	12	N/A	N/A
		Spring 2017	119	20	20	14	N/A	0
		Summer 2017	51	51	51	51	N/A	0
	Year 5	Fall 2017	19	0	19	19	N/A	0
		Spring 2018	89	14	89	17	N/A	0
		Summer 2018	91	70	91	70	N/A	0
	Year 6	Fall 2018	92	92	92	0	N/A	0
		Spring 2019	149	149	2	0	N/A	0
		Summer 2019	94	56	94	56	N/A	0
	Year 7	Fall 2019	128	45	128	0	0	0
		Spring 2020	112	73	112	0	0	0
		Summer 2020	72	72	72	60	0	0
	Year 8	Fall 2020	127	127	127	48	0	0
		Spring 2021	160	160	160	0	0	0
		Summer 2021	55	55	55	0	0	0
	Year 9	Fall 2021	0	0	0	0	0	0

*Group 1–3 (Primary) participants

Table 9: Primary Participant Race/Ethnicity by Year of Participation											
Year	Non-resident Alien	Black	American Indian or Alaskan Native	Latinx	White	Unknown	Cape Verdean	Two or more races	Asian	Native Hawaiian or Other Pacific Islander	**Total**
Year 1	11	112	3	206	538	25	12	31	62	0	**1,000**
Year 2	45	466	13	831	1,919	111	33	110	237	3	**3,768**
Year 3	85	838	21	968	2,285	106	48	127	278	8	**4,764**
Year 4	100	1,121	23	1,271	2,807	155	73	197	433	5	**6,185**
Year 5	69	902	17	1,153	2,978	192	38	189	328	6	**5,872**
Year 6	72	1,020	17	1,184	2,629	128	40	190	350	13	**5,643**
Year 7	62	810	18	984	1,969	114	25	150	233	6	**4,371**
Year 8	41	623	14	735	1,543	86	21	133	181	5	**3,382**
Year 9	32	273	2	409	792	58	12	66	140	1	**1,785**
Unduplicated Total	**389**	**4,755**	**96**	**6,087**	**13,471**	**801**	**230**	**933**	**1,695**	**32**	**28,489**

*Includes Group 1–3 (Primary) SSA participants with valid HEIRS ID

Table 9A: SSA Participant Race/Ethnicity by Institution and Year of Participation*							
Institution	**SSA Year**	**Asian**	**Black**	**Lantinx**	**White**	**Other**	**Unknown**
Berkshire	Year 1	1	2	1	16	1	0
	Year 2	4	3	4	93	1	4
	Year 3	4	5	12	81	2	4
	Year 4	10	8	21	104	5	6
	Year 5	7	24	26	183	12	22
	Year 6	6	18	23	139	9	12
	Year 7	3	12	14	55	8	4
	Year 8	3	15	19	63	5	4
	Year 9	5	16	18	52	5	4
Bristol	Year 1	4	6	7	61	5	0
	Year 2	8	18	12	109	8	7
	Year 3	9	21	24	164	18	10
	Year 4	8	34	30	186	14	27
	Year 5	6	24	19	157	10	35
	Year 6	6	13	10	88	7	8
	Year 7	6	16	13	91	9	3
	Year 8	12	21	9	70	5	7
	Year 9	6	13	9	56	3	6
Bunker Hill	Year 1	3	21	17	16	0	1
	Year 2	16	57	43	40	7	18
	Year 3	32	78	71	73	9	44
	Year 4	37	59	56	61	3	43
	Year 5	38	64	79	41	8	41
	Year 6	21	29	23	22	0	12
	Year 7	12	30	26	23	2	22
	Year 8	8	21	21	28	0	14
	Year 9	1	3	3	7	0	6
Cape Cod	Year 1	0	1	0	4	0	0
	Year 2	11	52	59	396	27	8
	Year 3	25	80	72	459	29	15
	Year 4	28	82	79	512	46	18
	Year 5	31	72	73	482	39	22
	Year 6	33	99	102	599	44	20
	Year 7	11	14	17	180	10	7
	Year 8	10	18	18	121	11	6
	Year 9	9	18	12	71	1	1

Table 9A: SSA Participant Race/Ethnicity by Institution and Year of Participation*							
Institution	**SSA Year**	**Asian**	**Black**	**Lantinx**	**White**	**Other**	**Unknown**
Greenfield	Year 1	0	0	1	12	1	0
	Year 2	2	0	1	19	2	0
	Year 3	1	3	3	49	3	4
	Year 4	4	2	4	57	4	6
	Year 5	18	17	45	343	24	20
	Year 6	25	24	46	356	21	20
	Year 7	8	16	34	214	12	12
	Year 8	3	8	7	116	4	2
	Year 9	2	0	0	17	1	2
Holyoke	Year 1	2	9	9	31	2	2
	Year 2	3	22	69	103	9	7
	Year 3	2	4	19	25	3	0
	Year 4	3	7	19	18	1	6
	Year 5	2	13	31	67	5	4
	Year 6	3	19	52	65	8	7
	Year 7	14	22	64	183	11	11
	Year 8	13	14	64	168	8	11
	Year 9	1	5	53	48	4	2
Mass Bay	Year 1	9	13	13	49	1	11
	Year 2	35	117	118	332	15	63
	Year 3	38	139	143	358	10	47
	Year 4	39	111	146	382	12	38
	Year 5	39	100	147	387	12	38
	Year 6	45	72	81	244	20	42
	Year 7	26	52	63	145	11	25
	Year 8	26	58	74	139	14	27
	Year 9	18	39	57	86	8	16
Massasoit	Year 1	1	10	5	27	0	2
	Year 2	2	19	3	17	6	2
	Year 3	4	39	10	73	5	3
	Year 4	6	78	9	55	6	6
	Year 5	7	55	12	66	3	8
	Year 6	2	25	6	29	1	2
	Year 7	6	14	5	26	2	1
	Year 8	3	13	6	18	2	0
	Year 9	0	17	4	21	0	0

Table 9A: SSA Participant Race/Ethnicity by Institution and Year of Participation*							
Institution	**SSA Year**	**Asian**	**Black**	**Lantinx**	**White**	**Other**	**Unknown**
Middlesex	Year 1	28	13	24	68	3	6
	Year 2	90	42	100	165	5	8
	Year 3	75	39	70	134	15	8
	Year 4	146	106	160	276	23	22
	Year 5	72	45	86	192	12	14
	Year 6	77	74	79	159	16	11
	Year 7	41	21	51	107	11	13
	Year 8	13	6	19	40	0	5
	Year 9	71	32	79	197	17	18
Mt. Wachusett	Year 1	9	17	57	172	9	9
	Year 2	9	10	41	129	11	1
	Year 3	2	14	40	171	5	16
	Year 4	5	15	52	164	12	22
	Year 5	7	11	31	153	8	12
	Year 6	11	7	22	121	4	9
	Year 7	8	8	30	187	4	2
	Year 8	6	8	21	74	1	0
	Year 9	0	4	7	26	2	0
North Shore	Year 1	2	5	17	25	5	1
	Year 2	18	25	47	100	10	7
	Year 3	39	105	130	232	15	3
	Year 4	65	137	247	415	46	10
	Year 5	39	85	153	268	20	9
	Year 6	31	72	123	142	22	1
	Year 7	23	96	136	217	29	10
	Year 8	35	88	178	318	54	7
	Year 9	11	26	43	98	13	8
Northern Essex	Year 1	0	0	16	0	0	0
	Year 2	7	25	236	140	5	4
	Year 3	20	28	233	212	10	8
	Year 4	18	23	173	127	5	11
	Year 5	10	31	212	174	9	11
	Year 6	24	38	264	224	11	11
	Year 7	21	37	197	164	8	17
	Year 8	16	26	155	177	14	6
	Year 9	13	14	77	73	6	3

Table 9A: SSA Participant Race/Ethnicity by Institution and Year of Participation*							
Institution	**SSA Year**	**Asian**	**Black**	**Lantinx**	**White**	**Other**	**Unknown**
Quinsigamond	Year 1	3	11	25	42	5	2
	Year 2	30	93	79	238	14	25
	Year 3	18	47	55	186	9	20
	Year 4	45	93	123	298	17	26
	Year 5	41	115	124	378	31	16
	Year 6	54	140	144	314	16	22
	Year 7	35	90	153	251	24	24
	Year 8	5	24	21	51	2	4
	Year 9	3	15	17	34	2	4
Roxbury	Year 1	0	10	6	0	0	2
	Year 2	0	2	5	0	0	2
	Year 3	10	262	52	15	10	9
	Year 4	7	376	78	24	16	11
	Year 5	4	258	61	19	5	7
	Year 6	12	376	108	26	16	17
	Year 7	4	358	98	28	18	7
	Year 8	10	291	68	32	15	9
	Year 9	1	83	30	6	6	20
Springfield Technical	Year 1	0	6	8	15	2	0
	Year 2	5	14	14	38	3	0
	Year 3	7	22	34	53	5	0
	Year 4	17	63	74	128	10	3
	Year 5	13	26	54	68	8	2
	Year 6	13	54	101	101	12	6
	Year 7	21	49	83	98	9	18
	Year 8	23	33	55	128	12	25
	Year 9	0	0	0	0	0	0

*Includes Group 1–3 (Primary) SSA participants with valid HEIRS ID

Table 10: SSA Participant Gender by Year of Participation*						
SSA Year	Male		Female		Unknown	
	#	%	#	%	#	%
Year 1	476	48%	518	52%	6	1%
Year 2	1,800	48%	1,960	52%	8	0%
Year 3	2,319	49%	2,430	51%	15	0%
Year 4	2,842	46%	3,328	54%	15	0%
Year 5	2,742	47%	3,105	53%	25	0%
Year 6	2,694	48%	2,900	51%	49	1%
Year 7	2,131	49%	2,210	51%	30	1%
Year 8	1,510	45%	1,848	55%	24	1%
Year 9	830	46%	940	53%	15	1%
Unduplicated Total	**13,051**	**46%**	**15,282**	**54%**	**156**	**1%**

*Includes Group 1–3 (Primary) SSA participants with valid HEIRS ID

Table 10A: SSA Participant Gender by Institution and Year of Participation*							
Institution	SSA Year	Male		Female		Unknown	
		#	%	#	%	#	%
Berkshire	Year 1	16	76%	5	24%	0	0%
	Year 2	55	50%	54	50%	0	0%
	Year 3	61	56%	47	44%	0	0%
	Year 4	60	39%	94	61%	0	0%
	Year 5	123	45%	151	55%	0	0%
	Year 6	104	50%	103	50%	0	0%
	Year 7	45	47%	51	53%	0	0%
	Year 8	52	48%	57	52%	0	0%
	Year 9	45	45%	55	55%	0	0%
Bristol	Year 1	51	61%	32	39%	0	0%
	Year 2	100	62%	62	38%	0	0%
	Year 3	156	63%	90	37%	0	0%
	Year 4	174	58%	123	41%	2	1%
	Year 5	139	55%	109	43%	3	1%
	Year 6	66	50%	64	48%	2	2%
	Year 7	66	48%	69	50%	3	2%
	Year 8	52	42%	70	56%	2	2%
	Year 9	35	38%	56	60%	2	2%
Bunker Hill	Year 1	28	48%	30	52%	0	0%
	Year 2	99	55%	82	45%	0	0%
	Year 3	174	57%	133	43%	0	0%
	Year 4	134	52%	125	48%	0	0%
	Year 5	123	45%	148	55%	0	0%
	Year 6	70	65%	37	35%	0	0%
	Year 7	52	45%	63	55%	0	0%
	Year 8	41	45%	51	55%	0	0%
	Year 9	8	40%	12	60%	0	0%

Table 10A: SSA Participant Gender by Institution and Year of Participation*							
Institution	SSA Year	Male		Female		Unknown	
		#	%	#	%	#	%
Cape Cod	Year 1	3	60%	2	40%	0	0%
	Year 2	236	43%	317	57%	0	0%
	Year 3	281	41%	398	59%	1	0%
	Year 4	291	38%	474	62%	0	0%
	Year 5	286	40%	431	60%	2	0%
	Year 6	352	39%	539	60%	6	1%
	Year 7	160	67%	77	32%	2	1%
	Year 8	105	57%	78	42%	1	1%
	Year 9	32	29%	80	71%	0	0%
Greenfield	Year 1	6	43%	8	57%	0	0%
	Year 2	12	50%	12	50%	0	0%
	Year 3	21	33%	41	65%	1	2%
	Year 4	43	56%	34	44%	0	0%
	Year 5	233	50%	229	49%	5	1%
	Year 6	241	49%	244	50%	7	1%
	Year 7	143	48%	147	50%	6	2%
	Year 8	56	40%	81	58%	3	2%
	Year 9	9	41%	9	41%	4	18%
Holyoke	Year 1	20	36%	33	60%	2	4%
	Year 2	80	38%	132	62%	1	0%
	Year 3	22	42%	31	58%	0	0%
	Year 4	25	46%	29	54%	0	0%
	Year 5	66	54%	56	46%	0	0%
	Year 6	70	45%	80	52%	4	3%
	Year 7	109	36%	190	62%	6	2%
	Year 8	85	31%	189	68%	4	1%
	Year 9	38	34%	71	63%	4	4%

Table 10A: SSA Participant Gender by Institution and Year of Participation*							
Institution	SSA Year	Male		Female		Unknown	
		#	%	#	%	#	%
Mass Bay	Year 1	59	61%	36	38%	1	1%
	Year 2	356	52%	318	47%	6	1%
	Year 3	413	56%	314	43%	8	1%
	Year 4	430	59%	292	40%	6	1%
	Year 5	425	59%	289	40%	9	1%
	Year 6	333	66%	159	32%	12	2%
	Year 7	205	64%	110	34%	7	2%
	Year 8	219	65%	111	33%	8	2%
	Year 9	135	60%	88	39%	1	0%
Massasoit	Year 1	24	53%	21	47%	0	0%
	Year 2	24	49%	25	51%	0	0%
	Year 3	43	32%	91	68%	0	0%
	Year 4	56	35%	104	65%	0	0%
	Year 5	52	34%	99	66%	0	0%
	Year 6	30	46%	35	54%	0	0%
	Year 7	22	41%	32	59%	0	0%
	Year 8	10	24%	32	76%	0	0%
	Year 9	12	29%	30	71%	0	0%
Middlesex	Year 1	68	48%	74	52%	0	0%
	Year 2	155	38%	255	62%	0	0%
	Year 3	129	38%	212	62%	0	0%
	Year 4	306	42%	427	58%	0	0%
	Year 5	155	37%	266	63%	0	0%
	Year 6	212	51%	204	49%	0	0%
	Year 7	154	63%	90	37%	0	0%
	Year 8	30	36%	53	64%	0	0%
	Year 9	192	46%	222	54%	0	0%

Table 10A: SSA Participant Gender by Institution and Year of Participation*							
Institution	SSA Year	Male		Female		Unknown	
		#	%	#	%	#	%
Mt. Wachusett	Year 1	106	39%	164	60%	3	1%
	Year 2	95	47%	105	52%	1	0%
	Year 3	121	49%	122	49%	5	2%
	Year 4	118	44%	145	54%	7	3%
	Year 5	102	46%	116	52%	4	2%
	Year 6	70	40%	91	52%	13	7%
	Year 7	136	57%	101	42%	2	1%
	Year 8	45	41%	63	57%	2	2%
	Year 9	18	46%	20	51%	1	3%
North Shore	Year 1	31	56%	24	44%	0	0%
	Year 2	110	53%	97	47%	0	0%
	Year 3	244	47%	280	53%	0	0%
	Year 4	402	44%	518	56%	0	0%
	Year 5	311	54%	261	45%	2	0%
	Year 6	197	50%	189	48%	5	1%
	Year 7	225	44%	283	55%	3	1%
	Year 8	310	46%	367	54%	3	0%
	Year 9	92	46%	104	52%	3	2%
Northern Essex	Year 1	8	50%	8	50%	0	0%
	Year 2	136	33%	281	67%	0	0%
	Year 3	267	52%	244	48%	0	0%
	Year 4	146	41%	211	59%	0	0%
	Year 5	193	43%	254	57%	0	0%
	Year 6	263	46%	309	54%	0	0%
	Year 7	213	48%	231	52%	0	0%
	Year 8	181	46%	213	54%	0	0%
	Year 9	104	56%	82	44%	0	0%

Table 10A: SSA Participant Gender by Institution and Year of Participation*							
Institution	SSA Year	Male		Female		Unknown	
		#	%	#	%	#	%
Quinsigamond	Year 1	40	45%	48	55%	0	0%
	Year 2	292	61%	187	39%	0	0%
	Year 3	226	67%	109	33%	0	0%
	Year 4	398	66%	204	34%	0	0%
	Year 5	389	55%	316	45%	0	0%
	Year 6	380	55%	310	45%	0	0%
	Year 7	326	56%	251	44%	0	0%
	Year 8	78	73%	29	27%	0	0%
	Year 9	47	63%	28	37%	0	0%
Roxbury	Year 1	4	22%	14	78%	0	0%
	Year 2	6	67%	3	33%	0	0%
	Year 3	96	27%	262	73%	0	0%
	Year 4	124	24%	388	76%	0	0%
	Year 5	80	23%	274	77%	0	0%
	Year 6	188	34%	367	66%	0	0%
	Year 7	177	35%	335	65%	1	0%
	Year 8	117	28%	308	72%	0	0%
	Year 9	63	43%	83	57%	0	0%
Springfield Technical	Year 1	12	39%	19	61%	0	0%
	Year 2	44	59%	30	41%	0	0%
	Year 3	65	54%	56	46%	0	0%
	Year 4	135	46%	160	54%	0	0%
	Year 5	65	38%	106	62%	0	0%
	Year 6	118	41%	169	59%	0	0%
	Year 7	98	35%	180	65%	0	0%
	Year 8	129	47%	146	53%	1	0%
	Year 9	0	0%	0	0%	0	0%

*Includes Group 1-3 (primary) SSA participants with valid HEIRS ID

Table 11: SSA Participant Age by Year of Participation*					
SSA Year	Traditional age students (under 25 years old)		Non-traditional age students (age 25 or older)		Total
	#	%	#	%	
Year 1	771	77%	229	23%	1,000
Year 2	2,576	68%	1,191	32%	3,767
Year 3	2,996	63%	1,768	37%	4,764
Year 4	3,913	63%	2,271	37%	6,184
Year 5	3,812	65%	2,051	35%	5,863
Year 6	3,699	66%	1,941	34%	5,640
Year 7	2,876	66%	1,495	34%	4,371
Year 8	2,007	59%	1,375	41%	3,382
Year 9	1,264	71%	521	29%	1,785
Unduplicated Total	**18,453**	**65%**	**10,023**	**35%**	**28,476**

*Includes Group 1–3 (Primary) SSA participants with valid HEIRS ID

Table 11A: SSA Participant Age by Institution and Year of Participation*						
Institution	SSA Year	Traditional age students (under 25 years old)		Non-traditional age students		Total
		#	%	#	%	#
Berkshire	Year 1	21	100%	0	0%	21
	Year 2	109	100%	0	0%	109
	Year 3	101	94%	7	6%	108
	Year 4	114	74%	40	26%	154
	Year 5	200	73%	74	27%	274
	Year 6	145	70%	62	30%	207
	Year 7	77	80%	19	20%	96
	Year 8	84	77%	25	23%	109
	Year 9	84	77%	25	23%	109
Bristol	Year 1	57	69%	26	31%	83
	Year 2	120	74%	42	26%	162
	Year 3	176	72%	70	28%	246
	Year 4	204	68%	95	32%	299
	Year 5	168	67%	83	33%	251
	Year 6	69	52%	63	48%	132
	Year 7	84	61%	54	39%	138
	Year 8	78	63%	46	37%	124
	Year 9	52	56%	41	44%	93
Bunker Hill	Year 1	30	52%	28	48%	58
	Year 2	116	64%	65	36%	181
	Year 3	171	56%	136	44%	307
	Year 4	171	66%	88	34%	259
	Year 5	186	70%	79	30%	265
	Year 6	77	72%	30	28%	107
	Year 7	73	63%	42	37%	115
	Year 8	50	54%	42	46%	92
	Year 9	13	65%	7	35%	20

Table 11A: SSA Participant Age by Institution and Year of Participation*						
Institution	SSA Year	Traditional age students (under 25 years old)		Non-traditional age students		Total
		#	%	#	%	#
Cape Cod	Year 1	5	100%	0	0%	5
	Year 2	321	58%	231	42%	552
	Year 3	373	55%	307	45%	680
	Year 4	443	58%	322	42%	765
	Year 5	430	60%	287	40%	717
	Year 6	518	58%	376	42%	894
	Year 7	171	72%	68	28%	239
	Year 8	114	62%	70	38%	184
	Year 9	57	51%	55	49%	112
Greenfield	Year 1	14	100%	0	0%	14
	Year 2	24	100%	0	0%	24
	Year 3	47	75%	16	25%	63
	Year 4	53	69%	24	31%	77
	Year 5	332	71%	135	29%	467
	Year 6	354	72%	138	28%	492
	Year 7	199	67%	97	33%	296
	Year 8	75	54%	65	46%	140
	Year 9	13	59%	9	41%	22
Holyoke	Year 1	46	84%	9	16%	55
	Year 2	153	72%	60	28%	213
	Year 3	44	83%	9	17%	53
	Year 4	34	63%	20	37%	54
	Year 5	86	70%	36	30%	122
	Year 6	111	72%	43	28%	154
	Year 7	163	53%	142	47%	305
	Year 8	160	58%	118	42%	278
	Year 9	75	66%	38	34%	113

Table 11A: SSA Participant Age by Institution and Year of Participation*						
Institution	SSA Year	Traditional age students (under 25 years old)		Non-traditional age students		Total
		#	%	#	%	#
Mass Bay	Year 1	55	57%	41	43%	96
	Year 2	420	62%	260	38%	680
	Year 3	491	67%	244	33%	735
	Year 4	490	67%	237	33%	727
	Year 5	493	68%	229	32%	722
	Year 6	360	71%	144	29%	504
	Year 7	220	68%	102	32%	322
	Year 8	220	65%	118	35%	338
	Year 9	154	69%	70	31%	224
Massasoit	Year 1	44	98%	1	2%	45
	Year 2	37	76%	12	24%	49
	Year 3	86	64%	48	36%	134
	Year 4	126	79%	34	21%	160
	Year 5	111	74%	40	26%	151
	Year 6	46	71%	19	29%	65
	Year 7	41	76%	13	24%	54
	Year 8	21	50%	21	50%	42
	Year 9	32	76%	10	24%	42
Middlesex	Year 1	85	60%	57	40%	142
	Year 2	234	57%	176	43%	410
	Year 3	210	62%	131	38%	341
	Year 4	419	57%	314	43%	733
	Year 5	287	68%	134	32%	421
	Year 6	297	71%	119	29%	416
	Year 7	173	71%	71	29%	244
	Year 8	42	51%	41	49%	83
	Year 9	359	87%	55	13%	414

Table 11A: SSA Participant Age by Institution and Year of Participation*						
Institution	SSA Year	Traditional age students (under 25 years old)		Non-traditional age students		Total
		#	%	#	%	#
Mt. Wachusett	Year 1	241	88%	32	12%	273
	Year 2	197	98%	4	2%	201
	Year 3	242	98%	6	2%	248
	Year 4	262	97%	8	3%	270
	Year 5	204	92%	18	8%	222
	Year 6	159	91%	15	9%	174
	Year7	207	87%	32	13%	239
	Year 8	81	74%	29	26%	110
	Year 9	28	72%	11	28%	39
North Shore	Year 1	39	71%	16	29%	55
	Year 2	191	92%	16	8%	207
	Year 3	314	60%	210	40%	524
	Year 4	615	67%	305	33%	920
	Year 5	407	71%	167	29%	574
	Year 6	274	70%	117	30%	391
	Year 7	304	59%	207	41%	511
	Year 8	405	60%	275	40%	680
	Year 9	136	68%	63	32%	199
Northern Essex	Year 1	16	100%	0	0%	16
	Year 2	275	66%	142	34%	417
	Year 3	323	63%	188	37%	511
	Year 4	209	59%	148	41%	357
	Year 5	258	58%	189	42%	447
	Year 6	370	65%	202	35%	572
	Year 7	270	61%	174	39%	444
	Year 8	247	63%	147	37%	394
	Year 9	129	69%	57	31%	186

Table 11A: SSA Participant Age by Institution and Year of Participation*						
Institution	SSA Year	Traditional age students (under 25 years old)		Non-traditional age students		Total
		#	%	#	%	#
Quinsigamond	Year 1	69	78%	19	22%	88
	Year 2	303	63%	176	37%	479
	Year 3	211	63%	124	37%	335
	Year 4	396	66%	206	34%	602
	Year 5	423	60%	282	40%	705
	Year 6	470	68%	220	32%	690
	Year 7	456	79%	121	21%	577
	Year 8	91	85%	16	15%	107
	Year 9	62	83%	13	17%	75
Roxbury	Year 1	18	100%	0	0%	18
	Year 2	8	89%	1	11%	9
	Year 3	94	26%	264	74%	358
	Year 4	149	29%	363	71%	512
	Year 5	112	32%	242	68%	354
	Year 6	254	46%	301	54%	555
	Year 7	255	50%	258	50%	513
	Year 8	163	38%	262	62%	425
	Year 9	77	53%	69	47%	146
Springfield Technical	Year 1	31	100%	0	0%	31
	Year 2	68	92%	6	8%	74
	Year 3	113	93%	8	7%	121
	Year 4	228	77%	67	23%	295
	Year 5	115	67%	56	33%	171
	Year 6	195	68%	92	32%	287
	Year 7	183	66%	95	34%	278
	Year 8	176	64%	100	36%	276
	Year 9	0	0%	0	0%	0

*Includes Group 1–3 (Primary) SSA participants with valid HEIRS ID

Table 12: Fall 2021 Progress and Completion Rates for SSA Participants, by SSA Starting Term*								
SSA Year	**Term**	**Earned degree or certificate**	**Transferred to 4-year institution**	**Joined STEM workforce**	**Retained at original CC in Fall 2021**	**Transferred to 2-year institution**	**Indeterminate status****	**Total trackable participants**
Year 1	Spring 2014	43%	9%	0%	1%	3%	44%	346
	Summer 2014	49%	8%	0%	2%	4%	37%	654
Year 2	Fall 2014	46%	11%	0%	2%	4%	38%	1,720
	Spring 2015	48%	9%	0%	2%	3%	39%	1,237
	Summer 2015	47%	8%	0%	3%	4%	38%	598
Year 3	Fall 2015	50%	11%	0%	2%	3%	34%	1,412
	Spring 2016	54%	8%	0%	3%	3%	32%	1,492
	Summer 2016	40%	10%	0%	5%	4%	41%	1,091
Year 4	Fall 2016	45%	11%	0%	4%	3%	37%	1,483
	Spring 2017	50%	9%	0%	3%	3%	34%	2,185
	Summer 2017	29%	13%	0%	8%	3%	47%	1,023
Year 5	Fall 2017	36%	15%	0%	6%	3%	41%	1,623
	Spring 2018	40%	11%	0%	7%	2%	40%	1,748
	Summer 2018	30%	11%	0%	12%	2%	44%	1,074
Year 6	Fall 2018	29%	13%	0%	13%	4%	41%	1,837
	Spring 2019	30%	9%	0%	17%	3%	41%	1,678
	Summer 2019	18%	11%	0%	24%	2%	44%	730
Year 7	Fall 2019	18%	10%	1%	26%	3%	42%	1,676
	Spring 2020	18%	7%	0%	34%	3%	38%	830
	Summer 2020	11%	9%	0%	45%	2%	32%	784
Year 8	Fall 2020	9%	6%	0%	48%	3%	35%	838
	Spring 2021	7%	4%	0%	63%	1%	25%	753
	Summer 2021	0%	2%	0%	84%	1%	14%	642
Year 9	Fall 2021	0%	0%	0%	99%	0%	1%	1,035

*Mutually exclusive outcomes are listed from left to right in order of priority (e.g. "earned degree or certificate" is considered a higher outcome than "transferred to 4-year institution"). Includes only Group 1–3 (Primary) participants with a valid HEIRS ID.

**Indeterminate status indicates students for whom there is no information to indicate that they have achieved one of the other documented outcomes or remain enrolled.

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*															
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
Berkshire	Year 1	Spring 2014	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Summer 2014	7	33%	3	14%	0	0%	0	0%	0	0%	11	52%	21
	Year 2	Fall 2014	18	39%	19	41%	0	0%	0	0%	0	0%	9	20%	46
		Spring 2015	3	27%	4	36%	0	0%	0	0%	0	0%	4	36%	11
		Summer 2015	14	45%	1	3%	0	0%	2	6%	2	6%	12	39%	31
	Year 3	Fall 2015	5	25%	9	45%	0	0%	0	0%	1	5%	5	25%	20
		Spring 2016	5	45%	2	18%	0	0%	0	0%	0	0%	4	36%	11
		Summer 2016	10	32%	4	13%	1	3%	2	6%	0	0%	14	45%	31
	Year 4	Fall 2016	5	23%	10	45%	0	0%	2	9%	0	0%	5	23%	22
		Spring 2017	7	50%	0	0%	0	0%	0	0%	1	7%	6	43%	14
		Summer 2017	24	30%	6	8%	1	1%	4	5%	7	9%	37	47%	79
	Year 5	Fall 2017	14	24%	20	34%	0	0%	3	5%	0	0%	22	37%	59
		Spring 2018	32	44%	4	5%	0	0%	11	15%	1	1%	25	34%	73
		Summer 2018	13	15%	8	10%	2	2%	16	19%	3	4%	42	50%	84
	Year 6	Fall 2018	7	18%	20	50%	1	3%	2	5%	0	0%	10	25%	40
		Spring 2019	11	29%	3	8%	0	0%	8	21%	2	5%	14	37%	38
		Summer 2019	7	14%	1	2%	1	2%	17	35%	2	4%	21	43%	49
	Year 7	Fall 2019	2	18%	0	0%	0	0%	3	27%	0	0%	6	55%	11
		Spring 2020	1	33%	0	0%	0	0%	2	67%	0	0%	0	0%	3
		Summer 2020	1	5%	2	10%	0	0%	14	70%	0	0%	3	15%	20
	Year 8	Fall 2020	2	20%	0	0%	0	0%	5	50%	0	0%	3	30%	10
		Spring 2021	0	0%	0	0%	0	0%	8	100%	0	0%	0	0%	8
		Summer 2021	0	0%	0	0%	0	0%	33	94%	0	0%	2	6%	35
	Year 9	Fall 2021	0	0%	0	0%	0	0%	15	100%	0	0%	0	0%	15

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*														
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
Bristol	Year 1	Spring 2014	3	23%	1	8%	0	0%	0	0%	1	8%	8	62%	13
		Summer 2014	48	69%	4	6%	0	0%	1	1%	0	0%	17	24%	70
	Year 2	Fall 2014	12	52%	4	17%	0	0%	1	4%	2	9%	4	17%	23
		Spring 2015	28	57%	0	0%	0	0%	1	2%	2	4%	18	37%	49
		Summer 2015	23	42%	5	9%	0	0%	2	4%	1	2%	24	44%	55
	Year 3	Fall 2015	9	45%	1	5%	0	0%	1	5%	1	5%	8	40%	20
		Spring 2016	45	59%	3	4%	0	0%	3	4%	1	1%	24	32%	76
		Summer 2016	56	51%	6	6%	0	0%	4	4%	2	2%	41	38%	109
	Year 4	Fall 2016	33	60%	4	7%	0	0%	4	7%	0	0%	14	25%	55
		Spring 2017	11	16%	5	7%	0	0%	4	6%	2	3%	47	68%	69
		Summer 2017	32	28%	8	7%	0	0%	11	10%	2	2%	61	54%	114
	Year 5	Fall 2017	7	12%	14	24%	0	0%	6	10%	2	3%	30	51%	59
		Spring 2018	28	47%	7	12%	1	2%	4	7%	2	3%	18	30%	60
		Summer 2018	29	38%	5	7%	0	0%	10	13%	2	3%	30	39%	76
	Year 6	Fall 2018	11	48%	4	17%	0	0%	2	9%	0	0%	6	26%	23
		Spring 2019	22	63%	3	9%	0	0%	3	9%	0	0%	7	20%	35
		Summer 2019	10	28%	3	8%	0	0%	4	11%	0	0%	19	53%	36
	Year 7	Fall 2019	23	37%	6	10%	0	0%	14	22%	1	2%	19	30%	63
		Spring 2020	3	38%	1	13%	0	0%	1	13%	1	13%	2	25%	8
		Summer 2020	3	10%	1	3%	0	0%	13	42%	1	3%	13	42%	31
	Year 8	Fall 2020	1	25%	0	0%	0	0%	2	50%	0	0%	1	25%	4
		Spring 2021	2	12%	1	6%	0	0%	13	76%	0	0%	1	6%	17
		Summer 2021	0	0%	1	3%	0	0%	21	54%	0	0%	17	44%	39
	Year 9	Fall 2021	0	0%	0	0%	0	0%	29	100%	0	0%	0	0%	29

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*														
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
Bunker Hill	Year 1	Spring 2014	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Summer 2014	19	33%	1	2%	0	0%	1	2%	5	9%	32	55%	58
	Year 2	Fall 2014	6	15%	11	28%	0	0%	0	0%	1	3%	22	55%	40
		Spring 2015	25	29%	15	17%	0	0%	4	5%	4	5%	39	45%	87
		Summer 2015	26	48%	6	11%	0	0%	1	2%	3	6%	18	33%	54
	Year 3	Fall 2015	53	52%	14	14%	0	0%	2	2%	0	0%	33	32%	102
		Spring 2016	44	59%	9	12%	0	0%	1	1%	1	1%	19	26%	74
		Summer 2016	40	34%	14	12%	0	0%	6	5%	7	6%	52	44%	119
	Year 4	Fall 2016	24	69%	6	17%	0	0%	0	0%	0	0%	5	14%	35
		Spring 2017	37	52%	14	20%	0	0%	2	3%	1	1%	17	24%	71
		Summer 2017	39	35%	11	10%	0	0%	11	10%	4	4%	48	42%	113
	Year 5	Fall 2017	13	13%	21	21%	0	0%	7	7%	1	1%	57	58%	99
		Spring 2018	12	17%	8	11%	0	0%	1	1%	3	4%	47	66%	71
		Summer 2018	31	33%	10	11%	0	0%	5	5%	0	0%	49	52%	95
	Year 6	Fall 2018	0	0%	6	60%	0	0%	0	0%	0	0%	4	40%	10
		Spring 2019	4	20%	1	5%	0	0%	5	25%	0	0%	10	50%	20
		Summer 2019	13	18%	14	19%	0	0%	17	23%	2	3%	27	37%	73
	Year 7	Fall 2019	11	48%	3	13%	0	0%	5	22%	0	0%	4	17%	23
		Spring 2020	4	14%	2	7%	0	0%	13	45%	1	3%	9	31%	29
		Summer 2020	3	6%	2	4%	0	0%	25	52%	1	2%	17	35%	48
	Year 8	Fall 2020	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Spring 2021	3	19%	0	0%	0	0%	11	69%	0	0%	2	13%	16
		Summer 2021	0	0%	2	3%	0	0%	56	95%	0	0%	1	2%	59
	Year 9	Fall 2021	0	0%	0	0%	0	0%	4	100%	0	0%	0	0%	4

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*														
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
Cape Cod	Year 1	Spring 2014	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Summer 2014	5	100%	0	0%	0	0%	0	0%	0	0%	0	0%	5
	Year 2	Fall 2014	164	55%	25	8%	0	0%	7	2%	5	2%	96	32%	297
		Spring 2015	120	62%	18	9%	0	0%	5	3%	1	1%	50	26%	194
		Summer 2015	29	50%	6	10%	0	0%	1	2%	2	3%	20	34%	58
	Year 3	Fall 2015	132	57%	24	10%	0	0%	5	2%	4	2%	66	29%	231
		Spring 2016	119	50%	17	7%	1	0%	8	3%	6	3%	89	37%	240
		Summer 2016	24	47%	7	14%	0	0%	2	4%	2	4%	16	31%	51
	Year 4	Fall 2016	63	61%	5	5%	0	0%	3	3%	1	1%	32	31%	104
		Spring 2017	132	47%	33	12%	0	0%	14	5%	8	3%	92	33%	279
		Summer 2017	14	33%	9	21%	0	0%	2	5%	1	2%	17	40%	43
	Year 5	Fall 2017	98	41%	27	11%	0	0%	16	7%	3	1%	93	39%	237
		Spring 2018	97	46%	21	10%	0	0%	19	9%	1	0%	74	35%	212
		Summer 2018	7	78%	1	11%	0	0%	0	0%	0	0%	1	11%	9
	Year 6	Fall 2018	120	37%	40	12%	1	0%	37	11%	7	2%	121	37%	326
		Spring 2019	79	34%	19	8%	0	0%	39	17%	6	3%	88	38%	231
		Summer 2019	6	21%	6	21%	0	0%	8	28%	0	0%	9	31%	29
	Year 7	Fall 2019	14	14%	7	7%	0	0%	22	22%	4	4%	52	53%	99
		Spring 2020	1	6%	2	11%	0	0%	10	56%	0	0%	5	28%	18
		Summer 2020	0	0%	1	6%	0	0%	10	56%	0	0%	7	39%	18
	Year 8	Fall 2020	7	33%	2	10%	0	0%	7	33%	0	0%	5	24%	21
		Spring 2021	4	21%	1	5%	0	0%	13	68%	0	0%	1	5%	19
		Summer 2021	0	0%	0	0%	0	0%	8	100%	0	0%	0	0%	8
	Year 9	Fall 2021	0	0%	0	0%	0	0%	63	95%	0	0%	3	5%	66

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*														
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
Greenfield	Year 1	Spring 2014	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Summer 2014	7	50%	0	0%	0	0%	1	7%	1	7%	5	36%	14
	Year 2	Fall 2014	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Spring 2015	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Summer 2015	6	43%	1	7%	0	0%	0	0%	1	7%	6	43%	14
	Year 3	Fall 2015	2	20%	8	80%	0	0%	0	0%	0	0%	0	0%	10
		Spring 2016	15	56%	4	15%	0	0%	1	4%	1	4%	6	22%	27
		Summer 2016	11	42%	4	15%	0	0%	3	12%	0	0%	8	31%	26
	Year 4	Fall 2016	16	67%	2	8%	0	0%	1	4%	0	0%	5	21%	24
		Spring 2017	2	33%	1	17%	0	0%	0	0%	1	17%	2	33%	6
		Summer 2017	12	29%	8	20%	1	2%	4	10%	2	5%	14	34%	41
	Year 5	Fall 2017	87	49%	11	6%	0	0%	13	7%	7	4%	60	34%	178
		Spring 2018	77	40%	12	6%	0	0%	12	6%	4	2%	86	45%	191
		Summer 2018	7	13%	12	22%	0	0%	3	5%	3	5%	30	55%	55
	Year 6	Fall 2018	55	28%	20	10%	0	0%	29	15%	12	6%	78	40%	194
		Spring 2019	34	32%	10	10%	0	0%	14	13%	2	2%	45	43%	105
		Summer 2019	3	6%	5	10%	0	0%	14	27%	2	4%	28	54%	52
	Year 7	Fall 2019	28	26%	12	11%	0	0%	26	25%	1	1%	39	37%	106
		Spring 2020	7	29%	1	4%	0	0%	8	33%	1	4%	7	29%	24
		Summer 2020	0	0%	4	7%	0	0%	27	48%	2	4%	23	41%	56
	Year 8	Fall 2020	1	5%	0	0%	0	0%	4	20%	0	0%	15	75%	20
		Spring 2021	0	0%	1	5%	0	0%	12	63%	0	0%	6	32%	19
		Summer 2021	1	2%	0	0%	0	0%	40	82%	0	0%	8	16%	49
	Year 9	Fall 2021	0	0%	0	0%	0	0%	10	100%	0	0%	0	0%	10

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*														
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
Holyoke	Year 1	Spring 2014	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Summer 2014	25	45%	8	15%	0	0%	1	2%	5	9%	16	29%	55
	Year 2	Fall 2014	50	36%	12	9%	0	0%	0	0%	8	6%	68	49%	138
		Spring 2015	6	46%	1	8%	0	0%	0	0%	0	0%	6	46%	13
		Summer 2015	24	51%	3	6%	0	0%	1	2%	3	6%	16	34%	47
	Year 3	Fall 2015	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Spring 2016	5	36%	0	0%	0	0%	1	7%	0	0%	8	57%	14
		Summer 2016	19	50%	3	8%	0	0%	1	3%	4	11%	11	29%	38
	Year 4	Fall 2016	2	20%	1	10%	0	0%	0	0%	1	10%	6	60%	10
		Spring 2017	2	40%	0	0%	0	0%	0	0%	0	0%	3	60%	5
		Summer 2017	13	38%	4	12%	0	0%	3	9%	2	6%	12	35%	34
	Year 5	Fall 2017	26	48%	7	13%	0	0%	1	2%	1	2%	19	35%	54
		Spring 2018	14	45%	3	10%	0	0%	2	6%	3	10%	9	29%	31
		Summer 2018	15	56%	2	7%	1	4%	2	7%	2	7%	5	19%	27
	Year 6	Fall 2018	12	35%	2	6%	0	0%	5	15%	3	9%	12	35%	34
		Spring 2019	19	24%	9	11%	0	0%	6	8%	2	3%	44	55%	80
		Summer 2019	5	23%	7	32%	0	0%	2	9%	1	5%	7	32%	22
	Year 7	Fall 2019	22	38%	0	0%	0	0%	12	21%	4	7%	20	34%	58
		Spring 2020	24	34%	3	4%	0	0%	13	18%	5	7%	26	37%	71
		Summer 2020	26	17%	20	13%	3	2%	53	35%	7	5%	41	27%	150
	Year 8	Fall 2020	11	9%	10	8%	0	0%	59	49%	6	5%	34	28%	120
		Spring 2021	6	6%	3	3%	0	0%	61	65%	1	1%	23	24%	94
		Summer 2021	0	0%	0	0%	0	0%	17	74%	0	0%	6	26%	23
	Year 9	Fall 2021	0	0%	0	0%	0	0%	82	99%	0	0%	1	1%	83

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*														
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
Mass Bay	Year 1	Spring 2014	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Summer 2014	48	50%	11	11%	0	0%	1	1%	5	5%	31	32%	96
	Year 2	Fall 2014	138	39%	31	9%	0	0%	3	1%	23	7%	155	44%	350
		Spring 2015	127	49%	26	10%	0	0%	1	0%	11	4%	94	36%	259
		Summer 2015	20	47%	6	14%	0	0%	4	9%	0	0%	13	30%	43
	Year 3	Fall 2015	111	42%	35	13%	0	0%	3	1%	8	3%	109	41%	266
		Spring 2016	76	41%	20	11%	1	1%	3	2%	12	6%	73	39%	185
		Summer 2016	21	27%	9	12%	0	0%	6	8%	3	4%	39	50%	78
	Year 4	Fall 2016	114	38%	47	16%	1	0%	5	2%	18	6%	117	39%	302
		Spring 2017	73	47%	12	8%	0	0%	6	4%	7	5%	57	37%	155
		Summer 2017	11	27%	4	10%	0	0%	6	15%	1	2%	19	46%	41
	Year 5	Fall 2017	75	30%	44	18%	0	0%	8	3%	11	4%	112	45%	250
		Spring 2018	57	31%	20	11%	0	0%	11	6%	5	3%	89	49%	182
		Summer 2018	9	19%	6	13%	1	2%	13	28%	0	0%	18	38%	47
	Year 6	Fall 2018	40	26%	27	18%	0	0%	18	12%	7	5%	59	39%	151
		Spring 2019	42	31%	22	16%	0	0%	20	15%	0	0%	53	39%	137
		Summer 2019	5	13%	2	5%	0	0%	13	34%	0	0%	18	47%	38
	Year 7	Fall 2019	17	14%	21	18%	0	0%	30	25%	2	2%	48	41%	118
		Spring 2020	6	21%	4	14%	0	0%	4	14%	1	4%	13	46%	28
		Summer 2020	0	0%	1	3%	0	0%	22	67%	0	0%	10	30%	33
	Year 8	Fall 2020	7	6%	11	9%	0	0%	67	57%	1	1%	32	27%	118
		Spring 2021	1	2%	4	8%	0	0%	39	75%	0	0%	8	15%	52
		Summer 2021	0	0%	0	0%	0	0%	39	89%	1	2%	4	9%	44
	Year 9	Fall 2021	0	0%	0	0%	0	0%	104	100%	0	0%	0	0%	104

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*														
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
Massasoit	Year 1	Spring 2014	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Summer 2014	16	36%	4	9%	0	0%	0	0%	2	4%	23	51%	45
	Year 2	Fall 2014	8	62%	1	8%	0	0%	0	0%	0	0%	4	31%	13
		Spring 2015	4	27%	3	20%	0	0%	1	7%	1	7%	6	40%	15
		Summer 2015	6	35%	3	18%	0	0%	1	6%	1	6%	6	35%	17
	Year 3	Fall 2015	31	42%	13	18%	0	0%	2	3%	1	1%	26	36%	73
		Spring 2016	24	63%	4	11%	0	0%	0	0%	1	3%	9	24%	38
		Summer 2016	3	75%	0	0%	0	0%	0	0%	0	0%	1	25%	4
	Year 4	Fall 2016	6	33%	6	33%	0	0%	0	0%	2	11%	4	22%	18
		Spring 2017	8	35%	5	22%	0	0%	1	4%	0	0%	9	39%	23
		Summer 2017	17	17%	16	16%	1	1%	7	7%	1	1%	58	58%	100
	Year 5	Fall 2017	13	36%	5	14%	1	3%	2	6%	3	8%	12	33%	36
		Spring 2018	15	50%	4	13%	0	0%	2	7%	0	0%	9	30%	30
		Summer 2018	3	75%	0	0%	0	0%	0	0%	0	0%	1	25%	4
	Year 6	Fall 2018	6	46%	4	31%	0	0%	1	8%	0	0%	2	15%	13
		Spring 2019	12	38%	7	22%	0	0%	3	9%	2	6%	8	25%	32
		Summer 2019	1	50%	1	50%	0	0%	0	0%	0	0%	0	0%	2
	Year 7	Fall 2019	10	34%	5	17%	0	0%	8	28%	2	7%	4	14%	29
		Spring 2020	6	46%	0	0%	0	0%	4	31%	1	8%	2	15%	13
		Summer 2020	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	1
	Year 8	Fall 2020	1	6%	1	6%	0	0%	12	67%	1	6%	3	17%	18
		Spring 2021	0	0%	1	8%	0	0%	10	83%	0	0%	1	8%	12
		Summer 2021	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
	Year 9	Fall 2021	0	0%	0	0%	0	0%	26	100%	0	0%	0	0%	26

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*															
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
Middlesex	Year 1	Spring 2014	74	74%	4	4%	0	0%	3	3%	1	1%	18	18%	100
		Summer 2014	26	62%	2	5%	0	0%	2	5%	1	2%	11	26%	42
	Year 2	Fall 2014	102	68%	12	8%	0	0%	0	0%	2	1%	33	22%	149
		Spring 2015	78	67%	4	3%	0	0%	3	3%	3	3%	29	25%	117
		Summer 2015	64	60%	3	3%	0	0%	0	0%	3	3%	37	35%	107
	Year 3	Fall 2015	74	69%	6	6%	0	0%	2	2%	5	5%	20	19%	107
		Spring 2016	64	75%	1	1%	0	0%	3	4%	1	1%	16	19%	85
		Summer 2016	40	52%	14	18%	0	0%	2	3%	1	1%	20	26%	77
	Year 4	Fall 2016	56	75%	8	11%	0	0%	1	1%	0	0%	10	13%	75
		Spring 2017	273	61%	24	5%	1	0%	13	3%	9	2%	125	28%	445
		Summer 2017	35	47%	9	12%	0	0%	5	7%	1	1%	25	33%	75
	Year 5	Fall 2017	57	66%	5	6%	0	0%	2	2%	1	1%	22	25%	87
		Spring 2018	64	40%	36	22%	0	0%	10	6%	2	1%	49	30%	161
		Summer 2018	13	39%	8	24%	0	0%	2	6%	0	0%	10	30%	33
	Year 6	Fall 2018	61	38%	27	17%	0	0%	23	14%	2	1%	48	30%	161
		Spring 2019	36	31%	15	13%	0	0%	27	23%	3	3%	35	30%	116
		Summer 2019	8	19%	8	19%	0	0%	12	29%	0	0%	14	33%	42
	Year 7	Fall 2019	48	34%	11	8%	0	0%	39	27%	0	0%	45	31%	143
		Spring 2020	2	14%	2	14%	0	0%	10	71%	0	0%	0	0%	14
		Summer 2020	8	21%	9	24%	0	0%	16	42%	1	3%	4	11%	38
	Year 8	Fall 2020	1	4%	1	4%	0	0%	20	71%	1	4%	5	18%	28
		Spring 2021	8	32%	2	8%	0	0%	10	40%	0	0%	5	20%	25
		Summer 2021	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	1
	Year 9	Fall 2021	0	0%	0	0%	0	0%	379	100%	0	0%	0	0%	379

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*														
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
Mt. Wachusett	Year 1	Spring 2014	39	25%	18	11%	0	0%	0	0%	6	4%	95	60%	158
		Summer 2014	66	57%	12	10%	0	0%	0	0%	3	3%	34	30%	115
	Year 2	Fall 2014	23	20%	22	19%	0	0%	7	6%	5	4%	56	50%	113
		Spring 2015	15	21%	5	7%	0	0%	1	1%	1	1%	49	69%	71
		Summer 2015	6	75%	1	13%	0	0%	0	0%	0	0%	1	13%	8
	Year 3	Fall 2015	38	27%	16	12%	0	0%	8	6%	6	4%	71	51%	139
		Spring 2016	13	37%	5	14%	0	0%	1	3%	0	0%	16	46%	35
		Summer 2016	22	36%	8	13%	0	0%	3	5%	2	3%	26	43%	61
	Year 4	Fall 2016	33	21%	18	12%	0	0%	12	8%	3	2%	89	57%	155
		Spring 2017	15	38%	6	15%	0	0%	0	0%	0	0%	18	46%	39
		Summer 2017	12	19%	16	26%	0	0%	2	3%	0	0%	32	52%	62
	Year 5	Fall 2017	16	20%	27	33%	0	0%	1	1%	0	0%	38	46%	82
		Spring 2018	6	22%	8	30%	0	0%	3	11%	0	0%	10	37%	27
		Summer 2018	15	36%	2	5%	0	0%	4	10%	1	2%	20	48%	42
	Year 6	Fall 2018	13	20%	9	14%	0	0%	6	9%	0	0%	37	57%	65
		Spring 2019	2	33%	1	17%	0	0%	0	0%	0	0%	3	50%	6
		Summer 2019	11	30%	0	0%	0	0%	13	35%	1	3%	12	32%	37
	Year 7	Fall 2019	17	14%	26	22%	0	0%	19	16%	4	3%	53	45%	119
		Spring 2020	10	27%	4	11%	0	0%	7	19%	1	3%	15	41%	37
		Summer 2020	0	0%	0	0%	0	0%	11	61%	0	0%	7	39%	18
	Year 8	Fall 2020	5	29%	0	0%	0	0%	7	41%	0	0%	5	29%	17
		Spring 2021	0	0%	0	0%	0	0%	10	77%	0	0%	3	23%	13
		Summer 2021	0	0%	0	0%	0	0%	34	94%	0	0%	2	6%	36
	Year 9	Fall 2021	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	1

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*														
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
North Shore	Year 1	Spring 2014	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Summer 2014	12	22%	4	7%	0	0%	1	2%	0	0%	38	69%	55
	Year 2	Fall 2014	19	40%	6	13%	0	0%	2	4%	0	0%	20	43%	47
		Spring 2015	18	19%	5	5%	0	0%	2	2%	3	3%	68	71%	96
		Summer 2015	16	27%	4	7%	0	0%	1	2%	2	3%	37	62%	60
	Year 3	Fall 2015	151	57%	20	8%	0	0%	2	1%	7	3%	84	32%	264
		Spring 2016	104	57%	12	7%	0	0%	9	5%	7	4%	50	27%	182
		Summer 2016	19	31%	2	3%	0	0%	4	7%	2	3%	34	56%	61
	Year 4	Fall 2016	72	46%	14	9%	0	0%	5	3%	2	1%	65	41%	158
		Spring 2017	217	47%	44	9%	0	0%	11	2%	8	2%	184	40%	464
		Summer 2017	29	20%	26	18%	0	0%	11	8%	4	3%	75	52%	145
	Year 5	Fall 2017	40	43%	15	16%	0	0%	5	5%	1	1%	33	35%	94
		Spring 2018	84	35%	30	13%	0	0%	15	6%	7	3%	104	43%	240
		Summer 2018	15	14%	11	10%	0	0%	8	7%	3	3%	74	67%	111
	Year 6	Fall 2018	14	32%	6	14%	0	0%	7	16%	2	5%	15	34%	44
		Spring 2019	46	25%	15	8%	0	0%	30	16%	7	4%	85	46%	183
		Summer 2019	5	6%	8	10%	0	0%	13	15%	2	2%	56	67%	84
	Year 7	Fall 2019	14	31%	3	7%	0	0%	10	22%	0	0%	18	40%	45
		Spring 2020	28	15%	9	5%	0	0%	68	37%	3	2%	74	41%	182
		Summer 2020	21	10%	23	11%	0	0%	79	37%	3	1%	88	41%	214
	Year 8	Fall 2020	13	6%	10	5%	0	0%	111	55%	3	1%	65	32%	202
		Spring 2021	5	5%	1	1%	0	0%	74	73%	2	2%	20	20%	102
		Summer 2021	0	0%	7	3%	0	0%	183	82%	3	1%	30	13%	223
	Year 9	Fall 2021	0	0%	0	0%	0	0%	92	96%	0	0%	4	4%	96

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*														
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
Northern Essex	Year 1	Spring 2014	2	100%	0	0%	0	0%	0	0%	0	0%	0	0%	2
		Summer 2014	5	36%	1	7%	0	0%	2	14%	0	0%	6	43%	14
	Year 2	Fall 2014	64	28%	25	11%	0	0%	5	2%	18	8%	120	52%	232
		Spring 2015	49	48%	12	12%	0	0%	0	0%	4	4%	37	36%	102
		Summer 2015	38	48%	3	4%	0	0%	2	3%	4	5%	33	41%	80
	Year 3	Fall 2015	45	71%	3	5%	0	0%	0	0%	1	2%	14	22%	63
		Spring 2016	92	48%	18	9%	1	1%	6	3%	5	3%	70	36%	192
		Summer 2016	64	28%	25	11%	0	0%	15	7%	9	4%	117	51%	230
	Year 4	Fall 2016	37	37%	9	9%	0	0%	7	7%	4	4%	42	42%	99
		Spring 2017	62	57%	8	7%	0	0%	4	4%	5	5%	30	28%	109
		Summer 2017	29	34%	6	7%	1	1%	6	7%	3	3%	41	48%	86
	Year 5	Fall 2017	41	33%	18	14%	0	0%	10	8%	7	6%	49	39%	125
		Spring 2018	63	39%	13	8%	2	1%	11	7%	4	2%	68	42%	161
		Summer 2018	18	37%	9	18%	0	0%	2	4%	5	10%	15	31%	49
	Year 6	Fall 2018	56	25%	27	12%	0	0%	37	16%	7	3%	100	44%	227
		Spring 2019	54	32%	8	5%	0	0%	36	21%	5	3%	68	40%	171
		Summer 2019	10	40%	2	8%	0	0%	7	28%	0	0%	6	24%	25
	Year 7	Fall 2019	26	19%	9	7%	0	0%	40	29%	3	2%	59	43%	137
		Spring 2020	25	18%	8	6%	0	0%	43	31%	4	3%	59	42%	139
		Summer 2020	9	19%	4	9%	0	0%	23	49%	1	2%	10	21%	47
	Year 8	Fall 2020	0	0%	3	19%	0	0%	6	38%	0	0%	7	44%	16
		Spring 2021	6	3%	4	2%	0	0%	107	56%	3	2%	71	37%	191
		Summer 2021	0	0%	0	0%	0	0%	14	88%	0	0%	2	13%	16
	Year 9	Fall 2021	0	0%	0	0%	0	0%	130	100%	0	0%	0	0%	130

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*														
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
Quinsigamond	Year 1	Spring 2014	27	48%	5	9%	0	0%	1	2%	0	0%	23	41%	56
		Summer 2014	14	44%	2	6%	0	0%	0	0%	2	6%	14	44%	32
	Year 2	Fall 2014	176	67%	13	5%	0	0%	5	2%	5	2%	62	24%	261
		Spring 2015	111	52%	15	7%	0	0%	6	3%	3	1%	78	37%	213
		Summer 2015	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
	Year 3	Fall 2015	37	46%	8	10%	0	0%	5	6%	2	3%	28	35%	80
		Spring 2016	38	68%	7	13%	0	0%	0	0%	0	0%	11	20%	56
		Summer 2016	60	53%	8	7%	0	0%	5	4%	3	3%	37	33%	113
	Year 4	Fall 2016	75	46%	17	10%	0	0%	5	3%	5	3%	60	37%	162
		Spring 2017	131	49%	28	10%	0	0%	14	5%	4	1%	92	34%	269
		Summer 2017	5	18%	6	21%	0	0%	4	14%	0	0%	13	46%	28
	Year 5	Fall 2017	52	64%	2	2%	0	0%	4	5%	0	0%	23	28%	81
		Spring 2018	90	50%	13	7%	0	0%	16	9%	2	1%	59	33%	180
		Summer 2018	112	32%	36	10%	0	0%	51	15%	6	2%	142	41%	347
	Year 6	Fall 2018	65	30%	18	8%	0	0%	33	15%	3	1%	96	45%	215
		Spring 2019	72	34%	15	7%	0	0%	40	19%	7	3%	76	36%	210
		Summer 2019	32	23%	14	10%	0	0%	32	23%	1	1%	58	42%	137
	Year 7	Fall 2019	35	9%	43	11%	0	0%	134	33%	6	1%	188	46%	406
		Spring 2020	1	5%	3	15%	0	0%	8	40%	1	5%	7	35%	20
		Summer 2020	0	0%	1	3%	0	0%	24	77%	1	3%	5	16%	31
	Year 8	Fall 2020	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	1
		Spring 2021	0	0%	1	50%	0	0%	1	50%	0	0%	0	0%	2
		Summer 2021	0	0%	0	0%	0	0%	26	96%	0	0%	1	4%	27
	Year 9	Fall 2021	0	0%	0	0%	0	0%	11	100%	0	0%	0	0%	11

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*														
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
Roxbury	Year 1	Spring 2014	3	18%	2	12%	0	0%	0	0%	3	18%	9	53%	17
		Summer 2014	1	100%	0	0%	0	0%	0	0%	0	0%	0	0%	1
	Year 2	Fall 2014	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Spring 2015	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Summer 2015	1	50%	1	50%	0	0%	0	0%	0	0%	0	0%	2
	Year 3	Fall 2015	9	28%	5	16%	1	3%	0	0%	2	6%	15	47%	32
		Spring 2016	163	61%	18	7%	0	0%	2	1%	9	3%	77	29%	269
		Summer 2016	25	45%	5	9%	1	2%	3	5%	4	7%	17	31%	55
	Year 4	Fall 2016	112	48%	21	9%	0	0%	8	3%	13	6%	81	34%	235
		Spring 2017	63	46%	17	13%	2	1%	4	3%	9	7%	41	30%	136
		Summer 2017	4	22%	3	17%	0	0%	2	11%	1	6%	8	44%	18
	Year 5	Fall 2017	46	26%	22	13%	0	0%	11	6%	11	6%	85	49%	175
		Spring 2018	12	24%	5	10%	0	0%	1	2%	2	4%	30	60%	50
		Summer 2018	11	34%	6	19%	0	0%	0	0%	1	3%	14	44%	32
	Year 6	Fall 2018	37	14%	25	9%	0	0%	30	11%	23	9%	155	57%	270
		Spring 2019	20	11%	15	8%	1	1%	26	14%	12	6%	115	61%	189
		Summer 2019	7	19%	3	8%	0	0%	2	5%	3	8%	22	59%	37
	Year 7	Fall 2019	13	6%	23	10%	0	0%	57	25%	14	6%	121	53%	228
		Spring 2020	13	8%	7	5%	0	0%	50	33%	8	5%	75	49%	153
		Summer 2020	5	17%	3	10%	0	0%	12	41%	0	0%	9	31%	29
	Year 8	Fall 2020	9	5%	4	2%	0	0%	69	37%	9	5%	97	52%	188
		Spring 2021	4	4%	4	4%	0	0%	53	56%	2	2%	31	33%	94
		Summer 2021	0	0%	0	0%	0	0%	24	67%	0	0%	12	33%	36
	Year 9	Fall 2021	0	0%	0	0%	0	0%	80	99%	0	0%	1	1%	81

Table 12A: Fall 2021 Progress and Completion Rates for SSA Participants, by Institution and SSA Starting Term*														
Institution	SSA Year	Term	Earned degree or certificate		Transferred to 4-year institution		Joined STEM workforce		Retained at original CC in Fall 2021		Transferred to 2-year institution		Indeterminate status**		Total trackable participants
			#	%	#	%	#	%	#	%	#	%	#	%	
Springfield Technical	Year 1	Spring 2014	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
		Summer 2014	20	65%	2	6%	0	0%	2	6%	3	10%	4	13%	31
	Year 2	Fall 2014	9	82%	1	9%	0	0%	0	0%	0	0%	1	9%	11
		Spring 2015	8	80%	0	0%	0	0%	0	0%	1	10%	1	10%	10
		Summer 2015	11	50%	2	9%	0	0%	0	0%	3	14%	6	27%	22
	Year 3	Fall 2015	4	80%	0	0%	0	0%	0	0%	1	20%	0	0%	5
		Spring 2016	5	63%	0	0%	0	0%	0	0%	1	13%	2	25%	8
		Summer 2016	17	45%	2	5%	3	8%	2	5%	3	8%	11	29%	38
	Year 4	Fall 2016	20	69%	1	3%	0	0%	0	0%	1	3%	7	24%	29
		Spring 2017	61	60%	5	5%	2	2%	1	1%	4	4%	28	28%	101
		Summer 2017	21	48%	5	11%	0	0%	2	5%	0	0%	16	36%	44
	Year 5	Fall 2017	3	43%	0	0%	0	0%	1	14%	0	0%	3	43%	7
		Spring 2018	46	58%	8	10%	3	4%	2	3%	4	5%	16	20%	79
		Summer 2018	26	41%	3	5%	0	0%	13	21%	0	0%	21	33%	63
	Year 6	Fall 2018	29	45%	9	14%	1	2%	7	11%	1	2%	17	27%	64
		Spring 2019	50	40%	8	6%	5	4%	25	20%	3	2%	34	27%	125
		Summer 2019	11	16%	5	7%	2	3%	24	36%	0	0%	25	37%	67
	Year 7	Fall 2019	30	33%	5	5%	10	11%	16	18%	3	3%	27	30%	91
		Spring 2020	16	18%	8	9%	2	2%	42	46%	1	1%	22	24%	91
		Summer 2020	8	16%	1	2%	0	0%	23	46%	1	2%	17	34%	50
	Year 8	Fall 2020	15	20%	9	12%	0	0%	31	41%	0	0%	20	27%	75
		Spring 2021	10	11%	7	8%	0	0%	56	63%	0	0%	16	18%	89
		Summer 2021	0	0%	2	4%	0	0%	41	89%	0	0%	3	7%	46
	Year 9	Fall 2021	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0

*Mutually exclusive outcomes are listed from left to right in order of priority (e.g. "earned degree or certificate" is considered a higher outcome than "transferred to 4-year institution"). Includes only Group 1–3 (Primary) participants with a valid HEIRS ID.

**Indeterminate status indicates students for whom there is no information to indicate that they have achieved one of the other documented outcomes or remain enrolled.

Table 13: Fall to Fall Retention of Full-Time, First-Time Degree Seeking Students (SSA Participants and Community College Students)*			
	Number of full-time, first-time degree seeking students	Retained to following fall at institution	
		#	%
Fall 2014 to Fall 2015			
SSA	341	182	53%
All students	9,800	5,334	56%
Fall 2015 to Fall 2016			
SSA	302	150	50%
All students	8,908	4,869	57%
Fall 2016 to Fall 2017			
SSA	313	153	49%
All students	8,208	4,457	56%
Fall 2017 to Fall 2018			
SSA	272	153	56%
All students	7,917	4,290	56%
Fall 2018 to Fall 2019			
SSA	355	230	65%
All students	7,334	3,890	56%
Fall 2019 to Fall 2020			
SSA	431	261	61%
All students	7,401	3,635	52%
Fall 2020 to Fall 2021			
SSA	144	90	63%
All students	5,591	3,024	56%

*SSA Participants include Group 1–3 (Primary) SSA participants with valid HEIRS ID who first participated in SSA as full time, first time degree seeking students and were enrolled in community college in the given fall term (e.g. enrolled in Fall 2014 for "Fall 2014 to Fall 2015" retention).

Table 13A: Fall to Fall Retention of Full Time, First Time Degree Seeking Students (SSA Participants and Community College Students) by Institution*

Institution	Student type	Retained to following Fall at Institution													
		Fall 2014 to Fall 2015		Fall 2015 to Fall 2016		Fall 2016 to Fall 2017		Fall 2017 to Fall 2018		Fall 2018 to Fall 2019		Fall 2019 to Fall 2020		Fall 2020 to Fall 2021	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
Berkshire	SSA	0	0%	0	0%	1	100%	6	50%	1	50%	3	60%	3	100%
	All students	111	53%	117	57%	76	56%	81	54%	43	46%	59	42%	51	52%
Bristol	SSA	1	33%	2	40%	13	76%	0	0%	1	100%	6	60%	0	0%
	All students	695	60%	662	61%	656	59%	550	59%	495	59%	492	54%	396	56%
Bunker Hill	SSA	6	55%	7	70%	1	100%	0	0%	0	0%	1	100%	0	0%
	All students	681	60%	433	61%	615	64%	613	61%	640	59%	519	57%	437	63%
Cape Cod	SSA	29	66%	37	73%	1	100%	27	49%	38	78%	15	65%	0	0%
	All students	150	50%	146	49%	103	49%	100	38%	132	59%	144	52%	118	52%
Greenfield	SSA	0	0%	0	0%	1	100%	16	76%	39	81%	18	72%	0	0%
	All students	89	61%	84	57%	43	48%	42	60%	61	62%	49	58%	41	51%
Holyoke	SSA	26	67%	0	0%	0	0%	3	50%	6	75%	10	77%	5	63%
	All students	523	57%	469	52%	445	56%	417	56%	344	56%	291	53%	199	60%
Mass Bay	SSA	51	59%	48	55%	57	64%	44	52%	21	64%	23	61%	30	70%
	All students	257	50%	275	56%	244	54%	239	51%	237	54%	209	48%	180	51%
Massasoit	SSA	2	100%	5	63%	5	63%	6	86%	2	100%	4	100%	4	80%
	All students	604	57%	595	60%	564	60%	493	61%	421	57%	431	57%	314	64%
Middlesex	SSA	15	71%	5	56%	7	100%	3	60%	15	63%	24	73%	7	88%
	All students	581	60%	557	60%	460	59%	456	59%	389	57%	368	52%	295	59%
Mt. Wachusett	SSA	0	0%	0	0%	1	1%	2	22%	0	0%	15	48%	3	75%
	All students	195	48%	182	43%	185	42%	149	54%	171	53%	169	51%	122	55%
North Shore	SSA	0	0%	22	65%	14	58%	12	60%	6	86%	7	50%	23	66%
	All students	315	53%	329	57%	273	56%	316	60%	272	55%	214	43%	206	51%
Northern Essex	SSA	38	58%	6	100%	11	65%	18	72%	36	71%	15	68%	0	0%
	All students	336	55%	328	54%	271	53%	273	51%	244	54%	272	52%	201	50%
Quinsigamond	SSA	14	64%	15	83%	28	52%	6	100%	30	79%	69	62%	1	100%
	All students	419	53%	381	52%	354	50%	352	54%	307	58%	309	57%	328	52%
Roxbury	SSA	0	0%	3	60%	9	60%	10	50%	34	40%	41	49%	13	41%
	All students	47	38%	32	49%	19	35%	29	35%	52	33%	63	36%	24	29%
Springfield Technical	SSA	0	0%	0	0%	4	100%	0	0%	1	50%	10	56%	1	100%
	All students	513	60%	429	58%	302	54%	333	53%	312	56%	307	54%	202	55%

*SSA Participants include Group 1–3 (Primary) SSA participants with valid HEIRS ID who first participated in SSA as full time, first time degree seeking students and were enrolled in community college in the given fall term (e.g. enrolled in Fall 2014 for "Fall 2014 to Fall 2015" retention).

Table 14: Student Status at Point of Entry to SSA by Year of First Participation*																
SSA Year	New to Institution										Dual-enrolled**		Continuing		Total	
	First-time freshmen		Transfer		Re-admitted/ re-activated		Non-degree		Seeking another degree							
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Year 1	240	24%	29	3%	40	4%	62	6%	545	0%	203	20%	426	43%	1,000	100%
Year 2	742	21%	151	4%	104	3%	97	3%	0	0%	294	8%	2,163	61%	3,555	100%
Year 3	830	21%	183	5%	158	4%	101	3%	4	0%	219	5%	2,502	63%	3,995	100%
Year 4	840	18%	248	5%	167	4%	153	3%	2	0%	318	7%	2,964	63%	4,691	100%
Year 5	844	19%	261	6%	198	4%	171	4%	1	0%	536	12%	2,428	55%	4,445	100%
Year 6	894	21%	320	8%	250	6%	122	3%	7	0%	382	9%	2,274	54%	4,245	100%
Year 7	891	27%	291	9%	140	4%	53	2%	3	0%	151	5%	1,758	53%	3,290	100%
Year 8	474	21%	148	7%	156	7%	42	2%	6	0%	127	6%	1,280	57%	2,233	100%
Year 9	508	49%	86	8%	74	7%	19	2%	6	0%	43	4%	303	29%	1,035	100%
Total	**6,263**		**1,717**		**1,287**		**820**		**574**		**2,273**		**16,098**		**28,489**	

*Includes Group 1–3 (Primary) participants with valid HEIRS ID.

**All dual-enrolled students, some of whom are continuing and some of whom are new to the institution.

Table 14A: Student Status at Point of Entry to SSA by Year of First Participation and Institution*									
Institution	SSA Year	New to Institution					Dual-enrolled**	Continuing	Total
		First-time freshmen	Transfer	Re-admitted/ re-activated	Non-degree	Seeking another degree			
Berkshire	Year 1	20	0	1	0	0	0	0	21
	Year 2	30	0	0	0	0	48	10	88
	Year 3	21	1	2	2	0	29	7	62
	Year 4	67	6	7	0	0	23	12	115
	Year 5	97	9	7	3	0	35	65	216
	Year 6	43	8	7	2	0	34	33	127
	Year 7	22	2	0	0	1	0	9	34
	Year 8	26	2	2	0	0	5	18	53
	Year 9	7	1	1	0	1	0	5	15
Bristol	Year 1	3	0	0	37	0	1	42	83
	Year 2	17	8	2	37	0	2	61	127
	Year 3	23	6	3	47	0	3	123	205
	Year 4	45	4	5	77	0	8	99	238
	Year 5	19	8	6	82	3	4	73	195
	Year 6	6	4	1	6	1	12	64	94
	Year 7	15	8	2	8	0	5	64	102
	Year 8	7	3	3	10	0	15	22	60
	Year 9	10	8	0	0	1	0	10	29
Bunker Hill	Year 1	3	2	0	0	0	0	53	58
	Year 2	21	12	1	1	0	0	146	181
	Year 3	16	14	1	3	0	0	261	295
	Year 4	10	8	1	12	0	2	186	219
	Year 5	3	8	7	2	0	108	137	265
	Year 6	5	3	0	2	0	12	81	103
	Year 7	2	1	0	0	0	0	97	100
	Year 8	0	0	0	0	0	0	75	75
	Year 9	1	0	0	0	0	0	3	4

Table 14A: Student Status at Point of Entry to SSA by Year of First Participation and Institution*									
Institution	SSA Year	New to Institution					Dual-enrolled**	Continuing	Total
		First-time freshmen	Transfer	Re-admitted/ re-activated	Non-degree	Seeking another degree			
Cape Cod	Year 1	5	0	0	0	0	0	0	5
	Year 2	72	27	32	14	0	13	391	549
	Year 3	89	14	35	21	0	18	345	522
	Year 4	21	8	27	8	0	28	334	426
	Year 5	90	32	30	18	0	24	264	458
	Year 6	119	68	62	44	0	36	257	586
	Year 7	51	28	9	2	0	11	34	135
	Year 8	3	2	1	0	0	0	42	48
	Year 9	0	6	8	4	0	0	48	66
Greenfield	Year 1	5	1	1	1	0	6	0	14
	Year 2	3	0	3	1	0	7	0	14
	Year 3	5	1	5	0	0	29	23	63
	Year 4	10	1	2	1	0	28	29	71
	Year 5	74	24	24	4	0	68	230	424
	Year 6	88	31	28	12	0	74	118	351
	Year 7	40	23	14	5	0	32	72	186
	Year 8	5	6	2	2	0	23	50	88
	Year 9	0	0	0	0	0	9	1	10
Holyoke	Year 1	11	3	2	5	0	30	4	55
	Year 2	75	15	11	0	0	6	91	198
	Year 3	23	0	1	0	0	12	16	52
	Year 4	11	3	7	2	0	5	21	49
	Year 5	11	4	9	1	2	19	66	112
	Year 6	16	6	5	3	0	46	60	136
	Year 7	22	14	7	5	3	9	219	279
	Year 8	23	9	13	3	3	11	175	237
	Year 9	20	3	9	0	0	1	50	83

Table 14A: Student Status at Point of Entry to SSA by Year of First Participation and Institution*									
Institution	SSA Year	New to Institution					Dual-enrolled**	Continuing	Total
		First-time freshmen	Transfer	Re-admitted/ re-activated	Non-degree	Seeking another degree			
Mass Bay	Year 1	19	5	0	6	0	3	63	96
	Year 2	137	16	2	10	0	4	483	652
	Year 3	198	16	4	11	0	9	291	529
	Year 4	154	32	13	17	0	11	271	498
	Year 5	181	24	9	24	0	29	212	479
	Year 6	78	30	4	7	0	30	177	326
	Year 7	65	18	4	3	0	10	79	179
	Year 8	87	27	3	8	0	0	89	214
	Year 9	53	22	3	5	0	0	21	104
Massasoit	Year 1	30	0	0	1	0	11	3	45
	Year 2	14	4	0	0	0	1	26	45
	Year 3	16	12	0	0	0	0	87	115
	Year 4	25	6	0	2	1	53	54	141
	Year 5	13	6	0	0	0	11	40	70
	Year 6	3	3	0	0	0	1	40	47
	Year 7	7	5	0	0	1	1	29	43
	Year 8	9	3	0	0	0	0	18	30
	Year 9	10	2	0	0	0	0	14	26
Middlesex	Year 1	17	4	2	1	0	3	115	142
	Year 2	49	18	4	5	0	8	289	373
	Year 3	15	17	1	2	0	19	215	269
	Year 4	22	27	4	4	0	10	528	595
	Year 5	11	11	1	2	0	76	180	281
	Year 6	40	19	4	7	0	23	226	319
	Year 7	46	20	1	2	0	5	121	195
	Year 8	13	1	1	1	0	0	38	54
	Year 9	257	21	7	7	0	32	55	379

Table 14A: Student Status at Point of Entry to SSA by Year of First Participation and Institution*									
Institution	SSA Year	New to Institution					Dual-enrolled**	Continuing	Total
		First-time freshmen	Transfer	Re-admitted/ re-activated	Non-degree	Seeking another degree			
Mt. Wachusett	Year 1	85	9	8	3	0	117	51	273
	Year 2	106	9	2	2	0	58	15	192
	Year 3	132	10	3	3	0	66	21	235
	Year 4	153	21	1	5	0	59	17	256
	Year 5	33	6	3	1	0	89	19	151
	Year 6	24	0	1	19	0	44	20	108
	Year 7	52	7	2	4	0	38	71	174
	Year 8	29	5	7	0	0	0	25	66
	Year 9	0	1	0	0	0	0	0	1
North Shore	Year 1	7	0	1	0	0	30	17	55
	Year 2	25	9	2	5	0	141	21	203
	Year 3	67	35	22	2	0	24	357	507
	Year 4	66	48	14	8	0	75	556	767
	Year 5	61	36	8	13	0	65	262	445
	Year 6	31	26	11	1	0	60	182	311
	Year 7	100	42	22	0	0	10	267	441
	Year 8	111	55	30	3	0	0	328	527
	Year 9	38	10	4	0	0	0	44	96
Northern Essex	Year 1	13	0	1	0	0	0	2	16
	Year 2	121	18	32	8	0	1	234	414
	Year 3	136	45	54	5	0	2	243	485
	Year 4	65	14	32	3	0	4	176	294
	Year 5	51	19	48	4	0	3	210	335
	Year 6	91	26	58	1	0	0	247	423
	Year 7	66	52	43	4	0	18	140	323
	Year 8	24	19	23	2	0	62	93	223
	Year 9	60	10	27	0	0	0	33	130

Table 14A: Student Status at Point of Entry to SSA by Year of First Participation and Institution*									
Institution	SSA Year	New to Institution					Dual-enrolled**	Continuing	Total
		First-time freshmen	Transfer	Re-admitted/ re-activated	Non-degree	Seeking another degree			
Quinsigamond	Year 1	19	2	4	2	0	0	61	88
	Year 2	51	14	13	13	4	5	374	474
	Year 3	42	8	5	4	2	5	183	249
	Year 4	117	25	6	8	0	9	294	459
	Year 5	120	37	17	13	0	3	418	608
	Year 6	84	38	13	5	0	1	421	562
	Year 7	212	28	10	5	0	4	198	457
	Year 8	25	3	0	0	0	0	2	30
	Year 9	1	0	0	0	0	0	10	11
Roxbury	Year 1	0	0	1	6	0	1	10	18
	Year 2	1	0	0	0	0	0	1	2
	Year 3	19	3	22	1	0	1	310	356
	Year 4	40	35	44	2	0	3	265	389
	Year 5	46	29	26	1	0	2	153	257
	Year 6	223	45	50	2	0	7	169	496
	Year 7	147	35	14	5	0	5	204	410
	Year 8	95	3	67	8	0	11	134	318
	Year 9	51	2	15	3	0	1	9	81
Springfield Technical	Year 1	3	3	19	0	0	1	5	31
	Year 2	20	1	0	1	0	0	21	43
	Year 3	28	1	0	0	0	2	20	51
	Year 4	34	10	4	4	0	0	122	174
	Year 5	34	8	3	3	2	0	99	149
	Year 6	43	13	6	11	2	2	179	256
	Year 7	44	8	12	10	1	3	154	232
	Year 8	17	10	4	5	3	0	171	210
	Year 9	0	0	0	0	0	0	0	0

*Includes Group 1–3 (Primary) participants with valid HEIRS ID.

**All dual-enrolled students, some of whom are continuing and some of whom are new to the institution.

Table 15: Number of SSA Participants Earning Degrees and Certificates by Year of First Participation*			
SSA Year	**Total trackable SSA participants**	**Students earning any degree or certificate**	**Students earning a STEM degree or certificate**
Year 1	1,000	469	287
Year 2	3,555	1,665	949
Year 3	3,995	1,944	1,157
Year 4	4,691	2,059	1,269
Year 5	4,445	1,609	918
Year 6	4,245	1,163	677
Year 7	3,290	541	335
Year 8	2,233	123	84
Year 9	1,035	0	0
Total	**28,489**	**9,573**	**5,676**

*Includes Group 1–3 (Primary) participants with valid HEIRS ID. Degrees and certificates are included in counts if earned at any institution after students' first SSA participation.

Table 15A: Number of SSA Students Earning Degrees and Certificates, by Institution and Year of First Participation*				
Institution	**SSA Year**	**Total trackable SSA participants**	**Number of students who earned degrees or certificates**	**Number of students who earned STEM degrees or certificates**
Berkshire	Year 1	21	7	3
	Year 2	88	35	17
	Year 3	62	20	12
	Year 4	115	36	21
	Year 5	216	59	30
	Year 6	127	25	13
	Year 7	34	4	2
	Year 8	53	2	0
	Year 9	15	0	0
Bristol	Year 1	83	51	38
	Year 2	127	63	48
	Year 3	205	110	72
	Year 4	238	76	42
	Year 5	195	64	35
	Year 6	94	43	32
	Year 7	102	29	8
	Year 8	60	3	2
	Year 9	29	0	0
Bunker Hill	Year 1	58	19	10
	Year 2	181	57	40
	Year 3	295	137	100
	Year 4	219	100	81
	Year 5	265	56	43
	Year 6	103	17	14
	Year 7	100	18	14
	Year 8	75	3	1
	Year 9	4	0	0
Cape Cod	Year 1	5	5	3
	Year 2	549	313	112
	Year 3	522	275	100
	Year 4	426	209	80
	Year 5	458	202	100
	Year 6	586	205	99
	Year 7	135	15	13
	Year 8	48	11	11
	Year 9	66	0	0

Table 15A: Number of SSA Students Earning Degrees and Certificates, by Institution and Year of First Participation*				
Institution	**SSA Year**	**Total trackable SSA participants**	**Number of students who earned degrees or certificates**	**Number of students who earned STEM degrees or certificates**
Greenfield	Year 1	14	7	5
	Year 2	14	6	3
	Year 3	63	28	18
	Year 4	71	30	18
	Year 5	424	171	65
	Year 6	351	92	30
	Year 7	186	35	11
	Year 8	88	2	0
	Year 9	10	0	0
Holyoke	Year 1	55	25	9
	Year 2	198	80	16
	Year 3	52	24	9
	Year 4	49	17	11
	Year 5	112	55	25
	Year 6	136	36	12
	Year 7	279	72	51
	Year 8	237	17	13
	Year 9	83	0	0
Mass Bay	Year 1	96	48	23
	Year 2	652	285	157
	Year 3	529	208	107
	Year 4	498	198	96
	Year 5	479	141	66
	Year 6	326	87	59
	Year 7	179	23	14
	Year 8	214	8	6
	Year 9	104	0	0
Massasoit	Year 1	45	16	4
	Year 2	45	18	5
	Year 3	115	58	30
	Year 4	141	31	10
	Year 5	70	31	16
	Year 6	47	19	8
	Year 7	43	16	12
	Year 8	30	1	0
	Year 9	26	0	0

Table 15A: Number of SSA Students Earning Degrees and Certificates, by Institution and Year of First Participation*				
Institution	**SSA Year**	**Total trackable SSA participants**	**Number of students who earned degrees or certificates**	**Number of students who earned STEM degrees or certificates**
Middlesex	Year 1	142	101	82
	Year 2	373	244	177
	Year 3	269	178	136
	Year 4	595	364	248
	Year 5	281	134	82
	Year 6	319	105	67
	Year 7	195	58	50
	Year 8	54	9	8
	Year 9	379	0	0
Mt. Wachusett	Year 1	273	105	69
	Year 2	192	44	16
	Year 3	235	73	29
	Year 4	256	60	27
	Year 5	151	37	19
	Year 6	108	26	13
	Year 7	174	27	21
	Year 8	66	5	5
	Year 9	1	0	0
North Shore	Year 1	55	12	5
	Year 2	203	53	31
	Year 3	507	274	171
	Year 4	767	318	201
	Year 5	445	139	103
	Year 6	311	65	43
	Year 7	441	63	31
	Year 8	527	18	10
	Year 9	96	0	0
Northern Essex	Year 1	16	7	6
	Year 2	414	151	98
	Year 3	485	201	132
	Year 4	294	128	102
	Year 5	335	122	107
	Year 6	423	120	107
	Year 7	323	60	53
	Year 8	223	6	5
	Year 9	130	0	0

Table 15A: Number of SSA Students Earning Degrees and Certificates, by Institution and Year of First Participation*				
Institution	**SSA Year**	**Total trackable SSA participants**	**Number of students who earned degrees or certificates**	**Number of students who earned STEM degrees or certificates**
Quinsigamond	Year 1	88	42	20
	Year 2	474	287	207
	Year 3	249	135	95
	Year 4	459	211	160
	Year 5	608	254	156
	Year 6	562	169	97
	Year 7	457	36	21
	Year 8	30	0	0
	Year 9	11	0	0
Roxbury	Year 1	18	4	1
	Year 2	2	1	0
	Year 3	356	197	129
	Year 4	389	179	111
	Year 5	257	69	30
	Year 6	496	64	35
	Year 7	410	31	14
	Year 8	318	13	2
	Year 9	81	0	0
Springfield Technical	Year 1	31	20	9
	Year 2	43	28	22
	Year 3	51	26	17
	Year 4	174	102	61
	Year 5	149	75	41
	Year 6	256	90	48
	Year 7	232	54	20
	Year 8	210	25	21
	Year 9	0	0	0

*Includes Group 1–3 (Primary) participants with valid HEIRS ID. Degrees and certificates are included in counts if earned at any institution after students' first SSA participation.

Table 16: Annual Number of STEM Degrees and Certificates Earned by All Community College Students*								
Institution	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**
Berkshire	183	231	221	217	241	250	231	189
Bristol	552	550	580	680	637	618	545	690
Bunker Hill	726	802	871	895	898	1,002	883	1,037
Cape Cod	365	279	330	296	336	304	289	351
Greenfield	169	169	181	215	167	224	190	176
Holyoke	394	388	406	473	477	465	509	500
Mass Bay	475	470	441	507	518	556	490	498
Massasoit	513	464	446	582	561	528	520	490
Middlesex	594	695	681	734	763	786	750	892
Mt. Wachusett	467	516	465	461	471	506	485	429
North Shore	595	611	613	598	665	610	641	575
Northern Essex	704	654	617	620	595	598	527	605
Quinsigamond	623	642	763	781	931	899	841	937
Roxbury	187	183	214	236	242	223	196	184
Springfield Technical	693	722	632	678	689	683	655	636
Total (all sites)	**7,240**	**7,376**	**7,461**	**7,973**	**8,191**	**8,252**	**7,752**	**8,189**

*Includes all STEM degrees and certificates awarded at any institution after students' intial enrollment at the given community college (for students' first HEIRS record only). Degrees and certificates are not limited to one per student.

Table 16A: Annual Number of Degrees and Certificates (Both STEM and Non-STEM) Earned by All Community College Students*								
Institution	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**
Berkshire	488	525	528	538	573	578	584	488
Bristol	2,041	2,266	2,274	2,476	2,464	2,344	2,303	2,401
Bunker Hill	1,891	2,053	2,314	2,543	2,475	2,668	2,586	2,829
Cape Cod	858	796	967	861	969	951	850	956
Greenfield	493	558	534	616	496	590	518	522
Holyoke	1,461	1,476	1,588	1,616	1,666	1,634	1,577	1,568
Mass Bay	947	987	1,027	1,233	1,224	1,248	1,175	1,185
Massasoit	1,462	1,422	1,431	1,682	1,638	1,649	1,596	1,617
Middlesex	1,780	2,051	2,144	2,123	2,194	2,252	2,211	2,377
Mt. Wachusett	953	1,043	1,008	1,013	1,071	1,186	1,160	1,063
North Shore	1,537	1,561	1,732	1,650	1,767	1,667	1,706	1,603
Northern Essex	1,436	1,494	1,446	1,500	1,455	1,487	1,422	1,419
Quinsigamond	1,586	1,658	1,948	2,004	2,307	2,285	2,195	2,256
Roxbury	384	409	413	487	458	466	406	400
Springfield Technical	1,285	1,361	1,353	1,431	1,457	1,500	1,450	1,466
Total (all sites)	**18,602**	**19,660**	**20,707**	**21,773**	**22,214**	**22,505**	**21,739**	**22,150**

*Includes all degrees and certificates awarded at any institution after students' initial enrollment at the given community college (for students' first HEIRS record only). Degrees and certificates are not limited to one per student.

Table 16B: Annual Percentages of Degrees and Certificates Earned by All Community College Students in STEM Fields*								
Institution	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**
Berkshire	38%	44%	42%	40%	42%	43%	40%	39%
Bristol	27%	24%	26%	27%	26%	26%	24%	29%
Bunker Hill	38%	39%	38%	35%	36%	38%	34%	37%
Cape Cod	43%	35%	34%	34%	35%	32%	34%	37%
Greenfield	34%	30%	34%	35%	34%	38%	37%	34%
Holyoke	27%	26%	26%	29%	29%	28%	32%	32%
Mass Bay	50%	48%	43%	41%	42%	45%	42%	42%
Massasoit	35%	33%	31%	35%	34%	32%	33%	30%
Middlesex	33%	34%	32%	35%	35%	35%	34%	38%
Mt. Wachusett	49%	49%	46%	46%	44%	43%	42%	40%
North Shore	39%	39%	35%	36%	38%	37%	38%	36%
Northern Essex	49%	44%	43%	41%	41%	40%	37%	43%
Quinsigamond	39%	39%	39%	39%	40%	39%	38%	42%
Roxbury	49%	45%	52%	48%	53%	48%	48%	46%
Springfield Technical	54%	53%	47%	47%	47%	46%	45%	43%
All sites	**39%**	**38%**	**36%**	**37%**	**37%**	**37%**	**36%**	**37%**

*Includes all STEM degrees and certificates awarded at any institution after students' intial enrollment at the given community college (for students' first HEIRS record only). Degrees and certificates are not limited to one per student.

Table 17: Students Achieving Positive Outcomes 1 to 6 Years After Entry SSA Participants vs. Non-SSA, by Subgroup†												
(Sub)group	1 year after entry				2 years after entry				3 years after entry			
	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval
		SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA	
All students	1.68***	65%	56%	[1.50, 1.88]	1.73***	55%	44%	[1.57, 1.91]	1.76***	52%	40%	[1.53, 2.02]
STEM at entry	1.82***	67%	55%	[1.63, 2.03]	1.95***	58%	44%	[1.80, 2.13]	1.94***	53%	39%	[1.63, 2.31]
Not STEM at entry	1.52***	63%	53%	[1.20, 1.91]	1.46***	52%	44%	[1.23, 1.74]	1.72***	50%	40%	[1.50, 1.96]
SSA Aid	1.70***	69%	56%	[1.47, 1.97]	1.85***	60%	44%	[1.54, 2.23]	1.85***	55%	40%	[1.49, 2.29]
SSA Extra Support	1.68***	69%	56%	[1.50, 1.88]	1.83***	58%	44%	[1.50, 2.23]	1.96***	55%	40%	[1.62, 2.36]
SSA Counseling	1.67***	69%	56%	[1.48, 1.90]	2.09***	61%	45%	[1.90, 2.30]	2.14***	58%	40%	[1.90, 2.41]
SSA Case Managed	1.93**	72%	55%	[1.23, 3.03]	Insufficient Sample				Data Not Available			
Black	1.95***	62%	53%	[1.52, 2.49]	2.08***	54%	42%	[1.84, 2.36]	1.97***	48%	36%	[1.55, 2.50]
Asian	1.34*	70%	60%	[1.05, 1.72]	1.18	59%	50%	[0.67, 2.07]	1.22	57%	46%	[0.74, 2.02]
Latinx	1.64***	60%	49%	[1.42, 1.90]	1.79***	49%	37%	[1.52, 2.12]	2.04***	48%	33%	[1.63, 2.55]
White	1.54***	68%	60%	[1.29, 1.84]	1.56***	59%	48%	[1.32, 1.84]	1.54***	55%	45%	[1.25, 1.88]
Men	1.77***	64%	53%	[1.59, 1.96]	1.93***	55%	41%	[1.68, 2.21]	1.88***	51%	37%	[1.60, 2.20]
Women	1.57***	66%	59%	[1.34, 1.85]	1.51***	55%	47%	[1.35, 1.68]	1.63***	53%	43%	[1.37, 1.93]

†First-time students, registered at their institutions in a fall term, and enrolled either full or part time. SSA participants include those who first participated in SSA in summer or fall. Positive outcome includes retained, completed, transferred to 4-year, or joined the STEM workforce. Statistically significant results from quasi-experimental modeling are indicated with asterisks (*p < .05, **p < .01, ***p < .001).

Table 17: Students Achieving Positive Outcomes 1 to 6 Years After Entry SSA Participants vs. Non-SSA, by Subgroup†												
(Sub)group	4 years after entry				5 years after entry				6 years after entry			
	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval
		SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA	
All students	1.82***	53%	40%	[1.38, 2.39]	1.89***	56%	41%	[1.37, 2.59]	1.91**	58%	42%	[1.23, 2.96]
STEM at entry	1.92***	54%	39%	[1.38, 2.68]	1.93**	55%	40%	[1.29, 2.87]	1.94*	58%	41%	[1.02, 3.67]
Not STEM at entry	1.75***	53%	39%	[1.34, 2.29]	1.92***	57%	40%	[1.41, 2.62]	2.02***	61%	43%	[1.55, 2.64]
SSA Aid	2.08***	58%	40%	[1.50, 2.88]	2.43***	63%	41%	[1.67, 3.54]	2.53***	64%	36%	[1.72, 3.74]
SSA Extra Support	1.97**	56%	40%	[1.34, 2.90]	Did Not Converge				2.02**	60%	43%	[1.21, 3.37]
SSA Counseling	2.33***	60%	40%	[1.84, 2.95]	2.59***	64%	41%	[1.95, 3.43]	2.47***	63%	43%	[1.72, 3.54]
SSA Case Managed	Data Not Available				Data Not Available				Data Not Available			
Black	2.48***	56%	33%	[1.58, 3.88]	2.20*	54%	34%	[1.10, 4.37]	Insufficient Sample			
Asian	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Latinx	1.86***	45%	32%	[1.41, 2.45]	2.01***	48%	30%	[1.53, 2.65]	Insufficient Sample			
White	1.57*	55%	44%	[1.09, 2.25]	1.65*	58%	45%	[1.12, 2.43]	1.82	62%	38%	[0.89, 3.72]
Men	1.91***	50%	36%	[1.35, 2.71]	2.08***	54%	36%	[1.40, 3.09]	2.09*	57%	38%	[1.14, 3.80]
Women	1.72***	57%	44%	[1.36, 2.18]	1.72**	59%	44%	[1.26, 2.35]	1.77*	63%	37%	[1.02, 3.07]

†First-time students, registered at their institutions in a fall term, and enrolled either full or part time. SSA participants include those who first participated in SSA in summer or fall. Positive outcome includes retained, completed, transferred to 4-year, or joined the STEM workforce. Statistically significant results from quasi-experimental modeling are indicated with asterisks (*p < .05, **p < .01, ***p < .001).

Table 17A: Students Achieving Positive Outcomes 1 to 6 Years After Entry
SSA Participants vs. Non-SSA, by Institution†

Institution	1 year after entry				2 years after entry				3 years after entry			
	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval
		SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA	
All institutions	1.68***	65%	56%	[1.50, 1.88]	1.73***	55%	44%	[1.57, 1.91]	1.76***	52%	40%	[1.53, 2.02]
Berkshire	1.44*	64%	53%	[1.06, 1.94]	1.46*	52%	43%	[1.07, 1.99]	1.24	45%	40%	[0.88, 1.74]
Bristol	1.94**	69%	58%	[1.25, 2.99]	2.02**	60%	46%	[1.32, 3.10]	2.17**	56%	41%	[1.37, 3.42]
Bunker Hill	3.19**	81%	59%	[1.63, 6.22]	1.89	67%	48%	[0.94, 3.81]	3.49**	74%	43%	[1.60, 7.61]
Cape Cod	2.35***	70%	49%	[1.82, 3.04]	2.34***	59%	37%	[1.82, 3.01]	2.18***	54%	33%	[1.65, 2.86]
Greenfield	3.06***	80%	53%	[2.04, 4.60]	1.39	53%	41%	[0.97, 1.98]	1.54*	50%	36%	[1.02, 2.33]
Holyoke	1.70*	66%	54%	[1.11, 2.59]	2.34***	62%	42%	[1.46, 3.77]	2.14**	54%	39%	[1.25, 3.65]
Massasoit	1.76*	74%	60%	[1.04, 2.97]	2.74***	72%	47%	[1.58, 4.75]	2.79***	67%	41%	[1.60, 4.85]
Mass Bay	1.43***	64%	56%	[1.19, 1.71]	1.67***	57%	45%	[1.38, 2.02]	1.38**	52%	43%	[1.13, 1.70]
Middlesex	1.79**	73%	58%	[1.23, 2.60]	1.78**	61%	45%	[1.23, 2.59]	1.85**	57%	41%	[1.18, 2.90]
Mt. Wachusett	1.20	62%	54%	[0.83, 1.73]	1.49	56%	43%	[0.99, 2.24]	1.60	54%	41%	[0.95, 2.70]
North Shore	1.87***	68%	55%	[1.44, 2.44]	1.75**	54%	43%	[1.27, 2.39]	2.81***	62%	38%	[1.96, 4.04]
Northern Essex	1.77***	63%	51%	[1.38, 2.26]	2.07***	54%	38%	[1.61, 2.66]	1.98***	47%	34%	[1.51, 2.61]
Quinsigamond	1.51***	66%	56%	[1.25, 1.83]	1.49***	56%	46%	[1.23, 1.80]	1.75***	55%	41%	[1.37, 2.25]
Roxbury	1.70***	48%	34%	[1.31, 2.19]	1.70***	40%	26%	[1.26, 2.29]	1.65**	37%	25%	[1.15, 2.37]
Springfield Technical	1.42*	68%	56%	[1.02, 1.96]	1.54*	58%	42%	[1.10, 2.16]	1.72*	56%	39%	[1.13, 2.61]

†First-time students, registered at their institutions in a fall term, and enrolled either full or part time. SSA participants include those who first participated in SSA in summer or fall. Positive outcome includes retained, completed, transferred to 4-year, or joined the STEM workforce. Statistically significant results from quasi-experimental modeling are indicated with asterisks (*p < .05, **p < .01, ***p < .001).

Table 17A: Students Achieving Positive Outcomes 1 to 6 Years After Entry
SSA Participants vs. Non-SSA, by Institution†

Institution	4 years after entry				5 years after entry				6 years after entry			
	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval
		SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA	
All institutions	1.82***	53%	40%	[1.38, 2.39]	1.89***	56%	0.405	[1.37, 2.59]	1.91**	58%	42%	[1.23, 2.96]
Berkshire	1.29	47%	39%	[0.85, 1.96]	2.31*	55%	40%	[1.12, 4.75]	Insufficient Sample			
Bristol	2.56***	58%	41%	[1.56, 4.20]	4.28***	71%	41%	[2.27, 8.05]	Insufficient Sample			
Bunker Hill	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Cape Cod	2.83***	58%	32%	[2.01, 4.01]	3.49***	64%	33%	[2.14, 5.69]	3.56***	67%	36%	[2.00, 6.35]
Greenfield	2.02*	56%	36%	[1.11, 3.68]	Insufficient Sample				Insufficient Sample			
Holyoke	1.97*	50%	39%	[1.08, 3.61]	1.54	50%	40%	[0.72, 3.29]	Insufficient Sample			
Massasoit	2.49**	62%	40%	[1.42, 4.38]	1.43	50%	41%	[0.71, 2.90]	Insufficient Sample			
Mass Bay	1.13	47%	43%	[0.90, 1.41]	1.14	49%	45%	[0.86, 1.50]	0.98	50%	48%	[0.64, 1.50]
Middlesex	2.69**	65%	40%	[1.45, 4.99]	3.85***	72%	40%	[1.83, 8.09]	Insufficient Sample			
Mt. Wachusett	2.42**	64%	41%	[1.26, 4.65]	3.70*	71%	41%	[1.34, 10.19]	Did Not Converge			
North Shore	3.22***	66%	37%	[2.16, 4.81]	3.14***	66%	38%	[1.97, 5.02]	2.57**	60%	40%	[1.42, 4.64]
Northern Essex	1.69**	43%	34%	[1.23, 2.32]	1.64*	43%	36%	[1.12, 2.41]	Insufficient Sample			
Quinsigamond	2.18***	59%	42%	[1.53, 3.12]	2.05***	58%	42%	[1.40, 3.00]	3.15**	67%	43%	[1.57, 6.29]
Roxbury	1.95*	43%	26%	[1.15, 3.31]	2.44*	49%	27%	[1.16, 5.11]	Insufficient Sample			
Springfield Technical	2.12**	62%	38%	[1.25, 3.58]	2.25*	66%	39%	[1.15, 4.43]	Insufficient Sample			

†First-time students, registered at their institutions in a fall term, and enrolled either full or part time. SSA participants include those who first participated in SSA in summer or fall. Positive outcome includes retained, completed, transferred to 4-year, or joined the STEM workforce. Statistically significant results from quasi-experimental modeling are indicated with asterisks (*p < .05, **p < .01, ***p < .001).

Table 18: Students Earning STEM Degrees or Certificates 2 to 6 Years After Entry
SSA Participants vs. Non-SSA, by Subgroup†

(Sub)group	2 years after entry				3 years after entry				4 years after entry				5 years after entry				6 years after entry			
	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval
		SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA	
All students	1.32	5%	2%	[0.98, 1.78]	1.70*	10%	4%	[1.12, 2.59]	1.93**	16%	5%	[1.24, 3.02]	1.86**	20%	7%	[1.22, 2.83]	1.73*	19%	8%	[1.06, 2.82]
STEM at entry	1.34	8%	7%	[0.98, 1.83]	1.56*	15%	10%	[1.02, 2.38]	1.79**	22%	14%	[1.19, 2.69]	1.79**	27%	17%	[1.20, 2.67]	1.66*	27%	19%	[1.10, 2.50]
Not STEM at entry	1.58	1%	0%	[0.57, 4.36]	4.58***	3%	1%	[2.59, 8.10]	4.20***	6%	2%	[2.37, 7.45]	3.06***	6%	3%	[1.74, 5.38]	2.99	6%	4%	[0.95, 9.46]
SSA Aid	1.90**	10%	3%	[1.26, 2.86]	2.25***	16%	4%	[1.61, 3.15]	2.42***	22%	6%	[1.79, 3.28]	1.97***	26%	7%	[1.39, 2.80]	1.74*	25%	9%	[1.07, 2.84]
SSA Extra Support	1.22	6%	2%	[0.80, 1.86]	1.78*	11%	4%	[1.10, 2.88]	2.11**	17%	5%	[1.22, 3.65]	Did not converge				1.68	19%	9%	[0.84, 3.35]
SSA Counseling	1.56**	8%	2%	[1.14, 2.14]	1.94***	15%	4%	[1.38, 2.74]	2.42***	22%	6%	[1.71, 3.43]	2.20***	26%	7%	[1.67, 2.91]	2.09***	26%	8%	[1.53, 2.84]
SSA Case Managed	Insufficient Sample				Data not available				Data not available				Data not available				Data not available			
Black	2.57**	3%	1%	[1.44, 4.58]	2.17**	9%	3%	[1.21, 3.90]	2.65*	15%	4%	[1.15, 6.09]	3.04*	19%	4%	[1.03, 8.97]	Insufficient Sample			
Asian	1.55	8%	3%	[0.48, 4.99]	1.29	11%	5%	[0.73, 2.29]	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Latinx	1.18	4%	2%	[0.67, 2.06]	2.04*	9%	3%	[1.09, 3.79]	2.51***	14%	4%	[1.59, 3.97]	2.42**	17%	5%	[1.29, 4.51]	Insufficient Sample			
White	1.19	7%	3%	[0.74, 1.90]	1.24	10%	4%	[0.80, 1.92]	1.45	16%	6%	[0.89, 2.36]	1.41	20%	8%	[0.97, 2.06]	1.37	19%	9%	[0.82, 2.27]
Men	1.41	7%	3%	[0.81, 2.46]	1.69	12%	4%	[0.92, 3.12]	1.98*	17%	5%	[1.08, 3.66]	1.84*	21%	7%	[1.02, 3.31]	1.97*	22%	8%	[1.04, 3.72]
Women	1.21	4%	2%	[0.78, 1.88]	1.68***	8%	3%	[1.35, 2.09]	1.91***	14%	5%	[1.47, 2.47]	1.97***	18%	7%	[1.51, 2.58]	1.30	15%	8%	[0.73, 2.32]

†First-time students, registered at their institutions in a fall term, and enrolled full time. SSA participants include those who first participated in SSA in summer or fall.
Statistically significant results from quasi-experimental modeling are indicated with asterisks (*p < .05, **p < .01, ***p < .001).

Table 18A: Students Earning STEM Degrees or Certificates 2 to 6 Years After Entry
SSA Participants vs. Non-SSA, by Institution†

Institution	2 years after entry				3 years after entry				4 years after entry				5 years after entry				6 years after entry			
	Odds ratio	Unweighted %		95% confidence interval	Odds ratio	Unweighted %		95% confidence interval	Odds ratio	Unweighted %		95% confidence interval	Odds ratio	Unweighted %		95% confidence interval	Odds ratio	Unweighted %		95% confidence interval
		SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA	
All institutions	1.32	5%	2%	[0.98, 1.78]	1.70*	10%	4%	[1.12, 2.59]	1.93**	16%	5%	[1.24, 3.02]	1.86**	20%	7%	[1.22, 2.83]	1.73*	19%	8%	[1.06, 2.82]
Berkshire	2.21	4%	2%	[0.81, 6.00]	2.56**	10%	4%	[1.40, 4.69]	3.29***	20%	7%	[1.86, 5.83]	2.44	28%	9%	[0.97, 6.10]	Insufficient Sample			
Bristol	1.45	3%	1%	[0.34, 6.09]	3.00**	14%	3%	[1.51, 5.94]	4.08***	20%	4%	[2.00, 8.34]	4.45***	29%	6%	[2.19, 9.04]	Insufficient Sample			
Bunker Hill	Insufficient Sample				3.72**	23%	4%	[1.43, 9.68]	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Cape Cod	5.05**	5%	1%	[1.86, 13.76]	3.86***	7%	1%	[1.90, 7.85]	2.69*	7%	2%	[1.19, 6.08]	3.06**	15%	4%	[1.39, 6.72]	2.95*	18%	4%	[1.20, 7.22]
Greenfield	2.22	7%	4%	[0.76, 6.50]	2.20	8%	6%	[0.96, 5.02]	1.30	10%	8%	[0.46, 3.66]	Insufficient Sample				Insufficient Sample			
Holyoke	4.98**	10%	2%	[1.75, 14.19]	4.87**	14%	4%	[1.96, 12.06]	4.86**	18%	5%	[1.83, 12.91]	1.52	12%	7%	[0.40, 5.72]	Insufficient Sample			
Massasoit	2.03	2%	1%	[0.18, 23.35]	0.52	2%	2%	[0.08, 3.18]	2.72*	11%	3%	[1.13, 6.59]	1.28	10%	5%	[0.37, 4.39]	Insufficient Sample			
Mass Bay	0.78	6%	4%	[0.47, 1.31]	0.70	8%	7%	[0.47, 1.02]	0.83	10%	8%	[0.56, 1.22]	0.90	12%	9%	[0.57, 1.40]	0.76	11%	9%	[0.38, 1.50]
Middlesex	2.01	5%	1%	[0.74, 5.47]	4.69***	14%	2%	[2.27, 9.69]	3.98**	19%	3%	[1.72, 9.18]	4.91***	28%	5%	[2.03, 11.87]	Insufficient Sample			
Mt. Wachusett	1.33	10%	3%	[0.64, 2.75]	2.57**	27%	5%	[1.34, 4.91]	2.49*	33%	7%	[1.22, 5.11]	3.36*	48%	9%	[1.31, 8.63]	Did Not Converge			
North Shore	1.75	8%	2%	[0.81, 3.79]	2.62***	16%	4%	[1.54, 4.47]	4.02***	26%	5%	[2.44, 6.60]	3.97***	28%	6%	[2.21, 7.13]	2.73**	26%	7%	[1.28, 5.81]
Northern Essex	2.10	5%	1%	[0.96, 4.63]	1.76*	8%	3%	[1.06, 2.93]	1.87**	15%	5%	[1.18, 2.96]	1.64	18%	7%	[1.00, 2.70]	Insufficient Sample			
Quinsigamond	1.01	5%	3%	[0.56, 1.82]	2.03**	13%	4%	[1.34, 3.06]	3.25***	22%	6%	[1.99, 5.32]	2.90***	23%	8%	[1.75, 4.81]	4.40***	33%	9%	[1.99, 9.75]
Roxbury	1.33	1%	1%	[0.27, 6.56]	1.69	6%	3%	[0.73, 3.95]	2.16	10%	3%	[0.77, 6.03]	5.07**	21%	3%	[1.52, 16.87]	Insufficient Sample			
Springfield Technical	1.23	10%	6%	[0.66, 2.28]	1.57	21%	8%	[0.92, 2.70]	1.82*	31%	12%	[1.02, 3.25]	1.45	34%	14%	[0.71, 2.96]	Insufficient Sample			

†First-time students, registered at their institutions in a fall term, and enrolled full time. SSA participants include those who first participated in SSA in summer or fall.
Statistically significant results from quasi-experimental modeling are indicated with asterisks (*p < .05, **p < .01, ***p < .001).

Table 19: Students Achieving Positive Outcomes 1 to 6 Years After Entry Summer SSA Participants vs. Non-SSA, by Institution†												
Institution	1 year after entry				2 years after entry				3 years after entry			
	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval
		SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA	
All institutions	1.63***	67%	56%	[1.47, 1.80]	1.67***	56%	44%	[1.43, 1.95]	1.62***	51%	40%	[1.44, 1.83]
Berkshire	1.46*	65%	53%	[1.06, 2.01]	1.44*	52%	43%	[1.04, 1.99]	1.32	46%	40%	[0.92, 1.89]
Bristol	2.28**	71%	58%	[1.25, 4.17]	1.67	53%	46%	[0.95, 2.93]	2.26**	55%	41%	[1.26, 4.02]
Bunker Hill	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Cape Cod	2.41**	71%	49%	[1.35, 4.32]	5.90***	75%	37%	[2.87, 12.10]	3.43**	58%	33%	[1.68, 6.98]
Greenfield	2.18	77%	53%	[0.97, 4.89]	Insufficient Sample				Insufficient Sample			
Holyoke	1.84*	66%	54%	[1.03, 3.31]	2.96***	64%	42%	[1.62, 5.39]	1.85	49%	39%	[0.99, 3.48]
Massasoit	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Mass Bay	1.47	65%	56%	[0.99, 2.17]	1.69*	56%	45%	[1.13, 2.54]	1.28	49%	43%	[0.81, 2.02]
Middlesex	2.20*	75%	58%	[1.04, 4.66]	Insufficient Sample				Insufficient Sample			
Mt. Wachusett	1.33	64%	54%	[0.84, 2.09]	1.67*	58%	43%	[1.01, 2.75]	2.08*	59%	41%	[1.17, 3.69]
North Shore	1.66*	64%	55%	[1.03, 2.69]	0.97	37%	43%	[0.49, 1.90]	1.30	40%	38%	[0.61, 2.76]
Northern Essex	1.54*	60%	51%	[1.09, 2.17]	2.02***	54%	38%	[1.42, 2.88]	1.59*	43%	34%	[1.10, 2.30]
Quinsigamond	2.00***	72%	56%	[1.38, 2.90]	1.17	50%	46%	[0.81, 1.70]	1.38	50%	41%	[0.91, 2.08]
Roxbury	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Springfield Technical	1.49*	69%	56%	[1.04, 2.14]	1.69**	61%	42%	[1.16, 2.45]	1.62*	55%	39%	[1.06, 2.50]

†First-time students, registered at their institutions in a fall term, and enrolled either full or part time. SSA participants include those who first participated in SSA in summer. Positive outcome includes retained, completed, transferred to 4-year, or joined the STEM workforce. Statistically significant results from quasi-experimental modeling are indicated with asterisks (*p < .05, **p < .01, ***p < .001).

Table 19: Students Achieving Positive Outcomes 1 to 6 Years After Entry Summer SSA Participants vs. Non-SSA, by Institution†												
Institution	4 years after entry				5 years after entry				6 years after entry			
	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval
		SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA	
All institutions	1.84***	53%	40%	[1.44, 2.36]	1.83***	52%	40%	[1.33, 2.53]	2.33***	62%	39%	[1.86, 2.92]
Berkshire	1.41	48%	39%	[0.90, 2.20]	2.12*	53%	40%	[1.02, 4.41]	Insufficient Sample			
Bristol	2.43**	54%	41%	[1.28, 4.60]	Insufficient Sample				Insufficient Sample			
Bunker Hill	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Cape Cod	5.74***	66%	32%	[2.51, 13.14]	Insufficient Sample				Insufficient Sample			
Greenfield	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Holyoke	2.54**	56%	39%	[1.31, 4.93]	Insufficient Sample				Insufficient Sample			
Massasoit	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Mass Bay	0.84	41%	43%	[0.49, 1.45]	0.95	44%	45%	[0.46, 1.95]	Insufficient Sample			
Middlesex	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Mt. Wachusett	3.18**	70%	41%	[1.50, 6.73]	Insufficient Sample				Insufficient Sample			
North Shore	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Northern Essex	1.41	39%	34%	[0.96, 2.06]	1.30	37%	36%	[0.84, 2.02]	Insufficient Sample			
Quinsigamond	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Roxbury	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Springfield Technical	2.17**	63%	38%	[1.26, 3.72]	2.37*	68%	39%	[1.16, 4.84]	Insufficient Sample			

†First-time students, registered at their institutions in a fall term, and enrolled either full or part time. SSA participants include those who first participated in SSA in summer. Positive outcome includes retained, completed, transferred to 4-year, or joined the STEM workforce. Statistically significant results from quasi-experimental modeling are indicated with asterisks (*p < .05, **p < .01, ***p < .001).

Table 20: Students Earning STEM Degrees or Certificates 2 to 6 Years After Entry
Summer SSA Participants vs. Non-SSA, by Institution†

Institution	2 years after entry				3 years after entry				4 years after entry				5 years after entry				6 years after entry			
	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval	Odds ratio	Unweighted % achieved		95% confidence interval
		SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA			SSA	Non-SSA	
All institutions	1.36	7%	2%	[1.00, 1.86]	1.78**	12%	4%	[1.25, 2.54]	2.09***	18%	5%	[1.47, 2.97]	1.59**	21%	7%	[1.14, 2.21]	1.90**	27%	9%	[1.32, 2.74]
Berkshire	Did Not Converge				2.49**	10%	4%	[1.32, 4.70]	3.91***	21%	7%	[2.15, 7.11]	2.28	27%	9%	[0.89, 5.83]	Insufficient Sample			
Bristol	Insufficient Sample				3.98**	17%	3%	[1.73, 9.14]	4.33**	22%	4%	[1.69, 11.10]	Insufficient Sample				Insufficient Sample			
Bunker Hill	Insufficient Sample				Insufficient Sample				Insufficient Sample				Insufficient Sample				Insufficient Sample			
Cape Cod	Model Failure				6.88**	13%	1%	[1.85, 25.63]	4.75	9%	2%	[0.96, 23.44]	Insufficient Sample				Insufficient Sample			
Greenfield	Insufficient Sample				Insufficient Sample				Insufficient Sample				Insufficient Sample				Insufficient Sample			
Holyoke	1.40	3%	2%	[0.20, 9.66]	5.13**	15%	4%	[1.81, 14.54]	6.32**	19%	5%	[2.06, 19.33]	Insufficient Sample				Insufficient Sample			
Massasoit	Insufficient Sample				Insufficient Sample				Insufficient Sample				Insufficient Sample				Insufficient Sample			
Mass Bay	0.69	7%	4%	[0.27, 1.78]	0.56	10%	7%	[0.27, 1.18]	0.76	14%	8%	[0.35, 1.63]	1.08	19%	9%	[0.42, 2.76]	Insufficient Sample			
Middlesex	Insufficient Sample				Insufficient Sample				Insufficient Sample				Insufficient Sample				Insufficient Sample			
Mt. Wachusett	1.52	12%	3%	[0.64, 3.59]	Model Failure				0	36%	7%	0	Insufficient Sample				Insufficient Sample			
North Shore	Insufficient Sample				1.27	7%	4%	[0.32, 5.10]	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Northern Essex	1.43	3%	1%	[0.40, 5.11]	1.23	6%	3%	[0.57, 2.66]	1.16	10%	5%	[0.63, 2.14]	1.19	14%	7%	[0.65, 2.16]	Insufficient Sample			
Quinsigamond	0.50	3%	3%	[0.15, 1.66]	1.26	7%	4%	[0.56, 2.82]	Insufficient Sample				Insufficient Sample				Insufficient Sample			
Roxbury	Insufficient Sample				Insufficient Sample				Insufficient Sample				Insufficient Sample				Insufficient Sample			
Springfield Technical	1.36	12%	6%	[0.73, 2.55]	1.34	19%	8%	[0.76, 2.37]	1.66	30%	12%	[0.91, 3.02]	1.27	32%	14%	[0.60, 2.71]	Insufficient Sample			

†First-time students, registered at their institutions in a fall term, and enrolled full time. SSA participants include those who first participated in SSA in summer.
Statistically significant results from quasi-experimental modeling are indicated with asterisks (*p < .05, **p < .01, ***p < .001).