

## Overview: Distance Education and Workforce Development Reports

NC-SARA contracted with the National Center for Higher Education Management Systems (NCHEMS) to create a new Distance Education and Workforce Development Report for each SARA member state. The goal for these reports is to better help states identify how distance education can be used to meet workforce needs, as well as to identify gaps in state offerings.

These reports incorporate [NC-SARA data](#) on exclusively distance education enrollment and out-of-state learning placement activity, data from IPEDS on distance education programs offered, state educational attainment measures, and workforce development data provided by Lightcast (formerly Emsi Burning Glass). For questions about this report please contact NC-SARA at [data@nc-sara.org](mailto:data@nc-sara.org).

Please note that states may report figures other than those included in this report due to differing methodologies; please refer to the higher education system or state higher education agency for more information.

### Definition of Terms:

**Distance Education:** Education that uses one or more types of technology to deliver instruction to students who are separated from the instructor and to support regular and substantive interaction between the students and the instructor synchronously or asynchronously.

**Distance Education Program:** A program for which all the required coursework for program completion can be completed entirely via distance education courses.

**Exclusively Distance Education Enrollment (EDEE):** Students who are solely taking coursework via distance education.

**Out-of-State Learning Placement (OOSLP):** Supervised field experiences such as, but not limited to, clinical rotations, internships, or student teaching, offered by SARA-participating institutions in locations outside their home state.

### About NC-SARA

The National Council for State Authorization Reciprocity Agreements (NC-SARA) is a nonprofit organization that helps expand students' access to educational opportunities and ensure more efficient, consistent, and effective regulation of distance learning programs.

Today, more than 2,400 institutions participate SARA across 49 member states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands all voluntarily participate in SARA.

### About NCHEMS

The National Center for Higher Education Management Systems (NCHEMS) is a private nonprofit 501(c)(3) organization whose mission is to improve strategic decision making in postsecondary education for states and institutions in the United States and abroad. Its work has touched on topics across a wide spectrum of public policy: strategic planning to finance and resource allocation to the development of new educational delivery models. Throughout its more than 50 years, NCHEMS has been a resource for turning data into usable knowledge for leaders and policymakers at all levels.

# Massachusetts

## Distance Education and Workforce Development

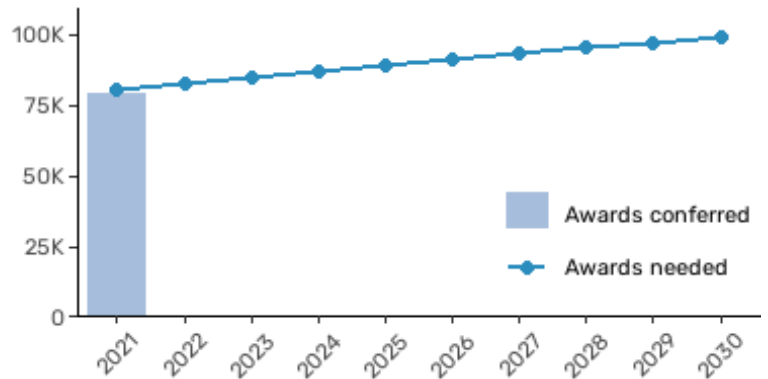
### Educational Attainment and the Workforce

Massachusetts' goal is for 70 percent of the population aged 25 to 64 to possess at least postsecondary degree or certificate of value or industry recognized certification by the year 2030. In order to reach that goal, awards from Massachusetts institutions will need to increase by 2.3% annually.

The industries projected to be Massachusetts' overall largest in 2030 are Health Care and Social Assistance, Professional, Scientific, and Technical Services, and Government, and the ones projected to grow by the largest percentage are Accommodation and Food Services, Transportation and Warehousing, and Agriculture, Forestry, Fishing and Hunting.

This document summarizes how distance education may contribute to meeting Massachusetts' workforce needs.

**Award Production Needed**  
to Meet Massachusetts' Attainment Goal by 2030

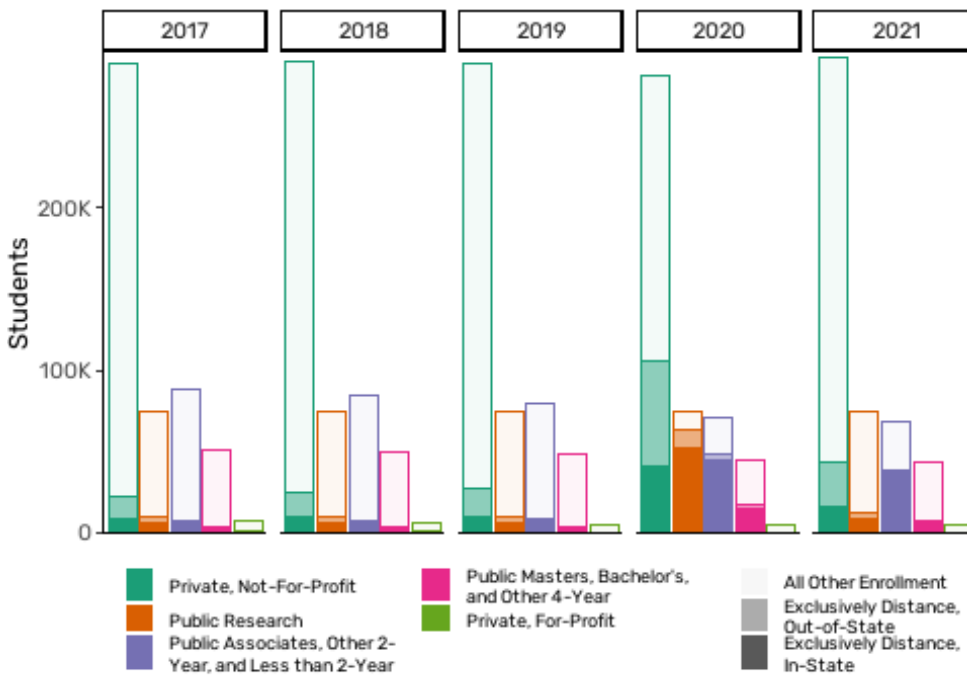


Sources: IPEDS, U.S. Census Bureau, Lumina Foundation, Georgetown Center for Education and the Workforce

### College Enrollment and Distance Education

How much exclusively distance education enrollment is taking place at Massachusetts colleges and universities?

**Massachusetts Enrollment by Fall Term**  
Exclusively Distance Education Enrollment vs. Total Enrollment



Source: IPEDS

In line with nationwide trends, overall college and university enrollment in Massachusetts has declined; there were 26,758 fewer students in Fall 2021 compared to Fall 2017. The number of students attending exclusively via distance education, however, grew from 45,057 (9% of enrollment) in Fall 2017 to 49,502 (10% of enrollment) in Fall 2019. The pandemic accelerated this trend, and Fall 2021 exclusively distance education enrollment was 103,064 (21% of enrollment). Of those attending exclusively via distance education in Fall 2021, 67% were in-state students from Massachusetts. This represents an increase from 2019, when the percentage was 56%. In Fall 2021, the sector with the highest percentage of exclusively distance education students was Public Associates, Other 2-Year, and Less than 2-Year, while Private, For-Profit was lowest.

When reading the chart above, note that the darker bands represent exclusively distance education enrollments.

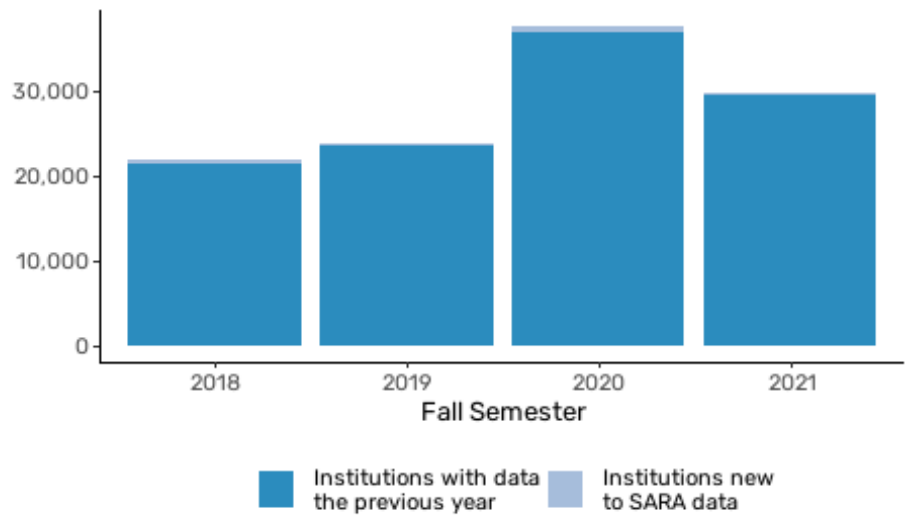
## How many Massachusetts students are studying via distance education at out-of-state institutions?

The number of students from Massachusetts who study at out-of-state institutions exclusively via distance education has also increased over time.

According to NC-SARA data, in Fall 2018, 21,904 Massachusetts students were attending out-of-state institutions exclusively via distance education. In 2021, that number was 29,797, which was an increase of 36% over three years.

The NC-SARA data represents enrollments at over 2,300 institutions, or 67% of all postsecondary institutions that offer distance education. In the chart to the right, the light blue areas represent enrollments at institutions new to SARA participation – so any change is because of their inclusion, not an increase in students.

**Exclusively Distance Education Enrollment**  
Massachusetts Students at Non-Massachusetts Institutions

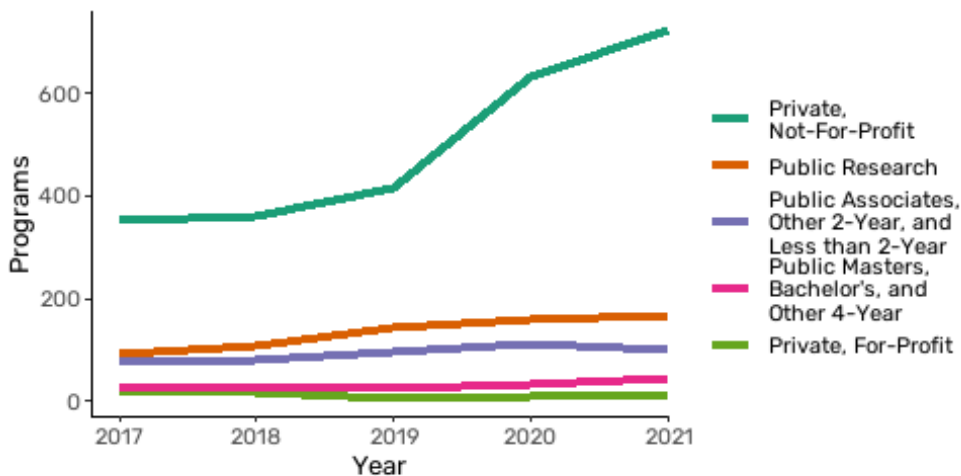


Source: NC-SARA

## What are the distance education offerings from Massachusetts institutions?

**Distance Education Programs at Massachusetts Institutions**

Over Time For All Program Levels, by Sector



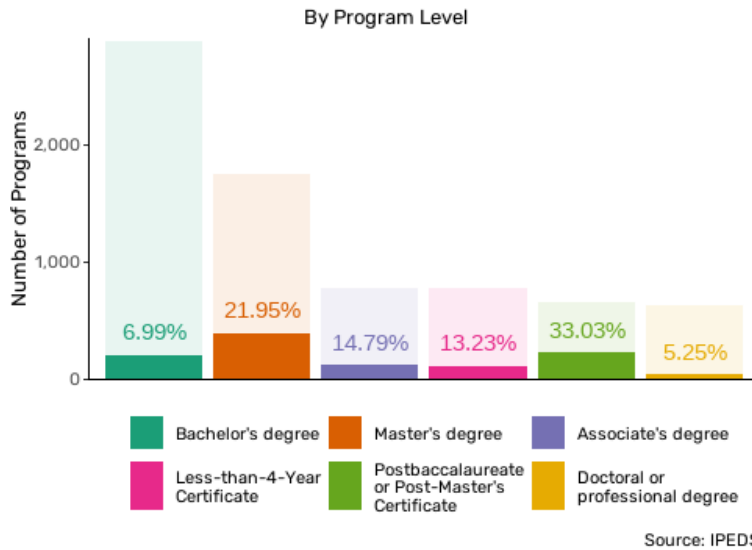
Source: IPEDS

Just as the number of distance education students has grown, the number of distance education programs has also grown, allowing students a wider variety of distance education options. A distance education program is defined as a program for which all the required coursework for program completion can be completed entirely via distance education courses.

In 2017, Massachusetts colleges and universities offered 567 distance education programs. By 2021, that number had grown to 1,048, an increase of 85%. In 2021, the sector with the largest number of distance education programs was Private, Not-For-Profit, which offered 15% of its programs (724 programs) via distance education. Across all sectors, 49% of Massachusetts institutions offered at least one program that could be completed entirely via distance education.

In 2021, Massachusetts institutions offered distance education programs in 34 disciplines. These accounted for 14% of all programs offered by institutions in the state. The largest number of distance education programs were available at the Master's degree level; there were 383 such programs across 51 Massachusetts institutions. The programs most commonly offered via distance education were in Business, Management, Marketing, and Related Support Services.

Massachusetts Programs Available via Distance Education, 2021



Five most common distance education programs in Massachusetts, 2021

Program Level	Discipline	Distance Education Programs
Master's degree	Business, Management, Marketing, and Related Support Services	99
Master's degree	Education	74
Bachelor's degree	Business, Management, Marketing, and Related Support Services	61
Master's degree	Health Professions and Related Programs	55
Postbaccalaureate or Post-Master's Certificate	Education	50

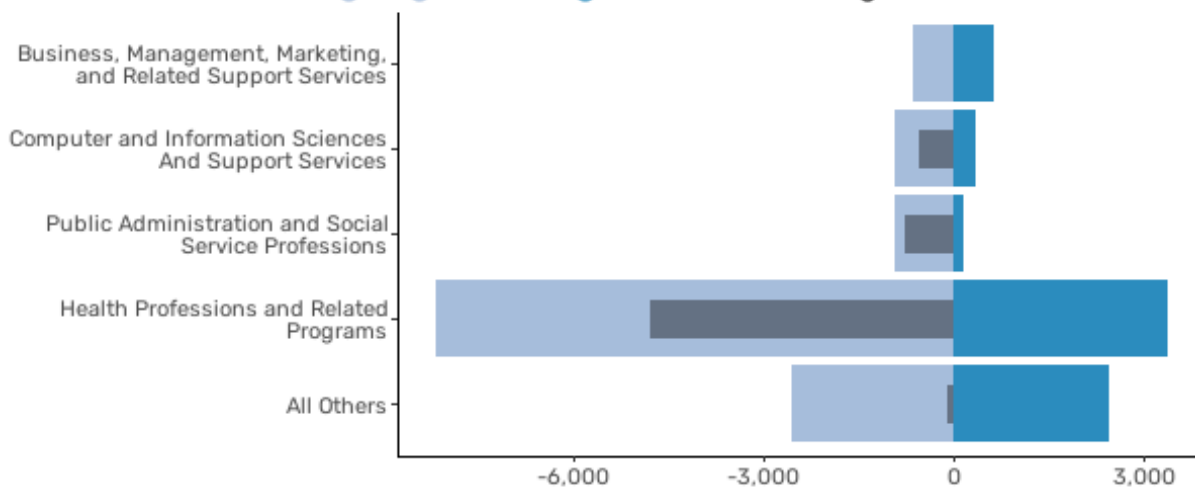
Source: IPEDS

## Out-of-State Learning Placements

These learning placements include supervised field experiences such as, but not limited to, clinical rotations, internships, or student teaching.

In 2021, 7,045 total incoming students (those attending institutions in other states) participated in learning placements in Massachusetts, and 13,160 outgoing students attending Massachusetts institutions participated in learning placements in other states. The higher number of outgoing students may indicate that there are limited job opportunities for new college graduates in Massachusetts. It could also be a sign that many out-of-state students are attending Massachusetts institutions (either via distance education or in person) but doing their learning placements back at home.

Massachusetts **Outgoing**, **Incoming**, and **Net** Learning Placements, 2021

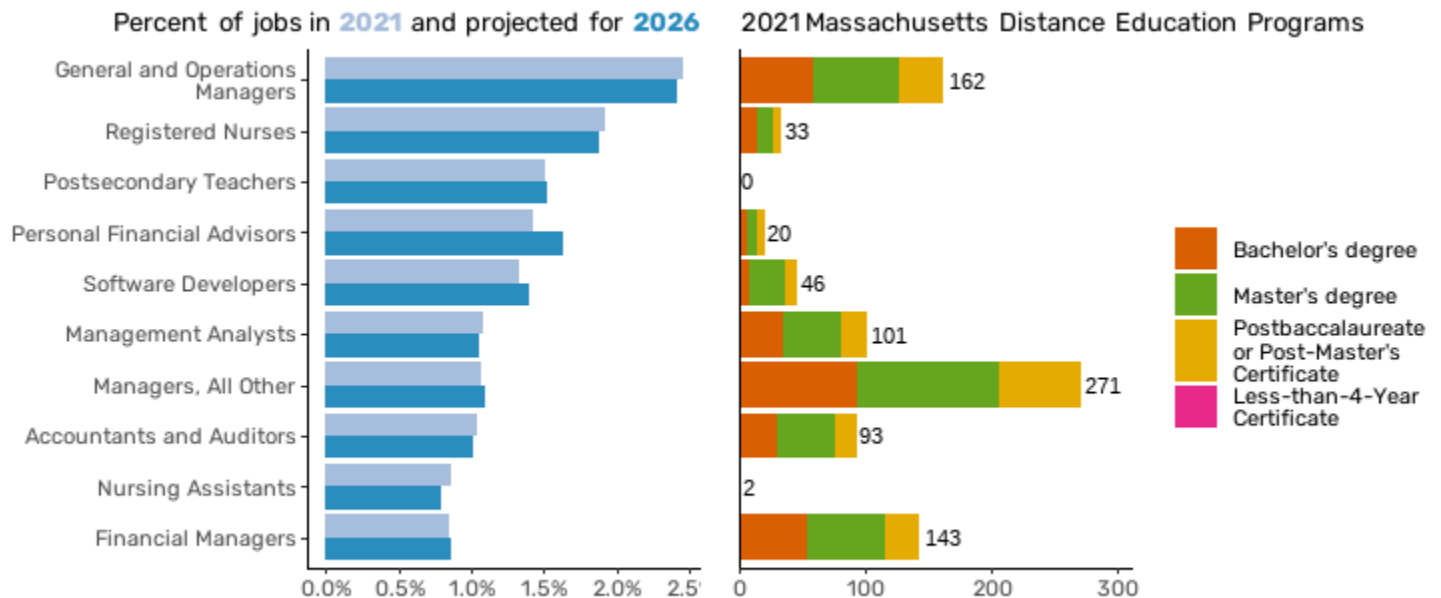


Source: NC-SARA

## Workforce Development

What are the top occupations in Massachusetts that require a postsecondary credential or degree?

### Top Massachusetts Occupations in That Require Some Postsecondary Education



Sources: Lightcast, IPEDS

A number of the largest occupations that require postsecondary education are expected to grow as shares of total employment over time, increasing the need for college-educated workers in Massachusetts. Of these ten occupations, Massachusetts colleges and universities offer distance education programs at the typical entry level of education, or one level higher, in nine of them.

The state's ten largest occupations requiring a postsecondary credential comprised 14% of Massachusetts' total jobs in 2021. Among these occupations, the largest is General and Operations Managers, and the one expected to grow by the largest percentage from 2021 to 2026 is Personal Financial Advisors.

## What skills are in demand?

Among jobs with higher education requirements, the skills in highest demand in Massachusetts are the “common” skills of Communications, Management, and Leadership. Common skills are prevalent across many different industries and include personal attributes, behaviors, competencies, and learned skills. Among more job-specific specialized skills, those most in-demand in Massachusetts, based on job posting language in 2022 that also mentioned a college degree, are Marketing, Finance, and Computer Science.

### Top 10 In-Demand Specialized Skills in Massachusetts

- Marketing
- Finance
- Computer Science
- Auditing
- Nursing
- Accounting
- Data Analysis
- Workflow Management
- Project Management
- Agile Methodology

Source: Lightcast

#### Data Details:

- Enrollment data include institutions that do not participate in Title IV financial aid.
- The five most common distance education programs may include more than five programs if there are ties.
- In the data on outgoing distance education students, please note that a small amount of the increase in students is due to an increase in the number of institutions participating in SARA and therefore reporting data.
- Outgoing distance education data exclude students studying at institutions in California, Northern Mariana Islands, Palau, Guam, Federated States of Micronesia, Marshall Islands and American Samoa.
- The out-of-state learning placements graph includes the top three programs, based on 2-digit CIP code, ranked by the number of incoming placements, the top three programs ranked by the number of outgoing placements, and the top three programs with the largest incoming vs. outgoing differences. In many cases, there is overlap in these lists. Data exclude incoming placements from institutions in California and the U.S. Territories listed above.
- The occupation graph includes the top 10 occupations that typically require a postsecondary credential or degree, based on 2021 data and 2026 projections. The top 10 for both time intervals are included, though there is significant overlap. Occupations are based on 6-digit SOC code and ranked by the number of jobs. All types of workers are counted, including those who are self-employed and those not covered by Unemployment Insurance. The distance education programs connected to these occupations are based on Lightcast's CIP-SOC crosswalk. Only programs at each occupation's typical entry level of education plus one level higher are included.