

Consistently High Demand for Degreed Professional in the Commonwealth Workforce

Associate's Degrees

Table 5. States with the largest shares of employment in occupations that typically require an associate's degree, May 2013

State	Employment share (percent)	Number of jobs	Median annual wage
United States, total	4.3%	5,719,860	\$58,240
Massachusetts	5.2	169,010	66,460
Vermont	5.1	15,360	55,320
South Dakota	5.1	20,490	46,560
West Virginia	5.0	35,580	49,080
Rhode Island	4.9	22,450	66,060
Delaware	4.9	20,220	62,970
Michigan	4.9	194,970	56,770
Ohio	4.8	245,980	55,730
Montana	4.7	20,560	52,210
Maine	4.7	27,170	56,090

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics survey (employment and wage data) and Employment Projections program (occupational education-level designations).

Consistently High Demand for Degreed Professional in the Commonwealth Workforce

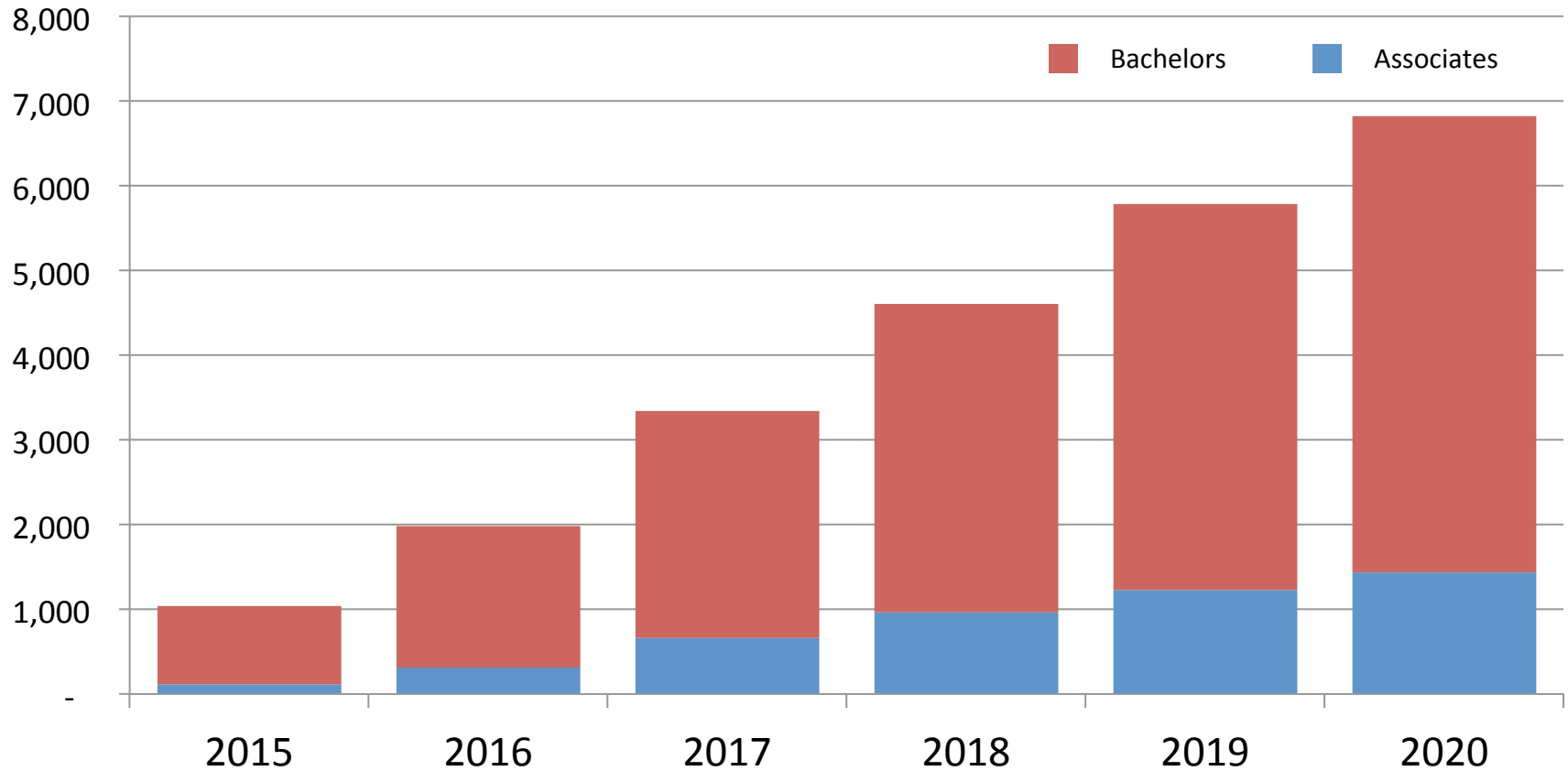
Bachelor's Degrees

Table 6. States with the largest shares of employment in occupations that typically require a bachelor's degree, May 2013

State	Employment share (percent)	Number of jobs	Median annual wage
United States, total	18.0%	23,829,150	\$68,190
District of Columbia	32.2	214,640	92,340
Massachusetts	22.7	740,620	79,470
Virginia	22.3	808,730	76,360
Maryland	22.0	557,570	77,710
Connecticut	21.7	354,330	78,880
Washington	21.0	593,320	75,190
California	20.3	2,989,710	79,680
Colorado	20.2	463,740	69,400
New York	19.6	1,688,300	78,900
Delaware	19.4	79,820	72,930

Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics survey (employment and wage data) and Employment Projections program (occupational education-level designations).

Estimated Shortfall in Public Higher Education Degreed Workers Compared with Estimated Need: 2015–2020



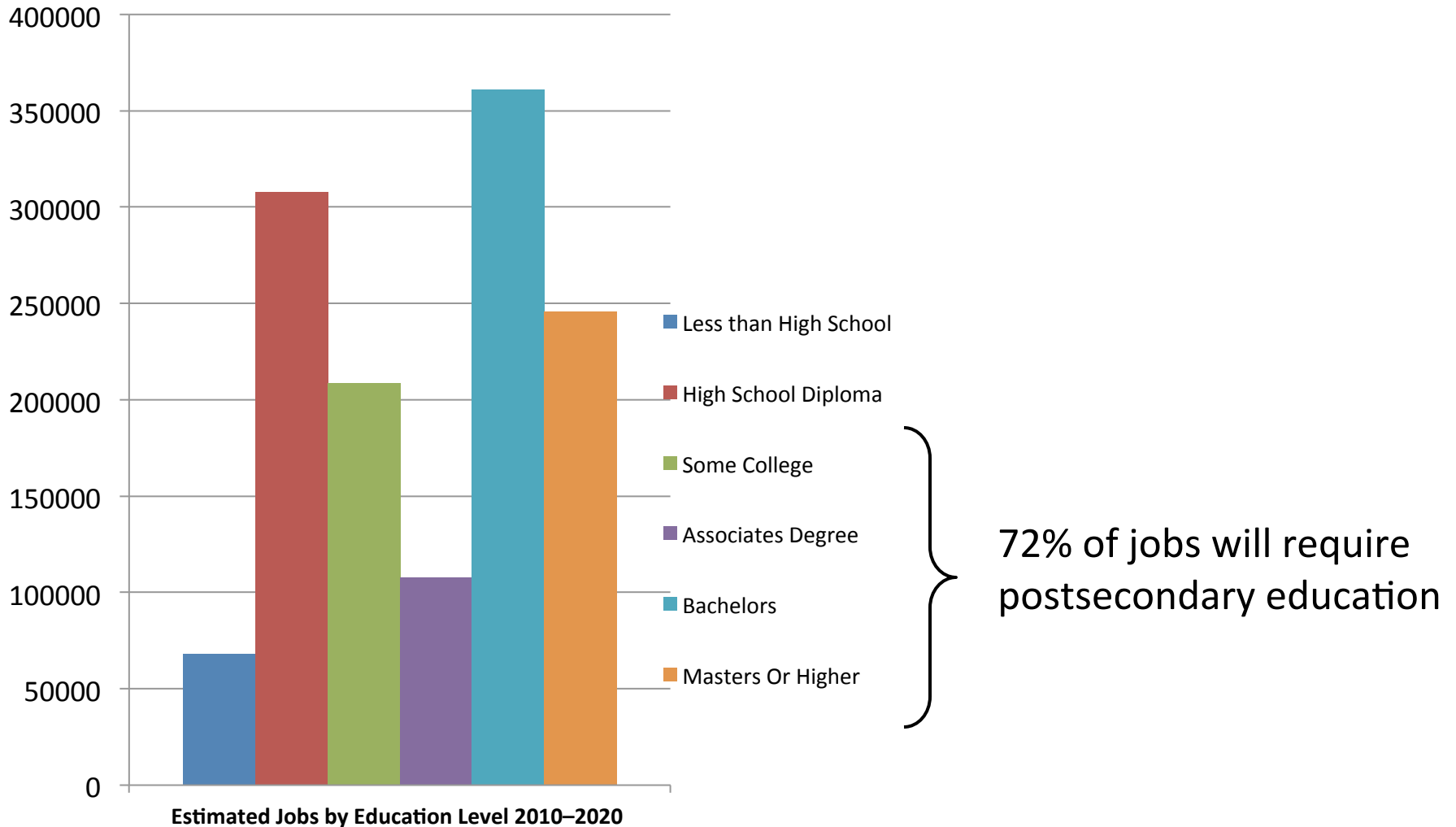
Source: “Job Growth and Education Requirements Through 2020”, Georgetown Center on Education and the Workforce

“The Perfect Storm”

- High Percentages of jobs requiring a college education
- Growth in jobs that require a college-educated workforce
- Declines in college-age population
- Persistent low college completion rates
- Persistent gaps in college enrollment and completion among growing underserved populations.

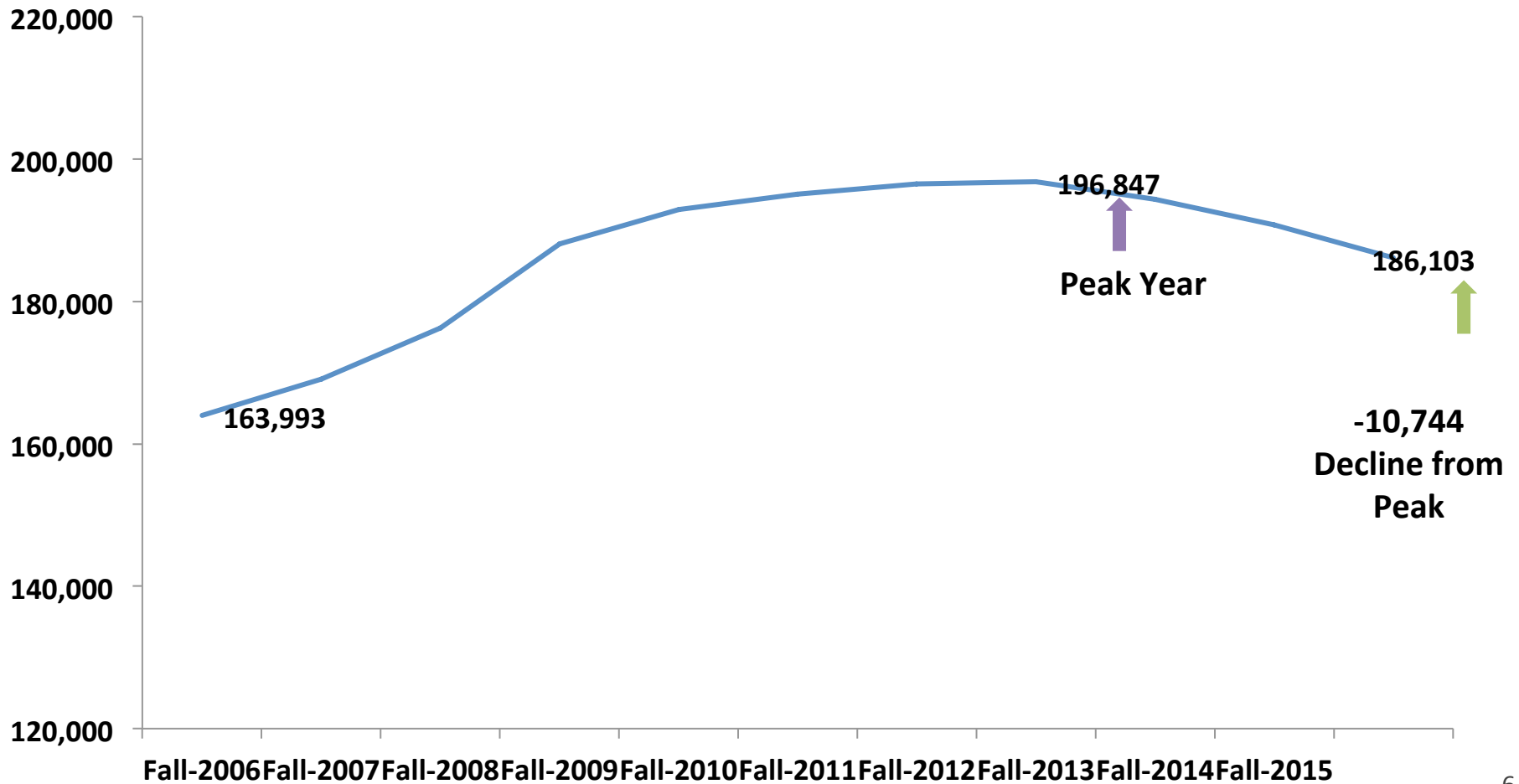
Public Higher Education in Massachusetts has been grappling with relatively flat student outcomes at a time in which the demand for college degrees is perpetually increasing.

Growth in Jobs that Require a College-Educated Workforce: 2010–2020

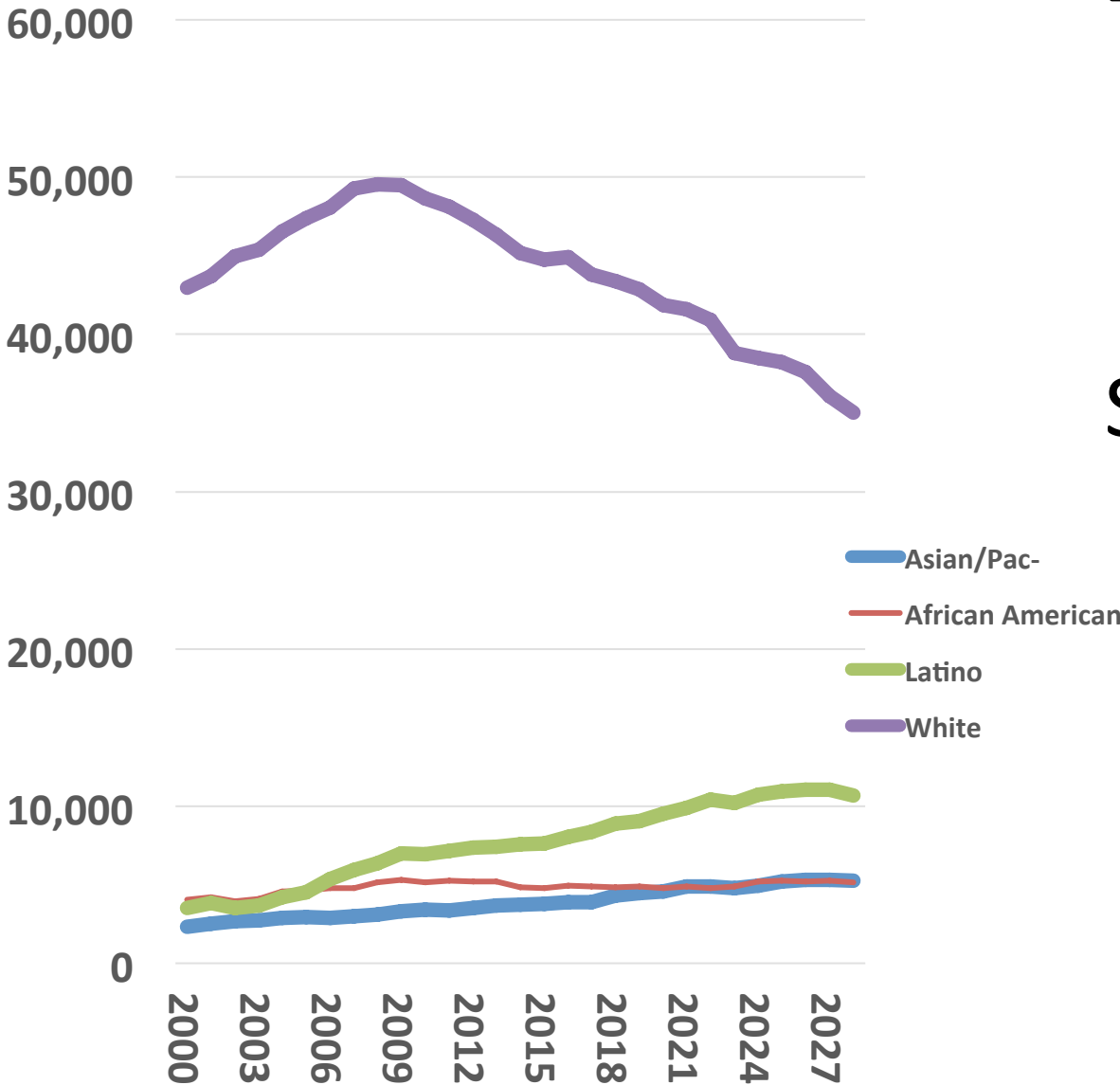


Declines in Enrollment

Fall Undergraduate Enrollment: System Total

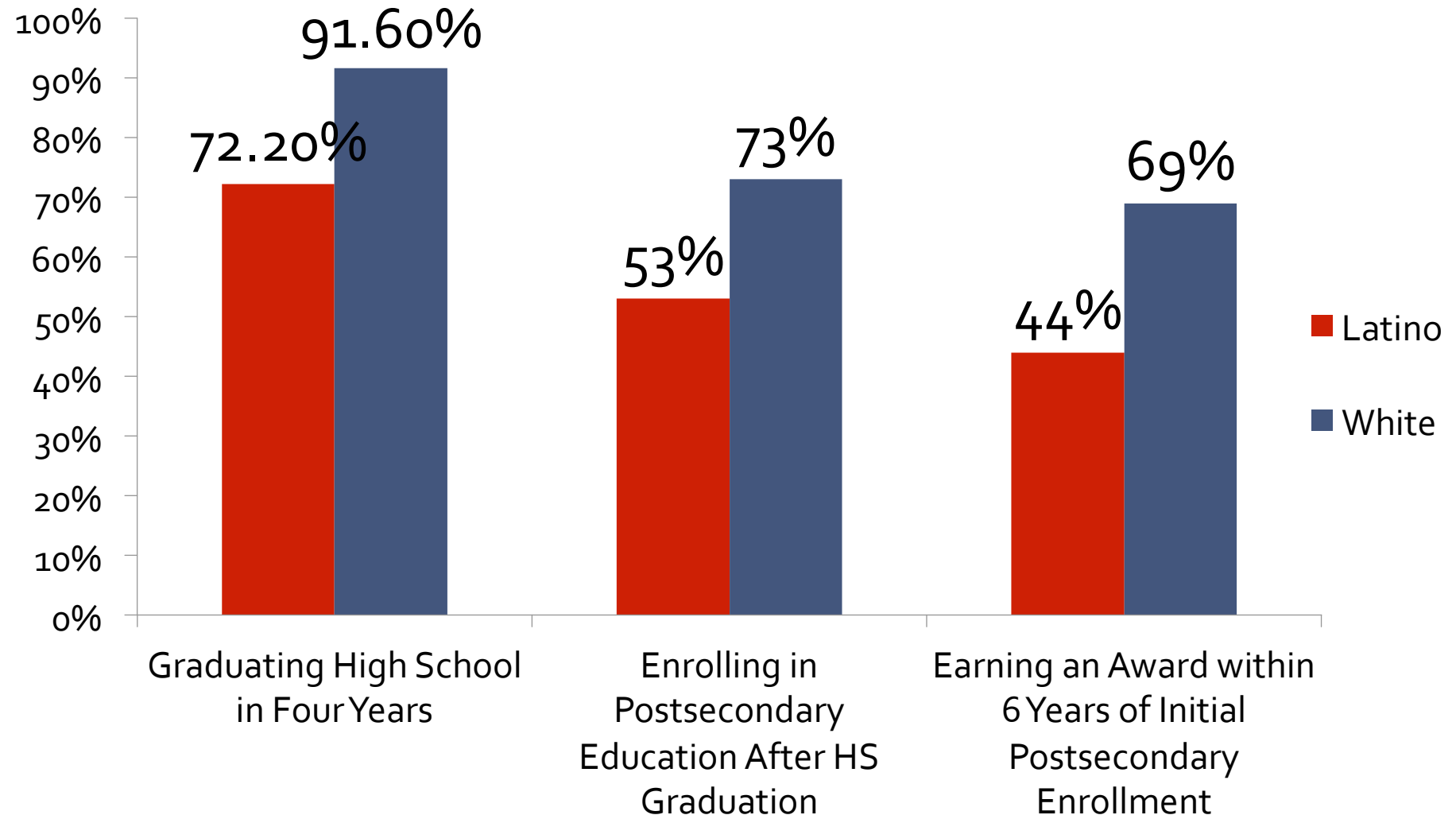


Latinos are the Only HS Graduates Expected Significantly to Increase

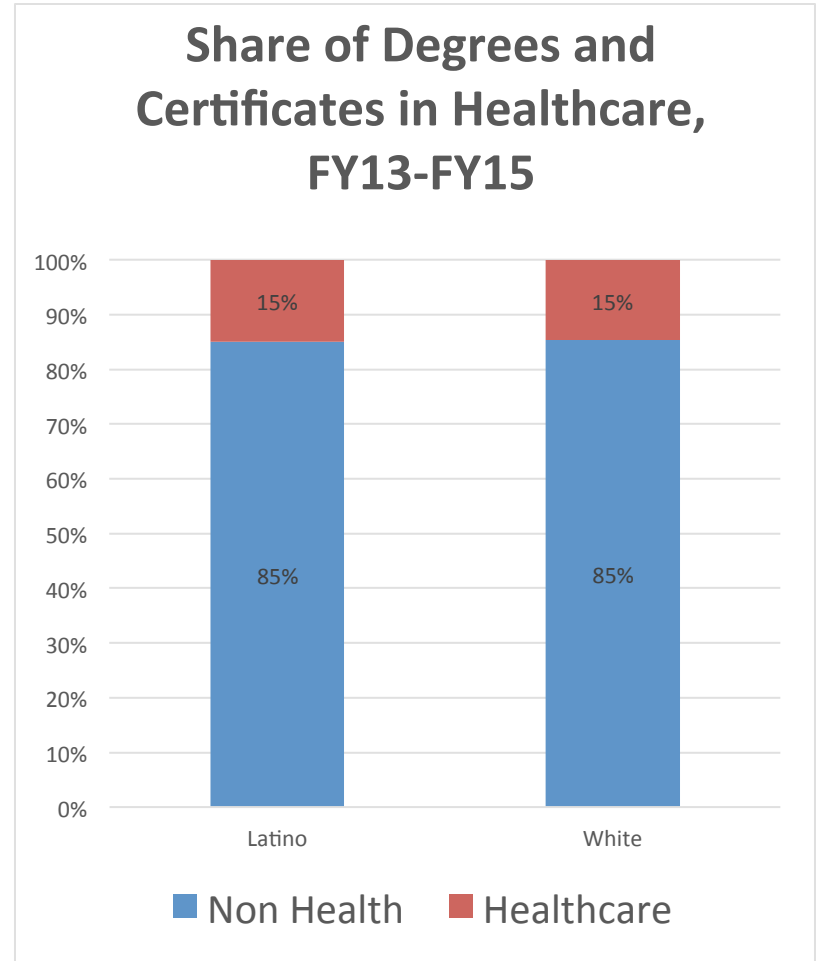
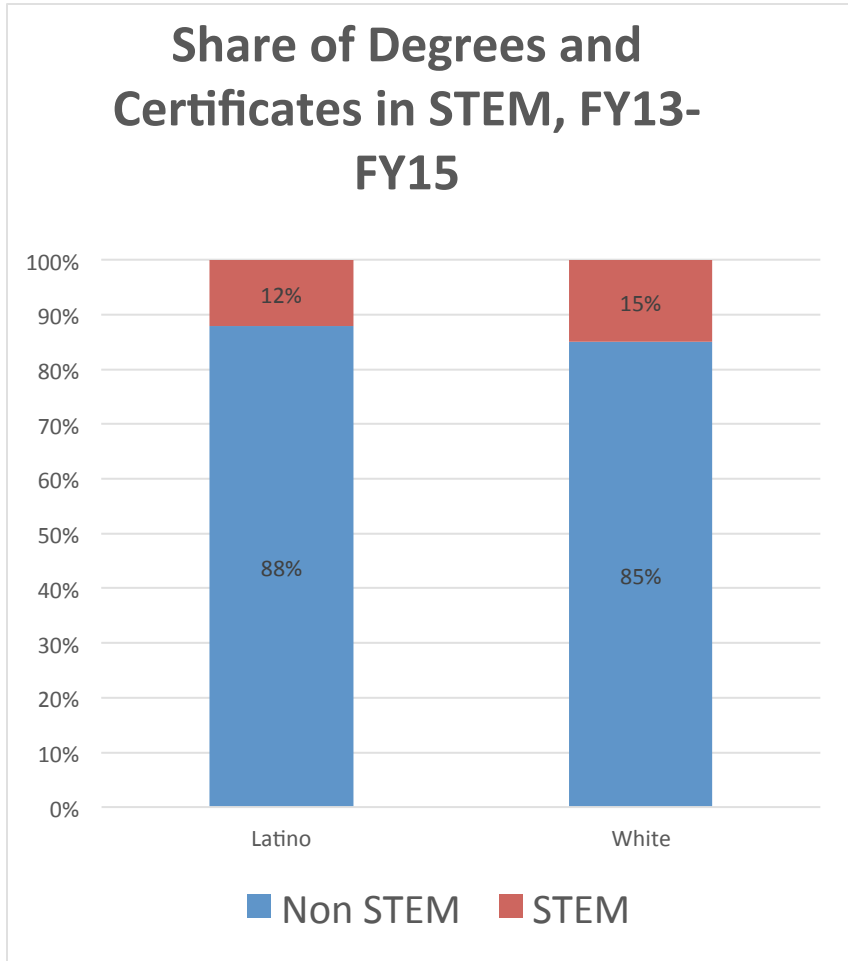


Source: Western Interstate Commission for Higher Education, 2012.

Gaps in Educational Attainment for Latino Public High School Graduates in Massachusetts

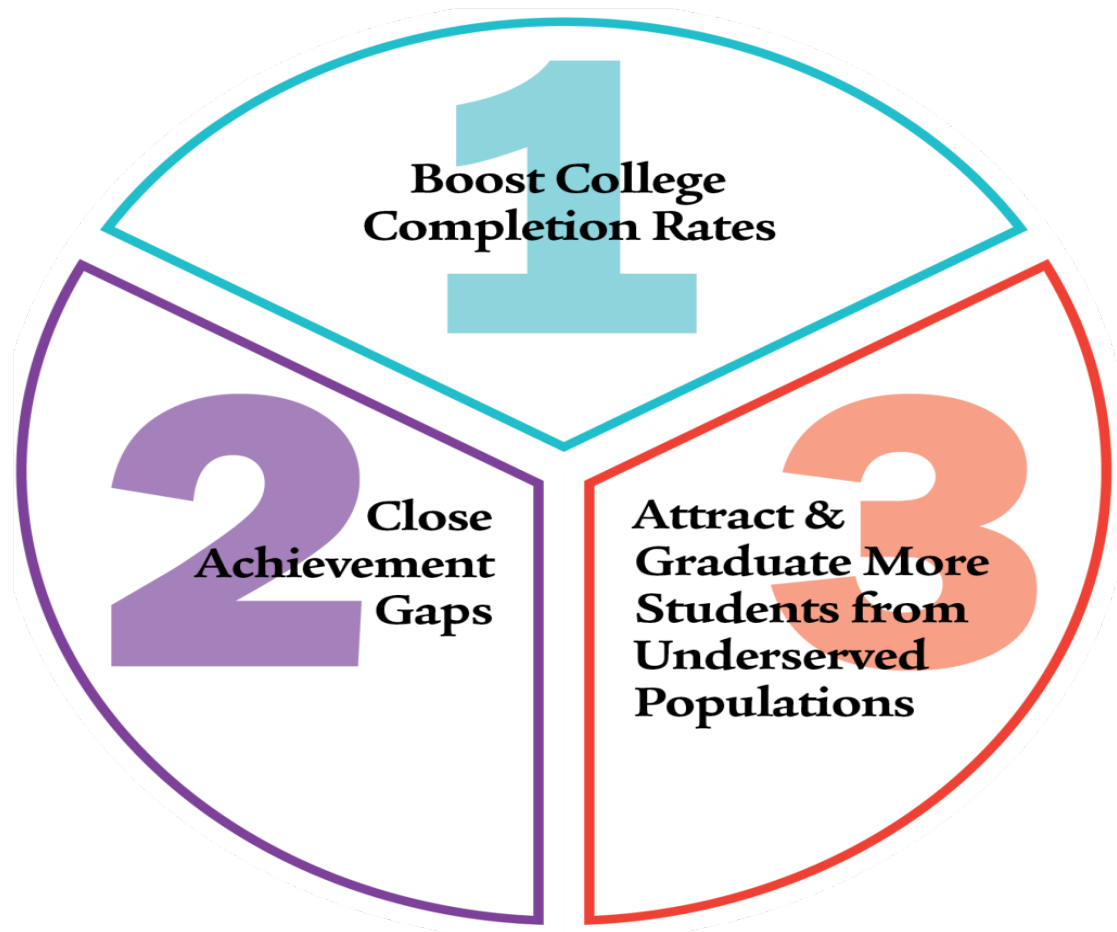


Degrees Conferred in High Need and High Earning Fields



Strategies to Address Declines

“The Big Three”



Strategies to Address Declines

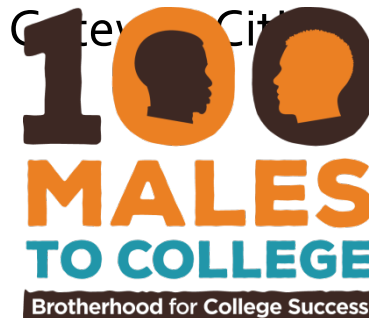
“The Big Three”

1 Boost College Completion Rates

- Dev’l Math Experiment Launched
- System-wide Transfer Pathways Developed for Six Majors
- Guided Pathways to Success

2 Close Achievement Gaps

- Low-Income Males / Males of Color
 - Cross-agency work w/ EEC and ESE
 - Pilot in



3 Attract & Graduate More Students from Underserved Populations

- Study of Enrollment Potential Among Underserved Groups
- Financial Aid Review and Redesign

GPSTEM - Comprehensive Data Integration System (CDIS)

Types of Data Used:

LABOR MARKET INFORMATION

Consolidation of data regarding academic programs and their linkages to specific occupations and careers.



STUDENT ACADEMIC GUIDANCE

Real time inventory of participating college program offerings organized regionally by industry, career, and occupation opportunities.



STUDENT WORKFORCE OUTCOMES

Longitudinal data tracking student academic activity correlated to occupation outcomes.



AGGREGATE ACADEMIC OUTCOMES

Correlating and analyzing individual outcomes into aggregates will provide rich querying and reporting capabilities.



FEDERAL LEVEL

Federal agencies provide longitudinal data and standardized definitions for data and standardized definitions for occupations. Longitudinal data can be shaped by future outlook, industry, career cluster, and job family.



U.S. DEPARTMENT OF LABOR (DOL)

STATE LEVEL

State workforce boards and state workforce agencies create statewide plans, share labor market information, develop performance reports, and maintain lists of eligible training providers.



STATE WORKFORCE BOARDS / AGENCIES

LOCAL LEVEL

Real time feeds from online employment sites will allow validation against longitudinal data and add detailed context to real opportunities.



EMPLOYMENT OPPORTUNITY RESOURCES

STUDENT DATA ANONYMIZER



Occupations can be correlated to educational program data regarding: finance, enrollment, human resources, completions, graduation rates, and more.

CDIS DATA WAREHOUSE



STUDENT PATHWAYS APPLICATION

RESEARCH AND REPORTING TOOL



U.S. DEPARTMENT OF EDUCATION (ED)

The consortium acts as governing body over the system. Its charge is to establish initial system requirements and act as data stewards during the grant period.



GPSTEM CONSORTIUM

High school and adult students use a suite of tools to aid in the academic path selection. Tools provide insight based on requirements, interests, opportunities, and/or prior experiences.



STUDENTS

State community colleges contribute to a statewide database, aggregate data for federal grant reporting, and analyze data to assist with program improvement.



SCHOOLS & COLLEGES

Who Uses the Data?

ADMINISTRATORS/ INSTITUTIONAL RESEARCH

- Allocate resources to most effective programs
- Adjust program design to improve results



PROGRAM MANAGERS/ JOB COUNSELORS/ EDUCATORS

- Customize services for individual needs
- Ensure quality services for target populations
- Replicate success; identify areas for improvement



STUDENTS AND WORKERS

- Choose training/education providers with record of success
- Select careers supported by employment outcome information



BUSINESSES

- Create pipeline of motivated and capable candidates
- Build confidence in program accountability
- Enhance willingness to partner with colleges



Which Data Is Collected?

- Demographics
- Program eligibility
- Services received
- Employment and earnings outcomes
- Postsecondary educational attainment
- Skills gains
- Program costs