



Graduate School of Education
Penn GSE

INSTITUTE *for* RESEARCH *on* HIGHER EDUCATION



VANDERBILT
PEABODY COLLEGE



HIGHER EDUCATION
POLICY INSTITUTE

2016 COLLEGE AFFORDABILITY DIAGNOSIS

MASSACHUSETTS



Suggested Citation:

Institute for Research on Higher Education. (2016). *College Affordability Diagnosis: Massachusetts*. Philadelphia, PA: Institute for Research on Higher Education, Graduate School of Education, University of Pennsylvania. <http://www2.gse.upenn.edu/irhe/affordability-diagnosis>

Image by [twenty20.com/@michellehaha](https://www.twenty20.com/@michellehaha)

MASSACHUSETTS

COLLEGE
AFFORDABILITY
RANKING

43

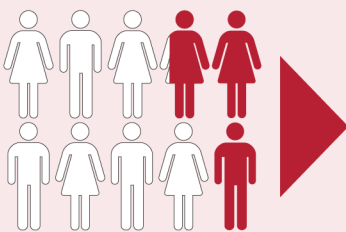
Massachusetts educates the largest concentration of its undergraduates in its private four-year nondoctoral colleges and universities. One need only consider that a student would have to work, on average, 69 hours a week to cover the full-time costs of attending these institutions to see why the state ranks near the bottom of the national College Affordability rankings. Families earning less than \$30,000 a year would need more than 100 percent of their annual income to cover the cost of attending these schools full time.

The state's public two-year institutions are also less affordable compared to other states. Students would need to work, on average, 25 hours per week to cover costs of attending these institutions full time. Lower income families would need to dedicate over 40 percent of their annual family income to attend community college full time.

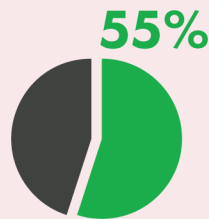
Affordability is also among the complex array of factors leading to disparities in college attainment between Whites and Hispanics—the state's largest minority group—in Massachusetts. Unless lawmakers take measures to address affordability, those gaps are likely to persist.

- ▶ The percent of family income needed to pay for attending college full time has increased since 2008 at all types of postsecondary institutions in Massachusetts.
- ▶ Massachusetts provides \$301 per student in need-based financial aid to attend public institutions, compared with the national average of \$474.
- ▶ By 2020, 15 percent of high school graduates in the state will be Hispanic. As of 2014, Hispanic college attainment rates substantially lag behind White attainment rates (24 percent vs. 56 percent).
- ▶ By 2020, 72 percent of jobs in Massachusetts will require a postsecondary credential. As of 2014, 56 percent of young adults (age 25–34) and 51 percent of working-age adults (age 35–64) had an associate's degree or higher.

More Massachusetts students attend **private four-year nondoctoral institutions** than any other kind of institution, with **28 percent enrolled**. Families would spend, on average, **55 percent of annual income** to pay for full-time attendance.

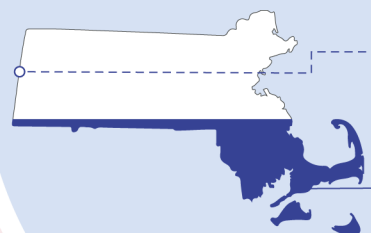


Percentage of students attending private four-year nondoctoral institutions



Percentage of family income required to pay for full-time attendance

On average, **51 percent** of working-age Massachusetts state residents (age 25–64) have an associate's degree or higher. By 2020, **72 percent of jobs will require an associate's degree or higher**.



72%

Jobs requiring associate's degree or higher by 2020

51%

Workforce with associate's degree or higher, as of 2014

WHAT PERCENT OF FAMILY INCOME would be needed to attend college full time?

	Percent of Income 2008	Percent of Income 2013	Ranking*
Public Two-Year (27 percent of enrollment) **	17	18	32
Public Four-Year Nondoctoral (14 percent of enrollment)	26	32	40
Public Research (13 percent of enrollment)	25	29	24
Private Four-Year Nondoctoral (28 percent of enrollment)	49	55	42
Private Research (19 percent of enrollment)	43	45	11

* This measure ranked states 1-50. The lower the ranking on this measure, the better a state performed on overall college affordability.

** Enrollment may not add up to 100% due to rounding.

NOTE: The "net price" reported in the following tables for each sector of higher education includes tuition, mandatory fees, room/board and books *minus* all financial aid (federal, state and institutional).

For information on how these measures were calculated or which institutions were included, please see the technical report, available at www2.gse.upenn.edu/irhe/affordability-diagnosis.

STATE INCOME PROFILE

Income

\$0—30,000

Average Income in Group

\$16,929

Families in Group

17%

Income

\$30,000 —48,000

Average Income in Group

\$39,127

Families in Group

12%

Income

\$48,000—75,000

Average Income in Group

\$61,531

Families in Group

18%

Income

\$75,000—110,000

Average Income in Group

\$91,961

Families in Group

19%

Income

\$110,000 and above

Average Income in Group

\$201,493

Families in Group

34%

PERCENT OF FAMILY INCOME needed to attend full time:

PUBLIC TWO-YEAR INSTITUTION

	Net Price	% of Income Needed to Pay Net Price
\$0—30,000	6,860	41
\$30,000—48,000	7,411	19
\$48,000—75,000	9,076	15
\$75,000—110,000	11,239	12
\$110,000 and above	11,586	6

Students would have to work 25 hours a week, on average, at federal minimum wage to pay for college expenses to attend a public two-year institution full time.

PUBLIC FOUR-YEAR NONDOCTORAL INSTITUTION

	Net Price	% of Income Needed to Pay Net Price
\$0—30,000	11,931	70
\$30,000—48,000	13,178	34
\$48,000—75,000	16,359	27
\$75,000—110,000	18,935	21
\$110,000 and above	20,014	10

Students would have to work 42 hours a week, on average, at federal minimum wage to pay for college expenses to attend a public four-year nondoctoral institution full time.

PUBLIC RESEARCH INSTITUTION

	Net Price	% of Income Needed to Pay Net Price
\$0—30,000	10,095	60
\$30,000—48,000	11,193	29
\$48,000—75,000	14,640	24
\$75,000—110,000	19,510	21
\$110,000 and above	21,974	11

Students would have to work 40 hours a week, on average, at federal minimum wage to pay for college expenses to attend a public research institution full time.

Source: Income data: U.S. Census Bureau; Net price data: U.S. Department of Education.

For information on how these measures were calculated or which institutions were included, please see the technical report, available at www2.gse.upenn.edu/irhe/affordability-diagnosis.

STATE INCOME PROFILE

Income

\$0–30,000

Average Income in Group

\$16,929

Families in Group

17%

Income

\$30,000 –48,000

Average Income in Group

\$39,127

Families in Group

12%

Income

\$48,000–75,000

Average Income in Group

\$61,531

Families in Group

18%

Income

\$75,000–110,000

Average Income in Group

\$91,961

Families in Group

19%

Income

\$110,000 and above

Average Income in Group

\$201,493

Families in Group

34%

PERCENT OF FAMILY INCOME needed to attend full time:

PRIVATE FOUR-YEAR NONDOCTORAL INSTITUTION

	Net Price	% of Income Needed to Pay Net Price
\$0–30,000	21,892	129
\$30,000–48,000	22,546	58
\$48,000–75,000	25,438	41
\$75,000–110,000	28,343	31
\$110,000 and above	36,058	18

Students would have to work 69 hours a week, on average, at federal minimum wage to pay for college expenses to attend a private four-year nondoctoral institution full time.

PRIVATE RESEARCH INSTITUTION

	Net Price	% of Income Needed to Pay Net Price
\$0–30,000	15,902	94
\$30,000–48,000	16,378	42
\$48,000–75,000	21,400	35
\$75,000–110,000	28,580	31
\$110,000 and above	42,572	21

Students would have to work 62 hours a week, on average, at federal minimum wage to pay for college expenses to attend a private research institution full time.

Source: Income data: U.S. Census Bureau; Net price data: U.S. Department of Education.

For information on how these measures were calculated or which institutions were included, please see the technical report, available at www2.gse.upenn.edu/irhe/affordability-diagnosis.

WHAT INVESTMENT DOES THE STATE MAKE to financial aid programs to make college more affordable?

TOTAL STATE FINANCIAL AID DOLLARS PER STUDENT AT PUBLIC TWO- AND FOUR-YEAR INSTITUTIONS

	2004	2007	2013	National Average, 2013
Need-Based Aid	354	334	301	474
Other Aid	5	1	47	210

TOTAL STATE FINANCIAL AID DOLLARS PER STUDENT AT PRIVATE INSTITUTIONS

	2004	2007	2013	National Average, 2013
Need-Based Aid	89	82	80	644
Other Aid	130	128	126	221

Data Source: National Association of State Student Grant and Aid Programs and the U.S. Department of Education.

HOW MUCH IS ANNUAL UNDERGRADUATE BORROWING for students who earn and do not earn degrees?

- ▶ Students who enroll in public research institutions typically borrow \$4,405 annually.
- ▶ Students who enroll at private research institutions typically borrow \$2,274 annually.
- ▶ Students who enroll at public four-year nondoctoral institutions typically borrow \$4,584 annually.
- ▶ Students who enroll at private four-year nondoctoral institutions typically borrow \$4,492 annually.
- ▶ In contrast, students who enroll at public two-year institutions borrow \$1,385 annually.

Data Source: U.S. Department of Education.

For information on how these measures were calculated or which institutions were included, please see the technical report, available at www2.gse.upenn.edu/irhe/affordability-diagnosis.

WHAT CONSIDERATIONS SHOULD STATES take into account in establishing policies on college affordability?

Workforce Needs

- ▶ By 2020, 72 percent of jobs in Massachusetts will require a postsecondary credential.
- ▶ Massachusetts is 4th in terms of states with the highest percentage of jobs that will require a postsecondary credential in the future.

Educational Attainment

- ▶ As of 2014, 56 percent of young adults in Massachusetts (ages 25-34) had an associate's degree or higher compared to 42 percent nationally.
- ▶ As of 2014, 51 percent of working age adults in Massachusetts (ages 35-64) had an associate's degree or higher, compared to 40 percent nationally.

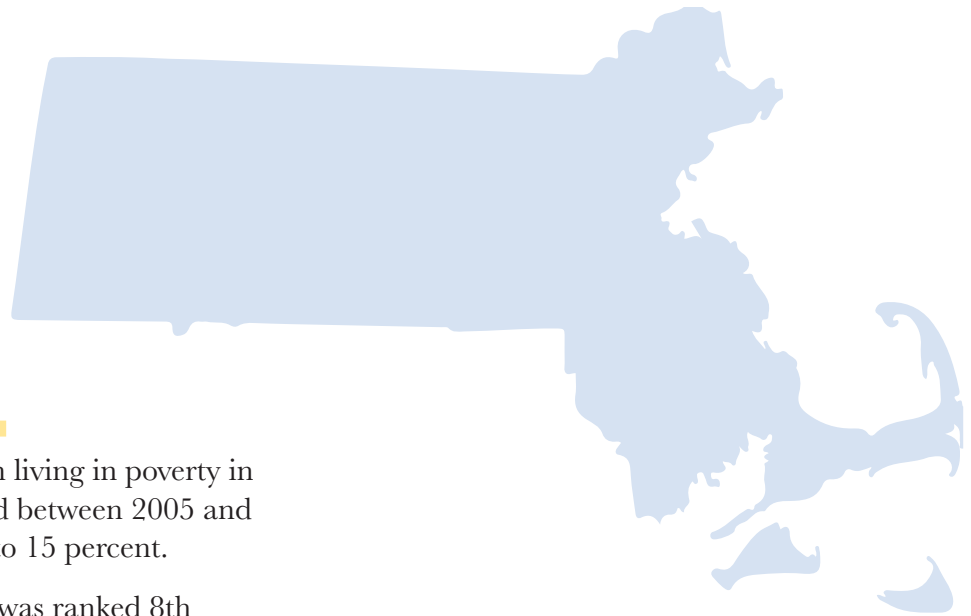
Educational Attainment by Race/Ethnicity

- ▶ As of 2014, on average 51 percent of working age Massachusetts state residents (age 25-64) have an associate's degree or higher. However, attainment varies by race: 56 percent of Whites have an associate's degree or higher but the other three most populous racial groups (Hispanics, Blacks and Asians) have attainment of 24 percent, 33 percent and 65 percent respectively.

Educational Pipeline in Massachusetts

- ▶ In 2020, Massachusetts's public high school graduates are projected to be 15 percent Hispanic, 8 percent Black and 7 percent Asian.
- ▶ The total number of high school graduates at public institutions in Massachusetts are projected to decrease by 8 percent between 2020 and 2028.
- ▶ However, the percent of graduates that are Hispanic in Massachusetts is projected to increase by 3 percent and the percent of graduates that are White is projected to decline by 6 percent while the percent of graduates that are Black is projected to grow by 1 percent over the same time period. The percent of graduates that are Asian is projected to grow by 2 percent.
- ▶ While the decline in White graduates is similar but slightly more pronounced than the national projections (4 percent decline in White graduates between 2020 and 2028), the growth in Hispanic, Black, and Asian graduates in Massachusetts are all similar to national patterns (Hispanics are only projected to increase by 2 percent, Blacks are projected to increase by 1 percent, and Asians are projected to grow by 1 percent of national graduates by 2028).

For information on how these measures were calculated or which institutions were included, please see the technical report, available at www2.gse.upenn.edu/irhe/affordability-diagnosis.



Children in Poverty

- ▶ The percent of children living in poverty in Massachusetts increased between 2005 and 2013, from 14 percent to 15 percent.
- ▶ In 2013 Massachusetts was ranked 8th in terms of percent of children living in poverty. Rank order is from lowest to highest percentages of poverty.

Student Share of Total State and Tuition Revenues for Public Higher Education

- ▶ In Massachusetts, total student share of state and net tuition revenues per full time student was 22 percent in 1989, 30 percent in 2000, and 45 percent in 2014, adjusted for inflation. This pattern shows that net tuition revenues were increasing as a share of higher education funding from 1989 to 2000 but after the 2007-08 recession net tuition revenues increased even more rapidly.

For information on how these measures were calculated or which institutions were included, please see the technical report, available at www2.gse.upenn.edu/irhe/affordability-diagnosis.

POLICY QUESTIONS FOR STATE LEADERS

- ▶ In what types of higher education institutions (sectors) has the state lost ground in college affordability?
- ▶ What are the economic circumstances of families in the state (by income quintiles, by different regions of the state, etc.)? What are the implications for college affordability?
- ▶ What is the projected demand for an educated workforce in the state? How far is your state from addressing this demand? To what extent is college affordability one of the barriers in educating more state residents?
- ▶ What are the gaps in college attainment between Whites and minority groups in your state? How can state policies on college affordability help to narrow these gaps?
- ▶ How is tuition policy related, if at all, to the income of the students and families that the state must educate?
- ▶ If tuition policy is delegated to public institutions, how does the state provide oversight to ensure that tuition and other educational costs are affordable for students and families?
- ▶ In what ways can state policies related to tuition be more tightly coupled with state policies on institutional appropriations and financial aid to address college affordability?
- ▶ To what extent do tuition policies encourage access to higher education and completion of certificates and degrees? How do financial aid policies address the needs of both young and working-age students?
- ▶ In what ways has the state provided incentives for institutions to improve efficiency and productivity in order to reduce the overall costs to students?
- ▶ Research shows that students who work more than 20 hours a week are less likely to make progress toward or complete their certificate or degree programs. How is the state alleviating the need for students to work more than 20 hours a week so that they can focus more on earning their certificates and degrees?
- ▶ How much are students borrowing relative to the percent of family income needed to pay for postsecondary education?
- ▶ Are all state policies that influence college affordability inadvertently stratifying higher education by income or race?

For information on how these measures were calculated or which institutions were included, please see the technical report, available at www2.gse.upenn.edu/irhe/affordability-diagnosis.

