



# Higher Education Advantage

## Economic Reality or Wishful Thinking?

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The notion that New England has maintained a considerable labor supply advantage relative to other states because of its highly educated population is a cornerstone of thinking regarding the regional economy. For many years, we have drawn comfort from the view that our superior intellectual firepower will ensure economic prosperity for the region.

Certainly, the scientific and engineering research and innovation that have come from New England's remarkable array of colleges and universities have contributed greatly to the economic well-being of the region. But how well are the region's higher education institutions positioned to meet the inexorable demand for college graduates in the economy—and thereby, create jobs, income growth and economic stability?

### College graduates

A look at various measures of educational attainment in the region's largest state is instructive. Although

Massachusetts still has among the best-educated population in the nation, a number of states are closing the gap.

Massachusetts historically has had a greater proportion of college-educated people than the nation. In 2001, only two states—Maryland and Colorado—had larger shares of people with bachelor's degrees or higher.

Since the mid-1980s, however, Massachusetts has lagged well behind the rest of the nation in growth of college graduates. While the nation's supply of college graduates expanded by nearly 63 percent, the Bay State's grew by just 38 percent, ranking the state a dismal 45th among the 50 states and the District of Columbia by this measure. With the exception of New Hampshire, the states with the most rapid growth in college graduates were all located outside the Northeast, mostly in the Rocky Mountain and Southern regions (see Table 1).

The *share* of college graduates also grew faster in several Mountain and Southern states than in Massachusetts (see Table 2). This was the product of strong overall population growth and even stronger growth in the number of college graduates, as these states attracted above-average shares of college-educated migrants from other states.

**TABLE 1 – SIZE OF THE COLLEGE GRADUATE POPULATION**

People 16 years old and over with a Bachelor's Degrees or Higher

The 10 States with the Most Rapid Growth in College Graduates Compared with Massachusetts and the United States

State	Average 1984 & 1985	Average 2000 & 2001	Relative Change	Rank by Relative Change
Nevada	110,456	240,516	118%	1
Florida	1,224,311	2,544,424	108%	2
Arizona	399,344	784,607	97%	3
Missouri	505,913	990,065	96%	4
New Hampshire	133,124	259,572	95%	5
Georgia	666,105	1,298,466	95%	6
Arkansas	166,038	320,724	93%	7
Alabama	302,260	583,269	93%	8
South Carolina	294,091	545,441	86%	9
Utah	182,284	337,984	85%	10
Massachusetts	1,002,624	1,378,948	38%	45
U.S. Total	29,280,303	47,657,991	63%	NA

Source: U.S. Bureau of the Census; federal Bureau of Labor Statistics; tabulations by authors.

### Growth in college-educated workforce

Massachusetts also lags behind other states in the growth of college graduates in the workforce. The Bay State's college-educated, adult workforce grew by 38 percent, ranking 43rd nationally. Again with the exception of New Hampshire, the states with the most rapidly growing number of college-educated workers were all outside the Northeast, mostly in the South and Mountain regions.

The high growth in the adult, employed, college-educated populations

of the Rocky Mountain states was due primarily to an expansion in overall population. In contrast, the growth in the Southern states was due to more intensive utilization

**TABLE 2 – SHARE OF COLLEGE GRADUATES (BACHELOR’S DEGREES OR HIGHER) IN THE WORKING-AGE POPULATION**

*The 10 States with the Largest Growth in the College-Educated Population Compared with Massachusetts and the United States*

State	Average 1984 & 1985	Average 2000 & 2001	Relative Change
Nevada	16%	17%	8%
Florida	14%	21%	50%
Arizona	18%	21%	21%
Missouri	13%	24%	76%
New Hampshire	18%	28%	54%
Georgia	16%	22%	40%
Arkansas	10%	16%	69%
Alabama	10%	17%	67%
S. Carolina	12%	18%	48%
Utah	17%	22%	30%
Massachusetts	22%	29%	29%
U.S. Total	17%	23%	37%

Source: U.S. Bureau of the Census; federal Bureau of Labor Statistics; tabulations by authors.

**TABLE 3 – NUMBER OF EMPLOYED COLLEGE GRADUATES (BACHELOR’S DEGREES OR HIGHER) BETWEEN AGES 22 AND 64**

*The 10 Most Rapidly Growing States Compared with Massachusetts and the United States, 1985 to 2001*

State	Average 1984 & 1985	Average 2000 & 2001	Relative Change	Rank in Relative Change
Florida	863,733	1,814,929	110%	1
Missouri	413,135	848,627	105%	2
Georgia	529,386	1,065,112	101%	3
Tennessee	359,884	694,572	93%	4
Nevada	93,449	175,657	88%	5
Virginia	673,415	1,262,431	88%	6
Arizona	297,453	556,108	87%	7
New Hampshire	110,844	206,210	86%	8
Utah	143,343	264,800	85%	9
Arkansas	133,893	247,130	85%	10
Massachusetts	826,458	1,136,215	38%	43
U.S. Total	23,836,626	37,935,923	59%	NA

Source: U.S. Bureau of the Census; federal Bureau of Labor Statistics; tabulations by authors.

**TABLE 4 – PROPORTION OF COLLEGE GRADUATES (BACHELOR’S DEGREES OR HIGHER) AMONG EMPLOYED PEOPLE AGES 22 TO 64**

*The 10 States with the Greatest Increase in Employed College Graduates*

State	Average 1984 & 1985	Average 2000 & 2001	Relative Change	Rank by Relative Change
Florida	20%	27%	38%	12
Missouri	20%	31%	59%	1
Georgia	21%	28%	31%	19
Tennessee	19%	26%	41%	10
Nevada	21%	20%	-4%	50
Virginia	26%	38%	42%	8
Arizona	24%	26%	12%	42
New Hampshire	24%	34%	41%	11
Utah	24%	27%	16%	38
Arkansas	15%	23%	51%	3
Massachusetts	31%	38%	21%	32
U.S. Total	24%	30%	25%	NA

Source: U.S. Bureau of the Census; federal Bureau of Labor Statistics; tabulations by authors.

of college-educated workers in their labor markets. This is evident from a sharp increase in the share of college graduates in the adult workforce in most Southern states.

For example, the number of employed college graduates in Florida doubled since the mid-1980s in part because the share of Florida’s adult workforce with a college degree rose from 20 percent to 27 percent—a relative increase of 38 percent. Georgia, Tennessee, Virginia and Arkansas all experienced similarly large increases in the share of their workers with college degrees. The share of college graduates in the Massachusetts workforce, by contrast, increased by just 21 percent (see Table 4).

### College grads in metro areas

Much of the growth in demand for college graduates has centered in the nation’s growing metropolitan areas. These metro areas also have become increasingly similar in terms of composition of industries and occupations and levels of educational attainment of the workforce. In 1985, college graduates accounted

for 36 percent of the workforce in metropolitan Boston—a far higher share than in any other major metro area. But by 2001, this gap had begun to close (see Table 5).

### Sources of labor supply

Colleges and universities play an important role in determining the size of a region’s skilled workforce by providing regular undergraduate and graduate education as well as skills upgrading and retraining of adult workers. Since the mid-1980s, colleges and universities have substantially increased their capacity to meet the rising demand for an educated workforce across the nation. The total number of college degrees awarded in the United States grew by about 504,000 or 28 percent between 1985-86 and 1998-99. The total number in Massachusetts rose by just under 10 percent.

Between academic years 1985-86 and 1998-99, the number of bachelor’s degrees granted by U.S. colleges grew by more than 22 percent from 984,100 to nearly 1.2 million. Relative increases in the number of associate degrees, master’s degrees and doctorates granted



by U.S. institutions have been even larger. However, there are sharp differences among states in the number and level of degrees conferred.

The number of bachelor's degrees awarded by colleges in the West grew by 37 percent between academic years 1985-86 and 1998-99, accounting for 30 percent of the total increase nationally. Over the same time period, the number of bachelor's degrees conferred in the South increased by nearly 90,000, rising by more than 30 percent and accounting for 42 percent of the total increase nationally.

In contrast, the number of bachelor's degrees conferred by colleges in the Northeast grew by only 7 percent—just one-third the national rate of growth. Out of an increase of 213,600 bachelor's degrees awarded,

colleges in the Northeast granted just 17,770, or about 8 percent of the total increase. The number of bachelor's degrees conferred in Massachusetts increased by just over 2 percent.

The Northeast and Massachusetts also lag behind the nation in numbers of associate degrees granted. Since the mid-1980s, the number of associate degrees conferred has grown by 28 percent nationally, but by only 4 percent in the Northeast. Indeed, the number of associates conferred in Massachusetts actually declined 25 percent over the period. In short, Massachusetts and the rest of the Northeast failed to expand labor supply to the entry-level occupations in the college labor market where most of these graduates begin employment.

Higher education in Massachusetts seems to have focused its expansion efforts almost exclusively at the graduate level. While the number of master's degrees granted in the United States rose by 152,000 or about 53 percent since the mid-1980s, the number of master's granted in Massachusetts grew by 64 percent. Massachusetts also kept pace with the modest national growth in professional degrees conferred (though it substantially trailed the nation in growth of doctorates).

During the 1990s, New England saw a sizable flight of its population to other parts of the country. The driving force behind this out-migration has been the region's high cost of living, driven by astronomical housing costs, particularly in Massachusetts. Unfortunately, a large majority of the out-migrants from the region were young and well-educated. During the 1990s, two-thirds of the population that left Massachusetts for other states had some postsecondary education and one-half had a bachelor's or more advanced degree. This out-migration was an important contributor to the widespread labor shortages in New England's college labor markets. As the region's economy emerges from the current economic downturn, these labor shortages will return.

New England's inability to prevent a net out-migration of college graduates to other parts of the nation puts added pressure on the region's colleges and universities to produce graduates. So far, the degree data suggest, they are not meeting the challenge.

**TABLE 5 – SHARE OF COLLEGE GRADUATES (BACHELOR'S DEGREES OR HIGHER) IN THE WORKFORCE BETWEEN AGES 22 AND 64 BY METRO AREA**

The 20 Metropolitan Areas with the Most Rapid Rate of Growth on this Measure Between 1985 and 2001

Metropolitan Area	1985	2001	Relative Change
Kansas City, MO-KS	22%	37%	65%
Buffalo-Niagara Falls, NY	21%	35%	65%
Pittsburgh, PA	20%	31%	56%
Indianapolis, IN	22%	34%	51%
Philadelphia, PA-NJ	25%	37%	46%
Greensboro-Winston-Salem-High Point, NC	21%	30%	45%
Sacramento, CA	25%	36%	44%
Birmingham, AL	20%	27%	40%
San Diego, CA	29%	39%	34%
New York, NY	29%	39%	34%
Detroit, MI	24%	31%	33%
St. Louis, IL-MO	24%	31%	32%
Dallas, TX	27%	36%	31%
Riverside-San Bernardino, CA	16%	21%	30%
Denver, CO	31%	41%	30%
Akron, OH	26%	33%	29%
Newark, NJ	30%	39%	29%
Norfolk-Virginia Beach-Newport News, VA-NC	26%	34%	28%
Miami, FLA	21%	27%	28%
San Jose, CA	35%	45%	27%
Boston, MA-NH	36%	46%	27%
U.S. Total	24%	30%	25%

Source: U.S. Bureau of the Census; federal Bureau of Labor Statistics; tabulations by authors.

**TABLE 6 – PERCENTAGE CHANGE IN THE NUMBER OF COLLEGE DEGREES CONFERRED BY DEGREE LEVEL, 1985-86 TO 1998-99**

	Total	Associate	Bachelor's	Master's	Doctorate	Professional
United States	29%	28%	22%	53%	31%	7%
Northeast	14%	4%	7%	50%	19%	7%
Midwest	20%	16%	16%	50%	27%	-2%
South	35%	34%	30%	58%	47%	13%
West	46%	65%	37%	55%	32%	9%
Massachusetts	10%	-24%	2%	64%	19%	7%

Source: Integrated Postsecondary Educational Data System, U.S. Department of Education; tabulations by authors.

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