

employers. For example, a laid-off, mid-career adult may need opportunities to obtain new skills that make her highly employable once again, while a first-time college student can gain crucial exposure to postsecondary learning and even save money by obtaining college credits before having graduated high school. There is no doubt that all of this would be a major undertaking, but one that the region cannot afford to ignore.

To be truly transformative, this effort cannot come solely from educators and schools. Rather, a long-term, regional campaign of political commitment and public will is needed. We will need effective messaging about the challenges facing our region, improvements and innovation in practice that can help more underprepared youth and adults advance and succeed, and policy changes that can spread and sustain more effective learning opportunities and outcomes.

Such efforts may spur a wave of invention of new options and models for serving struggling and underprepared individuals and enable them to benefit from postsecondary learning. These could include schools models that blend high school with early college and postsecondary apprenticeship programs that quickly prepare disconnected young adults for decent-paying careers. Sound investments in the infrastructure of policies and partnerships for change could be sustained

over time and lead to significant upgrading of knowledge, skills, and economic success.

To spur innovation and improvement, philanthropic institutions must play a critical role. These organizations can expand their visions to help the region respond to the challenges that come with transformative change, for they are uniquely positioned to strategically support and prod New England's educational institutions to improve prospects for the region's underserved residents.

New England's reputation for educational excellence and intellectual capital is well-documented. To maintain that reputation in a knowledge-based economy and society, we need to challenge some long-held assumptions about what it means for all citizens to be sufficiently educated.

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The Future of the Skilled Labor Force

New England's supply of recent college graduates

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One of New England's greatest assets is its skilled labor force, which has historically been an engine of economic growth in the region. But the skilled labor force of the future is growing more slowly in New England than in the rest of the United States. Since 2000, the population of "recent college graduates" — individuals ages 22 to 27 with a bachelor's degree or higher — has grown by less than 9% in New England, roughly half the U.S. increase. This is better than the 11% drop in the number of recent college graduates that the region faced in the previous decade. But the increase since 2000 has not offset those earlier losses, making New England the only region to see a decline in this population since 1990. [See Figure 1.]

The need to attract and retain recent college graduates has become a salient issue in every New England state. Policymakers and business leaders alike are concerned that an inadequate supply of skilled workers will hamper economic growth by creating barriers for companies looking to locate or expand in New England. Yet few steps have been taken to tackle this challenge.

Factors Affecting Stock of Recent Grads

Every year, the region adds to its stock of recent college graduates, as each successive cohort of young adults flows through the education pipeline: entering college, completing degrees and choosing where to locate. Three main factors affect the stock of recent college graduates:

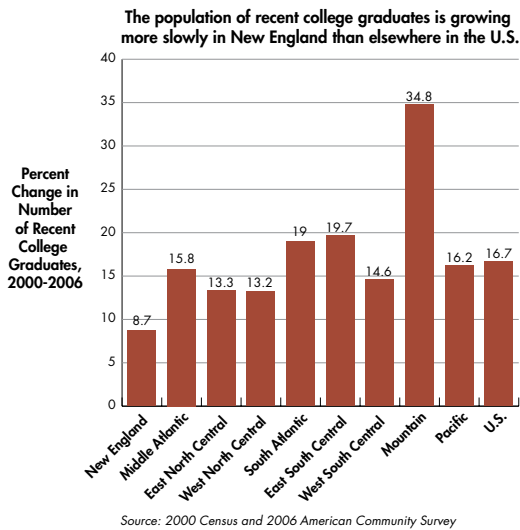
- The supply of young adults to be educated at New England institutions — whether native to the region, from other parts of the United States or from abroad — is the primary source of growth for the region's

population of recent college graduates. Students who attend college in New England account for more than three-quarters of the recent college graduates living in the region.

- The rate of educational attainment among native young adults — or the percentage of high school graduates who choose to go on to college — is also key because native New Englanders account for roughly 70% of college enrollments within the region.

- The migration decisions of individuals also apply. Regions may increase the size of this population by either retaining those educated within the region or by attracting those who have received degrees elsewhere. Retention is especially important in New England because the region imports a relatively high share of its student body from other parts of the country — about 30% of the incoming class each year.

Figure 1: Slower Growth



How These Factors Have Changed

The supply of young adults fell sharply in New England during the 1980s and has been growing more slowly than nationally since then. This trend primarily reflects a period of low birth rates during the 1970s. The result is that New England had roughly 25% fewer native young adults of college-going age during the 1990s than in the 1980s.

Since then, the number of young adults of college-going age in New England has grown at a slower rate than in other parts of the country. Moreover, despite a growing number of students coming from elsewhere in the United States and abroad, the increases from these two groups were a drop in the bucket compared with the sharp drop in the number of native young adults. Essentially, the region has not been producing enough of the basic input — young adults — to put through the education pipeline.

With no way to reverse the effects of a decade of lower birth rates, New England has had to rely on

increasing the rate of educational attainment among young adults. Fortunately, the share of high school graduates attending college in the '90s rose sharply across the United States, but even more so in New England — going from roughly one-third of high school graduates at the start of the decade to just over one-half at the end.

Despite a growing number of students coming from outside the region, New England has not been producing enough of the basic input — young adults — to put through the education pipeline.

As a result, the educational attainment of native young adults increased more rapidly in New England than in most other parts of the nation — with nearly one in three native young adults having a college degree in 2006. In comparison, slightly more than one in five young adults was a college graduate for the nation as a whole. Thus, despite the sharp drop in the number of young adults in New England (25%), the decline in the number of recent college graduates was only half as steep (11%), because of the rising share of young adults receiving a college education.

Despite New England's higher educational attainment, some are concerned that the region retains too few college graduates or at least fewer than in the past. Migration patterns have changed little for this group, but the situation is more complex. Typical migration rates for New England often show net out-migration among recent college graduates — meaning that more individuals are leaving than entering the region. This is because such rates reflect only moves made upon graduation from region of institution to region of adult residence, failing to capture the earlier in-migration of students to New England to attend college.

Why is this important? As a net importer of college students, these inflows are sizeable and more than offset the negative outflows of those who leave upon graduation. More students come to New England for college than leave to attend college elsewhere. And though the region holds on to only a fraction of that net influx, it still comes out ahead. So when analyzing migration patterns of recent college graduates, it is important to account for where students came from, where they received their degrees and where they chose to locate after graduating.

Although the region adds to the number of recent college graduates with each graduating class, New England retains a lower share of students upon graduation compared with other regions. For the graduating class of 2000, roughly 70% of recent college graduates were still living in New England one year after graduation, compared with about 80% for the Mid-Atlantic region and 88% for the Pacific region. [See Figure 2.]

Figure 2: Lower Retention

New England attracts a relatively high share of non-native students, but many leave the region when they graduate.

	Share of college students who are non-natives	Share of graduates living in same region as BA institution one year after graduation		
		All graduates	Non-native graduates	Native graduates
New England	28.5%	70.5%	22.7%	91.0%
Mid-Atlantic	14.3%	79.9%	28.6%	88.7%
East North Central	11.6%	79.7%	18.0%	87.8%
East South Central	15.5%	72.2%	15.3%	82.8%
South Atlantic	16.2%	79.1%	29.2%	89.1%
West North Central	18.4%	74.9%	21.5%	86.9%
West South Central	9.4%	85.1%	24.2%	91.4%
Mountain	14.2%	76.4%	26.2%	84.8%
Pacific	6.0%	87.5%	32.3%	91.0%

New England's lower retention rate reflects in part the high share of non-native students who migrate into the region to attend school. Having already migrated once to attend college, these students have a higher propensity to relocate after graduation — often to return home — whether to take a job or to be closer to family. For example, only 22% of those migrating into New England to attend college were still in the region one year after graduation, compared with 91% of native graduates. Moreover, retention among non-native graduates is relatively low in New England. So, in addition to having a greater share of non-native graduates who have low retention rates in general, New England is less likely to retain non-native graduates compared with other regions. In addition, graduates of New England's very selective institutions are able to reap the benefits of their high-quality education by moving to any number of locations and so are less likely to remain in the region after college.

Contrary to the conventional wisdom, recent college graduates are leaving New England primarily for job-related reasons — not housing costs. According to the Census Bureau's Current Population Survey, about half of those leaving New England between 1998 and 2006 cited employment-related reasons. Housing-related reasons accounted for less than 2% of moves from New England.

On second glance, this is perhaps not all that surprising, given that recent college graduates are more likely to be seeking rental rather than owner-occupied housing and rents are relatively affordable in New England. Indeed, the Mid-Atlantic and Pacific regions — both

with relatively high housing costs — were among the three top destinations for recent college graduates leaving New England, suggesting that housing costs are not the main drivers of their decision to relocate.

New England's ability to *attract* college graduates is comparable to that of most regions, particularly when one considers its smaller population size. The number of new graduates migrating into the states from other parts of the country represented 2.5% of New England's total population of recent college grads — roughly equivalent to most other regions. Interestingly, more than half of those migrating into New England were natives who had received their degrees elsewhere and chose to return upon graduation.

Among the three factors examined, changes in supply of young adults account for most of the sharp drop and subsequently slower growth in the number of recent college graduates in New England. Fortunately, rising educational attainment helped the region swim against the tide of slower population growth, as the share of high school graduates attending college rose more sharply in New England than the rest of the nation. Yet changes in the migration patterns of recent college graduates have not been very large over this period, accounting for only a small fraction of the overall trend in the number of recent college graduates.

To Shore Up Supply of Recent Grads

To bolster New England's future skilled labor force, the most promising strategy may be to encourage more of the students who go to college in New England to stay in the region upon graduation. While increasing the supply of young adults to be educated would have the greatest impact, short of a baby boom, the region would need to attract more non-native students — of which only 20% are likely to stay upon graduation. Moreover, although rising educational attainment has been a boon in the past, raising college attendance rates much higher would be difficult without significant investments in financial aid to increase access. And as college attendance has increased, completion has fallen, so policymakers will need to expand college readiness and success programs to maintain the likelihood that each additional student who enters the pipeline exits with a college degree.

This suggests we focus on boosting retention as the strategy to increase the number of recent college graduates — particularly among non-natives and those educated at private and selective institutions.

Building stronger ties between colleges and employers by expanding internship opportunities may help graduates, particularly non-natives, learn about local job opportunities and form networks within the region. Indeed, the Central Massachusetts Talent Retention Project found that connections to employers and the community are an important factor for retention with 47% of students who worked off campus and 41% of students who participated in an internship planning to stay upon graduation. Yet interviews with employers revealed that

many smaller companies do not use interns because of the difficulties in securing one, and the time commitment required for supervision. In response, the Colleges of Worcester Consortium, a 40-year-old alliance of 13 area colleges in central Massachusetts, developed an online internship database to enable employers of all sizes to tap into the pool of educated workers in the area. The consortium estimates that its members place more than 3,000 students annually in internships, co-ops, clinics and schools, with most programs offering academic credit for professional-level work. More formal and widespread internship programs across the region could potentially be a win-win-win situation: allowing students to learn about a job or firm, lowering recruiting costs for employers, and enhancing the reputation of the college.

Some New England states are increasing investment in public higher education to make their state universities more competitive with prestigious private institutions and flagship public universities in other parts of the country. Commonwealth College at the University of Massachusetts Amherst is one example. The honors college could encourage more academically talented native students to stay and attend college in New England and likely remain in the region after graduation.

Branding the region to appeal to recent college graduates, particularly non-natives, as a place to “work, play and stay” could help New England shake off the “old, cold and expensive” image and boost retention rates. This

is the goal of New Hampshire’s “55-Percent Initiative,” which calls for increasing the percentage of college graduates who remain in the state after graduation from the current 50%, to 55% through a “tourism-like” marketing campaign.

The effectiveness of financial incentives to boost retention rates is less clear. Opportunity Maine, for example, allows college graduates who work and pay taxes in the state to claim tax credits for payments on student loans. Other New England states have targeted loan-forgiveness programs aimed at retaining recent college graduates in particular industries such as biotech, or occupations such as teaching. While these initiatives help offset student debt, they are not targeted at non-native graduates and run the risk of rewarding those who would have chosen to stay anyway.

New England is likely to face even greater competition for college graduates in the future — particularly in a global economy where workers and jobs are more mobile. Contrary to the usual reasons offered to explain why individuals leave New England, recent college graduates appear to be moving primarily to seek the best job opportunities. What then will boost retention? As Bentley University economist Patricia Flynn observes, “Being offered a really good job will override housing costs, snow and a lot of other issues.”

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Bank of Boston. The Center's full report on New England's supply of recent college graduates is available at <http://www.bos.frb.org/economic/neppc/>. Email: Alicia.sasser@bos.frb.org.

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