

the future of the skilled labor force in new england:

The supply of recent college graduates

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 aged 22 to 27 with a bachelor's degree or higher—has grown by less than 9 percent in New England, roughly half the U.S. increase. This is better than the 11 percent drop in the number of recent college graduates that the region experienced 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.

As a result, the need to attract and retain recent college graduates has become a salient issue in every New England state. Even with the current economic downturn, policymakers and business leaders alike realize the need to keep a long-term perspective to ensure that there is a sufficient pipeline of skilled workers to fill the region's high-growth, high-demand jobs when the economy recovers—many of which are likely to require post-secondary education and training.¹

What are the factors affecting New England's stock of recent college graduates? How have these factors changed over time? What is the relative importance of these factors in explaining the decline and slower growth in the number of grads? Research conducted in 2008 by the New England Public Policy Center at the Federal Reserve Bank of Boston investigated these questions as well as the potential policy actions that could be undertaken to address the issue.² Among the factors examined, retaining a greater share of graduates educated at New England's colleges and universities emerged as the most promising and immediate channel to expand this important source of skilled labor. Furthermore, contrary to the usual litany of reasons offered to explain why individuals leave New England—cold winters, high cost of living—our research showed that recent college graduates leave the region primarily for employment opportunities, suggesting that there are tangible actions states can take to boost retention.

Bolstering New England's skilled labor force will likely require some combination of short-term actions aimed at improving retention and long-term policies designed to boost educational attainment. For example, efforts to improve retention—such as expanding internship opportunities for students and branding the region to appeal to recent graduates—are likely to have a direct impact on increasing the region's supply of recent college grads. Other policies aimed at boosting educational attainment among native young adults—such as alleviating college debt burdens and increasing investments in public higher education—may ultimately sustain the region's supply of skilled workers in the face of future demographic changes.

Alicia C. Sasser
Senior Economist
New England Public
Policy Center

The need to attract and retain recent college graduates has become a salient issue in every New England state.

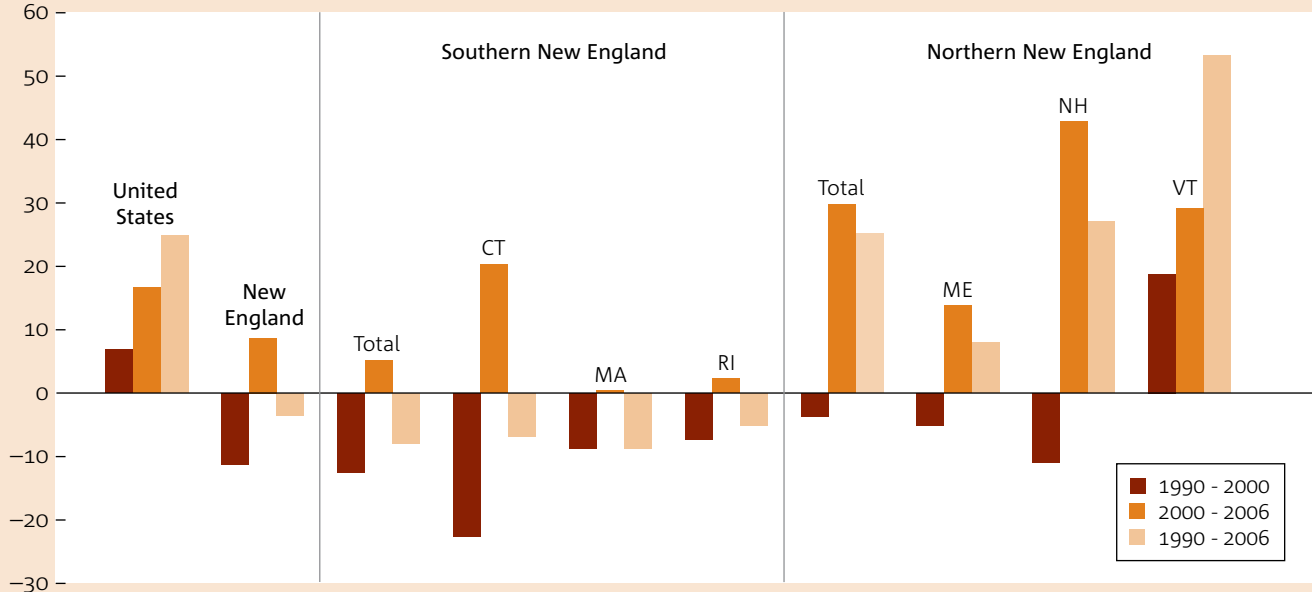


Figure 1

Slower Growth

Between 1990 and 2000, the number of recent college graduates in New England fell, and the number has been growing more slowly than in the nation as a whole since then.

Percent change in the number of recent college graduates



Source: 1990 and 2000 Census and 2006 American Community Survey.

Note: Recent college graduates are individuals aged 22-27 years who have completed a bachelor's degree or higher (master's, PhD, or professional degree).

This article summarizes our recent research as well as some strategies that are currently underway in New England to increase the region's supply of recent college graduates. Our hope is that this information will serve as a basis for constructive dialogue among the various stakeholders—policymakers, business leaders and college officials—to encourage proactive efforts that will cultivate our skilled labor force and ultimately foster greater economic growth for the region.

Changes in the supply of recent college grads

Trends in the supply of recent college graduates have varied considerably within the region over the past two decades, with much of the initial decline and subsequently slower growth occurring in southern New England. Between 1990 and 2000, the number of recent college grads fell steeply in southern New England—primarily because of a sharp drop in Connecticut (see Figure 1). However, while Connecticut rebounded quickly between 2000 and 2006, Massachusetts and Rhode Island experienced slow or no growth. Over the entire period, the number of recent college grads in southern New England fell by 8 percent.

In northern New England, the initial decline between 1990 and 2000 was not as steep. What's more, since 2000, the population of recent grads in northern New England has grown rapidly—particularly in New Hampshire. Over the entire period, northern New England's recent college grad population grew at a rate similar to that of the nation.

Factors affecting the stock of recent grads

What are the underlying factors behind these trends? 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. Thus, three main factors affect the stock of recent college grads:

- 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 grads. Students who attend college in New England account for more than three-quarters of the recent grads 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 percent of college enrollments within the region.
- The **migration decisions of individuals** also affect supply. Regions may increase the size of this population either by 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 percent of the incoming class each year.

How these factors have changed

Among the three factors examined, changes in the 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. In contrast, 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 grads.

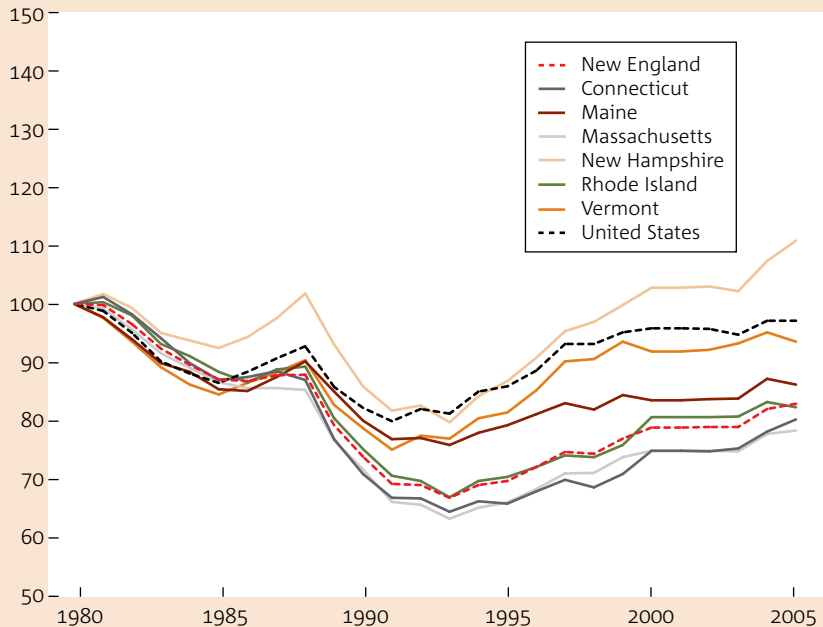
The first factor—the supply of native young adults—fell sharply in New England during the 1980s, particularly in southern New England. This trend primarily reflects a period of low birth rates: During the 1970s, after the baby boom, birth rates fell across the country, but more so in New England. The result is that, twenty years later, New England had roughly 25 percent fewer native young adults of college-going age during the 1990s compared with the prior decade (see Figure 2).

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 to the region

Figure 2
Fewer Young Adults

Due to sharply lower birth rates during the 1970s, New England had 25 percent fewer native young adults of college-going age some 20 years later.

Number of individuals aged 17 years
Index 1981=100



Source: Census Population Estimates, 1980-2005, US Bureau of the Census.

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.

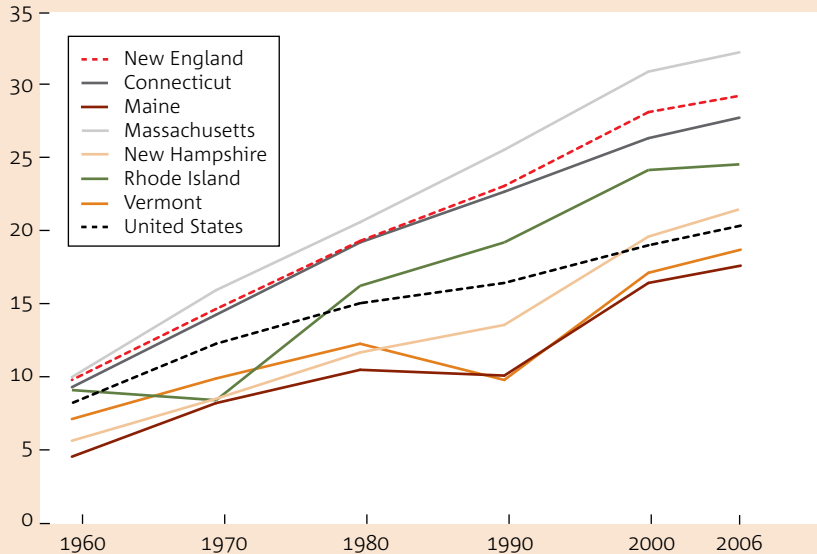
Fortunately, relatively high rates of educational attainment among the region's young adults offset its sharply lower birth rates. The share of New England high school graduates attending college rose from roughly one-third to just over one-half during the 1990s—far faster than the U.S. average. As a result, the educational attainment of native young adults grew more rapidly in New England than in most other parts of the nation, particularly in southern New England. By 2006, nearly one in three native young adults in the region had a college degree, compared with slightly more than one in five young adults in the country as a whole (see Figure 3). Thus, even though the region had 25 percent fewer native young adults, the number of recent college graduates fell by only 11 percent because a greater percentage of individuals earned their degrees.

Some New England leaders are concerned that, despite a high rate of educational attainment, the region attracts and retains too few college graduates—or at least fewer than it did in the past. In fact, migration patterns have changed little over time for this group. In terms of attracting college graduates who attended school elsewhere, the region fares quite well, particularly when one considers its smaller population size. Interestingly, more than half of those migrating into New England are natives who have received their degrees elsewhere and choose to return upon graduation.

Figure 3
Rising Educational Attainment

By 2006 one in three native young adults in New England had a college degree compared with just one in five for the United States.

Native recent college graduates as a percent of native young adults aged 22-27 years



Source: 1960, 1970, 1980, 1990, 2000 Decennial Census and 2006 American Community Survey, US Bureau of the Census.
Note: Recent college graduates are individuals aged 22-27 years who have completed a bachelor's degree or higher (master's, PhD, or professional degree).

When it comes to retention, the situation is more complex than it might appear. For example, typical migration rates for New England often show net out-migration among recent college grads—meaning that more individuals appear to be leaving than entering the region. However, 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 attend college.

Why is that important? New England attracts a relatively high share of students from outside the region, with more students arriving to attend college than leaving to attend college elsewhere. This makes it one of the largest importers of college students in the country. Even though the region holds onto only a fraction of those incoming students after they graduate, it still comes out ahead—increasing its stock of recent college grads by more than it would have if it had educated only its native population.

Does New England retain enough recent college grads? Yes and no. On the positive side, the number of students who migrate into the region to attend school more than offsets the number of graduates who leave the region upon graduation. So when the earlier in-migration of students is accounted for, the region actually increases its stock of recent college grads for a given class.

Yet compared with other regions, New England retains a lower percentage of students upon graduation. For the graduating class of 2000, 70.5 percent of recent college grads were still living in New England one year after graduation, compared with 79.9 percent for the Mid-Atlantic region and 87.5 percent for the Pacific region (see Table 1). Similar rates for the class of 1993 show that this pattern of retention has changed very little since the early 1990s.

What explains new england's lower retention

New England's lower retention rate primarily reflects 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 be closer to family. For example, roughly 20 percent of those migrating into the region to attend college were still living here one year after graduation, compared with over 90 percent of native graduates. In addition, New England's retention of non-native graduates is relatively low compared with most other parts of the country. So, besides having a greater share of non-native graduates, New England is less likely to retain them than other regions (see Table 2, page 10).

The high share of students graduating from private and very selective institutions in New England also lowers the region's retention rate. For a given class, more than half of those graduating from New England colleges and universities earned their degree from a private or a very selective institution—a far higher share than in most other regions. These graduates, able to reap the benefits of their high-quality education by moving to any number of locations, have low retention rates in general across all Census divisions. However, as with non-native graduates, New England's retention rates for graduates of private and very selective institutions are lower than those of other regions (see Figure 4, page 11). So, besides having a greater share of graduates from private or very selective institutions—who have low overall retention rates—New England is also less likely than other regions to retain those graduates.

Why recent college grads leave new england

These individuals are voting with their feet—they have decided to relocate based on a variety of factors. Those include economic factors, such as the availability of jobs, compensation levels, and the cost of living; and non-economic factors, such as proximity to family, educational

Table 1

Retaining College Graduates

The share of recent college graduates staying in New England upon graduation is lower than the share in other regions and has changed little since the early 1990s.

Percent of graduates living in same region as BA institution one year after graduation				
Class of 2000			Class of 1993	
Rank	Division	Percent	Division	Percent
1	Pacific	87.5	Far West	88.3
2	West South Central	85.1	Southeast	85.1
3	Mid-Atlantic	79.9	Southwest	85.1
4	East North Central	79.7	Mid East	83.5
5	South Atlantic	79.1	Plains	82.9
6	Mountain	76.4	Great Lakes	80.9
7	West North Central	74.9	Rocky Mountains	76.3
8	East South Central	72.2	New England	67.0
9	New England	70.5		

Source: 2000/01 and 1993/94 Baccalaureate and Beyond Longitudinal Survey, National Center for Education Statistics, US Department of Education.

Table 2

Retention Varies by Student Origins

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

	Percent of college students who are non-natives	Percent 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

Source: 2000/01 Baccalaureate and Beyond Longitudinal Survey, National Center for Education Statistics, U.S. Department of Education.

Note: Data are for the graduating class of 2000.

opportunities, and local amenities such as weather, culture, and recreational activities.

Contrary to conventional wisdom, recent college grads are leaving New England primarily for job-related reasons—not housing costs. According to the Current Population Survey, about half of those leaving New England during the past decade cited employment-related reasons. Just under one-third left for “other” reasons—almost exclusively to attend or leave college—reflecting the large share of non-native students who leave upon graduation. Another 17 percent left for family-related reasons, such as a change in marital status or to establish their own household. In contrast, housing-related reasons accounted for less than 2 percent of moves from New England among recent college graduates (see Figure 5, page 12).

On second glance, this is perhaps not surprising, given that recent college grads are more likely to be seeking rental rather than owner-occupied housing. Earlier research by the Boston Fed showed that rental housing, unlike owner-occupied

housing, is relatively affordable in New England compared with other regions.³ Indeed, the Mid-Atlantic and Pacific regions—both with relatively high housing costs—were two of the three top destinations for recent college grads leaving New England, supporting the finding that housing costs are not the main drivers of their decision to relocate.

Indeed, surveys of current college students and recent college grads across New England consistently find that employment opportunities are one of the key drivers behind where to locate upon graduation. For example, respondents of a 2002 survey of recent college grads in Maine reported that the level of pay, the quality and availability of jobs, and the location of family members ranked as their top concerns in deciding whether to remain in the state.⁴ Similarly, recent college grads participating in a 2003 study by the Greater Boston Chamber of Commerce reported leaving the region primarily for more desirable and more easily-available jobs elsewhere.⁵ In addition, about one-quarter of respondents cited affordability, and just under a quarter cited the desire for a better “city experience.”

Other surveys reveal that job-related perceptions are also a barrier for recent college graduates looking to return to New England. A 2007 survey of New Hampshire college seniors and recent graduates revealed that job characteristics, salaries, and family concerns were the top factors affecting their migration decisions. Almost half of recent graduates who had left New Hampshire wanted to return, citing the state’s high quality of life, but reported that limitations in the job market posed a barrier.⁶ Likewise, Vermont’s Next Generation Workforce Study found that graduates who had left the state cited small-town living and access to recreation as reasons to return but that a shortage of suitable jobs and the price of commuting were impediments to relocating back to the state.⁷

Efforts to shore up the supply of recent grads

Understanding which factors affect the supply of recent college graduates is key in developing both short-term and long-term strategies to bolster New England’s skilled labor force. Although 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 percent are likely to stay upon graduation. Instead, a more promising and immediate strategy would be to focus on the other two factors: retaining a greater share of students who come to New England to attend college while also encouraging greater college attendance and completion among native young adults.

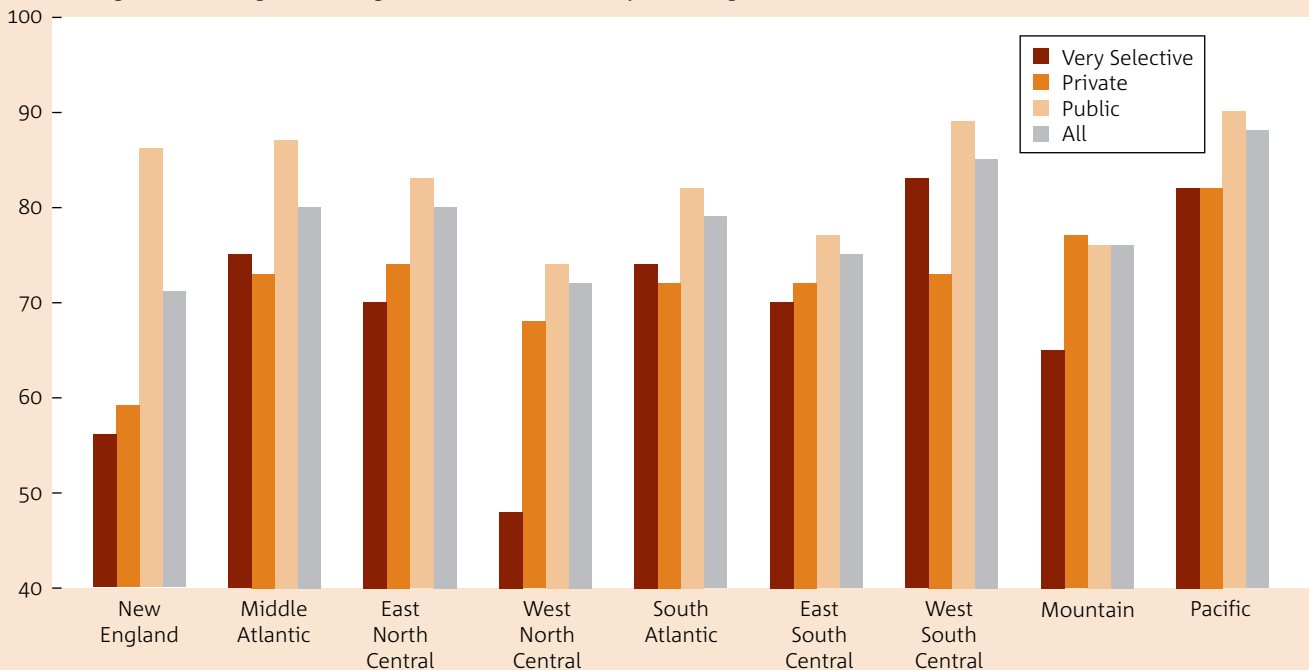
In the short run, efforts to improve retention are likely to have a direct impact on increasing the region’s supply of recent college grads—particularly among non-native students and those educated at private and selective institutions. These are individuals who have chosen New England for their postsecondary education—despite cold winters and possibly incurring greater student debt—but also have a greater tendency to leave upon graduation. It may be inevitable that some of these graduates will choose to relocate—such as to be closer to family. Yet there are multiple opportunities to engage students during the course of their four years and make it less likely that they will leave due to lack of information or misperceptions about the job market, cost of living, or quality of life here. For example, actions on the part of firms and colleges to expand internship opportunities can help graduates learn first-hand about local job opportunities. Similarly, state-led efforts to “brand” the region as a place to

Figure 4

Retention Varies by Institution

The high share of students graduating from private and very selective institutions, who are more likely to migrate than other graduates, also lowers the region’s retention rate.

Percent of graduates living in same region as BA institution one year after graduation



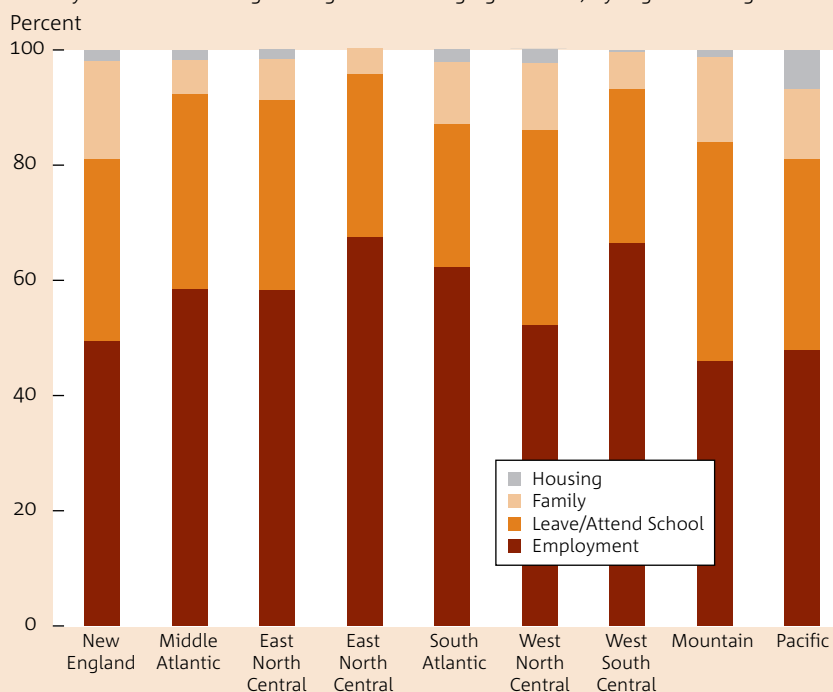
Source: 2000/01 Baccalaureate and Beyond Longitudinal Survey, National Center for Education Statistics, US Department of Education.
 Note: Data are for the graduating class of 2000. Categories (very selective, private, public) are not mutually exclusive.

Figure 5

Reason for Leaving New England

Recent college graduates leaving New England over the past decade did so primarily for job-related reasons—few cited housing as their motivation.

Primary reason for leaving among recent college graduates, by region of origin



Source: Current Population Survey, U.S. Bureau of the Census, 1999-2007.

Note: Recent college graduates are individuals aged 22-27 years who have completed a bachelor's degree or higher (master's, PhD, or professional degree).

“work, play and stay” can help demonstrate all that the region has to offer students upon graduation.

In the long run, boosting educational attainment among native young adults may help sustain the region’s supply of skilled workers in the face of future demographic changes. However, higher education leaders indicate that raising educational attainment beyond the region’s already high level will require a commitment to increasing college access and readiness—particularly among minority and immigrant students.⁸ For example, flattening college attendance rates and falling levels of completion have prompted efforts to alleviate debt burdens while ramping up college readiness programs and honors programs. However, it should be acknowledged that these initiatives are likely to face significant financing obstacles—at least in the near term—given the severe fiscal difficulties that state governments are now confronting.

The New England states are in the first stages of pursuing policies with an eye to increasing the supply of recent college graduates. These initiatives are fairly new, and thus far

little evidence exists as to their effectiveness. Each of these four options—expanding internship opportunities, branding the region, alleviating college debt burdens, and increasing investment in higher education—is discussed in the following sections. Where possible, specific examples of actions taken around the region are provided along with insights gleaned from interviews with those on the front lines who are charged with implementing these efforts.

Expanding internship opportunities

More formal and widespread use of internship programs across New England could potentially be a win-win-win situation: allowing students to gain experience, lowering recruiting costs for employers, and enhancing the reputation of the region’s colleges and universities. In particular, such efforts would help all graduates—and especially non-natives, who have lower retention rates—learn more about local job opportunities and form networks within the region. Yet with few exceptions, employers and colleges do not seem to be making these connections on a wide scale but rather on an ad-hoc basis such as the chief executive officer’s alma mater.

Recent college graduates consistently cite the availability of good jobs as their most important concern when deciding where to locate, yet are often unaware of local employment opportunities. A 2005 survey of roughly 1,100 graduating students by the Worcester Regional Research Bureau (WRRB) found that 70 percent of respondents indicated career opportunities and associated pay and benefits were important factors in deciding where to

locate. Yet only 8 percent of respondents gave the highest rating of “excellent” when asked how they rated opportunities to learn about local employers and employment opportunities. Given that two-thirds of respondents who were looking for jobs said they planned to leave central Massachusetts upon graduation, the WRRB concluded that students needed to learn more about the opportunities in the region to boost retention.⁹

Internships can serve a dual purpose: bridging the information gap for students and acting as a vehicle to full-time employment for firms. A 2008 annual survey conducted by the National Association of Colleges and Employers (NACE) reports that internships have been on the rise since 2004. This increase is primarily driven by employers that have formal programs in place to test out potential hires. In recent years, employers have converted a greater percentage of interns into full-time employees, often using internships to identify talent early and pre-empt competitors by making offers in the fall rather than the spring.¹⁰ For the Northeast, NACE estimates that roughly 70 percent of internships led to full-time job offers in 2008. About three-quarters of those job offers were accepted so that a little more than half of all internships resulted in full-time employment last year.¹¹

Connecting students with local employers may lead to greater retention after graduation—a clear benefit to both regions and firms looking to maintain or expand their supply of skilled workers. For example, the 2005 WRRB survey found that students in central Massachusetts who either worked off-campus or participated in an internship or co-op were more likely to stay in the area compared with those that did not take advantage of such opportunities.¹² And according to NACE, firms with formal internship programs also have higher retention, with just over 90 percent of new recruits still employed after one year, compared with only 60 percent of new recruits at firms without a formal program.¹³ However, it may be the case that firms hosting internships also offer other advantages—such as higher wages and more generous benefits—that affect retention.

Yet despite the obvious benefits of internship programs, their use is far from universal among employers—particularly small firms. For example, among a representative sample of 25 employers, the WRRB found that only half had used student interns and/or viewed internships as a way to test out a potential hire.¹⁴ One-on-one interviews revealed that many smaller companies lack the time and resources needed to recruit and/or supervise interns. Indeed, recruiting interns can be time-intensive. According to NACE, most firms find that “high-touch” methods such as attending career fairs, recruiting on-campus, cultivating key faculty contacts, and soliciting referrals from former interns are the most effective means. Although firms also employ less time-intensive “high-tech” methods—nearly 70 percent of firms post positions on their own web sites or those of a college career center—these techniques are deemed significantly less effective.¹⁵

Some regions have sought to expand the use of internships by providing a central place for students and firms to connect through an online regional clearinghouse. For example, in 2007, 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 central Massachusetts. Consortium CEO Mark Bilotta estimates that last year more than 1,000 students reviewed postings by some 250 companies using the online database. In addition, the Consortium helped place 9,900 students in community service, work study, and research internships through its community placement program.¹⁶ (For more information on the Consortium and their online internship database, see the sidebar on page 16.)

Internships present a win-win-win situation: students gain experience, employers lower recruiting costs, and academic institutions enhance their reputations.



Helping firms to forge stronger ties with academic institutions may also expand the use of internship programs. For example, Bentley University fosters close connections with a host of employers, providing firms with a menu of opportunities to increase visibility among students. These include both curricular and extra-curricular activities that are designed to span the entire academic year and include all classes of students (freshman to seniors) as well as graduate students and faculty. Bentley also encourages companies to establish an on-campus presence as an “employer-in-residence” by designating a senior representative to visit the university on a weekly basis and consult with students.

According to Len Morrison, Bentley’s executive director of corporate relations, it is important for companies to identify which institutions are good matches so that there will be a high yield from internships into full-time employment. For example, when the goals of the school are aligned with those

of the employer, collaborative relationships are formed between faculty and management, yielding more meaningful internships that include on-the-job learning, mentoring, leadership development, and evaluation. Companies should work with university staff, faculty, and alumni to establish a campus “brand” and designate internal “school champions.” Morrison points out that it is important for employers to maintain relationships with core schools even when there is turnover in career service staff or a downturn in hiring.¹⁷

Providing financial assistance—either directly through public funding or indirectly through academic credit—may also expand the use of internships, particularly among those that do not have the resources to offer paid positions. The 2008 NACE survey reported that over 90 percent of employers with internship programs offer paid positions with an average wage of \$16.33 per hour—a significant hurdle for smaller companies looking to vie for talent.¹⁸ Some states have addressed this problem directly by helping companies fund internships. For example, the state of Vermont awarded 14 grants totaling \$530,000 to a combination of both public and private organizations to help fund paid positions for roughly 450 high school and college students in FY 2009.¹⁹ Alternatively, it has been suggested that states should encourage more colleges and universities to offer academic credit for internships in lieu of pay. When academic credit is offered, faculty members are more likely to help students plan their internships, resulting in a higher-quality experiential learning opportunity. Yet according to the Northeast Internship Survey, only 35 percent of students who participated in an internship did so for college credit.²⁰

Branding the region

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 its “old, cold and expensive” image and boost retention rates. Surveys reveal that familiarity and comfort with a region—whether

because of familial connections or quality of life—play a role in the migration decisions of recent college graduates. This is particularly relevant for New England, which receives a large influx of freshmen each year—about 30 percent of the incoming class—from other parts of the country.

New Hampshire’s “55% Initiative” aims to develop a marketing campaign to help ensure that students do not leave the state because of lack of information or misperceptions about job opportunities, cost of living, or quality of life. Led by the University System of New Hampshire (USNH), the Initiative calls for increasing the percentage of college graduates who remain in the state after graduation to at least 55 percent. Initial surveys of college seniors and recent graduates conducted by USNH showed that most leave based on the perception of better jobs and higher salaries in other states. As a result, policymakers and business leaders called for a marketing effort that would heighten awareness of the state’s key attributes and its employers, designed to shift perceptions and dispel the myth that New Hampshire lacks jobs. The Initiative assigned five college marketing classes a semester-long project to develop innovative ways to promote New Hampshire to future college graduates and encourage them to remain in the state. The ideas presented by the students will be used in developing the initiative’s marketing campaign.²¹ (For more information on the Initiative and their marketing campaign, see the sidebar on page 20.)

Social networking is also increasingly used as a means to brand the region and give students and recent graduates a sense about what New England has to offer. This can be seen in the proliferation of Young Professional Associations (YPAs) around the region such as FusionBangor in Bangor, Maine, HYPE in Hartford, Connecticut, and IUGO in Nashua, New Hampshire. Often formed by the local chambers of commerce, these associations encourage young professionals, including recent college graduates, to learn about and become involved in their communities. YPAs frequently partner with local college alumni offices to connect with graduates in the area; some even hold events on campus to boost membership. Events typically held by YPAs include networking luncheons, informational seminars, charity activities, real estate tutorials, and wine tastings. Anecdotal evidence suggests that membership in YPAs generates higher civic engagement and participation in community service, potentially boosting retention by creating a personal attachment to the region.²²

Alleviating college debt burdens

One long-term strategy aimed at increasing the region’s supply of recent college graduates is to alleviate college debt burdens, thereby encouraging college attendance and completion and ultimately boosting the educational attainment of the region’s population. College debt burdens have increased over the past decade with undergraduate federal borrowing growing by 51 percent, inflation adjusted, between 1997 and 2006.²³ Moreover, students attending New England’s colleges and universities are more likely to graduate with debt, and the average size of that debt is often larger compared with the national average. According to the Project on Student Debt, the percentage of students graduating with debt from a four-year college in New England ranged from 58 percent in Connecticut to 74 percent in New Hampshire, compared with 59 percent nationwide in 2007. In addition, the average student debt reported for New England graduates was 5 to 8 percent higher than the nationwide figure of \$20,098. Four of the six New England states rank among the top ten in the nation based on the average debt of their graduating seniors.²⁴

One way states are alleviating college debt burdens is by providing tax incentives for recent college graduates who choose to remain in the state upon graduation. For example,

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

bringing students and employers together (virtually)

The Colleges of Worcester Consortium created an online database of internship opportunities to expose students to local employment opportunities.

As a key player in the local economy, the Colleges of Worcester Consortium has strong ties to the business community, providing a forum for members and community leaders to explore ideas and concerns affecting higher education and its role in promoting the region's educational, economic and cultural vitality. In response to the concerns of business leaders, the Consortium, in cooperation with the Worcester Regional Research Bureau, conducted a Talent Retention Survey of some 5,000 graduates in the class of 2005 to determine their post-graduation career and location decisions and factors influencing those decisions. The findings from the survey suggested that the more involved students were off-campus, the more likely they were to stay in the region upon graduation.¹

In response to the survey's findings, the Consortium created an online database of internship opportunities to engage students in the local community. The database serves as a clearinghouse for colleges and regional employers where firms can post their internship positions and students can explore what opportunities exist in their area. Students seek work in every field from social work to law, business to engineering, with most internships offering academic credit for professional-level work. Some schools even sponsor special projects that enable students to work on a specific business problem in collaboration with an individual firm as part of their coursework.²

According to Mark Bilotta, CEO of the Consortium, a key component to the success of this initiative was the existence of the Career Services Directors Committee, which consists of career services officers from each school.³ The committee works as a collective unit to provide career-related programs and services that could not otherwise be offered to their students and was instrumental in getting buy-in from all the local schools and laying the groundwork for a sustained effort. For example, a concern among member colleges was that the Consortium would be treading on, rather than enhancing, existing relationships that individual colleges had already cultivated. One way around this was to ensure that students would be able to access the online database from their own campus career center. As it turned out, sharing these relationships across campuses was mutually beneficial. In addition, banding together and using the resources of the Consortium made the development and creation of the online database more cost effective than it would have been if undertaken by a single member college.

Bilotta also points to communication and promotion aimed at both students and employers as another key factor that helped make the launch of the online database a success. For example, the Worcester Regional Research Bureau hosted several focus groups to learn what features would be most useful and attractive for college students and recent graduates. Working closely with

College Central Network, the database was designed to allow students to access it from their own campus career center web pages, upload their resumes so they could be submitted online to posted internships, and receive e-mails about programs, services and internship-related topics. In addition, the Consortium promoted the online database to firms through events such as its annual Consortium Career Fair, which typically draws roughly 100 local employers and 700 students, as well as its more targeted Working in Worcester Open House.

Although the Consortium currently does not collect statistics on the conversion rate of its internships into full-time employment, anecdotal evidence abounds as career advisors report countless stories of students and employers alike that have benefitted from the program. Students from the Consortium member institutions have been offered full-time positions as a direct result of their internship experience at local companies such as EMC Corporation, The Amaral Group, GE, *Worcester Business Journal*, and St. Vincent's Hospital. Barbara Clifford, executive director of the Corridor Nine Area Chamber of Commerce, notes, "Thanks to the leadership of Mark Bilotta, CEO of the Colleges of Worcester Consortium, who stepped up to the plate to lead the charge on an internship website, the first part of the action plan has come to life."⁴

¹ Worcester Regional Research Bureau. 2006. "Central Massachusetts Talent Retention Project." Worcester, MA.

² Colleges of the Worcester Consortium. "Discover the Intellectual Capital of Central Massachusetts." Worcester, MA.

³ Per conversation with Mark Bilotta, CEO, the Colleges of the Worcester Consortium, on November 29, 2008.

⁴ Clifford, Barbara. "Stemming the Tide of the Brain Drain." *The Buzz*, an advertising supplement of the *Telegram & Gazette*, April 2007.



Opportunity Maine seeks to boost retention by allowing any graduate of a Maine college to claim a tax credit for payments on student loans.

Opportunity Maine seeks to boost college attendance, degree completion, and retention by allowing any graduate of a Maine college (public or private) to claim a tax credit for payments on student loans for up to 10 years. The credit, available since January 2008, is capped annually at the level of tuition and fees of the state’s public higher education system—roughly \$1,500 for associate’s degree earners and \$5,500 for bachelor’s degree earners.²⁵ Students enroll by completing an “opportunity contract” through their financial aid office. This enables the state to track participants, including their loan information and residency. Program administrators hope to link this information to a new state database to evaluate impacts on educational attainment and workforce development.

According to Rob Brown, executive director of Opportunity Maine, the program—launched as a citizen’s initiative—has enjoyed strong support among business, civic, and higher education leaders for several reasons. First, the universality of encompassing all college graduates, rather than limiting the credit to those of a certain age range, occupation, or industry, helped form a broad coalition for the bill’s passage. Second, the ability to piggyback on the existing tax system rather than create a new agency or funding stream appealed to lawmakers. And third, the idea that the program would benefit only those who live, work, and pay taxes in the state after graduating made the program attractive to voters.²⁶

Other New England states have targeted loan-forgiveness programs aimed at increasing the supply of recent college graduates in particular industries such as biotech or occupations such as teaching. For example, Connecticut provides loan forgiveness of up to \$5,000 for graduates working in the engineering industry and up to \$10,000 for those working in biotech.²⁷ In addition, five of the six New England states have loan forgiveness programs for college graduates who remain in their respective states to become teachers.²⁸

Alternatively, encouraging employers to offer loan forgiveness programs to recent college graduates can also help alleviate student debt burdens. For example, employers that participate in New Hampshire’s Stay Work Play Incentive Program contribute up to \$8,000 to pay down federal college loans of newly hired graduates. Payments are made directly to loan providers and are phased in over the graduate’s first four years of employment. The payment structure is designed to reduce student loan debt while also enhancing worker retention for employers and reducing their overall hiring and training costs. In return, employers are promoted as part of the state’s “55% Initiative,” a statewide effort to encourage more new college graduates to stay in the state. Participating organizations are required to report the number of employees that receive incentive payments, the total dollar value of those incentives, and the retention rate on an annual basis to gauge the program’s overall impact.²⁹

Increasing investments in public higher education

Another long-term strategy for increasing New England’s supply of recent college graduates is to invest more heavily in the region’s public colleges and universities. A 2005 report by the Nellie Mae Foundation called New England’s higher education system the “last best hope” for sustaining the region’s population, workforce and economy, urging states to enhance the quality of their higher education systems to “attract young people here and keep them here once they graduate.”³⁰ Greater investment in the region’s public institutions could also encourage a greater number of academically talented native students—who have higher retention rates than non-native students—to stay in the region for college rather than attend a flagship public university elsewhere. Finally, efforts to expand access and improve readiness—particularly among minority and immigrant populations—could encourage greater college attendance and completion among the region’s native young adults.

Public higher education in New England is underfunded relative to other parts of the country. According to the New England Board of Higher Education, Americans paid on average \$242 each in annual state taxes to support public higher education and student aid in their states during fiscal year 2007. New Englanders, however, paid just \$177 in appropriations per capita. This is not a new phenomenon—appropriations for public higher education in five of the six New England states have grown more slowly than the U.S. average over the past 10 years.³¹ Although higher funding does not necessarily indicate greater quality, fewer resources are likely to make it more difficult for New England's public institutions to compete with better-funded public universities in other states.

Some New England states are targeting their investments in public higher education with an eye to making their state universities more competitive. A prime example of this is the establishment of Commonwealth College, an honors college at the University of Massachusetts Amherst. Originally designed as an honors program at UMass Amherst, Commonwealth College became a separate college within the university in 1998. The College's mission is to give students an outstanding academic experience through small, intensive classes, an array of interdisciplinary seminars, and community service learning courses. Students take at least one honors course each semester and must complete a capstone project to graduate with the College's designation on their diplomas and transcripts. Tuition is equal to that of the overall university, about \$10,000 per year, making Commonwealth College a more affordable alternative to prestigious private institutions.³²

This combination of intellectual rigor and affordability has enabled Commonwealth College to attract some of Massachusetts' most talented students and in so doing has helped UMass Amherst achieve greater prominence, according to Priscilla Clarkson, dean of Commonwealth College. Now in its tenth year, the College has 3,700 students on the Amherst campus, with roughly 85 percent of each incoming class comprising native students. And as enrollment has surged, selectivity has increased over the past decade both for Commonwealth College and across the entire UMass Amherst campus. The College's fall 2008 entering class had qualifications that resembled those of prestigious private institutions, boasting on average a combined SAT score of 1320, a high school grade point average of 4.09, and a class rank that placed them in the top 5 percent of their graduating high school class.³³

Other investments in public higher education seek to expand access and improve readiness—particularly among minority and immigrant populations—to increase educational attainment among the region's native young adults. For example, the New England Board of Higher Education's "College Ready New England" initiative—an alliance of leaders from K-12 education, higher education, business, and government—focuses on increasing the region's economic competitiveness and well-being by expanding college participation and success.³⁴ CRNE's mission is twofold: (1) to ensure that all students leave high school well-prepared for postsecondary success; and (2) to improve college attendance and completion rates, particularly among low-income and minority students and first-generation college-goers. As a first step, the initiative is working with coalitions in each New England state to implement the American Council on Education's "KnowHow2Go" outreach campaign. Launched in a number of states, the campaign is designed to motivate students to stay in high school, increase academic achievement, prepare for entrance exams, apply and enroll in college, and complete bachelor's degrees.

Some New England states are targeting their investments in public higher education with an eye to making their state universities more competitive.

creating a successful brand

New Hampshire's "55% Initiative" aims to increase the percentage of college graduates who remain in the state after graduation, through a tourism-like marketing campaign.

In 2005, the University System of New Hampshire (USNH) began taking a more active role in reaching out to the business community to become a "partner of choice." During a series of listening sessions with the Chambers of Commerce, the State's Department of Resources and Economic Development (DRED), and other business and association leaders, it became clear that employers were concerned with finding the skilled workers they needed to grow their businesses. Anecdotal evidence from surveys of college-bound high-school seniors showed that only 50 percent planned to live in New Hampshire after college.

In response, USNH created the "55% Initiative" to increase the percentage of college graduates who remain in the state after graduation from the current 50 percent to at least 55 percent, through a "tourism-like" marketing campaign. Leaders of the initiative project that even this small shift in the migration rate of college graduates would have a sizeable impact, adding more than 600 employees to the state's workforce in one year. The Initiative has garnered broad support in the business community, with a number of organizations and firms signing on in support such as the NH Business and Industry Association, the NH High Tech Council, six Young Professionals Associations, Liberty Mutual, BAE Systems, and several area chambers of commerce.¹

As a first step in the initiative, USNH researchers surveyed over 3,000 college seniors and recent alumni to gain insight into their future plans and why they planned to stay or leave New Hampshire upon graduation. The survey revealed that although students typically viewed quality of life, proximity to natural resources, and housing as very important reasons to stay in New Hampshire, there was a strong link between the perception of the state's job market and the decision to leave the state. Roughly 40 percent of graduates believed there were no jobs in their field, with out-of-state students having an even more negative view of the New Hampshire job market. Based on the results of the survey, a team of marketing faculty from the local colleges and universities, along with their students, designed a marketing campaign to promote New Hampshire as a destination for young people.²

Involving students in the design and promotion of the branding campaign was a "natural next step" in the mind of Matt Cookson, associate vice chancellor of external relations for USNH, as they represent the initiative's target demographic.³ Students from Keene State College, Plymouth State University, and the University of New Hampshire presented their ideas to business leaders and educators at a meeting in May 2008. Many of their ideas resonated with the audience, ranging from busing students to centralized job fairs, creating a statewide web site for new graduates, and using YouTube videos of young professionals telling their stories about how they chose to launch their careers in New Hampshire.

Although the actual marketing campaign has yet to get underway, students who worked on the project said that it changed the way they thought about New Hampshire

and also their plans to leave the state after they graduated. At Plymouth State University, five of the 18 students working on the project who had planned to pursue a career outside of New Hampshire decided to remain in the state upon graduation. According to Cookson, this is evidence that “students are not fully aware of the opportunities here, the quality of life, and the fact that more of their paycheck might wind up in their pocket. Getting this information to them can change their minds.”⁴

Cookson also sees that partnering with the state’s Young Professional Associations (YPAs) will be key in successfully communicating and promoting the state’s branding initiative. These organizations offer the social networking opportunities that many new graduates are eager to tap and have a vested interest in encouraging recent graduates to stay in the regions where they operate. There are currently six YPAs in New Hampshire with a combined membership of approximately 8,000 individuals.⁵ Early on in the process, USNH Chancellor Reno joined with board members from two of the state’s young professional networks at separate events to bring attention to the issue and the initiative. More recently, USNH collaborated with the YPAs to develop an online survey of their membership. The survey will assist the YPAs in gauging the impact they have on young professionals as well as enhance the earlier research on why individuals leave the state.⁶

¹ Cookson, Matt. 2007. “Effort to Keep More College Graduates in NH Gains Support and Momentum.” University System of New Hampshire, <http://www.usnh.edu/initiatives>.

² Cookson, Matt. 2008. “The 55% Initiative. Summary of activities for 2007 and next steps.” University System of New Hampshire, <http://www.usnh.edu/initiatives>.

³ Per conversation with Matt Cookson, Associate Vice Chancellor for External Relations, University System of New Hampshire on November 12, 2008.

⁴ University System of New Hampshire. 2008. “Student Input Helps Advance the 55% Initiative and Confirm Need to Connect with New Grads in New Hampshire to Encourage them To “Stay, Work, and Play” Here.” Press Release, May, <http://www.usnh.edu/initiatives>.

⁵ Cookson, Matt. 2008. “The 55% Initiative. Summary of activities for 2007 and next steps.” University System of New Hampshire, <http://www.usnh.edu/initiatives>.

⁶ University System of New Hampshire. 2007. “University System of NH Partners with Young Professionals Networks to Advance Efforts to Retain More Young Professionals in the State.” Press Release, September 19, <http://www.usnh.edu/initiatives>.



The Federal Reserve Bank of Boston and the Greater Boston Chamber of Commerce are exploring how internships can be used more effectively to link college students and Boston area employers.

Looking Forward

In some sense, New England is a victim of its own success. The region's colleges and universities excel at producing highly skilled college graduates who are likely to have job opportunities in any number of locations. Yet we retain a lower share of recent college grads than other regions—largely because we educate a relatively high share of non-native students, who have a greater tendency to leave upon graduation. So, despite the success of the region's higher education industry, employers may still face challenges when hiring recent college graduates.

Fortunately, our findings suggest some tangible steps that states can take in the near term to retain more recent college graduates. For example, recent college graduates appear to be moving primarily to seek the best job opportunities. Thus activities aimed at addressing the primary concerns of graduates leaving the region—such as expanding the use of internships—are likely to have the most immediate impact. Efforts to brand the region as a place to “work, play, and stay” can augment these actions by making recent college graduates more aware of the region's employment opportunities and recreational amenities. As Bentley University economics professor Patricia Flynn observed in the *Boston Globe* last year, “Being offered a really good job will override housing costs, snow, and a lot of other issues.”³⁵

Long-term efforts aimed at raising educational attainment among native young adults can also help sustain the region's supply of skilled workers in the face of future demographic changes. For example, efforts to alleviate college debt burdens and increase investments in public higher education can encourage greater college attendance and completion, particularly among minority and immigrant populations. However, it is likely that these initiatives will encounter short-term financing obstacles, given the severe fiscal difficulties that state governments are now confronting.

Looking ahead, 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. Understanding which responses are likely to be the most effective requires a clear understanding of the factors that affect the supply and retention of these graduates. Our hope is that armed with such an understanding, business leaders, policymakers, and universities can better identify joint initiatives to expand the region's supply of recent college graduates.

In this vein, the Federal Reserve Bank of Boston and the Greater Boston Chamber of Commerce have begun to explore ways in which internships can be used more effectively to expose college students to the employment opportunities and other attributes of the Boston area. This joint effort, currently in the planning stages, was prompted by the findings presented here and by a report commissioned by the Chamber assessing the workforce needs of local firms.³⁶ The hope is that this initiative will have applicability elsewhere in New England and shed light on one of the ways we can achieve greater success in meeting the demands of the region's employers for skilled workers.

Endnotes

- ¹ Kirsner, Scott. 2008. "How can we hold on to student talent?" *The Boston Globe*. November 16.
- ² The research is discussed in Research Report No. 08-1, released in 2008 by the Bank's New England Public Policy Center. For the full report—including more detailed information for each New England state—see: <http://www.bos.frb.org/economic/neppc/>.
- ³ Sasser, Alicia. "The New England Rental Market." NEPPC Policy Brief No. 07-1 (January 2007).
- ⁴ Silvernail, David L. and Greg Gollihur. 2003. "Maine's College Graduates: Where They Go and Why. Finding Maine's Future Workforce."
- ⁵ Greater Boston Chamber of Commerce and The Boston Foundation. 2003. "Preventing a Brain Drain: Talent Retention in Greater Boston." Boston, MA.
- ⁶ Reno, Stephen. 2008. "Should I Stay or Should I Go? NH's college graduates and the 55% Initiative - keeping more of our human capital in the state." Presented to the New Hampshire Businesses for Social Responsibility.
- ⁷ Next Generation Consulting and TIP Strategies. 2007. "Growing Vermont's Next Generation Workforce."
- ⁸ Deborah Hirsch. "Access to a College Degree or Just College Debt?" *New England Journal of Higher Education*. Fall, vol. XXIII, No. 2.
- ⁹ Worcester Regional Research Bureau. 2006. "Central Massachusetts Talent Retention Project." Worcester, MA.
- ¹⁰ National Association of Colleges and Employers. "NACE 2008 Recruiting Benchmarks Survey." December 2008.
- ¹¹ National Association of Colleges and Employers. "NACE 2008 Experimental Education Survey." March 2008.
- ¹² Worcester Regional Research Bureau. 2006. "Central Massachusetts Talent Retention Project." Worcester, MA.
- ¹³ National Association of Colleges and Employers. "NACE 2008 Experimental Education Survey." March 2008.
- ¹⁴ Worcester Regional Research Bureau. 2006. "Central Massachusetts Talent Retention Project." Worcester, MA.
- ¹⁵ National Association of Colleges and Employers. "NACE 2008 Experimental Education Survey." March 2008.
- ¹⁶ Colleges of the Worcester Consortium. 2008. "Celebrating the Contributions of Higher Education to Worcester County." 2007-08 Annual Report. Worcester, MA.
- ¹⁷ Per conversation with Leonard Morrison, Executive Director, Corporate Relations, Bentley University on December 11, 2008.
- ¹⁸ National Association of Colleges and Employers. "NACE 2008 Experimental Education Survey." March 2008.
- ¹⁹ Vermont Department of Labor. FY 2009 Internship Grant Awards through September 30, 2008.
- ²⁰ Schorpp, Doug. 2008. "Hands-on internships provide taste of post-college world." *The Quad-City Business Journal*, June 30.
- ²¹ University System of New Hampshire. 2008. "Student Input Helps Advance the 55% Initiative and Confirm Need to Connect with New Grads in New Hampshire to Encourage them To "Stay, Work, and Play" Here." Press Release, May 2, <http://www.usnh.edu/initiatives>.
- ²² Per conversations with Chris Winstead (Chairperson, FusionBangor), Julie Daly (Program Manager, HYPE) and Chris Williams (President, Nashua Chamber of Commerce).
- ²³ The College Board. 2007. "Trends in Student Aid." Trends in Higher Education Series.
- ²⁴ Project on Student Debt. 2008. "Student Debt and the Class of 2007." <http://www.projectonstudentdebt.org>.
- ²⁵ Ginn, Clifford. "Economic Impact of the Opportunity Maine Initiative." <http://www.opportunitymaine.org>.
- ²⁶ Per conversation with Rob Brown, Executive Director of Opportunity Maine, November 25, 2008.
- ²⁷ Pinhel, Rute, Sarah Bourne, and Joan Soulsby. 2008. "Loan Forgiveness Programs." OLR Research Report. 2008-R-0498.
- ²⁸ These include the Connecticut Minority Teacher Incentive Program, the Educators for Maine Program, the Teachers for New Hampshire Award, the Rhode Island Teacher Reward Program, and the Vermont Teacher Diversity Scholarship Program.
- ²⁹ Cookson, Matt. 2008. "The Stay Work and Play Incentive Program." University System of New Hampshire. <http://www.usnh.edu/initiatives>.
- ³⁰ "New England 2020: A Forecast of Educational Attainment And Its Implications For the Workforce of New England States."
- ³¹ New England Board of Higher Education. 2007. Connections Trends & Indicators in Higher Education.
- ³² Schworm, Peter. 2008. "Cream at the top is sweet for UMass." *The Boston Globe*, March 24.
- ³³ Per conversation with Priscilla Clarkson, Dean of Commonwealth College on December 10, 2008.
- ³⁴ For more information see <http://www.collegereadyne.org>.
- ³⁵ Kirsner, Scott. 2008. "Youth Movement." *The Boston Globe*. February 17.
- ³⁶ Mercer Consulting. 2008. Greater Boston's Challenge: Sustaining the Talent Advantage. Greater Boston Chamber of Commerce.

