

# Discussion Paper



## Is New England experiencing a “brain drain”? Facts about demographic change and young professionals

by Heather Brome

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## Facts about demographic change and young professionals

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### Summary

Recent news articles and studies have generated concern among New England policy makers and others that the region’s supply of young, highly educated professionals is disappearing. The fear is that comparatively high housing and other costs may be driving away many within this highly mobile group. This paper explores trends in the stocks and flows of young professionals, defined as people 25 to 39 with at least a bachelor’s degree. The goal is to help policy makers better understand this important demographic story, giving them the facts about how various factors, including migration, are affecting the region’s supply of young, educated labor.

The story about young professionals turns out to be much more nuanced than headlines suggest. The region has a strong base of young professionals. As of 2005, New England had the largest population of young professionals of any U.S. region, relative to its population of young people and its total household population. At the same time, New England should not take this strong base of young professionals for granted. While the region’s young professional population is holding steady, this cohort is growing in all other regions.

Many articles and reports conflate young people and young professionals. While it is true that fewer people between 25 and 39 live in New England today than at any time during the past 15 years, the number of those in the specific category of young professionals has not declined, thanks to steady increases in the share of young people who complete college. Additionally, while this decline in young people is often attributed to out-migration, it is due, at least in part, to a large number of individuals who are aging out of the cohort, rather than leaving the region.

Finally, stories about out-migration from New England generally consider only domestic migration. While it is true that New England is losing more young professionals to the rest of the nation than it receives domestically, this domestic outflow of young professionals may be offset by young professionals moving to New England from abroad. Though the net number of international immigrants is not available, New England would have to retain only half of those who arrive from abroad in order to replace the flow of young professionals moving to other parts of the nation.

In short, a careful analysis of the data indicates that reports of a major “brain drain” from the region are overstated. However, this does not mean that policy makers should take for granted that the region will continue to retain a solid base of young, educated professionals.

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## Introduction

Recent headlines have told the story of a shrinking young professional population in New England, raising concerns among businesses and policy makers.<sup>1</sup> The following discussion offers a careful analysis of demographic data to investigate the conventional wisdom that we are currently experiencing a large “brain drain” from the region. This paper examines whether there are fewer young professionals in New England now than in the past (that is, the stock or supply of young professionals) and whether the region has lost members of this demographic group to out-migration (that is, the flows or movement of young professionals). The main findings are that while New England still has the highest share of young professionals relative to the size of the region’s population of any region in the nation, the total population of young professionals is neither growing nor shrinking. Increases in educational attainment and an influx of young professionals from abroad have served to offset decreasing birth rates and out-migration to other parts of the United States.

## Data sources

The stocks and flows of young professionals—defined as individuals 25 to 39, with at least a bachelor’s degree and not currently enrolled in school—are difficult to measure because the components are constantly changing, and more so than for other demographic groups. People age into and out of this age cohort or they earn BAs or graduate degrees. Also, young people move into and out of regions more often than other demographic groups, though the vast majority of people of all ages and education levels stay put. Key features that matter in the supply of young professionals include the size and educational attainment of the 25-to-39 cohort at any given time and net migration of the young and educated, both domestic and international.

The U.S. Census provides extensive data on the age structure and educational attainment of the U.S. population every ten years. This analysis relies on data from the 1980, 1990, and 2000 censuses to examine changes in the stocks of young professionals over time. For more recent trends in the stocks of young professionals and the migration rates of young professionals, this analysis uses data from the 2005 American Community Survey (ACS). The Census Bureau developed the ACS to track population trends between the decennial censuses. Since 2005 was the first year of full geographic implementation of the ACS, migration rates are available only for that one year.<sup>2</sup> The 2005 ACS data include only household population, so for the sake of comparison, the 1980, 1990, and 2000 estimates

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<sup>1</sup> For example: “New England May See Exodus of Young Talent, Study Warns.” *The Boston Globe*, June 29, 2006; “Leaders Worry About NH Student Exodus; Some Fearing Shortage of Skilled Workers.” *The Boston Globe*, October 9, 2005; Ross Gittell. “Demographic Demise: The Declining Young Adult Population in New England.” *The New England Journal of Higher Education*, Summer 2007; “Housing Cost a Top Concern; Polls Fuel Worries of a Brain Drain.” *The Boston Globe*, February 9, 2007.

<sup>2</sup> Because the 2005 ACS excludes group quarters, population numbers in this report represent household population only. 2006 ACS and all future ACS data will include group quarters. As of the 2000 Census, only 0.4% of college-educated 25-39 year olds who were not currently enrolled in school lived in group quarters in the nation and 0.3% in New England. Because this is such a small share of young professionals, it is not likely to affect the accuracy of migration rates.

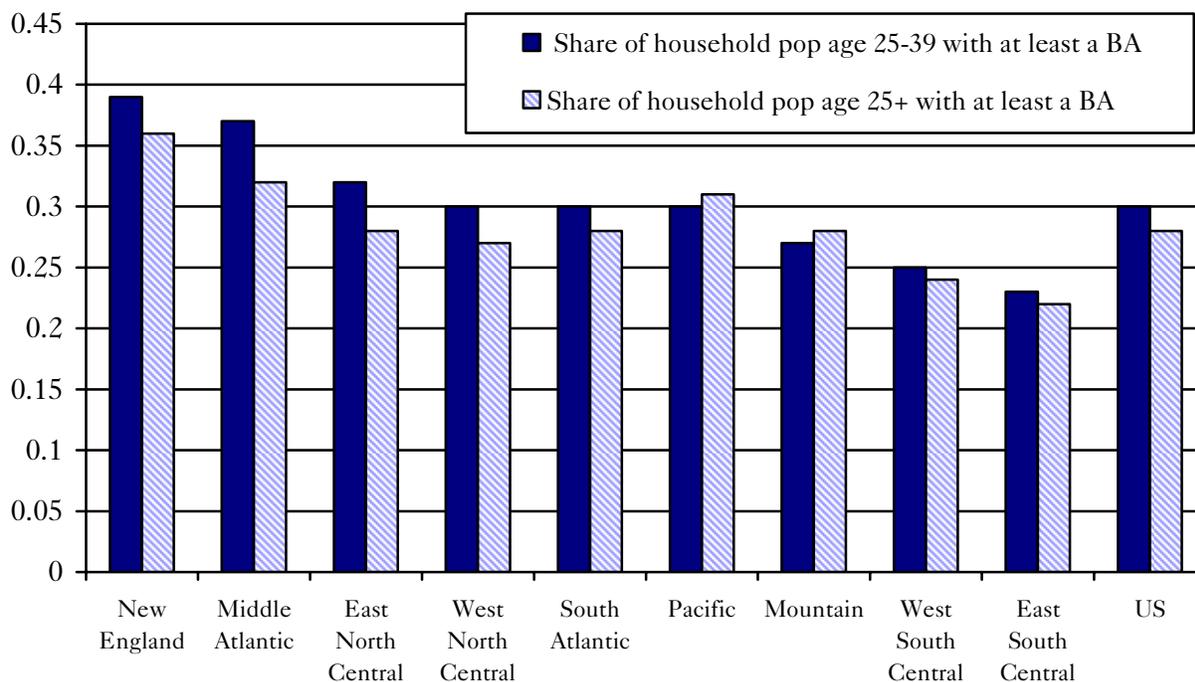
presented are for household population as well. Comparisons of estimates from the 2000 Census and 2005 ACS should be treated with caution. There are differences in the definition of residency, sample size, and sampling technique between the decennial Census and the ACS.

However, neither of these data sets tracks individuals over time to definitively answer how much of the change in the young professional population is attributable to migration, educational attainment, or changes in the size of the age cohort.

### Are fewer young professionals living in New England now than in the past?

New England has the most highly educated young population in the nation. According to the 2005 ACS, 38.6 percent of its 25-to-39 year old population holds at least a BA, compared to only 30.1 percent for the United States as a whole. New England also has the most highly educated population, with 35.6 percent of New Englanders over age 25 having at least a bachelor's degree, compared to 28.4 percent for the nation.

Figure 1: New England's young people are more likely to have at least a BA than young people in any other region of the US as of 2005; the population age 25+ follows this pattern as well



Source: NEPPC calculations, based on the 2005 American Community Survey

The rate at which educational attainment has grown among the region’s 25-to-39 year old population has kept pace with other regions. Between 1980 and 2005, the share of young people in the region who hold at least a BA grew from 28 percent to nearly 39 percent. The Middle Atlantic, East North Central, and South Atlantic divisions, all of which started from a lower base, outpaced New England’s growth. Given the region’s knowledge-based economy, this high concentration of young, educated workers enhances its competitive position.

Table 1: Between 1980 and 2005, New England continued to make rapid gains in the share of young people with at least a BA

Share of 25-39 year old household population with at least a BA				
	1980	1990	2000	2005
New England	28.1%	31.6%	35.5%	38.6%
Middle Atlantic	24.7%	28.2%	31.8%	36.7%
West North Central	23.3%	24.0%	28.9%	31.9%
East North Central	20.9%	22.1%	26.9%	30.2%
South Atlantic	21.6%	23.8%	27.3%	30.1%
Pacific	24.9%	24.6%	27.3%	29.7%
Mountain	24.8%	23.1%	25.8%	27.3%
West South Central	21.3%	21.7%	23.0%	24.8%
East South Central	17.5%	18.7%	21.2%	23.4%
United States	22.8%	24.2%	27.4%	30.1%

Source: NEPPC calculations from 1980, 1990, and 2000 Censuses and 2005 ACS.

Notes: All calculations are household population. Direct comparisons of 2005 ACS and 2000 Census data should be treated with caution. The 2005 ACS estimates draw from a smaller sample size and have a different definition of residency.

Regions are the Census-defined divisions.

The stock of young professionals in New England is and has historically been large, relative to the size of the region’s population. As of 2005, according to the ACS, the region continued to have the highest share of young professionals relative to its population of any region, with 6.7 percent of New Englanders falling into this category, compared to 5.4 percent for the nation. In other words, New England has a greater share of young professionals than any other region, relative both to the size of the total population and to the size of the young population.

However, as the last stages of the Baby Boom generation aged into its forties, the 25-to-39 cohort shrank in New England. That is, as the region’s young professionals aged and became professionals age 40 or more, fewer young people were aging into the young professional cohort. It is not just migration that matters; the number of babies born 25 to 40 years ago also

explains the number of young professionals now seen in the region and the nation. It would thus be misleading to say that New England has “lost” young people, when, in fact, these people did not move away but simply aged out of the young professional category. And even with a shrinking overall 25-to-39 year old population, the region maintained a steady number of young professionals from 1990 to 2005. However, while New England just maintained its population of young professionals, the nation as a whole saw a 22 percent increase in the number of college-educated, 25-to-39 year olds over the same period.

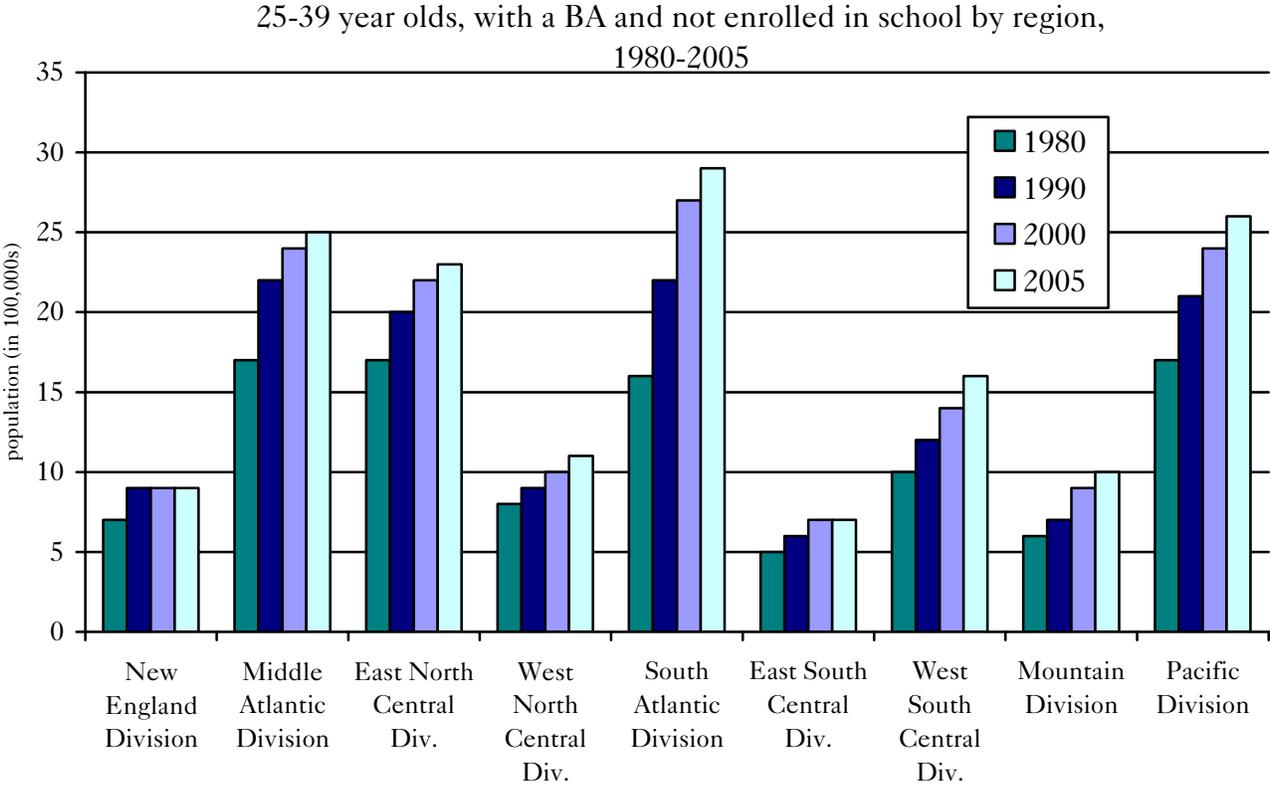
Figure 2: New England’s young, educated population has held steady, even with fewer young people overall



Source: NEPPC calculations from 1980, 1990, and 2000 Censuses and 2005 ACS.  
 Notes: All calculations are household population. Direct comparisons of 2005 ACS and 2000 Census data should be treated with caution. The 2005 ACS estimates draw from a smaller sample size and have a different definition of residency.

Making this flat growth of young professionals in New England during the 1990s seem all the more acute was a population boom among the same cohort during the 1980s. As Baby Boomers came of age in the 1980s, the number of 25-to-39 year olds with a BA grew by 40 percent in New England, compared to 30 percent for the nation. But it is not just this sector of New England’s population that experienced sluggish growth in the 1990s; every population group in the region, including the over-65 and over-85 populations, grew more slowly than in the rest of the nation.

Figure 3: While the population of young professionals in New England is holding steady, it is growing in all other regions



Source: NEPPC calculations from 1980, 1990, and 2000 Censuses and 2005 ACS.  
 Notes: All calculations are household population. Direct comparisons of 2005 ACS and 2000 Census data should be treated with caution. The 2005 ACS estimates draw from a smaller sample size and have a different definition of residency.  
 Regions are the Census defined divisions.

**Is New England losing young professionals to out-migration?**

According to data from the 2005 ACS, New England has recently experienced both large in-flows and out-flows of young professionals. For every 1,000 young professionals in New England, 40.6 of them moved into the region and 47.4 moved out of the region, for a net outflow of 6.8 young professionals per thousand to other parts of the nation (Table 2). In contrast, some regions saw a net influx of young professionals. For example, for every 1,000 young professionals in the Mountain region, an additional 20.4 moved in during the same period. The South Atlantic region also gained young professionals from other parts of the nation, at a rate of 10.9 per 1,000. Yet parts of the Midwest were losing young professionals at a higher rate than New England. The West North Central region, for example, lost, on net, 12.5 young professionals per 1,000 and the East North Central lost 9.7.

Table 2: In 2004-2005, large numbers of young professionals moved into and out of the region, for a net loss of more than 6,000 to other parts of the nation

	Total Number of Young Professional	Domestic Migration						International Immigration	
		Number of Net Migrants	Net Migration Rate	Number Moved in	In-migration Rate	Number Moved out	Out-Migration Rate	Number Moved in	In-Migration Rate
Mountain	1,001,869	19,983	20.4	75,998	77.4	56,015	57.0	12,026	12.2
South Atlantic	2,948,400	31,648	10.9	136,103	46.7	104,455	35.8	35,441	12.2
Pacific	2,579,081	2,482	1.0	89,563	34.8	87,081	33.8	44,944	17.4
East South Central	708,596	-336	-0.5	33,535	47.3	33,871	47.8	3,598	5.1
West South Central	1,644,382	-219	-0.1	52,650	32.0	52,869	32.1	18,713	11.4
Middle Atlantic	2,503,435	-10,656	-4.2	74,246	29.5	84,902	33.8	33,722	13.4
New England	923,001	-6,333	-6.8	37,760	40.6	44,093	47.4	13,421	14.4
East North Central	2,348,547	-22,997	-9.7	64,707	27.3	87,704	37.0	27,510	11.6
West North Central	1,070,600	-13,572	-12.5	35,988	33.2	49,560	45.7	8,546	7.9
US	15,727,911	-	-	600,550	38.2	600,550	38.2	197,921	12.6

Source: NEPPC calculations, based on 2005 American Community Survey

Notes: Migration rates are calculated as [population change/ (population in 2005 – population moved in + population moved out)]\*1000

Rates should be interpreted as per 1,000 residents

In-migration and out-migration rates for the US represent the average rate at which young professionals made inter-regional moves

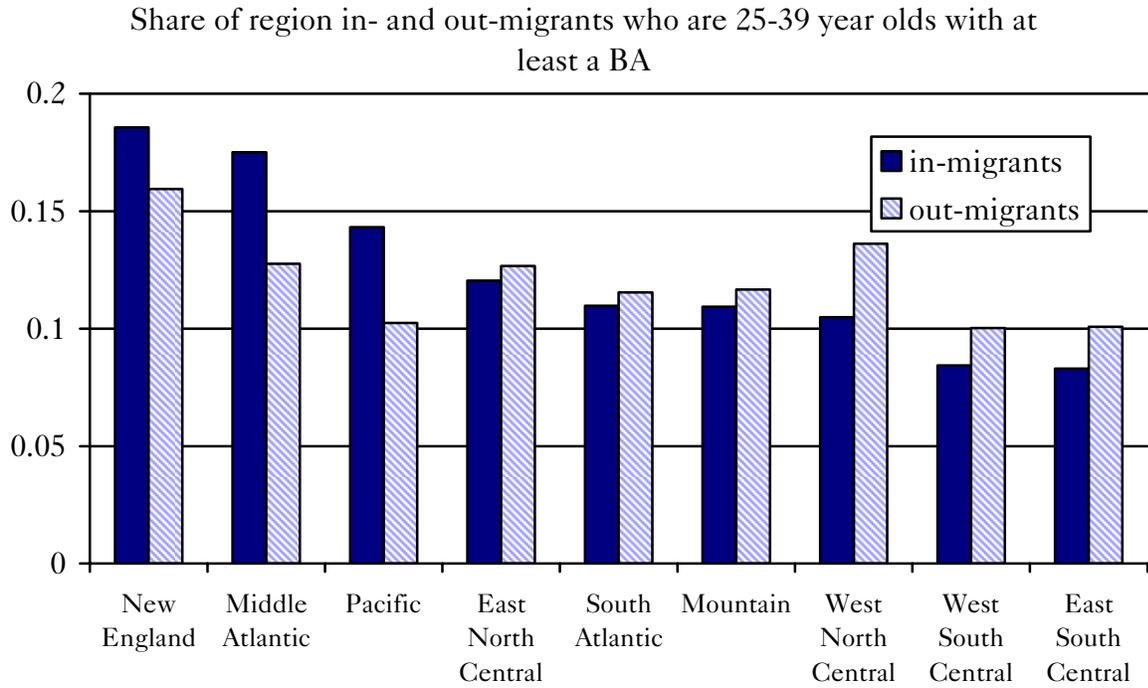
The 2005 ACS took place throughout the 2005 calendar year and asked respondents if they had moved in the prior 12 months. Therefore, migration represented by the migration rates took place in 2004 or 2005.

Note: Population excludes group quarters

New England had higher shares of young professionals moving into and out of the region than any other part of the nation. As seen in Figure 4, 19 percent of in-migrants and 16 percent of out-migrants were young professionals. However, this is to be expected, since this group is a larger share of the population in New England than of any other region.<sup>3</sup>

<sup>3</sup> Because younger and more educated individuals are more likely to be mobile and are more likely to move longer distances, they make up a higher share of migration streams than of total population.

Figure 4: Young professionals make up a larger share of both in- and out-migrants in NE than in any other region



Source: NEPPC calculations, based on 2005 American Community Survey  
 Note: Population excludes group quarters (dormitories, prisons, military barracks, and nursing homes).

However, young, educated individuals do not account for all or even most migrants. New England lost population from all demographic groups. As shown in Table 3, even though young professionals are moving to and from the region at higher rates, the net flow of the young and educated is only somewhat higher than the net flow of the total population or even of the educated population over 40. But it is much higher than that of all people aged 25 to 39.

Table 3: The net migration rate of young professionals is higher than other demographic groups; however, all groups are experiencing net out-migration

Migration rates in New England

	Age 25-39 with a BA, not in school	Age 25-39	Age 40+ with a BA, not in school	Total Household population
<b>Domestic:</b>				
in-migration	40.6	29.4	9.7	14.7
out-migration	47.4	31.3	14.5	19.9
net migration	-6.8	-1.9	-4.7	-5.3
<b>International :</b>				
in-migration	14.4	11.7	3.9	6.1

Source: NEPPC Calculations, based on 2005 American Community Survey

Note: Population excludes group quarters

The outflow of young professionals from New England to other parts of the nation is likely to have been offset to some extent by international immigration. Even as the region was losing more than 6,000 young professionals to net domestic out-migration, it was gaining more than 13,000 young professionals from abroad.<sup>4</sup> (See Table 2). New England is second only to the Pacific region in the share of young professional immigrants from abroad, relative to the young professional population. Because the ACS surveys only households within the United States, it is not possible to create an estimate of the number of young professionals who leave the region for international destinations. However, New England would have to retain only half of those who arrive from abroad in order to replace its flow of young professionals to other parts of the nation.

## Conclusion

Despite the conventional wisdom that young professionals are leaving the region in large numbers, New England’s supply of young, educated workers is not shrinking. It is not growing as much as it has in the past nor as fast as the rest of the nation. A confluence of

<sup>4</sup> The American Community Survey is a survey of U.S. households. Individuals who have moved from abroad to the United States are included because they currently live in the country, but individuals who moved from the United States to other countries are not included because their current addresses are not in the United States. Therefore, it is not possible to construct a net international migration rate using this data. Some researchers present in-migration rates as net international immigration rates. However, for this demographic group, this may not make sense. Many educated 25-39 year olds from abroad may return to their home countries after several years of work in the United States.

factors—the increasingly large role of migration in regional population growth, the aging out of the Baby Boom cohort, sluggish overall population growth—all make it appear as if the region’s base of young professionals is shrinking. However, the region still maintains a larger share of young professionals relative to the size of its population than any other region.

It is important that policy makers concerned about the New England’s supply of young professionals realize that migration is not the only factor that affects the number of young professionals in the region. The interaction of several different factors (the size of the age cohort, educational attainment, and international immigration) all come together to create the population of young professionals. If policy makers wish to increase the supply of young, educated workers in the region, they would do well to consider not only domestic migration, but international immigration policies as well as education policies.

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