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Migrants and the Massachusetts economy: new challenges and questions

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Migrants and the Massachusetts Economy: *New Challenges and Questions*

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This study shows the impacts domestic in- and out-migration have on the Massachusetts labor force, and raises questions regarding the reasons for out-migration from Massachusetts even when our economy is strong, and for the Commonwealth's recent net losses in migration even with states that have traditionally provided it with net gains in migration.

MIGRATION IN MASSACHUSETTS

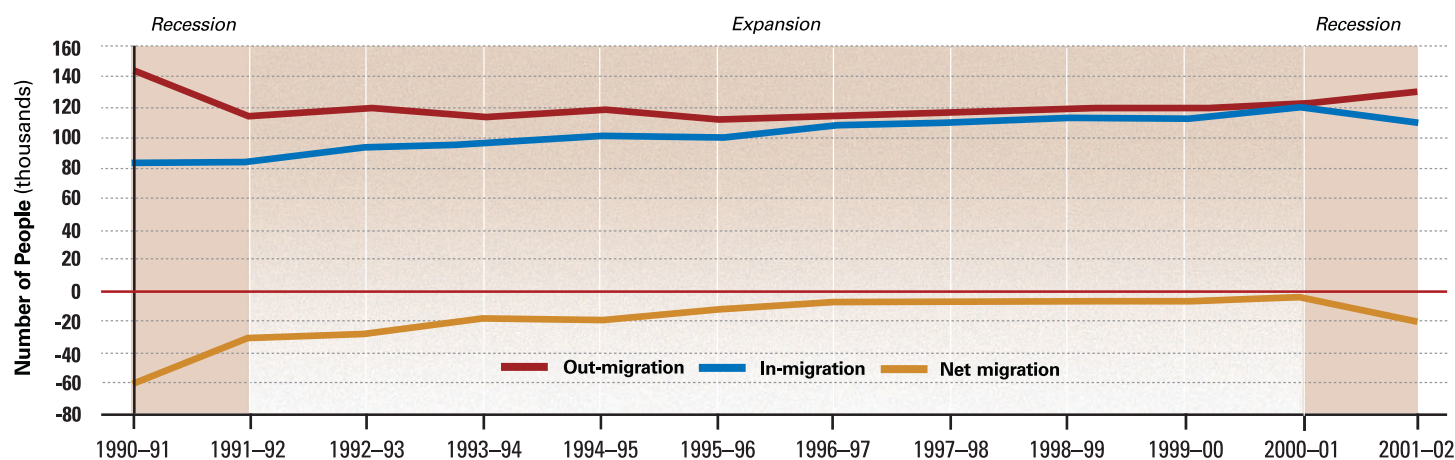
During the last twenty years, the Massachusetts economy has changed dramatically, shifting away from manufacturing jobs toward service-sector jobs and introducing into our economy the long-term characteristic of worker mobility. The Massachusetts economy, with its emphasis on technology-oriented and knowledge-intensive industries, requires (and attracts) highly educated workers. These workers tend to have many choices about where to live and work and, not surprisingly, are a highly mobile population. Other states with similar economies that are heavily reliant on highly educated workers also face such worker mobility and compete with Massachusetts for this desirable segment of the labor force.

While other states face this same issue, worker mobility is especially salient for the Massachusetts economy because of our state's slow labor-force growth and aging population. Over the long run, the ability to sustain a healthy and growing economy rests on a growing labor force that can

expand economic activity. The Commonwealth, however, has long faced the problem of a slowly growing labor force. Over the entire 1990s, our labor force grew by less than 2 percent, whereas the nation's grew by nearly 14 percent. Indeed, during the 1990s, Massachusetts experienced the fourth-lowest rate of labor-force growth in the nation (Sum, Harrington, and Fogg 2002).

Between 1990 and 2002, excluding international immigrants, about 1.23 million people moved *into* Massachusetts from other states and about 1.44 million moved *out of* Massachusetts to other states.¹ That meant a net loss to Massachusetts of more than 213,000 domestic out-migrants.² This figure represents the equivalent of 82 percent of all labor-force growth in Massachusetts during the same period. Our labor force grew at all only because of international immigrants, who have contributed substantially to our economy.³ The focus of this article, however, is domestic migrants, who, as we shall see, play a critical role in sustaining key industries in the Massachusetts economy.

Figure 1. In-Migration and Out-Migration in Massachusetts 1990–2002



Source: U.S. Internal Revenue Service (2004)

The patterns of domestic migration to and from Massachusetts vary loosely with the Massachusetts business cycle on a year-by-year basis. Just as a hot economy will attract workers, a struggling economy will spur people to seek better job opportunities elsewhere. Consider the early 1990s, when the Massachusetts economy was deep in a recession. From 1990 to 1991, the “net migration” (in-migration minus out-migration) was –60,718 (see fig. 1). Over the last twelve years, this has been the single largest number of people lost, net, in a given year. Because the economic conditions in Massachusetts in the late 1980s and early 1990s were significantly worse than in other parts of the country, potential migrants had better economic prospects elsewhere. As the Massachusetts economy began to recover, the magnitude of in-migration rose steadily, from 83,291 in 1990 to 119,024 in 2001. But between 2001 and 2002—the first full year of the recession in Massachusetts—the number of in-migrants fell to 110,127.

In contrast, out-migration patterns were not nearly so linear and did not correspond so closely to the business cycle. From 1990 to 1991, with the recession at its worst, 144,009 people left Massachusetts. The following year, the number of people who left the state dropped to 114,928. The number of out-migrants then fluctuated over the next several years. But since 1996–1997, despite the state’s strong economy, domestic out-migration has been steadily increasing, reaching 129,946 by 2001–2002. Clearly, economic conditions alone cannot fully explain out-migration behavior.

Looking at net migration year by year between 1990 and 2002, we find that in every year, Massachusetts has lost more people than it has attracted. Given the strong economic expansion during much of this time, the state’s inability to attract more people than it lost is especially noteworthy. The year 2000–2001 was the state’s “best year,” yet in net terms, we lost 3,818 people in that year. During the other years of the economic boom, Massachusetts lost anywhere from 5,800 to 7,200 people. Even during some of the most prosperous

years in recent memory, Massachusetts was not able, on net, to attract people to our state.

The conclusion that both in- and out-migration were rising during much of the expansion in the 1990s is consistent with other migration studies. These studies find that once a region starts receiving an increased flow of in-migrants, eventually a “counter stream” of out-migrants will arise regardless of economic conditions (Greenwood 1975). Much of this phenomenon is due to characteristics common among migrants, making them more prone to move, and to move on, than the population as a whole. The fact that both in- and out-migration can be high and even growing during a period of economic expansion, low unemployment, and reported labor shortages in certain science, technology, and engineering fields (Harrington and Fogg 1997) is perhaps surprising, but is a common finding among regions that experience high volumes of migration. By the very nature of migration and migrants, moving in is often followed by moving on.

Growing regions, then, attract the type of person who is likely to move on in good times, and even more likely to move on in bad times, especially when a region’s economic conditions worsen relative to other regions or the nation as a whole. Under these circumstances, out-migration increases, as people leave in pursuit of opportunities in more prosperous locations. Simultaneously, in-migration slows, as limited opportunities draw fewer people. The result can drain a state’s labor force. Because of the significant economic expansion during much of the 1990s, the Commonwealth attracted a significant number of in-migrants in that period (recall that more than 1.2 million migrants entered the state from 1990 through 2002). These in-migrants are a pool of “hair-trigger” potential out-migrants, labor-force members who by their previous behavior have self-identified as likely movers. If the current economic recovery goes slowly, and especially if our regional economy underperforms the nation’s, the Commonwealth is at risk to lose many from this pool of previous

in-migrants, plus others who are prone to move. Such an exodus could drain the area of a significant number of highly educated, young workers, further hampering the economy's ability to recover.

This pattern of migration also puts considerable pressure on regions to maintain economic health in order to achieve a net balance of migrants. In-migrants are attracted to a region primarily by job growth. Once having arrived in the region, their relative lack of roots may well prompt them to move on at some later date. If the region continues to grow jobs, these out-migrants will be replaced by a stream of new in-migrants. However, once job growth diminishes, or becomes stagnant or negative, the stream of out-migrants from the region increases while the replacement stream of in-migrants slows. This can lead to a rapid decline in a vital segment of a region's labor force.

ORIGINS AND DESTINATIONS

Where do out-migrants from Massachusetts go? And, from which states do the newcomers in Massachusetts come?⁴ New Hampshire was the number one destination of those leaving Massachusetts during the 1990s. On the top-ten destination list, Florida ranked number two and was followed by California, New York, and the other New England states, with the exception of Vermont. However, it turns out that the states that migrants from Massachusetts move to are the same states that new migrants to Massachusetts come from. The top-ten list of states where in-migrants come from include New York, New Hampshire, Connecticut, California, and Rhode Island. The overlap of the states where in-migrants come from and where out-migrants go clearly suggests that Massachusetts is engaged in a good deal of exchange with a specific set of states.

Looking only at the origins and destinations of migrants, however, does not tell us the whole story; specifically, it does not reveal what the net total of exchange is with an individual state. In some instances, in net total, Massachusetts gained more people than it lost, whereas in other instances the state lost more people than it gained. If we rank the states plus the District of Columbia in terms of net migration, as in table 1, some interesting findings emerge. First, it is clear that we are net negative with far more states (thirty-one states) than we are net positive with (seventeen states).⁵ Florida tops the residential trade-deficit list; on balance over the last twelve years, Massachusetts lost 99,082 residents to Florida. Florida is an unusual state because of the retirement migration flow. Of all the Florida out-migrants, about 42,000 (42 percent) are 55 years or older. While this is a significant number, it still means that a clear majority of out-migrants to Florida, 57,071, are less than 55 years old and thus not likely to be retirees or pre-retirees. Florida is followed by New Hampshire, where Massachusetts suffered a net loss of 78,201 people. California ranks third on the list; Massachusetts lost 23,978 people

Table 1. Net Migration between Massachusetts and the 50 States

| | Net Migration |
|----------------------|---------------|
| New York | 28,670 |
| Connecticut | 14,997 |
| New Jersey | 9,672 |
| Rhode Island | 2,895 |
| Pennsylvania | 2,433 |
| Michigan | 809 |
| Utah | 326 |
| Nebraska | 292 |
| Indiana | 236 |
| Illinois | 231 |
| Kansas | 174 |
| Iowa | 122 |
| Arkansas | 65 |
| Missouri | 30 |
| Wyoming | 26 |
| Wisconsin | 17 |
| Oklahoma | 11 |
| South Dakota* | — |
| North Dakota* | — |
| Mississippi | -13 |
| West Virginia | -21 |
| Montana | -21 |
| Idaho | -31 |
| Louisiana | -74 |
| Delaware | -95 |
| Ohio | -129 |
| Alaska | -148 |
| Kentucky | -201 |
| Hawaii | -231 |
| Minnesota | -246 |
| Alabama | -341 |
| New Mexico | -954 |
| Tennessee | -1,117 |
| Oregon | -1,483 |
| District of Columbia | -2,245 |
| Vermont | -3,014 |
| South Carolina | -3,506 |
| Nevada | -3,794 |
| Maryland | -4,354 |
| Washington | -4,516 |
| Colorado | -5,704 |
| Virginia | -7,220 |
| Texas | -7,231 |
| North Carolina | -8,983 |
| Arizona | -11,033 |
| Georgia | -11,331 |
| Maine | -15,708 |
| California | -23,978 |
| New Hampshire | -78,201 |
| Florida | -99,082 |

** Because of small migration flows that would violate disclosure rules, North Dakota and South Dakota were excluded from the state migration data*
Source: U.S. Internal Revenue Service (2004)

Table 2. Net Domestic Migration in Massachusetts, 1990–2002

| Year | 1990–91 | 1991–92 | 1992–93 | 1993–94 | 1994–95 | 1995–96 | 1996–97 | 1997–98 | 1998–99 | 1999–00 | 2000–01 | 2001–02 |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Net Migration | -60,718 | -30,013 | -26,630 | -17,776 | -17,538 | -11,343 | -7,183 | -6,519 | -5,768 | -6,076 | -3,818 | -19,819 |

Source: U.S. Internal Revenue Service (2004)

to the Golden State. Another New England state, Maine, ranks fourth, with Massachusetts losing 15,708 people to that state.

After Maine come Georgia and Arizona. To each of these two states, Massachusetts lost a significant number of people, roughly 11,000 residents. Although our analysis does not pinpoint the reasons for the large out-migration to these specific states, this pattern is consistent with a larger national trend. All three of these states rank as top destinations for people across the country. Other analyses of the census data find that Naples, Florida, and Atlanta, Georgia, are two of the top cities in attracting young, single people who have a college diploma (U.S. Bureau of the Census 2003). Other states where the loss exceeded 5,000 people include North Carolina, Texas, Virginia, and Colorado. Clearly, in the competition for people, state by state, Massachusetts is typically on the losing side.

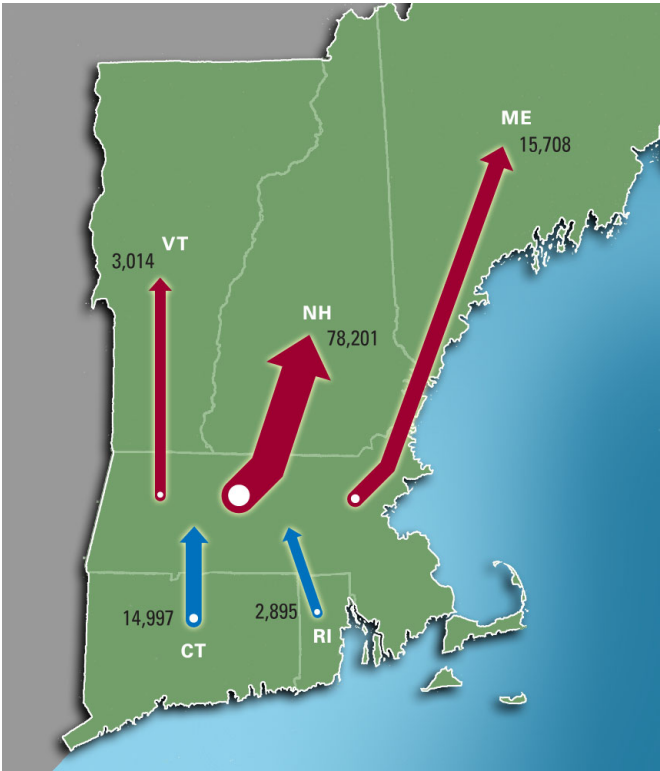
There are only a handful of states from which Massachusetts gains people. New York tops the list of feeder states for Massachusetts. Over the last twelve years, on balance, Massachusetts has gained 28,670 people from the Empire State. The only other two states where there was a sizable gain are Connecticut (+14,997) and New Jersey (+9,672). Although the gains from these and some other states help to offset the losses, the trend is changing with regard to some of the states where we have traditionally been net positive. Table 2 shows the net migration between Massachusetts and the rest of the nation between 1990 and 2002.

MigrationTo and From the New England States

Not surprisingly, there is a significant flow of people to and from the New England states. One of every four in-migrants (25 percent) came from a New England state, and of all the out-migrants, 27 percent went to a New England state. Except for Vermont (the least populous state in the region), the other four New England states make the “top-ten” list of origins and destinations. Most of these losses are to New Hampshire. Indeed, the out-migration of Massachusetts residents to New Hampshire significantly outpaced the flow of in-migrants from the Granite State between 1990 and 2002, with a net loss to the Commonwealth of 78,201 residents. The Commonwealth also steadily lost more residents than it gained to both Maine and Vermont in this same period. Overall, over the last twelve years, Massachusetts, on net, lost 79,031 people to the other New England states. Figure 2 shows this situation graphically.

During this period, two New England states—Connecticut and Rhode Island—sent Massachusetts more residents than they received. On balance, Massachusetts gained 14,997 people from Connecticut and 2,895 people from Rhode Island. However, during recent years, the trend with both of these states has changed. Since 1997–1998, the gain from Connecticut has been decreasing in size. And, in the most recent year examined (2001–2002), on net, Massachusetts actually lost 47 people to the Nutmeg State. The change in the trend with Rhode Island is even more dramatic. Starting in 1995–1996, the size of the gain began to decrease, and for the last four years, Massachusetts has been net negative with Rhode Island. In fact, over the last five years, on balance, Massachusetts has lost 5,688 people to Rhode Island. Both Connecticut and Rhode Island have previously been members of a small subset of states with regard to which Massachusetts has attracted more residents than it has lost. It is also important to realize that this recent downward trend began when the Massachusetts economy was strong. These were times when, because of the many job opportunities, our state should have been attracting, not losing, people. Thus, the current losing trend does

Figure 2. Net Migration with Other New England States 1990–2002



Source: U.S. Internal Revenue Service (2004)

not simply reflect the current tough economic times but appears to be more of a structural problem.

Given both the geography and small size of the Bay State, it is relatively easy to work in Massachusetts but live in another state. (The same is not true for people who work in California’s Silicon Valley or North Carolina’s Research Triangle.) Relatively lower housing costs, more open space, and lower taxes are some of the attractions that draw people across the border. This raises an important question. To what extent are the out-migrants who move to other New England states still connected to the Massachusetts labor markets? Our analysis of the census data indicates that, except for residents of New Hampshire and Rhode Island, the number of people who move to another state but work in Massachusetts is limited. In New Hampshire, slightly more than one-quarter of the out-migrants continue to work in Massachusetts, and in Rhode Island, slightly less than one-quarter continue to work in Massachusetts. Overall, four-fifths of the people who leave the Bay State to live in another New England state do not continue to work in Massachusetts.

Migration To and From Our Economic-Competitor States

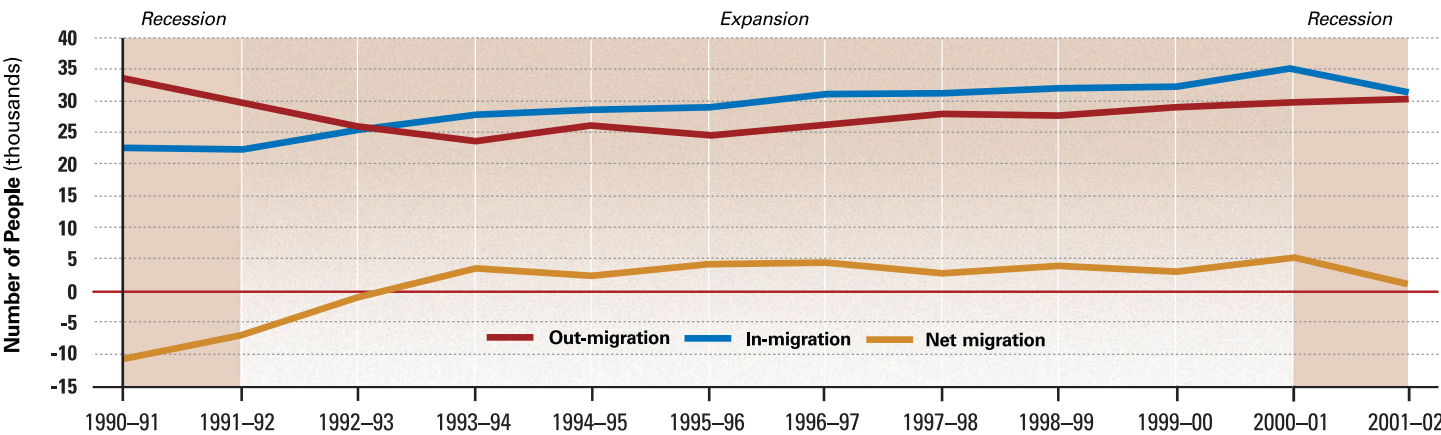
While Massachusetts is known for its high-tech, high-skilled industry mix, it is certainly not the only such state. As a result, highly skilled workers who work in these industries have many choices about where to locate. Given the importance of these workers to the continued competitiveness of the Massachusetts economy, we assessed how well Massachusetts competes for these both highly mobile and highly valuable workers. To do this, we compared Massachusetts to our economic-competitor states. For this analysis, we have identified a set of “high-technology states” commonly recognized as economic competitors for Massachusetts. These states include California, Colorado, Connecticut, Minnesota, New Jersey, and New York, which are the six “leading

technology states” as assessed by the Massachusetts Technology Collaborative. (Note that Connecticut is both an economic competitor and a New England state.) We also include North Carolina, long seen as a competitor because of the presence of the Research Triangle area adjacent to the University of North Carolina, Duke University, and North Carolina State University.

From 1990 through 2002, there was considerable exchange of individuals between Massachusetts and these other high-tech competitor states. Approximately 28 percent of all domestic migrants into Massachusetts since 1990 have come from one of these seven high-tech states, and 23 percent of all the people leaving Massachusetts during the same period moved to one of these states. When compared to its economic competitors, Massachusetts has been winning in the contest to attract people. Even with the past two years of shaky economic times, Massachusetts has been net-positive compared to our economic competitors. Overall, Massachusetts gained 14,428 people from our economic competitors in the twelve years 1990–2002 (see fig. 3).

A closer look, however, reveals considerable variation in migration patterns between Massachusetts and individual high-tech competitor states. The distance of a prospective move is an important consideration to a migrant. Since 1990, the largest exchange of migrants has occurred between Massachusetts and the other northeastern high-tech states—New York, New Jersey, and Connecticut. From 1990 through 2002, about one out of every five migrants (249,772 people) moved to Massachusetts from these three states. At the same time, about 14 percent of migrants leaving Massachusetts (196,433 people) went to these three states. Even with the onset of the latest recession, Massachusetts has gained 53,339 people from our regional competitor states between 1990 and 2002. The picture changes when we examine migration patterns with more distant high-tech competitor states. Recall that the set of high-tech states outside the Northeast includes California, Colorado, Minnesota, and North Caro-

Figure 3. In-Migration and Out-Migration between Massachusetts and Economic-Competitor States 1990–2002



Source: U.S. Internal Revenue Service (2004)

lina. From 1990 through 2002, Massachusetts received 99,807 migrants from these states, representing 8 percent of all migration into the state. In contrast, during this same period, 138,718 migrants left Massachusetts for one of these four states, representing nearly 10 percent of all out-migrants. Thus, we lost a total of 38,911 people to our long-distance competitors. California, the most populous state, dominates the migration flows among these four states. From 1990 through 2002, 74,652 migrants moved from California to Massachusetts, while 98,630 migrants left the state for California. That represents a total net loss of 23,978 people to California. Over time, we are losing more people to our competitor states outside the Northeast than we are attracting from those states.

A PROFILE OF MIGRANTS:
WHO MOVES IN AND WHO MOVES OUT?

Next we will examine the characteristics of those people who moved into Massachusetts at the height of the expansion, between 1995 and 2000. In addition, we compare their characteristics to those who left the state during the same period. Finally, we compare the characteristics of in-migrants and out-migrants to those of nonmigrants, thus developing a social and demographic profile of “movers” and “stayers.” In-migrant information is summarized in table 3. Given our focus on the impact on the state’s labor force, we profile only those individuals of traditional working age (between 18 and 64 years of age).⁶

Demographics

Race and Ethnicity In-migrants are changing the demographic composition of the state, albeit slowly. Nonmigrants in Massachusetts are 84 percent white, about 7 percent Hispanic, 5 percent black, and 3 percent of Asian descent. For in-migrants from other states, only about 78 percent are white, just over 7 percent are Hispanic, almost 5 percent are black, and just over 7 percent are of Asian

descent. Although the magnitude of in-migration will not suddenly change the demographic composition of the state, the in-migrant population represents a demographic shift at the cutting edge of change in the state. Figure 4 presents this information graphically.

While in-migrants are demographically different from nonmigrants, out-migrants more closely resemble nonmigrants. Eighty-one percent of out-migrants are white, compared to 85 percent of nonmigrants. Six percent of out-migrants are Hispanic, 5 percent are black, and 5 percent are of Asian descent (see fig. 4).

Age Both in- and out-migrants are considerably younger than nonmigrants. The median age of in-migrants is 29, of out-migrants, 32, and of nonmigrants, 41. In-migrants might be slightly younger than out-migrants because of the many college-aged students who enter the state to go to college or graduate school; those leaving after graduation would tend to be older. Given the long-standing relationship between age and mobility, it is not surprising that almost 66 percent of in-migrants were between 18 and 34 years old, the most migration-prone age group. Among out-migrants, more than 59 percent are between 18 and 34 years old. In contrast, only 33 percent of non-migrants fall into that age group. Thus, the majority of the migrants (both in- and out-migrants) are between the ages of 18 and 34, whereas for nonmigrants the figure is significantly smaller.

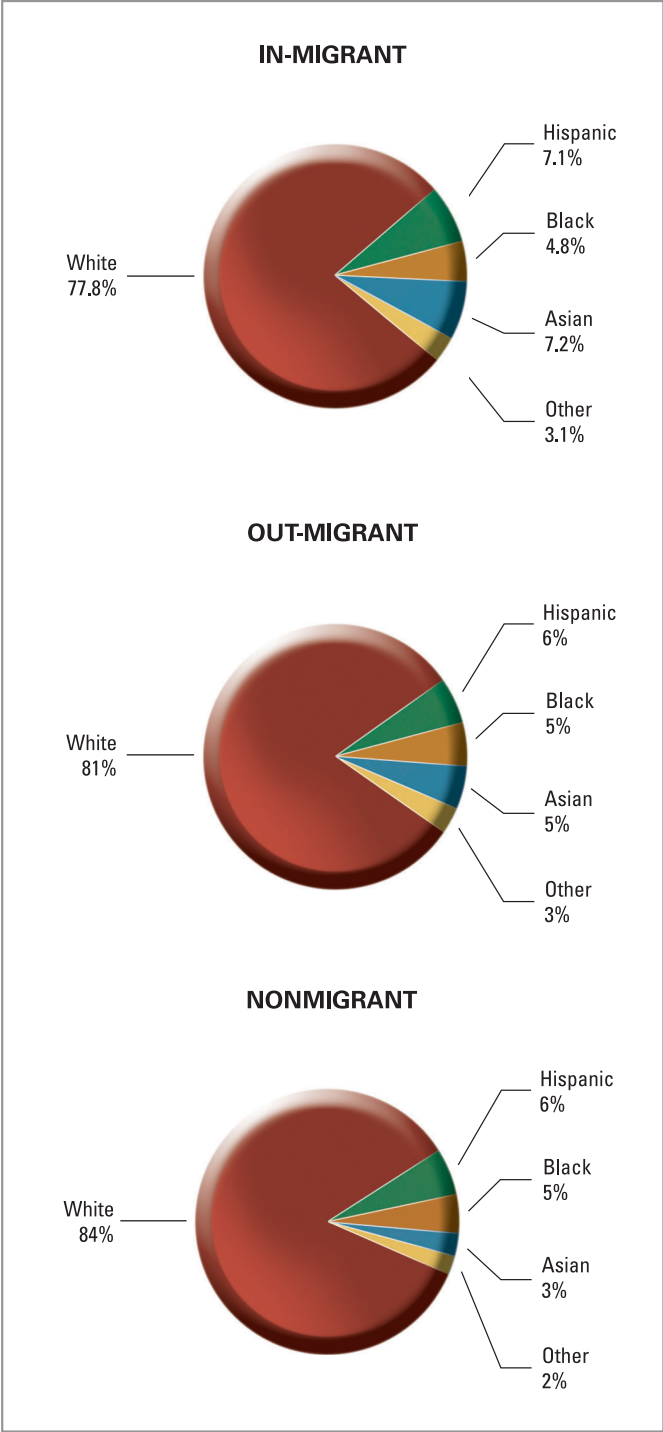
Family Status Slightly more than 56 percent of nonmigrants are married; this number drops to about 40 percent for in-migrants. Out-migrants, who are slightly older than in-migrants, occupy the middle ground, with over 47 percent married. A higher percentage of nonmigrants (40 percent) has children in the household than either the in-migrants (about 28 percent) or the out-migrants (also about 28 percent). This difference can be explained by the difference in ages between the migrant and nonmigrant populations.

Table 3. Characteristics of Different In-Migrants and Nonmigrants
(Numbers in percent unless otherwise noted)

| Characteristic | Economic Competitor In-Migrants | New England In-Migrants | All Other In-Migrants | Nonmigrants |
|------------------------------------|---------------------------------|-------------------------|-----------------------|-------------|
| Bachelor's Degree or Higher | 50.1 | 49.2 | 54.1 | 32.4 |
| Professional/Managerial Occupation | 48.3 | 47.2 | 46.1 | 34.7 |
| Knowledge Sector | 52.2 | 51 | 52 | 41.5 |
| Population 18-34 Years Old | 67.2 | 65.3 | 65.3 | 32.9 |
| Married | 38.7 | 38.7 | 41.9 | 56.6 |
| Children in Household | 27 | 28.4 | 28.9 | 40.2 |
| Born in Massachusetts | 13.6 | 27.9 | 20.6 | 64.8 |
| Median Age (Years) | 28 | 29 | 30 | 41 |

Source: U.S. Census, 2000 Census 1% Public Use Microdata Sample

Figure 4. Racial/Ethnic Composition of the Massachusetts Working-Age Population, by Migration Status



Source: U.S. Census, 2000 Census, 1% Public Use Microdata Sample

Place of Birth People not born in their current state of residence or with few local family connections have weaker ties to the state. This is especially true in difficult economic times, when a family network can provide important economic and noneconomic support. When no such network exists, moving becomes a much more appealing alternative. The contrast is stark: nearly 65 percent of nonmigrants were born in Massachusetts, and just under 20 percent of in-migrants were

born in Massachusetts.⁷ Because so few in-migrants were born in the Bay State, the potential for significant out-migration exists.

What is perhaps more interesting, however, is that more than 40 percent of out-migrants were born in Massachusetts.⁸ This figure is lower than for the nonmigrant population (nearly 65 percent), but it is much higher than for in-migrants (just under 20 percent). The high percentage of out-migrants born within the state raises the possibility of a later “counter stream” of return migrants to the state from among this group. Quite often, when a person who has migrated decides to move again, they choose to move back to the state in which they were born, which allows them access to the many advantages of having family nearby.

Educational Status The educational attainment of both in-migrants and out-migrants is significantly higher than that of nonmigrants. Nearly 52 percent of the in-migrants have at least a baccalaureate degree. At the same time, Massachusetts is also “exporting” a group of highly educated people. Nearly half (49 percent) of out-migrants have a baccalaureate degree or higher. The educational attainment of in-migrants and out-migrants contrasts sharply with that of nonmigrants, with only 32 percent of the nonmigrant population holding at least a baccalaureate degree. Clearly, there appears to be a mismatch between the types of knowledge-intensive jobs we want to grow in and attract to Massachusetts and the current educational levels of the nonmigrant population.

Economic Status

Employment The employment status of migrants and that of nonmigrants are similar. Over 71 percent of in-migrants, just under 70 percent of out-migrants, and 76 percent of nonmigrants reported being employed. In- and out-migrants report nearly identical unemployment rates, 4.9 percent and 4.8 percent, respectively. (The Census question refers to employment status for the Census week in April 2000.) These rates are considerably higher than the 3.3 percent reported by nonmigrants. The difference in these figures may be caused by the fact that some migrants (or their spouses) arrive here without jobs, and subsequently launch a job search. More than 23 percent of in-migrants were not in the labor force, compared to just over 20 percent of nonmigrants.

Occupation and Industry Along with educational attainment, an individual’s occupation is one of the best measures of the skill level of the state’s labor force and the quality of jobs. The contrast between the occupational profile of migrants and nonmigrants is significant for under-

Table 4. Characteristics of New England Out-Migrants, Other Out-Migrants, and Nonmigrants

(Numbers in percent unless otherwise noted)

| Characteristic | New England Out-Migrants | All Other Out-Migrants | Nonmigrants |
|------------------------------------|--------------------------|------------------------|-------------|
| Bachelor's Degree or Higher | 38.2 | 53.6 | 32.4 |
| Professional/Managerial Occupation | 41.2 | 47.9 | 34.7 |
| Knowledge Sector | 43.3 | 48.6 | 41.5 |
| Population 18–34 years old | 56.0 | 60.4 | 32.9 |
| Married | 52.6 | 44.5 | 56.6 |
| Children in Household | 31.9 | 26.5 | 40.2 |
| Born in Massachusetts | 52.8 | 35.8 | 64.8 |
| Median Age (Years) | 33 | 31 | 41 |

Source: U.S. Census, 2000 Census, 1% Public Use Microdata Sample

standing the importance of migration to the state's economy. This contrast is greatest for the occupational category representing what are arguably the best-paying jobs in the economy: professional and managerial occupations. Whereas just under 35 percent of nonmigrants fall into this occupational category, nearly half of in-migrants (47 percent) and out-migrants (46 percent) are in professional and managerial occupations.

Understanding what industries migrants work in also offers insight into how the migration process “feeds” the Massachusetts economy, which, especially in the eastern part of the state, emphasizes information technology, financial services, technical and management consulting, and educational and health services. These industries roughly approximate what have been termed the “knowledge sector” (Forrant, Moss, and Tilly 2001).⁹ Just over 41 percent of nonmigrants work in this broadly defined sector, compared to 52 percent of in-migrants and 47 percent of out-migrants. In other words, people are moving into and out of our state disproportionately to fill jobs in industries that represent the future of the Massachusetts economy.

These differences between migrants and nonmigrants highlight the potential for migration streams to either improve the quality of our labor force by drawing people to the state or to threaten it by losing to other states those young workers with the greatest potential.

THE PROFILE OF NEW ENGLAND MIGRANTS

The profile of New England out-migrants is especially noteworthy, because they look different from other out-migrants. Their characteristics are detailed and compared in table 4. New England migrants are much more likely to have been born in Massachusetts than other migrants. Over half (53 percent) of the New England migrants were born in Massachusetts compared to 36 percent of all other migrants. They are also more likely to be married with children. While they are well educated (38.2 percent hold at least a bachelor's degree), not as many hold a college degree as in the migrant population as a whole, where almost 54 percent hold at

least a bachelor's degree. Furthermore, compared to other migrants, they are less likely to work in the knowledge sector. If we add up all of these characteristics, it seems that Massachusetts is losing a significant number of middle-class families to the rest of New England. No matter which New England state they come from, people who migrate to Massachusetts are young, well educated, and likely to be managers and professionals who work in the knowledge economy (see table 3).

THE PROFILE OF “ECONOMIC-COMPETITOR MIGRANTS”

The contrast between the profile of economic-competitor migrants and all other migrants is striking (see tables 3 and 5). Over 50 percent of migrants arriving in Massachusetts from our economic competitors have a baccalaureate degree or higher, as do over 61 percent of those leaving for these states. The extraordinarily high level of education of these migrants is quite different from that of the migrants who do not go to our competitor states. For those migrants, a considerably smaller proportion—43 percent—have a baccalaureate degree or higher. Even this level of education is higher than that of nonmigrants.

In addition, more than 54 percent of migrants leaving Massachusetts for the economic-competitor states are managers and professionals, and more than 48 percent of those arriving from the competitor states are in these occupations. That compares to just under 42 percent of migrants leaving Massachusetts for other states who are in managerial and professional occupations. Thus, the “brain exchange” with our economic competitors doesn't just represent a significant portion of the migration flows for Massachusetts. Perhaps more importantly, economic-competitor migrants are highly educated workers who work in jobs that epitomize the future of the Massachusetts economy.

CONCLUSIONS

One of the principal findings of our research is that the domestic migrant population is not like everybody else.

Table 5. Characteristics of Economic-Competitor Out-Migrants, Other Out-Migrants, and Nonmigrants

(Numbers in percent unless otherwise noted)

| Characteristic | Economic -Competitor Out-Migrants | All Other Out-Migrants | Nonmigrants |
|---|-----------------------------------|------------------------|-------------|
| Bachelor's Degree or Higher | 61.2 | 43 | 32.4 |
| Professional/Managerial Occupation | 54.2 | 41.7 | 34.7 |
| Knowledge Sector | 55.5 | 42.8 | 41.5 |
| Married | 41.9 | 49.3 | 56.6 |
| Children in Household | 24.2 | 30.0 | 40.2 |
| Born in Massachusetts | 33.2 | 44.7 | 64.8 |
| Median Age (Years) | 30 | 33 | 41 |

Source: U.S. Census, 2000 Census, 1% Public Use Microdata Sample

Massachusetts: A Higher-Education Magnet



One of the Commonwealth's leading industries, higher education attracts people to Massachusetts from other states and countries not only to work in its colleges and universities but also to attend them. To what extent are institutions of higher education pulling people into the Bay State? Precise data about how many individuals migrate domestically into the Commonwealth in order to attend college are not available; nonetheless, it is possible to make a reasonable estimate of the magnitude of college-related in-migration.

Not surprisingly, Massachusetts attracts significant numbers of in-migrants to its many world-class educational institutions. The U.S. Department of Education (2001) estimated that almost thirty thousand people migrated to Massachusetts in 2000 to become "first-time, first-year degree/certificate-seeking students enrolled in Title IV institutions." This means that roughly 41 percent of all first-year students in Massachusetts come from out of state. At the same time that students migrate into the state, some Massachusetts residents migrate out of the state to attend a higher-education institution. During 2000, of the fifty-seven thousand Massachusetts residents who attended a Title IV institution, about 73 percent attended college in-state and 27 percent went out of state. With approximately fifteen thousand individuals leaving the state to attend college, Massachusetts had a net gain of slightly more than fourteen thousand students in 2000. This data, however, includes both interstate and international in-migrants, which, strictly speaking, make the data incomparable to either the Public Use Microdata Sample of the U.S. Census or the Internal Revenue Service data cited in this article. Nonetheless, it is still useful to consider the data on student migration to gain a general sense of the significance of undergraduate student migration to over-all migration patterns in Massachusetts.¹

Over the five years from 1995 to 2000, the Census Public Use Microdata Sample indicates that 370,046 individuals between the ages of 18 and 65 migrated into Massachusetts from other states. Using this data, it is possible to estimate an upper bound estimate of domestic in-migration to the state for the purpose of attending college. We identify those in-migrant individuals who were 18 through 22 years of age and who also identified themselves as students in 2000.² These individuals were of the traditional age for entering college at some point between 1995 and 2000, and since they were students in 2000, they may have migrated from another state to attend college. According to the U.S. Census, 63,650 in-migrants met this description between 1995 and 2000, compared to the total of 370,046 interstate in-migrants tracked by the Census over the same period. This represents about 17 percent of total estimated in-migration over the five-year period,³ clearly demonstrating that while higher education is a powerful force in attracting college-age in-migrants, it does not fully explain the migration patterns in Massachusetts.⁴

Notes

¹ For more information on data collection, contact Robert Nakosteen at nakosteen@som.umass.edu.

² We thank UMass Boston Professor and Benchmarks Coeditor Alan Clayton-Matthews for suggesting this procedure.

³ This figure does not take into account any of the state's residents who initially came into the state to attend college, and have remained in the state after graduation.

⁴ For more information, see Kodrzycki 2001.

Migrants are younger, better educated, and more likely to work in the knowledge economy than are nonmigrants. These highly mobile individuals are attracted to regions of the country that can best utilize their education and skills. Massachusetts, therefore, not only must compete with other high-technology regions of the country for jobs; it must also compete for qualified workers to fill those jobs.

Although our research focused on domestic migration, it is important to note that another source of population inflow is international immigration. Immigrants have become a key source of labor-force growth in Massachusetts. A recent study documents the magnitude of international immigration to New England and its importance to the Massachusetts labor market (Sum, Trubs'kyy, and Fogg 2003, 16–18). It is clear that foreign immigrants to our state play a critical role in helping to keep our economy going. In a state with a steady outflow of workers, we have no workers to spare.

At the same time, it would be a mistake to think of these new immigrants as an economic substitute for the migrants who are leaving the state. Sum and his colleagues document substantially lower levels of education among the new immigrants compared with the native-born. “About 25 percent of New England’s new immigrants lacked a high school diploma or GED, compared with only 9 percent of the native born. At the same time, 31 percent of the new immigrant workers held a bachelor’s degree or higher, only slightly below the native-born share of 34 percent” (p. 18). As this study documents, domestic migrants in Massachusetts have significantly higher levels of educational attainment than either international immigrants or even nonmigrants.

Leaders across the state must invest in both attracting and retaining migrants. However, the Commonwealth should not depend entirely on in-migrants for its supply of knowledge workers. As this and other studies of migration have demonstrated, those who migrate to Massachusetts from other states are more likely to migrate from Massachusetts to other states in the future. Native residents of Massachusetts are generally more reluctant than others to leave the state, so the accelerating out-migration of native-born Massachusetts residents to other New England states suggests that strategies are needed to encourage native residents to remain as part of the Massachusetts labor force. To this end, policy makers should support efforts to improve access to the education and training programs—from basic skills and English-language classes to higher education—needed by many native Massachusetts residents to thrive in the state’s twenty-first-century workplace. Previous analysis of the employment and wage experiences of workers across the Commonwealth suggests that achieving this goal would ensure future economic growth for the Commonwealth while providing new and better opportunities for a greater number of the state’s working families (Goodman and Nakosteen 2002).

Notes

¹ For information about how these data were developed, contact Robert Nakosteen at nakosteen@som.umass.edu.

² Some of the migration measured by the IRS is related to retirement. Although the IRS data are not disaggregated by age, we use the 2000 Census data to estimate the magnitude of retirement migration. Approximately 95 percent of all people migrating into Massachusetts were between 18 and 64 years old, and about 91 percent of the out-migrants were of working age. Clearly, almost all of the migration is labor-force related. However, there is one key exception: the state of Florida. Approximately 29 percent of the migrants departing Massachusetts for Florida are over 65 years old. Interestingly, 18 percent of the in-migrants to Massachusetts from Florida are also of retirement age. Migration to the other New England states contains a slightly higher-than-average proportion of people older than 65.

³ For more about the role of immigrants in the Massachusetts economy, see Sum and Fogg 1999.

⁴ For this analysis, we rely on the IRS data, and thus it is not limited to the working-age population, although recall that almost all of migration consists of working-age people.

⁵ Because of privacy concerns, the IRS does not disclose the number of migrants in a given state in a given year if the number of migrants is fewer than ten people. Both North and South Dakota had fewer than ten migrants every year between 1990 and 2002, and therefore, neither state appears in the final rankings.

⁶ Characteristics of migrants and nonmigrants are derived from the 1 percent Public Use Microdata Sample of the 2000 Census of Population and Housing. These files contain records for a sample of households, with information on the characteristics of each unit and each person in it. While preserving confidentiality by removing identifiers, these microdata files permit users to analyze the demographic/socioeconomic characteristics of 1 percent of the respondents to the Census’s long form (administered to one in six housing units/households). Migrants and nonmigrants are identified based on responses to the “five-year residence question.” The “long form” used to construct the public use sample of the 2000 Census contained a question on the state of residence of the respondent in 1995. By comparing the state of residence in 1995 to the state of residence in 2000, migrants can be identified. Note that if an individual migrates more than once between 1995 and 2000, only one of the moves will be recorded. Note also that if a person leaves a state after 1995 and returns to the same state prior to the Census date in 2000, this migration will go unrecorded.

⁷ Some of the in-migrants are immigrants from foreign countries. In this study, if Massachusetts is not an international immigrant’s first stop in the United States, that person is counted as a domestic migrant because he has moved to Massachusetts from another state. In fact, slightly more than 15 percent of in-migrants were not born in the United States.

⁸ Some of the out-migrants who leave Massachusetts for another state are international immigrants. We find that slightly more than 13 percent of out-migrants were not born in the United States.

⁹ As defined by the Census Bureau’s Standard Industrial Classification codes, the knowledge sector includes the following industries: Information Technology; Finance, Insurance, and Real Estate; Professional, Scientific, Administrative, and Management Services; and Education, Health, and Social Services.

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