

## EXECUTIVE SUMMARY

Examining the flow of people moving into and out of Massachusetts over the last decade reveals a state in transition. Our analysis of the Census 2000 data shows that native-born middle-class families are migrating in increasing numbers to other New England states, while smaller numbers of highly educated, highly mobile professionals are arriving in Massachusetts. But, with many choices about where to work and live, there is no guarantee that these workers will make the Bay State their permanent home.

In this respect, Massachusetts is no different from other states with knowledge economies. It is increasingly dependent upon a supply of skilled workers whose ties to the state are tenuous, especially during tough economic times. What makes the situation more acute for Massachusetts is the state's slow labor force growth and aging population. Massachusetts can ill afford to lose these new migrant workers whose jobs epitomize the present and future Bay State economy.

This research analyzes recent migration patterns in Massachusetts. It examines both the magnitude of migration over the last twelve years and the characteristics of migrants. We also analyze where the people leaving the Bay State are going, and where our new arrivals are com-

ing from. While the new arrivals are striking in their similar demographic and economic characteristics, the profiles of those moving out vary according to their destinations. We identify two different types of out-migrants: the New England migrant, primarily middle-class families; and the Economic Competitor migrant, young, highly educated managers and professionals. In addition, several Southern and Western states appear as new destinations for Massachusetts workers, uncovering additional competition for this colder, more expensive climate.

In looking toward solutions, it is important to keep in mind that these changes took place in the context of an extraordinary economic expansion, illustrating that a strong job market alone is not enough to attract and keep workers. Policy-makers and business leaders must grapple with a new reality: Worker mobility is now a long-term characteristic of the state's economy. As more and more regions across the country seek to develop knowledge-based economies, Massachusetts faces fierce competition in the contest for skilled workers. But, there are encouraging signs: Our research shows that Massachusetts is narrowly winning the fight to attract young, highly educated talent from its economic competitors—offering the state a foundation on which to build a new strategy.

## KEY FACTS:

- In every single year over the last 12 years, Mass. lost more people than it attracted (excluding international immigrants). Mass. has suffered a net loss of 213,191 domestic out-migrants.
- Mass. is exporting a substantial number of residents to the rest of New England (CT, ME, NH, RI, VT). The rate of loss over the last 5 years has accelerated, despite a strong economy for much of that period. Over the last 12 years, on net, Mass. lost 79,031 people to other NE states.
- The vast majority of people who migrate to another New England state (80%) do not continue to work in Massachusetts.
- Native-born, middle-class families are migrating in increasing numbers to other New England States, most notably to New Hampshire.
- Mass. is narrowly winning its fight to attract young highly educated talent from its economic competitor states (CA, CO, CT, MN, NC, NJ, NY), gaining 14,428 people over the last 12 years.
- Mass. attracts a very specific type of person. No matter where they are coming from, they tend to be young, unmarried, highly educated professionals and managers who work in the knowledge economy.
- Those leaving for our economic competitor states share similar traits with in-migrants but in even higher percentages.
- There is also a substantial loss of people to Florida, Georgia, and Arizona. These states are top destinations for young, educated people across the country.
- The availability of high-quality jobs does not guarantee that there will be enough skilled workers to fill them. Even at our economy's peak, Massachusetts, on net, was not able to attract workers to our state.

## Background

Over the last twelve years, Massachusetts has been losing in the competition for people. Between 1990 and 2002, not counting international immigrants, about 1.23 million people moved *into* Massachusetts from other states and about 1.44 million moved *from* Massachusetts to other states. That meant a net loss to Massachusetts of more than 213,000 domestic out-migrants.<sup>1</sup> This is quite a significant figure. It roughly approximates the total employment in the financial services sector in 2001 and is more than seven times the state's total employment in the biotech industry. The fact that our labor force grew at all was a result of international immigrants who have contributed substantially to our economy.

The patterns of domestic migration to and from Massachusetts vary loosely with the Massachusetts business cycle. Just as a hot economy will attract workers, a struggling economy will spur people to seek better job opportunities elsewhere. If we consider the net-migration year-by-year over the last twelve years, however, we find that in every single year, Massachusetts lost more people than it attracted—including those years of extraordinary economic expansion. During the boom economy of the late 1990s, our unemployment rate was at a historic low, while an estimated one in twelve jobs at technology-intensive firms remained vacant.<sup>2</sup> Even at our economy's

## KEY DEFINITIONS:

**IN-MIGRANT** — a person who moved into Massachusetts from any of the forty-nine states, the District of Columbia, or a U.S. territory.

**OUT-MIGRANT** — a person who moved from Massachusetts to any of the forty-nine states, the District of Columbia, or a U.S. territory.

**ECONOMIC COMPETITOR OUT-MIGRANT** — a person who moved from Massachusetts to any of the seven economic competitor states (CA, CO, CT, MN, NC, NJ, NY).

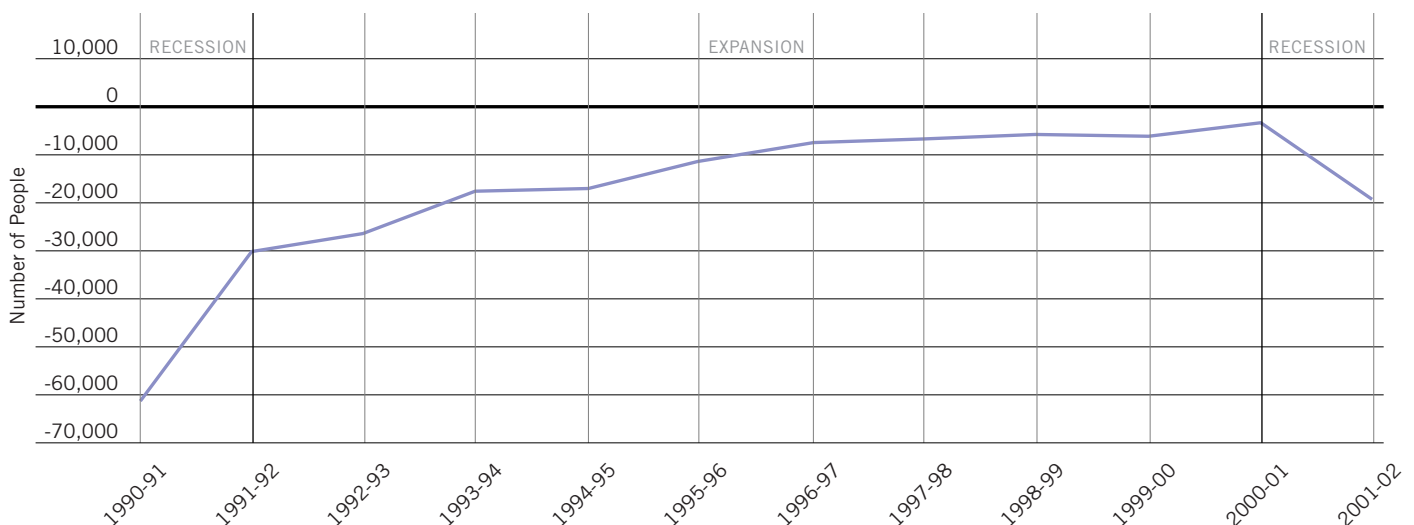
**NEW ENGLAND OUT-MIGRANT** — a person who moved from Massachusetts to another New England state (CT, ME, NH, RI, VT).

**NET MIGRATION** — the difference between immigration and out-migration. Positive net migration indicates that more people moved to Massachusetts from a particular state than moved from Massachusetts to that same state. Negative net migration indicates that more people moved from Massachusetts to a particular state than moved from that state to Massachusetts.

**NON-MIGRANT** — a person who, according to the 2000 Census, lived in Massachusetts in both 1995 and in 2000.

**Figure ES1**

Net Domestic Migration in Massachusetts, 1990-2002



Source: Author's calculations of IRS data

peak, Massachusetts was not able, on net, to attract people to our state.

### The General Profile of a Migrant

One of the principal findings of this study is that the new migrant population is not like everybody else. Migrants tend to be young, well-educated managers and professionals who work in the knowledge economy.<sup>3</sup> There are a handful of other characteristics that help to predict whether or not a person is a likely mover, such as family or other emotional ties to a region; marital status and children, especially school-age children; and the migration history of the individual. A person who has moved before is more likely to move again. Thus, the same characteristics that bring migrants into our state also increase the likelihood that they will leave at some point. The key challenge, then, is for policy-makers to make it as easy as possible for migrants to lay down roots in our state, which will help deter subsequent moves. By helping families establish roots in Massachusetts, policy-

makers will enhance the state's overall economic competitiveness.

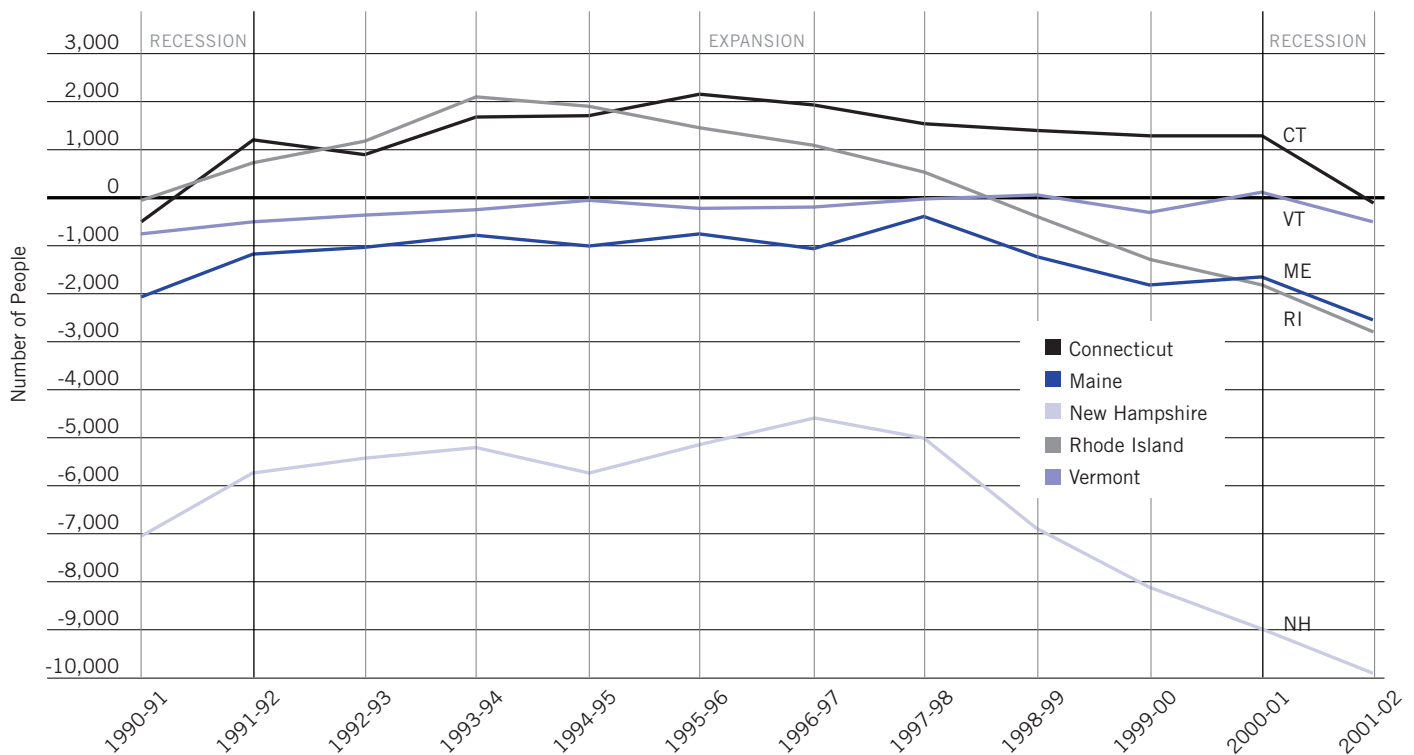
When we examine the characteristics of in-migrants, they are remarkably similar.<sup>4</sup> Massachusetts attracts a very specific type of person. No matter where they are coming from, they tend to be young, unmarried, highly educated professionals and managers who work in knowledge sectors of the economy. The story with the out-migrants is not so simple. While there are general similarities among the out-migrants, there are also important differences based on their destinations. Out-migrants going to our economic competitor states are an extreme version of the typical out-migrant, while out-migrants going to the other New England states are much more likely to be native-born Massachusetts families with children.

### The New England Out-Migrant: Middle-Class Flight

Migration to and from the other New England states accounts for about one-quarter of all migration. In this

**Figure ES2**

Net Migration Between Massachusetts and Other New England States, 1990-2002



Source: Author's calculations of IRS data

exchange, Massachusetts is clearly on the losing side, exporting more residents than it is attracting. More troubling, though, is that the rate of loss has been accelerating over the last five years. Contrary to popular belief, the vast majority of the people who migrate to another New England state (80%) do not continue to work in Massachusetts. Over the last 12 years, Massachusetts, on net, lost 79,031 people to the other New England states.

The majority of that loss is to New Hampshire, to which 78,201 former Massachusetts residents, on net, fled between 1990 and 2002. The fact that Massachusetts is losing people to New Hampshire is not new, although the size of the loss has been increasing over the last five years. What is new, however, is the shift in the patterns of exchange with Connecticut and Rhode Island. In the early years of the 1990s, Massachusetts was a big net-gainer from these two neighbors. Recently, the gain from Connecticut has been steadily decreasing in size, and in 2001-02 Massachusetts actually lost forty-seven people to the Nutmeg State. The change in the exchange with Rhode Island is even more dramatic. Instead of gaining people, Massachusetts lost 6,323 people to Rhode Island over the last four years. Perhaps even more telling is that these downward trends actually started when the Massachusetts economy was strong—times when we should have had few problems attracting people to the Bay State. If the current trends continue, Massachusetts can expect to lose even more residents to its New England neighbors over the coming years.

**Table ES1**

Characteristics of Working-Age New England Out-Migrants Compared to Other Out-Migrants (numbers in percent unless otherwise noted)

| CHARACTERISTIC                     | NEW ENGLAND<br>OUT-MIGRANTS | ALL OTHER<br>OUT-MIGRANTS |
|------------------------------------|-----------------------------|---------------------------|
| Bachelor's Degree or Higher        | 38.2                        | 53.6                      |
| Professional/Managerial Occupation | 41.2                        | 47.9                      |
| Knowledge Sector                   | 43.3                        | 48.6                      |
| Median Age (years)                 | 33                          | 31                        |
| Married                            | 52.6                        | 44.5                      |
| Children in Household              | 31.9                        | 26.5                      |
| Born in Massachusetts              | 52.8                        | 35.8                      |

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

When looking at the profile of the New England out-migrants, a disturbing pattern emerges: It appears that native-born, middle-class families are fleeing the Bay State. Over half of New England out-migrants were born in Massachusetts (53%), compared with only 36 percent of all other migrants; they are more likely to be married with children; and while they are well-educated, they are, on average, less so than migrants to other states (38% with a bachelor's degree vs. 54%). Furthermore, compared with other migrants, they are less likely to be managers or professionals, and they are less likely to work in the knowledge economy.

What is driving these families across the border? A recent MassINC survey offers some insights. One-quarter of Massachusetts residents polled said they would move out of the state if they had the opportunity, with 49 percent rating the state's quality of life as either "fair" or "poor". Personal finances and the high cost of living were dominant concerns for these people. In fact, the number one reason for wanting to move was "to go somewhere with a lower cost of living or lower taxes."<sup>5</sup>

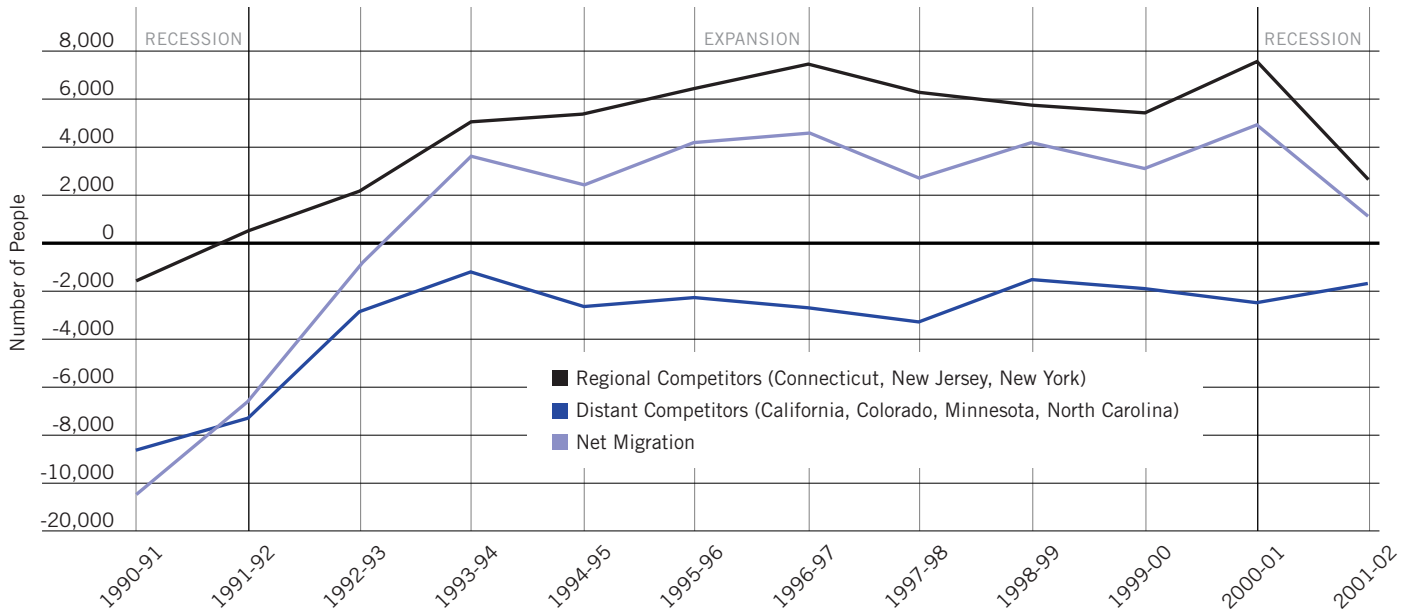
**The Economic Competitor Out-Migrant: Winning the Brain Exchange**

The other significant migration exchange for Massachusetts is with a group of states with high-tech, knowledge-intensive economies. Massachusetts competes with these economic competitors for skilled workers. To understand how well Massachusetts does in this competition, we measure the migrations flows to and from seven economic competitor states: California, Colorado, Connecticut, Minnesota, New Jersey, New York, and North Carolina.<sup>6</sup> From 1990 through 2002, there was considerable exchange of individuals between Massachusetts and these other high-tech states. Approximately 28 percent of all the people entering Massachusetts came from one of these seven states, while 23 percent of all the people leaving Massachusetts moved to one of these high-tech states.

The good news is that Massachusetts has been narrowly winning in the brain exchange contest. Even with the past two years of shaky economic conditions, Massachusetts has been net-positive compared with our economic competitors. Overall, Massachusetts gained 14,428 people from our economic competitors since 1990. While this gain is not huge, the fact that we are net-positive clearly

**Figure ES3**

Net Migration Between Massachusetts and its Economic Competitors, 1990-2002



Source: Author's calculations of IRS data

shows that Massachusetts is an attractive destination for these highly skilled workers. The Bay State’s positive track record offers the state a solid foundation to build upon in the ongoing competition for these highly skilled workers.

A closer look reveals considerable variation in these migration patterns. While Massachusetts has been gaining people from our regional competitors (CT, NY, NJ), we have also been losing people to our long-distance competitors (CA, CO, MN, NC). We gained 53,339 people from our regional competitor states during the last twelve years but 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; 23,978 more people fled the Bay State for California than made the reverse move. The bottom line is that we are losing more people to our competitor states outside the Northeast than we are attracting. Furthermore, the trend has changed recently with Connecticut, showing that patterns of exchange with our economic competitors can and do change—a warning sign for policy-makers and business leaders. With more and more states entering this competition, the Bay State cannot be complacent in its efforts to attract and retain these workers.<sup>7</sup>

Beyond just raw numbers, the contrast between the

profile of these migrants and other migrants is striking. Three out of five Economic Competitor out-migrants (61%) have at least a baccalaureate degree. The extraordinarily high level of education of these migrants is much higher than that for all other migrants, where only 43 percent have a baccalaureate degree or higher.

In addition, 54 percent of Economic Competitor migrants are managers or professionals, and 56 percent work in the knowledge economy. This compares with 42 percent and 43 percent, respectively, for all other migrants.

**Table ES2**

Characteristics of Working-Age Economic Competitor Out-Migrants Compared to Other Out-Migrants (numbers in percent unless otherwise noted)

| CHARACTERISTIC                     | ECONOMIC COMPETITOR OUT-MIGRANTS | ALL OTHER OUT-MIGRANTS |
|------------------------------------|----------------------------------|------------------------|
| Bachelor's Degree or Higher        | 61.2                             | 43.0                   |
| Professional/Managerial Occupation | 54.2                             | 41.7                   |
| Knowledge Sector                   | 55.5                             | 42.8                   |
| Median Age (years)                 | 30                               | 33                     |
| Married                            | 41.9                             | 49.3                   |
| Children in Household              | 24.2                             | 30.0                   |
| Born in Massachusetts              | 33.2                             | 44.7                   |

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

Thus, the “brain exchange” with other high-technology states not only represents a significant portion of the migration flows for Massachusetts, it also demonstrates that the Economic Competitor migrants are very specialized, highly educated workers concentrated in jobs that epitomize the future of the Massachusetts economy.

**Places to Watch: Florida, Arizona, and Georgia**

Understanding the dynamics of the New England and Economic Competitor migration flows helps to explain much but not all of the Massachusetts migration patterns. In particular, three states do not neatly fit in these categories but still represent a significant amount of migration flow from Massachusetts: Florida, Arizona, and Georgia. Florida actually tops the list of all the states in terms of a net-loss of residents. Over the last twelve years, Massachusetts lost 99,082 more residents to Florida than it gained. Of these residents, about 42,000 (42%) are 55 years and older, which means that the majority of out-migrants to Florida are not retirees or pre-retirees. Rather, the majority are younger than 55 years old. In addition to Florida, Massachusetts has lost a significant number of people to Arizona and Georgia, roughly losing 11,000 residents, on net, to each of those states between 1990 and 2002.

Although our analysis cannot pinpoint the reasons for the large out-migration to these specific states, all three of these states rank as top destinations for people across the country. Other analyses of Census data find that Orlando, Florida, and Atlanta, Georgia, were two of the top cities in attracting young single people who had a college diploma. Phoenix, Arizona, also appeared as a magnet for young adults.<sup>8</sup> While policy-makers are unable to replicate the

warmer climates of these states, there may be other quality-of-life and affordability concerns that can be addressed.

**Concluding Thoughts**

The characteristics of migrants are different from those of the rest of the state’s population. Migrants are younger, better educated, and are more likely to work in the knowledge sectors of the economy than are the non-migrant population. These highly mobile individuals are attracted to areas of the country that can best utilize their education and skills. Thus, Massachusetts not only must compete with other high-technology regions of the country for jobs, it also must compete for qualified workers to fill those jobs.

Over the past twelve years, Massachusetts’ performance in this competition is a mixed story. Overall, during this period, Massachusetts has lost significantly more people than it has attracted—leaving the state with a deficit of 213,000 domestic migrants. (The state’s population and labor force grew slightly during this period because of international immigration.) That overall number, however, masks important differences among the different populations of out-migrants. In the case of the New England out-migrants, Massachusetts appears to be losing many native-born, middle-class families to the rest of the region. Over the last twelve years, Massachusetts has lost nearly 80,000 people to the other New England states. Moreover, the loss of these families has accelerated over the last five years. Significantly, the vast majority of the people who migrate to another New England state (80%)

**Table ES3**

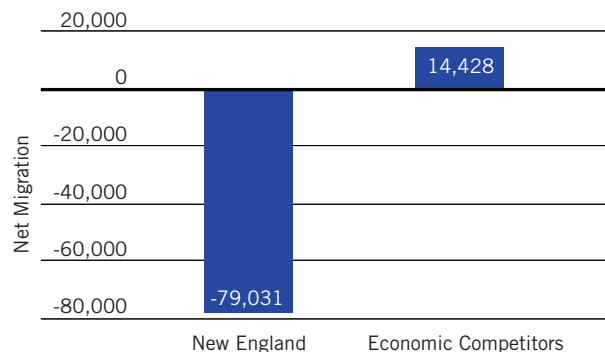
Top Net Migration Losses for Massachusetts, 1990-2002

| RANK/STATE       | NET MIGRATION, 1990-2002 |
|------------------|--------------------------|
| 1 Florida        | -99,082                  |
| 2 New Hampshire  | -78,201                  |
| 3 California     | -23,978                  |
| 4 Maine          | -15,708                  |
| 5 Georgia        | -11,331                  |
| 6 Arizona        | -11,033                  |
| 7 North Carolina | -8,983                   |

Source: Author’s calculations of IRS data

**Figure ES4**

Net Migration with Other New England States and Economic Competitor States, 1990-2002



Source: Author’s Calculations of IRS data

**Table ES4**

Characteristics of Working-Age Out-Migrants to New England and Economic Competitor States and the Non-Migrant Population, (numbers in percent unless otherwise noted)

| <b>CHARACTERISTIC</b>              | <b>ECONOMIC COMPETITOR<br/>OUT-MIGRANTS</b> | <b>NEW ENGLAND<br/>OUT-MIGRANTS</b> | <b>NON-MIGRANTS</b> |
|------------------------------------|---|-------------------------------------|---------------------|
| Bachelor's Degree or Higher        | 61.2  | 38.2                                | 32.4                |
| Professional/Managerial Occupation | 54.2  | 41.2                                | 34.7                |
| Knowledge Sector                   | 55.5  | 43.3                                | 41.5                |
| Median Age (years)                 | 30  | 33                                  | 41                  |
| Married                            | 41.9  | 52.6                                | 56.6                |
| Children in Household              | 24.2  | 31.9                                | 40.2                |
| Born in Massachusetts              | 33.2  | 52.8                                | 64.8                |
| Total Net Migration, 1990-2002     | +14,428                                     | -79,031                             |                     |

Source: U.S. Census Bureau, 2000 Census 1% Public Use Microdata Sample; Author's calculations of IRS data.

do not continue to work in Massachusetts.

The good news, however, is that during this same period Massachusetts has been narrowly winning the competition for the Economic Competitor migrants, gaining more than 14,000 of them since 1990. The results here are also mixed. Massachusetts has a much better track record with its regional competitors (CT, NJ, NY) than it does with its long-distance competitors (CA, CO, MN, NC), although the pattern of exchange has reversed course with Connecticut in recent years. Future patterns are thus uncertain.

Policy-makers and business leaders across the Commonwealth must recognize that the growth of the knowledge sector industries, the state's economic engine, will largely rest on the extent to which we can retain and expand the available pool of well-educated "knowledge

workers." But the challenge is more complex: Massachusetts must attract these highly educated, highly mobile young professionals while keeping a strong, stable middle class within its borders—in good and bad economic times. In addition to creating job opportunities, areas of common ground may be found in quality-of-life and affordability issues—including housing and education—major concerns for both populations. Finally, the Commonwealth must also focus its attention on improving the skills of current residents who already have strong ties to the state and, thus, are less likely to leave. Many lack adequate skills to compete in the knowledge economy. If they acquire those skills, then, they too will be able to share more broadly in the state's economic benefits, while helping to fuel a strong Massachusetts economy.

## Endnotes

- 1 Migration flow data are estimated from IRS tax records. The Internal Revenue Service compiles tax return data in order to estimate annual state migration flows. A migration is recorded whenever the state of filing is different from one year to the next. By using the exemptions data (which approximate household size), we were able to estimate the number of individuals. While some of the migration measured by the IRS is related to retirement, using the 2000 Census data to estimate the magnitude of retirement migration, we find that 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. We also use the 2000 Census data in this report to analyze individual characteristics of in-migrants and out-migrants.
- 2 See Harrington, P. and Fogg, N. 1997. *Is There a Labor Shortage? A Review of the Evidence for Massachusetts and New England*, Center for Labor Market Studies, Northeastern University.
- 3 The knowledge sector includes the following industries, as defined by the North American Industry Classification system: Information Technology; Finance, Insurance, and Real Estate; Professional, Scientific, Administrative, and Management Services; and Education, Health, and Social Services.
- 4 Characteristics of migrants and non-migrants are derived from the 1% Public Use Microdata Sample (PUMS) 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% of the respondents to the Census long-form questionnaire, administered to one in six housing units/households. Migrants and non-migrants are identified based on responses to the “five-year residence question.” The long form which is 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 with 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. In addition, 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.
- 5 Princeton Survey Research Associates. 2003. *The Pursuit of Happiness: A Survey on the Quality of Life in Massachusetts*. MassINC.
- 6 For this analysis we use the Massachusetts Technology Collaborative’s six “Leading Technology States” and North Carolina, a state long seen as a competitor because of the presence of the Research Triangle.
- 7 Florida, Richard. 2002. *The Rise of the Creative Class and How It is Transforming Work, Leisure, Community, and Everyday Life*. New York: Basic Books.
- 8 U.S. Census Bureau. 2003. *Migration of the Young, Single, and College-Educated: 1995 to 2000*. Census 2000 Special Reports, November.