

***Recent and Projected Trends in the Older Worker
Population of Massachusetts: A Demographic Assessment***

Prepared by:

Center for Labor Market Studies
Northeastern University
Boston, Massachusetts

Prepared for:

Massachusetts Jobs Council
Blue Ribbon Commission on Older Workers

September 1997

Introduction

During 1997, the Massachusetts Jobs Council created a Blue Ribbon Commission on Older Workers to investigate the economic status of current and future older workers and provide recommendations for defining an employment policy agenda for the state's older work force. To assist the members of the Blue Ribbon Commission in assessing labor market conditions among the Commonwealth's older work force, a research team consisting of staff from the University of Massachusetts-Boston and the Center for Labor Market Studies of Northeastern University was commissioned to prepare a series of research papers on the older population and the older work force of the state.

This research paper is devoted to an analysis of demographic developments with respect to the older population (45-69 years old) of Massachusetts over the past two decades and projections of the growth in the population of older persons through the year 2010. The paper will begin with an overview of population developments for the 45-69 year old population over the 1970-2010 period and will highlight the extraordinary projected shifts in the size of this subgroup between 1995 and 2010. This overview will be followed by an examination of projected changes in selected age subgroups of the older population over the next fifteen years. Growth rates will vary considerably across the subgroups. Findings on the growth of the older population in Massachusetts will be compared to that for the working-age population (16-69) to illustrate the changing relative importance of older persons in the Commonwealth through the year 2010.

Findings on the projected growth of the older population in Massachusetts also will be compared to trends in this population group within the nation as a whole and in 12 other large states throughout the nation over the 1995-2010 period. The analysis will focus on identifying the degree to which projected population developments in the Commonwealth will simply match those expected to occur throughout the nation and these other large states. The final section of the paper will be devoted to a brief overview

of changing educational, race-ethnic, and immigrant characteristics of the older worker population in the Commonwealth and their potential implications for state workforce development policy.

Defining the Older Worker Population

The term “older worker” traditionally has been used in the employment and training field to refer to those persons ages 55 and older. The current Job Training Partnership Act and its predecessor, the Comprehensive Employment and Training Act (CETA), has provided separate funding for a set of employment and training programs for older workers.¹ Eligibility for participation in such programs is restricted to individuals who are 55 years of age or older. To guide the work of the Blue Ribbon Commission, a broader definition of an “older worker” has been adopted. Older workers will be defined as those persons ages 45 to 69.

The use of an upper age cutoff of 69 years to define older workers can be justified on several grounds. First, relatively few persons 70 and older actively participate in the civilian labor force in either the U.S. or Massachusetts. In early 1996, only 11 percent of men and five percent of women ages 70 and older in the United States were either working or actively looking for work (Table 1). In Massachusetts, during the same time period, only five to six percent of men and women 70 and older were actively participating in the labor market.² As a consequence of these low rates of attachment to the labor market, persons 70 and older accounted for only a little over one percent of the Commonwealth’s labor force in 1996, and this ratio is not projected to change to any substantive degree over the next decade.

¹ Under Section 204 of the existing Job Training Partnership Act, the Congress authorizes funding for employment and training services for older workers.

² The February and March 1996 CPS public use tapes are the most recent tapes released to the public by the U.S. Census Bureau. Our estimates of participation rates are two month averages.

Table 1:
Civilian Labor Force Participation Rates of Men and Women
Ages 70 and Older in the U.S. and Massachusetts: February-March 1996
 (Numbers in Percent, not Seasonally Adjusted)

	(A)	(B)
Gender/Age Group	U.S.	Massachusetts
Men		
• 70 and Older	11.3	8.3
• 70-79	13.8	9.8
• 80+	4.7	4.5
Women		
• 70 and Older	5.3	8.5
• 70-79	7.2	11.8
• 80+	1.6	2.5

Source: February and March 1996 CPS surveys, public use tapes, tabulations by Center for Labor Market Studies, Northeastern University

While all income eligible persons 55 and over are eligible to participate in older worker training programs, very few participants (under 5 percent) are 70 or older, and the state's JTPA training programs for dislocated workers serve only a small number of persons over the age of 65. In contrast, close to 40 percent of all participants in dislocated worker programs are between the ages of 45 and 64. Workforce development programs for older workers in Massachusetts have, thus, primarily focused on those individuals in the 45-64 age group.

Recent and Projected Trends in the Size of the Older Worker Population

Findings on the growth (or decline) of the older worker population in Massachusetts over the 1970-2010 period are displayed in Table 2 and an accompanying bar chart on growth rates over selected time periods. The findings for 1970, 1980, and 1990 are based on the decennial censuses for each of those years. The 1995 population data represent estimates of the U.S. Census Bureau, and the data for the years 2000,

2005, and 2010 are population projections generated by the U.S. Census Bureau's State projections program. A more detailed set of findings on these data sources and the population concepts embodied in them is presented in a Technical Note at the end of this paper.

During both the decade of the 1970s and the 1980s, the number of persons ages 45-69 in Massachusetts moderately declined (Table 2). The declines in the size of the older worker population in Massachusetts between 1970 and 1990 were attributable in large part to the movement of the Depression era birth cohort into the ranks of the state's older population. During the Depression decade of the 1930's, the nation's aggregate birth rate fell below the replacement level for the first time in the history of the United States. Nearly three million fewer births took place in the 1930s than would have been expected on the basis of prior fertility trends.³ At the time of the 1970 Census, persons who were 45-69 years old would have been born between 1901 and 1925. By the time of the 1990 Census, however, those persons 45-69 years old would have been born between 1921 and 1945. The older worker population in 1990, thus, included the entire Depression-era birth cohort whose smaller absolute size reduced the number of older persons in the state's population.

The estimated decline in the older population of the state between 1980 and 1990 also was influenced by net out-migration from the state. Between 1985 and 1990, approximately 21,200 more persons ages 45-69 left the state than migrated to Massachusetts from other states or from abroad.⁴ (Table 3). The net out-migration figure would have been even higher if the state had not succeeded in attracting nearly 16,000

³ For a review of birth developments during the 1930s, See: Steven Mintz and Susan Kellogg, Domestic Revolutions: A Social History of American Life, Free Press, New York, 1988.

⁴ The findings of the 1990 Census cannot be used to determine out-migration to other nations. Due to the exclusion of these migrants to other nations, total net out-migration will thus have been somewhat greater than this 21,200 figure.

older foreign immigrants over this five year period. Domestic net out-migration of older persons was equal to -37,200 between 1985 and early 1990, a time period generally characterized by full employment in the state's labor markets and rising economic prosperity.⁵

Table 3:
Estimated Numbers of Persons 45-69 Years Old¹ Who Migrated to Massachusetts or
Moved Out of Massachusetts Between 1985 and 1990, by Age Group

Group	(A) 45-54	(B) 55-64	(C) 65-69	(D) Total 45-69
• Migrant into Ma. from other states or abroad	32,586	17,920	7,865	58,371
• Moved out of Ma. to other states in U.S.	34,000	31,000	14,600	79,600
• Net Migration	-1,414	-13,080	-6,734	-21,229

Source: 1990 Census of Population and Housing, micro-files, public use tapes, tabulations by Center for Labor Market Studies, Northeastern University.

Note: The age of these individuals represents their age at the time of the 1990 Census.

Between 1990 and 1995, the older worker population of the state is estimated to have increased from 1.374 million to 1.440 million, a gain of 66,000 or nearly five percent (see Table 2 and accompanying bar chart. Following 1990, the earliest members of the post-World War II baby boom generation began to enter the ranks of the state's older population. Their greater numbers allowed the older population of the state to rise for the first time since the 1960s. Increased immigration of older persons from abroad during the recessionary years of the early 1990s also contributed moderately to the growth of the older worker population.⁶

⁵ The state entered an economic downturn in 1989, with job losses mounting throughout that year. Still, the state's aggregate unemployment rate in 1989 was only 4.0%.

See: U.S. Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, 1989, BLS Bulletin 2361, U.S. Government Printing Office, Washington, D.C., May 1990.

⁶ Between 1990 and 1994, we estimate that net in-migration among 45-69 year olds was a positive 12,700. Foreign immigration of 18,000 older persons during this time period made the net migration number positive. More native born older persons left the state than arrived here between 1990 and 1994.

Over the next 15 years, the U.S. Census Bureau has projected that the number of persons 45-69 years old in the state will rise steadily and substantially. The ranks of the older resident population are projected to rise by 127,000 between 1995 and the year 2000, by another 204,000 between 2000 and the year 2005, and by another 203,000 between the year 2005 and 2010. The growth rate of the older population will accelerate over the next 15 years from just under 1 percent per year in the 1990-95 period to nearly 3 percent per year between 2000 and 2005. The older population of the state will increase to a level of 1.974 million in the year 2010, a level that is 600,000 or nearly 44% above that of 1990. These projected population developments clearly represent a dramatic reversal in the trends that had prevailed for older persons over the previous two decades. The high projected rates of growth in the older population of the state are primarily attributable to the aging of the baby boom generation and their eventual replacement of the considerably smaller Depression-era cohort in the older population. By the year 2005, only the group born after 1936 will be part of our older worker population cohort.

The state population projections of the U.S. Census Bureau are dependent upon a set of assumptions regarding future death rates among the older population and levels of in and out-migration to and from other states and abroad.⁷ If foreign immigration levels continue to exceed expectations and if the state's improved economic climate attracts more older workers Massachusetts, then the future growth in the older population could actually exceed that projected by the U.S. Census Bureau.

***Recent and Projected Growth of the State's
Working Age Population, Ages 16-69***

⁷ For a review of the methods used by the U.S. Census Bureau to project immigration into each state and out-migration from states,

See: U.S. Bureau of the Census, Current Population Reports, Population Projections for States, by Age, Sex, Race, and Hispanic Origin: 1993 to 2020, P 25-1111, U.S. Government Printing Office, Washington, D.C., 1994.

The past and projected growth of the state's older worker population needs to be placed into comparative perspective. To what extent do these trends simply reflect changes in the entire working-age population of the state and to what degree have these population changes been unique to older workers? Given the concern over the implications of demographic developments for state workforce development policy, we will compare population trends for older persons (45-69) with those for the working-age population, i.e., 16-69 year olds. The official civilian labor force data pertain to persons who are 16 years of age or older, and the case for using 69 as a maximum age cutoff was described earlier.⁸

Trends in the number of persons in the entire working-age population (16-69 years old) in Massachusetts are displayed in Table 4. Contrary to trends in the population of older persons between 1970 and 1990, the number of persons 16-69 residing in the Commonwealth increased steadily over these two decades. The aging of the baby boomers combined with foreign immigration allowed the working-age population of the state to grow by 11 percent in the 1970s and by 7 percent in the 1980s. During the first half of the 1990s, however, the working-age population is estimated by the U.S. Census Bureau to have declined by 1.5% while the number of older persons increased. This decline was attributable to two developments: the coming of age of the baby bust generation who were born between 1970 and the late 1970s and out-migration of younger adults from the state during the recessionary years of the early 1990s.

Between 1995 and the year 2010, the working age population of the state is expected to increase fairly continuously; however, the projected rate of growth of the working-age population over this entire fifteen year period is only 9.3%, well below the 37% projected rate of growth for the older worker population over the same time period.

⁸ In the Current Population Survey, labor force information is only collected for those individuals ages 16 and older. There is no maximum age cutoff in the CPS survey; however, persons 70 and older represented only 1.3% of the entire civilian labor force of the nation in 1995.

As a consequence of these divergent trends in the past and projected future growth rates of the population 16-44 and 45-69 years old, the older worker share of the state's working-age population will undergo a number of rather dramatic transformations over the next ten to fifteen years. In 1970, older persons represented 39 percent of the state's working-age population (See Table 5 and accompanying bar chart); however, by 1990, their share of the working-age population had plummeted to 32.5 percent. During the first half of the 1990s decade, older persons increased their share of the state's working-age population, and they are projected to continue to do so through the year 2010. by the year 2005, older persons will account for 40 percent of the state's working-age population and by the year 2010 they will represent over 43 percent of the state's working-age population, a historical high for the state.

These current and impending demographic developments have a number of important implications for the state's labor force, employers, and human resource development agencies. The labor force of the state has been aging since 1990 and will continue to do so through the year 2010. The median age of the state's resident labor force has increased from just under 36 to 37 years of age since 1990 and will rise to age 40 by the year 2005.⁹ Employers in Massachusetts will be more dependent than ever before on older workers to meet their labor needs.

This aging of the work force has a number of potential beneficial effects, but will also pose a number of problems for employers and human resource development agencies. From an unemployment perspective, the aging of the work force should facilitate the ability of the state to achieve and maintain low rates of unemployment, hence, a rise in their relative numbers should facilitate a lowering of the aggregate

⁹ The median age is that age which divides the distribution of the state's labor force into two equal parts. One-half of the labor force is younger than this age and one-half is older. In a following paper on state labor force developments in recent years and projections of the age composition of the labor force through the year 2005, we will examine the changing age structure of the state's resident civilian labor force.

unemployment rate. When older workers do lose their jobs, however, they tend to experience more severe difficulties in regaining employment, and many of them end up withdrawing from active labor force participation well before age 65. As older workers increase their share of the resident work force, they will account for a growing share of the pool of dislocated workers. Effective job placement and re-training strategies will need to be in place to assist these older workers in regaining employment and remaining active in the labor market.

As workers age, their real wages and earnings tend to rise. While the peak earning years of workers do vary by their educational attainment and occupation, many college educated workers do not reach their peak earning years until they reach their mid to late 50's. An older work force will, thus, impose higher wage costs and higher employee benefit costs (health insurance and pension coverage) on the state's employers. These higher labor costs can reduce the economic competitiveness of the state unless they are offset by higher labor productivity. Unfortunately, employer training investments in their workers often tend to diminish with age.¹⁰ Improvements in labor productivity will, thus, likely require greater training investments, both on and off the job, in the state's future older worker force. Incumbent worker training programs, partly financed with national and state work force development monies, can play a role in this process.

Demographic Developments for Key Age Subgroups of Older Workers

Due to a number of important historical shifts in birth rates, the growth rates of the state's older worker population has differed considerably by age subgroup and will continue to do so through the year 2010. To illustrate the extent of these differences in

¹⁰ For example, in a 1991 survey of the recent training experiences of U.S. workers, the U.S. Bureau of Labor Statistics found that only 13% of workers 55-64 had received formal employer-provided training on their current jobs versus 17% of those 25-34 and 19% of 35-44 year old workers. Similar findings prevailed for informal on-the-job training.

Source: January 1991 CPS survey, Job Training Supplement, tabulations by Center for Labor Market Studies.

actual and projected population growth rates by age subgroup, we have analyzed trends in the number of 45-54 and 55-64 year olds in the state over the 1980-2010 period. Persons in these two age subgroups will supply over 90 percent of the older workers in the state's resident labor force in the year 2005.

During the decade of the 1980s, the number of persons ages 45 to 54 living in the state increased from 578,000 to 606,000, a gain of just under five percent (Table 6). In recent years, however, the estimated population of 45-54 year olds has risen considerably. Starting in 1990, the first members of the post-World War II baby boom generation entered the 45-54 age group, replacing those born in the latter half of the 1930s decade. Between 1990 and 1995, the number of 45-54 year olds increased by 20 percent (Table 5 and accompanying bar chart). The number of 45-54 year olds in Massachusetts is projected by the U.S. Census Bureau to continue to grow over the next 15 years, but at a steadily diminishing rate. Between 1995 and the year 2000, the growth rate will be a hefty 15% but the projected rate of growth will slow to just over six percent between the year 2005 and 2010. Over the entire 1995-2010 period, the number of 45-54 year old residents is projected to rise by 252,000 or 34.6%, substantially exceeding the growth rate of the state's entire working-age population (9.3%).

The growth path of the state's 55-64 year old population diverged markedly from that of 45-54 year olds over the 1980-95 period. (Table 7). Over this 15 year period, the number of 55-64 year olds declined sharply from 594,000 to 471,000, a decline of 123,000 or nearly 21%. This development was substantially influenced by the movement of the Depression-era birth cohort into the ranks of this age group. In 1980, the 55-64 year old group consisted of persons born between 1916 and 1925. By 1995, however, the 55-64 year old group consisted of persons born between 1931 and 1940, nearly the entire Depression-era birth cohort. Over the next fifteen years (1995-2010), the state's resident population of 55-64 year olds will increase very substantially as the first wave of the

baby boomers reach their pre-retirement and retirement years. Between 1995 and 2010, the number of 55-64 year olds residing in Massachusetts is projected to rise by 272,000 or by just under 58%, exceeding the projected growth rate of the entire working-age population by a wide margin.

The impact of this projected surge in the growth of the 55-64 year old population on the state's labor force over the coming decade will depend heavily on their labor force participation behavior. Nationally, and in Massachusetts, the labor force participation rates of men and women tend to peak in their late 40's and mid 40's, respectively.¹¹ Sharp declines in labor force participation rates occur among both men and women in Massachusetts as they move through their mid 50's and early 60's. For example, in 1995, the average monthly labor force participation rates of Massachusetts residents fell from 85.6% for those 45-49 to 71% for those 55-59 to 47.2% for those 60-64 years of age.¹² In the 1990s, males 45 to 64 years of age have been withdrawing from active labor force participation, especially those men lacking any post-secondary schooling, while older women have been characterized by either stable or moderate increases in participation rates. Given these projected demographic developments, the future growth of the Massachusetts resident labor force will be critically influenced by the willingness of older residents to remain active members of the state's civilian labor force.

Nearly all of the net increase in the older worker population of the state (45-69 year olds) over the 1995-2010 period will take place among 45-64 year olds. The number of 65-69 year olds in Massachusetts is projected to rise by only 10,000 or 4 percent

¹¹ The labor force participation rates of persons 35-39, 40-44, and 45-49 in Massachusetts were quite close to one another in 1995. Similar patterns have prevailed in the U.S. in recent years. For example, in 1996, the annual average labor force participation rates of persons 35-39, 40-44, and 45-49 in the U.S. were 84.5, 85.2 and 84.3 percent, respectively.

See: U.S. Bureau of Labor Statistics, Employment and Earnings, January 1997, "Table 3", p. 160.

¹² These 1995 participation rate estimates are based on the CPS survey findings for the months of March, May, October, and November of that year, tabulations by the Center for Labor Market Studies of Northeastern University.

between 1995 and the year 2010. (Table 8). This stands in sharp contrast to projected developments for 45-64 year olds. During the 1980-95 period, the estimated number of 45-64 year olds in the state increased by only 27,000, or slightly more than two percent (See Table 9 and an accompanying bar chart). Over the next 15 years, however, this age group is projected to grow by nearly 524,000 or 44%. This rate of population growth will be twenty times higher than that for the same age group in the preceding 15 year period. As a consequence of this relatively high rate of population growth, the 45-64 year old population will increase its share of the working-age population from 28.8% in 1995 to 35.7% in the year 2005 and to just under 38% in the year 2010. The labor market behavior of these older residents will have a profound impact on the state's labor markets over the next decade absent any substantial rise in foreign immigration or in-migration of younger workers from other states across the nation.

***Projected Growth of the Older Worker Population
in the U.S. and Other Large States, 1995-2010***

The projected rapid growth of the older worker population over the 1995-2010 period is clearly not confined to Massachusetts or New England. The influx of the baby boom generation into the older worker age cohort will considerably boost the size of this population subgroup in the U.S. through the year 2010. Findings of the U.S. Census Bureau's national population projections for the entire 45-64 age cohort and selected subgroups over the 1996-2010 period are displayed in Table 10. Between 1996 and the year 2010, the population of 45-64 year olds in the U.S. is projected to rise from 53.7 million to 78.8 million, an increase of 25.1 million, or nearly 47%. Similar to projected developments within the state, the 55-64 age group will experience the most rapid rate of growth over this period, with their numbers projected to increase by 65% versus a rise of 35% for 45-54 year olds over the same time period.

Table 10:
Projected Growth in the Number of Persons 45-64 Years Old in the U.S., 1996-2010
(Numbers in 1000's)

	(A)	(B)	(C)	(D)	(E)
Age Group	1996	2000	2005	2010	Percent Change 1996-2010
45-54	32,341	37,030	41,506	43,564	+34.7%
55-64	21,360	23,961	29,605	35,283	+65.2%
45-64	53,701	60,991	71,011	78,847	+46.8%

Source: U.S. Census Bureau, Middle Series Population Projection, tabulations by Center for Labor Market Studies, Northeastern University.

The older worker population of the nation is projected to grow more rapidly than that of the state over the 1995-2010 period; however, the working-age population (16-64 years old) of the nation also will rise at a more rapid rate than that of the state. A key demographic issue, thus, becomes that of identifying the projected growth of the relative share of the working-age population accounted for by older workers in the U.S. and Massachusetts. Our analysis will focus on the projected growth in the ratio of the number of 45-64 year olds to the 16-64 year old population over the 1995-2010 period.¹³

At mid-decade, the older worker population of the U.S. (45-64) actually represented a slightly higher share of the 16-64 year old population than in the Commonwealth (31.0 percent versus 30.0 percent). (Table 11). Between 1995 and the year 2010, the older worker share of the working-age population will rise steadily and substantially in both the U.S. and our state, with the older worker share of the state's population actually rising somewhat faster than the nation (9.3 percentage points versus 8.7 percentage points). By the year 2010, the 45-64 year old age cohort in both the U.S. and Massachusetts will represent just under 40 percent of the entire working-age, non-

¹³ The 1995 figure for the U.S. in Table 10 actually represents the 1996 estimate.

elderly population.¹⁴ This will represent the highest such ratios in the history of the nation and the state.¹⁵

Table 11:
Comparisons of the Relative Size¹ of the Older Worker Population (45-64) in
Massachusetts and the U.S., 1995, 2000², 2005, and 2010
(Numbers in Percent)

Area	(A) 1995	(B) 2000	(C) 2005	(D) 2010	(E) Percent Change 1995-2010
U.S.	31.0	33.7	37.3	39.7	+8.7
Massachusetts	30.0	33.1	36.6	39.3	+9.3
Ma. - U.S.	-1.0	-.6	-.7	-.4	+46.8%

Notes: (1) Relative size is defined as the ratio of the 45-64 year old population to the population of 15-64 year olds.

(2) Estimates for the years 2000, 2005, and 2010 are based on the Series-A, preferred series population projections of the U.S. Census Bureau.

Sources: U.S. Census Bureau, Projections of the Population of States, 1995 to 2025, tabulations by Center for Labor Market Studies.

Population trends for older persons (45-64) in Massachusetts and the nation's other thirteen most populous states are presented in Table 12.¹⁶ The population measure underlying this analysis is the share of the 16-64 year old population accounted for by 45-64 year olds between 1995 and the year 2010. During 1995, the relative share of the working-age population represented by 45-64 year olds ranged from 27.6% in California to a high of 32.9% in Florida. Massachusetts' share was 30%, only the 9th highest among these thirteen large states. Each of these states will experience a continuous and

¹⁴ The term "elderly population" has frequently been used to refer to those persons 65 and older.

See: Andrew Sum and Neal Fogg, "Labor Market Turbulence and the Older Worker," Turbulence in the American Work Place, Cambridge University Press, New York, 1991.

¹⁵ The previous high for this ratio in Massachusetts was 35.4% in 1960. The ratio had risen fairly steadily from 24% in 1890 to 35.4% in 1960 before declining over the next three decades. For historical trends in the age structure of Massachusetts,

See: U.S. Bureau of the Census, United States Census of Population, 1960: Massachusetts, General Population Characteristics, U.S. Government Printing Office, Washington, D.C., 1961.

¹⁶ Massachusetts was the 13th most populous state in the nation in 1995.

substantial rise in the older worker share of their working-age populations between 1995 and 2010. The increase in the size of these relative shares over the 1995-2010 period will range from 7.5 percentage points in California and New York to a high of 12.4 percentage points in Florida. Massachusetts' projected performance on this population measure will be exactly in the middle of the distribution. By the year 2010, the older worker population of Massachusetts will represent 39.3% of the working age population of 16-64 year olds. This ratio will only be the 8th highest among the 13 largest states. Only California and Texas, two states with large numbers of children in the early 1990s and high levels of foreign immigration, will rank substantially below Massachusetts on this key population measure. Clearly, all of the nation's large states will be characterized by a substantial rise in the number of 45-64 year olds over the 1995-2010 period.

Changes in the Race/Ethnic, Immigrant, and Educational Attainment Characteristics of Older Persons in Massachusetts

Changing Race/Ethnic Backgrounds

The preceding discussions of changes in the state's older worker population have focused on past and projected trends in the aggregate size of the 45-69 year old population and selected age subgroups. The composition of the state's older worker population with respect to race-ethnic origins, immigrant status, and educational attainment also has been changing in recent years and will continue to do so over the next 15 years.

Similar to demographic developments across the nation as a whole, the population of Massachusetts has been becoming more racially and ethnically diverse over the past few decades.¹⁷ Between 1980 and 1990, the share of the state's population accounted for by Hispanics and non-Whites rose from 7.7% to 12.2%, with large relative increases

¹⁷ See: Andrew Sum, Neeta Fogg, Jackie Sum, and Alice Winkler, Growth and Diversity in the Massachusetts Population: Findings of the 1990 Census and Their Future Implications, Center for Labor Market Studies, Northeastern University, Boston, 1992.

occurring among Hispanics and Asians.¹⁸ Foreign immigration during the decade of the 1980s had a major impact on the changes in the race-ethnic composition of the state's population. Net in-migration of Hispanics, Asians, and other non-Whites was equal to nearly 146,000 between 1980 and 1990.

The share of race/ethnic minorities in the state's older worker population (45-64 years old) has been rising between 1980 and 1995; however, minorities represent a below average share of the state's older worker population. (Table 13). In 1980, 95% of all 45-64 year olds in Massachusetts were White, non-Hispanic. By 1990, however, this ratio had declined to 91.6%, and it fell moderately to 91.4% by 1995. Blacks, Hispanics, and Asians had increased their share of the older worker population between 1980 and 1990.¹⁹

The minority population of the state is younger on average relative to Whites. For example, during 1995, race-ethnic minorities represented only six percent of all 65-69 year olds and slightly under eight percent of all 45-64 year olds, but they accounted for 12.5 percent of all 15-44 year olds. As the members of this last cohort age and enter the ranks of the 45-69 year old cohort, they will increase the minority share of the state's older worker population. Growing race-ethnic diversity of the older worker population of Massachusetts will clearly take place over the next decade although White, non-Hispanics will account for the dominant share (85 to 90 percent) of the older worker population through the middle of the next decade.

Foreign Immigration and the Older Worker Population

¹⁸ Hispanics can be of any race. To avoid duplication of the minority count, separate estimates were made for White, not Hispanic and Black, not Hispanic populations.

¹⁹ Due to the substantially smaller sample sizes for age/race groups in the 1995 CPS surveys, we had to combine all race-ethnic minority groups into one combined "minority group".

During the 1980s and the first half of the 1990s, foreign immigration has played a key role in contributing to the growth and diversity of the state's population. Between 1980 and 1990, approximately 223,000 individuals migrated to Massachusetts from abroad.²⁰ This increase in foreign immigration accounted for nearly 80% of the net increase in the population of the state over the decade. By 1990, the foreign born share of the state's resident population had risen to just under 10 percent, representing the first time that that ratio had risen since the opening decade of this century.²¹

To illustrate the effects of past immigration on the foreign born composition of the older population, we estimated the percent of the resident population in selected age subgroups in early 1996 that were foreign born.²² For the state as a whole, just under ten percent of the resident, non-institutional population were foreign born (Table 14). Among the older worker population, these ratios were slightly higher, ranging from 10 to 14 percent.

A substantial majority (93%) of the foreign born members of the older worker population in 1996 had been living in the U.S. since at least the late 1980s. Of the 76,500 foreign born individuals in Massachusetts who had arrived in the U.S. from 1990 onward, only 12,000 were between the ages of 45-69. Older immigrants in general were considerably less likely to have been new arrivals in the U.S. This result is not surprising, given the fact that migration rates in general (both domestic and international) tend to decline fairly steadily with age. This finding does, however, have a number of important implications for the potential wage and earnings of older immigrants. In a separate analysis of the wages of employed older workers in both the state and the nation

²⁰ See: Andrew Sum, Neeta Fogg, and Jacqueline Sum, Growth and Change in Boston, 1980-1990: Renewed Population Growth, Sources of Population Change, and Increasing Race/Ethnic Diversity, Report Prepared for the Boston Foundation, Boston, 1992.

²¹ By 1910, the foreign born share of the state's population had risen to 31%. From 1910 to 1970, this ratio fell continuously dropping to 8.7% in the latter year.

²² These estimates are based on the February and March CPS surveys of 1996.

in 1990, we find that employed foreign born older workers who migrated to the U.S. prior to 1980 obtained hourly earnings that were statistically identical to those of native born workers in the U.S.²³ In contrast, older, foreign born workers who migrated to the U.S. after 1980 received significantly lower hourly earnings (22 to 32 percent lower than native born workers in Massachusetts).

The Educational Backgrounds of the State's Older Workers

Knowledge of the educational attainment backgrounds of the state's older worker population is important for workforce development policy for a number of reasons. First, better educated workers are more likely than their less educated counterparts to be active participants in the labor force. More educated workers can command higher wages and these higher expected market wages induce more older men and women to join the labor force. Second, better educated older workers are more successful than their less educated peers in avoiding unemployment when they do actively participate in the labor force. Unemployment and other underutilization problems are less severe among the more well educated members of the state's and nation's labor force. Third, better educated workers tend to adjust to labor displacement more readily than their less educated counterparts. Dislocated workers with limited education are more likely to experience longer periods of joblessness and to withdraw from the labor market after an unsuccessful job search.²⁴ Finally, older college educated workers are substantially more likely to have acquired the training and experience needed to fill professional, managerial, and high level sales

²³ These findings are based on the 1990 Census and were estimated with the use of human capital wage function in which other demographic, socioeconomic, human capital, and geographic variables are held constant. Nearly identical results prevailed for older workers in the U.S. Employed foreign born men in the U.S. who arrived prior to 1980 achieved the same hourly wages as native born men with identical background characteristics. Among women employed foreign born immigrants actually enjoyed a small wage premium.

²⁴ For a review of national evidence on the post-displacement labor market experiences of dislocated workers in the U.S.,

See: Paul Swaim and Michael Podgursky, "Do More Educated Workers Fare Better Following Job Displacement?", Monthly Labor Review, August 1989, pp. 43-46.

occupations, the fastest growing set of jobs in the Massachusetts and New England economy.

Trends in the educational characteristics of older persons (45-69 years old) in Massachusetts over the 1970-1995 period are displayed in Table 15 and an accompanying bar chart. Over the past 25 years, the educational attainment of the state's older population has improved markedly. In 1970, just under half of the state's 45-69 year olds had not graduated from high school, only 20 percent had completed some post-secondary schooling and under 10 percent had acquired a bachelor's or more advanced academic degree. By 1995, the situation had changed dramatically.²⁵ Only 15 percent of the state's older worker population lacked a high school diploma or its equivalent, 50 percent had completed some post-secondary schooling, and 30 percent had obtained a bachelor's or more advanced academic degree.

The educational characteristics of the state's older worker population will improve further over the next ten to fifteen years as the oldest members of this age cohort are replaced by younger, better educated workers. Residents in the 33-44 age group in 1995 will be entering the ranks of the older worker population over the next ten years; i.e., through the year 2007. Findings in Table 16 reveal that the educational backgrounds of the members of this age group also had improved markedly over the past 25 years, with a substantial drop in the share of high school dropouts and a sharp rise in the fraction with some college. By 1995, only 8 percent of the members of this age group had failed to graduate from high school, and 36 percent had obtained a bachelor's or more advanced academic degree. As this group moves into the ranks of the older worker population, they will raise the average educational attainment of this population group over the next decade. The improved educational backgrounds of the older worker population and the more substantial work experience of many older employed women should strengthen

²⁵ The 1995 findings are based on the CPS surveys for four months during that year.

their employment and earnings prospects over the next decade, helping to offset the depressing labor market effects of a larger age cohort.

Table 12:
Projected Trends in the Relative Size¹ of the 45-64 Year Old
Population in the Nation's 13 Largest States, 1995 to 2010
 (Numbers in Percent)

	(A)	(B)	(C)	(D)	(E)
State	1995	2000	2005	2010	Absolute Change, 1995-2010
California	27.6	30.8	33.6	35.1	+7.5
Florida	32.9	37.1	41.7	45.3	+12.4
Georgia	29.0	32.1	35.9	38.9	+9.9
Illinois	30.3	33.0	35.1	38.4	+8.1
Massachusetts	30.0	33.1	36.6	39.3	+9.3
Michigan	30.2	33.9	37.6	39.9	+9.7
New Jersey	32.0	34.6	38.1	40.3	+8.3
New York	31.4	34.2	37.1	38.9	+7.5
North Carolina	30.9	34.5	38.5	41.6	+10.7
Ohio	31.3	34.4	38.1	40.5	+9.2
Pennsylvania	32.4	35.7	39.6	42.2	+9.8
Texas	28.7	31.6	34.9	36.8	+8.1
Virginia	30.0	33.3	37.0	39.7	+9.7
Ma. Rank Among 13 Largest States	9th (tie)	9th	9th	8th	7th

Notes: Relative size is defined as the ratio of the 45-64 year old population to the 15-64 year old population in each site.

Source: U.S. Census Bureau, Projections of the Population of States, 1995 to 2025, Preferred Series A, tabulations by the Center for Labor Market Studies, Northeastern University.

Table 14:
Number and Percent of Foreign Born Persons in
Massachusetts, by Age Group
 (February & March 1996 Average)

Age Group	Total	Number Foreign ¹ Born	Percent Foreign ¹ Born
Under 45	3,969,181	339,755	8.6%
45-54	809,353	91,413	11.3%
55-64	504,438	71,873	14.2%
65-69	175,366	18,317	10.4%
70 and Over	542,423	72,101	13.3%
Total	6,000,760	593,458	9.9%

Age Group	Number Foreign ¹ Born	Number Entered in 1990 or after	Percent Entered in 1990 or after
Under 45	339,756	58,518	17.2%
45-54	91,412	5,034	5.5%
55-64	71,873	3,749	5.2%
65-69	18,317	3,075	16.8%
70 and Over	72,101	6,120	8.5%
Total	593,458	76,496	12.9%

- Notes: (1) Foreign born exclude those persons born in Puerto Rico or one of the outlying possessions of the United States.
 (2) Estimates apply to the civilian non-institutional population of Massachusetts.