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ABSTRACT

This paper examines patterns of racial change and segregation over the 1990s in the Boston metropolitan area and in three sub-areas, emphasizing whites, blacks, Asians, and Latinos. Soaring minority populations have transformed the city of Boston into a majority-minority urban core and made several satellite cities increasingly multiethnic. The suburbs have a great disparity between white and minority populations, with whites choosing suburban communities over cities. Eighty percent of the metro area's population growth occurred in the suburbs. While most of that growth was among whites, the suburban minority population also increased. Segregation rates between minorities and whites increased slightly, especially for Latinos. The city showed notable progress in reducing segregation, though segregation was still much higher than in the suburbs. The Boston metropolitan areas's child population was more heavily minority and more racially segregated than the population overall. Growth rates of minority homeowners equaled or outstripped even the rapid minority population increase. Segregation is worst for urban black homeowners but dramatically better for blacks in the suburbs and smaller cities. There is no evidence that neighborhoods that were moderately integrated in 1990 underwent dramatic racial change by 2000, though the city saw a substantial increase in multiethnic neighborhoods. Two data tables on the Boston Metro Area for the years 1990-2000 are appended: Change in Population by Race/Ethnicity; and Cities and Towns with Greatest Absolute Change in Population by Race. (Contains 17 figures). (SM)

RACE, PLACE, AND OPPORTUNITY: RACIAL CHANGE AND SEGREGATION IN THE BOSTON METROPOLITAN AREA: 1990 - 2000

Nancy McArdle
The Civil Rights Project
Harvard University

May 2002

Race, Place, and Opportunity:
Racial Change and Segregation in the Boston Metropolitan Area: 1990-2000

SUMMARY

Soaring minority populations have transformed the City of Boston into a "majority-minority" urban core and made several satellite cities increasingly multi-ethnic. In the suburbs, however, the great disparity in size between the white and minority populations means that even high minority growth rates there translate into little change in suburban racial composition. Furthermore, whites continue to choose suburban communities over the cities. During the 1990s, the City of Boston lost more than 47,000 whites but the suburbs gained about 90,000. Hence, Boston's suburbs remain overwhelmingly—over 90 percent—white. Minorities are, without question, the engine behind Boston's population growth. Balancing the needs of a "majority-minority" central city with largely white suburbs as well as ensuring equal access for those minorities who are entering the suburbs will demand vigilance, courage and leadership at all levels.

Eighty percent of the metro area's population growth occurred in the suburbs, and, while most of that growth was attributable to whites, the suburban minority population also increased. The Asian population doubled, adding almost 56,000 residents. Latino and black suburban growth lagged that of Asians (45 percent and 60 percent growth respectively) but, on a percentage basis, still swamped the 3.3 percent white increase. Even as suburban minority populations swelled, however, segregation rates between these groups and whites increased slightly, especially for Latinos. Thus, while the suburbs were just 2.5 percent Latino in 2000, the average Latino suburbanite lived in a neighborhood that was 9.6 percent Latino, up from 6.8 percent in 1990.

In contrast, the City of Boston showed notable progress in reducing segregation, though segregation levels are still much higher than in the suburbs. Progress was particularly significant between whites and blacks and between Asians and blacks. While the City's white share dropped sharply from 59 percent in 1990 to 49.5 percent in 2000, the average black lived in a census tract that fell only slightly from 20.9 percent white in 1990 to 19.8 percent white in 2000. Although blacks in Boston still experience the highest segregation levels by far, there has been improvement. Part of this progress is likely due to the increasing white populations in the South End and on the edges of largely black areas such as Roxbury and Mattapan.

The Boston metro's child population is both more heavily minority and more racially segregated than the population as a whole. Thus, while minorities comprise half of the total population in the City of Boston, they make up three quarters of the child population. Furthermore, the white share of the child population in Boston and the other densely-populated cities has dropped much more precipitously than has the white share of the overall population. Given the younger age structures of minority groups and higher fertility rates, particularly of Latinos, minorities will certainly continue to gain population share of younger age groups. While segregation rates are higher for children, they have

followed trends similar to the overall population, declining in the cities while remaining stable or increasing (especially for Latinos) in the suburbs.

Growth rates of minority homeowners equaled or outstripped even the rapid minority population increase. One might expect that racial segregation among homeowners might be less than among the overall population, given higher levels of owner income and lack of the type of subsidized housing that has helped to concentrate renters by race in the past. But segregation between white and minority homeowners is not substantially lower than segregation levels among the overall population and in some cases is noticeably higher. Segregation is clearly worst for black owners in the City of Boston but dramatically better for blacks in the suburbs and smaller, high-density cities.

Despite relatively strong minority growth throughout the metro area, there is no evidence that neighborhoods that were moderately-integrated in 1990 underwent dramatic racial change by 2000. The City of Boston did, however, see a substantial increase in multi-ethnic neighborhoods--those in which at least three racial groups account for at least ten percent of the population each. The number of these neighborhoods grew from 30 in 1990 to 48 in 2000, with the number having four groups accounting for ten percent or more of the population rising from 5 to 14.

While the decrease in segregation within the City of Boston is indeed encouraging, the significant declines in the white population there and in other cities that have seen rapid minority growth, such as Quincy and Randolph, are troubling. White populations are growing fastest in far-flung suburbs such as Franklin, Mansfield, Plymouth and Taunton, far from areas which house the growing Asian, Latino, and black residents. Thus, minorities who do move to the suburbs are increasingly surrounded by those of their own race. Currently, minorities who live in suburbs and smaller cities are much more integrated than those residing in Boston. As their numbers grow in these areas, however, actions at all levels are needed to assure that this integration is maintained and that all residents have equal access to neighborhoods and educational opportunities.

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Race, Place, and Opportunity:
Racial Change and Segregation in the Boston Metropolitan Area: 1990-2000

Despite being the third "whitest" of all large metropolitan areas--behind Pittsburgh and Minneapolis--rapid minority is now changing the racial composition of many Boston metro locations, particularly in the larger urban areas. The Boston metro is composed of a multi-ethnic core and satellite cities surrounded by overwhelmingly white outer suburbs. Indeed, the City of Boston is now "majority-minority" while the suburbs are over 90 percent white. This study examines patterns of racial change and segregation over the 1990s in the Boston metro area[1] as a whole, as well as in three sub-areas: the City of Boston; a group of other central/high density cities including: Brockton, Cambridge, Chelsea, Everett, Lawrence, Lowell, Lynn, Malden, Somerville, and Waltham; and the remaining suburban areas. It focuses primarily on four racial ethnic groups: non-Latino whites, non-Latino blacks, non-Latino Asians, and Latinos[2].

Metro Area Population Growth

During the 1990s, the Boston metropolitan area grew by 262,000 people or 6.4 percent, slightly faster than Massachusetts as a whole (5.5 percent), but much slower than the United States (14.1 percent.) This growth was entirely attributable to an increasing minority population; the absolute number of whites declined by over 42,000. Thus, while the Boston metro was 87 percent white in 1990, that share dropped to 80 percent by 2000. **[Appendix 1]** White declines were most severe in cities and towns that posted the largest minority population increases. In fact, each of the municipalities that ranked among the top ten in white population **decrease** also ranked in the top ten in terms of **increase** for one or more minority groups. **[Appendix 2]**

Blacks posted the slowest growth rates of any minority group (30 percent) and now slightly lag Latinos in number. **[Figures 1a and 1b]** The Asian population increased fastest in both absolute terms (103,000 people) and growth rate (88 percent.) People of Chinese origin make up the largest share of the metro's Asian population (39 percent,) followed by Asian Indians (19 percent,) and Vietnamese (13 percent.) However Asian composition varies considerably by locality; Cambodians make up roughly half or more of Asians in Lowell and Lynn[3].

The number of Latinos increased by 47.3 percent (91,000 people) over the decade. While Puerto Ricans comprise the largest share of Latinos (33 percent,) followed by Dominicans (12 percent) and Central Americans (8 percent,[4]) the Latino population also varies by locality. For instance, sixty percent of Lowell's Latinos are Puerto Rican,

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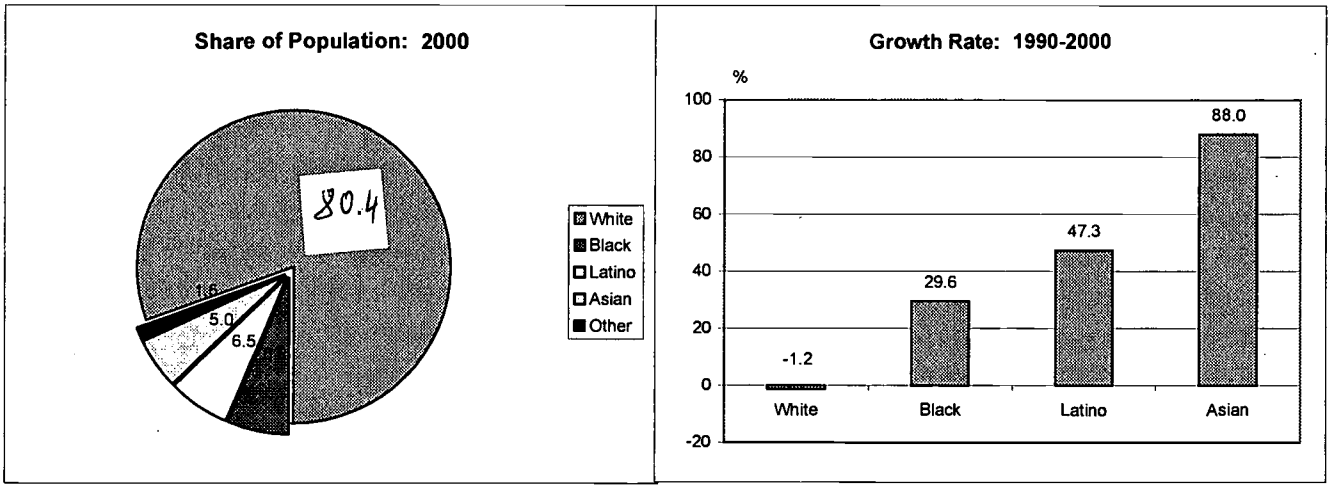
[1] Defined as the Boston, Brockton, Lawrence, and Lowell Primary Metropolitan Statistical Areas.
[2] Latinos may be of any race. Unless otherwise noted, racial groups refer to only the non-Latino members of those groups.
[3] Because respondents can identify more than one racial group, these Asian subcategory shares are estimates based on those who identified one racial group only.
[4] 19 percent of Latinos did not specify a particular Latino subcategory.

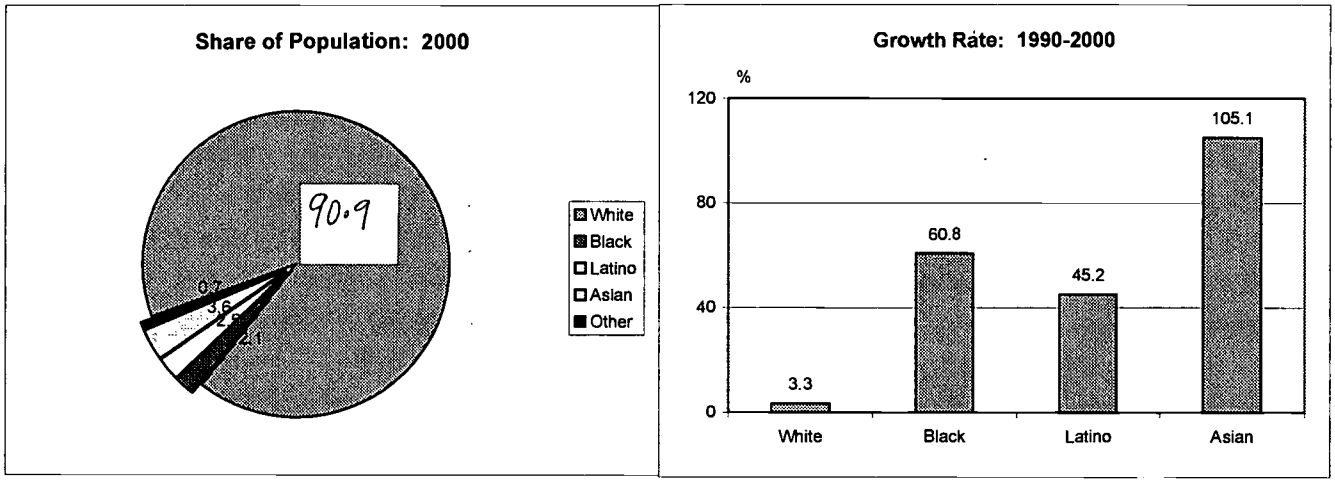
Figure 1A

Despite Strong Minority Growth, Metro and Suburbs Remain Overwhelmingly White

Boston Metro Area



Boston Suburbs

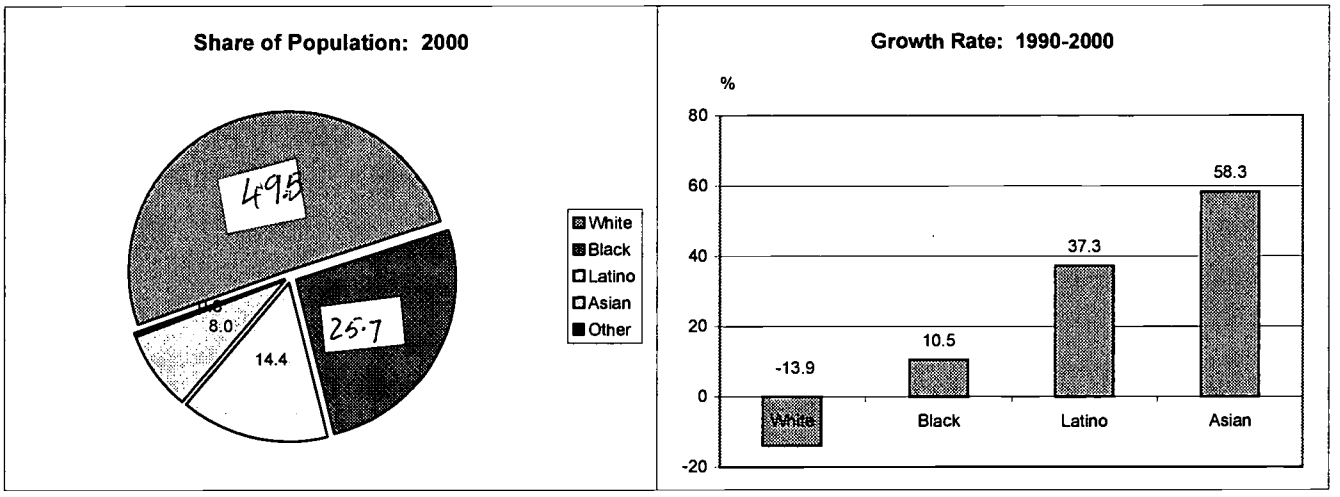


Notes: Latinos may be of any race.
Other racial groups contain only non-Latino members. Asians include Pacific-Islanders.
Boston Metro defined as the Boston, Brockton, Lawrence and Lowell PMSAs
Other Central/High Density Cities include Brockton, Cambridge, Chelsea, Everett, Lawrence, Lowell, Lynn, Malden, Somerville, and Waltham.
Source: See Appendix 1.

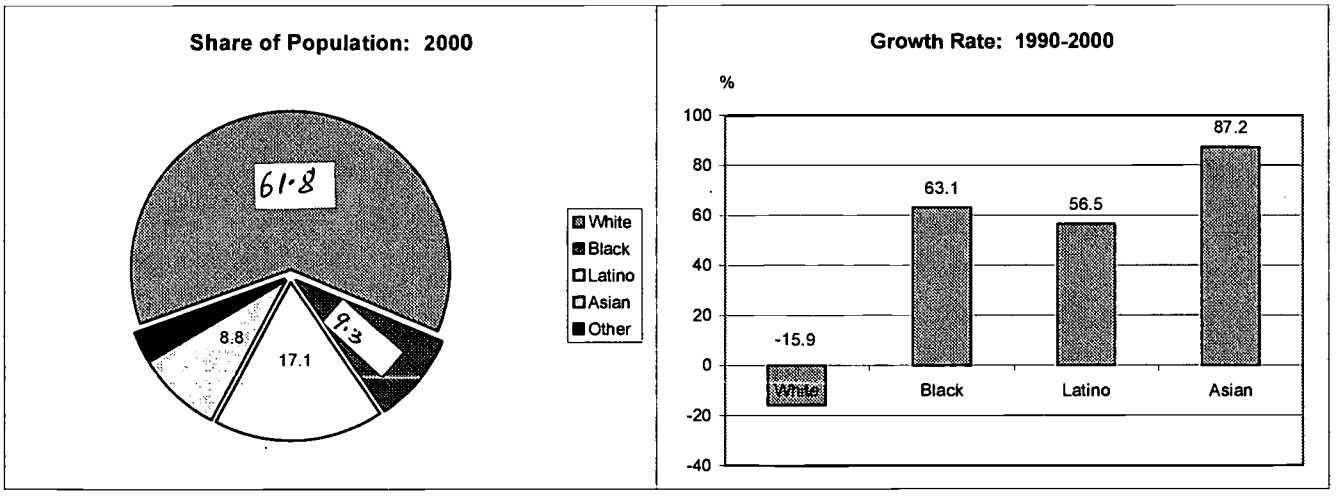
Figure 1B

City of Boston Now Half-Minority
Other Central or High-Density Cities Over One Third Minority

City of Boston



Other Central/High-Density Cities



Notes: Latinos may be of any race.
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Boston Metro defined as the Boston, Brockton, Lawrence and Lowell PMSAs
Other Central/High Density Cities include Brockton, Cambridge, Chelsea, Everett, Lawrence, Lowell, Lynn, Malden, Somerville, and Waltham.
Source: See Appendix 1.

almost double the share as in the metro as a whole. Latinos, blacks, and Asians now each make up 5 percent or more of the metro population.

Suburban Population Growth

Over 80 percent of the metro's population growth occurred in the suburbs. Although the white population grew by a meager 3.3 percent, the Boston suburbs remain overwhelmingly white (91 percent) and gained 90,000 whites over the past decade. Many communities along the North and South shores and also along the metro's far southwest corner are upwards of 97 percent white and continue to gain white residents. The outlying towns of Franklin, Mansfield, Plymouth and Taunton experienced particularly large gains. [**Appendix A-2**] Conversely, many inner-ring communities such as Quincy and Randolph (which had strong minority growth) lost large numbers of whites, as did Medford and Framingham. Even Arlington and Newton lost over 3,000 white residents over the decade. [**Figures 2a and 2b**]

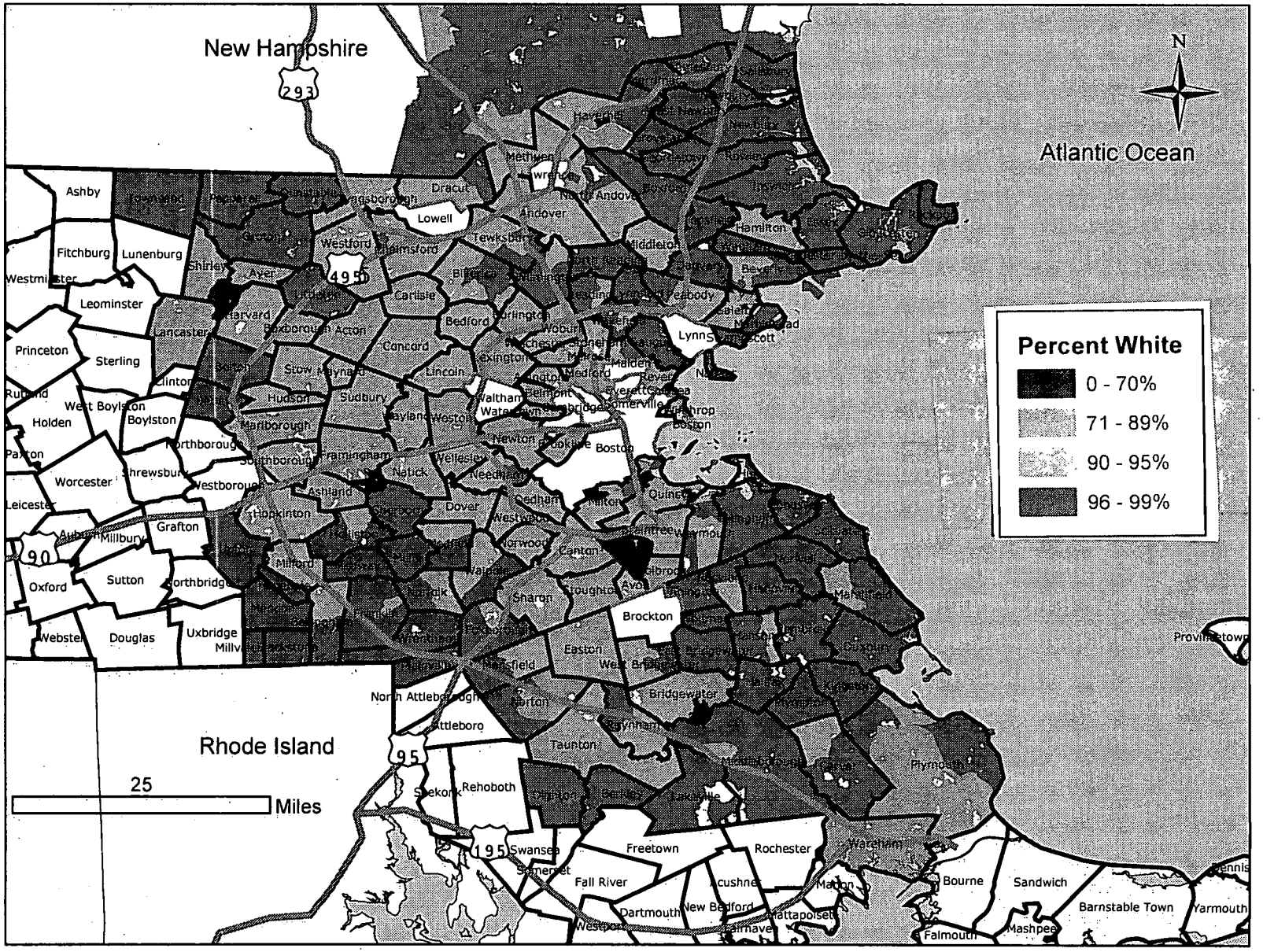
Among minorities, Asian population increase was particularly strong—doubling in just ten years. Asian growth of 56,000 people was more than double that of other minority groups. Half of Asians now reside in the suburbs, almost twice the share of other minority groups (though considerably less than the roughly 80 percent of whites that live in the suburbs.) In fact, within the closer-in Boston suburbs (within the Boston Primary Metropolitan Statistical Area only) Asian growth significantly outnumbered even white growth during the 1990s. The Asian neighborhoods that run south through the Dorchester neighborhood of Boston have extended into the city of Quincy, which gained over 8,000 Asian residents. The well-off communities of Brookline and Newton also saw increases of over 3,000 Asians. Indeed, the Asian population grew in many suburbs to the west of Boston, while increases along the North and South shores were more moderate. Plymouth and Essex counties continue to have very low Asian concentrations. The only community with notable Asian losses was Harvard, which experienced major declines of all racial groups due to the closing of Ft. Devens military base. [**Figures 3a and 3b**]

While Quincy was the prime beneficiary of suburban Asian growth, Randolph and, to a lesser extent, Milton, were key locations of black growth, extending the black Boston neighborhoods of Mattapan and parts of Hyde Park and Dorchester south towards Brockton. The suburban black population grew by 61 percent, and 22 percent of blacks now live in the suburbs. However, blacks continue to be the least represented minority group, making up just 2.1 percent of the suburban population. Disturbingly, a large share of those census tracts in the outer suburbs that exhibited substantial black growth tended to be those that house state correctional facilities such as Bridgewater, Shirley, Concord, and Plymouth. Whether these increases reflect the institutional or non-institutional population is difficult to say with currently available data. [**Figures 4a and 4b**]

Latino growth was scattered throughout the suburbs, but strongest in more urbanized areas such as Revere and Haverhill which lie close to the heavily Latino cities of Chelsea and Lawrence. Despite increasing by 45 percent over the decade, Latinos make up less

Figure 2A

White Share of Population: 2000
Boston Suburbs

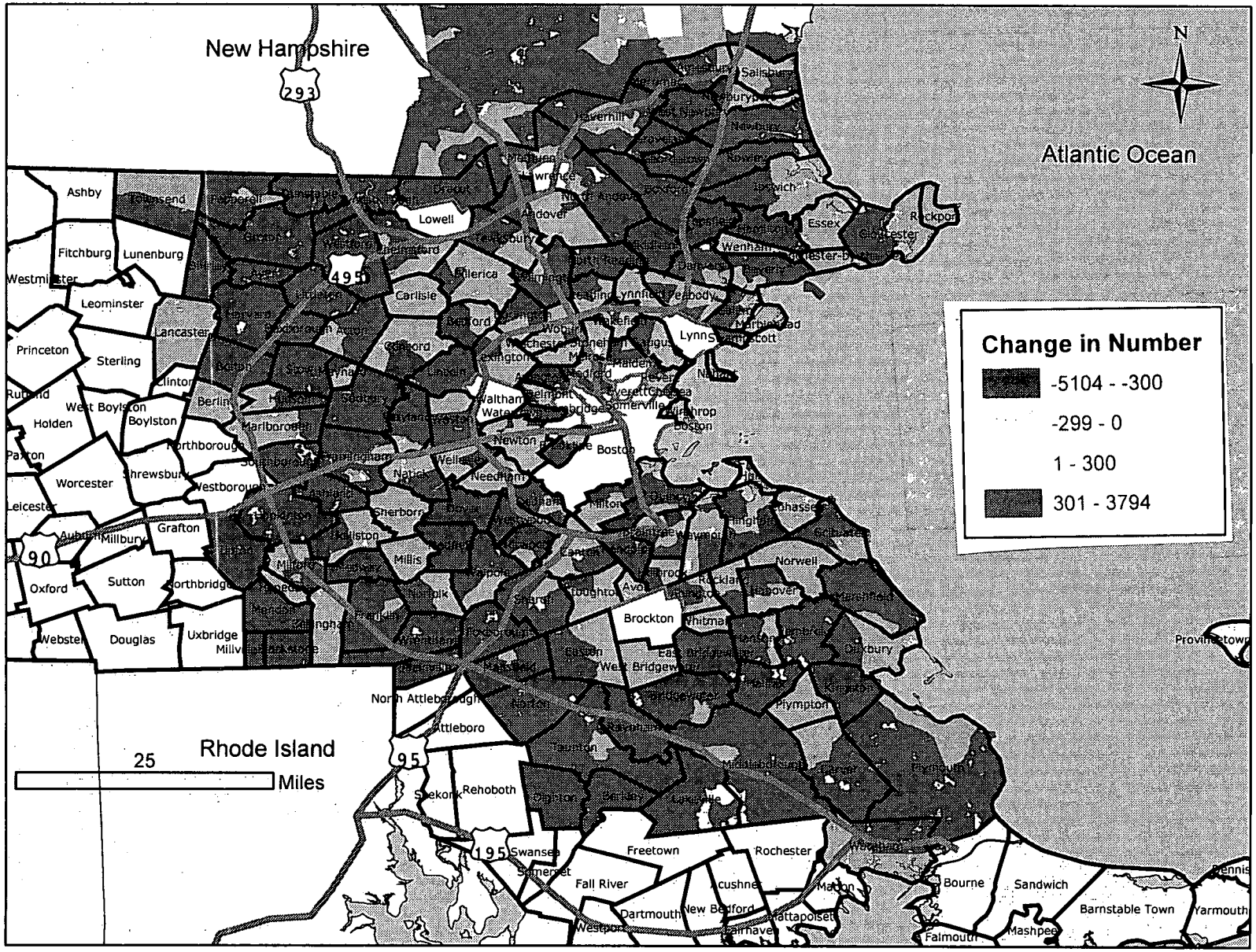


Source: 2000 Census.

Figure 2A

Figure 2B

Change in White Population: 1990-2000
Boston Suburbs

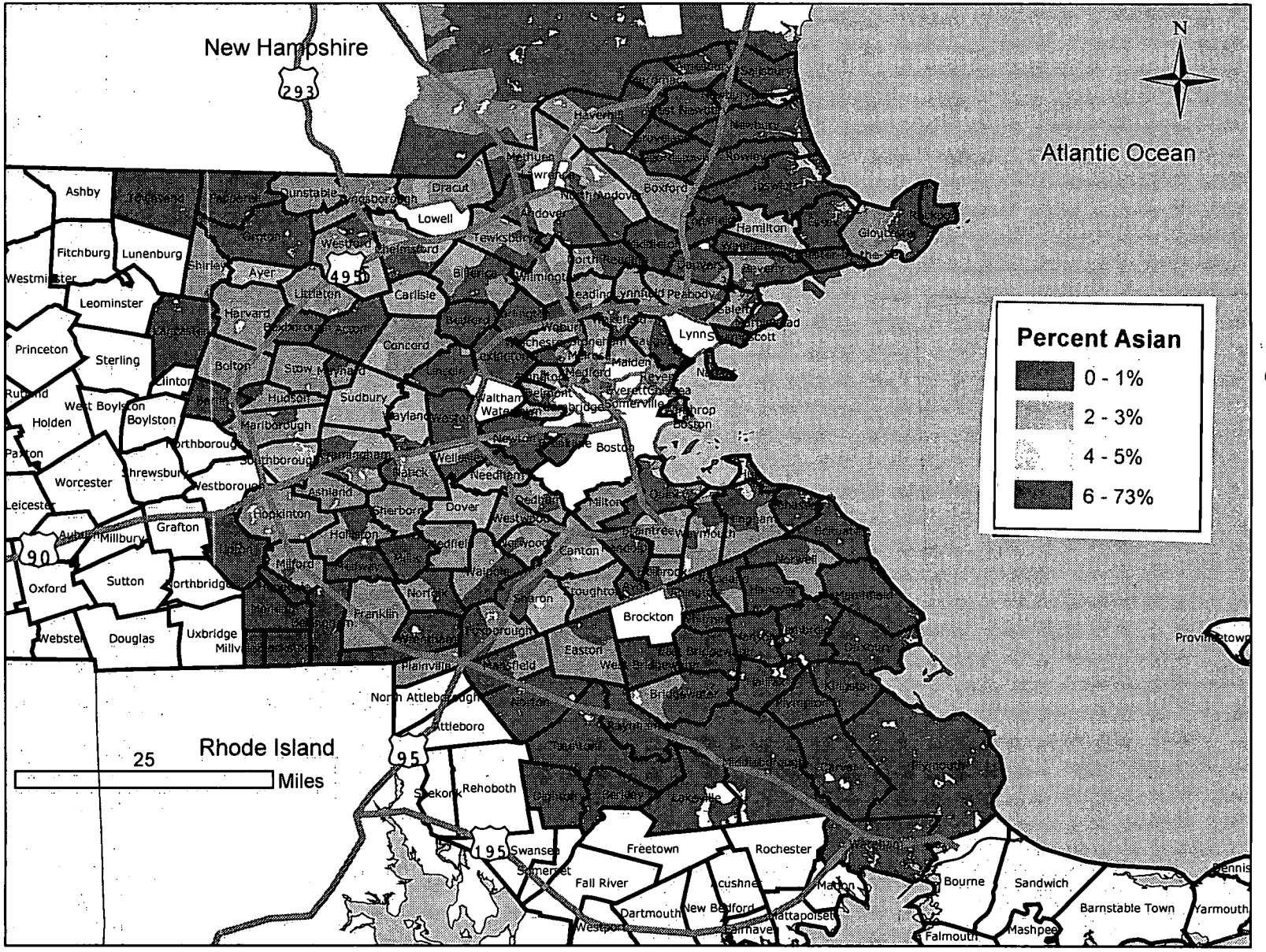


Source: 1990 and 2000 Censuses.

Fiqure 2B

Figure 3A

Asian Share of Population: 2000
Boston Suburbs

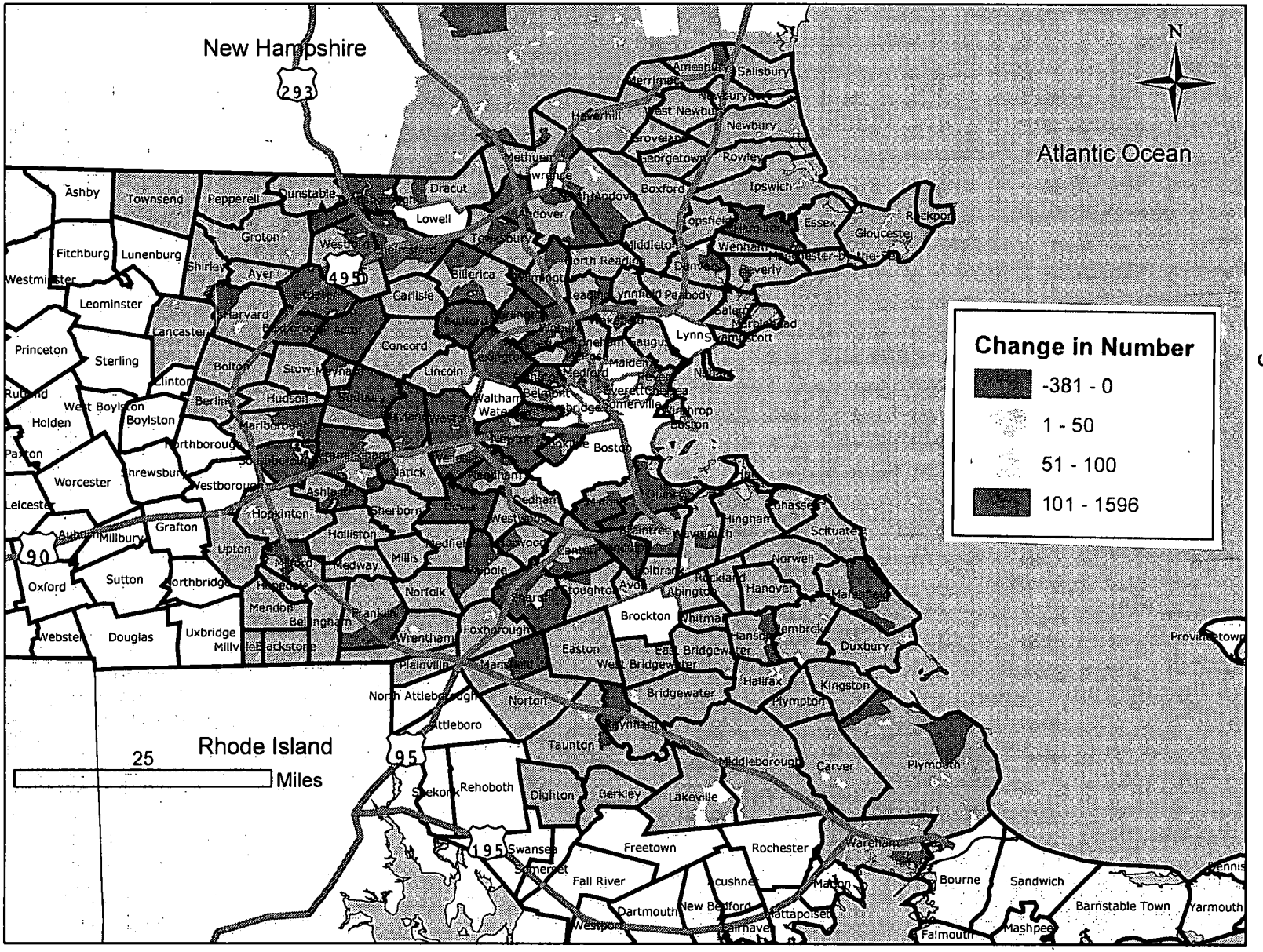


Source: 2000 Census.

Figure 3A

Figure 3B

Change in Asian Population: 1990-2000
Boston Suburbs



Source: 1990 and 2000 Censuses.

Figure 3B

Figure 4A

Black Share of Population: 2000
Boston Suburbs

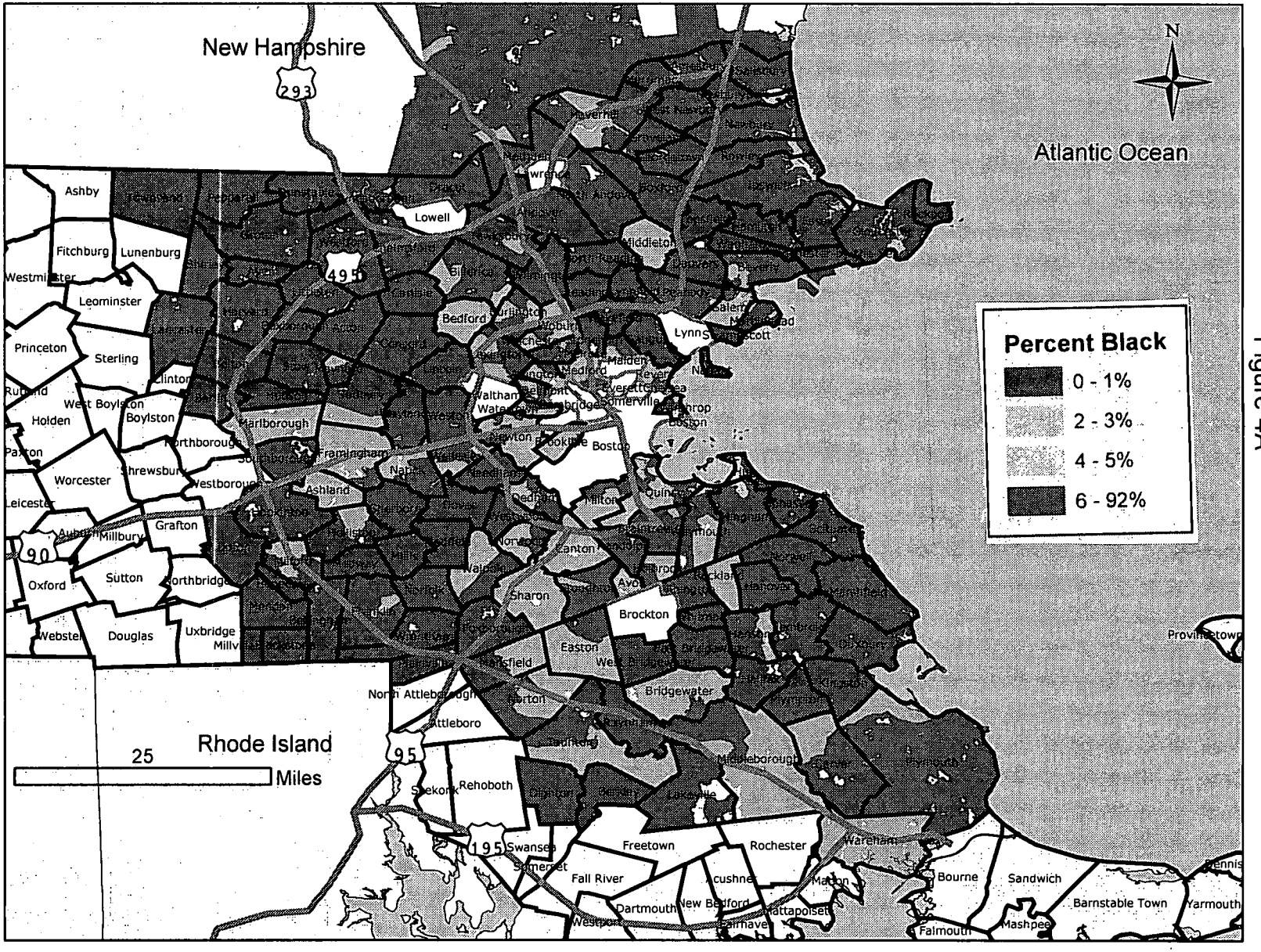
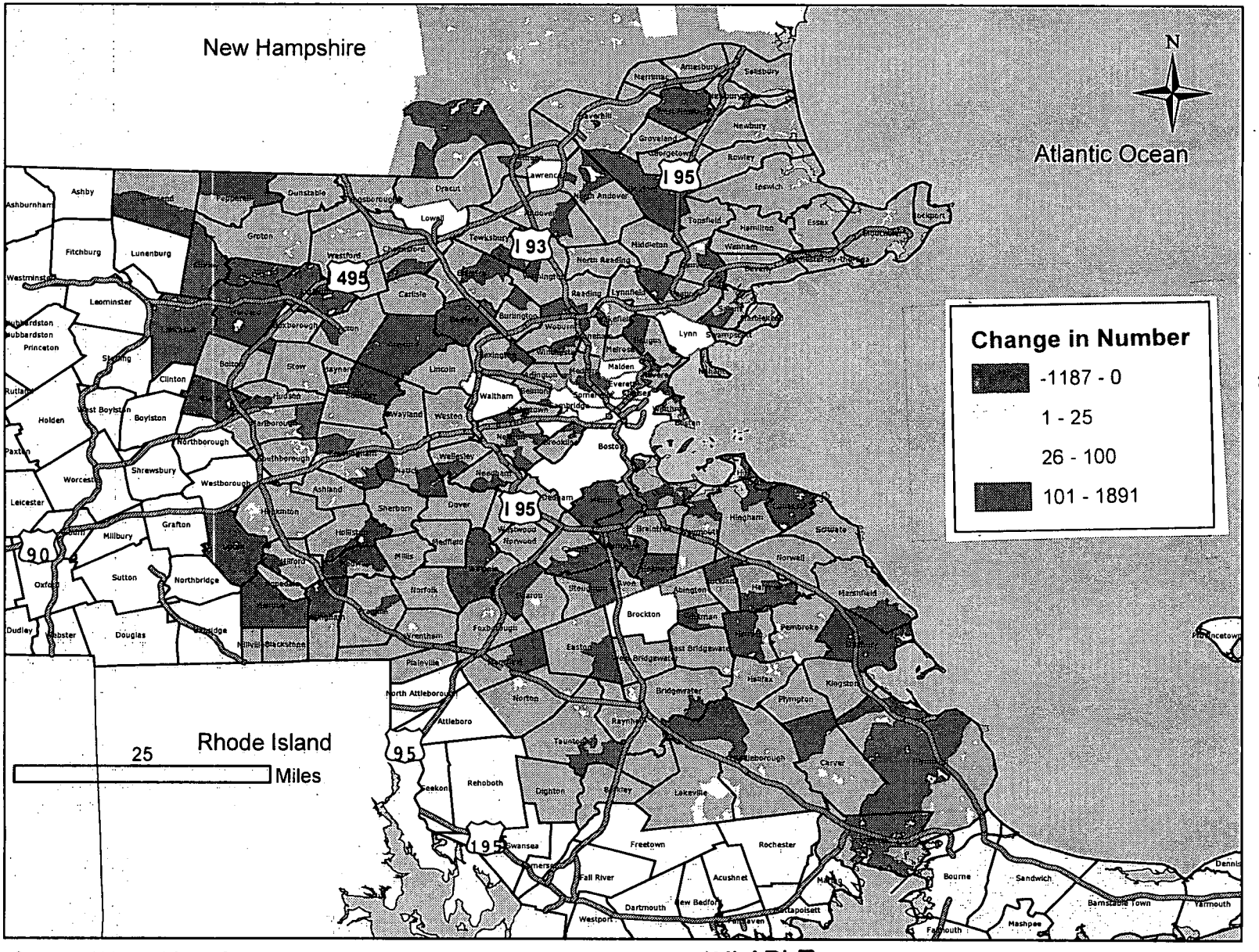


Figure 4A

Source: 2000 Census.

Figure 4B

Change in Black Population: 1990-2000
Boston Suburbs



Source: 1990 and 2000 Censuses.

Figure 4B

than 3 percent of suburban residents. As with blacks, outlying suburbs with strong Latino growth were commonly those containing state correctional facilities. [**Figures 5a and 5b**]

Certainly, strong minority growth has led to an increasing minority presence in the suburbs. However, because this growth is based on very small initial minority populations and because the white population still maintains an overwhelming majority, the Boston suburbs will certainly remain predominantly white for some time to come.

City of Boston Population Growth

The City of Boston grew more slowly than either the suburbs or the other central/high density cities in the metro area, increasing by only 2.6 percent or 15,000 residents. Boston became a "minority-majority" city as the white population declined by almost 50,000, reducing its share from 59 percent of the population in 1990 to 49.5 percent in 2000. Latinos posted the largest absolute growth (23,000) while Asians saw the fastest growth rates. Nevertheless, blacks continue as the largest minority group, comprising roughly a quarter of city residents. Foreign immigration provided a substantial boom to the City's population. As of 2000, roughly a quarter of the population was foreign-born (27 percent) and 14 percent were immigrants who entered over the last decade[5]. **[Appendix 1]**

The black population in Boston is highly concentrated in Roxbury, Mattapan, South Dorchester and parts of Hyde Park[6]. While these two latter neighborhoods, along with Roslindale, continued to experience gains, the number of blacks in Roxbury declined significantly, and Mattapan also lost numbers. These same areas, while still largely black, have begun to see white increases in several census tracts[7], especially those bordered by the South End, Fenway and Jamaica Plain. The pattern of racial change experienced by these neighboring tracts is beginning to spill over into more heavily black areas, bringing both increased opportunities for integration but also the possibility of displacement. [**Figures 6a and 6b**]

Whites continue to be most concentrated in the outer neighborhoods of the city, including West Roxbury, Jamaica Plain, Allston/Brighton, Back Bay, Charlestown, and South Boston, but their populations have actually decreased in all these areas. Only in the South End, Central, and Fenway neighborhoods as a whole did white populations increase, though certain individual tracts in Allston, Roxbury, Mattapan, South Boston, Jamaica Plain, and West Roxbury did add whites. Overall, however, the primary growth spot for whites has been the South End and certain census tracts to its south and west.

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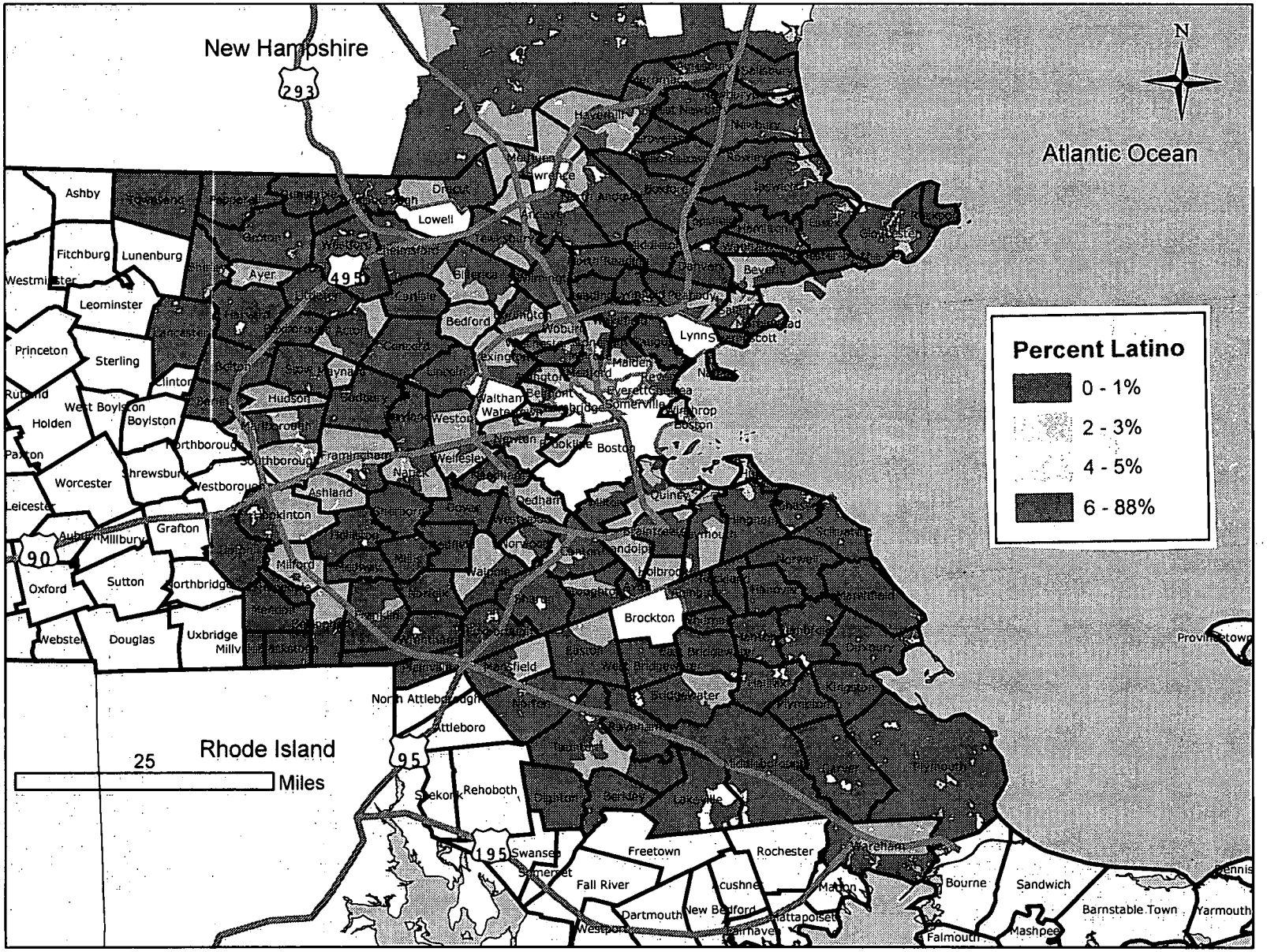
[5] Census 2000 Supplemental Survey. Non-institutional population only.

[6] Aggregate Boston neighborhood data are based on Boston Redevelopment Authority boundary definitions and drawn from ***Boston's Population—2000: Changes in Population, Race, and Ethnicity in Boston and Boston's Neighborhoods—1980 to 2000***, Boston Redevelopment Authority, March 2001.

[7] Census tracts are small, relatively permanent county subdivisions that are designed to be relatively homogenous with respect to population characteristics, economic status and living conditions at the time they are established. They have an average size of 4,000 people. See the Technical Appendix for information on tracts that are split by city boundaries.

Figure 5A

Latino Share of Population: 2000
Boston Suburbs

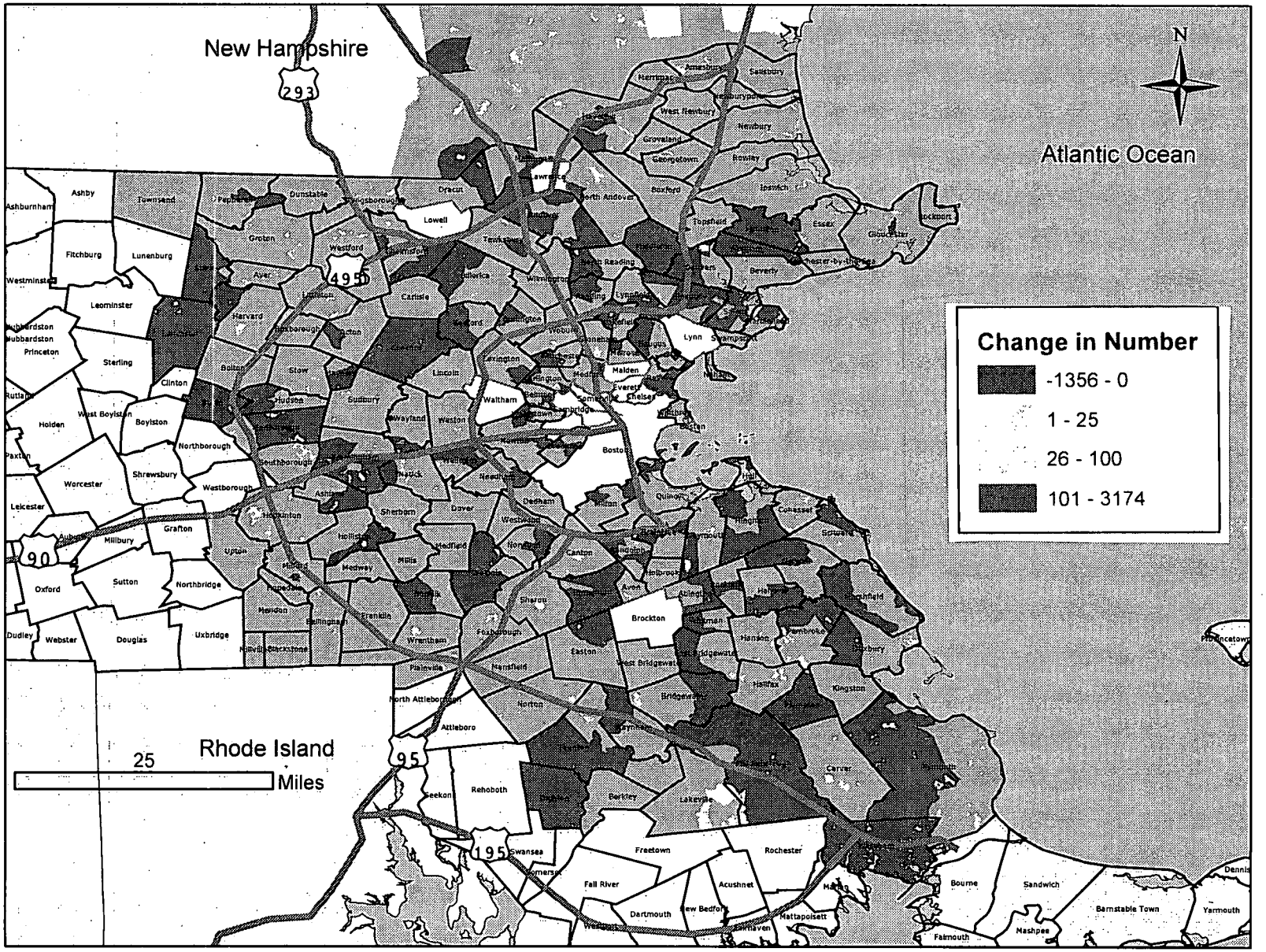


Source: 2000 Census.

Figure 5A

Figure 5B

Change in Latino Population: 1990-2000
Boston Suburbs

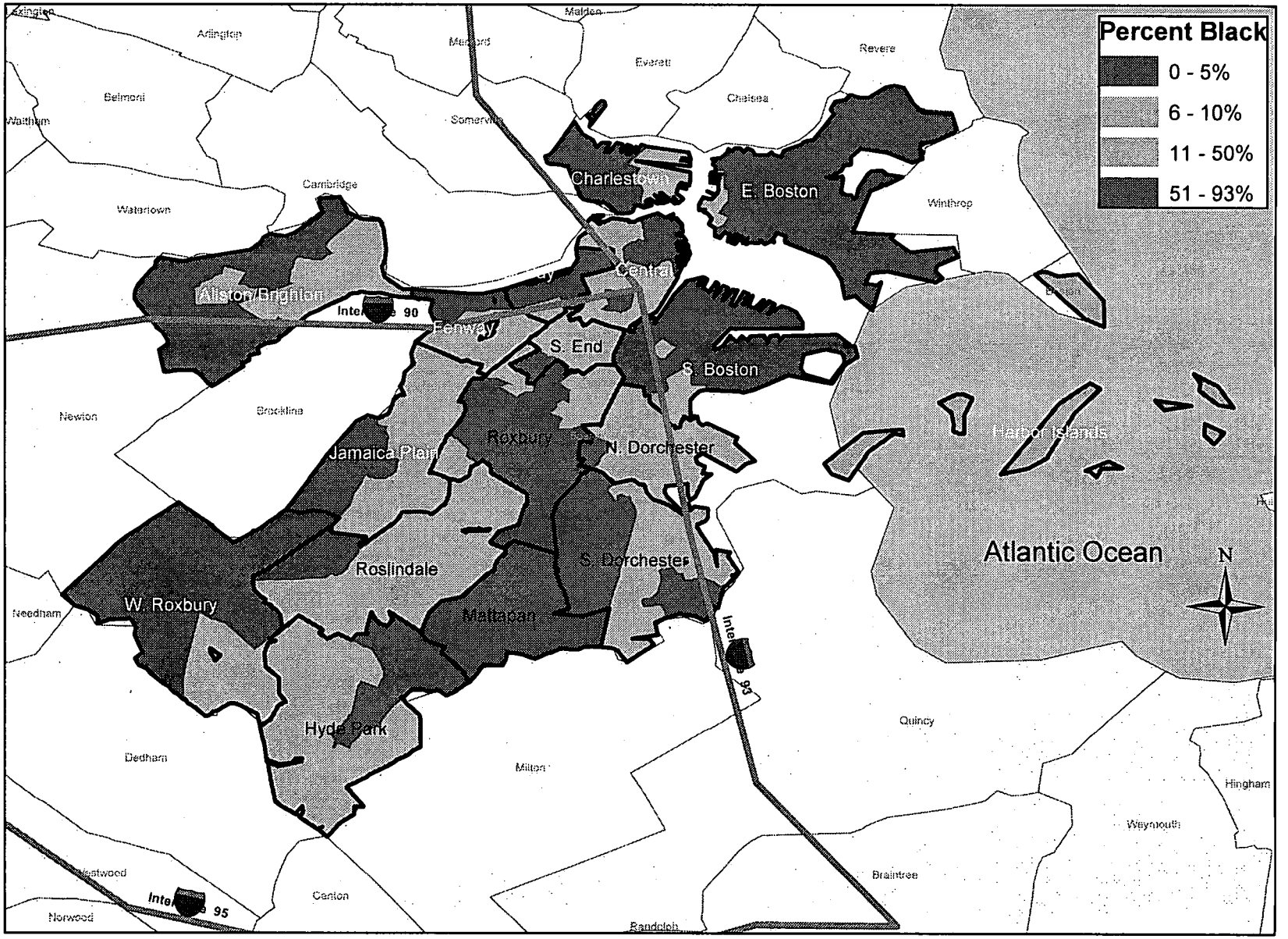


Source: 1990 and 2000 Censuses.

Figure 5B

Figure 6A

Black Share of Population: 2000
City of Boston

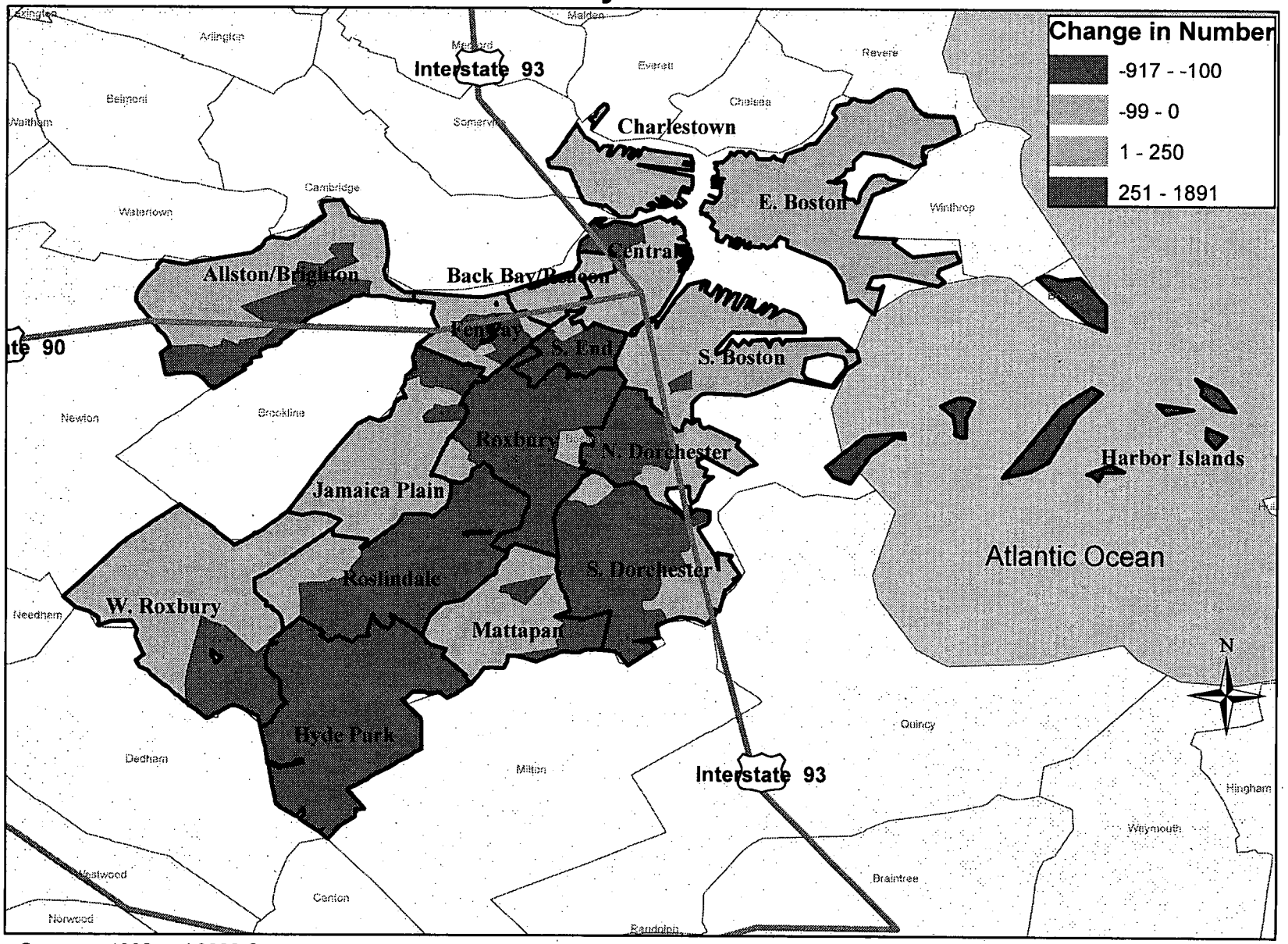


Source: 2000 Census.

Figure 6A

Figure 6B

Change in Black Population: 1990-2000
City of Boston



Ssource: 1990 and 2000 Censuses.

Figure 6B

The fact that census tracts in Mattapan and Roxbury saw any white growth is notable, given that these neighborhoods are 95+ percent minority. [**Figures 7a and 7b**]

Latinos now make up almost 1 in 6 city residents. Their numbers continue to surge in East Boston, where they account for 39 percent of the population, up from just 3 percent in 1980 and 18 percent in 1990. They have also made inroads in the eastern parts of Charlestown. Already a substantial presence in Roxbury, and Mattapan, they are gaining ground southward, especially in Hyde Park, Roslindale, and parts of Dorchester. Jamaica Plain, which has one of the largest Latino populations, lost over 1,600 Latinos over the decade, as all racial groups except Asians declined in that neighborhood. [**Figures 8a and 8b**]

Asians exhibited the fastest growth rate in the city of Boston, increasing by 58 percent or 17,000 people. Asians are most highly concentrated in Chinatown/South End, Allston/Brighton, Dorchester, the Central District, and Fenway/Kenmore. Except for the South End, they have increased their presence in all these areas, particularly in Dorchester. [**Figures 9a and 9b**]

Other Central/High Density City Population Growth

While the City of Boston is by far the largest urban center in the metro area, a number of smaller/high density areas are also very "city-like" in character. These include Brockton, Cambridge, Lawrence, Lowell, Lynn, and Waltham, which are defined by the Office of Management and Budget as "central cities" [8] but also the cities of Chelsea, Everett, Malden, and Somerville which closely border Boston and have extremely high population densities (over 10,000 per square mile.)[9] As a whole, these cities contained roughly 728,000 residents in 2000, and their racial profiles lie somewhere between the suburbs and the city of Boston. Like Boston, they lost significant numbers of whites (85,000) but their minority growth rates were closer to suburban rates (63 percent for blacks, 57 percent for Latinos, and 87 percent for Asians.) In effect, these are the areas undergoing the fastest rates of racial change. Minorities make up about 40 percent of the aggregate population, up from roughly 25 percent in 1990. Latinos contributed the largest absolute numbers to population growth (45,000 people,) though Asians are increasing at the fastest rate (87 percent.) **[Appendix 1]**

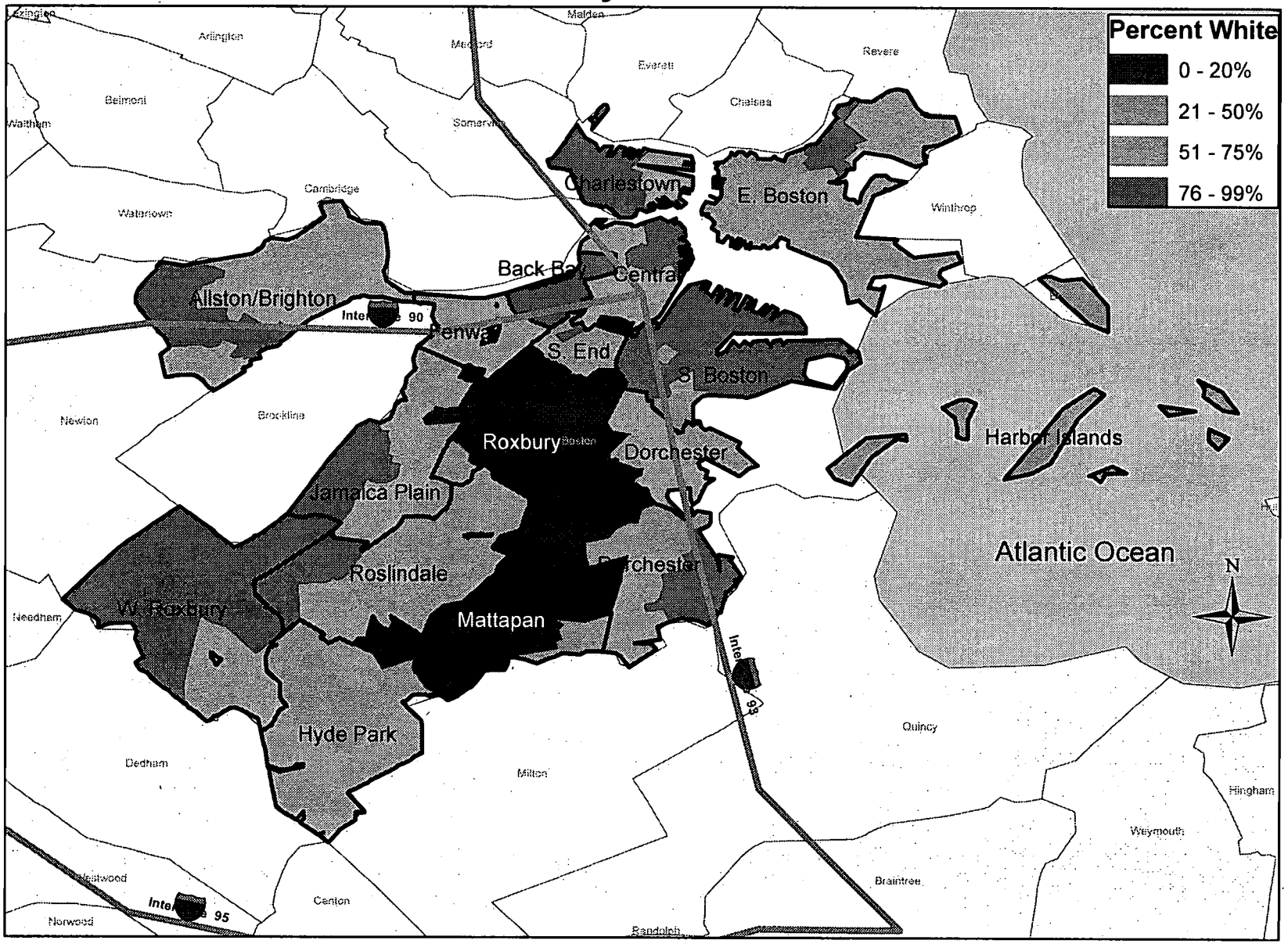
Trends in Segregation

Although residential segregation in the Boston metro area remains greatest between whites and blacks, modest improvement along this dimension stands in contrast to slightly worsening segregation between whites and Latinos in the suburbs. In 2000, 65.2 percent of blacks would have to move to another census tract in order for the racial composition of each tract to mirror the racial composition of the metro as a whole, down

[8] The town of Gloucester is also defined by OMB as a central city but was not included in our definition.
[9] The towns of Winthrop, Brookline, Arlington, Watertown, and Revere have population densities between 7500 and 9500 per square mile and could be considered as "central/high density cities" under some definitions. However we classify them as suburbs using the strict 10,000 per square mile cut-off.

Figure 7A

White Share of Population: 2000
City of Boston

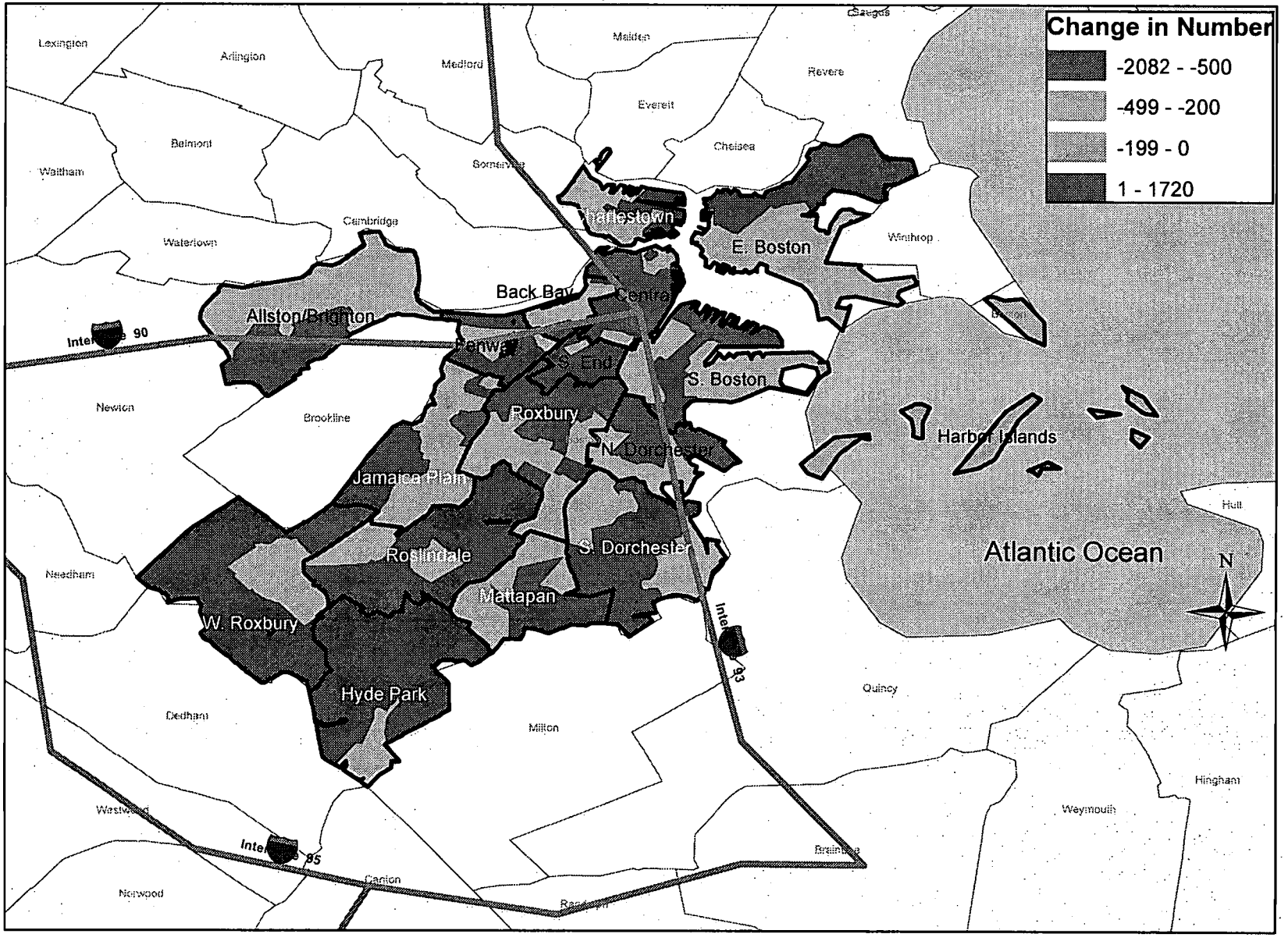


Source: 2000 Census.

Figure 7A

Figure 7B

Change in White Population: 1990-2000
City of Boston

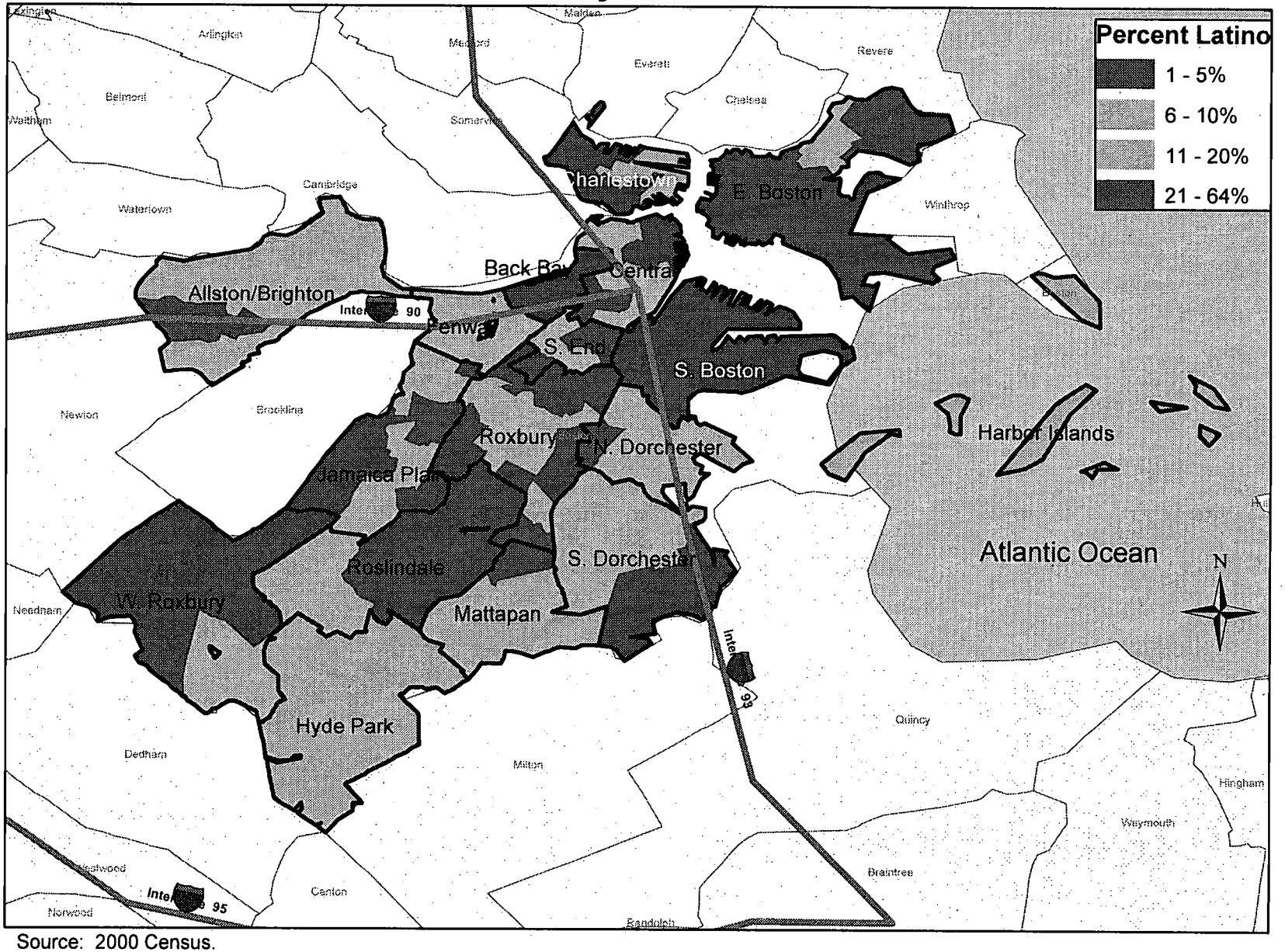


Source: 1990 and 2000 Censuses.

Figure 7B

Figure 8A

Latino Share of Population: 2000
City of Boston

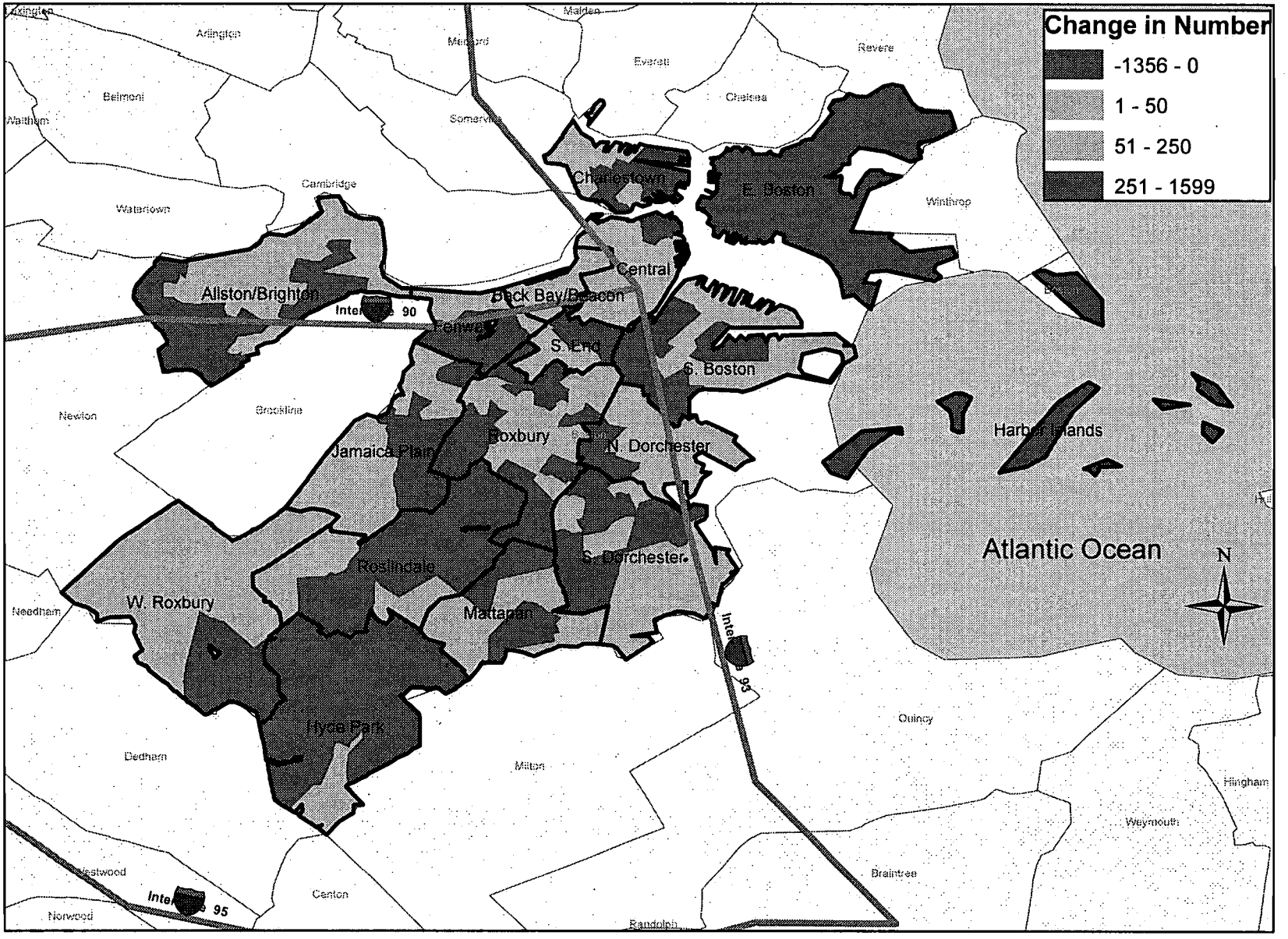


Source: 2000 Census.

Figure 8A

Figure 8B

Change in Latino Population: 1990-2000
City of Boston

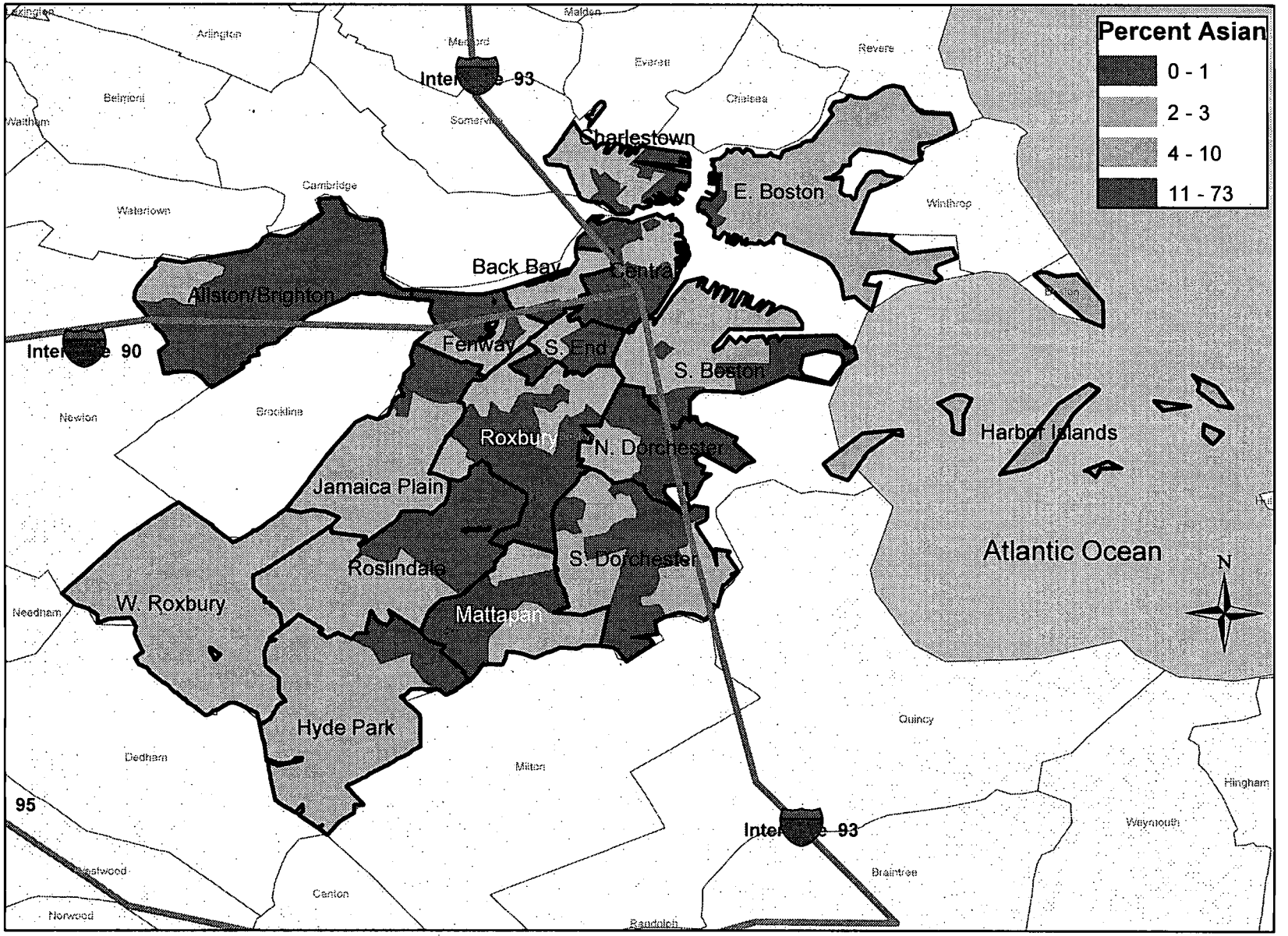


Source: 1990 and 2000 Censuses.

Figure 8B

Figure 9A

Asian Share of Population: 2000
City of Boston

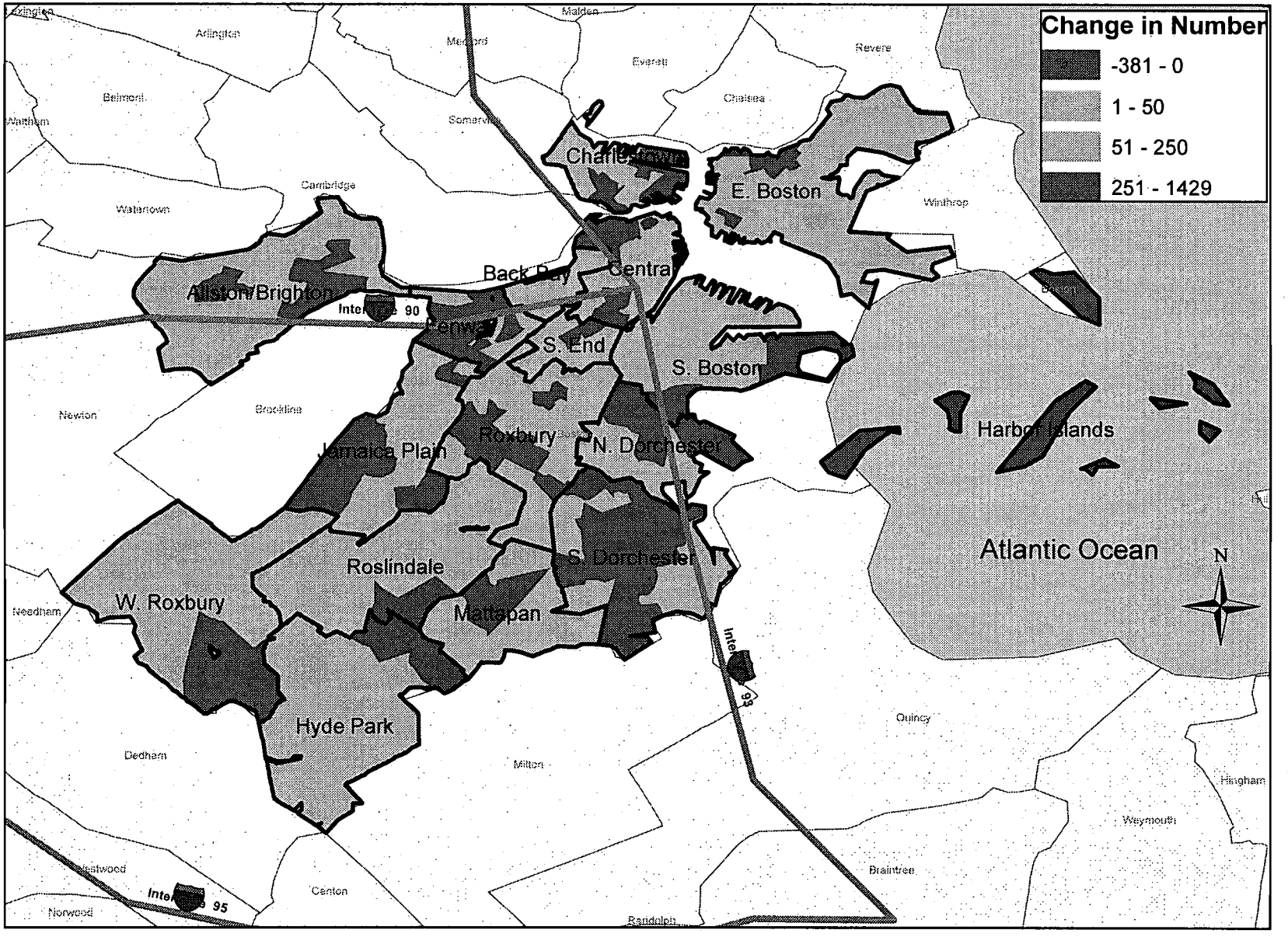


Source: 2000 Census.

Figure 9A

Figure 9B

Change in Asian Population: 1990-2000
City of Boston



Source: 1990 and 2000 Censuses.

Figure 9B

from 68.2 percent in 1990. This measure, the dissimilarity index, ranges from 0 (complete integration) to 100 (complete segregation.) Blacks also experienced decreasing segregation from other minorities, particularly Asians. [**Figure 10**]

On the other hand, the dissimilarity index between whites and Latinos increased from 58.7 in 1990 to 61.6 in 2000, and segregation worsened more significantly for Latino children. Although these increases are rather small, they are notable in contrast to the declining or stable segregation patterns of other groups.

Asians experience the least segregation from whites, and this level remained constant over the decade metro-wide. However, Asians did see substantial decreases in segregation from blacks and Latinos over the period.

In the City of Boston, which has extremely high black/white segregation, the dissimilarity indices fell almost across the board. Black/Asian segregation saw particular improvement. The only groups which became increasingly segregated from each other were Latinos and Asians and then only slightly.

In the suburbs, segregation indices for all groups remained constant or trended upward. White/Latino dissimilarity showed the sharpest rise, increasing from 37.2 to 41.0. Segregation between most other groups posted small increases, in contrast to the moderate declines experienced in the City of Boston. Still, overall segregation in the suburbs is still dramatically lower than in the City, especially between whites and blacks and Asians and blacks. While roughly 70 percent of blacks in the City would have to move to another Census tract in order that the black/white and black/Asian composition of each tract mirrored that of the City as a whole. In the suburbs, only 42 to 45 percent of blacks would have to move to another tract to achieve racial integration. Asians, on other hand, are equally segregated from whites in both the City and the suburb.

Segregation rates in the other central/high density cities are most similar to those in the suburbs, but segregation **trends** more closely mirror those of the City of Boston, falling or remaining constant for almost all groups. These cities, on the whole, have black/white segregation rates that are dramatically lower than in Boston and even lower than in the suburbs. White/Asian segregation is also lowest in these areas. However, white/Latino segregation is notably higher here than in the suburbs and almost as high as in the City of Boston. Closer examination of residential patterns in cities such as Lawrence and Lynn show distinct residential separation between whites and Latinos.

The improvement in black/white segregation, particularly in the City of Boston, and the moderate worsening of Latino/white segregation, especially in the suburbs, can also be seen by examining the changing racial composition of tracts occupied by average members of each racial group. For example, the City of Boston went from being 23.8 percent black in 1990 to 25.7 percent black in 2000, an **increase of 8 percent**. But the neighborhood occupied by the average white resident went from 8.5 percent black to 10.2 percent black, an **increase of 20 percent**. Meanwhile, the City went from being 59 percent white to 49.5 percent white, a **decrease of 16.1 percent**. But the neighborhood

Figure 10

Change in Boston Segregation: 1990-2000
(Dissimilarity Indices)

	Total Population			Under Age 18		
	1990	2000	Change	1990	2000	Change
Metro Area						
White/Black	68.2	65.2	-3.0	73.0	71.2	-1.8
White/Latino	58.7	61.6	2.9	65.7	69.0	3.3
White/Asian	45.6	46.0	0.4	48.6	48.7	0.1
Black/Latino	49.6	48.1	-1.5	52.3	49.5	-2.8
Black/Asian	62.4	57.5	-4.9	66.6	60.0	-6.6
Latino/Asian	50.4	45.0	-5.4	54.3	55.6	1.3
City of Boston						
White/Black	75.2	70.4	-4.8	79.0	72.7	-6.3
White/Latino	54.2	53.3	-0.9	63.0	56.4	-6.6
White/Asian	43.7	39.9	-3.8	53.6	50.8	-2.8
Black/Latino	47.0	43.5	-3.5	44.2	40.5	-3.7
Black/Asian	74.9	69.4	-5.5	75.4	67.0	-8.4
Latino/Asian	53.0	55.1	2.1	57.0	54.1	-2.9
Other Central/High Density Cities						
White/Black	40.0	36.7	-3.3	42.3	39.5	-2.8
White/Latino	49.8	50.8	1.0	53.8	52.3	-1.5
White/Asian	38.4	34.7	-3.7	46.5	40.7	-5.8
Black/Latino	52.2	50.7	-1.5	57.2	53.4	-3.8
Black/Asian	47.6	44.3	-3.3	54.6	47.5	-7.1
Latino/Asian	50.2	52.3	2.1	53.0	50.3	-2.7
Suburbs						
White/Black	40.9	41.9	1.0	43.1	44.6	1.5
White/Latino	37.2	41.0	3.8	39.9	44.4	4.5
White/Asian	38.9	41.1	2.2	39.4	40.7	1.3
Black/Latino	35.4	36.5	1.1	39.6	39.8	0.2
Black/Asian	42.0	44.5	2.5	44.6	46.9	2.3
Latino/Asian	43.2	46.1	2.9	45.7	47.7	2.0

Notes: Boston Metro defined as the Boston, Brockton, Lawrence and Lowell PMSAs.
Other Central/High Density Cities include Brockton, Cambridge, Chelsea, Everett, Lawrence, Lowell, Lynn, Malden, Somerville, and Waltham.
Segregation is measured by the Dissimilarity Index which expresses the share of minorities that would have to move to another area (Census tract in this case) to achieve an even distribution across all areas. For this table, it ranges from 0 (no segregation) to 100 (total segregation.)

occupied by the average black resident went from being 20.9 percent white to 19.8 percent white, a **decrease of just 5.3 percent**. Thus, while blacks and whites still live in quite different areas, their exposure to each other has increased to a greater degree than could be explained merely by the rate of population change in the City as a whole. However, this pattern does not hold in the suburbs or in the other central/high density cities.

These exposure indices also show that blacks living in both the City of Boston and in other central/high density cities are now living in neighborhoods with smaller concentrations of blacks than would be expected from merely the change in the overall black population. Thus, while the black share of Boston went from 23.8 percent to 25.7 percent, an **increase of 8 percent**, the neighborhood occupied by the average black resident went from 61.3 percent black to 56.5 percent black, **a decrease of 7.8 percent**. This finding reinforces the other results showing increased integration of City blacks.

The increasing segregation of Latinos in the suburbs is also reflected in the exposure indices. The Latino share of the suburban population went from 1.8 percent to 2.5 percent, **an increase of 38.9 percent**. But the neighborhood occupied by the average white resident went from being 1.7 percent Latino to 2.2 percent Latino, a **increase of just 29.4 percent.** Meanwhile, the suburbs went from being 94.6 percent white to 90.9 percent white, a **decrease of 3.9 percent**. But the neighborhood occupied by the average Latino resident went from being 87.9 percent white to 80.1 percent white, a **decrease of 8.9 percent**. Thus Latino and white exposure to each other has decreased to a greater degree than could be explained merely by the rate of population change in the suburbs as a whole. **[Figure 11]**

Segregation of Children

The Boston metro's child (under age 18) population is both more heavily minority and more racially segregated than the population as a whole. While roughly 90 percent of suburban children are white--similar to the overall suburban population—the child population in the City of Boston and in the other cities is considerably more minority than the total population residing in those areas. Thus, while minorities comprise half of the total population in the City of Boston, they make up three quarters of the child population. They account for 38 percent of the total population in the other central/high density cities, but 55 percent of the child population there. Black and Latino children are particularly over-represented in the City of Boston. Blacks make up 40 percent of the City's children, compared to just 26 percent of the City's total population. Latinos make up 27 percent of the City's children, compared to just 14 percent of the City's total population. Furthermore, the white share of the child population in Boston and the other cities has dropped much more precipitously than has the white share of the overall population. Given the younger age structures of these minority groups and higher fertility rates, particularly of Latinos, it is likely that these groups will continue to gain population share of younger age groups relative to whites.

Figure 11

Racial Composition of Census Tracts Occupied by Average Resident of Each Race: 1990 and 2000

Boston Metro

Tract Composition	Composition of Total Area 1990	2000	% Change	Composition of Tracts Occupied by Average Resident of Specified Race: White 1990	2000	% Change	Black 1990	2000	% Change	Asian 1990	2000	% Change	Latino 1990	2000	% Change
% Black	5.3	6.5	22.6	2.6	3.4	30.8	41.9	35.8	-14.6	5.6	7.0	25.0	12.5	12.9	3.2
% White	86.6	80.4	-7.2	91.2	86.7	-4.9	42.5	42.6	0.2	76.7	70.6	-8.0	60.8	51.5	-15.3
% Asian	2.9	5	72.4	2.5	4.4	76.0	3.0	5.4	80.0	10.3	13.0	26.2	4.1	6.1	48.8
% Latino	4.7	6.5	38.3	3.3	4.2	27.3	11.1	13.1	18.0	6.8	7.9	16.2	21.4	27.0	26.2

City of Boston

Tract Composition	Composition of Total Area 1990	2000	% Change	White 1990	2000	% Change	Black 1990	2000	% Change	Asian 1990	2000	% Change	Latino 1990	2000	% Change
% Black	23.8	25.7	8.0	8.5	10.2	20.0	61.3	56.5	-7.8	11.5	14.4	25.2	29.8	28.9	-3.0
% White	59	49.5	-16.1	78.1	68.8	-11.9	20.9	19.8	-5.3	57.9	52.7	-9.0	41.9	36.5	-12.9
% Asian	5.3	8	50.9	5.1	8.5	66.7	2.5	4.5	80.0	20.0	18.8	-6.0	4.6	6.5	41.3
% Latino	10.8	14.4	33.3	7.7	10.7	39.0	13.5	16.3	20.7	9.7	11.8	21.6	21.4	25.0	16.8

Other Central High Density Cities

Tract Composition	Composition of Total Area 1990	2000	% Change	White 1990	2000	% Change	Black 1990	2000	% Change	Asian 1990	2000	% Change	Latino 1990	2000	% Change
%Black	6	9.3	55.0	5.4	8.6	59.3	13.0	16.2	24.6	6.2	8.5	37.1	5.5	7.6	38.2
%White	76.9	61.8	-19.6	80.8	68.1	-15.7	70.0	57.0	-18.6	70.5	59.3	-15.9	57.8	44.0	-23.9
%Asian	4.9	8.8	79.6	4.5	8.5	88.9	5.1	8.0	56.9	11.3	16.4	45.1	5.0	7.1	42.0
%Latino	11.4	17.1	50.0	8.6	12.1	40.7	10.5	13.8	31.4	11.5	13.7	19.1	30.9	38.9	25.9

Suburbs

Tract Composition	Composition of Total Area 1990	2000	% Change	White 1990	2000	% Change	Black 1990	2000	% Change	Asian 1990	2000	% Change	Latino 1990	2000	% Change
% Black	1.4	2.1	50.0	1.3	1.9	46.2	5.0	7.5	50.0	1.9	2.8	47.4	2.6	3.7	42.3
% White	94.6	90.9	-3.9	94.9	91.6	-3.5	88.5	81.6	-7.8	91.3	84.9	-7.0	87.9	80.1	-8.9
% Asian	1.9	3.6	89.5	1.8	3.3	83.3	2.6	4.9	88.5	4.7	9.1	93.6	2.2	4.0	81.8
% Latino	1.8	2.5	38.9	1.7	2.2	29.4	3.5	4.5	28.6	2.2	2.8	27.3	6.8	9.6	41.2

Notes: Latinos may be of any race.
Other racial groups contain only non-Latino members. Asians include Pacific-Islanders.
Boston Metro defined as the Boston, Brockton, Lawrence and Lowell PMSAs.
Other Central/High Density Cities include Brockton, Cambridge, Chelsea, Everett, Lawrence, Lowell, Lynn, Malden, Somerville, and Waltham.

Children have higher levels of segregation than the overall population, but, on the whole, they seem to be following similar trends. Segregation, as measured by the dissimilarity index, is down relative to 1990 for all groups in both the City of Boston and other densely populated cities and up or constant for all groups in the suburbs. Black and Latino children in the City of Boston have seen significant decreases in segregation, but dissimilarity for black children there is still extremely high (over 70.) Similarly, segregation between black and Asian children in the City has fallen notably, but also remains very high. In contrast, the increase in Latino child segregation in the suburbs is particularly notable and is even greater than the rise in Latino segregation for the overall suburban population.

Exposure indices reinforce most of these findings. Black children in the City of Boston are now experiencing greater exposure to white children and less exposure to other black children than would solely be explained by the changing racial composition in the City. In the suburbs, however, black children are now less exposed to white children and more exposed to black children than one might expect given overall population change. While the white share of suburban children **decreased by 4.3 percent**, the tract occupied by the average black child experienced a **10.8 percent decrease** in white share. And while the black share of suburban children **increased by 58.8 percent**, the tract occupied by the average black child experienced **a 75.4 percent increase** in black share. [**Figure 12**]

Similarly, Latino children are now less exposed to white children in the suburbs than one might expect. While the white share of suburban children **decreased by 4.3 percent**, the tract occupied by the average Latino child experienced a **10.2 percent decrease** in white share. And while the Latino share of suburban children **increased by 25.9 percent**, the tract occupied by the average Latino child experienced **a 33 percent increase** in Latino share. This pattern holds true for Asian children as well.

The high levels of child segregation, particularly for blacks and Latinos in the Boston metro is also supported by the racial composition of the public schools in Boston versus the outer suburbs which are experiencing the fastest white growth. For example, as of 2000, the Boston schools were 85 percent minority. In sharp contrast, the public schools in many of the outlying communities attracting white migrants are over 95 percent white.

Of further concern is the expanding development of age-restricted communities in rural and suburban areas. Designed to keep families with children from moving in and overwhelming the schools, the growth of these types of communities may also keep minority households, which are more likely have children, from these more outlying locations which will then remain overwhelmingly white as the cities and inner suburbs absorb more minorities and young people.

Growth and Segregation of Homeowners

Homeownership in the Boston metro area surged during the 1990s, from 58.4 to 60.4 percent, reflecting an increase of almost 115,000 owners. Whites were responsible for

Figure 12

Racial Composition of Census Tracts Occupied by Average Child of Each Race: 1990 and 2000

City of Boston

Neighborhood Composition	Composition of Total Area			Composition of Tracts Occupied by Average Resident of Specified Race											
				White			Black			Asian			Latino		
	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change
% Black	37.3	40.3	8.0	11.1	15.6	40.5	65.7	60.7	-7.6	17.7	24.0	35.6	37.5	36.8	-1.9
% White	36.6	25.4	-30.6	70.3	55.9	-20.5	10.9	9.6	-11.9	37.8	29.2	-22.8	23.3	19.3	-17.2
% Asian	5.8	7.2	24.1	6.0	8.2	36.7	2.8	4.3	53.6	26.3	22.2	-15.6	5.4	6.4	18.5
% Latino	18.1	23.9	32.0	11.5	18.1	57.4	18.3	21.8	19.1	16.7	21.4	28.1	30.8	34.3	11.4

Other Central High Density Cities

Neighborhood Composition	Composition of Total Area			White			Black			Asian			Latino		
	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change
%Black	6.6	13.8	60.5	7.7	12.8	66.2	18.9	23.5	24.3	7.7	11.6	50.6	7.1	10.0	40.8
%White	63.2	44.8	-29.1	72.0	55.6	-22.8	56.3	41.7	-25.9	54.9	42.2	-23.1	41.7	30.2	-27.6
%Asian	6.8	10.5	54.4	5.9	9.9	67.8	6.1	8.8	44.3	17.2	21.9	27.3	6.6	8.5	28.8
%Latino	20.1	27.2	35.3	13.3	18.3	37.6	16.5	19.8	20.0	19.4	22.0	13.4	43.4	48.4	11.5

Suburbs

Neighborhood Composition	Composition of Total Area			White			Black			Asian			Latino		
	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change	1990	2000	% Change
% Black	1.7	2.7	58.8	1.5	2.3	53.3	5.7	10.0	75.4	2.4	3.7	54.2	3.0	4.8	60.0
% White	92.7	88.7	-4.3	93.4	90.1	-3.5	85.2	76	-10.8	87.5	81.2	-7.2	82.4	74.0	-10.2
% Asian	2.5	4.2	68.0	2.4	3.8	58.3	3.6	5.8	61.1	6.5	10.1	55.4	3.0	4.6	53.3
% Latino	2.7	3.4	25.9	2.4	2.9	20.8	4.9	6.2	26.5	3.2	3.8	18.8	10.9	14.5	33.0

Notes: Latinos may be of any race.
Other racial groups contain only non-Latino members. Asians include Pacific-Islanders.
Boston Metro defined as the Boston, Brockton, Lawrence and Lowell PMSAs.
Other Central/High Density Cities include Brockton, Cambridge, Chelsea, Everett, Lawrence, Lowell, Lynn, Malden, Somerville, and Waltham.

Figure 12

four-fifths of the net owner growth, and all of this occurred in the suburbs. Indeed, the City of Boston lost 1,700 white owners while Brockton and Lawrence each lost about 1,600. [**Figure 13**] As a whole, the other central/high density cities lost over 3,500 white owners. Lawrence's loss represents almost a quarter of the number of white homeowners that existed there in 1990. The only central or high-density cities that gained any white owners were Cambridge and Waltham. Cambridge's experience may be anomalous because the end of rent control during this time period made many desirable units available that had previously been ineligible for homeownership.

Minorities[10] contributed one fifth of the net increase in the number of owners, but the rates of growth of minority owners dramatically outpaced those of white owners, both in the cities and the suburbs. Asians posted the greatest gains--doubling the number of owners--with two thirds of the net growth occurring in the suburbs. The cities of Boston, Lawrence, and Malden also experienced significant gains in number of Asian owners, while all areas had large percentage increases.

The number of Latino owners increased dramatically as well, with growth strongest in the other central/high density cities. Boston added over 2,000 Latino owners while Lawrence gained almost 1,500 and Lynn and Chelsea gained over 500. Everett's relatively small numerical gain of 234 Latino owners represented a percentage increase of over 1,000 percent.

Black owner growth rates lagged other minorities, but the number of black owners still increased by about 9,500. The largest share of black growth occurred in the suburbs though they also added over 3,000 owners in Boston and over 900 in Brockton. As with Latinos, Everett experienced the largest percentage growth in black owners. While both blacks and Latinos are buying homes in the suburbs, they disproportionately buy in a very few areas. As reported in the study ***Segregation in the Boston Metropolitan Area at the End of the 20th Century***, between 1993 and 1998, "almost half of the purchases made by African-American and Hispanic buyers outside the City of Boston were concentrated in seven (7) communities out of a total of 126 communities.[11]" Most of those communities would not even be considered "suburban" according to the definition used in this report.

One might expect that racial segregation among homeowners might be less than among the overall population, given higher levels of owner income and lack of the type of subsidized housing that has helped to concentrate renters by race in the past. But segregation between white and minority homeowners is not substantially lower than segregation levels among the overall population and in some cases is noticeably higher. Segregation from whites is clearly worst for black owners in the City of Boston. **[Figure 14]** The difference in segregation of black owners in the City of Boston versus the other central/high density cities and the suburbs is staggering. Latino owners, on the other hand, experience similar levels of segregation in both the City of Boston and in the other

[10] These ownership figures are calculated using only those Census respondents who identified one race only.

[11] Stuart, Guy. The Civil Rights Project at Harvard University. 2000.

Figure 13

Change in Number of Homeowners by Race/Ethnicity: 1990-2000

	Number of Owners: 2000				Absolute Change in Owners (Minimum)			
	Non-Latino White	Latino	Black	Asian	Non-Latino White	Latino	Black	Asian
Boston Metro	929,353	18,161	28,785	27,310	83,858	7,423	9,521	14,148
City of Boston	53,323	4,073	14,628	3,328	-1,701	2,050	3,217	1,446
Other Central/High Density Cities								
Brockton	13,968	601	2,123	313	-1,584	181	929	109
Cambridge	11,656	305	781	720	1,047	91	129	267
Chelsea	2,272	814	156	136	-354	658	45	64
Everett	5,570	255	266	132	-286	234	192	89
Lawrence	5,003	2,462	242	193	-1,619	1,465	68	129
Lowell	13,851	669	280	1,258	-717	308	162	797
Lynn	13,068	788	770	483	-800	547	449	319
Malden	8,119	274	448	956	-729	133	285	638
Somerville	8,303	319	355	400	-583	104	232	223
Waltham	9,723	260	180	421	514	213	114	220
Other Cities Subtotal	91,533	6,747	5,601	5,012	-5,111	3,934	2,605	2,855
Suburbs	784,497	7,341	8,556	18,970	90,670	1,439	3,699	9,847

Notes: Latinos may be of any race. Asian category also includes Pacific Islanders. Black and Asian groups contain Latino members of those racial groups. Changes represent minimum changes over 1990-2000, as 2000 race figures refer to people who chose that racial group alone and exclude those who chose two or more racial groups.

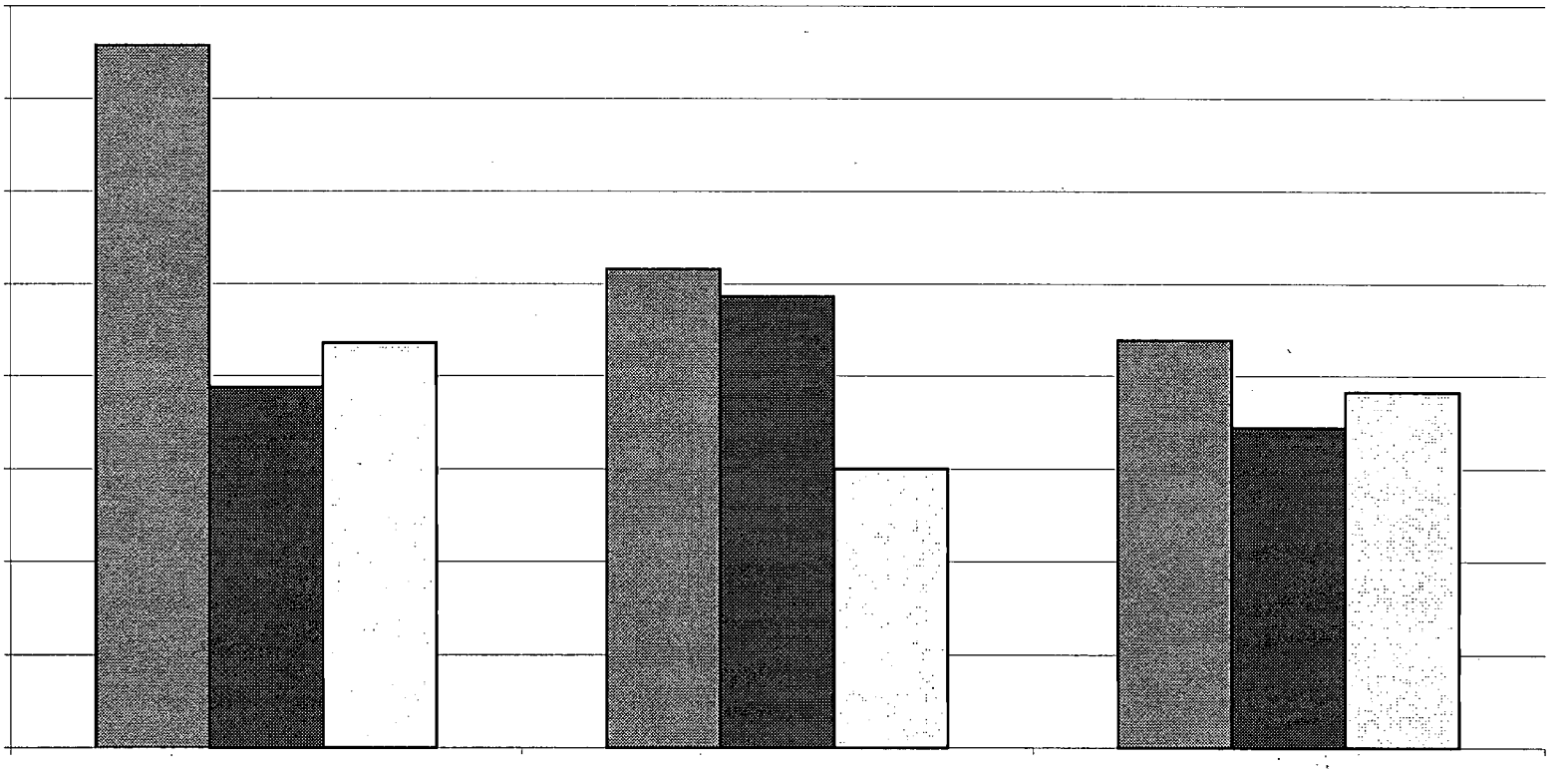
Boston Metro defined as the Boston, Brockton, Lawrence and Lowell PMSAs.
Other High Density Cities include Brockton, Cambridge, Chelsea, Everett, Lawrence, Lowell, Lynn, Malden, Somerville, and Waltham.

Source: 1990 and 2000 Census Summary File 1 and Lewis Mumford Center, SUNY, Albany.

Figure 13

Black Owners Extremely Segregated in City of Boston

(Minority Owners Dissimilarity With Non-Latino White Owners: 2000)



cities. Surprisingly, suburban Latino owners have relatively low segregation levels, much lower than rates for the overall Latino suburban population. The Latino **owner** dissimilarity index in the suburbs is 30 while the Latino **overall population** dissimilarity index in the suburbs is 41. Clearly, achieving homeownership is one step on the road to integration for Latinos.

Asian city owners are much less segregated than other minorities, but interestingly, they are slightly more segregated than the overall Asian population in the City. Segregation of Asian owners is lowest, in general, in the other central/high density cities, where it is roughly on par with overall population segregation.

Stability of Integrated Areas

One concern of neighborhoods experiencing dramatically diverging growth rates of different racial groups is that rapid racial transition will lead to neighborhood destabilization as areas go from being moderately-integrated to being dominated by one racial group. In fact, none of the moderately-integrated Boston metro area census tracts underwent dramatic racial change during the 1990s, and the very few that underwent substantial change were all located in the cities. We define a Census tract as "moderately-integrated" if it was 10-19 percent black, 10-19 percent Latino, or 10-19 percent Latino and black combined in 1990. *Dramatic racial change* is defined as becoming 50 percent or more of a particular racial group by 2000. *Substantial change* is defined as becoming 40-49 percent of a particular group by 2000.

In the City of Boston, the majority of moderately-integrated tracts stayed moderately-integrated. Only a very few underwent substantial racial change, though a sizable number increased their minority shares to 20-39 percent [**Figure 15.**] No Boston City tract that was moderately-integrated with regards to blacks saw substantial racial change by 2000, and only one that was moderately integrated with regards to Latinos saw substantial racial change.

In the other central/high density cities, almost half of moderately-integrated Latino tracts became 20-39 percent Latino, yet just one underwent substantial racial change. Roughly a third of moderately-integrated black tracts became 20-39 percent black by 2000 with none undergoing substantial racial change. The suburbs contained only a small number of moderately-integrated tracts initially, and none underwent substantial racial change over the decade. Overall, there is little evidence of dramatic racial transition of moderately integrated tracts anywhere in the Boston metro area.

Multi-Ethnic Neighborhoods

As the Latino and Asian populations grew especially rapidly, the number of multi-ethnic census tracts increased significantly in the City of Boston, particularly in Hyde Park, Dorchester, and parts of Fenway, South Boston, and Charlestown. Multi-ethnic tracts are defined as those in which three or more groups account for at least ten percent of the population. The number of such tracts grew from 30 in 1990 to 48 in 2000, with the

Figure 15

Racial Change of Moderately-Integrated Tracts: 1990-2000

(Number of Census Tracts)

City of Boston

Neighborhood Composition in 1990	Total Number of Tracts	Neighborhood Composition in 2000 (Distribution of Tracts) 50% or More	40-49%	20-39%	10-19%	Less than 10%
10-19% Latino	37	0	1	10	23	3
10-19% Black	11	0	0	4	4	3
10-19% Latino and Black	25	0	3	5	12	5

Other Central/High Density Cities

Neighborhood Composition in 1990	Total Number of Tracts	Neighborhood Composition in 2000 (Distribution of Tracts) 50% or More	40-49%	20-39%	10-19%	Less than 10%
10-19% Latino	35	0	1	15	17	2
10-19% Black	28	0	0	9	17	2
10-19% Latino and Black	48	0	1	27	20	0

Suburbs

Neighborhood Composition in 1990	Total Number of Tracts	Neighborhood Composition in 2000 (Distribution of Tracts) 50% or More	40-49%	20-39%	10-19%	Less than 10%
10-19% Latino	7	0	0	2	2	3
10-19% Black	5	0	0	3	1	1
10-19% Latino and Black	18	0	0	6	12	0

Notes: " Moderately Integrated" defined as having a population which is 10-19 percent of the specified minority group.
"Neighborhood Composition in 2000" refers only to the minority group specified in the corresponding row.
Latinos may be of any race.
Boston Metro defined as the Boston, Brockton, Lawrence and Lowell PMSAs.
Other Central/High Density Cities include Brockton, Cambridge, Chelsea, Everett, Lawrence, Lowell, Lynn, Malden, Somerville, and Waltham.

Figure 15

number having four groups accounting for 10 percent or more of the population rising from 5 to 14. The most common combination of racial groups by far is white, Latino and black; followed by all four groups in combination. **[Figures 16a and 16b]**

A similar, though less pronounced pattern occurred in the other central/high density counties. The number of multi-ethnic tracts grew from 31 to 46 in 2000, with the number having four groups accounting for 10 percent or more of the population rising from 1 to 7.

In the suburbs, however, multi-ethnic tracts are still very rare, increasing from none in 1990 to 6 in 2000. Two of these tracts were located in Randolph, and one each in Framingham, Revere, Bridgewater, and Ft. Devens.

Components of Population Change

The changing racial and ethnic make-up of the Boston area is fundamentally attributable to three forces, natural increase (births less deaths,) foreign immigration, and domestic migration (net movement from/to Boston from/to other parts of the U.S.) While the 2000 Census data that would allow for the analysis of these trends has not yet been released, Census Bureau estimates based on administrative records over the 1990 to 1999 period are illustrative.

Within the Boston metro area, the factors behind growth in Suffolk County, the central county containing the City of Boston, are dramatically different than those in outlying counties **[Figure 17.]** Between 1990 and 1999, Suffolk County **lost** 105,000 people due to net domestic out-migration. Even the influx of 49,000 foreign immigrants and natural increase of 55,000 people could not keep the County from losing population outright. In fact, without foreign immigration and natural increase, Suffolk County would have decreased by over 16 percent over this period[12]. To a lesser extent, Middlesex County, which closely borders Suffolk, showed a similar pattern, **losing** 83,000 people to domestic out-migration, but gaining 39,000 due to foreign immigration. In contrast, the more outlying counties of Plymouth and Rockingham, NH posted modest gains from domestic immigrants, but very small increases due to foreign immigration.

Undoubtedly, these different growth drivers are intertwined with shifting racial and ethnic residential patterns. The release of 2000 Census small area data showing patterns of nativity and geographic mobility will allow for more specific analysis along these lines.

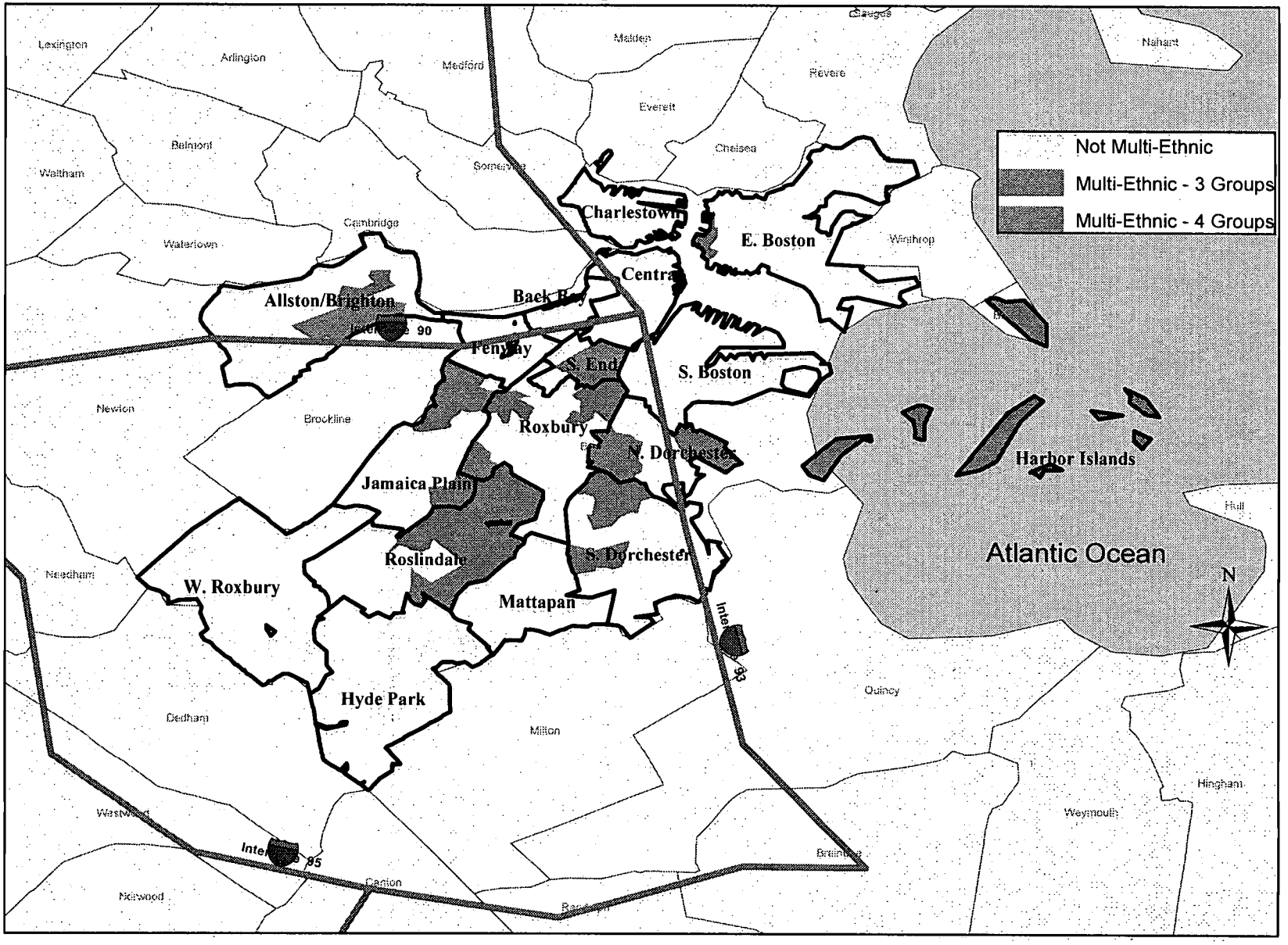
Conclusions

Minorities are the population growth engine of the Boston metropolitan area, and, although they have made inroads into the suburbs, the disproportionate growth of whites in suburbs and decline in cities means that relatively little progress has been made in

[12] In fact, the decrease may be substantially greater because this growth estimate attributes the impact of births to immigrant mothers entirely to "natural increase" instead of "immigration".

Figure 16A

Multi-Ethnic Tracts: 1990
City of Boston

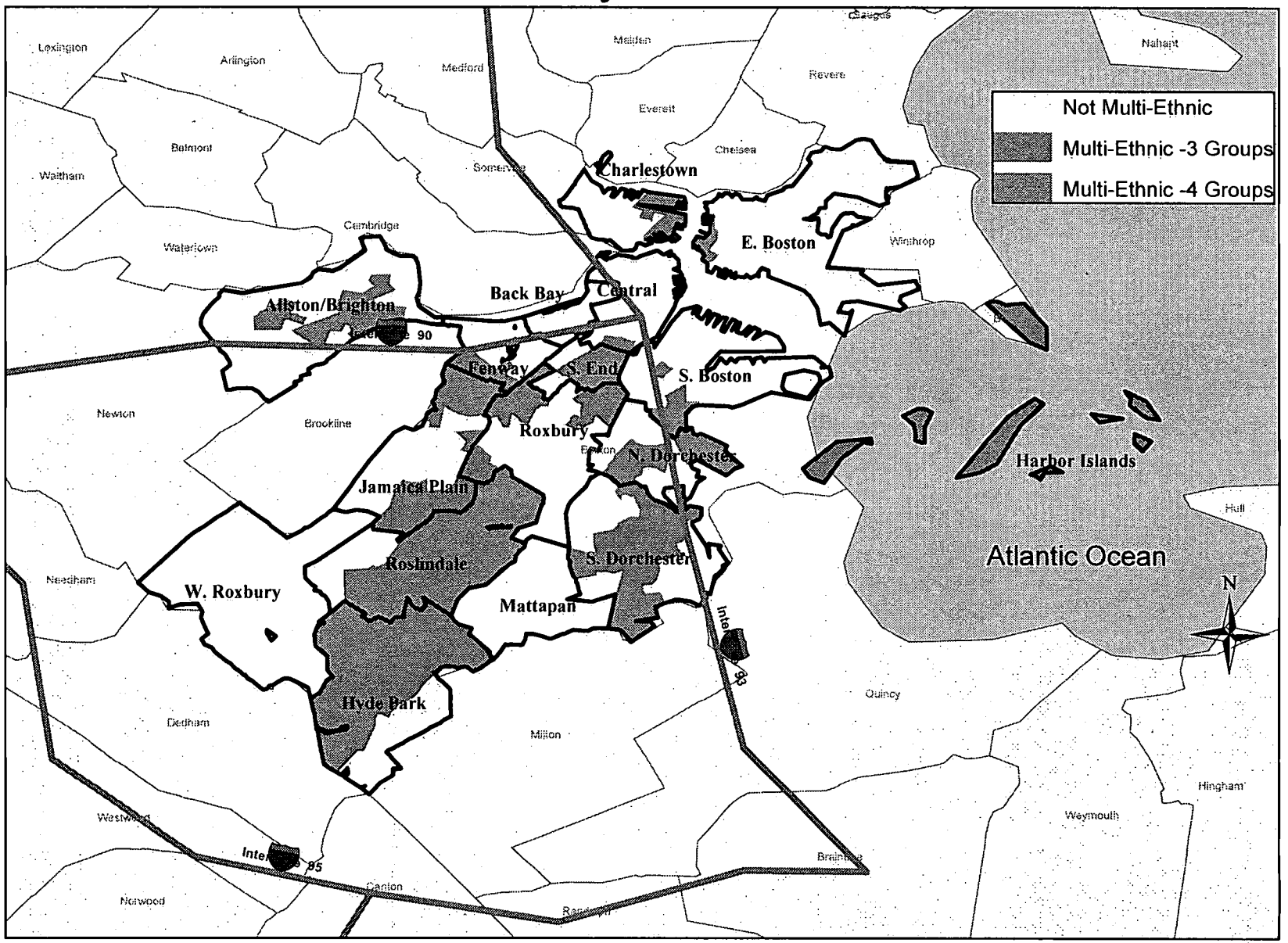


Source: 1990 Census.

Figure 16A

Figure 16B

Multi-Ethnic Tracts: 2000
City of Boston



Source: 2000 Census.

Figure 16B

Figure 17

Components of Population Change, 1990-1999

County	1990 Population	Change 1990-1999 Births	Deaths	(Net) Natural Increase	International Immigation	Domestic Migration	Change as Share of 1990 Pop. (Net) Natural Increase	International Immigation	Domestic Migration
Bristol	506,325	65,050	44,477	20,573	-656	-4,258	4.1	-0.1	-0.8
Essex	670,080	92,246	58,109	34,137	18,179	-15,829	5.1	2.7	-2.4
Middlesex	1,398,468	181,530	106,085	75,445	39,416	-83,230	5.4	2.8	-6.0
Norfolk	616,087	78,286	51,587	26,699	15,218	-12,628	4.3	2.5	-2.0
Plymouth	435,276	60,553	33,921	26,632	4,485	7,937	6.1	1.0	1.8
Suffolk	663,906	90,236	54,840	35,396	49,062	-104,942	5.3	7.4	-15.8
Worcester	709,711	94,516	60,462	34,054	10,312	-14,263	4.8	1.5	-2.0
Rockingham, NH	245,845	33,194	15,393	17,801	1,297	10,962	7.2	0.5	4.5

Source: Census Bureau, County Components of Population Change estimates.

Figure 17

reducing residential segregation metro-wide. Whites continue to move to the far-flung suburbs, leaving both the City of Boston and many of the other high-density satellite cities which are experiencing strong minority growth. Unfortunately, segregation in the suburbs is unchanged or slightly increasing, especially for Latinos. Fair Housing and Fair Lending enforcement are critical to insure that those moving into the suburbs have access to all residential communities within their means.

The fact that segregation levels are rising faster for Latino children is especially troubling given the impacts of residential segregation on educational opportunities. School placement policies must insure that the high, and in some places growing, levels of residential segregation do not translate into unequal educational opportunities according to race.

Moderate improvement in segregation has occurred in the City of Boston, though this may be due less to minorities moving into traditionally white areas and more to whites moving into gentrifying areas, particularly around the South End. Encouragingly, there is no evidence of dramatic racial transition, with the destabilization this often brings, of moderately integrated tracts anywhere in the metro area. Nevertheless, communities undergoing revitalization should take creative steps to buffer existing residents from skyrocketing housing costs and displacement and to foster integration.

Technical Notes

Defining Unique Racial Groups

The 2000 Census allowed respondents to choose one or more racial categories making exact comparison with 1990 racial groups difficult. For the purposes of this paper, we allocated persons who indicated more than one race to racial/ethnic groups in the following manner:

- We coded as "Latino" anyone who indicated that they are Spanish/Hispanic/Latino, regardless of what they answered for the race/ethnicity question.
- We coded as "non-Latino black" or "black" any non-Hispanic who indicated that they were African-American, regardless of any other race/ethnicity they may have indicated.
- Of those remaining, we coded as "Asian" any non-Hispanic who indicated that they were Asian, regardless of any other race/ethnicity they may have indicated.
- We coded as "non-Latino white" or "white" non-Hispanics who answered only "white" as their race.

Tracts that are Split by Central City Political Boundaries

Census tract boundaries and city political boundaries do not always exactly coincide. Therefore, when a tract was split by a central city's political boundary, we created two "pseudo tracts", one that contained the summed data for all the blocks that lay entirely within the city boundary, and another suburban tract, which contained the summed data for all blocks that lay outside or partially outside the city boundary.

The data used to compute dissimilarity indices for homeowners was allocated into "central city" and "suburban" tracts in a slightly different manner and is not exactly comparable to the data used in the population dissimilarity indices. Tracts that were split by a central city's political boundaries were allocated, in whole, to the "central city" if any portion of them fell within the central city boundaries, otherwise they were allocated, in whole, to the "suburbs." Secondly, the homeowner data for blacks and Asians includes Latino-blacks and Latino-Asians, unlike the population data, which is for non-Latino blacks and non-Latino owners.

Sources

The raw Census population data for the analysis is in this paper came from the "Census CD" produced by Geolytics, which adjusts 1990 Census tract and block boundaries to be consistent with 2000 Census boundaries. The homeownership data came from the Census Summary File 1 datafile.

Appendix 1

Change in Population by Race/Ethnicity: 1990-2000

Boston Metro Area

	Population 1990	Population 2000	Percent Change	Absolute Growth	Share of Total Pop. (%) 1990	Share of Total Pop. (%) 2000
Metro Area						
Total	4,097,920	4,360,204	6.4	262,284		
White	3,549,426	3,506,987	-1.2	-42,439	86.6	80.4
Black	217,723	282,249	29.6	64,526	5.3	6.5
Latino	193,376	284,837	47.3	91,461	4.7	6.5
Asian	117,025	219,987	88.0	102,962	2.9	5.0
City of Boston						
Total	574,282	589,141	2.6	14,859		
White	338,719	291,561	-13.9	-47,158	59.0	49.5
Black	136,876	151,254	10.5	14,378	23.8	25.7
Latino	61,987	85,089	37.3	23,102	10.8	14.4
Asian	29,635	46,919	58.3	17,284	5.2	8.0
Suburbs						
Total	2,827,806	3,042,983	7.6	215,177		
White	2,675,564	2,765,163	3.3	89,599	94.6	90.9
Black	39,206	63,059	60.8	23,853	1.4	2.1
Latino	52,004	75,491	45.2	23,487	1.8	2.5
Asian	53,019	108,731	105.1	55,712	1.9	3.6
Other Central/High Density Cities						
Total	695,832	728,080	4.6	32,248		
White	535,143	450,263	-15.9	-84,880	76.9	61.8
Black	41,641	67,936	63.1	26,295	6.0	9.3
Latino	79,385	124,257	56.5	44,872	11.4	17.1
Asian	34,371	64,337	87.2	29,966	4.9	8.8

Notes: Population totals includes other racial categories not shown separately. Latinos may be of any race.
Metro Area defined as the Boston, Brockton, Lawrence and Lowell PMSAs.
Other Central/High Density Cities include Brockton, Cambridge, Chelsea, Everett, Lawrence, Lowell, Lynn, Malden, Somerville, and Waltham.
Source: 1990 and 2000 Census data accessed through GeoLytics Census CD.

Appendix 2

Cities and Towns With Greatest Absolute Change in Population by Race: 1990-2000
Boston Metro Area

Largest Increase

White Population

	White Pop. 1990	White Pop. 2000	Absolute Change 1990-2000	Percent Change 1990-2000	White Share 2000
Franklin	21,546	28,185	6,619	30.7	95.3
Mansfield	15,923	20,894	4,971	31.2	93.2
Plymouth	43,718	48,599	4,861	11.2	94.0
Taunton	45,780	50,272	4,492	9.8	89.8
Hopkinton	8,923	12,723	3,800	42.6	95.3
Derry, NH	28,800	32,292	3,692	12.9	94.9
Haverhill	47,404	50,912	3,508	7.4	88.3
Westford	15,902	19,267	3,365	21.2	92.8
N. Andover	21,850	25,172	3,322	15.2	92.5
Wilmington	17,299	20,463	3,164	18.3	95.8

Black Population

	Black Pop. 1,990	Black Pop. 2000	Absolute Change 1990-2000	Percent Change 1990-2000	Black Share 2000
Boston	138,879	151,254	14,375	10.5	25.7
Brockton	10,839	20,764	9,925	91.8	22.0
Randolph	2,355	7,003	4,648	197.4	22.8
Lynn	5,422	9,229	3,807	70.2	10.4
Malden	2,161	5,259	3,098	143.4	9.3
Lowell	2,093	4,196	2,103	100.5	4.0
Somerville	3,982	5,854	1,872	47.0	7.8
Milton	1,180	2,837	1,657	140.4	10.9
Everett	1,025	2,875	1,650	161.0	7.0
Medford	2,250	3,828	1,578	70.1	8.9

Latino Population

	Latino Pop. 1,990	Latino Pop. 2000	Absolute Change 1990-2000	Percent Change 1990-2000	Latino Share 2000
Boston	61,987	85,089	23,102	37.3	14.4
Lawrence	29,242	43,019	13,777	47.1	59.7
Lynn	7,435	16,383	8,948	120.3	18.4
Chelsea	9,021	16,984	7,963	88.3	48.4
Lowell	10,502	14,734	4,232	40.3	14.0
Revere	1,832	4,465	2,633	173.6	9.4
Haverhill	2,714	5,174	2,460	90.6	8.8
Everett	1,371	3,617	2,246	163.8	9.5
Methuen	2,077	4,221	2,144	103.2	9.6
Somerville	4,788	6,786	2,000	41.8	8.8

Asian Population

	Asian Pop. 1,990	Asian Pop. 2000	Absolute Change 1990-2000	Percent Change 1990-2000	Asian Share 2000
Boston	29,635	46,919	17,284	58.3	8.0
Quincy	5,512	13,934	8,422	152.8	15.8
Lowell	11,269	18,842	7,373	65.4	17.7
Malden	2,793	8,206	5,413	193.8	14.6
Cambridge	7,978	13,118	5,140	64.4	12.9
Lynn	2,879	6,584	3,705	128.7	7.4
Brookline	4,547	7,828	3,281	72.2	13.7
Newton	3,738	6,920	3,182	85.1	8.2
Somerville	2,793	5,525	2,732	97.8	7.1
Waltham	2,022	4,561	2,539	125.6	7.7

Largest Decrease

White Population

	White Pop. 1990	White Pop. 2000	Change 1990-2000	Percent Change 1990-2000	White Share 2000
Boston	338,719	291,561	-47,158	-13.9	49.5
Brockton	71,884	54,902	-16,982	-23.8	58.2
Lawrence	38,398	24,589	-13,829	-36.0	34.1
Lowell	79,165	65,760	-13,405	-16.9	62.5
Lynn	65,184	55,630	-9,554	-14.6	62.5
Quincy	77,141	68,960	-8,181	-10.6	78.4
Malden	47,373	39,230	-8,143	-17.2	69.6
Somerville	64,322	56,320	-8,002	-12.4	72.7
Randolph	25,399	19,038	-6,361	-25.0	61.5
Medford	52,877	47,403	-5,474	-10.4	85.0

Black Population

	Black Pop. 1990	Black Pop. 2000	Change 1990-2000	Percent Change 1990-2000	Black Share 2000
Harvard	1,431	239	-1,192	-83.3	4.0
Ayer	656	489	-167	-25.5	8.7
Bedford	345	239	-106	-30.7	1.9
Hull	88	58	-30	-34.1	0.5
Salem	205	179	-26	-12.7	0.6
Sudbury	183	162	-21	-11.5	1.0
Duxbury	120	101	-19	-15.8	0.7
W. Newbury	19	11	-8	-42.1	0.3
Boxford	42	35	-7	-16.7	0.4
Cohasset	20	15	-5	-25.0	0.2

Latino Population

	Latino Pop. 1990	Latino Pop. 2000	Change 1990-2000	Percent Change 1990-2000	Latino Share 2000
Harvard	703	364	-339	-48.2	8.1
Wareham	584	292	-292	-50.0	1.4
Taunton	2,385	2,198	-187	-7.1	3.9
Stoughton	482	419	-63	-13.1	1.5
Danvers	259	210	-49	-18.9	0.8
Concord	514	475	-39	-7.6	2.8
Plympton	29	11	-18	-62.1	0.4
Hingham	165	149	-16	-9.7	0.7
Middlebrough	171	156	-15	-8.8	0.8
Berlin	26	12	-14	-53.8	0.5

Asian Population

	Asian Pop. 1990	Asian Pop. 2000	Change 1990-2000	Percent Change 1990-2000	Asian Share 2000
Harvard	314	160	-154	-49.0	2.7
Chester	18	17	-1	-5.6	0.4
Plympton	10	11	1	10.0	0.4
Shirley	173	175	2	1.2	2.7
Merrimac	22	26	4	18.2	0.4
S. Hampton	1	5	4	400.0	0.6
Millville	3	9	6	200.0	0.3
Hanson	47	53	6	12.8	0.6
Manchester by the Sea	23	30	7	30.4	0.6
Sandown	5	12	7	140.0	0.2

Notes: Latinos may be of any race. Other racial groups contain only non-Latino members. Asians include Pacific-Islanders.
Boston Metro defined as the Boston, Brockton, Lawrence and Lowell PMSAs.
Sources: 1990 and 2000 Decennial Censuses.

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