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**Center for
Community
Performance
Measurement**



**W O R C E S T E R
R E G I O N A L
R E S E A R C H
B U R E A U**

**The
2000 Census:
Income and
Educational
Attainment
in Worcester
and the Region**

CCPM-02-04

EXECUTIVE SUMMARY

This report, which discusses income and education data from Census 2000, is a follow-up to the Research Bureau's study of a year ago on demographic and housing data from Census 2000. The Research Bureau makes the following observations on the data presented in this report:

- Worcester ranks in the middle among the *northeastern cities* included in this study for all indicators related to income and educational attainment.
- Worcester ranks at or near the bottom compared to its *immediate suburbs* on each indicator related to income and educational attainment.
- Worcester's poverty rate of 14.1% is lower than that of ten of the seventeen northeastern cities included in this study. Even though the poverty rate in Worcester is relatively low compared to other cities in the northeast, it increased over 15% during the last decade.
- Income inequalities in the city of Worcester are increasing. While the poverty rate increased 15%, the percent of households making more than \$150,000 per year increased 20% compared to 1990. This increase in income inequality may be due in part to the large influx of immigrants during the past decade, many of whom come from regions with high poverty levels (such as Latin America, western Africa, and southeast Asia). Their increase naturally tends to increase levels of poverty initially, until like previous immigrants, they improve their economic and educational status.¹
- The income gap between Worcester and its surrounding towns increased over the last ten years. The increase during this period, however, was considerably slower than the increase that occurred between 1980 and 1990.
- Of the surrounding towns, the most significant increases in income and educational levels have occurred in Shrewsbury and Grafton.

INTRODUCTION

This report, which discusses income and education data from Census 2000, is a follow-up to the Research Bureau's study of a year ago on demographic and housing data from Census 2000.² The data for Worcester, the surrounding communities and other northeastern cities, are compared to similar data from the 1990 Census. The following data are included in this report:

Economic Characteristics

Household income
Per capita income
Families earning more than \$150,000 per year
Families in poverty
Residential home values
Residential rental prices

Educational Characteristics

High school completion
College completion

All cities with populations over 100,000 in New England and upstate New York were included as comparison cities. Additionally, because Vermont and Maine do not have any cities that meet this criteria, the largest city for each state was included (Burlington and Portland, respectively). As well, although Albany, NY has a population just under 100,000, it was included because of its proximity to

¹ See Research Bureau report no. 01-05, "The 2000 Census: A Preliminary Look at Worcester and the Region," for a discussion of the changes in the City's demographics during the last decade including an increase of 60.9% in the Latino population.

² Census data in this report are from Summary File 2 (SF2) and are available from www.census.gov. All data tables are from Census 2000 unless otherwise noted.

New England. All towns that share a border with Worcester were also included. The comparison communities and their populations in 2000 are as follows:

Northeastern Cities		Surrounding Towns	
Boston, MA	589,141	Hartford, CT	121,578
Buffalo, NY	292,773	Stamford, CT	117,083
Rochester, NY	219,773	Waterbury, CT	107,271
Providence, RI	173,618	Manchester, NH	107,006
Worcester, MA	172,648	Lowell, MA	105,167
Springfield, MA	152,082	Cambridge, MA	101,355
Syracuse, NY	147,306	Albany, NY	95,658
Bridgeport, CT	139,529	Portland, ME	64,249
New Haven, CT	123,626	Burlington, VT	38,889
		Shrewsbury, MA	31,640
		Auburn, MA	15,901
		Holden, MA	15,621
		Grafton, MA	14,894
		Millbury, MA	12,784
		Leicester, MA	10,471
		West Boylston, MA	7,481
		Paxton, MA	4,386
		Boylston, MA	4,008

ECONOMIC CHARACTERISTICS

Income

As shown in **Table 1**, Worcester's median household income³ was \$35,623 in 1999, which is a decrease of 8.2% from 1989 to 2000 (figures are adjusted for inflation). Six comparison cities had higher median household incomes; Stamford had the highest at \$60,556. Eleven northeastern cities had lower median incomes with Buffalo the lowest at \$24,536. All but three cities (Cambridge, Boston, and Portland) had decreases in median household income from 1989 to 2000, ranging from -0.4% in Lowell to -16.3% in Hartford.

Table 1: Median Household Income for Northeastern Cities, 1999 and 1989

	1999	1989 (in 1999 \$'s)	% change
Stamford, CT	60,556	66,715	-9.2%
Cambridge, MA	47,979	44,408	8.0%
Manchester, NH	40,774	42,761	-4.7%
Boston, MA	39,629	39,101	1.4%
Lowell, MA	39,192	39,330	-0.4%
Portland, ME	35,650	35,611	0.1%
Worcester	35,623	38,800	-8.2%
Bridgeport, CT	34,658	38,463	-9.9%
Waterbury, CT	34,285	40,914	-16.2%
Burlington, VT	33,070	34,201	-3.3%
Springfield, MA	30,417	34,379	-11.5%
Albany, NY	30,041	33,704	-10.9%
New Haven, CT	29,604	34,586	-14.4%
Rochester, NY	27,123	30,532	-11.2%
Providence, RI	26,867	29,676	-9.5%
Syracuse, NY	25,000	28,464	-12.2%
Hartford, CT	24,820	29,668	-16.3%
Buffalo, NY	24,536	24,766	-0.9%

³ Median household income indicates that half of the households in the community are above this level and half are below this level. It includes Social Security and government transfer payments, but does not include fringe benefits.

As shown in **Table 2**, in 1999 all of the towns that are surrounding Worcester had median household incomes that were higher than Worcester's. Paxton had the highest median household income at \$72,039, a 9.3% increase from 1989. However, in the towns of Auburn, Boylston, Grafton, Holden, and West Boylston the median household income had decreased during the last decade. It is interesting to note that in 1950, Worcester's median family income was higher than the median family income for the metropolitan statistical area (\$3,274 for Worcester compared to \$3,259 for the MSA). During the last few decades this trend had been reversed; the MSA now has a significantly higher family income (\$58,926) than the city of Worcester (\$42,988).⁴ This trend of higher incomes shifting from cities to surrounding suburbs has been reflected in most city/suburb relationships throughout the country for the last few decades.

Table 2: Median Household Income for Surrounding Towns, 1999 and 1989

	1999	1989 (in 1999 \$'s)	% change
Paxton	72,039	65,896	9.3%
Boylston	67,703	70,248	-3.6%
Holden	64,297	65,852	-2.4%
Shrewsbury	64,237	59,292	8.3%
Grafton	56,020	56,695	-1.2%
Leicester	55,039	54,030	1.9%
West Boylston	53,777	57,392	-6.3%
Auburn	51,753	53,483	-3.2%
Millbury	51,415	50,167	2.5%
Worcester	35,623	38,800	-8.2%

Another way to determine the comparative wealth of communities is to consider per capita income.⁵ As shown in **Table 3**, Worcester's per capita income increased 3.7% during the last ten years. Grafton, Millbury, and Shrewsbury each increased on this benchmark by more than 10%. Several towns, however, had decreases in their per capita incomes over the past decade, including Holden (-0.5%), Leicester (-1.7%), and West Boylston (-1.9%).

Table 3: Per Capita Income for Surrounding Towns, 1999 and 1989

	1999	1989 (in 1999 \$'s)	% change
Boylston	32,274	30,245	6.7%
Shrewsbury	31,570	27,481	14.9%
Paxton	29,573	27,997	5.6%
Holden	27,971	28,105	-0.5%
Grafton	26,952	23,199	16.2%
Auburn	23,802	23,450	1.5%
Millbury	23,531	20,735	13.5%
West Boylston	22,899	23,337	-1.9%
Leicester	20,822	21,180	-1.7%
Worcester	18,614	17,947	3.7%
<i>Suburb Average</i>	<i>26,599</i>	<i>25,081</i>	<i>6.1%</i>

⁴ The Census Bureau did not track median household income in 1950. A household includes all the people who occupy a housing unit as their usual place of residence, whereas a family includes a householder and one or more people living in the same household who are related to the householder by birth, marriage, or adoption. Hence, households that are comprised of a group of unrelated people or one person living alone would not be included as a family.

⁵ Per capita income is the aggregate income earned by an entire community divided by the total population of the community.

The inequality between Worcester and its surrounding suburbs has increased over the last ten years, albeit at a slower rate than in the past. As shown in **Table 4**, Worcester's per capita income in 1979 was 79.9% of the suburb average. In 1989, that dropped significantly to 71.6% of the suburb average (a decline of 10.4%). From 1989 to 1999, however, the rate of decline slowed to only 2.2%. (In 1999 Worcester's per capita income was 70% of the suburb average.) Therefore, although the inequality between Worcester and its suburbs continues to rise, it is increasing at a much slower rate.

Table 4: Per Capita Income Inequality for Worcester and its Suburbs, 1979, 1989, 1999

	Worcester Per Capita Income	Suburb Average Per Capita Income	Wealth Inequality (Worcester as a % of suburb average)	Rate of Increasing Inequality for prior ten years
1979	14,754	18,455	79.9%	N/A
1989	17,947	25,081	71.6%	10.4%
1999	18,614	26,599	70.0%	2.2%

In 1999, 2.4% of households in Worcester had an income of more than \$150,000, which is a 20% increase from 2% in 1989. (**Table 5**, 1989 figures are adjusted for inflation.) Again, Stamford had the highest percentage (14.2%) of households making more than \$150,000 per year. It is interesting to note that while Stamford, Cambridge, and Boston had high rates of families earning more than \$150,000 per year, their poverty rates also increased over the last ten years (as shown in Table 7). Hartford had a significant decline (-53.8%) in the percentage of households making more than \$150,000 per year.

Table 5: Percent of Households Earning more than \$150,000 per year, Northeastern Cities, 1999 and 1989

	1999	1989 (in 1999 \$'s – estimate)	% change*
Stamford, CT	14.2%	14.0%	1.4%
Cambridge, MA	9.1%	6.2%	46.8%
Boston, MA	5.9%	3.7%	60.8%
Providence, RI	3.3%	2.8%	17.9%
Portland, ME	2.8%	2.2%	27.3%
Manchester, NH	2.6%	1.9%	36.8%
New Haven, CT	2.5%	2.8%	-10.7%
Burlington, VT	2.5%	3.0%	-16.7%
Worcester	2.4%	2.0%	20.0%
Albany, NY	2.2%	1.9%	15.8%
Lowell, MA	2.1%	1.7%	25.7%
Bridgeport, CT	2.0%	1.9%	5.3%
Waterbury, CT	1.7%	1.7%	0.0%
Syracuse, NY	1.6%	1.3%	23.1%
Rochester, NY	1.5%	1.0%	50.0%
Buffalo, NY	1.4%	1.0%	40.0%
Springfield, MA	1.3%	1.1%	18.2%
Hartford, CT	0.7%	1.6%	-53.8%

*The percent change is the change in the proportion.

As shown in **Table 6**, Paxton had the highest percent of households earning more than \$150,000 per year (12.4%) in 1999 in the Worcester area. Boylston and Shrewsbury also had more than 10% of their households making more than \$150,000 per year. Holden, Auburn, and Leicester experienced declines in the percent of households earning more than \$150,000 per year from 1989 to 1999. Grafton and Millbury had the largest increases over the last ten years (100% and 47.8% respectively).

Table 6: Percent of Households Earning more than \$150,000 per year, Surrounding Towns, 1999 and 1989

	<i>1999</i>	<i>1989</i> <i>(in 1999 \$'s – estimate)</i>	<i>% change*</i>
Paxton	12.4%	11.2%	10.3%
Boylston	10.4%	9.1%	14.3%
Shrewsbury	10.2%	7.0%	45.7%
Holden	7.5%	9.3%	-19.4%
Grafton	6.8%	3.4%	100.0%
West Boylston	6.2%	5.5%	12.7%
Auburn	3.6%	4.2%	-14.3%
Millbury	3.4%	2.3%	47.8%
Leicester	3.0%	4.0%	-25.6%
Worcester	2.4%	2.0%	20.0%

*The percent change is the change in the proportion.

Poverty Rates⁶

Compared to other representative northeastern cities, Worcester has a low poverty rate, although it did increase over 15% as shown in **Table 7**. Worcester's rate in 1999 of 14.1% was higher than that of seven of the comparison cities but lower than that of the remaining ten. Hartford had the highest poverty rate at 28.2%. Only the cities of Lowell (-10.0%), Portland (-8.8%), and Burlington (-7.1%) saw decreases in their poverty rates over the last ten years.

Table 7: Poverty Rates for Northeastern Cities, 1999 and 1989

	<i>1999</i>	<i>1989</i>	<i>% change*</i>
Hartford, CT	28.2%	25.7%	9.7%
Providence, RI	23.9%	18.3%	30.6%
Rochester, NY	23.4%	21.1%	10.9%
Buffalo, NY	23.0%	21.7%	6.0%
Syracuse, NY	21.7%	13.2%	64.4%
New Haven, CT	20.5%	18.2%	12.6%
Springfield, MA	19.3%	17.7%	9.0%
Bridgeport, CT	16.2%	15.0%	8.0%
Albany, NY	16.0%	12.1%	32.2%
Boston, MA	15.3%	15.0%	2.3%
Worcester	14.1%	12.2%	15.6%
Lowell, MA	13.6%	15.1%	-10.0%
Waterbury, CT	12.7%	9.9%	28.3%
Burlington, VT	10.4%	11.2%	-7.1%
Portland, ME	9.7%	10.6%	-8.8%
Cambridge, MA	8.7%	6.8%	27.9%
Manchester, NH	7.7%	6.1%	26.2%
Stamford, CT	5.4%	3.9%	38.5%

*The percent change is the change in the proportion.

⁶ The Census Bureau uses a set of money income thresholds that vary by family size and composition to identify who is poor. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family or unrelated individual is classified as being "below the poverty level." In 1999, the poverty threshold for a family of four was \$17,029. This is a national level and does not take into account the higher cost of living in New England.

The surrounding towns have significantly lower poverty rates, as shown in **Table 8**, although they have risen quite significantly over the last 10 years, except in Boylston and West Boylston. Millbury, Shrewsbury, and Auburn all had at least a 50% increase in the percent of families in poverty.

Table 8: Poverty Rates for Surrounding Towns, 1999 and 1989

	1999	1989	% change*
Worcester	14.1%	12.2%	15.6%
Millbury	4.1%	2.6%	57.7%
Shrewsbury	3.3%	2.1%	57.1%
Leicester	3.2%	3.0%	6.7%
Auburn	2.7%	1.8%	50.0%
Boylston	2.4%	3.5%	-31.4%
West Boylston	2.3%	3.2%	-28.1%
Grafton	2.3%	2.0%	15.0%
Holden	2.0%	1.5%	33.3%
Paxton	0.0%	0.0%	0.0%

*The percent change is the change in the proportion.

It is likely that the increase in poverty levels in Worcester is due in major part to the large influx of immigrants during the past decade, many of whom come from regions with high poverty levels. **Table 9** shows the place of birth for those born outside the United States. Also shown in **Table 9** are the per capita GDP (gross domestic product) for these countries. There has been a significant increase in those from Africa (particularly Ghana), Latin America (particularly Brazil, Colombia, and the Dominican Republic), and Asia (particularly Cambodia and Vietnam). The increase in immigrants from regions with high poverty levels naturally tends to increase levels of poverty initially, until, like previous waves of immigrants, they improve their economic and educational status.

Table 9: Place of Birth of Foreign-Born Residents and Country Per Capita GDP, 2000 and 1990

	2000	1990	% change	Per Capita GDP – 1999 in US \$ US= \$32,778
Latin America	16,378	9,201	78%	
Puerto Rico*	9,550	6,722	42%	\$16,868
Dominican Republic	1,625	402	304%	\$ 2,091
Brazil	1,413	101	1299%	\$ 3,525
El Salvador	977	399	145%	\$ 2,007
Colombia	617	143	332%	\$ 2,093
Asia	7,185	4,197	71%	
Vietnam	3,407	1,527	123%	\$ 373
India	687	360	91%	\$ 453
China/Hong Kong/Taiwan	617	382	62%	\$ 798 (China only)
Lebanon	293	387	-24%	\$ 1,585
Cambodia	278	100	178%	\$ 238
Europe	7,134	6,273	14%	
Poland	1,282	1,030	25%	\$ 3,991
Greece	761	880	-14%	\$11,811
Italy	551	915	-40%	\$20,355
Russia	532	386	38%	\$ 1,257
United Kingdom	507	688	-26%	\$24,323
Africa	3,133	617	408%	
Ghana	1,567	267	487%	\$ 400
Canada	791	982	-20%	\$20,822
Australia/New Zealand	26	35	-26%	\$21,319 (Australia)
Total	34,647	21,305	63%	

*Those born in Puerto Rico are not considered “foreign-born,” as they are citizens of the United States. They are included in this table, however, because they represent a significant number of immigrants and come from a territory with a much lower median household income. In 1999 it was \$14,412, compared to Worcester’s median household income of \$35,623.

Per Capita GDP Source: Statistics Division of the United Nations Secretariat and International Labour Office: <http://www.un.org/Depts/unsd/social/inc-eco.htm>. Per capita gross domestic product (GDP) in US dollars is calculated primarily from official national accounts statistics in national currencies provided by national statistical services. GDP is the total unduplicated output of economic goods and services produced within a country as measured in monetary terms according to the United Nations System of National Accounts (SNA). The exchange rates used for the conversion of national currency data into US dollars are the average market rates as published by the International Monetary Fund in the International Financial Statistics.

Residential Home Values and Rental Costs

As shown in **Table 10**, according to the Census, Worcester’s median home value had dropped just under 7% from 1990 to 2000 (figures were *not* adjusted for inflation). Six comparison cities had higher median home values in 2000. Several other cities had seen very significant decreases in their median home values, including New Haven (-24.2%), Waterbury (-25.1%) and Hartford (-29.6%). Because home values are self-reported by the property owner, these Census figures may underestimate the *market* value of homes.

Table 10: Median Home Values for Northeastern Cities, 2000 and 1990

	2000	1990	%change, 1990-2000
Cambridge, MA	398,500	256,800	55.2%
Stamford, CT	306,700	293,500	4.5%
Boston, MA	190,600	160,100	19.1%
Lowell, MA	134,200	130,600	2.8%
Burlington, VT	127,600	114,500	11.4%
Portland, ME	121,200	112,300	7.9%
Worcester	119,600	128,200	-6.7%
Bridgeport, CT	117,500	145,000	-19.0%
Manchester, NH	114,300	118,500	-3.5%
New Haven, CT	109,200	144,100	-24.2%
Providence, RI	101,500	111,200	-8.7%
Albany, NY	98,300	101,100	-2.8%
Waterbury, CT	97,800	130,600	-25.1%
Hartford, CT	93,900	133,300	-29.6%
Springfield, MA	87,300	104,300	-16.3%
Syracuse, NY	68,000	66,900	1.6%
Rochester, NY	62,100	64,700	-4.0%
Buffalo, NY	58,800	46,600	26.1%

As shown in **Table 11**, Paxton was the only other community in the Worcester area that had a decrease in median home value from 1990 to 2000 (-4.8%). All of the other surrounding communities had increases ranging from 2.2% in Leicester to 19.6% in Grafton.

Table 11: Median Home Values for Surrounding Towns, 2000 and 1990

	2000	1990	%change, 1990-2000
Shrewsbury	195,500	165,800	17.9%
Grafton	183,500	153,400	19.6%
Boylston	178,700	156,600	14.1%
Paxton	170,300	178,900	-4.8%
Holden	162,400	156,100	4.0%
West Boylston	155,100	147,400	5.2%
Millbury	143,400	134,000	7.0%
Auburn	137,400	133,500	2.9%
Leicester	126,400	123,700	2.2%
Worcester	119,600	128,200	-6.7%

According to recent accounts in the press, however, home values in the Worcester area have increased dramatically since the 2000 Census⁷, and data from The Warren Group, a private real estate company that tracks home selling prices in Massachusetts, Connecticut, and Rhode Island, confirm this trend. As shown in **Table 12**, the median selling price of homes in Worcester has increased from \$115,500 in 2000 to \$159,900 in 2002, an increase of 38.4%. Other towns in the area have seen similar increases, ranging from 6.1% in Paxton to 62.0% in Boylston. According to these statistics, Boylston now has the highest median home selling price of \$368,750. Grafton and Shrewsbury also have median selling prices over \$300,000. These increases over the last couple of years have resulted in the National Association of Realtors ranking the Worcester area as the second-hottest housing market in the country, behind the Nassau/Suffolk County area of Long Island.⁸

Table 12: Median 1-Family Home Selling Prices, 2000 and 1990

	<i>Jan-June 2002</i>	<i>Jan-June 2000</i>	<i>%change, 2000-2002</i>
Boylston	368,750	227,500	62.0%
Grafton	309,900	198,850	55.8%
Shrewsbury	303,500	227,100	33.6%
Paxton	190,500	179,500	6.1%
Holden	190,500	163,375	16.6%
Millbury	187,500	140,000	33.9%
Auburn	175,000	138,000	26.8%
West Boylston	168,000	153,250	9.6%
Worcester	159,900	115,500	38.4%
Leicester	137,000	114,000	20.2%

Source: The Warren Group, www.thewarrengroup.com

According to the Census, as shown in **Table 13**, median gross rent has increased approximately 9.5% in Worcester from 1990 to 2000. Unfortunately, more recent information is unavailable. Anecdotally it seems that Worcester's rental rates have increased in the last couple of years at a rate similar to median home values. Worcester's 9.5% increase in the rental rate is lower than most of the increases for other northeastern cities, except Springfield at 4.4%.

Table 13: Median Gross Rent for Northeastern Cities, 2000 and 1990

	<i>2000</i>	<i>1990</i>	<i>% change</i>
Stamford, CT	1,007	794	26.8%
Cambridge, MA	962	538	78.8%
Boston, MA	803	625	28.5%
Bridgeport, CT	671	594	13.0%
New Haven, CT	651	568	14.6%
Manchester, NH	649	537	20.9%
Lowell, MA	627	561	11.8%
Burlington, VT	618	493	25.4%
Portland, ME	598	504	18.7%
Worcester	577	527	9.5%
Albany, NY	570	456	25.0%
Waterbury, CT	562	492	14.2%
Hartford, CT	560	504	11.1%
Rochester, NY	553	442	25.1%
Providence, RI	526	469	12.2%
Springfield, MA	517	495	4.4%
Syracuse, NY	506	409	23.7%
Buffalo, NY	472	352	34.1%

⁷ "Local Home Market 2nd-Hottest in Nation," *Worcester Telegram & Gazette*, 8 August 2002.

⁸ Ibid.

The surrounding towns have also seen fairly significant increases in rental rates from 1990 to 2000 (see **Table 14**). All towns except for Boylston (1.3%), Leicester (1.9%), Holden (6.1%) and Worcester (9.5%) have seen increases above 10%. Shrewsbury had the highest median rental rate of \$817 per month in 2000.

Table 14: Median Gross Rent for Surrounding Towns, 2000 and 1990

	2000	1990	% change
Shrewsbury	817	658	24.2%
Paxton	642	563	14.0%
Boylston	640	632	1.3%
Grafton	625	565	10.6%
Holden	622	586	6.1%
West Boylston	612	552	10.9%
Auburn	607	534	13.7%
Millbury	603	509	18.5%
Worcester	577	527	9.5%
Leicester	537	527	1.9%

EDUCATIONAL CHARACTERISTICS

High School Attainment

From 1990 to 2000, the percent of adults over the age of 25 who have a high school diploma increased in Worcester more than 5%, from 72.9% to 76.7%. Other northeastern cities, as shown in **Table 15**, had similar increases. Cambridge had the highest percentage of the population that had completed high school (89.5%) and Hartford had the lowest (60.8%).

Table 15: Percent of Adults over 25 in Northeastern cities who Graduated High School, 2000 and 1990.

	2000	1990	% change*
Cambridge, MA	89.5%	81.8%	9.4%
Portland, ME	88.3%	83.2%	6.1%
Burlington, VT	87.7%	82.4%	6.4%
Stamford, CT	82.2%	81.2%	1.2%
Albany, NY	81.2%	77.7%	4.5%
Manchester, NH	80.7%	74.9%	7.7%
Boston, MA	78.9%	75.7%	4.2%
Worcester	76.7%	72.9%	5.2%
Syracuse, NY	76.2%	71.2%	7.0%
Buffalo, NY	74.6%	67.3%	10.8%
New Haven, CT	73.6%	71.0%	3.7%
Springfield, MA	73.4%	69.6%	5.5%
Rochester, NY	73.0%	68.8%	6.1%
Waterbury, CT	71.7%	66.8%	7.3%
Lowell, MA	71.2%	65.8%	8.2%
Providence, RI	65.8%	62.8%	4.8%
Bridgeport, CT	65.0%	61.1%	6.4%
Hartford, CT	60.8%	59.4%	2.4%

*The percent change is the change in the proportion.

As shown in **Table 16**, all of the surrounding towns have higher percentages of high school graduates than Worcester does. Holden had the highest percentage at 94%, while Grafton had the greatest increase over the last 10 years at 9.4%.

Table 16: Percent of Adults over 25 in Surrounding Towns who Graduated High School, 2000 and 1990.

	<i>2000</i>	<i>1990</i>	<i>% change*</i>
Holden	94.0%	91.1%	3.2%
Paxton	93.9%	91.0%	3.2%
Boylston	93.0%	91.0%	2.2%
Shrewsbury	91.8%	87.2%	5.3%
Grafton	89.9%	82.2%	9.4%
West Boylston	89.4%	83.0%	7.7%
Auburn	88.8%	82.4%	7.8%
Leicester	84.5%	78.5%	7.6%
Millbury	83.7%	77.0%	8.7%
Worcester	76.7%	72.9%	5.2%

*The percent change is the change in the proportion.

As shown in **Table 17**, the percent of adults in Worcester with at least a bachelor's degree increased over 10% in the last 10 years to 23.3%. Cambridge had the highest percentage at 65.1%, while Bridgeport had the lowest at 12.2%. All cities except Hartford, Bridgeport, and Waterbury increased the percentage of the population with at least a bachelor's degree.

Table 17: Percent of Adults over 25 in Northeastern Cities who have at least a Bachelor's Degree, 2000 and 1990

	<i>2000</i>	<i>1990</i>	<i>% change*</i>
Cambridge, MA	65.1%	63.1%	3.2%
Burlington, VT	42.0%	34.8%	20.7%
Stamford, CT	39.6%	35.1%	12.8%
Portland, ME	36.4%	29.6%	23.0%
Boston, MA	35.6%	30.0%	18.7%
Albany, NY	32.5%	29.5%	10.2%
New Haven, CT	27.1%	26.7%	1.5%
Providence, RI	24.4%	21.6%	13.0%
Worcester	23.3%	21.1%	10.4%
Syracuse, NY	23.2%	22.0%	5.5%
Manchester, NH	22.3%	19.6%	13.8%
Rochester, NY	20.1%	19.0%	5.8%
Buffalo, NY	18.3%	16.0%	14.4%
Lowell, MA	18.1%	15.5%	16.8%
Springfield, MA	15.4%	15.0%	2.7%
Waterbury, CT	13.9%	14.1%	-1.4%
Hartford, CT	12.4%	14.4%	-13.9%
Bridgeport, CT	12.2%	12.3%	-0.8%

*The percent change is the change in the proportion.

As shown in **Table 18**, Leicester and Millbury have smaller proportions of their populations that have completed college. Grafton and Shrewsbury have seen significant increases in the last ten years (42.6% and 26.0%, respectively).

Table 18: Percent of Adults over 25 in Surrounding Towns who have at least a Bachelor’s Degree, 2000 and 1990

	2000	1990	% change*
Shrewsbury	46.1%	36.6%	26.0%
Holden	45.4%	38.5%	17.9%
Paxton	44.2%	42.0%	5.2%
Boylston	37.7%	37.3%	1.1%
Grafton	34.8%	24.4%	42.6%
West Boylston	29.6%	28.6%	3.5%
Auburn	24.2%	22.7%	6.6%
Worcester	23.3%	21.1%	10.4%
Leicester	20.3%	18.9%	7.4%
Millbury	17.8%	14.8%	20.3%

*The percent change is the change in the proportion.

CONCLUSIONS

The Research Bureau makes the following observations on the data presented in this report:

- Worcester ranks in the middle among the *northeastern cities* included in this study for all indicators related to income and educational attainment.
- Worcester ranks at or near the bottom among its *immediate suburbs* on each indicator related to income and educational attainment.
- Worcester’s poverty rate of 14.1% is lower than that of ten of the seventeen northeastern cities included in this study. Even though the poverty rate in Worcester is relatively low compared to those other cities, it increased over 15% during the last decade.
- Income inequalities in the city of Worcester are increasing. While the poverty rate increased 15%, the percent of households making more than \$150,000 per year increased 20%.

Although Worcester ranks at or near the bottom on each indicator compared to its neighboring communities, the rate of disparity between city and suburbs seems to be declining. It is also important to note that most of the trends in Worcester are similar to those in the suburbs. For example, per capita income, households earning more than \$150,000, and the poverty rate increased in Worcester and six of the nine surrounding towns surveyed. These trends would seem to confirm the results of many studies cited by the Research Bureau in its 1995 report on regionalism demonstrating the interconnectedness between central cities and their surrounding suburbs.⁹ Since, according to these studies, central cities and their surrounding suburbs form a single regional economy, the economic fortunes of a region’s central city and its surrounding suburbs are intertwined. In other words, the rates of growth in population and per capita income in the city appear to be strongly related to rates of growth in the surrounding suburbs. Thus, it is a mistake to think that suburbs can prosper at the expense of or independently of their central city core. Greater regional cooperation could benefit all.

Worcester’s per capita income has risen during the last ten years, but trends indicate that income inequality is increasing in the city. As per capita income has risen, median household income has fallen. This means that a smaller number of households have a larger percentage of the overall wealth in the city.

⁹ Worcester Municipal Research Bureau, “Considering Regional Government for Worcester Part II: Proposals for Comprehensive Regional Governance,” Report 95-2, 3 April 1995, pp. 3-5.

Similarly, the percent of households earning more than \$150,000 per year increased at the same time that poverty rates increased. It is likely, however, that a major, if not the whole, explanation for the increase in the City's poverty rate, and hence of income inequality, is the continuing influx of immigrants (either directly from abroad, or after a relatively recent arrival in this country). Since many such immigrants come from regions with high poverty levels (such as Latin America, western Africa, and southeast Asia), their increase naturally tends to increase poverty levels initially.¹⁰ However, there is every reason to expect that over time, these immigrants, like previous arrivals, will improve their economic and educational status – while making way for newer immigrants in turn to repeat the process.

Among the towns surrounding Worcester, Shrewsbury and Grafton have experienced some of the greatest changes between 1989 and 1999. In Shrewsbury median household income increased 8.3%; per capita income increased 14.9%; the percent of households earning more than \$150,000 per year increased 45.7%; median home selling prices increased 33.6% in just the last two years; and the percent of adults with a bachelor's degree increased 26%. Similar trends have occurred in Grafton: per capita income increased 16.2%, the percent of households earning more than \$150,000 doubled, home selling prices have increased 55.8% in just the last two years, and the percent of the adult population with a bachelor's degree increased by 42.6%. In both towns, however, poverty rates have also increased: 57% in Shrewsbury and 15% in Grafton.

¹⁰ This observation has been noted by many commentators including George J. Borjas, *Heaven's Door: Immigration Policy and the American Economy* (Princeton: Princeton University Press, 1999).

MISSION STATEMENT

The Worcester Regional Research Bureau is a private, non-profit organization dedicated to conducting independent, non-partisan research on financial, administrative, management and community issues facing Worcester's municipal government and the surrounding region.



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