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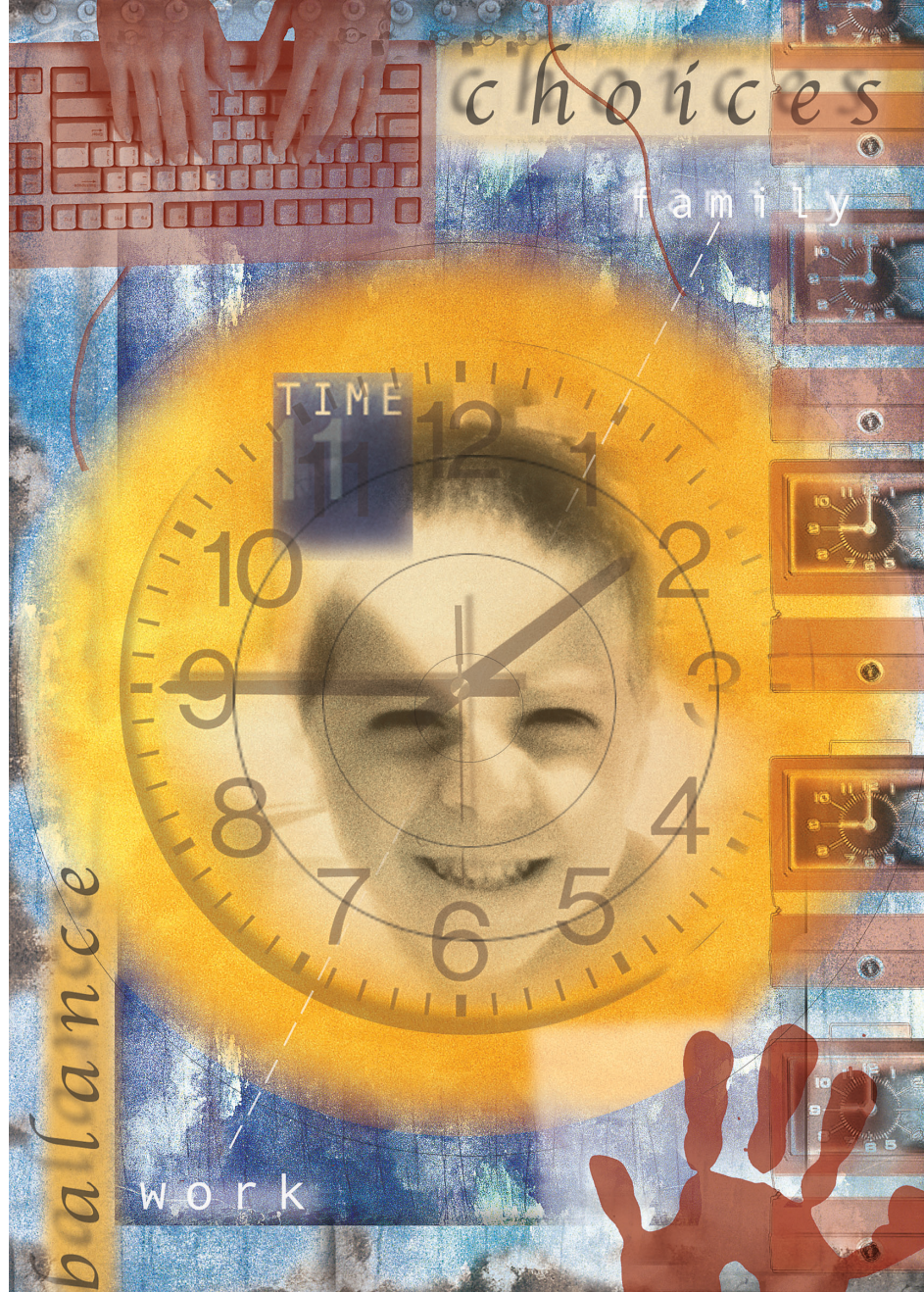


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A Tale of Two Decades

Changes in Work and Earnings in Massachusetts, 1979–1999

RANDY ALBELDA AND MARLENE KIM

Over the past twenty years, Massachusetts has replaced the mantle of old-style manufacturing with a robust “new economy.”

Our economic vitality has never been better. But not all individuals benefited from the 1990s boom as they had from the one a decade earlier. Some of our residents are worse off than they were before.

The New Economy, Massachusetts Style

Over the past two decades, Massachusetts has enjoyed a spectacular ride through two economic expansions. The extraordinary growth in the 1980s came to be called the “Massachusetts Miracle.” The Massachusetts economy during the 1990s exemplifies what many call the “new economy,” an economy in which the engine of growth includes information and knowledge-based industries, reliance on technology, and global markets that bring about rapidly changing products and services. It also includes a flexible workforce that can be redirected quickly to meet these rapidly changing needs but is less formally connected to employers (e.g., more temporary and contract workers and fewer workers under collective bargaining arrangements).¹

The industrial base was not the only important change affecting the work lives and economic fortunes of Bay State residents over the past two decades. More adults are now employed and working longer hours. Many of these working adults are also parents, and the competing demands of work and family have come to typify the new economy as well.

Examining data from peak years in the Commonwealth’s business cycles (1979–81, 1986–88, and 1997–99) provides a picture of who has been employed, how many hours they worked, where they worked, and how much they earned. This in turn reveals what has happened to Massachusetts jobs and workers since the late 1970s.

The analysis takes a snapshot of various types of workers at three different time intervals; it does not follow individual workers over time. This allows a comparison of workers with various characteristics and how they have fared over a 20-year period. It also allows an investigation into whether the economy has provided a better or a worse environment in which to work and establish families.

The Bay State economy has broken loose from its long-time base of old-style manufacturing in the shoe, textile, and appliance industries. Replacing it was a new economic engine of growth consisting of large health and education service sectors, banking and finance, increased government contracts,

and manufacturing-based high technology.² While the Massachusetts economy crashed hard in the late 1980s and early 1990s, the subsequent recovery in employment has been stunning. The second boom has been fueled by a service-based, high-tech sector and health and business services.

There are more Blacks, Hispanics, Asians, and women (especially mothers) in the workforce. Workers have increased the number of hours they work. Median earnings for individuals have improved but have not been equally shared. The boom of the 1980s was much more robust and much more widely shared by large segments of the Massachusetts population than that of the decade that followed. Over the past 20 years, high earners fared better than low-wage workers and Whites better than other races and ethnicities. Women’s earnings grew faster than men’s, though they still fall behind by more than 20 percent.

A Shift in Where the Jobs Are

There were just over 3 million adult workers in Massachusetts in 1979–81. This grew to 3.25 million in the late 1980s and to 3.36 million by the late 1990s. The number of workers in the Bay State increased 11.8 percent over the 20-year period, while the state population increased by only 5.9 percent.

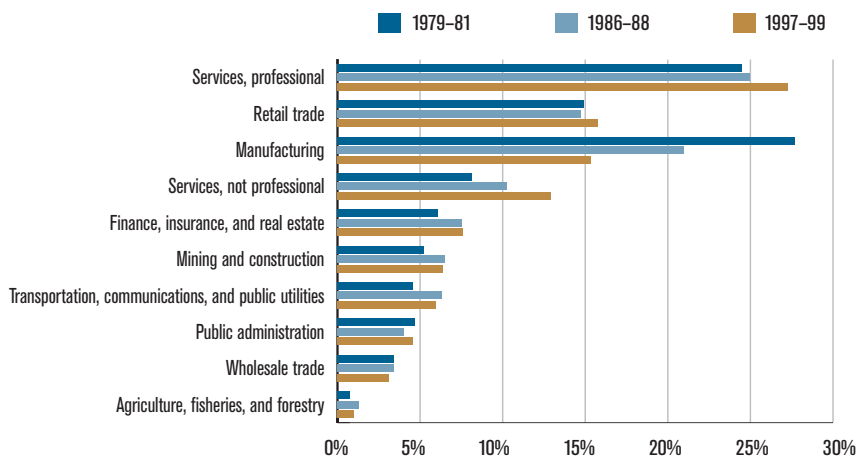
In the late 1970s, manufacturing was the largest industry in Massachusetts, employing 27.7 percent of adult workers. The second largest was professional services (health, education, and social services), employing 24.5 percent of all workers, followed by retail trade, employing 14.5 percent. By the late 1980s, professional services had eclipsed manufacturing to become the largest sector.

Manufacturing dropped to third largest (15.3 percent) in the late 1990s, overtaken by retail trade, which increased its employment share to 15.7 percent. Professional services, now the largest industry category, employs 27.3 percent of all Massachusetts workers. The entertainment, recreation, and personal service sectors (i.e., non-professional services) reaped the largest percent increase, from 8.1 percent in 1979–81 to 12.9 percent in the late 1990s. The entire service sector now employs 40.2 percent of all workers in Massachusetts.

Selected 2-Digit Industry Categories: Number of Workers Age 18 and Older (in thousands)

	1979-81	1986-88	1997-99	Change 1979-99
Manufacturing: electrical machines	142	115	76	-66
Banking and other finance	76	110	137	61
Business services	98	161	229	131
Professional services: hospitals and health	312	312	332	20
Professional services: education	271	297	274	4
Total of five categories	899	995	1,048	149
Workers in all industries	3,008	3,253	3,363	355
Workers in five categories as a percent of all workers	29.9	30.6	31.2	42.3

Industrial Distribution of Workers, 18 and Older



Sources: U.S. Bureau of the Census, Current Population Survey; authors' analysis

The importance of the education, health care, and high-tech industries to the Massachusetts economy is clear. The first category, manufacturing of electrical machines, includes “high-tech” manufacturing. Business services includes jobs in advertising, temp agencies, protective services, automobile repair, and some of the jobs associated with the high-tech industry, such as commercial research and development and computer programming. These two industries, along with banking and finance, health services, and educational services, employ approximately 30 percent of all workers in Massachusetts and represent 42 percent of all new employment in the state over the past 20 years.

Of these detailed categories, hospital and other health services (a key part of the health-care sector) employed the most workers, growing from over 300,000 to over 330,000 by the late 1990s. Though education grew only slightly, it

remains the state’s second-highest employer among these categories, reflecting the large number of higher education institutions. From 1979 to 1981, electrical machinery manufacturing employed two times more workers than the banking industry and 50 percent more than business services, but by the late 1990s this relationship had reversed.

The decline in the state’s manufacturing sector and the rise of high-tech and professional services that displaced it became clear in the occupational distribution³ of adult workers. Jobs associated with manufacturing—skilled, unskilled, and semi-skilled blue-collar work—steadily declined over the past 20 years. In the boom of the late 1970s and early 1980s, semi-skilled and unskilled blue-collar occupations (operators, transportation personnel, and laborers)

were the largest of the nine occupational categories, employing over 17 percent of all adult workers. By the late 1990s, these occupations employed just over 11 percent, only about as much as sales. Skilled blue-collar workers (precision production, craft, and repair personnel) declined from 12.7 percent in 1979–81 to 10.5 percent of all workers by the late 1990s. In contrast, the largest increases in employment were in relatively high paid, white-collar work: executive, administrative, and managerial occupations. Service occupations, which typically pay less, dipped during the late 1980s but have recovered. By the late 1990s, 14.5 percent of all workers were employed in service occupations.

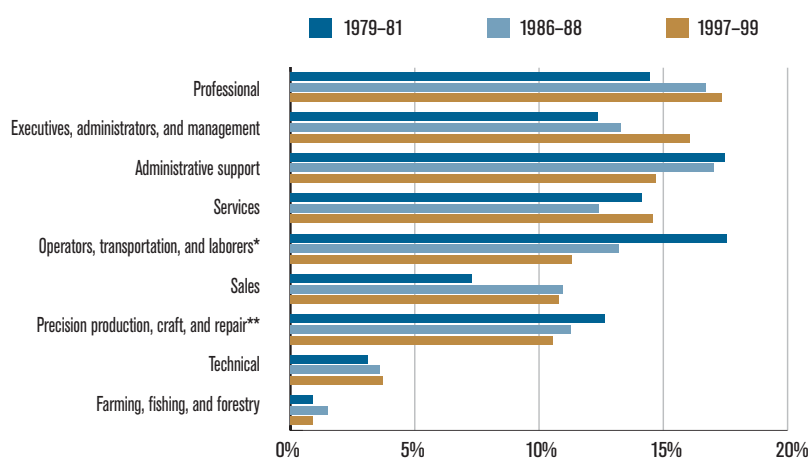
Worker Demographics Change

Besides being larger, the Massachusetts workforce is more diverse now than it was 20 years ago. Black, Hispanic, Asian, and female workers have seen steadily increasing representation. Today, Hispanics constitute 5.3 percent of the workforce; Blacks, 5.1 percent; and Asian and Native Americans, 3.3 percent (compared to 1.4 percent, 3.1 percent, and 1.1 percent, respectively, in the late 1970s).⁴ Women comprise 48.8 percent of all workers, up from 45.5 percent in the late 1970s. Those who are not United States citizens currently comprise 8.7 percent of the workforce.⁵

Workers today have considerably more years of education than those in the late 1970s. Whereas 17.3 percent of all workers failed to receive high school degrees during 1979–81, only 9.9 failed to do so by 1999. By the late 1990s, 34.1 percent of all workers had college degrees, compared to 20.7 percent during 1979–81.

The average age of the adult workforce increased slightly, from 37.3 years in the late

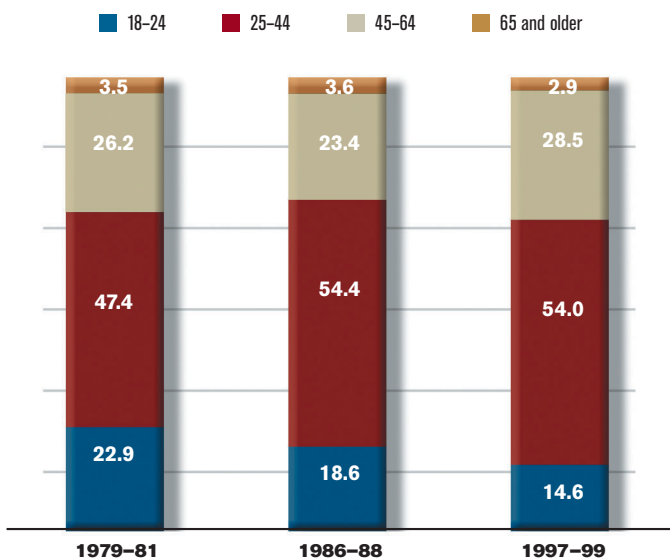
Occupational Distribution of Workers, 18 and Older



*Semi- and Unskilled “Blue Collar”
**Skilled “Blue Collar”

Sources: U.S. Bureau of the Census, Current Population Survey; authors' analysis

Percentage of the Workforce (by Age Group)



Source: Authors' analysis of Current Population Survey data

1970s to 39.3 years in the late 1990s. There are fewer workers of retirement age and fewer young adult workers now than there were 20 years ago.

Over half of all workers are between the ages of 25 and 44, with close to a third between 45 and 64. A small and shrinking percentage are of retirement age.

The percent of the adult population that is employed remained about the same over the 20 years (72 percent). The gender composition has changed, with the percentage

Percentage of Adults Employed (by Gender)

	1979	1989	1999
All Adults			
Male	83.8	82.3	78.2
Female	59.9	65.0	67.2
Adults with Children			
Male	94.1	94.5	90.0
Female	64.5	73.1	78.0

of employed women increasing from just under 60 percent in the late 1970s to just over 67 percent in the late 1990s. Meanwhile the percentage of employed men has decreased. The percentage of parents employed increased from 78.5 percent in the late 1970s to 83.3 percent 20 years later. A

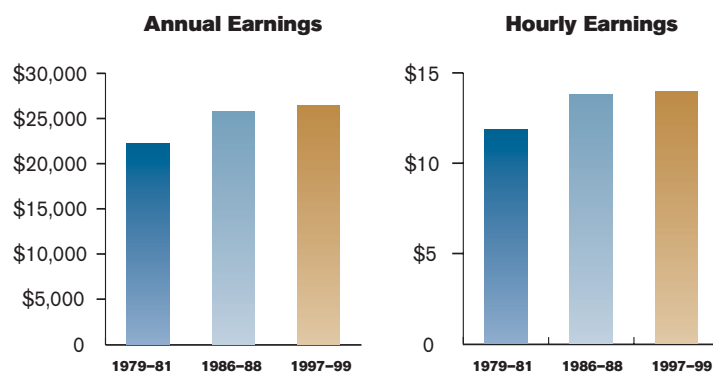
very high percentage of fathers are employed, though this rate has dropped. The increase in parents' employment is fully explained by the increase in mothers' employment rates, rising from 64.5 percent in the 1979-81 period to just under 78 percent by the end of the 1990s.

More Earnings—But More Hours

Inflation-adjusted annual earnings have increased over the past 30 years. Annual earnings—income earned from all sources during a year—increased 19.3 percent for the median worker from the boom of the late 1970s to that of the late 1990s. Most of the increase occurred during the Massachusetts Miracle. This prosperity came at a cost—it resulted, in large part, from an increase in work hours.

During the late 1970s, workers averaged 37.3 hours of work per week and 44.2 weeks per year. By the late 1990s, average weekly hours had increased to 39 hours, while the number of weeks worked increased to 46.8 per year.⁶ The

Median Earnings of Massachusetts Workers (1999 Dollars)



Sources: U.S. Bureau of the Census, Current Population Survey; authors' analysis

percentage of workers working full time and year-round (35 or more hours per week for 50 or more weeks per year) increased steadily, from 57.8 percent of all workers in 1979-81 to 67.8 percent by the late 1990s. Most of this was due to a steady increase in the number of full-time workers who moved from part-year work to year-round employment.⁷ As a result of the increased work hours, median hourly earnings increased at a much lower rate (from \$11.93 to \$14.01 per hour) than did median annual earnings. Few of the gains in hourly earnings came in the 1990s.

Unequal Gains

While earnings have improved on average, workers have not shared equally in the Commonwealth's spectacular economic growth. In fact, some types of workers have not experienced any increases in their standard of living, despite two economic booms.

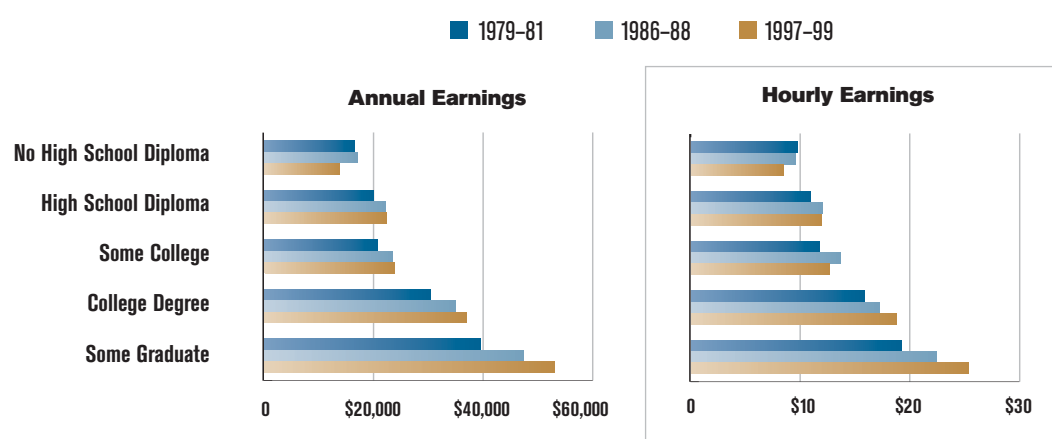
Percent Change in Median Earnings, 1979–81 to 1997–99



After making gains in the 1980s, earnings for Black workers fell precipitously in the 1990s. As a result, inflation-adjusted hourly earnings for Black workers were 6 percent lower, and annual earnings were 1.7 percent lower in the late 1990s than their earnings two decades ago.

Hispanic workers fared even worse.⁸ By the end of the 1990s boom, they were earning 9.7 percent less annually and 4.1 percent less hourly than they had earned 20 years earlier.⁹

Median Earnings by Education Level (1999 Dollars)



Sources: U.S. Bureau of the Census, Current Population Survey; authors' analysis

Gender. From 1979 to 1999, women's median annual earnings grew 50.9 percent, and their hourly earnings grew 30.6 percent. In contrast, men's hourly wages increased by a modest 7.5 percent and annual earnings by 8.2 percent. Earnings for both women and men increased during the 1980s, but while women's earnings continued to climb during the 1990s, men's fell. Despite improvements, women earned only 78.8 percent of men's hourly earnings by the late 1990s, up from 64.8 percent during 1979–81.

Education. Earnings fell over the period for workers without high school educations. Adjusted for inflation, annual earnings fell 16.6 percent from the peak years of the 1970s to the 1990s; hourly earnings fell 13.3 percent. In contrast, workers with at least high school degrees saw both yearly and hourly earnings increase. The largest gains went to workers with college degrees. These workers saw annual earnings grow by 21.9 percent and hourly earnings by 19 percent. Those with at least some graduate work increased both annual and hourly earnings by over 30 percent.

In real-dollar terms, earnings gaps grew over the 20-year period. In 1979–81, the annual median earnings of workers with some graduate school was 2.4 times more than workers with no high school degrees. Twenty years later, the number had grown to 3.8.

Race/Ethnicity. Black and Hispanic workers fared worse than other workers. White workers saw 22.2 percent growth in annual earnings and 20.9 percent growth in hourly earnings, with most of these gains occurring during the 1980s.

High- and low-wage earners. High-wage earners, those with the top 10 percent of earnings, increased their inflation-adjusted hourly earnings by 27 percent over the two-decade period. In contrast, those with earnings at the bottom decile saw their hourly earnings rise only 3.2 percent, exacerbating wage inequality in the state. Still the number of affluent workers (those in families whose income was at least five times the poverty level) steadily increased from 25 percent in 1979–81 to 43 percent in the late 1990s. The rising tide, however, did not lift all boats; the number of poor workers, which fell from 3.9 percent in 1979–81 to 2.9 percent in the late 1980s, had returned to 3.9 percent by the late 1990s.

Conclusion

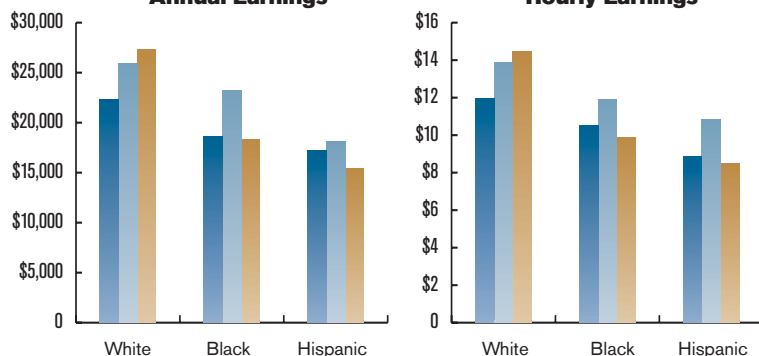
Over the past 20 years, the Massachusetts economy has moved from old-style manufacturing to a robust new economy. But the Massachusetts Miracle of the 1980s generated considerably more gains for a wider variety of people than did the 1990s new economy. The 1980s boom was unusual in that it benefited Black and Hispanic workers as much as White workers.

Median Earnings of Workers 18 Years and Older by Race and Ethnicity (1999 Dollars)

■ 1979-81 ■ 1986-88 ■ 1997-99

Annual Earnings

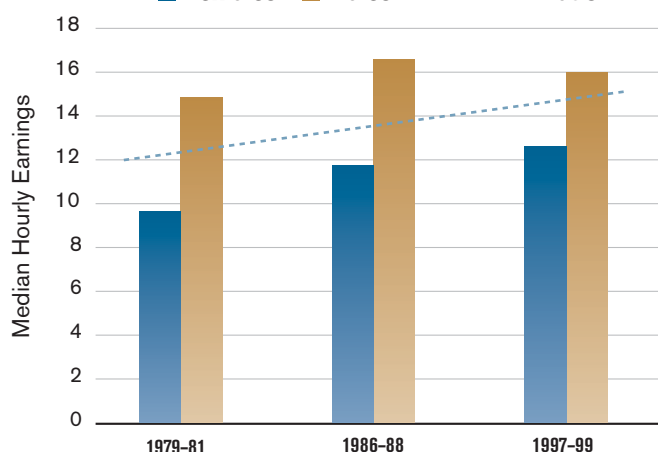
Hourly Earnings



Sources: U.S. Bureau of the Census, Current Population Survey; authors' analysis

Median Hourly Earnings of Workers 18 Years and Older by Gender (1999 Dollars)

■ Females ■ Males --- Ratio



Source: Authors' analysis of Current Population Survey data

Workers in the bottom income deciles saw their earnings increase, and poverty rates among the working poor fell. In contrast, during the 1990s boom, workers who were male, Black, Hispanic, younger (under 25), and without high school degrees suffered earnings declines, and poverty rates among most workers increased, compared to the height of the 1980s boom. So, although the 1990s brought more opportunities for work, it brought little earnings improvements to workers, except for those at the top of the earnings scale. The result was that poverty rose and inequality accelerated.

Most workers have seen their earnings improve since 1980, but the cost for this prosperity has been more work hours and more people working, especially mothers. Whether this is by choice or need, our data cannot reveal. Certainly for workers who traditionally have not been able to find work or find enough hours of work, the increase is good news. For workers who feel overworked and must

pedal harder to stay in place, more work is not good news.

Whether a blessing or a curse, the increased employment of mothers is also a hallmark of the new economy. To the degree that this increased employment places increased stress on families, data reveal that the conflict between work and family time is real and growing.

There have been clear winners and losers over the past two decades. Those with college and graduate degrees, White workers, women, non-Hispanics, and high-wage earners have seen vast improvements in their earnings. But many workers were shut out of the Bay State's economic growth.

Further investigation is needed to uncover the causes for the differences in earnings growth from one decade to the other. Data suggest that the policies and economic structure in the 1980s provided more and better-distributed gains than the new economy has. ¹

1 For two different definitions, see Wired Web site: <http://hotwired.lycos.com/special/ene/> and the Democratic Leadership Council Web site: http://www.neweconomyindex.org/section1_intro.html.

2 See Barry Bluestone and Mary Huff Stevenson's *The Boston Renaissance: Race, Space, and Economic Change in an American Metropolis*, New York: Russell Sage, 2000, for an excellent historical depiction of the Greater Boston area economy.

3 Occupational distribution describes the type of work people do, regardless of the product the employer produces.

4 Hispanics can be of any race.

5 The Census Bureau did not collect this information prior to 1994, so we are unable to make comparisons over time.

6 The worker at the 50th percentile, however, continued to work 40 hours per week and 52 weeks per year over the 20-year period. The difference between the median worker and the average worker is due to the increased number of hours for higher-income workers.

7 Those 65 and older were among the few who worked fewer hours over the past 20 years. The median elderly worker worked 32 hours per week in the peak years of the 1970s. During the peak years in the 1980s and 1990s, they worked 25 hours.

8 Hispanics can be of any race.

9 The changed composition of the Hispanic population might explain part of the reduction in earnings over the past two decades.

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