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Median Household Income Flat in Mass. between 2007-2008

Today, the U.S. Census Bureau released its annual update of *state-level* data on household income from the American Community Survey (ACS). This data shows no statistically significant change in median household income –- a common barometer of how the typical household is faring -- in Massachusetts between 2007 and 2008.

*   Despite the appearance of a small gain ($640) in real median household income in Massachusetts in 2008, the new figure is statistically indistinguishable from 2007 levels (see our discussion of "statistical significance" at the end of this document).

*   By contrast, according to the ACS data, for the country as a whole there was a statistically significant *decrease* in the real median household income from 2007 to 2008, from $52,690 to $52,029 (a decline of 1.3 percent). The much larger sample size at the national level allows for greater certainty even for relatively small year-to-year changes. The same degree of certainty is not possible for small changes at the state level.

Real median household income was flat in Massachusetts in 2008
(US Census, American Community Survey)
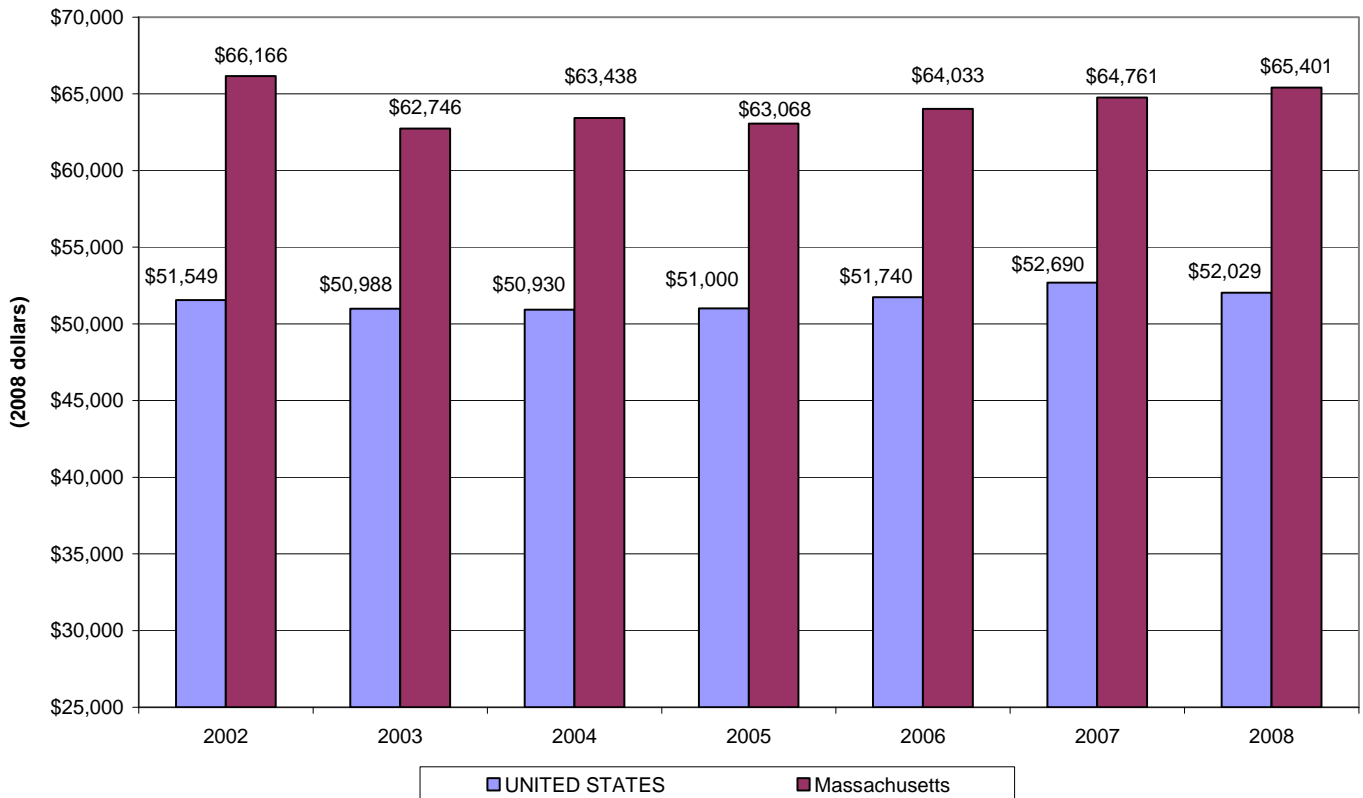
- The Census Bureau's other major survey, the Current Population Survey (CPS) -- which is the primary source for national data –- shows that real median household incomes in the U.S. fell by 3.6 percent or $1,860 (from $52,163 to $50,303) between 2007 and 2008. The differences between ACS and CPS data are due to different sampling methodologies. A more detailed comparison of the two data sets can be found at: http://www.census.gov/hhes/www/income/factsheet081904.html (and in the notes below).

In 2008, US real median household income fell by $1,860 or 3.6 percent
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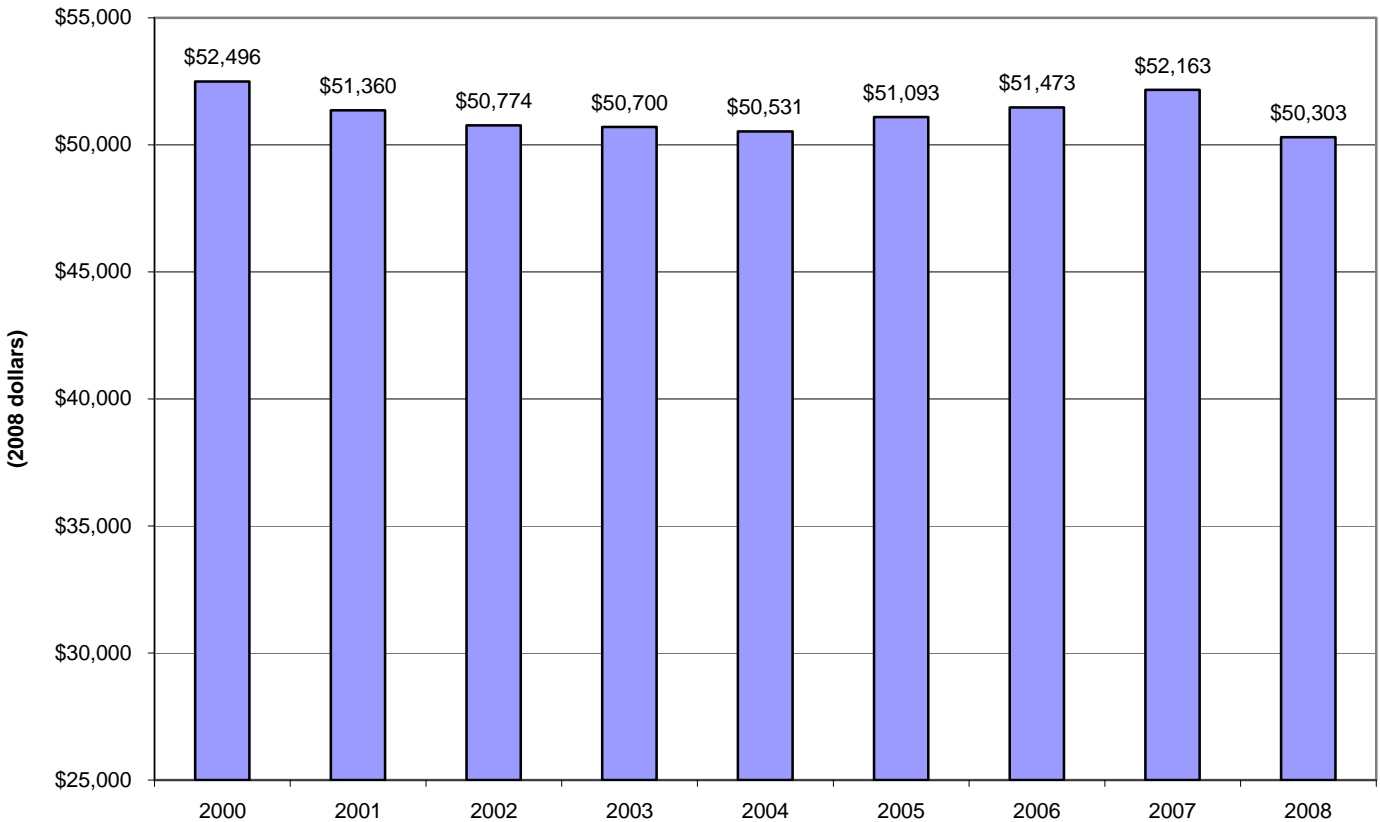
- The 3.6 percent decline in national median household income seen in 2008 is statistically significant and is the largest single-year percentage drop on record. In addition, median income in 2008 provided U.S. households with the least real purchasing power (i.e., inflation adjusted dollars) of any year since 1997.[i]

- Although median household income in Massachusetts was flat in 2008, it continues to compare favorably to other states. For the 2008 period, Massachusetts had the sixth-highest median household income in the country. Only Maryland, New Jersey, Connecticut, Alaska, and Hawaii had higher median household incomes during this period.

- The current ACS and CPS Census surveys present data for 2008. Data for 2009 are not yet available. Given the steep rise in unemployment and steady weakening of the economy seen in 2009, it is likely that current (2009) median incomes have deteriorated substantially from the figures presented in today's Census report.

Methodological Notes

- Median household income is a statistical measure indicating the exact middle of the range of all household incomes, such that half of all households have incomes below the median and half have incomes above it. Under the Census Bureau's methodology, income refers only to before-tax money income and does not include the value of non-cash benefits such as Medicaid or food stamps.

- All dollar amounts in this summary are expressed in constant 2008 dollars. Inflation adjustments are made using the Consumer Price Index for all urban consumers (CPI-U).

- The Census Bureau's recent data on household income incomes derive from two main sources: the Current Population Survey (CPS) and the American Community Survey (ACS). The CPS is the older of the two surveys -- dating back to the 1940s -- and is therefore a more reliable source for making comparisons over longer periods of time (though, due to sample size constraints, data is best pooled over two or three years to do so). The CPS is also the official source for national poverty and income data. However, the ACS is based on a larger sample and is thus able to provide information on a state and sub-state basis that does not have to be pooled over multiple years.

- At various points in this analysis we refer to whether or not the difference between two estimates, usually from two years, is statistically significant. Because the CPS and ACS data are based on surveys of a random sample of individuals meant to represent the entire state or nation, one cannot be certain that the estimate produced by the sample is the actual rate for the entire population. For each number they publish, the Census Bureau therefore includes a "margin of error" using a 90 percent confidence level. A "90 percent confidence level" means that there is a 90 percent likelihood that the true population measure falls within the margin of error.

When two estimates (for example, a single measure taken in two different years) are compared, we must determine how certain we are that any difference reflected in these estimates actually denotes a true difference in the real population. If the margins of error of the two measures overlap we cannot be adequately sure that the two measurements reflect a true difference in the real population rather than an artificial difference occurring by chance in two random samples. When we say that two estimates do not show a "statistically significant difference," we therefore are saying that we cannot be certain that the estimates -- even though numerically different -- provide an accurate measure of a *real* difference in the true population.

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[i] Analysis of 2008 CPS data by the Center on Budget and Policy Priorities:
http://www.cbpp.org/cms/index.cfm?fa=view&id=2914