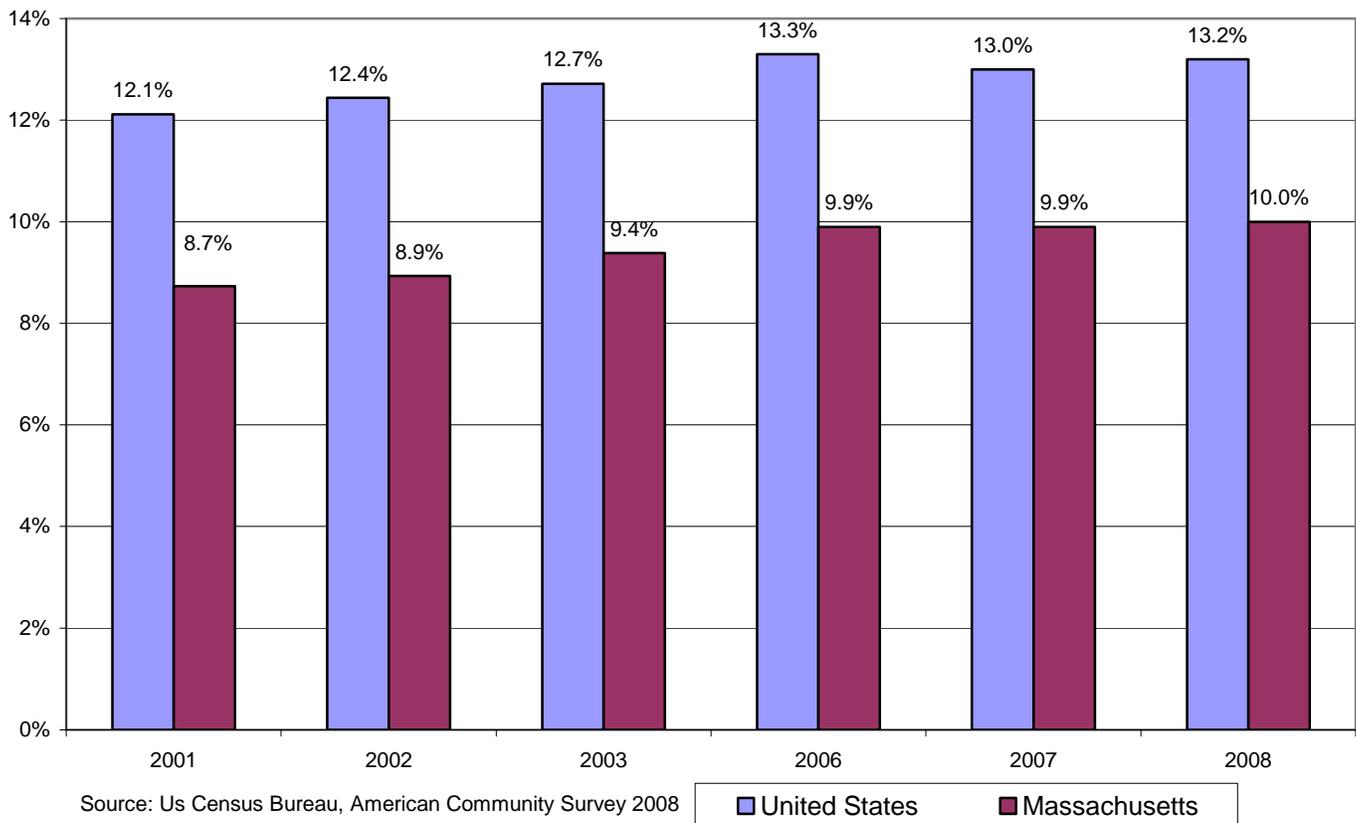


## Census data show no rise in poverty rate for MA in 2008

Today, the U.S. Census Bureau released its annual update of *state-level* poverty rates from the American Community Survey (ACS). It indicates no statistically significant change in the overall poverty rate in Massachusetts from 2007 to 2008.

- Despite the appearance of a small rise (0.1 percent) in the overall poverty rate in Massachusetts in 2008, the new figure (10.0 percent) is statistically indistinguishable from 2007 levels of 9.9 percent. (See our discussion of “statistical significance” at the end of this document.)
- The new ACS data indicate that 600,000 to 650,000 people in Massachusetts lived in households that fell below the federal poverty threshold in 2008 (which is \$21,834 for a four-person family with two children).

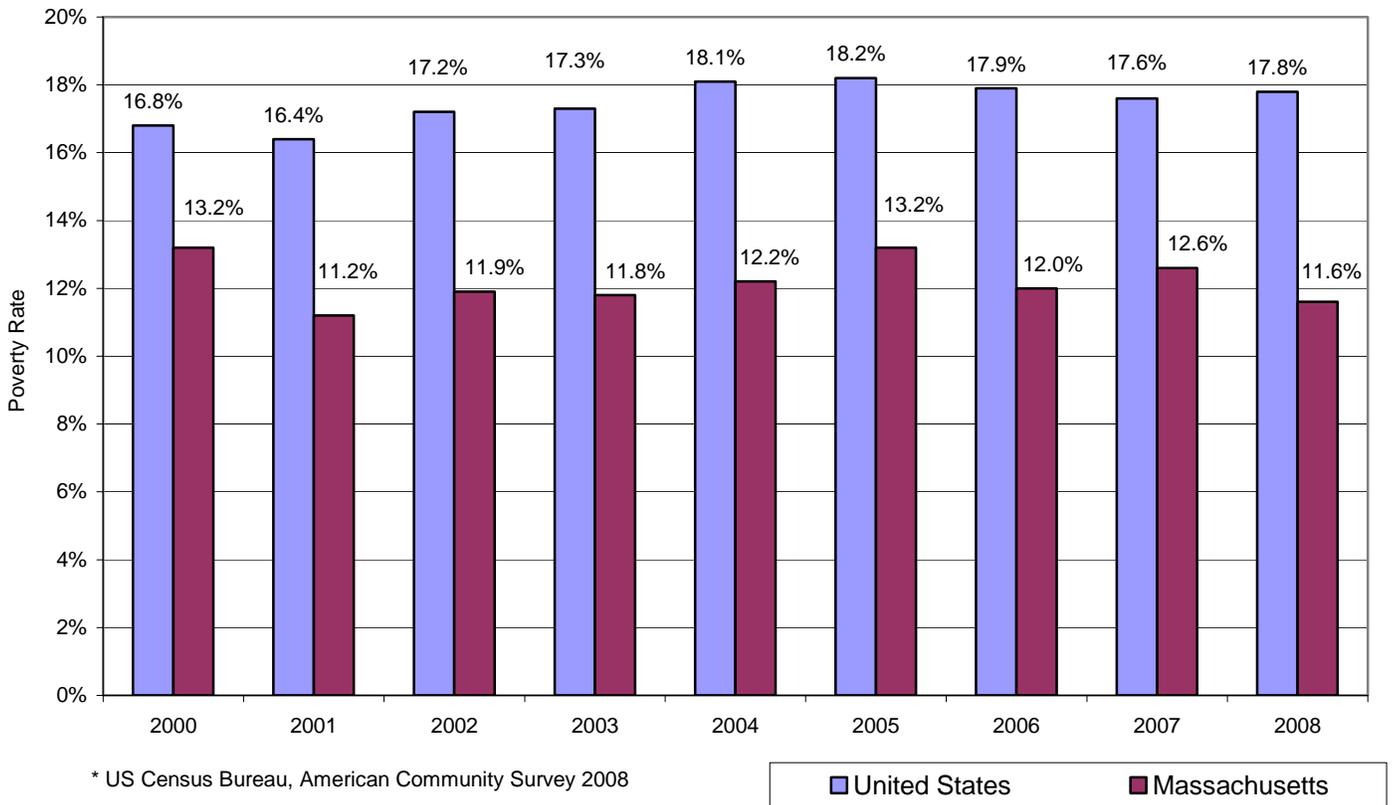
There was no statistically significant change in the poverty rate in MA from 2007 to 2008



Note: According to the Census Bureau, 2004 and 2005 poverty data from the ACS are not comparable to other years due to a change in the way that survey respondents living in group quarters are recorded. These years are removed from the chart above.

- By contrast, according to the ACS data, for the country as a whole there was a statistically significant *increase* in the poverty rate from 2007 to 2008, from 13.0 percent to 13.2 percent (See chart on page 1, above). 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.
- According to ACS data, in 2008, Massachusetts continued to have an overall poverty rate substantially below that of most other states. Massachusetts ranked 41<sup>st</sup> among all states. Mississippi was the state with the highest rate of overall poverty at 21.2 percent.
- While the overall poverty rate in MA remained unchanged in 2008, *childhood* poverty *declined* by (a statistically significant) 1.0 percent. The Census estimates that of the 1.4 million children under age 18 in Massachusetts, there were some 176,000 children living in poverty in 2007 and 163,000 in 2008.
- The apparent small increase (0.2 percent) in *national* childhood poverty from 2007 to 2008 is not statistically significant. (See our discussion of “statistical significance” at the end of this document.)

**A statistically significant decline in childhood poverty occurred in MA in 2008**



- The new release presents data for 2008. Data for 2009 are not yet available. Given the steep rise in unemployment and overall weakening in the economy seen in 2009, it is likely that current (2009) poverty rates have deteriorated substantially from the 2008 figures presented in today’s Census report.

## METHODOLOGICAL NOTES

- The poverty rate measures the percentage of people who live in households with incomes below a certain level, known as the poverty threshold. This threshold varies depending on the number of people in a family and their ages; it is updated each year for inflation. For 2008, the poverty threshold for a single person under the age of 65 was \$10,991; for a family of four with two children it was \$21,834; for a single parent with two children it was \$17,346. For purposes of determining the poverty rate, income is defined as all money income earned by a family, before taxes and excluding any non-cash benefits such as Medicaid or food stamps.

For poverty threshold figures see: <http://www.census.gov/hhes/www/poverty/threshld/thresh08.html>

- The poverty threshold does not vary from state to state. If the poverty threshold were adjusted to take differences among the states into account, it is likely that the poverty rate for Massachusetts would be higher, given the Commonwealth's high cost of living. For instance, a December 2003 study by two U.S. Census Bureau analysts found that the poverty rate in Massachusetts for the period 1999-2001 would have been 13.3 percent, rather than 10.2 percent, if the federal poverty threshold were adjusted to account for differences in housing prices.
- The Census Bureau's recent data on poverty and incomes derives from two main sources: the Current Population Survey (CPS) and the American Community Survey (ACS). The CPS is the official source for national poverty and income data. However, the ACS is based on a far larger sample and is thus able to provide better estimates at the state and sub-state levels.
- *Statistical Significance:* 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 reflects 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, in effect, creating a range around its estimate. A "90 percent confidence level" means that there is a 90 percent likelihood that the true population measure falls within the margin of error or range established around the estimate.

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 (ranges) 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 the estimates -- even though numerically different -- provide an accurate measure of a *real* difference in the true population.

Finally, it is important to note that the term "statistical significance" is a purely technical term and does not in any way refer to the relevance or "importance" of a given finding. If a survey provides a very large sample size, it may be possible to detect a very small -- and yet still statistically significant -- difference. Whether or not such a small difference holds any important meaning, however, is an issue that goes beyond the technical/mathematical matter of statistical significance.