



Massachusetts Health Care Cost Trends

Historical (1991-2004) and Projected (2004–2020)

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Executive Summary

Focus of this Analysis

- To evaluate the historical trends in health care expenditures in Massachusetts and project future trends (assuming no cost-containment intervention). National trends are provided as a benchmark for comparison.
- To estimate the potential savings if cost containment efforts keep the growth of health care expenditures to the same level as per capita GDP.
- To compare the growth of health insurance premiums relative to the growth of health care expenditures.

Major Findings

- **We spend more on health care in Massachusetts compared to the U.S.** Health care expenditures account for a larger and growing share of the GDP compared to the national average in 2007. By 2007, health care expenditures are expected to account for 15.2% of GDP in Massachusetts compared to 13.7% for the nation.
- **Hospital-based expenditures are a primary driver of higher health care costs in Massachusetts.** Hospital-based expenditures account for one-half of the difference between Massachusetts and U.S. per capita health care spending in 2004.
- **Medicare and Medicaid share of health spending in Massachusetts grew from 36% to 38% from 1991 to 2004.** In 2004, Medicare spending was \$7.9 billion and Medicaid spending was \$8.3 billion.
- **The growth in employment-based health insurance premiums in Massachusetts was somewhat faster and more volatile than the growth in health care expenditures.** In 2007 both family and single premiums were higher in Massachusetts compared to the U.S., by 12% and 10%, respectively.
- **Beginning in 2002, health care expenditures in Massachusetts (both actual and projected) grew more rapidly than other economic indicators such as wages, consumer prices, and per capita GDP.** By 2020, health care expenditures per capita in Massachusetts are expected to be 4.5 times what they were in 1991, while the CPI is projected to be just more than double.
- **Health care in Massachusetts is projected to cost \$3,000 more per person by 2018 compared to the U.S. average.** During 2004-2018, compared to the national average, Massachusetts is projected to have a higher annual growth rate in per capita health care expenditures, reaching about \$16,000 per person in 2018. U.S. health care spending is projected to reach about \$13,000 per person by 2018.
- **If cost containment efforts are successful, potential savings could be as high as \$91 billion over 10 years.** If cost containment efforts result in a slowing of the growth of health care expenditures to the same growth rate as per capita GDP (3.9%), the potential annual savings would be close to \$3,000 per capita for a total accumulated savings of \$91 billion over 10 years.



Data Sources and Methodology

Major Data Sources

Health Care Spending

- Massachusetts Data: Center for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, State Health Expenditure Accounts (SHEA), "Massachusetts Personal Health Care Expenditures (PHCE), All Payers, State of Residence, 1991-2004," 2007.
- U.S. Data: Center for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, "National Health Expenditures by Type of Service and Source of Funds, 1960-2007," 2009.
- U.S. Projections: "National Health Expenditure Projections 2007-2017," 2009.
- Massachusetts Population: Population projections based on U.S. Census Bureau, Population Division, Interim State Population Projections, 2005.

Health Insurance Premiums

- 1996-2006 and 2008: Agency for Healthcare Research and Quality (AHRQ), *Medical Expenditure Panel Survey-Insurance Component (MEPS-IC)*, health insurance premiums per enrolled employee at private-sector establishments that offer health insurance. 2007 premiums are estimated using the average of 2006 and 2008 premiums.

Methodology Used for Cost Projection

- The annual growth rate of per capita health expenditures in Massachusetts for 2004-2010 is assumed to keep the same average annual growth rate of 7.4% experienced in 2000-2004. This is assumed because in the short run, trends are likely to keep the same momentum as the most recent annual trends.
- The annual growth rate of per capita health expenditures in Massachusetts for 2010-2020 is assumed to be at the lower average annual growth rate of 5.7% experienced in the longer period of 1991-2004 in Massachusetts. This reflects a more steady state trend that the state is likely to return to in the longer term.
- Total health care expenditures is calculated based on projected per capita health expenditures multiplied by total population in Massachusetts. Projected population comes from U.S. Census Bureau, Population Division, Interim State Population Projections, 2005, which factors in migration trends.
- Projections for U.S. health care cost trends come directly from the Centers for Medicare and Medicaid Services (CMS).

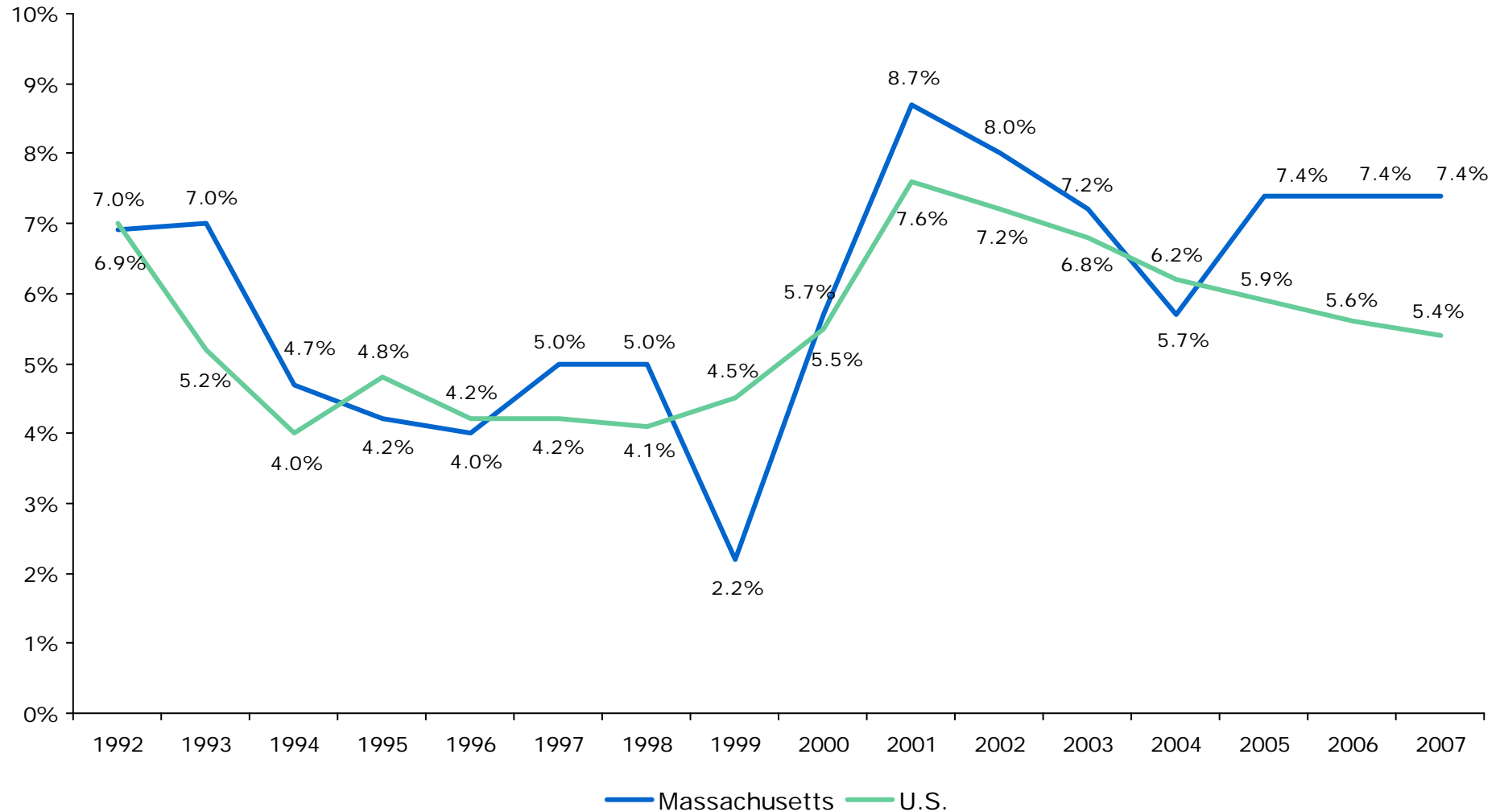


Trends in Health Care Expenditures



Annual Growth Rate of MA Per Capita Health Spending Tracked U.S. but Generally Grew Faster After 2000

Annual Rate of Change in Per Capita Health Expenditures in MA and U.S., 1992-2007



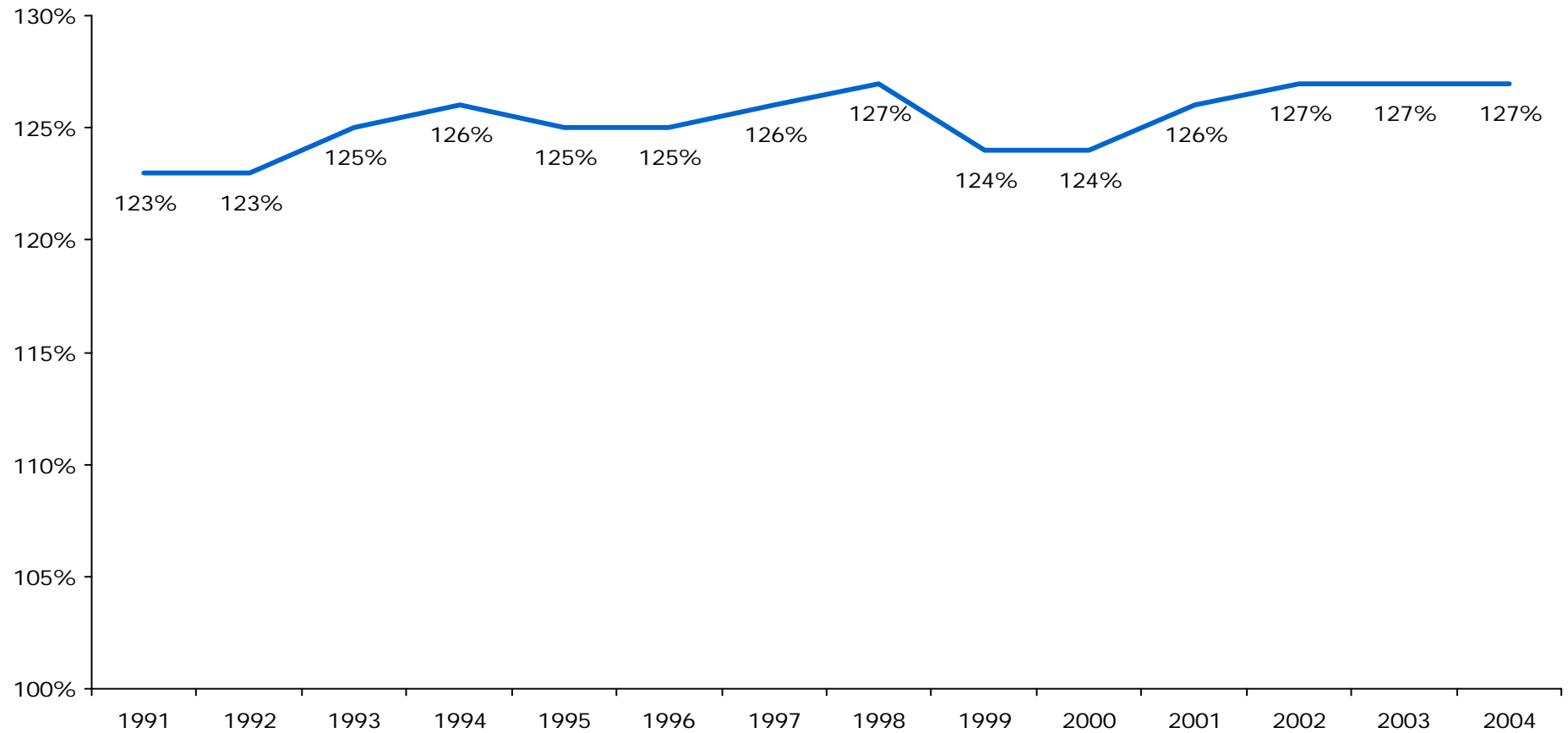
Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction. Data for Massachusetts are only available through 2004. 2005, 2006, and 2007 growth rates for MA are projected.

Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.



Per Capita Health Spending Increased from 23% Higher in MA Than U.S. in 1991 to 27% Higher in 2004

Ratio of Health Expenditures Per Capita in MA and U.S., 1991-2004

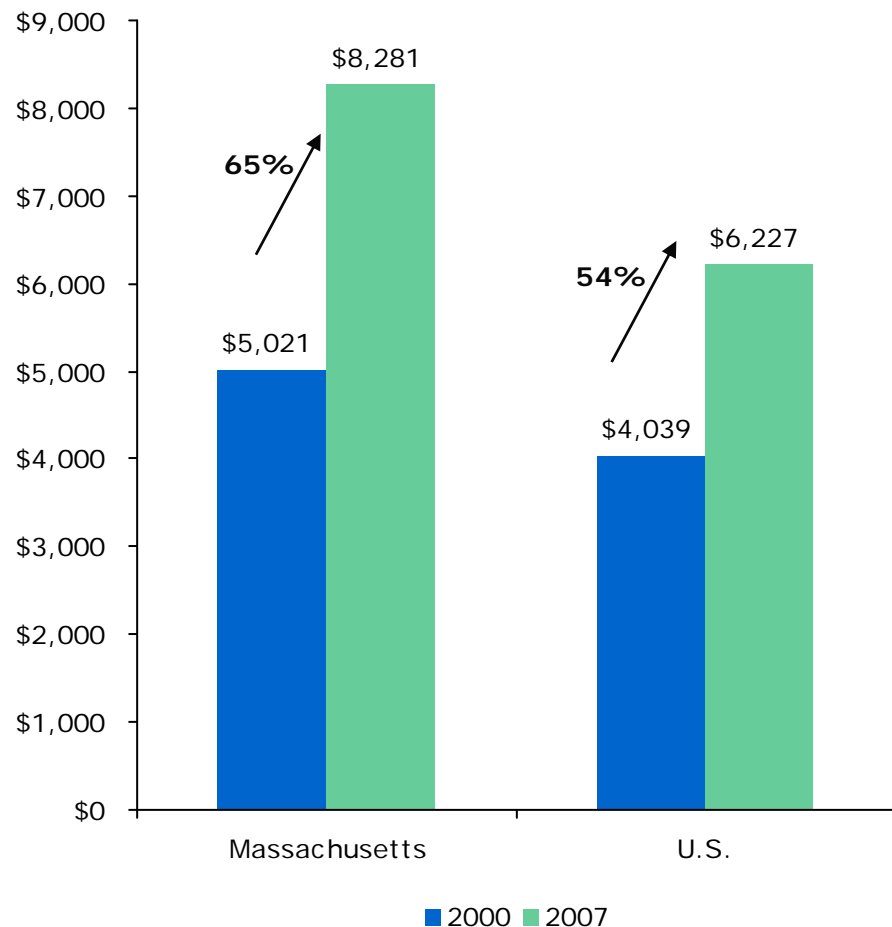


Note: The health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.
Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.

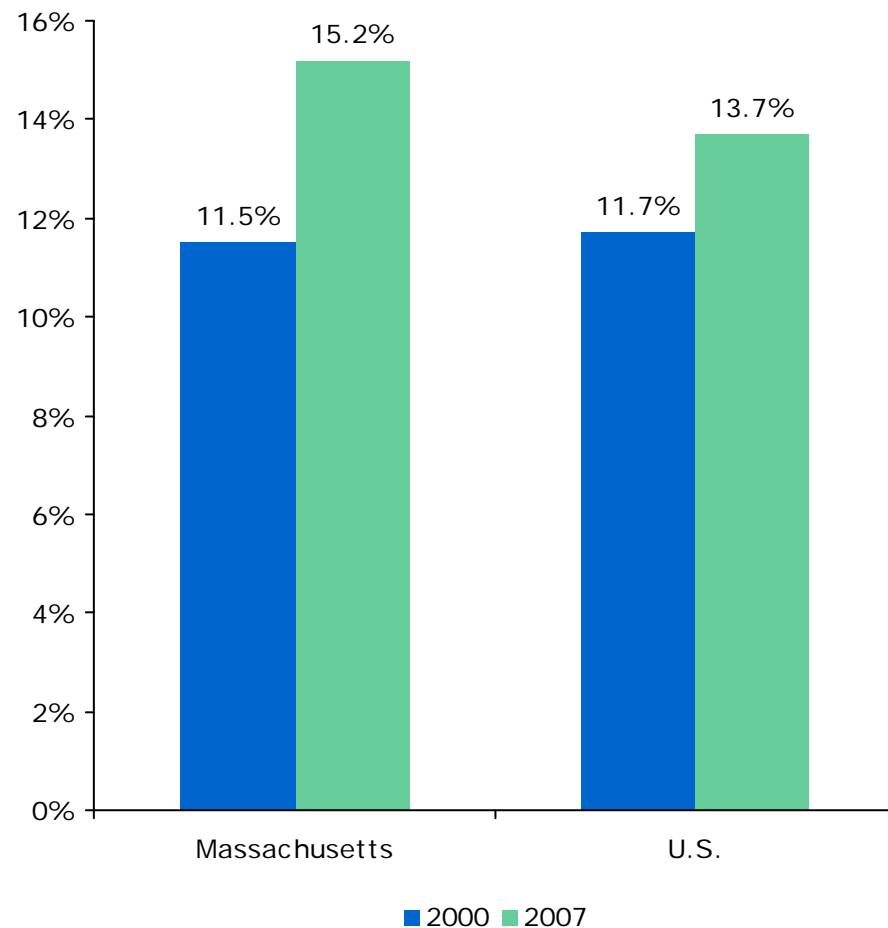
MA Health Care Expenditures Are Higher than U.S. and Represent a Growing Share of the Economy

Health Expenditures in MA and U.S., 2000 and 2007

Health Expenditures Per Capita



Health Expenditures as Percent of GDP

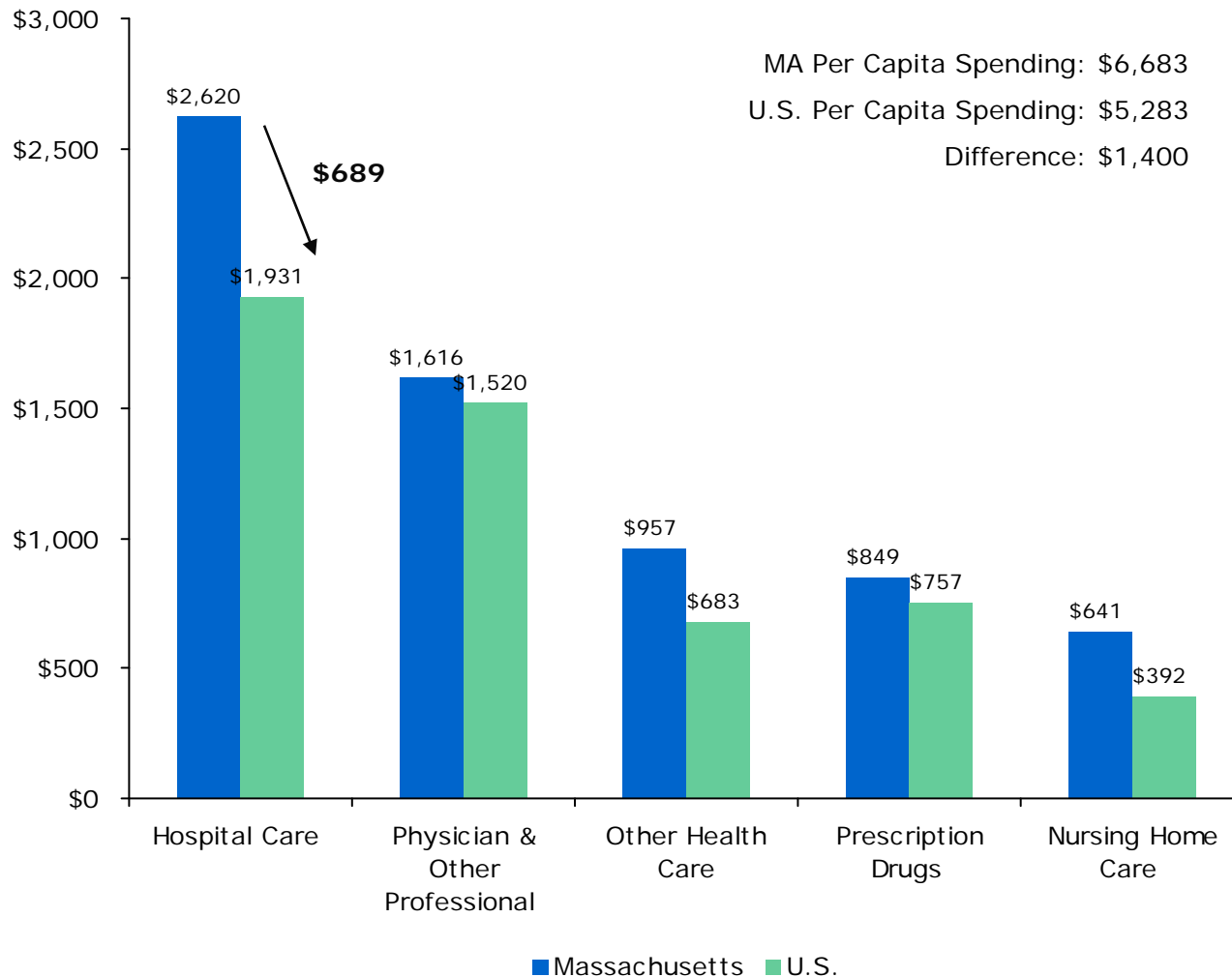


Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction. Data for Massachusetts are projected for 2007.

Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2009.

Hospital-Based Expenditures Account for Half of the Difference Between MA and U.S. Per Capita Spending

Health Expenditures Per Capita by Services in MA and U.S., 2004



Per capita hospital-based expenditures were 36% higher in Massachusetts compared to the U.S.

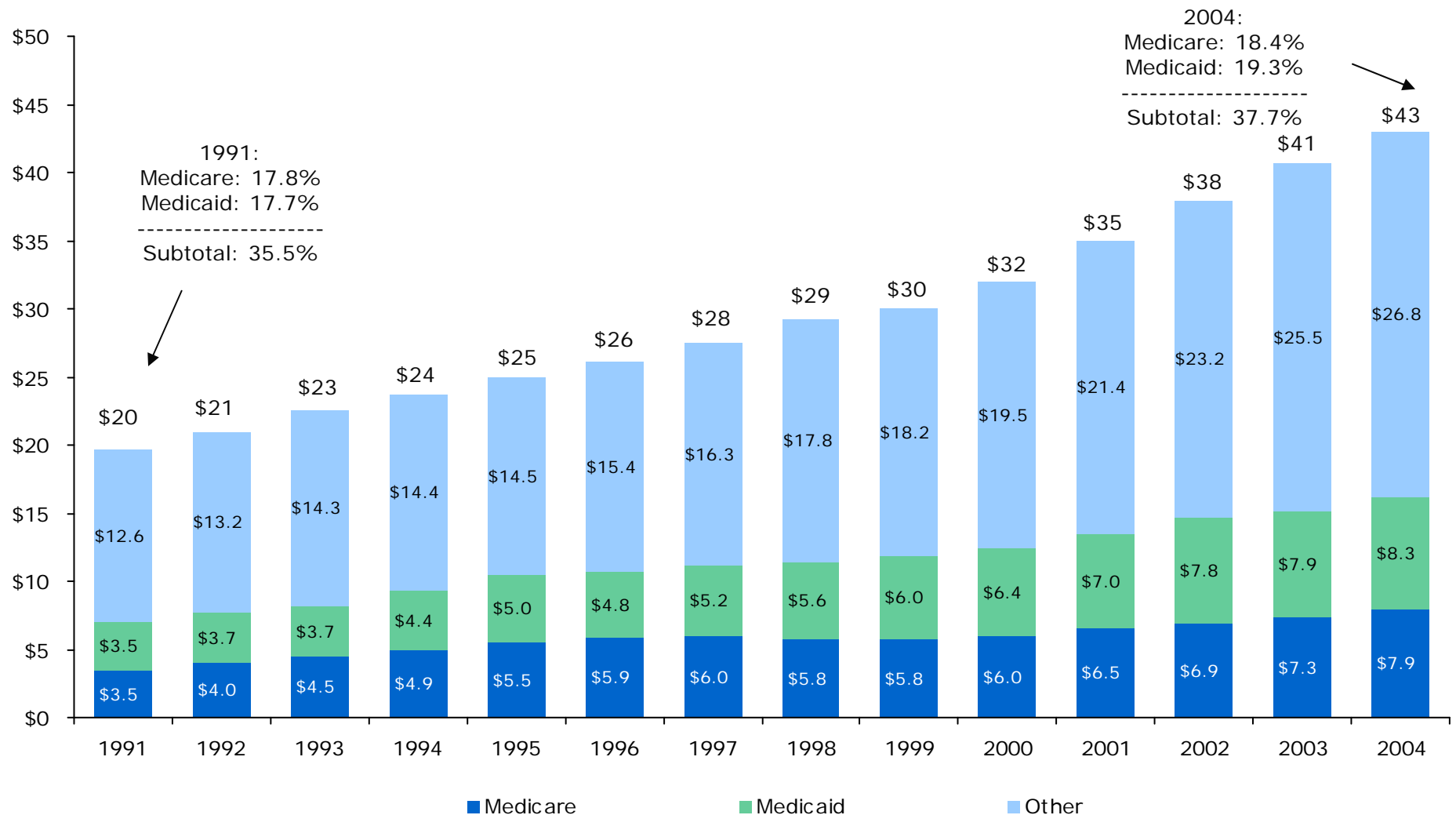
Nursing home spending per capita in MA was 64% higher than in the U.S., the highest percentage difference among these five health expenditure categories.



Note: Health expenditures are based on residence location. Prescription drugs include only outpatient drug expenses Source: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2007.

Medicare and Medicaid Share of Health Care Spending in MA Grew From 36% to 38% from 1991 to 2004

Share of Medicare and Medicaid of Total Personal Health Expenditures in MA (billion \$), 1991-2004



Note: The health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction.
Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.

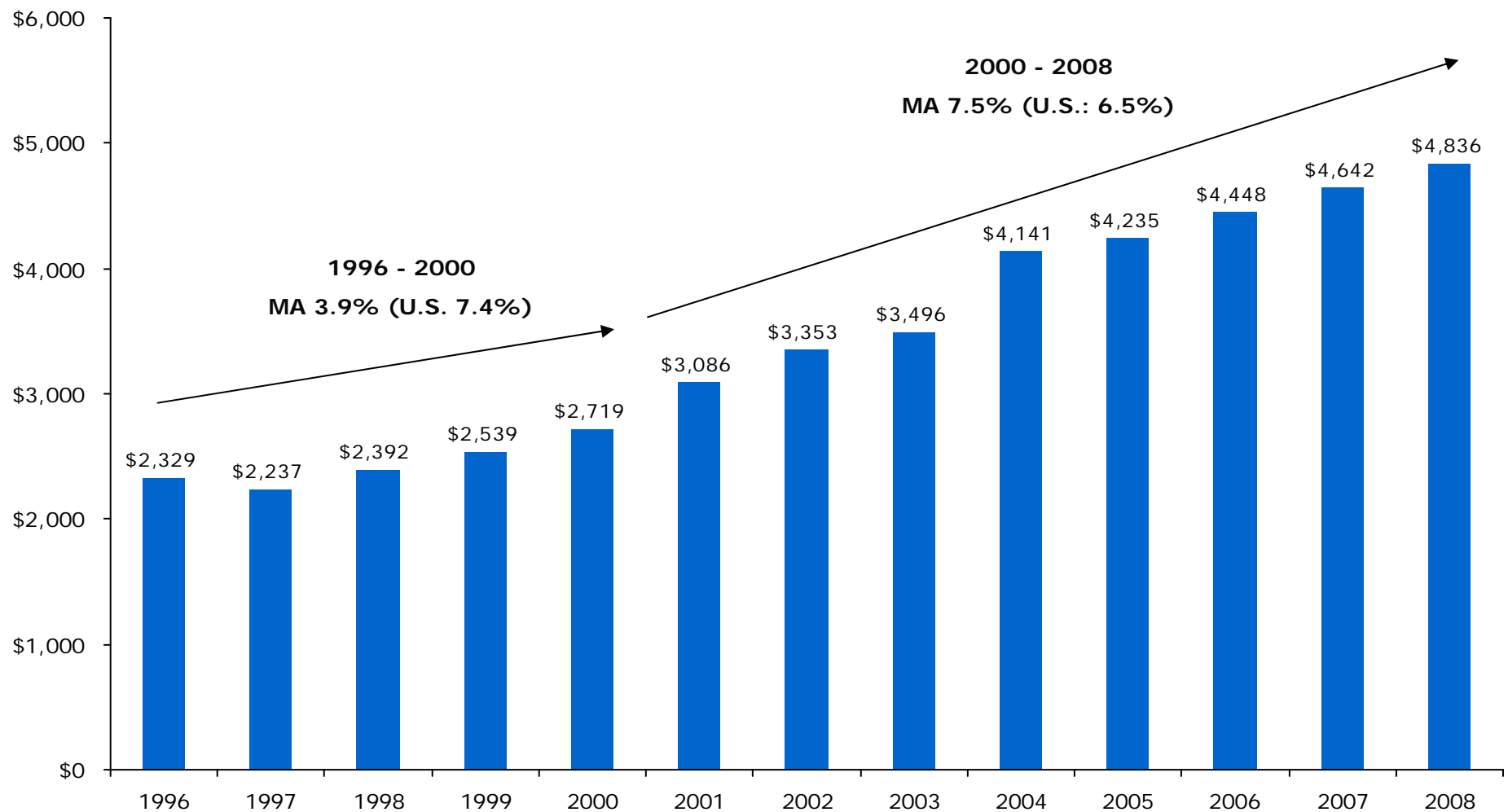


Trends in Health Insurance Premiums



Premiums Rose More Rapidly after 2000 in MA, Similar to the Acceleration of Health Care Expenditures Generally

Single Health Insurance Premiums in MA, 1996-2008



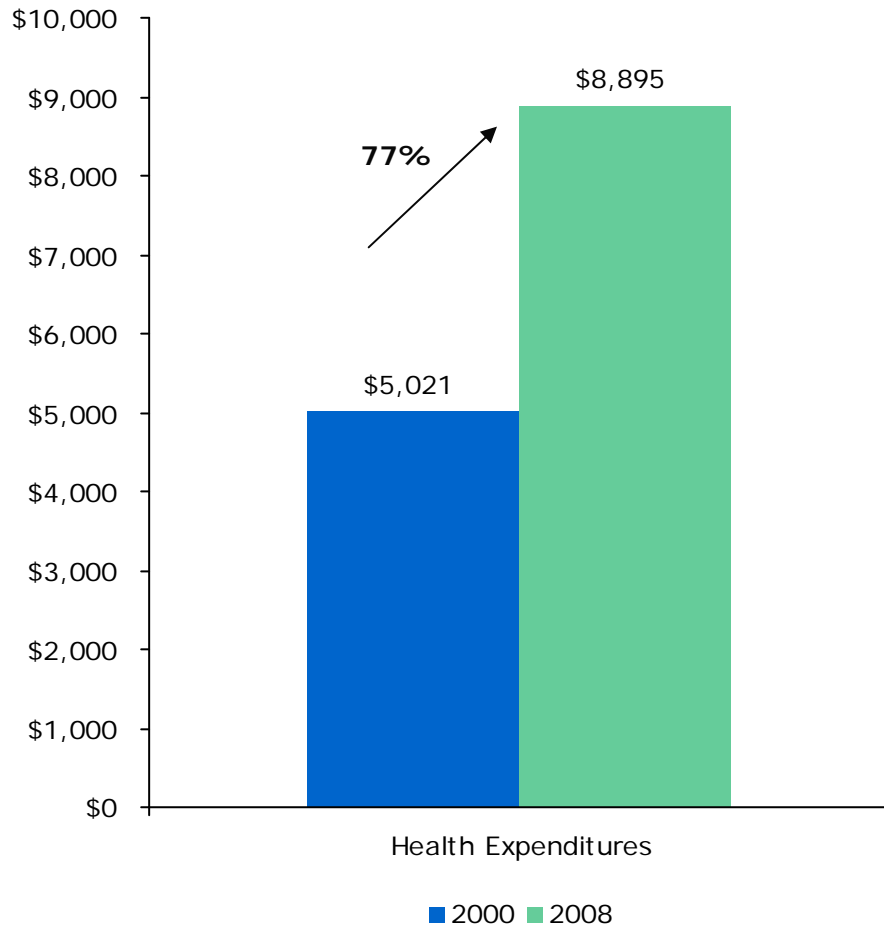
Sources: 1996-2006 and 2008: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-insurance component. 2007 premiums are estimated using the average of 2006 and 2008 premiums.



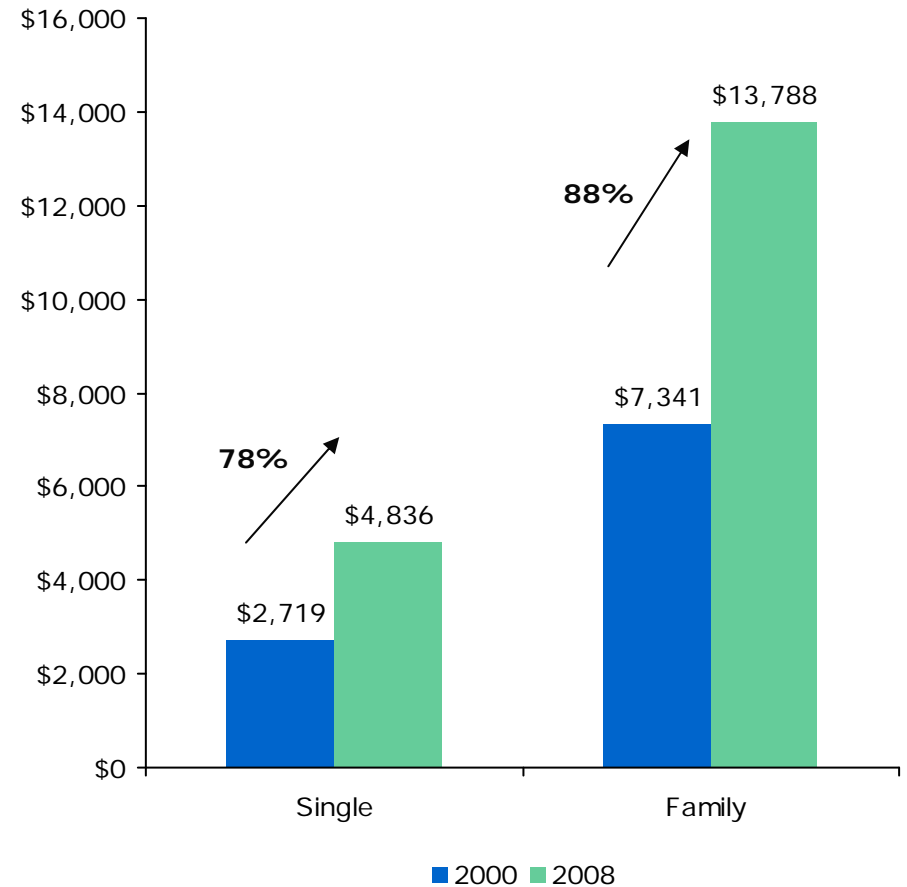
Premiums Grew Faster than Per Capita Health Spending in MA

MA Health Expenditures and Insurance Premiums in MA, 2000 and 2008

Health Expenditures Per Capita



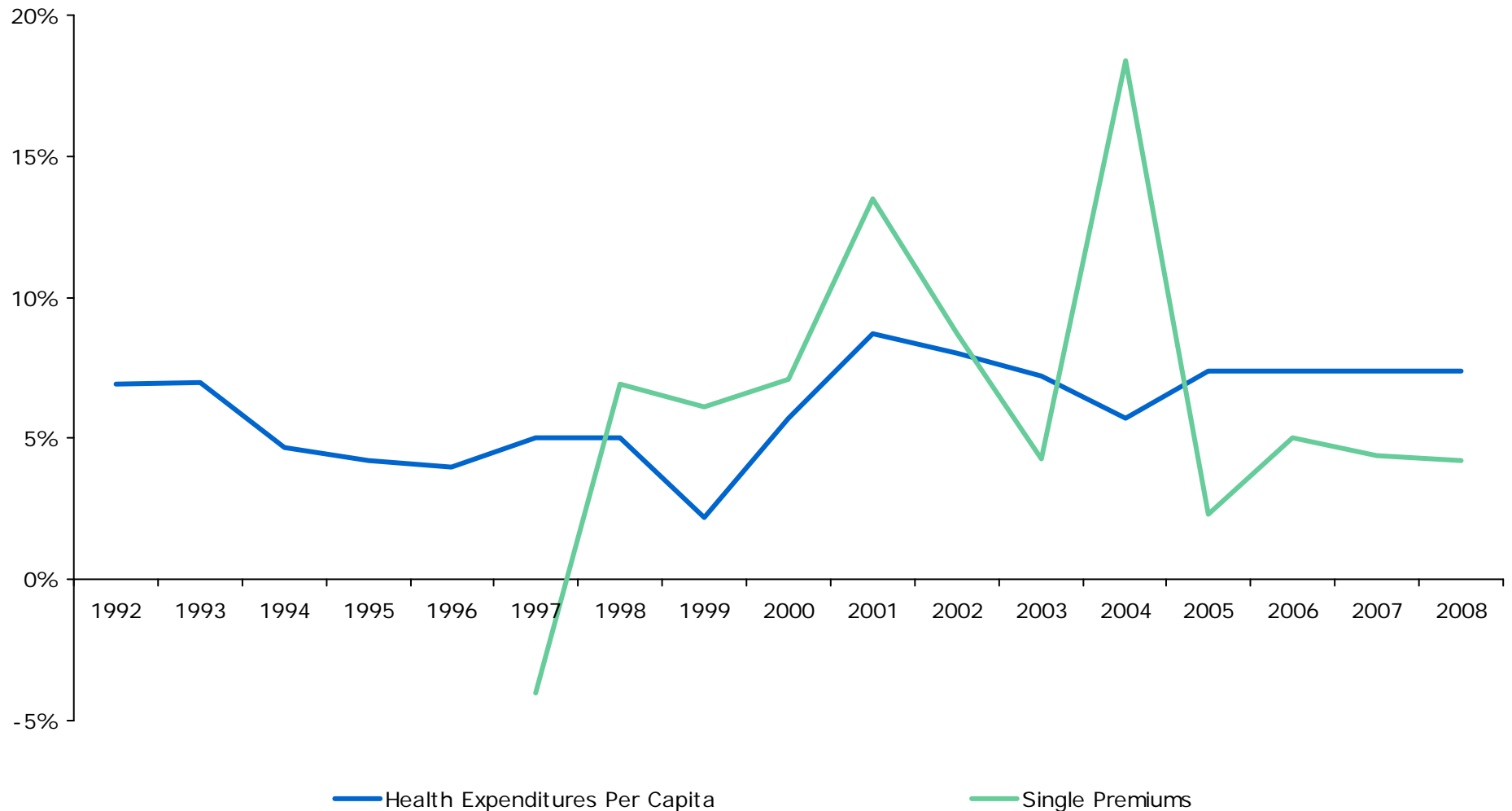
Annual Health Insurance Premium Per Enrolled Employee



Sources: Health expenditure data for 2000 are from Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2007 (by Residence Location). Data for 2007 are estimated by DHC FP. Premium data for 2000 from Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS) Insurance Component. 2007 premiums are estimated using the average of 2006 and 2008 premiums.

Premium Growth in MA Is More Volatile than Growth in Health Care Spending

Annual Rate of Increase in Health Expenditures Per Capita and Single Premiums in MA, 1992-2008



Sources: Per capita health expenditures: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007; 2005-2007 data are projected. Single premiums: 1997-2006 and 2008: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-insurance component. 2007 premiums are estimated using average of 2006 and 2008 premiums.

Growth of Single Premiums in MA Was Higher than National Average in Recent Years

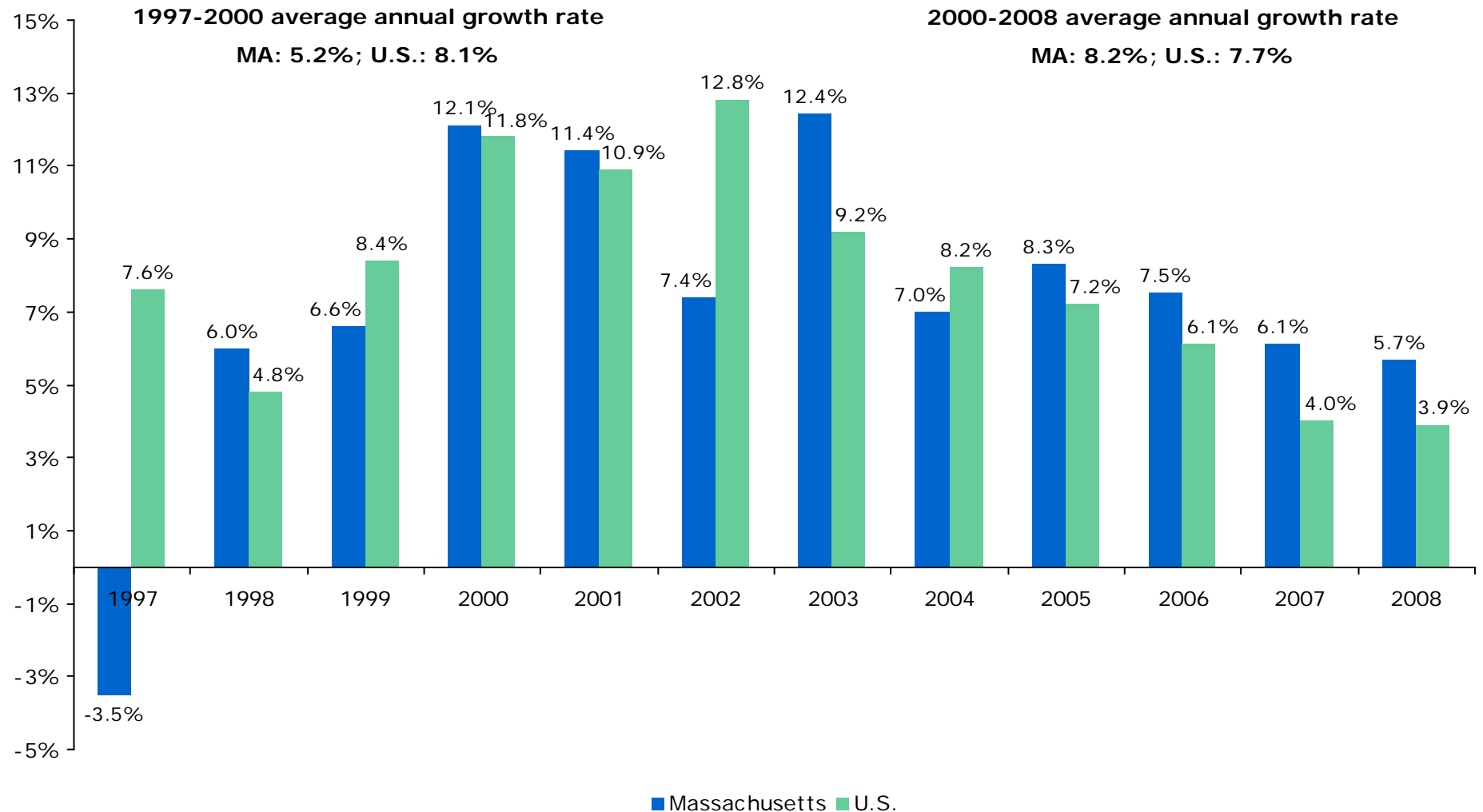
Annual Growth Rate of Single Insurance Premiums in MA and U.S., 1997-2008



Sources: 1996-2006 and 2008: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-insurance component. 2007 premiums are estimated using the average of 2006 and 2008 premiums.

Growth in Family Premiums in MA Was Higher than National Average in Recent Years

Annual Growth Rate of Family Insurance Premiums in MA and U.S., 1997-2008



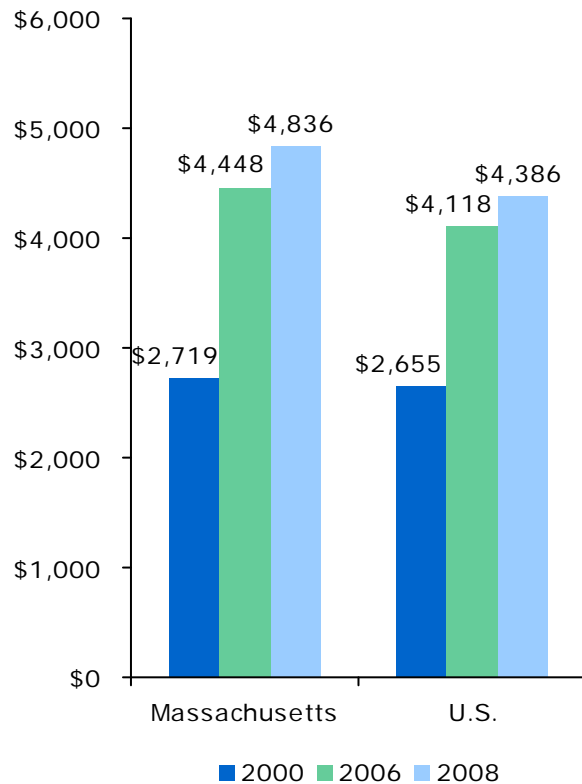
Sources: 1996-2006 and 2008: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-insurance component. 2007 premiums are estimated using the average of 2006 and 2008 premiums.



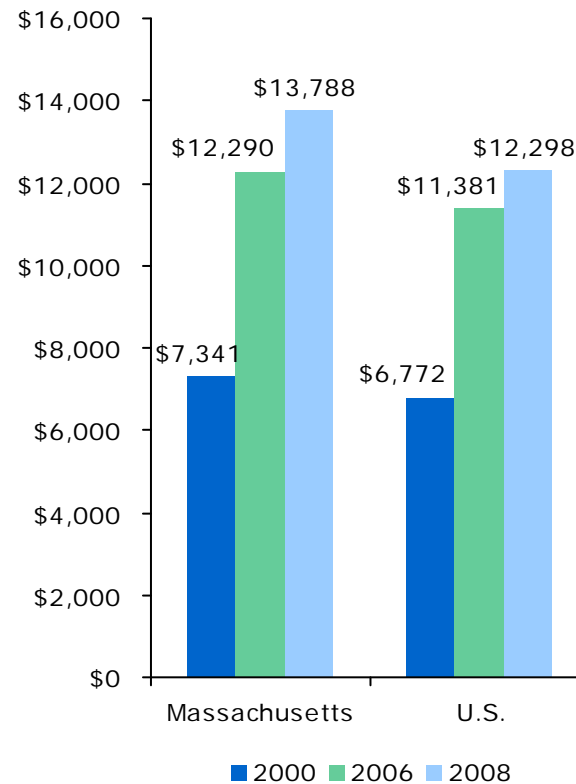
Single and Family Premiums in MA Were 10% to 12% Higher than U.S. in 2008

Health Insurance Premiums in MA and U.S., 2000, 2006, 2008

Single Premiums



Family Premiums



The relative difference in premiums between Massachusetts and the U.S. tended to increase over time. The individual premium in Massachusetts was 2%, 8%, and 10% higher than in the U.S. and the family premium was 8%, 8%, and 12% higher in 2000, 2006, and 2008 respectively.



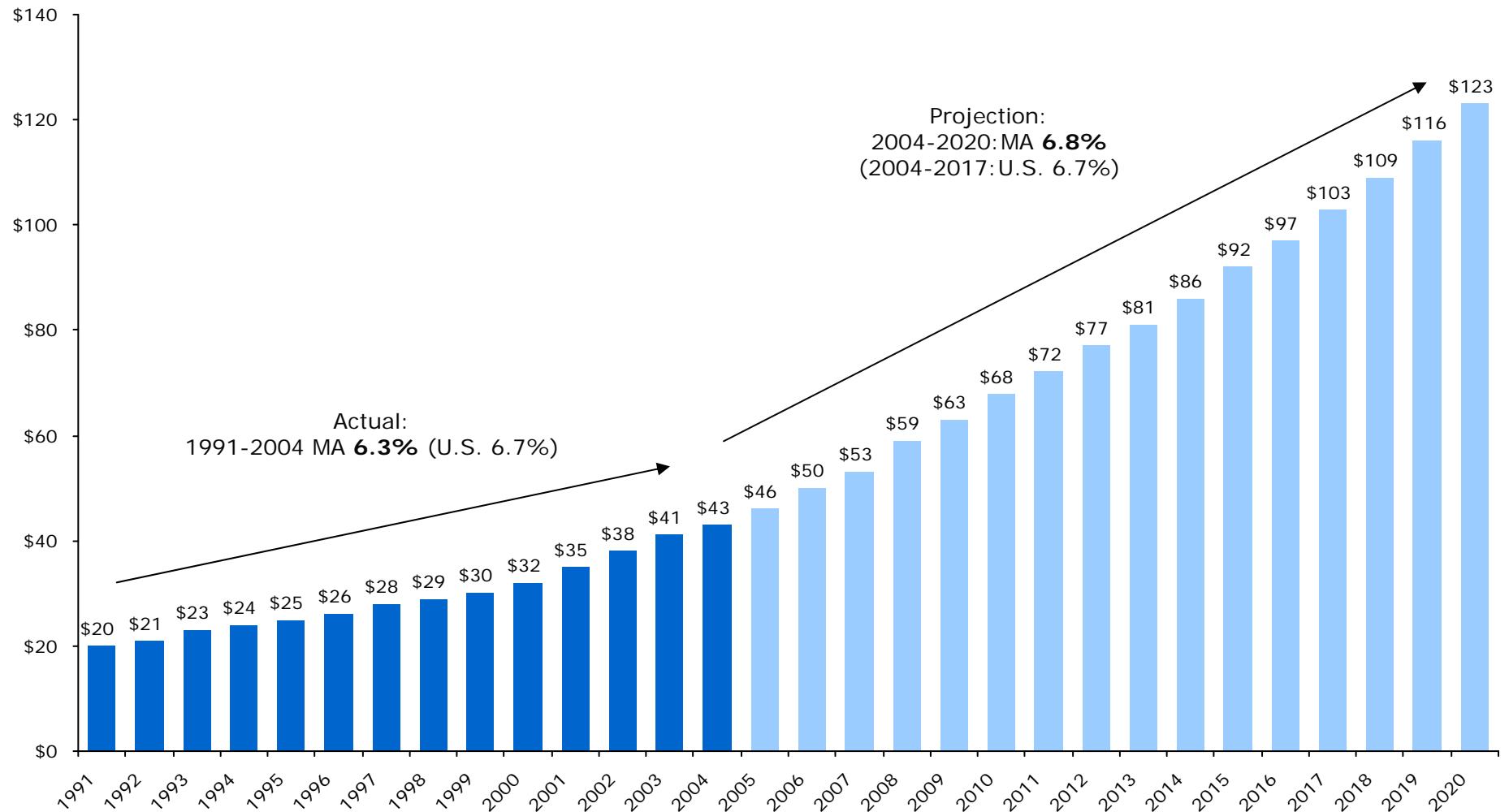
Sources: Agency for Healthcare Research and Quality (AHRQ), Medical Expenditure Panel Survey (MEPS)-insurance component.

Projected Trends in Health Care Spending through 2020



Total Health Spending Is Expected to Double from 2009 to 2020 (Assumes No Cost Containment Intervention)

Massachusetts Total Personal Health Care Expenditures (billion \$), 1991-2020



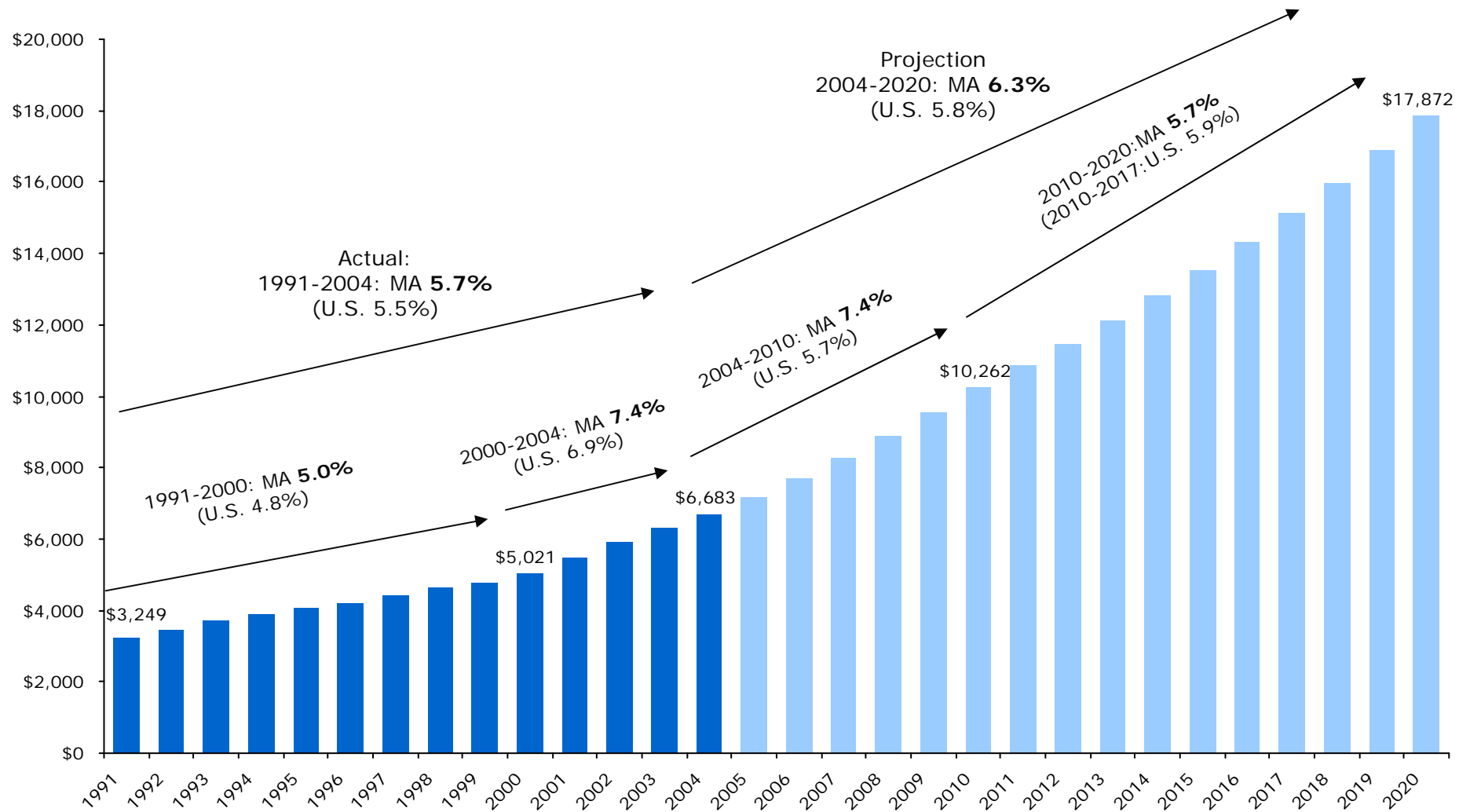
Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction. Projected health expenditures are based on historical growth patterns.

Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.
2005-2020 data are projected based on projected per capita health expenditures.



Per Capita Spending Is Expected to Nearly Double from 2009 to 2020 (Assumes No Cost Containment Intervention)

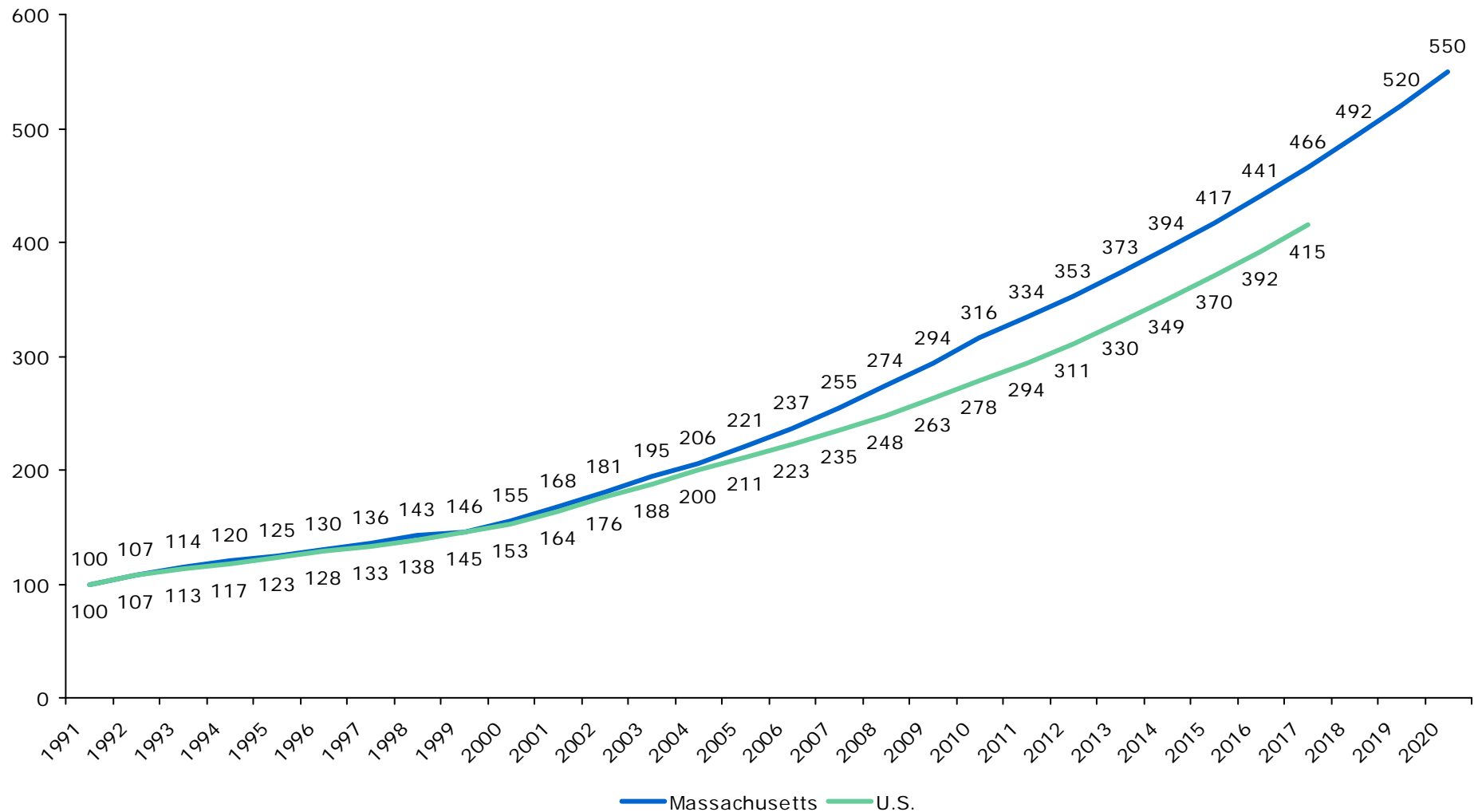
Massachusetts Per Capita Personal Health Care Expenditures, 1991-2020



Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction. Data for 2005 – 2020 are projected and are based on historical growth patterns. Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.

Gap in Per Capita Health Spending between MA and U.S. Projected to Widen

Index of Per Capita Health Expenditures in MA and U.S., 1991-2020



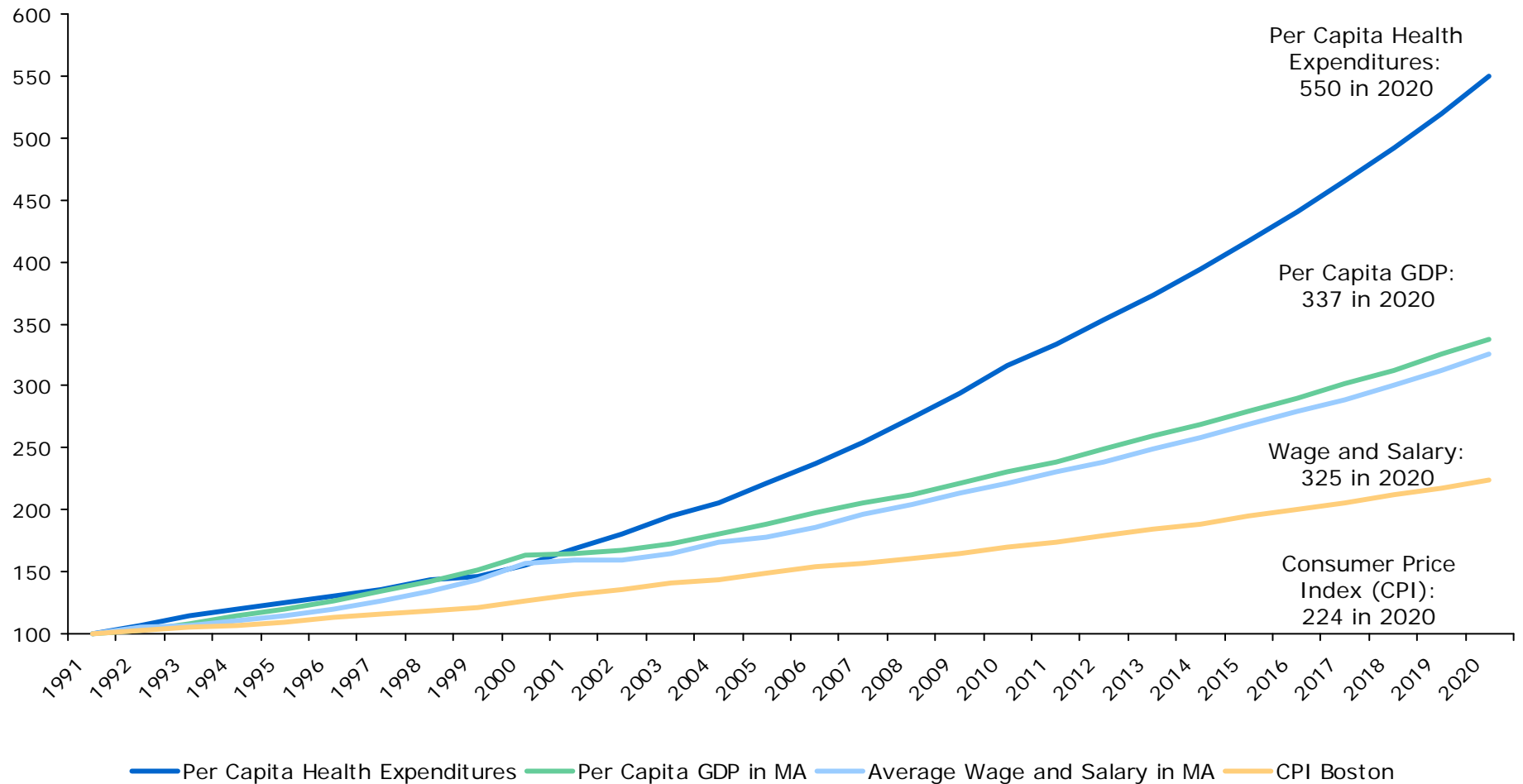
Note: Health expenditures are defined by residence location and as personal health expenditures by CMS, which exclude expenditures on administration, public health, and construction. Data for 2005 – 2020 (Massachusetts) and 2008-2017 (U.S.) are projected. Projected growth is based on historical growth patterns.

Source: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007.



Growth in Health Spending in MA Expected to Surpass Other Economic Indicators

Index of Health Expenditures Per Capita and Other Indicators in MA, 1991-2020



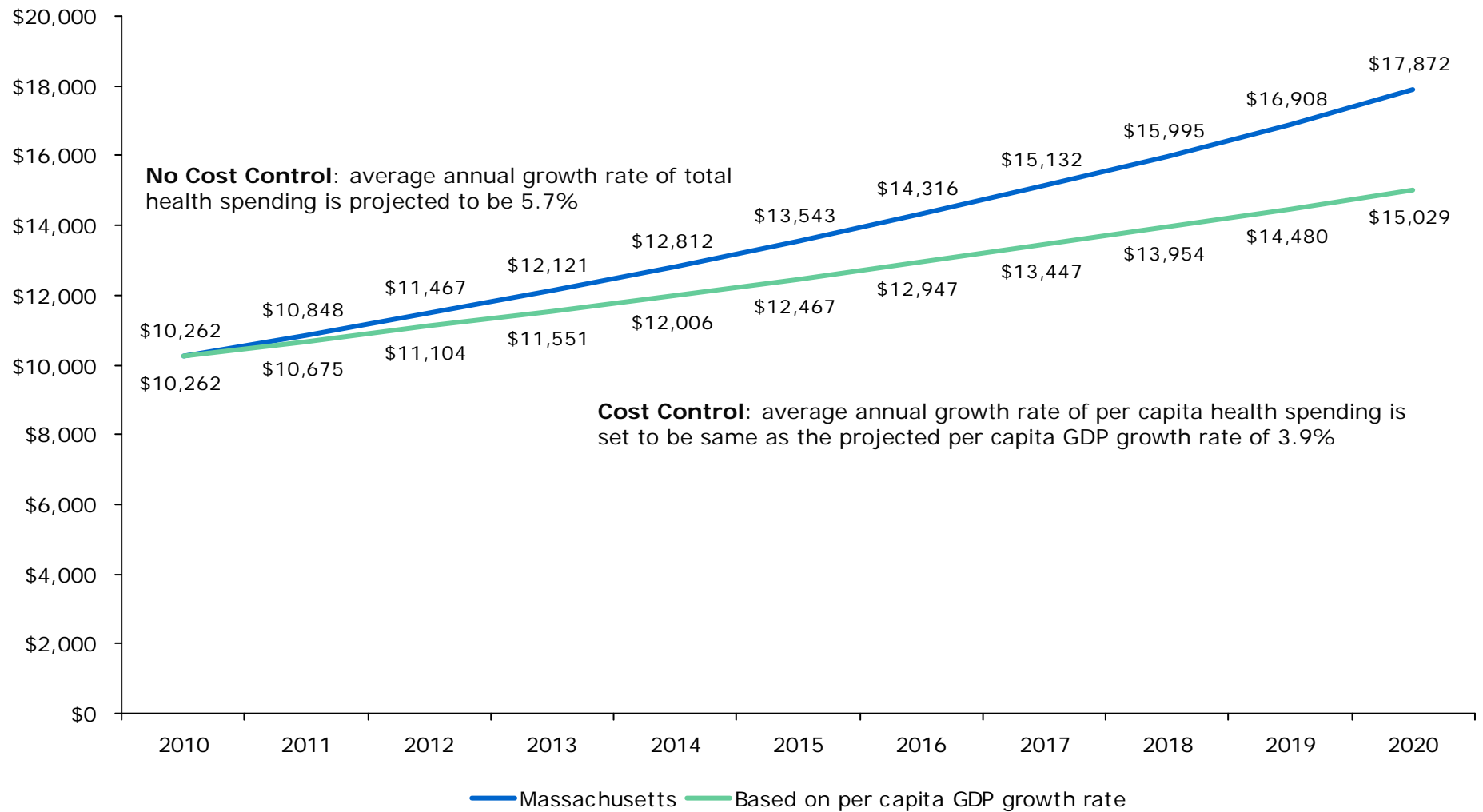
Sources: 1991-2007: Per capita health expenditures: Centers for Medicare & Medicaid Services (CMS), Office of the Actuary, National Health Statistics Group, 2007 (2004-2020 data are projected). Per capita GDP and wage and salary: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce. CPI-Urban for Boston area: Bureau of Labor Statistics, U.S. Department of Labor. 2008-2020 (except for health spending): U.S. Social Security Administration, "The 2008 OASDI Trustees Report," Supplemental Single-Year Tables, intermediate projection, www.ssa.gov/OACT/TR/Tr08/index.html. Per capita GDP index: real GDP annual change + GDP price index annual change - population annual change; wage index: average annual wage in covered employment.



Potential Savings if Growth Rate Reduced to GDP

Estimated Impact if MA Per Capita Health Spending Grows at Same Rate as GDP

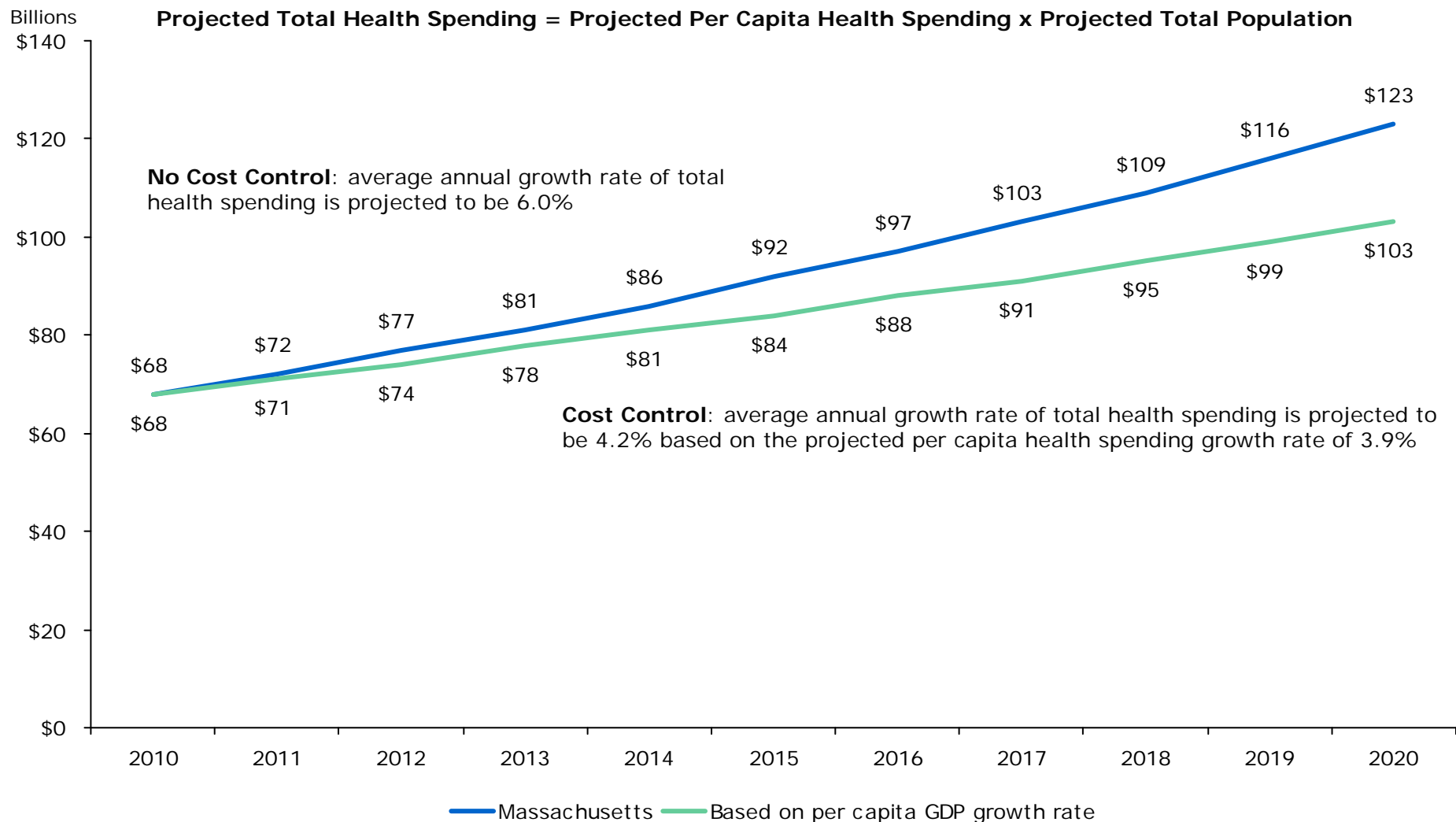
Projected Per Capita Health Expenditures in MA, 2010-2020



Sources: Per capita GDP growth rate is based on national projection data. U.S. Social Security Administration, "The 2008 OASDI Trustees Report," Supplemental Single-Year Tables, intermediate projection, www.ssa.gov/OACT/TR/Tr08/index.html. Per capita GDP index: real GDP annual change + GDP price index annual change – population annual change.

Estimated Impact on Total Health Spending if MA Per Capita Spending Grows at Same Rate as GDP

Projected Total Personal Health Expenditures in MA (billion \$) , 2010-2020

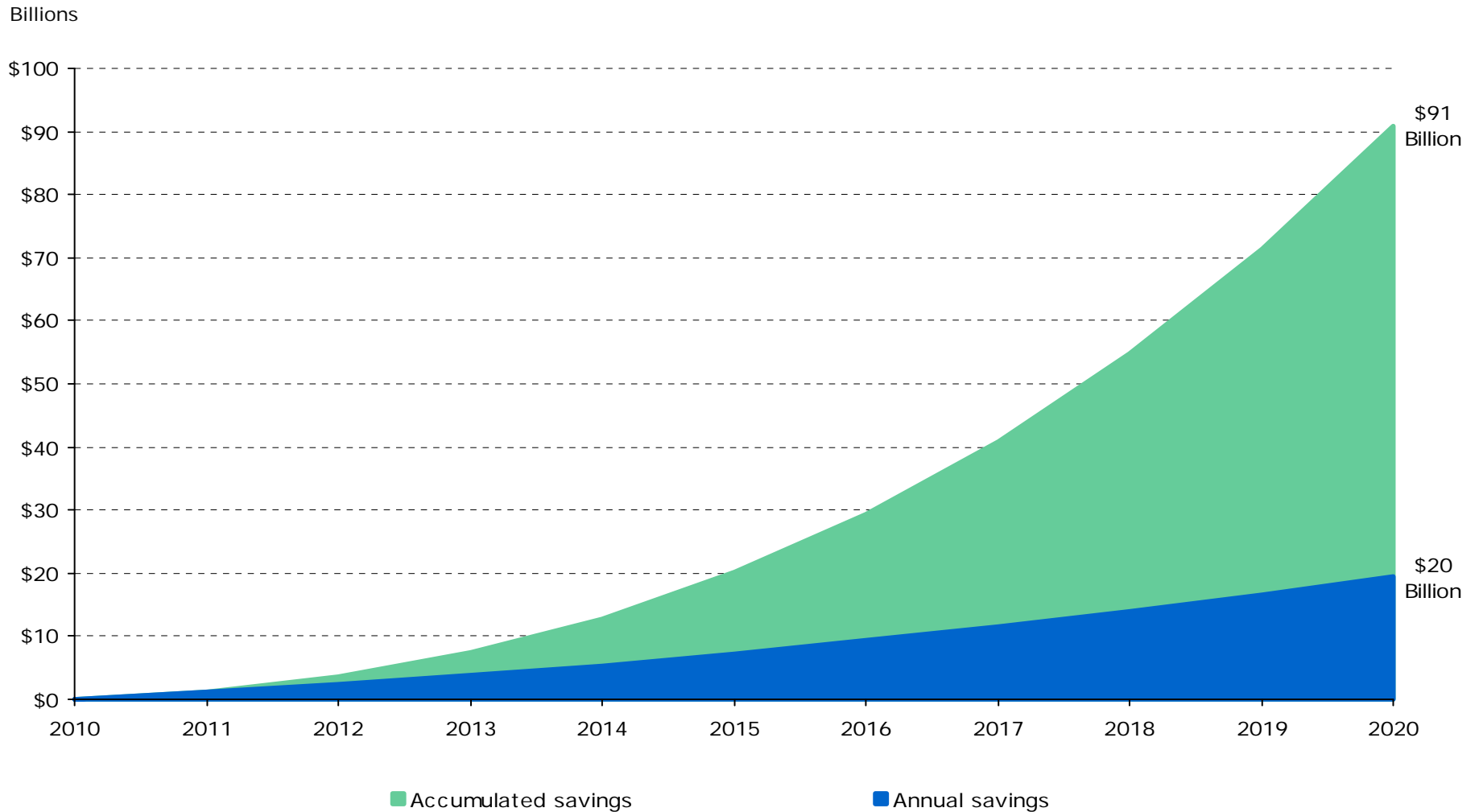


Sources: per capita GDP growth rate is based on national projection data. U.S. Social Security Administration, "The 2008 OASDI Trustees Report," Supplemental Single-Year Tables, Intermediate projection, www.ssa.gov/OACT/TR/Tr08/index.html. Per capita GDP index: real GDP annual change + GDP price index annual change – population annual change. U.S. Census Bureau, Population Division, Interim State Population Projections, 2005.



Estimated Savings in Total Health Spending in MA

If Growth of Per Capita Health Expenditures Were Held to the Same Rate as Growth in projected Per Capita GDP, 2010-2020



Sources: per capita GDP growth rate is based on national projection data. U.S. Social Security Administration, "The 2008 OASDI Trustees Report," Supplemental Single-Year Tables, intermediate projection, www.ssa.gov/OACT/TR/Tr08/index.html. Per capita GDP index: real GDP annual change + GDP price index annual change - population annual change.

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