

**COLLEGE OF MANAGEMENT – UMASS BOSTON
FINANCIAL SERVICES FORUM**

**THE STATE OF NEW ENGLAND:
ECONOMIC SLOWDOWN AND RECOVERY
AFTER THE DOTCOM BUST**



THE STATE OF NEW ENGLAND

Foreword by Arindam Bandopadhyaya

Signs of troubled economic times abound. The Commerce Department recently reported a dip in retail sales by 0.2 percent in April 2008, the second drop in the past three months. In addition, business inventories increased by only 0.1 percent in March, representing the smallest advance in a year and another sign of the weakening economy. Even though the economy has not yet posted a negative growth in GDP, with unemployment rate on the rise many analysts believe the economy has slipped into a recession.

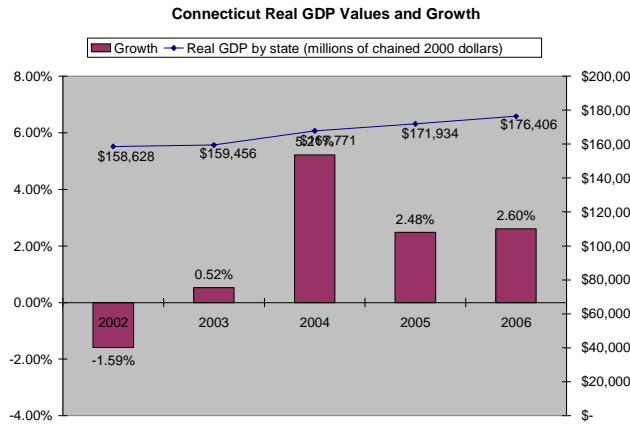
Among all this, there may be some reason for Massachusetts to cheer. A recent article in the *Boston Globe*, citing the results of a UMASS study, pointed out that first quarter GDP growth in the state has been four times that of the national pace, and that Massachusetts has added 4,600 jobs during this period at a time when the US economy lost 200,000 payroll jobs. However, a confluence of falling home values, rising food energy costs may result in a slowing of consumer spending and the rate of economic expansion and employment growth is likely take a downward turn.

Even as we look in to the months ahead, the *Financial Services Forum* decided to see how the economy of Massachusetts, and those of the other New England states, fared in the past few years. We paid particular attention to how each economy recovered from the national and regional downturn after the dotcom bust in the early 2000s. We find that Massachusetts' aggregate personal income growth increased to its highest level in the last four years and that the per capita personal income was substantially more than the United States as a whole. However, some disturbing trends emerge from an analysis of the data. For example, economic recovery, measured by GDP growth, in Massachusetts was not as robust compared to the national recovery. While the unemployment rate in Massachusetts remained below the national rate even as they both inched up from record lows in the early 2000s, joblessness became more acute regionally compared to the nation beginning in early 2006. As signs of economic slowdown begin to appear at a rapid pace it may be prudent to take notice of these past trends lest they repeat in the future.

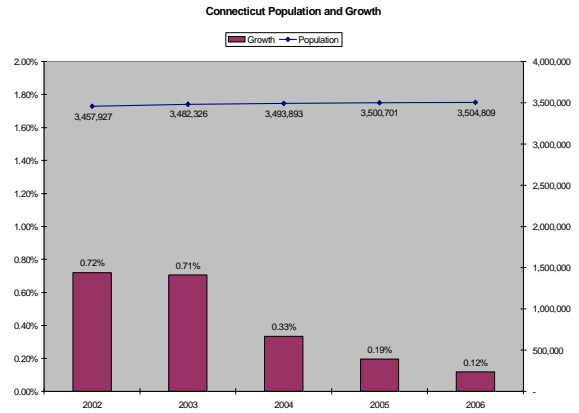
What follows is an analysis of the key macroeconomic trends in the six New England states. Using data publicly available in 2007, we examine trends in GDP growth, population, personal income and unemployment rate in each state. We provide a breakdown of each state by GDP category and provide an overall weighting by super sectors.

This report is based on work that was done by Walter Stock. Walter is a graduate of UMass-Boston MS-A program and currently works for State Street Global Advisors. The executive summary was prepared with the help of Wei Tang, who is a MS-A candidate at UMass-Boston and a Financial Services Forum Research Assistant. Full reports are available upon request.

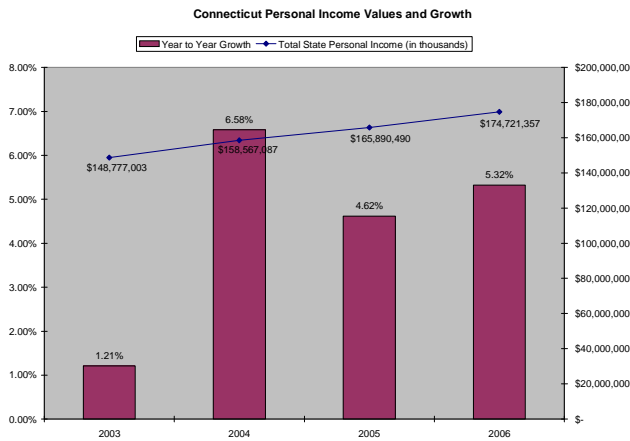
EXECUTIVE SUMMARY: CONNECTICUT AT A GLANCE



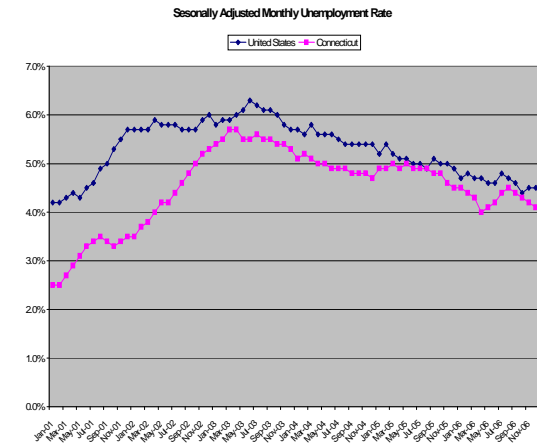
Graph 1: GDP Growth



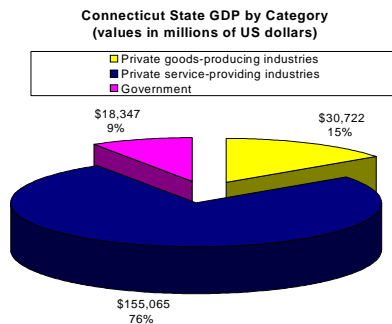
Graph 2: Population



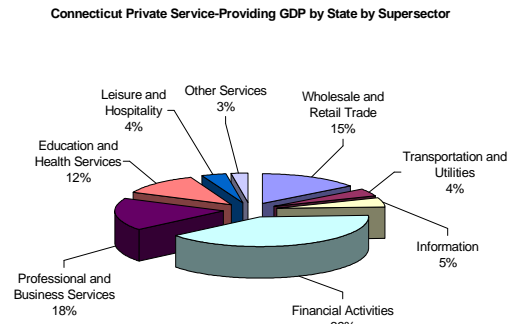
Graph 3: Aggregate Personal Income



Graph 4: Unemployment Rate



Graph 5: GDP by category



Graph 6: Overall Weighting by Super Sector

Aggregate Analysis

Gross Domestic Product (GDP)

- Connecticut's GDP growth increased to 2.6% in 2006
- Connecticut's improved GDP growth in 2006 was but not as great as the US GDP growth
- The gap between Connecticut's GDP growth and that of the US as a whole continued to widen in 2006

Population

- Connecticut's population growth stayed positive in 2006 but continued to slow down

Personal Income

- Connecticut's aggregate personal income growth pushed upward in 2006
- Connecticut's per capita personal income in 2006 surpassed 2005 levels
- The majority of personal income came from net wage earnings, followed by dividends, interest, rent and then by personal current transfer receipts

Employment

- Connecticut's non-farm employee growth continued to increase for the third consecutive year in 2006

Unemployment

- Connecticut's unemployment rate remained below the United States as a whole
- Gap between the two closed somewhat over the last couple of years

Goods-producing / Service-providing / Government

GDP

- Majority of GDP was from private service-providing industries
- Connecticut experienced positive growth in all three major categories
- Connecticut's GDP was more concentrated in the service-providing industries than that of the United States as a whole

Earnings

- Majority of earning was from the private service-providing industries
- Connecticut saw the most growth in earnings in the government sector

Employment

- Majority of Connecticut's employees were employed in the private service-providing industry

- Employees in the private goods-producing industry continued to decline and employees in the private service-providing industry and government continued to increase

Private service-providing super sectors

GDP

- The overall weighting by super sector saw the largest weighting Financial Activities followed by Professional and Business Services

Earnings

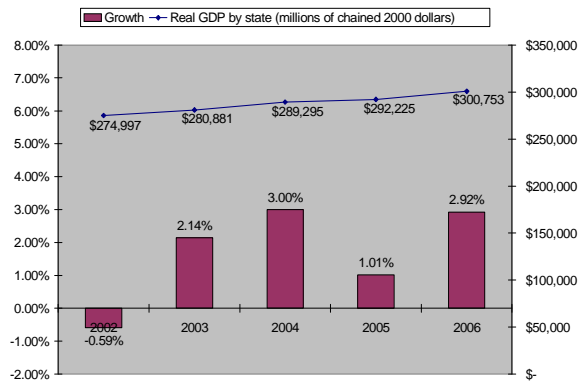
- Similar to the United States, Connecticut's earnings were weighted towards Wholesale and Retail Trade

Employment

- The largest number of Connecticut employees was found in Education and Health Services
- Education and Health Services experienced the most rapid growth in 2006
- The United States employed the largest amount of people in Wholesale and Retail Trade
- The United States continued to see the fastest employee growth in the Professional and Business Services

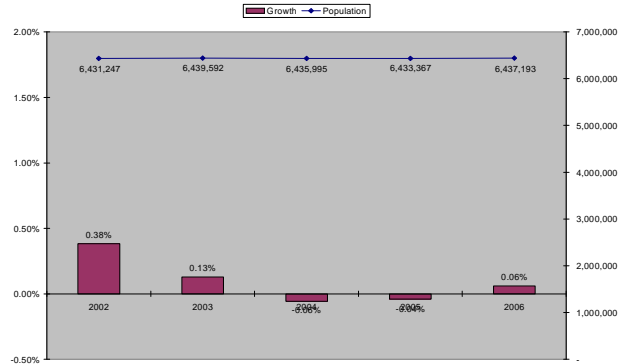
EXECUTIVE SUMMARY: MASSACHUSETTS AT A GLANCE

Massachusetts' Real GDP Values and Growth



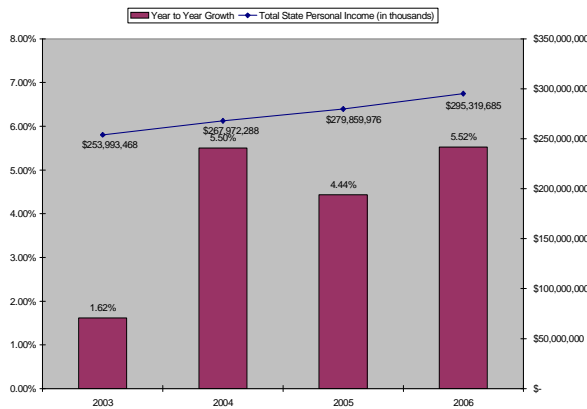
Graph 1: GDP Growth

Massachusetts Population and Growth



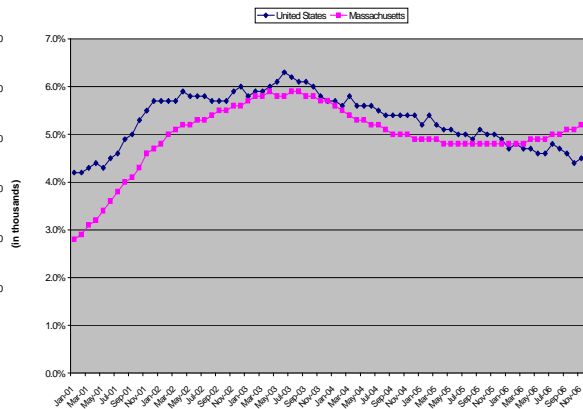
Graph 2: Population

Massachusetts' Personal Income Values and Growth



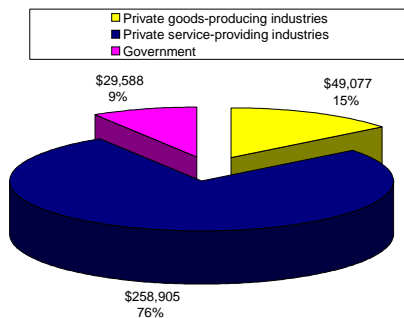
Graph 3: Aggregate Personal Incomes

Seasonally Adjusted Monthly Unemployment Rate



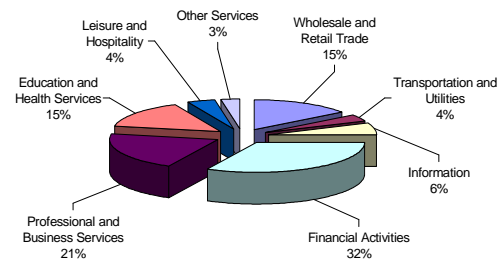
Graph 4: Unemployment Rate

Massachusetts' State GDP by Category (values in millions of US dollars)



Graph 5: GDP by category

Massachusetts Private Service-Providing GDP by State by Supersector



Graph 6: Overall Weighting by Super Sector

Aggregate analysis

Gross Domestic Product (GDP)

- Massachusetts' GDP growth was less than 3 percent in 2006
- Massachusetts' growth still lagged the United States' GDP growth

Population

- Massachusetts population growth was once again positive in 2006
- Compared to the United States, Massachusetts continues to lag significantly in population growth

Personal Income

- Massachusetts' aggregate personal income growth increased to its highest level in the last four years
- Per capita personal income was substantially more than the United States as a whole
- Similar to the United States, the majority of personal income came from net earnings followed by dividends interest and rent then by personal current transfer receipts

Employment

- Massachusetts' non-farm employee growth rate continued to increase
- Massachusetts' growth mirrored the United States' 5 year trend of increasing growth

Unemployment

- Massachusetts' unemployment rate started an upward trend at the end of 2006
- The United States unemployment rate trend continued to decline

Goods-producing / Service-providing / Government

GDP

- In comparison to 2005, the category weightings for GDP remained the same while each increased in size
- Private service-providing industries experienced the fastest growth and Government was the slowest
- Massachusetts weighting towards private service-providing industries was significantly higher than that of the United States

Earnings

- Massachusetts' private service-providing industry continued to see the highest weighting and was significantly higher than the United States' weighting in this area
- The heavily weighted private service-providing industries saw the most growth in 2006

Employment

- Majority of Massachusetts' employees were employed in the private service-providing industry
- Employees in the private goods-producing industry continued to decline and employees in the private service-providing industry and government continued to increase

Private service-providing super sectors

GDP

- Financial Activities was the largest weighting followed by Professional and Business Services

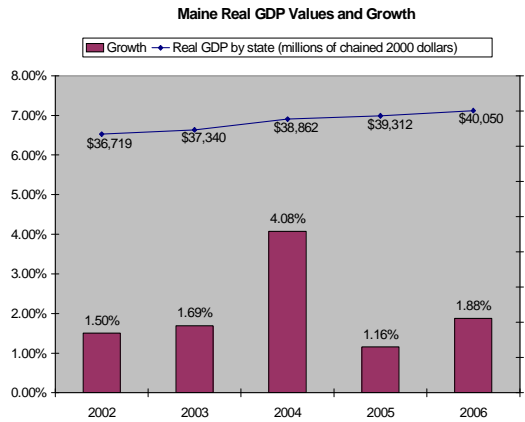
Earnings

- Massachusetts' earnings were weighted to Professional and Business Services
- Professional and Business Services continued to lead earnings growth
- the United States' earnings were concentrated in Wholesale and Retail Trade

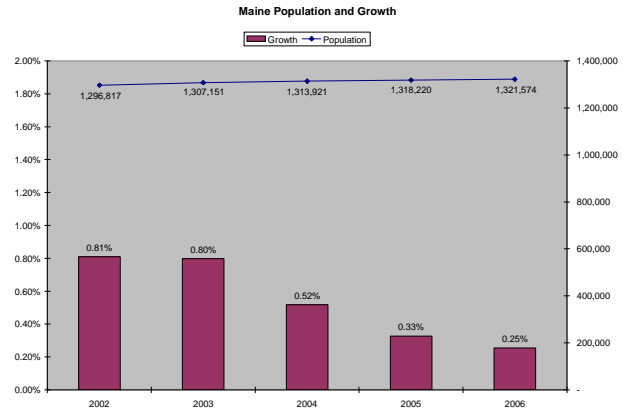
Employment

- The largest number of Massachusetts employees was in the Education and Health Services.
- Education and Health Services had the largest increase in employee
- The United States employed the largest amount of people in Wholesale and Retail Trade
- The United States continued to see the fastest employee growth in the Professional and Business Services

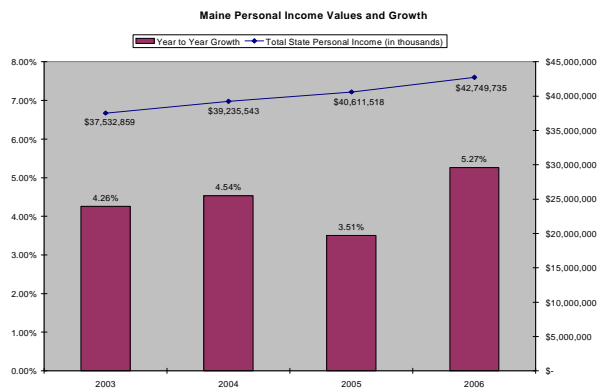
EXECUTIVE SUMMARY: MAINE AT A GLANCE



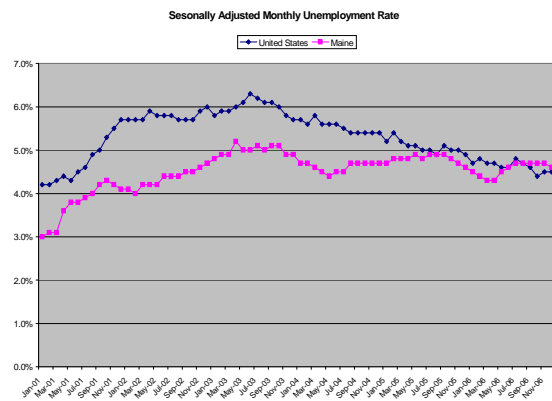
Graph 1: GDP Growth



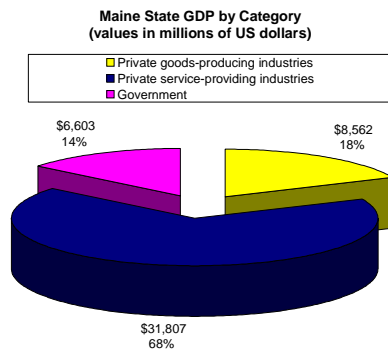
Graph 2: Population



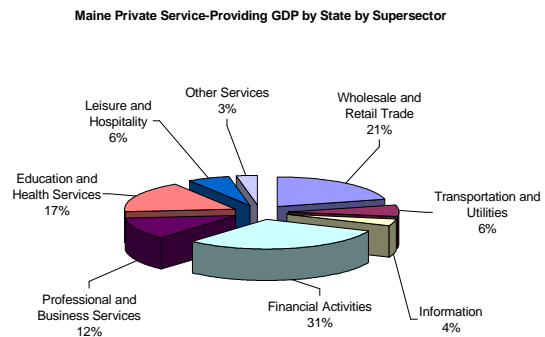
Graph 3: Aggregate Personal Income



Graph 4: Unemployment Rate



Graph 5: GDP by Category



Graph 6: Overall Weighting by Super Sector

Aggregate Analysis

Gross Domestic Product (GDP)

- Maine's GDP growth increased to 1.9% in 2006
- Maine's growth still lagged the United States GDP growth as a whole

Population

- Maine's population growth rate declined slightly in 2006
- Compared to the United States as a whole, Maine continues to lag significantly in population growth

Personal Income

- Maine's aggregate personal income growth increased to its highest level in the last four years but less than the United States as a whole
- Maine's per capita personal income growth jumped upward in 2006 to reach the highest level but was less than the United States as a whole
- The majority of personal income came from net earnings, followed by personal current transfer receipts, and then by dividends, interest, and rent

Employment

- Maine's non-farm employee growth became positive in 2006 but was still significantly less than that of the United States as a whole

Unemployment

- Maine's level of unemployment continued to decline but it surpassed that of the United States as a whole in 2006

Goods-producing / Service-providing / Government

GDP

- Maine experienced GDP growth in all three categories in 2006
- Maine experienced the fastest growth in private service-providing industries, followed closely by private goods-producing industries and then by government
- Maine's concentration of GDP from government was higher than that of the United States as a whole and concentration of GDP from the service-providing category was lower

Earnings

- Maine tied Vermont for the smallest percentage of earnings coming from the private service-providing industry of all of the New England states
- Maine had the highest percentage of earnings from the government category in comparison with the New England states

- Maine continued to see the most growth in earnings within the private goods-producing industry in 2006

Employment

- Majority of Maine's employees were employed in the private service-providing industry
- Maine tied Vermont to employ the highest percentage of employees within the government category when compared with the other New England states
- Employees in the private goods-producing industry continued to decline and employees in the private service-providing industry and government continued to increase

Private service-providing super sectors

GDP

- Similar to in the United States in Maine, Financial Activities was the largest weighting followed by Professional and Business Services

Earnings

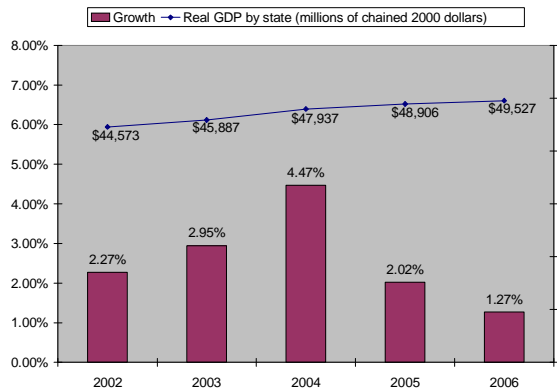
- Maine's earnings was weighted to Wholesale and Retail Trade and Education and Health Services
- Professional and Business Services continued to lead earnings growth
- Maine's earnings were concentrated in Wholesale and Retail Trade

Employment

- The largest number of Maine employees was in the Education and Health Services.
- Professional and Business Services had the largest increase in employee

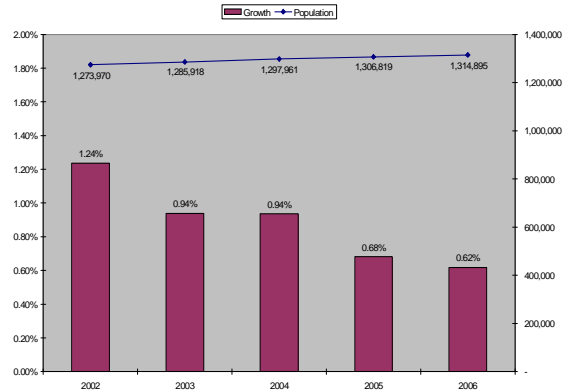
EXECUTIVE SUMMARY: NEW HAMPSHIRE AT A GLANCE

New Hampshire Real GDP Values and Growth



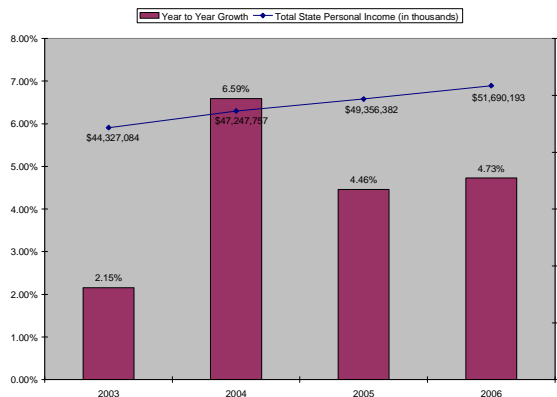
Graph 1: GDP growth

New Hampshire Population and Growth



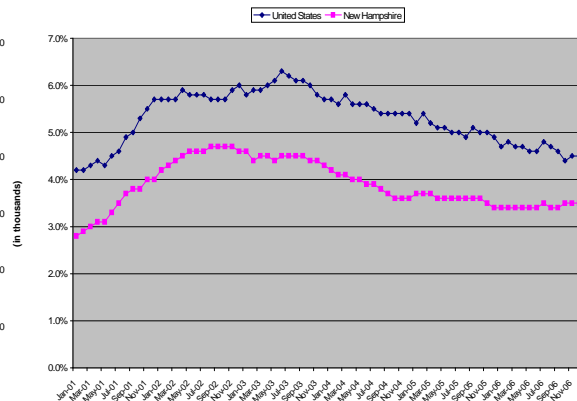
Graph 2: Population

New Hampshire Personal Income Values and Growth



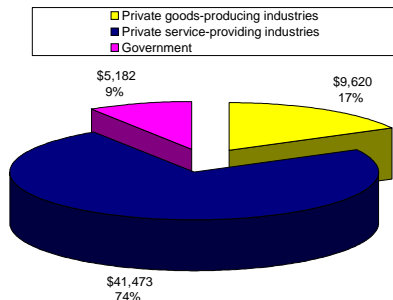
Graph 3: Aggregate Personal Income

Seasonally Adjusted Monthly Unemployment Rate



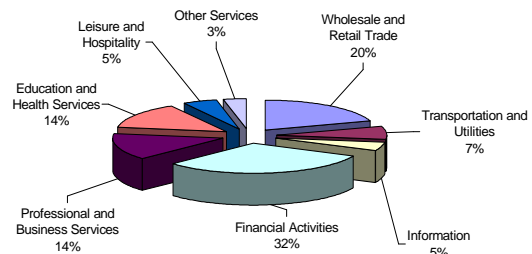
Graph 4: Unemployment Rate

New Hampshire State GDP by Category (values in millions of US dollars)



Graph 5: GDP by category

New Hampshire Private Service-Providing GDP by State by Supersector



Graph 6: Overall Weighting by Super Sector

Aggregate Analysis

Gross Domestic Product (GDP)

- New Hampshire's GDP growth in 2006 continued to decline reaching 1.3%

Population

- Population growth remained strong in comparison to other New England States but declined slightly in 2006
- Population growth was lower than that of the United States as a whole

Personal Income

- Aggregate personal income growth increased slightly in 2006 but was lower than the United States as a whole
- Per capita personal income growth increased in 2006 but was lower than the United States as a whole
- The majority of personal income came from net earnings, followed by dividends, interest and rent and then by personal current transfer receipts

Employment

- New Hampshire's 2006 non-farm employee growth rate stayed positive but dropped from 1.4% to 0.5% and was lower than that of the United States as whole

Unemployment

- New Hampshire's overall employee growth rate continued to lag that of the United States as a whole in 2006

Goods-producing / Service-providing / Government

GDP

- Majority of New Hampshire's GDP was from private service-providing industries
- New Hampshire's GDP growth rate remained positive in all three categories
- New Hampshire's GDP was more concentrated in the service-providing industries than that of the United States as a whole

Earnings

- Majority of New Hampshire's earnings was from the private service-providing industries, followed by government then by private goods-providing industries
- New Hampshire saw the most growth in earnings in the private service-providing industry and in government

Employment

- Majority of New Hampshire's employees were employed in the private service-providing industry
- Employees in the private goods-producing industry declined at a decreasing rate in 2006, while employees in the private service-providing industry continued to increase at an increasing rate

Private service-providing super sectors

GDP

- The overall weighting by super sector saw the largest weighting in Financial Activities followed by Wholesale and Retail Trade
- Unlike the United States, New Hampshire's GDP growth was lead by Professional and Business Services

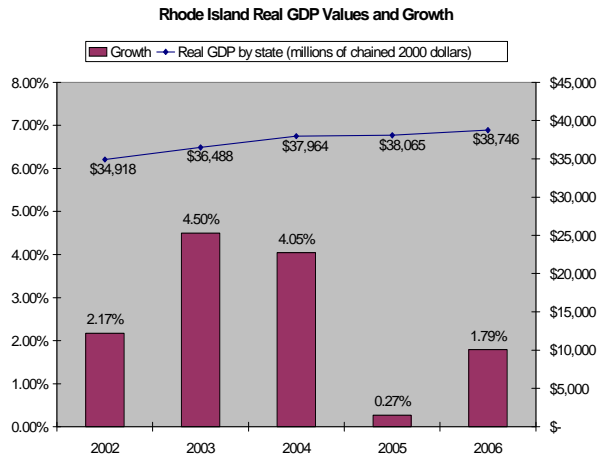
Earnings

- New Hampshire's earnings were weighted to Wholesale and Retail Trade followed by Education and Health Services and Professional and Business Services

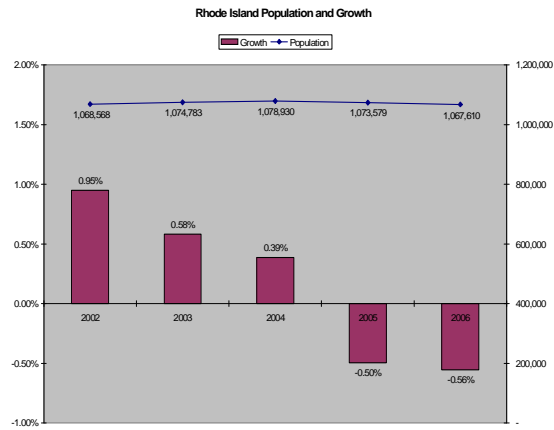
Employment

- Similar to the United States, the largest number of New Hampshire's employees was in the Wholesale and Retail Trade
- Similar to the United States, New Hampshire experienced the most growth in earnings in the Professional and Business Services

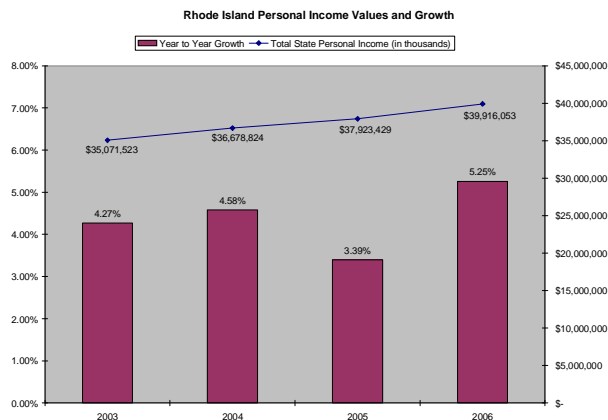
EXECUTIVE SUMMARY: RHODE ISLAND AT A GLANCE



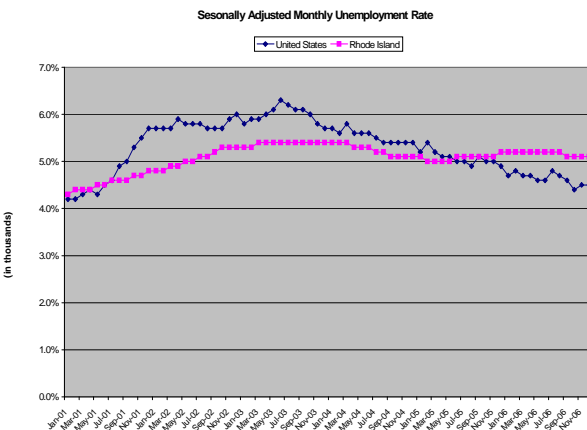
Graph 1: GDP Growth



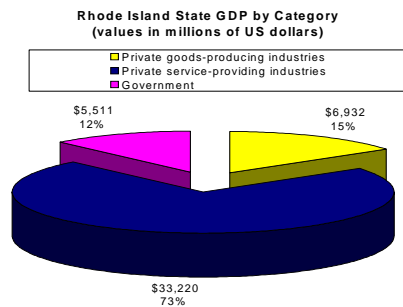
Graph 2: Population



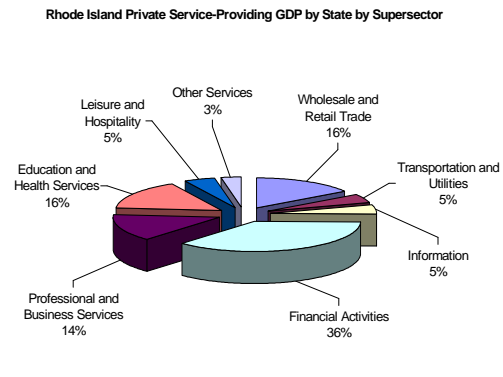
Graph 3: Aggregate Personal Income



Graph 4: Unemployment Rate



Graph 5: GDP by Category



Graph 6: Overall Weighting by Super Sector

Aggregate analysis

Gross Domestic Product (GDP)

- Rhode Island's GDP growth recovered in 2006 to 1.8%
- Rhode Island's improved GDP growth in 2006 was not as great as United States as a whole

Population

- Rhode Island's population growth continued be negative in 2006

Personal Income

- Rhode Island's aggregate personal income growth increased in 2006 to reach its highest level of growth in the last four years but lower than the United States as a whole
- Rhode Island's per capita personal income growth reached its highest level in the last four years, higher than that of the United States as a whole
- The majority of personal income came from net earnings, followed by personal current transfer receipts and then by dividends interest and rent

Employment

- Rhode Island's 2006 non-farm employee growth continued for the fifth consecutive year but was lower than that of the United States as a whole

Unemployment

- Rhode Island's unemployment rate continued to stay above the United States as a whole and the gap between the two appears to be widening further

Goods-producing / Service-providing / Government

GDP

- Majority of Rhode Island's GDP is from private service-providing industries
- Rhode Island experienced positive growth in private service-providing industries and GDP growth from government continued to decline
- Rhode Island's GDP was more concentrated in the service-providing industries than that of the United States as a whole

Earnings

- Majority of Rhode Island's earnings was from the private service-providing industries
- Connecticut saw the most growth in earnings in private service-providing industries

Employment

- Majority of Rhode Island's employees were employed in the private service-providing industry
- Rhode Island's employees in private goods-producing industry and government continued to decline at a decreasing rate, and employees in the private service-providing industry continued to increase at an increasing rate

Private service-providing super sectors

GDP

- The overall weighting by super sector saw the largest weighting Financial Activities, followed by Education and Health Services and Wholesale and Retail Trade
- Unlike the United States, Rhode Island's GDP growth was lead by Professional and Business Services

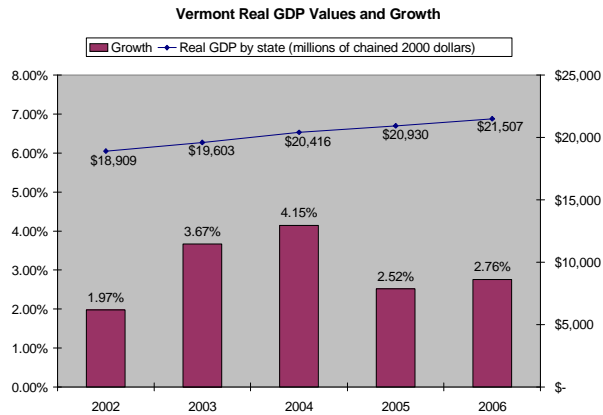
Earnings

- Rhode Island earnings were weighted to Wholesale and Retail Trade and Education and Health Services

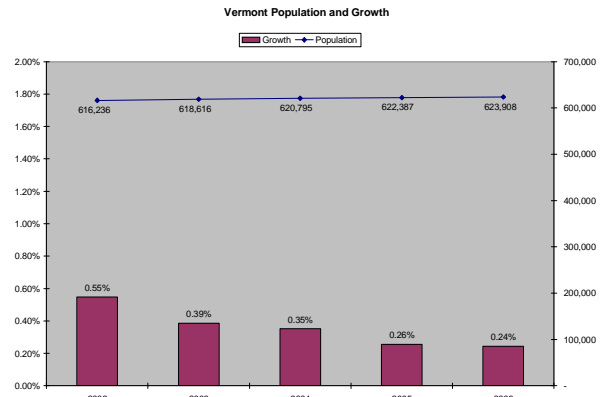
Employment

- Similar to the United States the largest number of Rhode Island employees was found in the Wholesale and Retail Trade
- Similar to the United States Rhode Island experienced the most growth in earnings in the Professional and Business Services

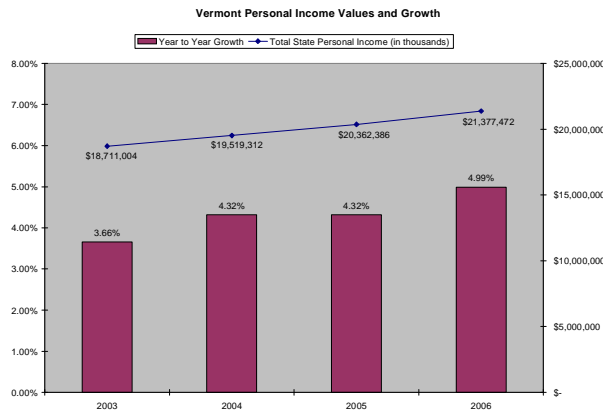
EXECUTIVE SUMMARY: VERMONT AT A GLANCE



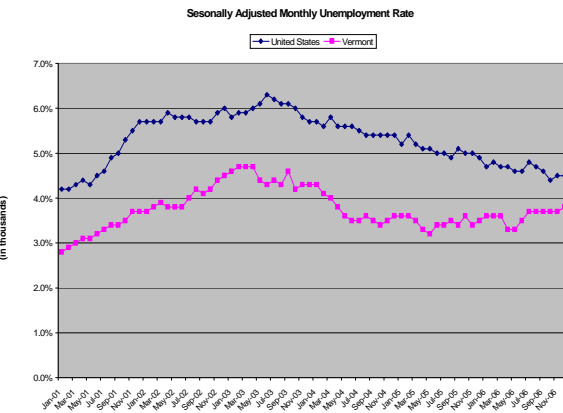
Graph 1: GDP Growth



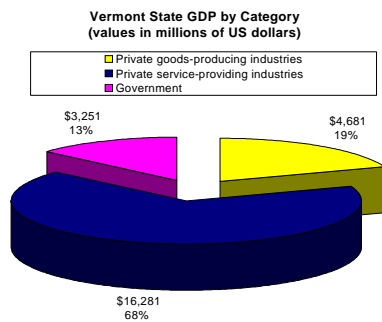
Graph 2: Population



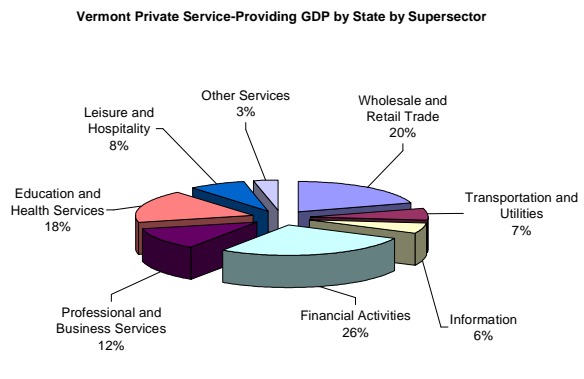
Graph 3: Aggregate Personal Income



Graph 4: Unemployment Rate



Graph 5: GDP by Category



Graph 6: Overall Weighting by Super Sector

Aggregate analysis

Gross Domestic Product (GDP)

- Vermont's GDP growth increased slightly to 2.8% in 2006
- Vermont's GDP growth continued to lag the United States as a whole

Population

- Vermont's population growth rate declined slightly in 2006
- Vermont's population growth lag substantially that of the United States as a whole

Personal Income

- Vermont's aggregate personal income growth rate improved in 2006 but was lower than that of the United States as a whole
- Vermont's per capita personal income growth continued to increase, reaching the highest level in the previous four years but continued to lag the United States as a whole's
- The majority of personal income came from net earnings, followed by personal current transfer receipts and then by dividends interest and rent

Employment

- Vermont's 2006 non-farm employee growth stayed positive in 2006 but still significantly lagged that of the United States as whole

Unemployment

- Vermont's unemployment level remained below that of the United States as a whole but the gap between the two is diminishing

Goods-producing / Service-providing / Government

GDP

- GDP percentage from private service-producing industries is the highest
- Vermont experienced the fastest growth in private service-producing industries followed closely by private goods-producing industries and then by government
- Vermont's GDP concentration was similar to that of the United States as a whole

Earnings

- Vermont tied Maine for the smallest percentage of earnings coming the private service-providing industry of all of the New England states
- Vermont saw the most growth in earnings in the private service-providing industry

Employment

- Majority of Vermont' employees were employed in the private service-providing industry

- Vermont tied Maine to employ the highest percentage of employees within the government category when compared with the other New England states
- Employees in the private goods-producing industry continued to decline and employees in the private service-providing industry and government continued to increase

Private service-providing super sectors

GDP

- The overall weighting by super sector saw the largest weighting Financial Activities followed by Wholesale and Retail Trade.
- GDP growth was lead by Professional and business Services

Earnings

- Vermont's earnings were weighted to Wholesale and Retail Trade
- Professional and Business Services continued to lead earnings growth

Employment

- The largest number of Vermont employees was found in the Education and Health Services which also had the largest increase in employees