

THE STATE OF THE STATE ECONOMY

ECONOMIC CURRENTS



A Vibrant Economy Faces Uncertainties

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LOWER UNEMPLOYMENT RATES FROM BOSTON TO THE GATEWAY CITIES REFLECT A ROBUST STATE ECONOMY. UNCERTAINTIES ON THE HORIZON INCLUDE SLOW LABOR FORCE GROWTH, A STRONGER DOLLAR'S INFLUENCE ON EXPORTS, SLOWER GROWTH IN CHINA AND EUROPE, AND THE IMPACT OF TRUMP ADMINISTRATION POLICIES.

INTRODUCTION

The latest jobs, GDP, and unemployment data portray a Massachusetts economy with healthy, consistent growth. Especially encouraging is the drop in the unemployment rate across the entire state, as well as across age, race, and educational attainment. For the Gateway Cities, that drop in unemployment has been precipitous. The usual suspects are driving state growth, including professional and business services and the education and health sector. In addition, the construction sector is growing robustly, as is the leisure and hospitality sector. In other words, the Bay State is experiencing strong growth that

is broadly based across cities, economic sectors, and demographic groups.

Looming over this scenario are a number of uncertainties. Strikingly low unemployment rates bring into focus the state's enduring slow labor force growth. There is anecdotal evidence that labor shortages are becoming an issue. The new Trump Administration will certainly bring about significant policy changes that may affect the state in both positive and negative ways. Global economic issues are slowing the growth of the international economy. Europe continues to experience anemic growth. China is in the throes of a transition from an

export and investment-led economy to one that gives greater emphasis to consumer expenditures. Slow growth in Europe and China has knock-on effects on the global economy, and ultimately on Massachusetts. While these risks and uncertainties bear watching, they have yet to materially affect the state economy.

STATE OF THE STATE ECONOMY

Gross Domestic Product

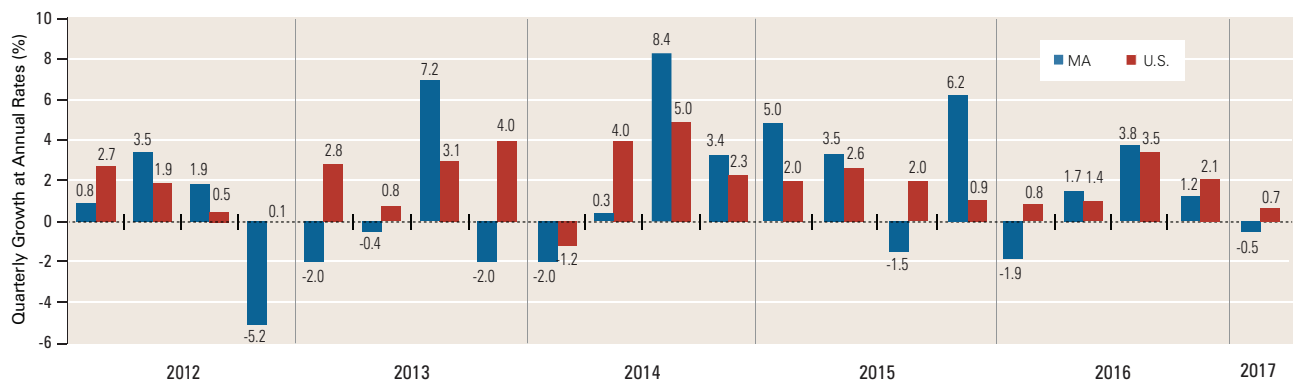
The gross domestic product (GDP) is the most comprehensive measure of economic activity. By this measure, the state's growth has trended upward since the end of the Great Recession, though not without interruption, including the first quarter of 2017. State GDP data are derived from two sources. The first, for quarters up

through 2014, is the Bureau of Economic Analysis, which produces state product data for all states. The second, from that point forward, is the *MassBenchmarks* Current Economic Index, our current proxy for gross state product. The year just ended started off, in the first quarter, with a decline in GDP. That was followed by consecutive quarters of growth, spilling into 2017.

Unemployment

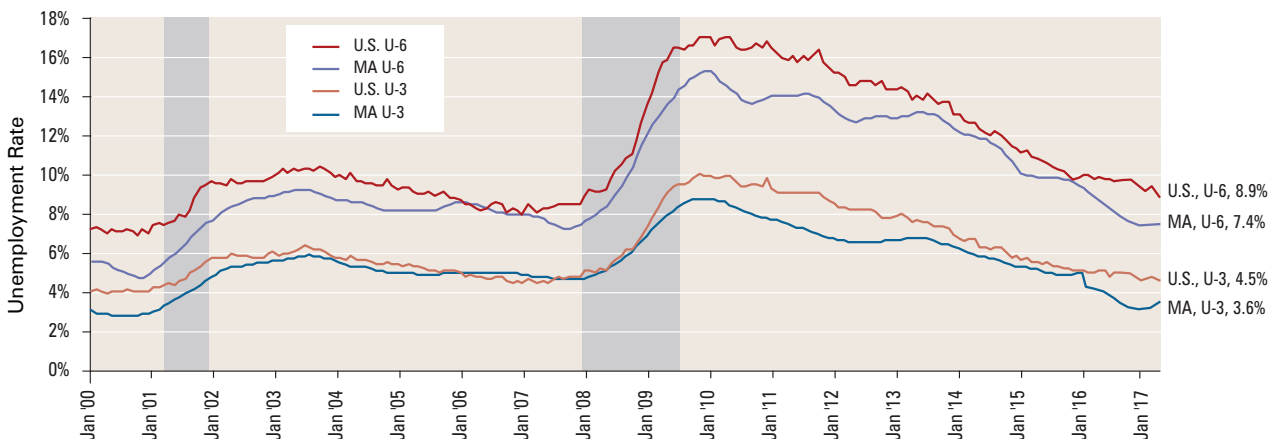
Perhaps most striking about the current status of the state economy is the drop of the unemployment rate to near historical lows. For the state as a whole, unemployment has dropped to 3.6 percent. This is considerably below the national rate of 4.5 percent, which is itself conspicuously low. For both the nation and the state, the

**Growth in Real Product, Massachusetts and the United States
2012 Q1 – 2017 Q1**



Source: U.S. Bureau of Economic Analysis (BEA); Most current quarter from Dr. Alan Clayton-Matthews

**U-3 and U-6 Unemployment Rates, Massachusetts and the United States
January 2000 – March 2017**



Source: Massachusetts and United States U-3 from the Massachusetts Executive Office of Labor and Workforce Development (EOLWD), Local Area Unemployment (LAU) Statistics; Massachusetts and United States U-6 rates from Dr. Alan Clayton-Matthews. Shaded areas indicate periods of recession; recession dates were obtained from the National Bureau of Economic Research (NBER).

headline unemployment rate has fallen continually since the end of the recession in 2009. The U-6 unemployment rate, which adds to the headline rate those who are involuntarily working part-time and those who are marginally attached to the labor force, has fallen to 7.4 percent, compared with the national rate of 8.9 percent. The U-6 rate in the state has fallen to its lowest rate since December of 2007, when it was recorded at 7.5 percent.

As dramatic and welcome as the fall in the statewide unemployment rate has been, at least as important has been the convergence to lower rates across cities in the Commonwealth, as well as across important demographic and socioeconomic groups.¹

Cities: Most conspicuous about the unemployment rates across cities is both how high they had gotten during the recession and how low they have become recently. Just before the state’s economic turnaround in August 2009, Lawrence had an unemployment rate of 15.9 percent, and New Bedford, Fall River, Springfield, and Leominster all had double digit rates. The state’s unemployment rate was 8.2 percent and Boston’s was 8.0 percent. Compare those with the current rates: As of March 2017, all of the cities have fallen below 7 percent with the exception of Fall River, Lawrence, and New Bedford. Even those three cities recorded unemployment rates below 8 percent.

Males and Females: The recession in the state that ended in 2009 has been called a “male recession,” as men experienced considerably higher unemployment rates than women. This is largely attributable to the precipitous decline in construction and manufacturing

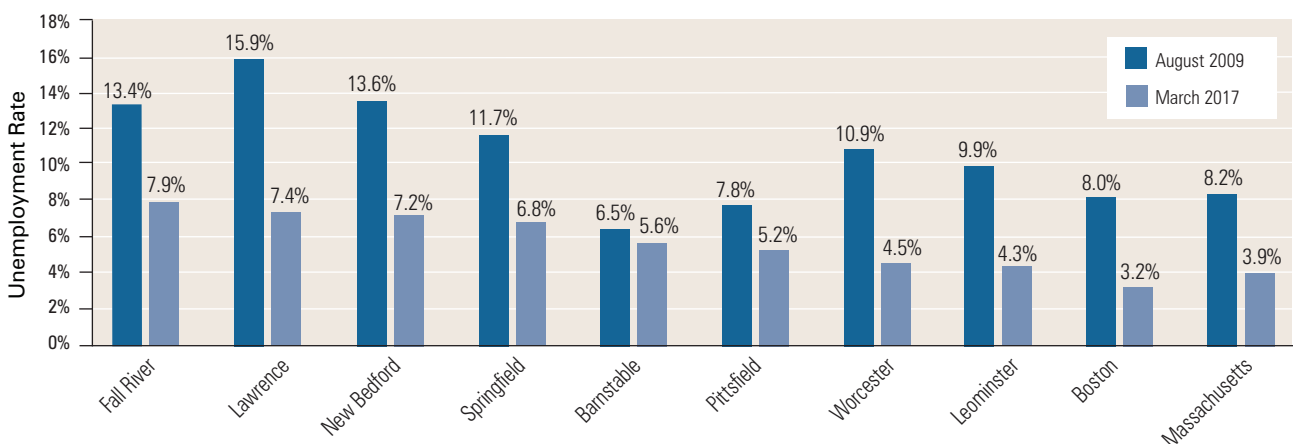
employment, jobs held disproportionately by men. At the low point of the recession, when the state’s unemployment rate was at 9.0 percent, the unemployment rate was 10.6 percent for males and 7.7 percent for females. Since then, as overall unemployment has fallen, the unemployment rates for men have declined and converged with those for the entire labor force and for women. In November of 2016, the overall unemployment rate had fallen to 3.8 percent, 4.2 percent for males and 3.4 percent for females. So males continue to suffer higher unemployment than females, but the difference between the two has become negligible.

Race: Non-whites and Hispanics suffered higher unemployment rates than did white non-Hispanics, though the rates for the two groups has converged as they have declined. At the height of the recession, the unemployment rate for non-whites and Hispanics was 12.5 percent compared with 8.2 percent for white non-Hispanics. Though there is still a gap between the two groups, the difference in rates has been considerably compressed. From the most recent reading of the data, the unemployment rate for non-whites and Hispanics stood at 5.3 percent, compared with 3.3 percent for white non-Hispanics.

Age: From early in the century through the recession and up to the present, there has been essentially no daylight between unemployment rates for the two older age groups 25 to 54 years, and 55 years and older. Rates for those groups have risen and fallen in tandem. In contrast, the unemployment rate for younger workers has consistently been considerably higher. While the gap

Unemployment Rates by Massachusetts City, Recession Trough and Latest Available Month

Not seasonally adjusted



Source: Massachusetts Office of Labor and Workforce Development (OLWD), LAU

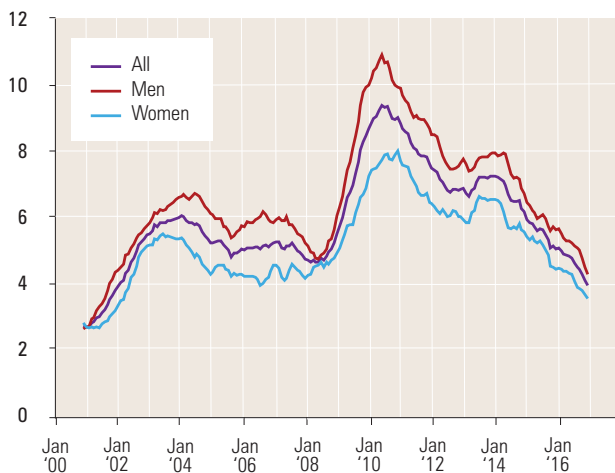
between the youngest group of workers and the oldest has diminished, it is still considerable. During the height of the recession, the unemployment rate for the youngest workers stood at over 16 percent, while the rate for the older two groups was near 8 percent. Since then the rates for all three age groups have fallen, and now stand at 6.7 percent for the under 25 group and at 3.5 percent for each of the older groups. The compression of these rates is encouraging, but the fact that the rate for young workers is nearly double that for older workers is worrisome.

Education: Not surprisingly, a gradation of unemployment rates by educational attainment has persisted over time. Even at their highest, the unemployment rates

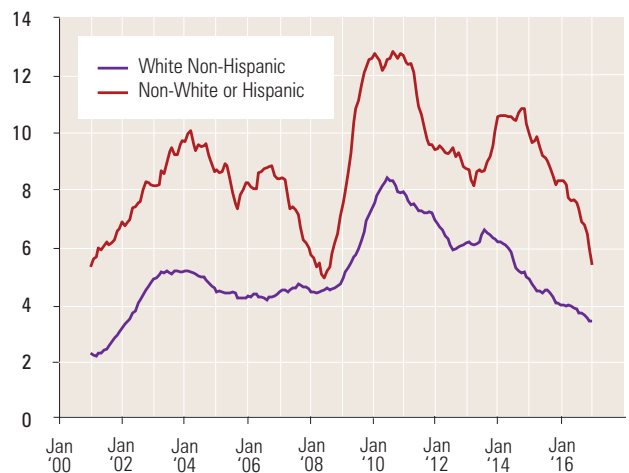
for those with at least a college degree never exceeded 5 percent. In contrast, for those with less than a high school education, the unemployment rate peaked at over 20 percent. Other groups defined by their educational attainment have unemployment rates sandwiched between these extremes. Over time, unemployment rates have declined and converged. For the most recent data available, the unemployment rate for the college educated has fallen to less than 3 percent, while the rate for those without a high school diploma still exceeds 10 percent. Again, rates for other groups fall between these extremes. While it is encouraging that unemployment rates have fallen for all educational groups, a rate exceeding 10 percent can only indicate considerable distress.

Massachusetts Unemployment Rates by Demographic Characteristics

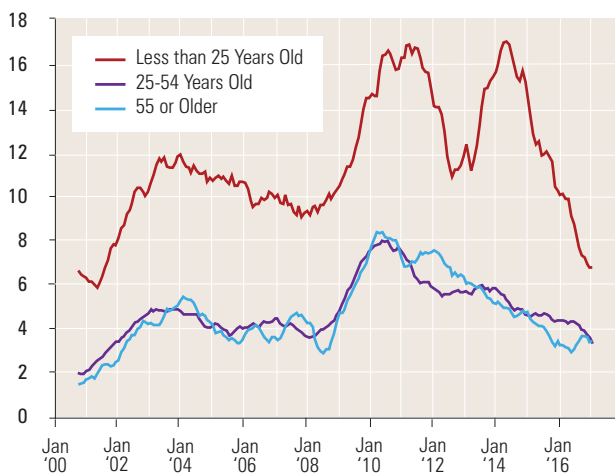
Sex



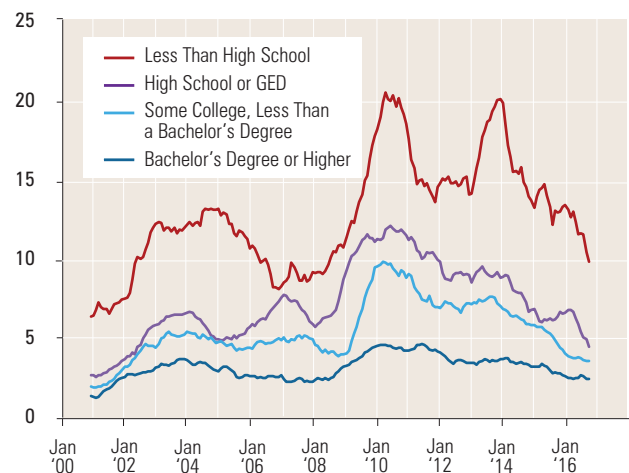
Minority Status



Age



Educational Attainment



Source: Derived from the Current Population Survey by Dr. Alan Clayton-Matthews

ECONOMIC PERFORMANCE BY SECTOR

Since the beginning of the recovery in late 2009, the Bay State has added over 400,000 jobs. Over half of these additions were attributable to Education and Health Services (119,600) and Professional and Business Services (104,500). In terms of percentages, by far the greatest increase was in the Construction industry (39.0 percent, compared with the overall percentage increase of 12.9 percent). The only sectors that have experienced declining employment since the start of the recovery are the

very small Natural Resources and Mining sector, with a loss of 200 jobs, and the Manufacturing sector, with a loss of 10,200 jobs.

MERCHANDISE EXPORTS

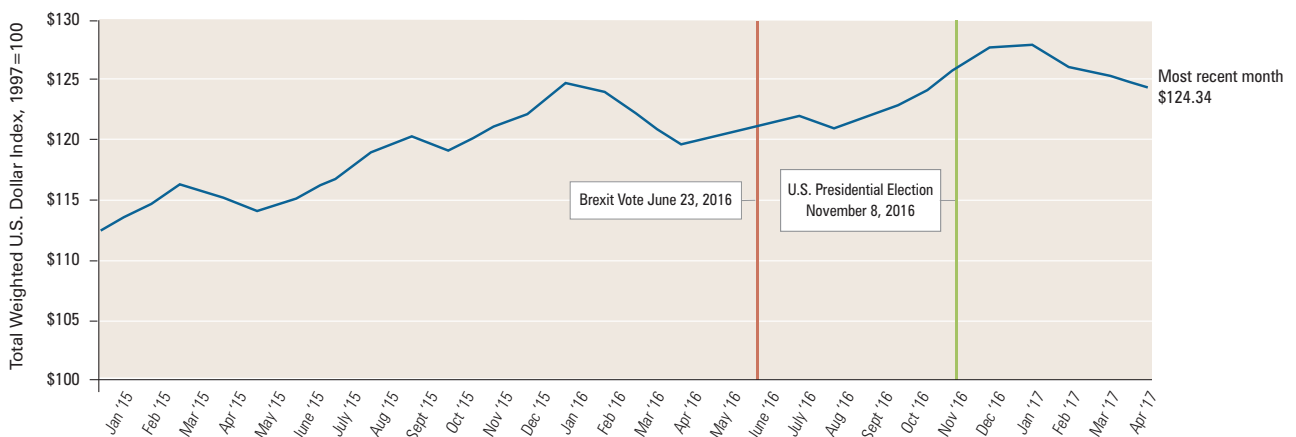
Though it has fallen back recently, the dollar appreciated significantly following two developments: the Brexit vote in the United Kingdom (which will lead to the UK leaving the European Union) and the election of Donald Trump as President of the U.S. The impact of the former

Employment in Massachusetts by Industry Beginning of the Economic Recovery Compared with Latest Available Month *Seasonally adjusted*

Industry Supersectors	Employment at Beginning of Recovery (August 2009)	Employment in Latest Month (March 2017)	Employment Change	Employment Percentage Change
Natural Resources & Mining	1,300	1,100	-200	-15.4%
Construction	108,100	150,300	42,200	39.0%
Manufacturing	253,800	243,600	-10,200	-4.0%
Trade, Transportation & Utilities	538,400	577,100	38,700	7.2%
Information	85,400	90,300	4,900	5.7%
Financial Activities	218,200	229,500	11,300	5.2%
Professional & Business Services	452,900	557,400	104,500	23.1%
Education & Health Services	677,400	797,000	119,600	17.7%
Leisure & Hospitality	300,100	361,700	61,600	20.5%
Other Services, Excluding Public Administration	118,600	137,200	18,600	15.7%
Public Administration	438,000	459,700	21,700	5.0%
Total, All Industries	3,192,200	3,604,900	412,700	12.9%

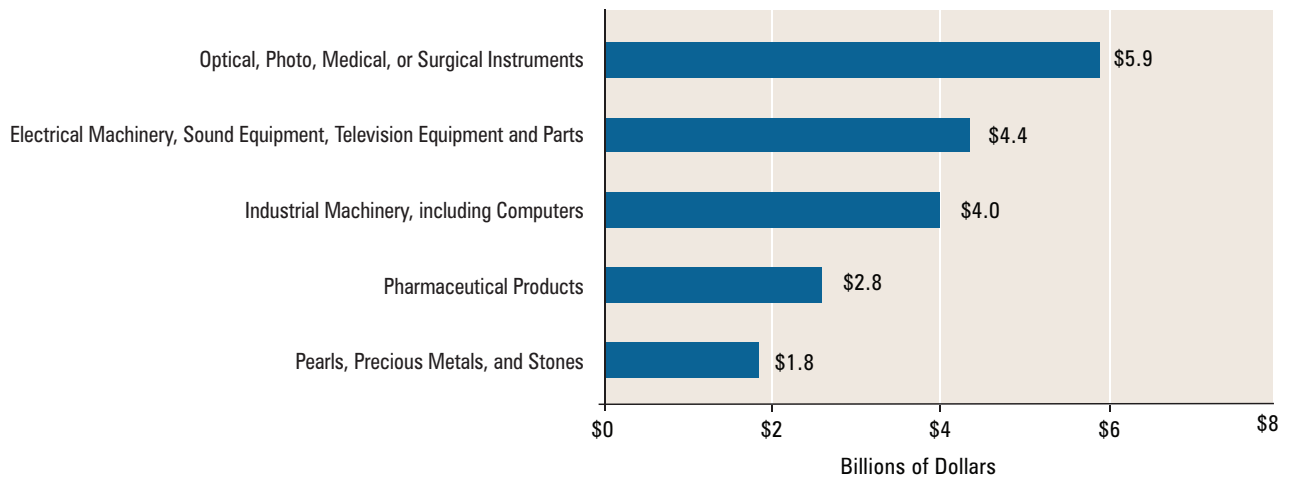
Source: Massachusetts Executive Office of Workforce and Labor Development (EOWLD), Current Employment Statistics (CES-790); Calculations by the authors.

Monthly Trade-Weighted U.S. Dollar Index January 2015 – April 2017 *Not seasonally adjusted*



Source: Federal Reserve Bank of St. Louis, FRED Economic Data, Series TWEXB

Top Five Commodities Exported from Massachusetts, 2016



Source: WISERTrade

is widely predicted to weaken both the UK and the European Union economies, leading to a softer British Pound and Euro. The opposite side of those outcomes is a strengthening of the dollar. During the Trump presidential campaign, the candidate promised tax cuts for both individuals and businesses, as well as a sharp increase in infrastructure spending. Trump's election makes those policies more likely, which would lead to a surge in aggregate demand in the U.S. economy. One side effect of that surge, even with the prospect of a surge, is a stronger dollar.

One effect of a stronger dollar is to raise the price of state exports denominated in importers' domestic currencies. Other factors remaining equal, this would dampen demand for exports originating in Massachusetts. Given the complex global supply chains that accompany modern production, a possible countervailing impact on state manufacturing and merchandise exports will be that imported intermediate production inputs will be less expensive, as denominated in dollars, due to the increasing strength of the dollar. Whatever the ultimate outcomes of a stronger dollar, those effects will likely not be immediate. It takes time, sometimes considerable time, for changes in currency exchange rates to have an effect on demand for exports. The accompanying list of the state's top export products suggests where the effects of a rising dollar might be felt.

Note that most of the state's exports actually stay within the U.S. That is, domestic markets are far more important for Massachusetts businesses than international markets. That is to say that by making imports less expensive as denominated in dollars, a stronger dollar can hurt the competitiveness of Bay State businesses even in domestic markets.

HOUSING CONSTRUCTION

Residential construction continues both to grow and to be increasingly concentrated in the metropolitan Boston area. This journal has remarked on this latter trend for some time.

Home prices in Boston, the only area in the state covered by the Case-Shiller Home Price Index, show a steady, though not monotonic, increase starting in early 2012 and continuing to the present. The Case-Shiller index measures changes in home prices by comparing repeat sales of single-family homes over time. The advantage of this method is that the composition of sales over time does not affect the index. Perhaps surprisingly, the rate of increase in home prices in Boston has converged to the 20-city average, and the gap with the national average has closed.

THE IMPACT OF THE TRUMP ADMINISTRATION

There is keen interest in the state, and indeed nationally and globally, about President Trump's policies and their effects. The *MassBenchmarks* Editorial Board met in early December, prior to the inauguration, to discuss potential consequences of the new Administration's policies. The resulting press release, which summarized those discussions, is reproduced, in part, here:

Infrastructure Investment

President Trump has consistently called for a sizeable investment in the country's infrastructure. Though the magnitude and sources of funding for these investments have yet to be determined, the state could benefit in at least two ways. In the short- to medium-term, there

could be positive employment effects, especially in the construction industry. These benefits could well be distributed across the state. In addition, modernizing the state's infrastructure would boost the productive capacity of the state economy.

Military Spending

The defense industry is one of the leading sectors in the state economy and is the state's largest recipient of federal government contracts. Much of the defense-related activity is concentrated in the state's high-technology industries. These sectors could benefit from an expanding Defense Department budget.

Immigration Policy

For decades, the state has experienced negative net domestic migration. Though the magnitude has varied over the course of business cycles, the net outflow of state residents has been a constant. Countering this pattern has been the steady inflow of international migrants. More restrictive immigration policies may thwart the state's ability to attract these migrants. Note that the President has voiced his support for legal immigration, and the immigration of highly skilled individuals.

Higher Education

Related to immigration, the state's sizeable higher education sector has increasingly enrolled international students. These students may find it more difficult to enter the United States during a Trump Administration, and more may choose not to apply in the first place.

Health Care

The state can be affected by changes in health care policy in more than one dimension. Most obviously, the state has benefitted financially from the Affordable Care Act (ACA), especially in federal government support for the Medicaid expansion. President Trump has promised to repeal the ACA, though the timing and what will replace it remain uncertain, and any changes will have to come through the Congress. The state's prominent positions in medical research, pharmaceuticals, and medical device manufacturing could all be affected by significant discontinuities in federal health care policy.


International Trade

During the presidential campaign, President Trump promised to renegotiate existing international trade relations and impose high tariffs on some imported products. While merchandise exports are a small part of the state economy, they are still important to much of our

high-technology sector. Service exports, though less subject to measurement, are more important. Consulting services, higher education, health services, and software and information technology services depend on sales to international customers, patients, and students. A trade war could adversely affect these prominent sectors of the state economy.

CONCLUSION

The most striking development since the last issue of *MassBenchmarks* has been the precipitous and welcome decline of unemployment in cities around the state, especially cities that had been suffering from stubbornly high unemployment since the end of the recession. This journal has consistently reported and lamented over the uneven distribution of economic prosperity across the state. Most troubling has been the persistently high unemployment rates in the Gateway Cities. While no one is singing "Happy Days Are Here Again" in these cities, the uniformly lower unemployment rates are cause for optimism.

Still, considerable economic and political risk continue to accompany our expansion. Persistently low unemployment rates portend possible labor shortages. Global growth is slowing, with a slowdown in growth in China and continued stagnation in Europe. These developments have knock-on effects on other economies as well. It is hard to know how the policies of the Trump Administration will evolve, and how these policies will affect the Bay State. But there is certainly reason for concern. At the moment, however, the trajectory of the state economy is very positive, and prospects for the future, though not without risk, are encouraging. 

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Endnote

1.) The data measuring unemployment rate by demographic and socioeconomic groups were provided by Dr. Alan Clayton-Matthews, to whom the author is grateful. Note that these unemployment rates were computed as 12-month moving averages from the Current Population Survey (CPS). The moving average serves to smooth out the monthly fluctuations from the CPS (the official data uses a model to smooth out the differences). Since the data are a 12-month moving average, the peaks and troughs will differ from the monthly data.