

OBSERVATION

TD Economics



October 27, 2011

THE BAY STATE'S JOB REVIVAL

Highlights

- Massachusetts' job market has performed surprisingly well during the Great Recession and tepid recovery. The state experienced fewer job losses than the nation as a whole during the downturn and has created more jobs during the recovery.
- This outperformance is unusual, and contrasts with the very weak job markets that followed the 2001 and early 90s recessions.
- The state's high-value industries, educated workforce and exposure to the healthcare industry are the main reasons the state's job market has performed so well.
- We believe that Massachusetts' will remain a leader in the jobs recovery, but its ongoing success depends on attracting and retaining skilled labor.

Introduction

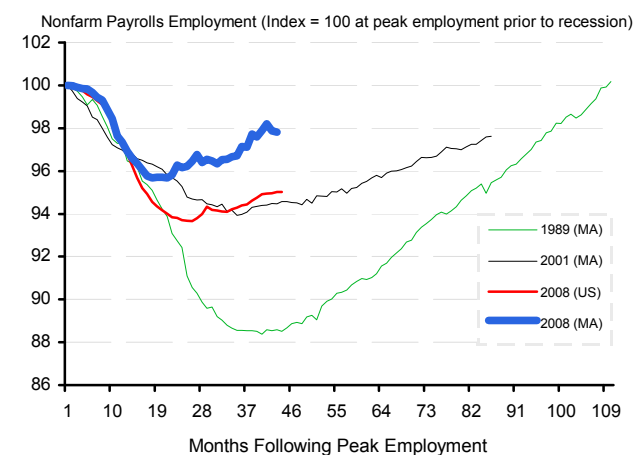
Massachusetts knows a thing or two about recessions. In the late 80s, Boston's real-estate market crashed, crippling the state's economy for years. When the dust finally settled, more than 11% of the state's workers had lost their jobs. In 2001, Massachusetts found itself at the center of the dotcom crash, precipitating another painful bout of job losses. Both recessions were far worse in Massachusetts than the rest of the country.

However, during the 2008-09 recession, Massachusetts broke away from its underdog status. The Bay State shed relatively few jobs during the downturn and the state's service sector has already recovered all the jobs lost during the slump. America as a whole will likely be waiting until the end of 2014 to say the same.

The difference between now and then is that many of the state's high-value industries (like healthcare) performed well during the early stages of the recovery. Also, the Bay State's exposure to sectors with poor job prospects, like manufacturing and construction, is smaller than in the past. As the recovery progresses, we believe these factors will keep the state ahead of the curve. However, as a state with a slow growing population, Massachusetts' biggest challenge is to provide enough skilled workers to meet the demands of the its high value firms.

In the late 80s, Boston's real-estate market

FIGURE 1 – MASSACHUSETTS JOB MARKET



Source: Bureau of Labor Statistics

Massachusetts – Atop the Value-Added Chain

Massachusetts is one of the nation’s leading knowledge-based economies. It is one of only six states in which finance, professional and technical services, education and health care make up more than 30% of output. The Bay State is also a hotbed for innovation and entrepreneurship – Massachusetts deploys more venture capital as a share of output than any other state in the country.

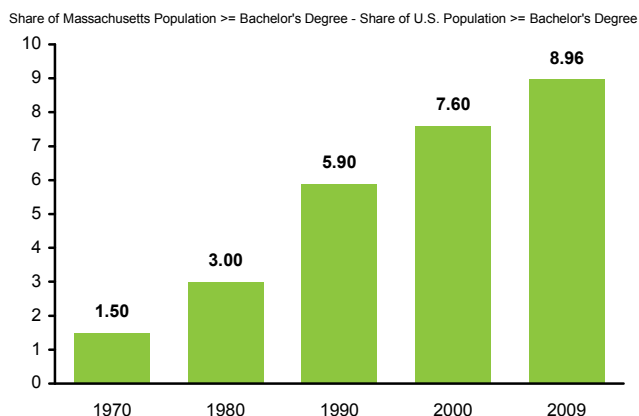
While high-value industry does not guarantee job creation, it has served Massachusetts well during this cycle. First, many of the Bay State’s high-value producers have outperformed the broader economy during the recovery. Second, as Massachusetts has moved up the value chain, the job market’s exposure to cyclically sensitive industries, like manufacturing and construction, has fallen.

In 2001, Massachusetts was at the center of the dotcom crash. During the recovery that followed, demand for tech products languished and the job market struggled. During this recovery, however, demand growth among many state producers – including software developers and healthcare providers – has outperformed the national trend.

This has led Massachusetts’ high-value firms to seek out new workers. In August, a Conference Board report indicated that Bay State firms were posting about 3.5 job ads for every 100 members of the state’s labor force. This was third highest in the nation, trailing only Alaska (4.6) and North Dakota (3.7).

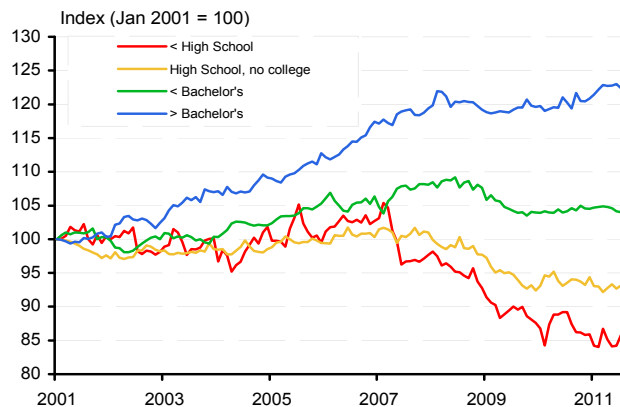
In a high-value economy, filling these positions can be hard. As an economy’s productivity grows, repetitive jobs are either automated or outsourced. Workers, in turn, are

FIGURE 2 – A GROWING EDUCATION ADVANTAGE



Source: American Community Survey & Current Population Survey

FIGURE 3 – EMPLOYMENT BY EDUCATION



Source: Bureau of Labor Statistics

asked to complete more sophisticated tasks. If the workforce’s skills are not advanced enough, then a “mismatch” emerges. Many economists feel this is one reason that job growth has been slow to recover nationally.

Mismatch, however, is less of a problem for Massachusetts. As Figure-2 illustrates, the concentration of highly skilled workers in the state (measured by educational attainment) far exceeds the national average.

Data suggests that the state’s workforce is finding it easier to meet the skills demanded by firms than the country at large. For every job ad in Massachusetts, there are roughly two jobless workers. This ratio is among the lowest in the country, and well below the national average of 3.4. A lower ratio of unemployed workers to job postings is evidence of less mismatch between workers and firms. Figure-3 further illustrates this point. This chart paints a striking image of the job market facing college educated and non-college educated workers. While the data reflects the national trend, it helps explain why the job market has fared better in highly educated states like Massachusetts.

Another reason the job market has benefited from the state’s higher value orientation, is the falling share of employment in sectors like manufacturing and construction. Between 1990 and 2007, the share of employment in manufacturing fell from 16% to 8.8% and became increasingly tied to healthcare. Meanwhile, since the state’s real-estate sector collapsed in the early 90s, Massachusetts’ construction employment has averaged 1.3 percentage points less than the rest of the country. Since both these industries shed a disproportionately large number of jobs during the recession, their smaller presence limited the losses during the recession.

The smaller share of employment in these industries has also served the state’s job market well during the recovery. The construction industry, for example, is normally a big source of job growth when a recession ends. During this cycle, however, construction has actually been a drag on job growth because of the housing market’s persistent weakness. Also, the job recovery in manufacturing has lagged behind industries like health care and professional services. As such, Massachusetts’ job market has benefit from its larger presence in these service industries.

The high-value orientation of Massachusetts’ economy and its entrepreneurial gusto will help its firms create jobs in the future. This is in part because many high value industries – like software development and consulting – can leverage growth from the stronger global economy in ways that domestic industries (like housing) cannot. There are, of course, risks facing the state’s high-value producers including slower global growth and smaller defense procurements. However, we feel that emerging markets will support healthy (albeit slower) global growth in the coming two years, and Massachusetts’ high-value manufacturing and R&D will avoid the worst of the defense cuts. The bigger constraint to job growth in our eyes is whether Massachusetts’ workforce can keep pace with firm demand.

From Computers to Medicine

Massachusetts’ high-value economy and skilled workforce does not fully explain the recent success of the state’s job market. Other knowledge-based economies, like New York and Delaware, have struggled to create jobs since 2010. Thus, we must consider another factor – the growing role

of the healthcare industry – to understand Massachusetts’ buoyancy.

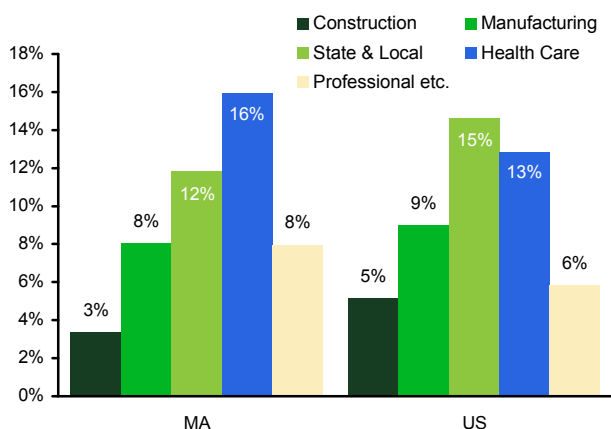
Healthcare has always played a major role, but the sector’s influence has risen steadily over the past decade. Between 2001 and 2007, the share of state jobs in healthcare and social assistance grew from 12.0% to 14.4%. By the middle of 2011, this number had risen to 15.9%.

The sectors influence has, however, moved beyond providing healthcare services. Medical research and development (R&D) has become an explosive source of growth. During 2002, R&D firms generated 9% of revenue among professional, scientific and technical (PST) firms. By 2007, this figure had soared to nearly 15%. Further, R&D was one of the main drivers of PST sector job creation in the years leading up to 2008. The state’s manufacturers have also become increasingly life science oriented, with pharmaceuticals and medical device manufacturing overtaking computers as the primary source of growth during the 2000s.

Healthcare’s growing presence has been critical to the outperformance of the state’s job market. Unlike most industries, health care does not experience big swings in output when the economy stumbles. Healthcare services grew (in real terms) 1.7% in 2008, 4.5% in 2009 and 1.6% in 2010 – hardly indicative of the nation’s deep economic malaise. Furthermore, health care hiring did not skip a beat during the recession, and accounts for 28% of job creation in the Bay State since the recession ended.

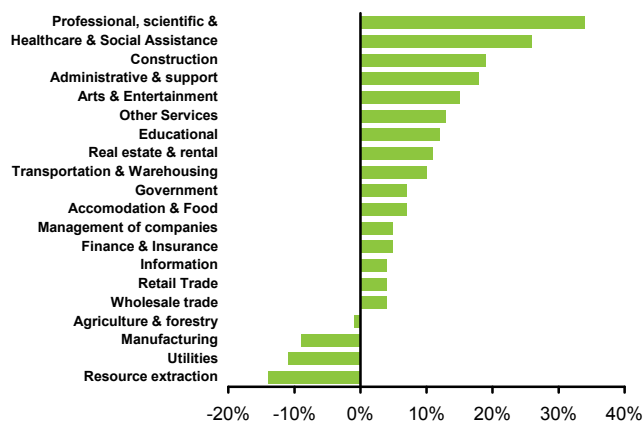
The healthcare industry is likely to continue growing and creating jobs for Massachusetts in the coming decades. Of course, the Patient Protection and Affordable Care Act and Medicare cast a shadow of uncertainty over Americas’

FIGURE 4 – SHARE OF EMPLOYMENT*



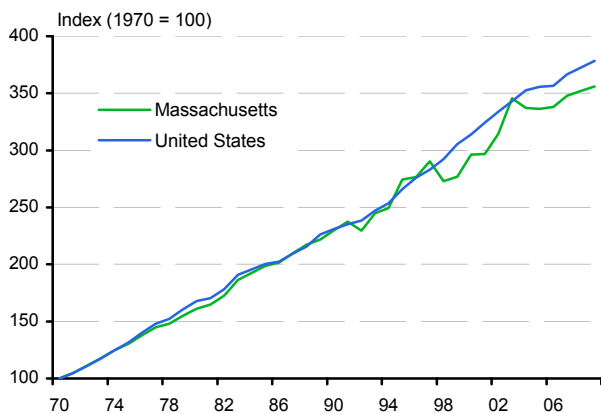
Source: Bureau of Labor Statistics. *2011

FIGURE 5 – FUTURE JOB GROWTH*



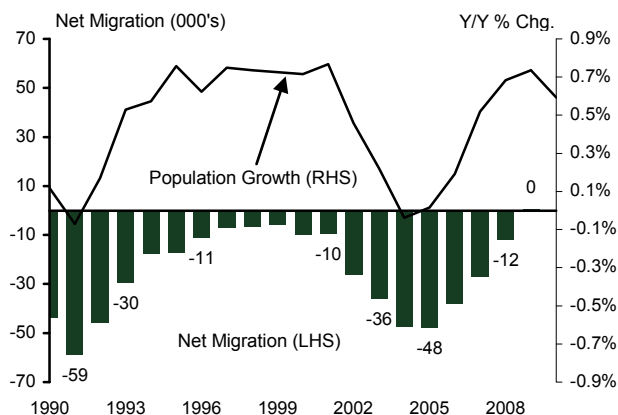
Source: Bureau of Labor Statistics job growth projections 2008 -2018

FIGURE 6 – UNIVERSITY EDUCATED POPULATION



Source: Census Bureau

FIGURE 7 – NET MIGRATION AND POPULATION GROWTH



Source: IRS

healthcare industry. But, an aging population will require spending on healthcare goods and services to rise as a share of the economy irrespective. As figure-5 shows, health care is projected to be one of the nation’s leading sources of job growth over the next ten years. Given the existing healthcare clusters within Massachusetts, the state’s economy is well positioned to benefit from this.

Keeping the State’s Job Market on Track

Skilled labor demand in Massachusetts’s should continue to grow at a healthy pace. Thus, supplying firms with skilled workers is key to stronger job growth. This is a challenge that the Bay State’s slow growing population will struggle to overcome. But, because of the nation’s weak economy, labor supply may prove less of a problem now than in the past.

Massachusetts’s concentration of highly skilled workers masks the state’s weak population growth. In fact, since 2001, the growth rate of university-educated workers has lagged the rest of the country. This trend must change for the state’s supply of labor to keep pace with firm demand.

That said, weak job creation in the rest of the country appears to be attracting workers to the state. As we have discussed before ([see here](#)), jobs are a major reasons Ameri-

can households move. And, as a testament to the state’s economic outperformance, interstate migration into the Bay State was positive for the first time in over twenty years in 2009. This trend stands in stark contrast to the recessions of the early 1990s and 2001, and has contributed to stronger labor supply growth in the state since 2009.

Massachusetts also maintains an advantage in its world-class universities and colleges. However, the Bay State loses a larger than average share of its university graduates to other parts of the country. If firms could retain more of these students, it would go a long ways towards improving the state’s labor supply. This may be easier given the nation’s economic malaise today that it has been in the past.

Conclusion

Unlike past recessions, Massachusetts’s job market has actually outperformed the nation during the Great Recession. Things are by no means perfect, and sectors within Massachusetts’, including construction and manufacturing, still face a long road to full recovery. However, unlike the early 1990s and 2001, Massachusetts’s job market is well poised to stay a step ahead.

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