Today’s Discussion

• Where was the MA economy before COVID-19?
• The COVID-19 economy
• The state’s positioning for recovery and remaining question marks in the economy
The state of the Massachusetts economy leading up to the COVID-19 outbreak
Massachusetts has the fastest growing population in the Northeast

Percent change in total population by Northeast state, 2010-2019

Source: U.S. Census Bureau, Population and Housing Unit Estimates, April 1, 2010 to July 1, 2019, NST01 Table 1. Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico; UMDI analysis
Massachusetts population growth depends on international migration

*Massachusetts estimated components of population change, 2000-2019*

Massachusetts is a leader in job growth in the Northeast

Percent change in employment by Northeast state, 2010-2019

Dominant sectors in the state have been related to knowledge-based industries

Industry mix in Massachusetts and the United States, 2019

<table>
<thead>
<tr>
<th>Sector</th>
<th>Massachusetts</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Care &amp; Social Assistance</td>
<td>18.2%</td>
<td>15.0%</td>
</tr>
<tr>
<td>Educational Services</td>
<td>10.1%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>9.7%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Professional, Scientific, &amp; Technical Services</td>
<td>9.6%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Accommodation &amp; Food Services</td>
<td>8.8%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>6.8%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Administrative, Support &amp; Waste Management Services</td>
<td>5.2%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Finance &amp; Insurance</td>
<td>4.7%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Construction</td>
<td>4.5%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Government</td>
<td>3.8%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>3.4%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Other Services (except Government)</td>
<td>3.4%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Transportation &amp; Warehousing</td>
<td>3.0%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Information</td>
<td>2.7%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Management of Companies &amp; Enterprises</td>
<td>2.0%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Arts, Entertainment, &amp; Recreation</td>
<td>1.9%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Real Estate, Rental &amp; Leasing</td>
<td>1.3%</td>
<td>1.6%</td>
</tr>
<tr>
<td>All Other</td>
<td>0.7%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

Sources: Massachusetts Executive Office of Labor and Workforce Development, ES-202; U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages. UMDI analysis. Note: All Other includes: Utilities; Agriculture, Forestry, Fishing, & Hunting; and Mining, Quarrying, and Oil & Gas Extraction.
The state is performing well, but these impacts are not felt evenly.
Greater Boston is driving the state’s population growth

Population Growth Index, 2010-2019 (2010=1.00)

Source: U.S. Census Bureau; UMDI analysis.
Note: Greater Boston is the sum of Suffolk, Middlesex, Norfolk, Plymouth and Essex counties.
Greater Boston is also driving the state’s employment growth

Percent change in employment by county, 2010-2018

Source: UMDI mapping analysis, Bureau of Labor Statistics (BLS), 2010 to 2018 Quarterly Census of Employment and Wages (QCEW)
The COVID-19 Economy
The Washington Post: “The economic collapse sparked by the pandemic is triggering the most unequal recession in modern U.S. history”

- At the national level, “About half of the employment lost between February and April has been recovered. But the pain is not spread evenly.”
  - *Hispanic Origin:* “Hispanic Americans saw the steepest initial employment losses and still have the most ground to make up to reach pre-pandemic employment.”
  - *Race:* “White Americans have recovered more than half of their jobs lost between April and February. Meanwhile, Black Americans have recovered just over a third of employment lost in the pandemic.’
  - *Age:* “The pandemic recession took the greatest initial toll on young people. Twenty percent of all Americans ages 20 to 24 lost employment in the early months of the pandemic. And those ages 25 to 34 have recovered only 43 percent of lost employment.”
  - *Gender and Family Dynamics:* “The pandemic economy has affected mothers and fathers differently. Mothers saw greater initial drops in employment than fathers…Recovery among mothers whose youngest children were 6 to 12 has lagged behind fathers.”

Source: “The covid-19 recession is the most unequal in modern U.S. history”, by Heather Long, Andrew Van Dam, Alyssa Fowers, and Leslie Shapiro (September 30, 2020) [https://www.washingtonpost.com/graphics/2020/business/coronavirus-recession-equality/]
The Coronavirus crisis is different than any previous recession

Job change in the U.S. since the beginning of each recession by weekly earnings

Source: “The covid-19 recession is the most unequal in modern U.S. history”, by Heather Long, Andrew Van Dam, Alyssa Fowers, and Leslie Shapiro (September 30, 2020) [https://www.washingtonpost.com/graphics/2020/business/coronavirus-recession-equality/]
Personal consumption expenditures are slowing

Real personal consumption expenditures in the U.S., January 2019-December 2020 (in millions of chained $2012)

Source: U.S. Bureau of Economic Analysis, Current Employment Statistics; UMDI analysis
Economists’ outlook on vaccines and the economy

Q&A: How will Coronavirus vaccines affect GDP?

How do you expect the rollout of coronavirus vaccines to affect U.S. GDP growth?

- A big plus
- A small plus
- No impact
- A small drag
- A significant drag

Source: Wall Street Journal Survey of Economists
Note: Big plus/significant drag represent more than 0.5 percentage points on the annual growth rate
After record low unemployment rates, unemployment is almost as high as it was during the Great Recession

Unemployment rates in Massachusetts and the United States as of November 2020 (seasonally adjusted)

Source: Massachusetts Executive Office of Labor and Workforce Development, Local Area Unemployment (LAU) Statistics; UMDI analysis
Initial unemployment claims have vastly exceeded those of the Great Recession and all previous recessions.

Initial Unemployment Insurance claims in Massachusetts through the week ending January 30, 2021

Source: U.S. Department of Labor; Massachusetts Executive Office of Labor and Workforce Development
Unemployment claims have decreased since March, but they are still higher than during the Great Recession

Initial Unemployment Insurance claims in Massachusetts, week ending March 21, 2020-present (not seasonally adjusted)

Source: U.S. Department of Labor; Massachusetts Executive Office of Labor and Workforce Development
Stronger employment growth in the 4th quarter accounts for stronger preliminary growth estimate in state GDP

Growth in real product, Massachusetts and the United States, Q1 2018 - Q4 2020

Source: U.S. Bureau of Economic Analysis (BEA), Massachusetts: through 2020Q3, BEA; 2020Q4 and later, MassBenchmarks
Eight months into the jobs recovery, we are still short nearly 350,000 jobs compared to February 2020’s peak.

Jobs deficit in Massachusetts relative to February 2020 peak

Source: Massachusetts Executive Office of Labor and Workforce Development, Current Employment Statistics (CES-790); UMDI analysis.
The hardest hit sectors were Leisure & Hospitality and Other Services compared to a year ago.

Employment growth by supersector in Massachusetts, January 2019-December 2020

Source: Massachusetts Executive Office of Labor and Workforce Development, Current Employment Statistics (CES-790); UMDI analysis
Profile of Massachusetts’ Unemployment Insurance Claimants

Most claimants were women

- Male, 48% (vs. 60% before the pandemic)
- Female, 52% (vs. 40% before the pandemic)

65% of claimants had less than a Bachelor’s

Compared to their size of the labor force, people of color disproportionately impacted

- White: Share of Labor Force: 77.8%, Share of Claims: 70.3%
- Black or African American: Share of Labor Force: 7.8%, Share of Claims: 9.4%
- Asian: Share of Labor Force: 7.0%, Share of Claims: 5.0%
- Hispanic or Latino of Any Race: Share of Labor Force: 11.3%, Share of Claims: 13.0%

More than 60% of claimants earned less than $700/week on average in the summer

Source: Massachusetts Executive Office of Labor and Workforce Development, Weekly Initial Unemployment Claimant Data; UMDI analysis
Note: Data represent the cumulative total of initial Unemployment Insurance (UI) claims from the week ending March 14th, 2020 to the week ending December 5th, 2020, unless otherwise noted.
Most Massachusetts’ small businesses have experienced a largely negative effect from COVID-19

Overall, how has this business been affected by the Coronavirus pandemic?

Source: U.S. Census Bureau, Small Business Pulse Survey
Massachusetts had the highest average Paycheck Protection Program loan size in New England (and 4th highest in the U.S.) with 118,000 loans worth over $14.3 billion

<table>
<thead>
<tr>
<th>State</th>
<th>Average Loan Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts</td>
<td>$120,914</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>$106,223</td>
</tr>
<tr>
<td>Connecticut</td>
<td>$103,952</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>$103,605</td>
</tr>
<tr>
<td>United States</td>
<td>$100,729</td>
</tr>
<tr>
<td>Vermont</td>
<td>$96,861</td>
</tr>
<tr>
<td>Maine</td>
<td>$80,076</td>
</tr>
</tbody>
</table>

Source: U.S. Small Business Administration, Paycheck Protection Program (PPP) Report, approvals through 8/8/2020; UMDI analysis
Higher rates of COVID-19 are concentrated in the eastern part of the state, with particularly clusters in Gateway Cities.

COVID-19 Cases Confirmed Positive by Testing
Per 10,000 people in Massachusetts as of July 8th, 2020

Cases per 10,000 people
- 75 or less
- 75 to 150
- 150.1 to 225
- 225.1 to 300
- 300.1 to 375
- 375.1 or higher

Note: Grey indicates a municipality with <5 cumulative cases.
Map: UMass Donahue Institute • Source: Massachusetts Department of Health • Map data: MassGIS • Created with Datawrapper
Positive COVID-19 Tests per 100,000 people by Crowdedness, 100 largest Municipalities

Source: Massachusetts DPH COVID-19 Response Reporting, ACS 2014-2018 5-Year Estimates; UMDI Analysis; Crowdedness is HHs with > 1 person per room
Question marks in the economy

• The condition of state and local budgets for FY21 and beyond
• The state eviction moratorium and housing affordability
• The new economic stimulus package
• Which industries are poised to recover? Which ones will struggle?
• Existing public policy and infrastructure issues in the state
Thank you!

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