My name is Stephanie Pollack and I am associate director of the Dukakis Center for Urban and Regional Policy at Northeastern University, a think-and-do tank which collaborates with many of the civic and nonprofit organizations you have heard from this morning to conduct interdisciplinary research that helps to identify and implement real solutions to the critical challenges facing Greater Boston and the Commonwealth. My work focuses on making our transportation systems equitable and sustainable – including financially sustainable – and the many studies we have done, analyses we have conducted and data we have collected can be found on our website at http://www.northeastern.edu/dukakiscenter/focus-areas/transportation I have also attached some fact sheets to my written testimony that support the figures that I will cite today.

Having spent the last several years studying Massachusetts’ transportation system and finances and tracking efforts around the country to wrestle with the same thorny issues of lack of revenue and under-investment, I would like to spend my three minutes briefly presenting you with a Top Ten list of advice for shaping a legislative package to address Massachusetts’ longstanding transportation crisis and put the Commonwealth on track to having a 21st century transportation system.

(10) Make sure the transportation system works for everyone: Massachusetts residents are increasingly choosing to get where they go without driving. As we found in our Staying on Track transportation indicators project, miles driven per person has declined in Massachusetts every year since 2005, the number of eligible residents getting drivers’ licenses is dropping and one in eight households statewide – over 300,000 – does not even own a vehicle. Our 21st century transportation system needs to provide choices to residents of every community in the Commonwealth to get to work and school without a car.

(9) Make sure the transportation system delivers on all of the Commonwealth’s policy priorities – including sustainability: Even with declining driving, transportation sector emissions are both the largest and fastest growing part of the state’s inventory of greenhouse gases. Increases in transportation GHG emissions from 1990-2010 completely offset the entire decline in emissions achieved in the commercial and industrial sectors combined. Sustainability needs to be a key criteria when looking at both revenue sources and spending priorities. Perhaps you should even consider dedicating some of the increased revenues available from the recent changes to the Regional Greenhouse Gas Initiative (RGGI) to funding for sustainable transportation.
(8) **Don’t just maintain transportation assets — modernize them to meet 21st century needs:** There are multi-billion dollar maintenance backlogs to be addressed in the state’s road, bridge and transit programs. But we could spend hundreds of millions of dollars annually playing catch up and by 2025 we would finally have a well-maintained version of the system we had in 1975. Instead, the investment strategy should focus on modernizing the system as we invest in repairs – creating “complete streets” that work equally well for drivers, pedestrians and cyclists, reconfiguring bridges and streets to address local economic development priorities, and buying new trains and buses.

(7) **Focus on providing needed capacity, rather than trying to balance maintenance and expansion:** Do not accept the false choice between investing in maintenance and investing in so-called expansion. Focus instead on ensuring that the transportation system has the capacity to meet the needs that it serves. Sometimes, as for the regional transit authorities, that will mean increasing operating support to that more service can be delivered. Sometimes, as for the MBTA, that will mean addressing the growing problem of congestion at the core of the system that endangers the future growth in Boston, Cambridge and throughout the system. MBTA ridership has increased from 1.1 million average weekday riders in 2005 to 1.3 million in 2011-12 and is projected to increase to 1.4-1.6 million average weekday riders by 2020. To meet the demand for service the MBTA needs more than $4 billion in critical capacity investments, including new Red and Orange line vehicles, power upgrades and additional tracks at South Station.

(6) **Give transportation agencies tools for improving performance, not just dollars to spend:** Yes, our transportation agencies need additional revenue but they also need better tools to understand, manage and maintain the transportation system. Early investment priorities need to include systems for cities and towns, Regional Transit Authorities, the MBTA and MassDOT to manage and maintain their assets, conduct scenario and service planning and track and deliver individual projects on time and on budget. These investments may not be headline-grabbing, but ensuring dollars for them in the fy2014 and 2015 budgets will pay off handsomely for decades to come.

(5) **Empower cities and towns as partners in delivering an integrated transportation system:** Increasing funding under the Chapter 90 program is just one step toward creating a better working partnership with cities and towns, who might well be able to deliver not only local projects but some of the smaller (up to $5 million) projects that often linger for years waiting for attention under MassDOT’s statewide road and bridge program. And many cities and towns want to be able to provide better walking and biking facilities and improve their local transit agencies, so provide them with local option revenue sources so they can choose to do more.

(4) **Start by fixing the operating side of the budget:** While the MBTA’s annual struggles with a structural operating deficit tend to get most of the attention, MassDOT’s operating deficit is twice that of the T. In fiscal year 2014 MassDOT has a “hidden operating deficit” of $233 million in operating funds being paid out of the capital budget. Over one-third of the bond cap funds allocated to transportation for FY14 are slated to be spent on operating costs rather than much-needed operating projects. For each $1 borrowed to pay for salaries and even office rents, the
Commonwealth will pay $1.75 in principal and interest over the next 25 years. And because the bond cap cannot easily be increased, each dollar of the bond cap spent on operating costs is not available for needed maintenance and capital projects. As for the MBTA’s operating budget, the $431 million in debt service payments for FY2014 represent 25% of the T’s total available revenues. If the Commonwealth were to gradually assume responsibility for the portions of the debt inherited as “legacy debt” as part of the 2000 forward funding legislation and that for the Big Dig mitigation commitments, the MBTA could close its operating deficits in FY2014 through 2017 with modest fare increases.

(3) Capital investments should be designed for leverage: Transportation investments need to be focused where they can leverage the greatest benefits, including economic development. And investments of new state revenues can and should leverage additional investment from both the federal government and private sector. The Green Line expansion project, for example, is well-positioned to attract $500 million in New Starts funding if new revenues are available to address the MBTA’s operating deficit and to match the federal dollars for building the project. Transit investment can also create a healthy return on investment when it supports private investment in nearly real estate projects. The Hub and Spoke report issued by the Boston District Council of the Urban Land Institute in June 2012 identified 250 transit-oriented development projects near MBTA stations, with the largest half dozen alone generating roughly $10 billion in private sector investment.

(2) Don’t borrow money unless you have the funds to pay it back: This is the same advice I gave my teenagers when they get their first credit card but it is the opposite of what we have been doing in Massachusetts for years, which is borrowing money – for perfectly good programs like the Accelerated Bridge Program – without simultaneously providing additional revenue to pay off the resulting debt service. As a result, in fiscal year 2014, even if no additional borrowing occurs, the Commonwealth will spend nearly $1.6 billion on the principal and interest on past borrowing. Despite what many people think, the majority of this debt service is not for the MBTA or the Big Dig: these bonds were issued over years and decades to pay for the statewide road and bridge program. Every community in the Commonwealth has benefited from this borrowing and now that the bill is finally due everyone will have to contribute to paying it off.

(1) Use a portfolio of revenue sources to generate enough funding to address the system’s many needs: There is no silver bullet for generating enough revenue to address the transportation system’s multi-billion dollar operating, maintenance and capital deficits. The well-intentioned decision to address the MBTA’s financial crisis back in 2000 relied on a single revenue stream – the sales tax – and as a result failed to provide a sustainable solution. There are many ways of funding transportation and most states rely on a greater mix of sources than Massachusetts. In order to help inform your deliberations on potential revenue options, the Dukakis Center, working in collaboration with A Better City and the Conservation Law Foundation (CLF) – has prepared a Transportation Revenue Options Handbook. Prepared with the assistance of AECOM, the Handbook consists of a collection of identically-formatted two page “fact sheets” about nineteen potential revenue sources that provides information on how much revenue it could yield, how Massachusetts’ use of that source compares to other states and other important variables. We would be happy to share that research with the Committee and other interested legislators.
In closing, I ask that the Committee remember that investment in transportation infrastructure is one of the most important things that the Commonwealth can do for its residents, communities and economic competitiveness. You have heard this morning about the cost of doing nothing, but the cost of doing too little is equally great. Every day in the Commonwealth we are paying for the inadequacies of the current transportation system, in dollars spent on unproductive borrowing and in lost economic opportunities – and, of course, in the human cost of people spending too much time and money getting to work, school or medical appointments.

Around the world and around the country, other governments are choosing to invest – and invest big – in transportation. This is not a liberal or conservative, Democrat or Republican issue. The conservatives in Britain are making the largest investment in rail transportation since the Victorian era. The Tea Party-supported Republican governor of Virginia recently proposed – and has already signed into law – a multi-billion dollar transportation investment program supported by new petroleum and sales taxes. The lower house in New Hampshire – New Hampshire! – recently passed a 15 cent increase in the gas tax to fund unmet transportation needs. Massachusetts cannot stay competitive regionally, nationally or globally without making a substantial and long-term investment in creating a 21st century transportation system. I look forward to working with you and others in the legislature to craft a legislative package that makes the necessary investments in our Commonwealth and its transportation system.
Paying the Bills: The Costs of Transportation Debt

- Massachusetts, like most states, issues bonds to pay for transportation maintenance and capital expenses. Such borrowing to pay for transportation is fiscally responsible if:
  - Adequate, dedicated sources of funding are available to pay off the debt service and
  - The proceeds are used for capital, rather than operating, expenses
- In fiscal year 2014 (see chart below), **even if no additional borrowing occurs**, the Commonwealth will spend nearly **$1.6 billion** to pay the principal and interest on past borrowing for the statewide road and bridge program, the Big Dig, the MBTA and the Mass. Turnpike
  - The majority of this debt service is **not** for the MBTA or the Big Dig
  - The $1.1 billion owed on non-MBTA debt service requires expenditure of more than half of all dedicated transportation revenues from gas taxes, Registry fees and tolls
  - The $431 million owed by the MBTA represents 25% of MBTA revenues for FY14
- The majority of the transportation debt service that the Commonwealth will need to repay over the next decade (see chart on the next page) is either for:
  - Borrowing that has already occurred and must be paid for ($10.1 billion in FY13-23), or
  - Borrowing already planned to occur for maintenance and capital expenditures by MassDOT and the MBTA ($3.5 billion in FY13-23), while
  - Principal and interest on bonds issued to fund the proposed 21st Century Plan would total $2.9 billion in the period FY13-23

**FY14 Transportation Debt Service (in $ millions)**

- Commonwealth Past Borrowings, $1,012M
- Metropolitan Highway System (Big Dig), $130M
- Commonwealth Planned Borrowing FY14 (without Plan), $44M
- Commonwealth "Big Dig" Transit Commitments Debt, $141M
- MBTA Debt, $431M
- MBTA Pre-Forward Funding Borrowing (Legacy Debt), $108M
- MBTA Post Forward Funding Borrowings, $182M
- Western Turnpike, $20M
- 21st Century Plan Planned Borrowing, $18M

**Legend:**
- Dark Yellow: Commonwealth
- Blue: MBTA
- Green: Big Dig
- Red: Other

**Note:**
- The chart illustrates the distribution of debt service costs among different road and transit programs in FY14.
Paying Operating Expenses with Borrowed Funds
At least since the 1990s, the Massachusetts Department of Transportation (MassDOT) and its predecessor agencies have shifted operating expenses to the capital budget.

- In fiscal year 2014 MassDOT has a “hidden operating deficit” of $233 million in operating funds being paid out of the capital budget.
- Over one-third of the bond cap funds allocated to transportation for FY14 are slated to be spent on operating costs.
- For each $1 borrowed to pay for salaries and even office rents, the Commonwealth will pay $1.75 in principal and interest over the next 25 years.
- The bond cap cannot easily be increased, so each dollar of the bond cap spent on operating costs is not available for needed maintenance and capital projects.

**FY14 Bond Cap Planned Spending**
(Total = $2 Billion)

- Transportation "True Capital" Expenses, $390M
- Transportation Operating Expenses, $1,375M
- Capital Spending (other than transportation), $1,375M

**Debt Service Expenses (in $ millions)**

- Available Transportation Revenue
- Principal & Interest on Past Borrowings
- Principal & Interest on FY14-23 Commonwealth Planned Borrowing
- $13B 21st Century Plan Finance Plan Principal & Interest

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Stabilizing the MBTA’s Finances

- The Massachusetts Bay Transportation Authority (MBTA), or T, serves 175 Massachusetts communities with a population of almost 4.7 million people spread over 3,200 square miles
- The MBTA anchors the regional economy
  - MBTA station areas (areas within ½ mile of a T commuter rail or rapid transit station or key bus route) occupy less than 3% of the land area in metro Boston (from the NH to RI borders and west to nearly Worcester)
  - But account for 1 in 5 residents and workers and nearly 1 in 3 households

**MBTA Operating Deficits**

- The MBTA has long had a structural operating deficit, with expenses exceeding revenues
  - Revenue from the dedicated penny of sales tax has failed to meet projections
  - With the 2012 fare increase, the MBTA’s revenue recovery ratio has risen to 41%
- Over the next five years, existing revenues are projected to increase only 1% per year while expenses are projected to increase 5% per year
- The MBTA’s projected FY 2013 operating deficit of $185 million was closed with a combination of increased fares, service cuts, and efficiencies, as well as $64 million in one-time revenues

<table>
<thead>
<tr>
<th>Metropolitan Boston</th>
<th>MBTA Station Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>4,552,402</td>
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<tr>
<td>Households</td>
<td>1,344,257</td>
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<tr>
<td>Workers</td>
<td>2,277,958</td>
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<tr>
<td></td>
<td>981,225 (22%)</td>
</tr>
<tr>
<td></td>
<td>402,801 (30%)</td>
</tr>
<tr>
<td></td>
<td>484,736 (21%)</td>
</tr>
</tbody>
</table>

**MBTA Projected Operating Deficits (in $ millions)**

- Operating Deficit (assumes no fare changes)
- Operating Deficit (5% fare increase every two years beginning FY15)
The MBTA’s Debt Burden

- At $5.2 billion, the MBTA carries the largest outstanding debt of any transit agency in the US.
  - $1.3 billion was inherited as “legacy debt” as part of the 2000 forward funding legislation
  - $1.7 billion was issued to fund the Commonwealth’s legal commitments to expand transit as part of the mitigation package required to build the Big Dig
- Moody’s downgraded the MBTA’s senior sales tax bonds from Aa1 to Aa2 in November 2012, citing reduced debt service coverage and strained financial operations
- As shown above, if the Commonwealth assumes responsibility for “legacy” and “Big Dig” debt service payments, the MBTA could close its remaining deficits through FY 2017 with modest fare increases

Maintenance and Modernization (State of Good Repair) Backlog

- The MBTA has never been able to generate “pay as you go” revenue as planned with forward funding, so every dollar spent on maintenance and modernization has been borrowed
  - $2.2 billion in debt has been issued to fund maintenance and other capital needs since the MBTA began issuing its own debt after forward funding was implemented
- The MBTA’s growing backlog of unmet maintenance needs, called the State of Good Repair backlog, was estimated at more than $3 billion several years ago and may be twice that large
  - The MBTA must spend nearly $500 million each year simply to keep the backlog from growing
  - By some estimates the T should spend $750-800 million annually on maintenance and modernization to address the State of Good Repair backlog

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Strategic Investment: What’s in the Plan?

- The Massachusetts Department of Transportation’s (MassDOT) *The Way Forward: A 21st Century Transportation Plan* proposes a 10-year, $13 billion capital investment program
  - As well as $8.7 billion in spending on operations over the same ten-year period
- The major categories of proposed investment (see chart on the next page) are
  - $3.75 billion for repairing and modernizing roads and bridges statewide
  - $2.98 billion for replacement MBTA vehicles and an additional $400 million for Regional Transit Authority buses
  - $2.97 billion for MBTA and rail expansion projects
  - $1 billion to increase the Chapter 90 program for cities and towns by $100 million annually
- Borrowing costs for the $13 billion plan would total $2.9 billion during the ten-year period through fiscal year 2023 and $10.9 billion over the 25 years of MassDOT’s financial model for the Plan

Investing for Leverage

- Transportation capital investment can and should leverage additional investment from both the federal government and private sector
- The Green Line expansion project is well-positioned to attract $500 million in New Starts funding if new revenues are available to address the MBTA’s operating deficit and to match the federal dollars for building the project
- The *Hub and Spoke* report issued by the Boston District Council of the Urban Land Institute in June 2012 identified 250 transit-oriented development projects near MBTA stations, with the largest half dozen alone generating roughly $10 billion in private sector investment

Transit Capacity and Expansion

- The Plan proposes both to increase the capacity of existing MBTA, rail and regional transit authority services and to strategically expand MBTA and rail service to a handful new areas
- Capacity investments (including additional operating funds for RTA operation) do not expand the state’s transportation system but do increase its capacity to serve a growing ridership
- MBTA ridership has increased from 1.1 million average weekday riders in 2005 to 1.3 million in 2011-12 and is projected to increase to 1.4-1.6 million average weekday riders by 2020
- The Plan includes more than $4 billion in critical capacity investments for the MBTA, including new Red and Orange line vehicles, power upgrades and additional tracks at South Station
- If South Station is (correctly) treated as a capacity project, the Plan includes five rail and transit expansion projects with a price tag of $2.97 billion, just under 1/4 of the proposed capital investment
Components of Capital Investments Proposed in MassDOT's $13-Billion, 10-year Plan (in $ millions)

- Road and Bridge Repair and Modernization: $3,755
- Funding for Local Roads (Ch. 90): $1,000
- Bicycle & Pedestrian Facilities: $430
- Regional Transit Authority Vehicles: $400
- MBTA Replacement Trains & Buses: $2,982
- MBTA Power & Facilities: $300
- MBTA Modernization Pilot Projects: $200
- Registry of Motor Vehicles: $150
- Aeronautics: $125
- Cape Cod Rail Berkshires to NYC Inland Route: $21
- South Coast Rail: $1,800
- Red Line Car #3 Overhaul: $200
- MBTA Buses: $450
- Green Line Cars: $732
- Red & Orange Line Cars: $1,500
- Highway Preservation Facilities & Systems: $400
- Regional Priority Highway Interchanges: $930
- Multimodal Highway Program: $1,250
- Bridge Program: $1,175
- South Coast Rail: $1,500
- Regional Transit Authority Vehicles: $400
- Bicycle & Pedestrian Facilities: $430