

Final CIP Update SFY 2020-2024 Joint Boards presentation

June 17, 2019

Overview

- **Since last meeting:**
 - Held public meetings and completed comment period
 - Complete draft equity analysis
 - Updated sources
 - Updated projects / spending
- **Today:**
 - Need vote on final CIP by Joint Boards

Planning Processes and Public Outreach

Opportunities for public input

Public participation at the local level to identify needs in their communities and participate in planning exercises



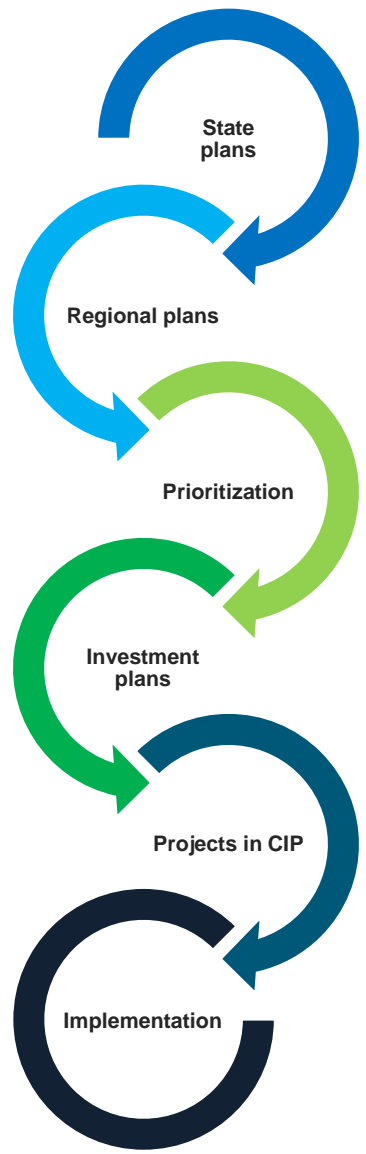
Public can weigh in at MPO meetings where regional priorities are set



Public participation at project specific planning to help shape project concepts or plans



Public can weigh in at CIP public meetings as draft plans are presented



State/Regional Modal/Project Planning

Modal Planning/Corridor Studies

- Commuter Rail Vision
- Bicycle and Pedestrian Plans
- Freight and Rail Plans
- Water Transportation Study
- I-91 Viaduct Study
- Cape Cod Canal Study
- Focus40

Regional Transportation Plans

- Long Range Transportation Plan
- Commuter Rail Vision

Project Specific Planning

- Lynn Transit Action Plan
- Better Bus Project
- Green Line Capacity
- Mattapan High Speed Line

Investment Plans

- Capital Investment Plan
- State Transportation Improvement Plan

CIP Investments

- List of prioritized projects for each Division
- Included for funding over the five years

Public engagement

Phase 1:

- Focus on stakeholders – both established and newly identified, across all divisions and modes
 - These efforts included non-traditional attendees such as civic organizations, councils on aging, community organizations, and faith groups
- Direct outreach in person and electronically
- Outreach was focused on educating general public about the CIP and how they can get involved in the CIP process

Phase 2:

- 13 public meetings across the Commonwealth
 - The kickoff meeting (held in Boston) was live-streamed and made available for replay to encourage participation from those who could not be physically present at a meeting
 - The meeting has received 106 views as of June 10th
 - One meeting held jointly with MPO (Berkshire)
 - MPOs participated in public meetings (Boston, Braintree, Falmouth, Springfield, Leominster, Pittsfield)
 - Modest turnout at each meeting: approximately 12 participants/meeting
- Additional Meetings
 - Legislative Briefing - 46 participants
 - Massachusetts Municipal Association – 9 participants
- Two online comment tools – online maps and participate tab in the CIP document
- Letters, emails, and phone calls
- 934 Comments received through June 11th (meetings, letters, emails, phone, and online from CIP document)



Public input process and CIP Public Meeting Schedule

- 13 public meetings across the Commonwealth
 - Tuesday May 21th – Boston
(This meeting was streamed live and recorded for future viewing)
 - Tuesday May 21th – Danvers
 - Wednesday May 22th – Falmouth
 - Thursday May 23rd – Braintree
 - Thursday May 23rd – Fall River
 - Tuesday May 28th – Pittsfield (with Berkshire MPO)
 - Wednesday May 29th – Natick
 - Thursday May 30th – Lowell
 - Thursday May 30th – Chelsea
 - Monday June 3rd – Leominster
 - Tuesday June 4th – Roxbury
 - Wednesday June 5th – Worcester
 - Thursday June 6th – Springfield
- Online comment tools
 - Comments accepted directly on proposed projects
 - Emails & letters



massDOT | CAPITAL INVESTMENT PLAN
Massachusetts Department of Transportation

FACT
MassDOT will spend approximately \$17 billion dollars in transportation investments over the next 5 years.

FACT
Most people in Massachusetts are unaware of the capital planning process and do not participate in the conversations about where transportation funding should be prioritized.

FACT
Your voice is important! MassDOT wants to hear from ALL citizens across the Commonwealth!

MassDOT is preparing the next five-year capital plan, a spending plan that will guide investments in our transportation system between 2020 and 2024. The Capital Investment Plan (CIP) determines how we prioritize and fund our investments, covering all transportation projects – everything from highway and municipal projects to regional airports, rail and transit, including the MBTA and Regional Transit Authorities as well as bicycle and pedestrian projects across the Commonwealth.

JOIN US AND BE HEARD
We want to hear from you about your priorities for transportation projects both local and statewide. Tell us how we can improve our transportation systems, enhance our transportation capacity where needed, and build new projects to help communities prosper and get residents where they need to go. Representatives from MassDOT will inform attendees on how to get involved at the local and state level, provide a draft overview of the 2020 – 2024 CIP and record your input about your transportation needs and capital priorities. Please help spread the word about these Capital Investment Plan meetings to friends, family and business associates. Make your voice heard. Your participation is critical to meeting your transportation needs.

CIP PUBLIC MEETING SCHEDULE

<ul style="list-style-type: none">• BOSTON - Tuesday, May 21st – 6:30pm Transportation Building - 10 Park Plaza Board Room *This meeting will be streamed live and recorded for future viewing• DANVERS - Tuesday, May 21st – 6:00pm Danvers Senior Center 25 Stone St.• FALMOUTH - Wednesday, May 22nd – 6:30pm Falmouth Library (Hermann Foundation Room) 300 Main St.• BRAINTREE - Thursday, May 23rd – 6:30pm Thayer Public Library 798 Washington St.• FALL RIVER - Thursday, May 23rd – 6:30pm Fall River Library (Large meeting room) 104 North Main St.• PITTSFIELD - Tuesday, May 28th – 6:00pm Berkshire Regional Planning Commission 1 Fenn St, #201	<ul style="list-style-type: none">• NATICK - Wednesday, May 29th – 6:30pm Natick Town Hall (Selectmen Room) 13 East Central St.• LOWELL - Thursday, May 30th – 6:30pm Pollard Library (Community Meeting Room) 401 Merrimack St.• LEOMINSTER - Monday, June 3rd – 6:30pm Leominster City Hall (Auditorium) 25 West St.• ROXBURY - Tuesday, June 4th – 6:30pm Bolling Municipal Building 2300 Washington St.• WORCESTER - Wednesday, June 5th – 6:30pm Worcester City Hall (South Meeting Room) 455 Main St.• SPRINGFIELD - Thursday, June 6th – 6:00pm Springfield Library (Mason Square Branch) 765 State St.
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CAN'T MAKE A MEETING? POST YOUR IDEAS AT WWW.MASS.GOV/CIP OR EMAIL COMMENTS TO MASSCIP@STATE.MA.US
Meeting locations are accessible to people with disabilities and those with limited English proficiency. Accessibility accommodations and language services will be provided free of charge upon request, and as available. Requests should be submitted within ten days of the meeting at which services will be required, if at all possible. Such services include documents in alternative formats, translated documents, assistive listening devices, and interpreters (including American Sign Language). For more information or to request reasonable accommodation and/or language services, please contact Michelle Muellem at (857) 368-9027 or michelle.l.muellem@dot.state.ma.us.

Recap of Public comments: Key Highlights by Division

- **Aeronautics**

- No comments received

- **Highway**

- Support for replacement of the **Sagamore and Bourne Bridges** over the Cape Cod Canal
- Requests for installation of **suicide prevention barriers on French King Bridge** to address serious public safety concerns
- Positive feedback on the increased prioritization of investments in **bicycle/pedestrian** accommodations and **rail trails** across the Commonwealth
- Support for study to bring the **Quequechan River and Falls** in Fall River back to the surface (previously buried by roadway projects)
- Requests for reconstruction of **McGrath Highway** at grade in Somerville
- Requests for signals at three intersections along **Main Street in Medford**

- **Registry of Motor Vehicles**

- Support for **relocation of RMV South Yarmouth facility** to Hyannis Cape Cod Regional Transit Authority facility

- **Rail Group**

- Continued support for electric option (full build) for **South Coast Rail**
- General Support for **East-West Rail** with requests to **extend to the Berkshires**

- **Transit Group**

- Support for accessible transit infrastructure improvements on RTA buses
- Support for greater connectivity between RTA networks (PVRTA and WRTA)

- **General**

- Requests for increased annual funding for **Chapter 90** program to address increases in construction costs and materials (level funding results in few dollars available for eligible projects)
- Support for additional **pre-apprenticeship program funding** to support training programs in underserved communities, particularly for women, and men of color
 - Program has been extremely beneficial in training and providing job opportunities in the construction industry for individuals in underserved communities

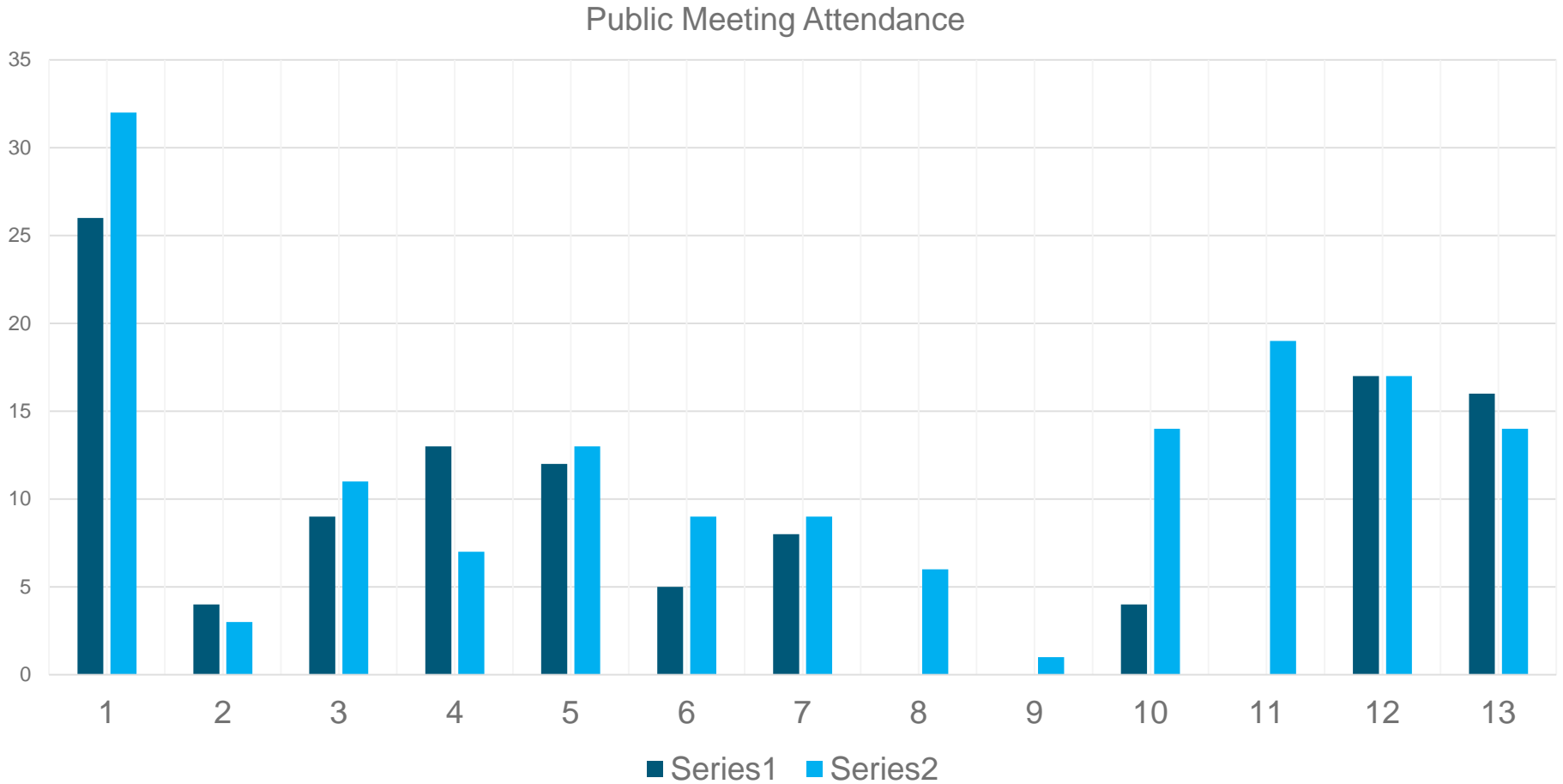
Recap of Public comments: Key Highlights by Division

- **MBTA**

- Positive feedback on the **Red/Blue Connector** to support connectivity, reduce crowding, reduce congestion, and promote economic growth Increasing First/Last Mile connections
- Support for **Bus improvements**, including electric bus procurements, bus shelters, dedicated bus lanes, and route improvements
- **Mattapan Trolley (High Speed Line):**
 - Support for historic nature of the Mattapan Trolleys
 - Support for upgrading it to a rapid transit line and/or extension of Ashmont Branch
- **Station Improvements and Accessibility:**
 - Wakefield Station
 - Broadway Station
 - Forest Hills Station
 - Auburndale, West Newton and Newtonville Stations
 - First/Last Mile options for the elderly and riders with disabilities
 - General support for redesigning and/or building stations to be fully accessible (Elevator Program, Plan for Accessible Transit Infrastructure [PATI])
- Haverhill City Council unanimously endorsed relocation of **Bradford MBTA Layover Station**
- Comments on different **Automated Fare Collection 2.0** fare policy approaches
- Support for **Green Line Extension** and **Capacity Study** and **14' feet width for Community Path**
- Support for electrification of **Commuter Rail**
- Support for **North-South Rail Link**
- Support for **third track feasibility study** for **Framingham-Worcester Commuter Rail**

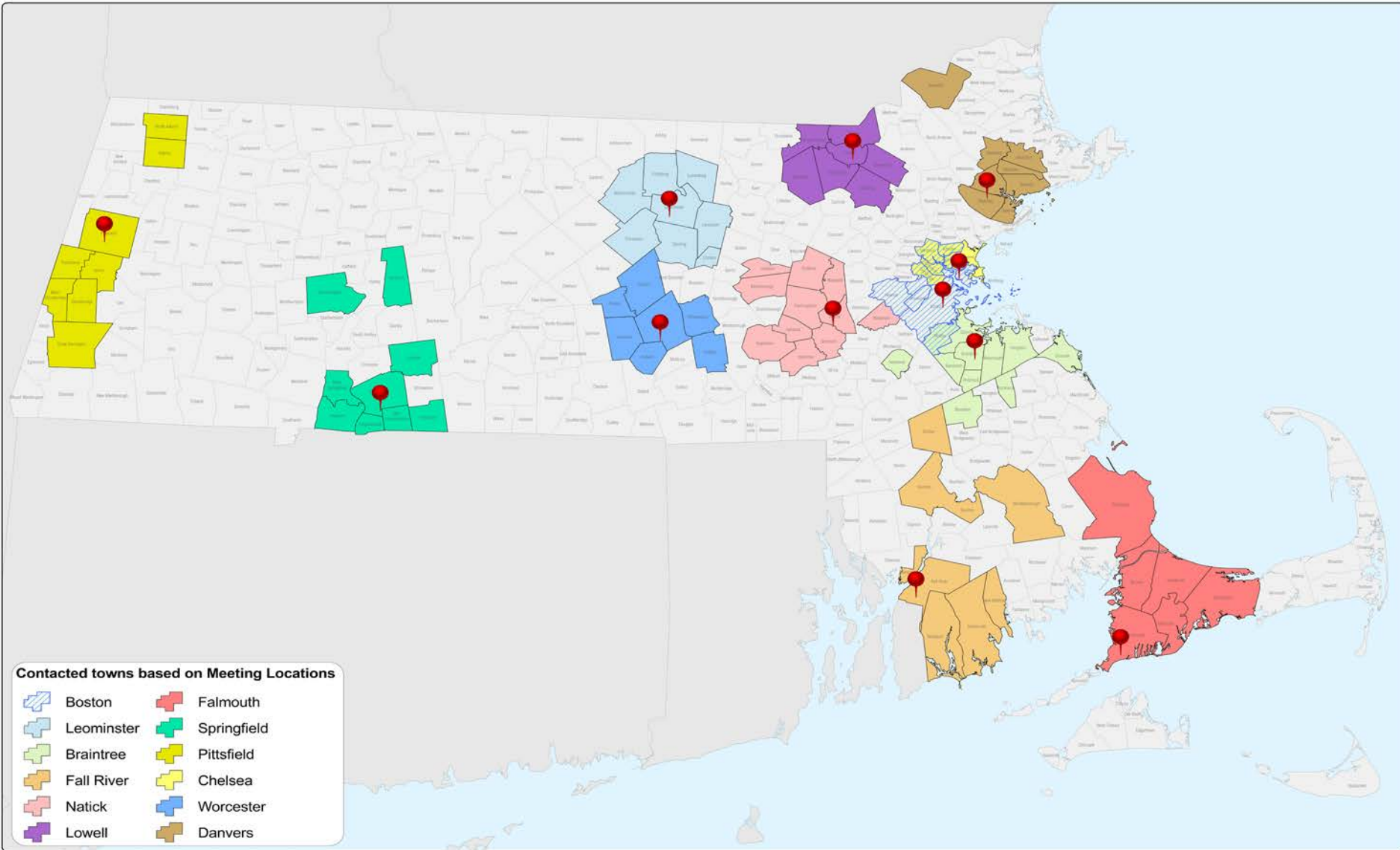


Public Meeting Attendance



Public Meeting Outreach

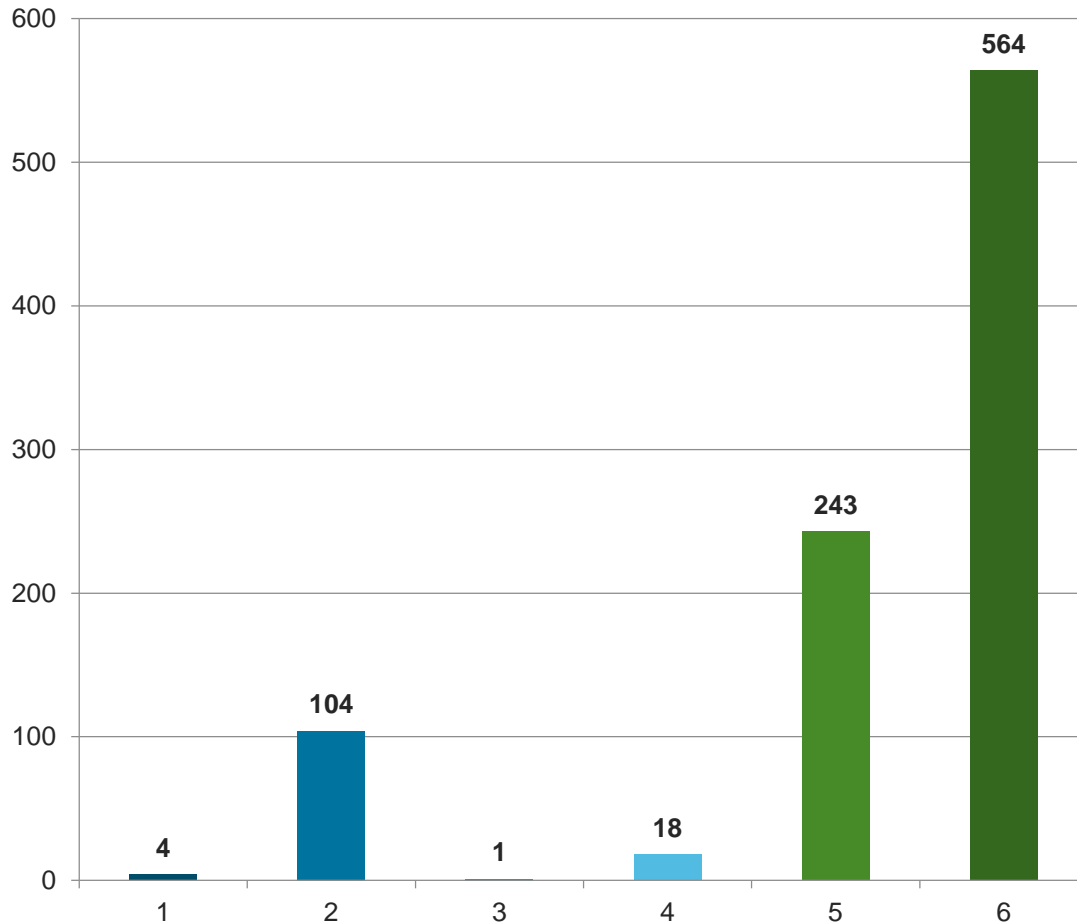
CIP Outreach Summary



Data Source:
Roads: 1:5,000 Massachusetts Road Inventory Cataloged File: Year-end 2013; Rail: 1:5,000 Massachusetts Rail Inventory Cataloged File: Year-end 2013; Transportation assets: Planning workstation files; Boundary files: MassGIS 1:5,000 maintained files; Points, streams and other environmental layers: MassGIS 1:5,000 maintained files.
This map was produced by the Office of Transportation Planning. The Federal Highway Administration provided funding for the production of this map through the State Planning and Research Program. The location of the boundaries and features shown on this map are approximate and are intended for planning purposes only. This map is not intended to be used for survey, engineering or legal purposes. For more information call (617) 551-9500.

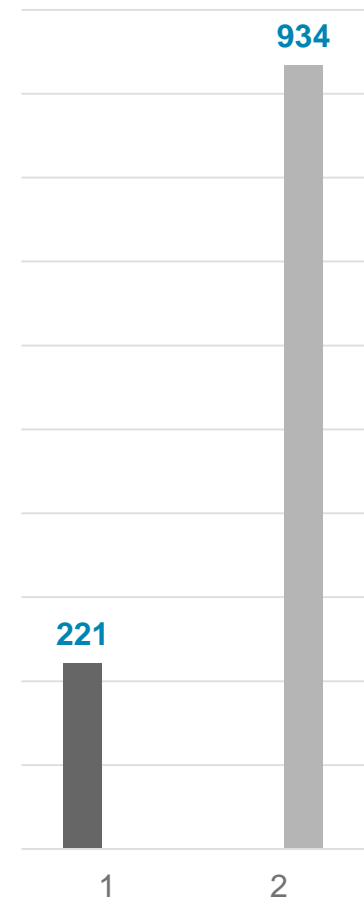
CIP comments received*

Number of Comments Received

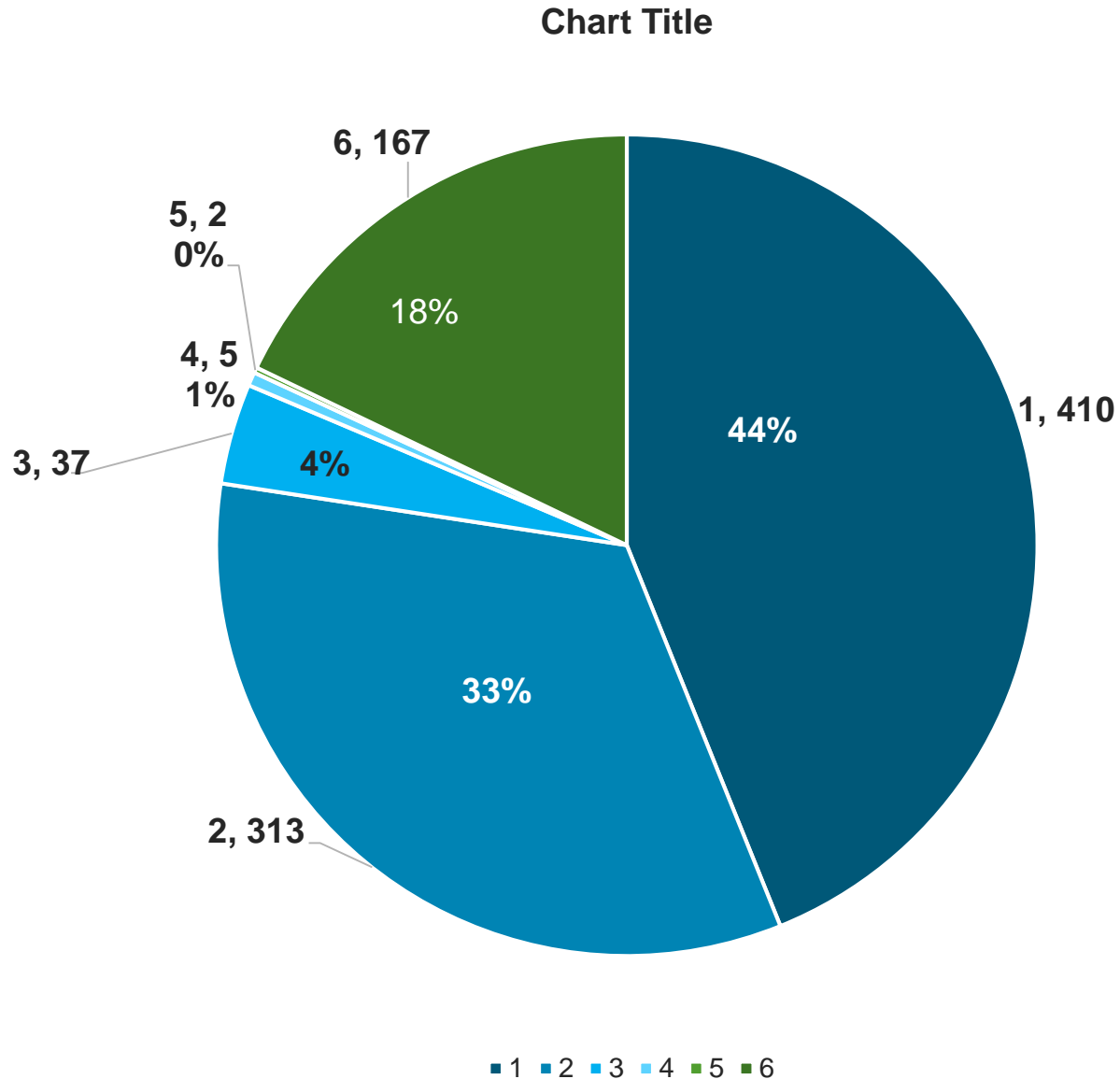


*As of June 11, 2019, a total of 934 were received

Comments By CIP Year



Distribution of CIP Comments by Division



Equity Analysis: Conclusions

2020-2024 CIP Equity Analysis:

- This year's analysis continues to represent an incremental evolution of the process, including:
 - Investments analyzed not only in the aggregate but also by mode and by investment category
 - Variable buffering was used to analyze impacts of CIP investments depending upon the location (rural, suburban, urban) and mode (Transit – RTA/MBTA, Highway, Rail, Aeronautics)
- Any disparities in aggregate funding levels are below the 20% DI/DB Threshold
 - MBTA investments vis-à-vis disability communities are the only outlier, at 33%, though this analysis does not currently incorporate accessibility project scores, PATI project identification and prioritization, nor recent significant accessibility improvements to the MBTA system, such as station reconstruction (Government Center)
- The totality of investments appear to distribute funding in a manner that effectively benefits the diverse populations of the Commonwealth
- At the modal and project category levels of analysis, there are examples of investments that benefit Title VI and EJ communities as well as those that benefit non-Title VI and non-EJ communities, suggesting overall equity in the capital investment strategy

Process Improvements for Future CIP Equity Analyses:

- Review prior capital plans (starting with the 2017-2021 CIP) to compare investments made across the Commonwealth for both geographic and social equity analyses
- Municipal portal is under development that will provide additional clarity to investments made for Chapter 90, Complete Streets and Small Municipal Bridge projects at the municipal level
 - Investments made under these programs at the municipal level will then be captured as part of the equity analysis
- Variable buffers will be used at the project type level to further understand impacts of investments
- Total universe of assets will be analyzed and compared to proposed investments
- Total universe of potential projects will be digitized to facilitate development of future plans and analysis; universe to be linked to online comment tool to solicit public feedback
- Further work on conceptualizing how to capture investments made by the individual RTAs in their system routes
- Analysis and capture of the universe of eligible funding at the municipal level



Social Equity Analysis: Summary

Minority communities*

- **Communities with 24% minority or more**
- Total MassDOT investments in non-minority communities are approximately **18% greater** per capita than minority communities.
 - Total difference is *less than 20% DI/DB* threshold*
 - Highway investments are nearly equal
 - RTA investments provide 22% more funding to minority communities.
- MBTA investments in minority communities are approximately **52% greater** than non-minority communities.

Limited English Proficiency*

- **Communities with 6.25% or more of population that are LEP**
- Total MassDOT investments in non-LEP communities are approximately **18% greater** per capita than LEP communities.
 - Total difference is *less than 20% DI/DB threshold*
- MBTA investments in LEP communities are approximately **34% greater** per capita than non-LEP communities.

Low-income*

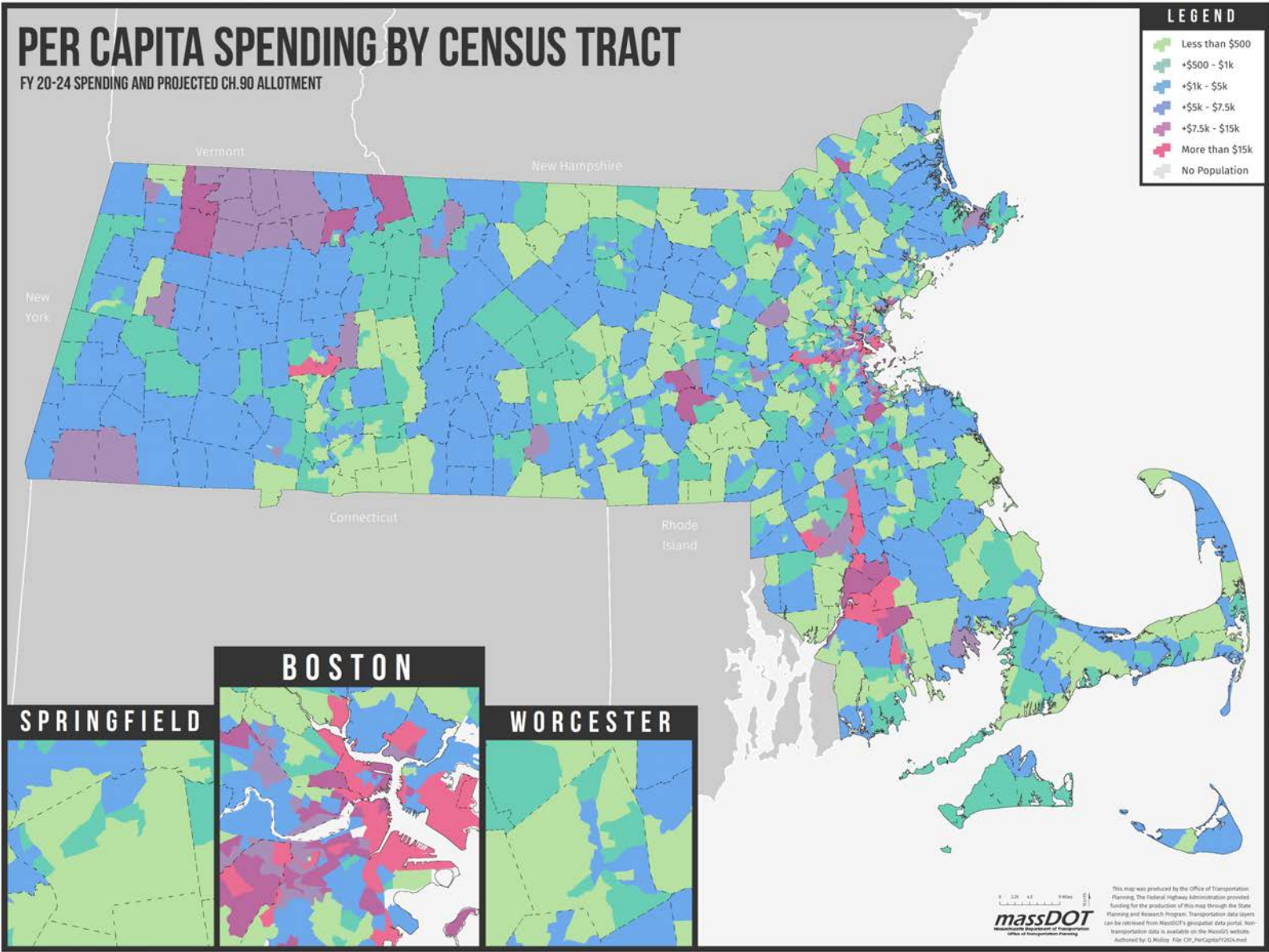
- **Median income at or below \$44,100****
- Total MassDOT investments in low-income communities are approximately **12% greater** per capita than non-low-income communities.
 - Low-income communities receive 75% greater per capita investment in RTAs, and 24% greater per capita investment from the Highway Division
- MBTA investments in non-low-income communities are approximately **6% greater** per capita than low-income communities.
 - Total difference is *less than 20% DI/DB threshold**

Disability communities*

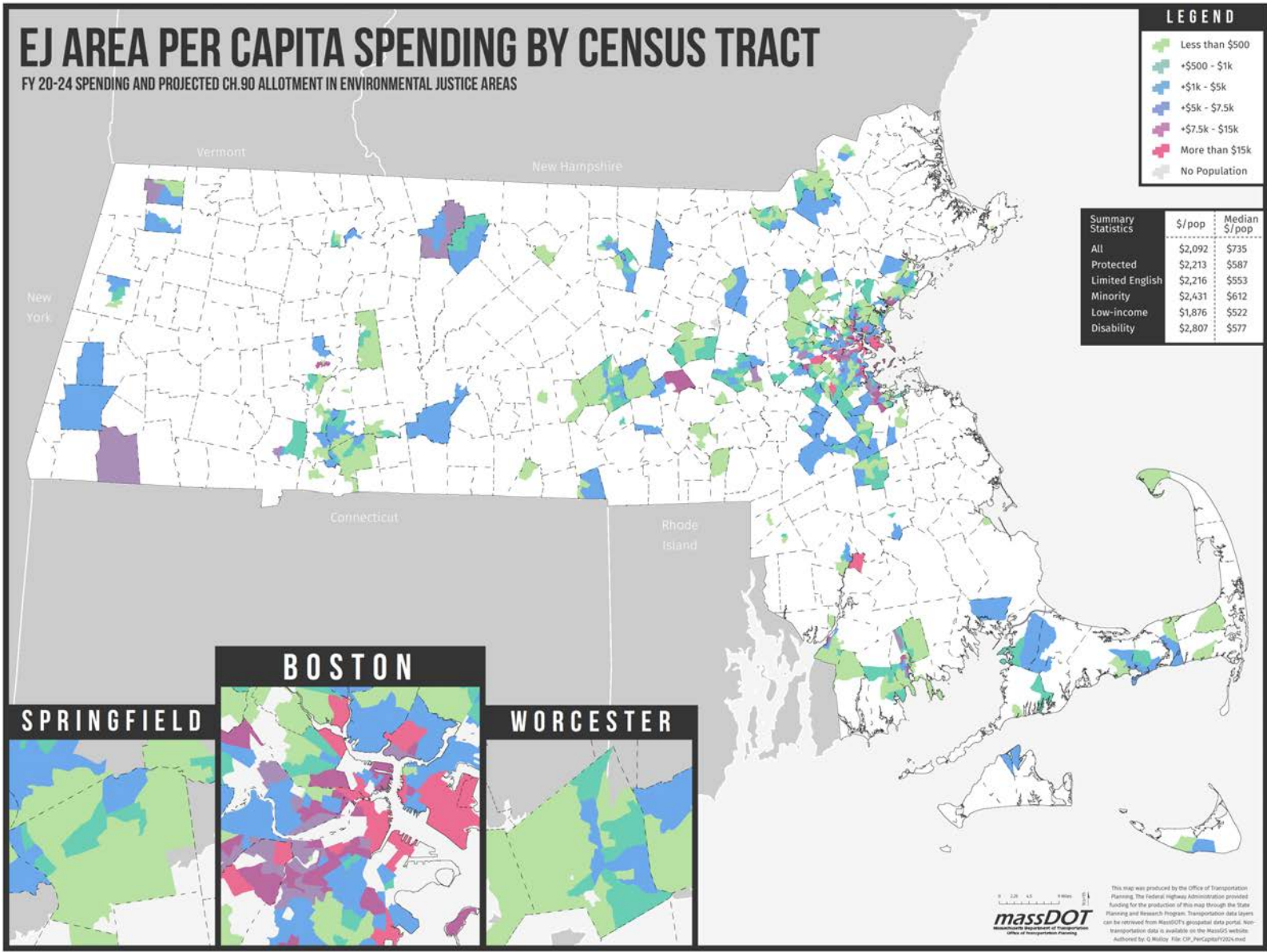
- **Communities with 11% or more of individuals with disabilities**
- Total MassDOT investments in disability communities are approximately **25% greater** per capita than non-disability communities.
- MBTA investments in non-disability communities are approximately **33% greater** per capita than disability communities.
 - This *exceeds the 20% DI/DB threshold** but only reflects investments directly in disability communities as defined, and does not adequately capture system-wide improvements to accessibility.

*DI/DB threshold stands for Disparate Impact/Disproportionate Burden Threshold

Geographic Equity Analysis: Per Capita Spending by Census Tract



Social Equity: Per Capita Spending in Environmental Justice Area



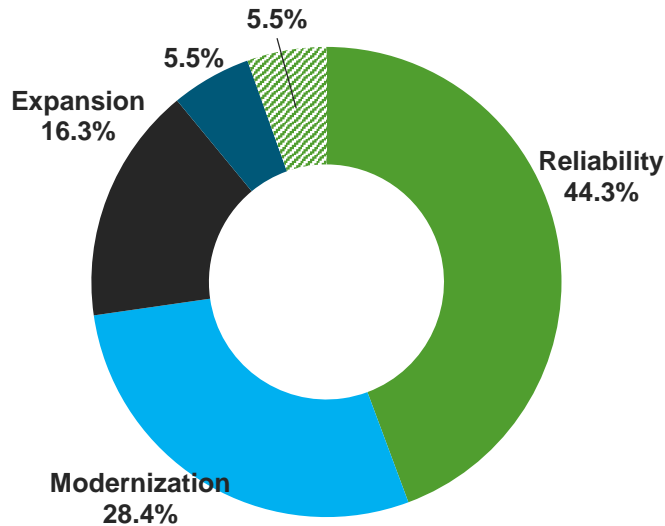
Sources update

- Other state funds
 - Commonwealth (DEP) has received funds from settlement of the lawsuit against Volkswagen for falsification of emissions data
 - Funds can be used on eligible investments that reduce emissions e.g. electric buses and charging facilities
 - MassDOT has been allocated \$10.9 million for FY 20 for transit investments in electric vehicles and supporting infrastructure

Program investments by Division

Reliability	Aeronautics	Highway	IT	MBTA	Rail	RMV	Transit	OTP	Total SFY20-24
	\$233.3 (millions)	\$4,631.8	\$52.7	\$2,817.0	\$255.5	\$1.2	\$129.7	\$2.6	\$8,123.8
Modernization	Aeronautics	Highway	IT	MBTA	Rail	RMV	Transit	OTP	Total SFY20-24
	\$20.8 (millions)	\$1,886.7	\$49.3	\$3,029.9	\$63.7	\$41.4	\$111.8	\$0	\$5,203.6
Expansion	Aeronautics	Highway	IT	MBTA	Rail	RMV	Transit	OTP	Total SFY20-24
	\$0.0 (millions)	\$537.9	\$0.0	\$2,384.0	\$7.5	\$0.0	\$0.0	\$59.0	2,988.4

Overall program spending breakdown



millions	SFY 2019-23	SFY 2020-24	Differences
Reliability	\$8,376.6	\$8,123.8	-\$252.8
Modernization	\$5,122.9	\$5,203.6	+\$80.7
Expansion	\$1,926.5	\$2,988.4	+\$1,061.9
Chapter 90	\$1,000.0	\$1,000.0	-
Planning, Enterprise Services, & Other	\$848.1	\$1,009.3	+\$161.2
<i>Five-year total</i>	\$17,274.1	\$18,325.1	+\$1,051.0

Spending updates

- **Aeronautics Division** – no changes
- **Highway Division**
 - MPOs have endorsed all TIPs and they will be reflected in the final draft CIP Update presented to the Joint Boards on June 17
- **IT** – no changes
- **MBTA** – no significant changes
- **Rail and Transit Division**
 - VW funds will be used to procure electric buses and supporting facilities for Greater Attleboro-Taunton Regional Transit Authority (\$4.6 million)

MassDOT spending by source (Draft vs. Final)

Projected sources (in millions)	Draft FY 20	Final FY 20	Delta	Draft 5-year Total	Final 5-year Total	Delta
Federal sources of funds						
Federal Highway (FHWA) reimbursements	\$775.3	\$771.4	(\$3.9)	\$4,137.0	\$4,139.0	\$2.0
Federal Transit (FTA) reimbursements**	\$6.0	\$6.0	\$ -	\$30.2	\$30.2	\$ -
Federal Aviation (FAA) reimbursements and grant draws	\$36.2	\$36.2	\$ -	\$176.1	\$176.1	\$ -
Federal Rail (FRA) reimbursements and grant draws	\$5.9	\$5.9	\$ -	\$13.1	\$13.1	\$ -
Subtotal federal sources*	\$823.4	\$819.5	(\$3.9)	\$4,356.4	\$4,358.4	\$2.0
Bond cap	\$854.8	\$854.8	\$ -	\$4,315.0	\$4,315.0	\$ -
Accelerated Bridge bonds	\$5.1	\$7.2	\$2.1	\$5.1	\$7.2	\$2.1
Rail enhancement bonds	\$34.4	\$16.9	(\$17.5)	\$65.3	\$40.4	(\$24.9)
CARM	\$29.4	\$23.8	(\$5.6)	\$227.4	\$223.4	(\$4.0)
Metropolitan Highway system (MHS) pay-go	\$74.7	\$72.6	(\$2.1)	\$437.4	\$423.4	(\$14.0)
Western Turnpike (WT) pay-go	\$104.0	\$59.7	(\$44.6)	\$559.2	\$558.6	(\$0.6)
Tobin Bridge (Tobin) pay-go	\$27.4	\$24.3	(\$3.1)	\$102.7	\$103.0	\$0.3
Reimbursable and 3 rd parties	\$6.3	\$6.3	\$ -	\$25.4	\$25.4	\$ -
Municipal and local funds	\$ -	\$ -	\$ -	\$17.5	\$14.3	(\$3.2)
Public private partnerships	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other State Funds***	\$ 10.9	\$ 0.0	(\$10.9)	\$10.9	\$4.6	(\$6.3)
Subtotal of non-federal sources*	\$1,146.9	\$1,065.6	(\$81.3)	\$5,765.9	\$5,715.4	(\$50.9)
Total sources*	\$1,970.4	\$1,885.1	(\$85.3)	\$10,122.3	\$10,073.4	(\$48.9)

* Totals may not add due to rounding | ** FTA reimbursements for MassDOT projects only; RTA federal funds are not included | *** New funding source made available to MassDOT.



MBTA spending by source (Draft vs. Final)

Projected sources (in millions)	Draft FY 20	Final FY 20	Delta	Draft 5-year Total	Final 5-year Total	Delta
Federal sources of funds						
Federal Highway (FHWA) reimbursements	\$61.1	\$61.1	\$ -	\$84.5	\$84.5	\$ -
Existing FTA reimbursements and grant draws	\$265.6	\$361.4	\$95.8	\$2,878.5	\$2,883.1	\$4.6
FTA Full funding grant agreement (GLX FFGA)	\$320.5	\$320.5	\$ -	\$761.6	\$761.6	\$ -
Other federal funds	\$10.6	\$10.6	\$ -	\$14.1	\$14.0	(\$0.1)
Subtotal federal sources	\$657.8	\$753.6	\$95.8	\$3,738.7	\$3,743.2	\$4.5
Bond cap (including lockbox)	\$115.2	\$115.2	\$ -	\$461.5	\$461.5	\$ -
Accelerated Bridge bonds	\$0.1	\$0.1	\$ -	\$0.1	\$0.1	\$ -
Rail enhancement bonds	\$232.8	\$233.2	\$ -	\$1,798.3	\$1,809.7	\$11.4
MBTA Revenue bonds	\$200.0	\$107.6	(\$92.4)	\$1,171.6	\$1,016.6	(\$155.0)
Metropolitan Highway system (MHS) pay-go	\$0.0	\$0.0	\$ -	\$0.0	\$0.0	\$ -
Municipal and local funds (GLX)	\$15.0	\$15.0	\$ -	\$75.0	\$75.0	\$ -
Reimbursable and 3 rd parties	\$13.8	\$14.5	\$0.7	\$100.5	\$101.0	\$0.5
Positive/Automatic Train Control (PTC/ATC) financing	\$24.3	\$99.9	\$75.6	\$170.7	\$169.9	(\$0.8)
Pay-Go Lockbox (Bond Cap)	\$60.0	\$60.0	\$ -	\$300.0	\$300.0	\$ -
Pay-Go lockbox (MBTA)	\$90.0	\$90.0	\$ -	\$394.2	\$568.4	\$174.2
Capital maintenance fund	\$4.4	\$4.1	(\$0.3)	\$6.2	\$5.9	(\$0.3)
Subtotal of non-federal sources	\$755.6	\$739.6	(\$16.4)	\$4,478.1	\$4,508.1	\$30.0
Total Sources	\$1,413.4	\$1,493.2	(\$79.4)	\$8,216.8	\$8,251.3	\$34.5

* Totals may not add due to rounding |

Project updates

- **Aeronautics Division** – no changes
- **Highway Division** – no significant changes
- **IT** – no changes
- **MBTA** – new projects added (via pay-go or capital maintenance processes - net zero impact)
 - Bus Maintenance Wireless Installation
 - Orange Line Rail Vehicle Component Upgrades
 - Green Line Fleet Flooring Upgrades
 - Blue Line PLC Upgrade
 - System wide Power Study
 - Maverick/Long Wharf Emergency Vent Fan Replacement
 - Wayside Bearing Acoustic Monitoring/Defect Detection (RailBAM)
 - Countdown Signs Installation
 - Commuter Rail Snow Removal Equipment
- **Rail and Transit Division**
 - Investments for electric bus procurements for GATRA reflected in the final project list
- **RMV** – no changes



Next steps and discussion

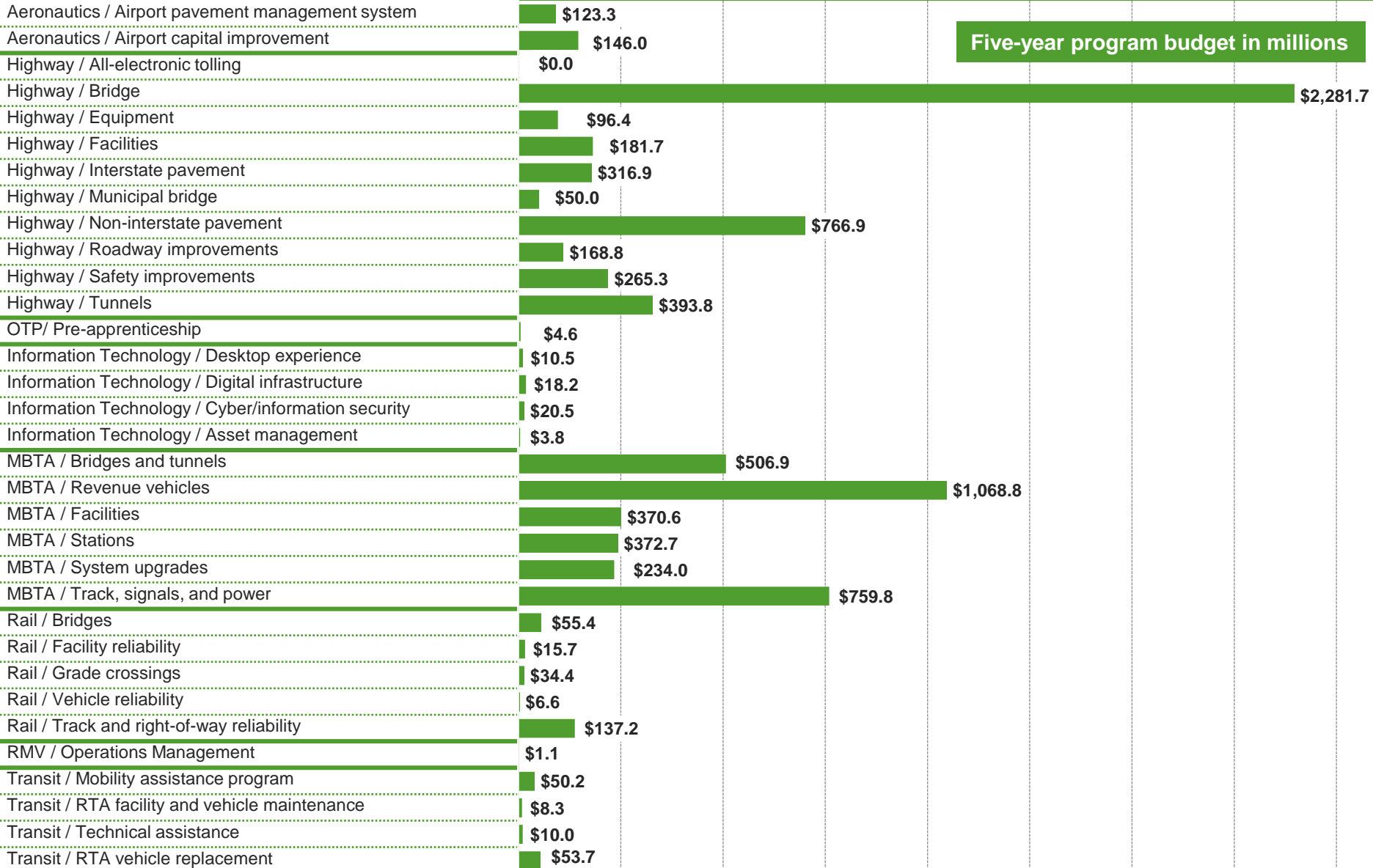
- Incorporate input from Joint Boards
- Finalize CIP content for final publication

FY2020-2024 CIP update: Appendix

Program sizes

June 12, 2019

Reliability investments by program

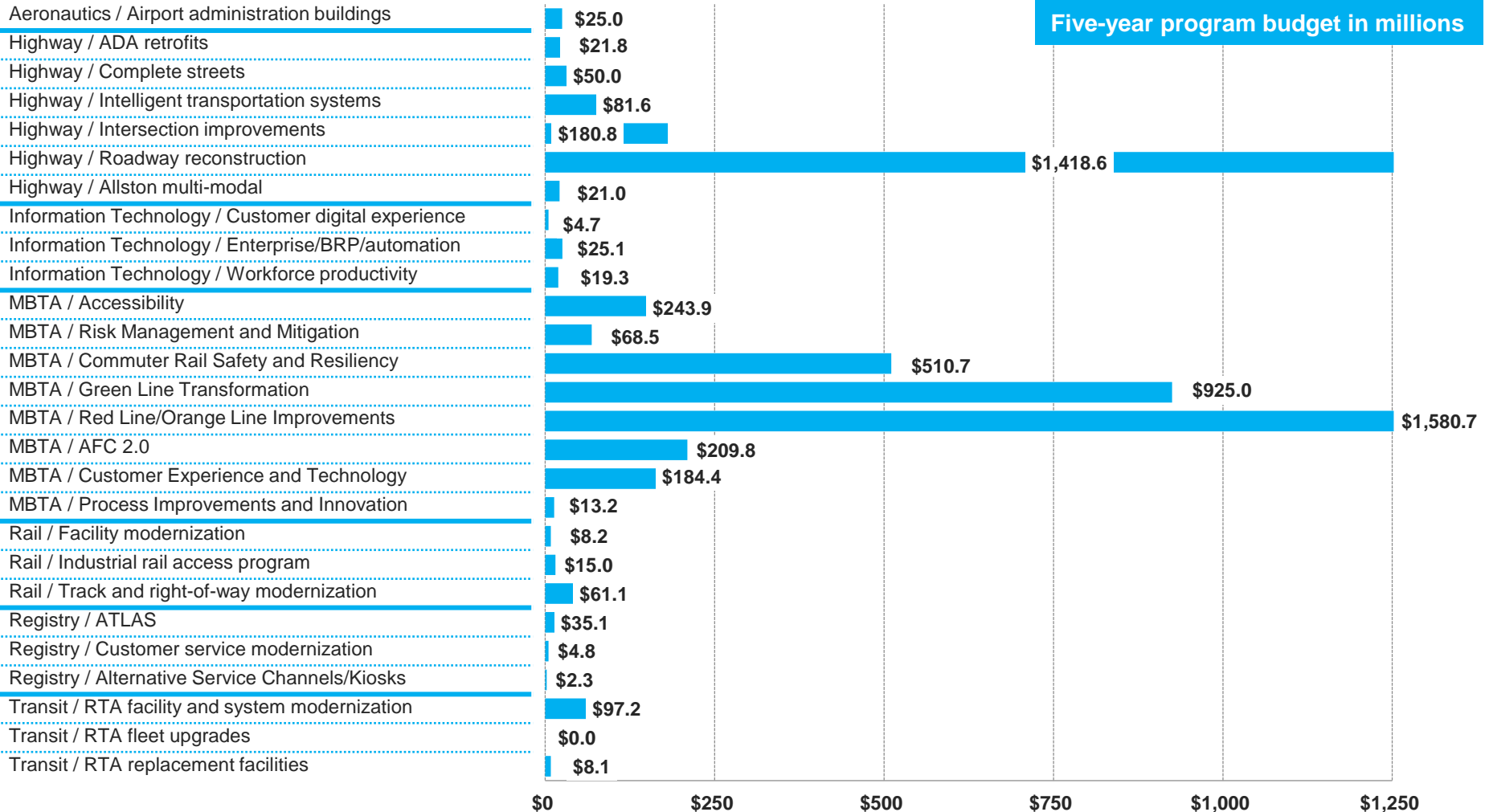


Five-year program budget in millions

Aeronautics	Highway	IT	MBTA	Rail	RMV	Transit	OTP	Total SFY20-24
\$269.3 (millions)	\$4,521.4	\$52.9	\$3,212.8	\$249.3	\$1.1	\$122.2	\$4.6	\$8,433.6

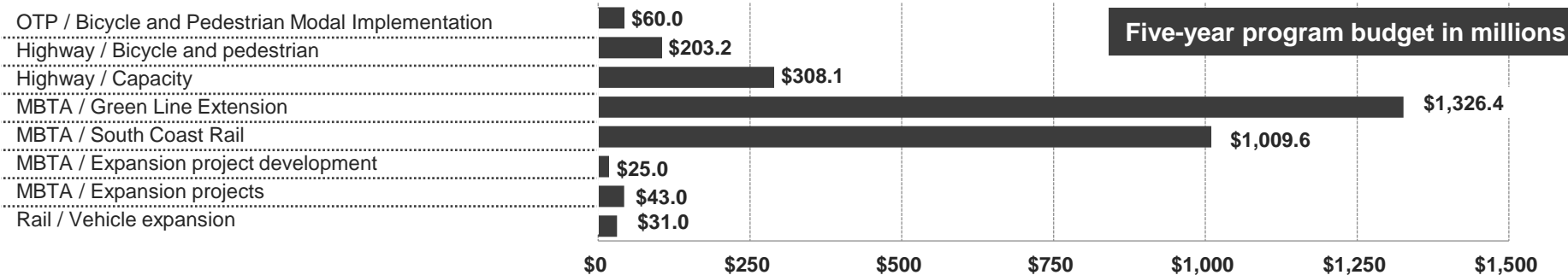


Modernization investments by program



Aeronautics	Highway	IT	MBTA	Rail	RMV	Transit	Total <i>SFY20-24</i>
\$25.0 (millions)	\$1,773.8	\$49.1	\$3,736.2	\$84.3	\$42.1	\$105.3	\$5,815.8

Expansion investments by program



Highway	MBTA	Rail	OTP	Total SFY20-24
\$571.3 <i>(millions)</i>	\$2,404.0	\$31.0	\$60.0	\$3,006.3