

2020 Update to the RTP

For the Pioneer Valley MPO

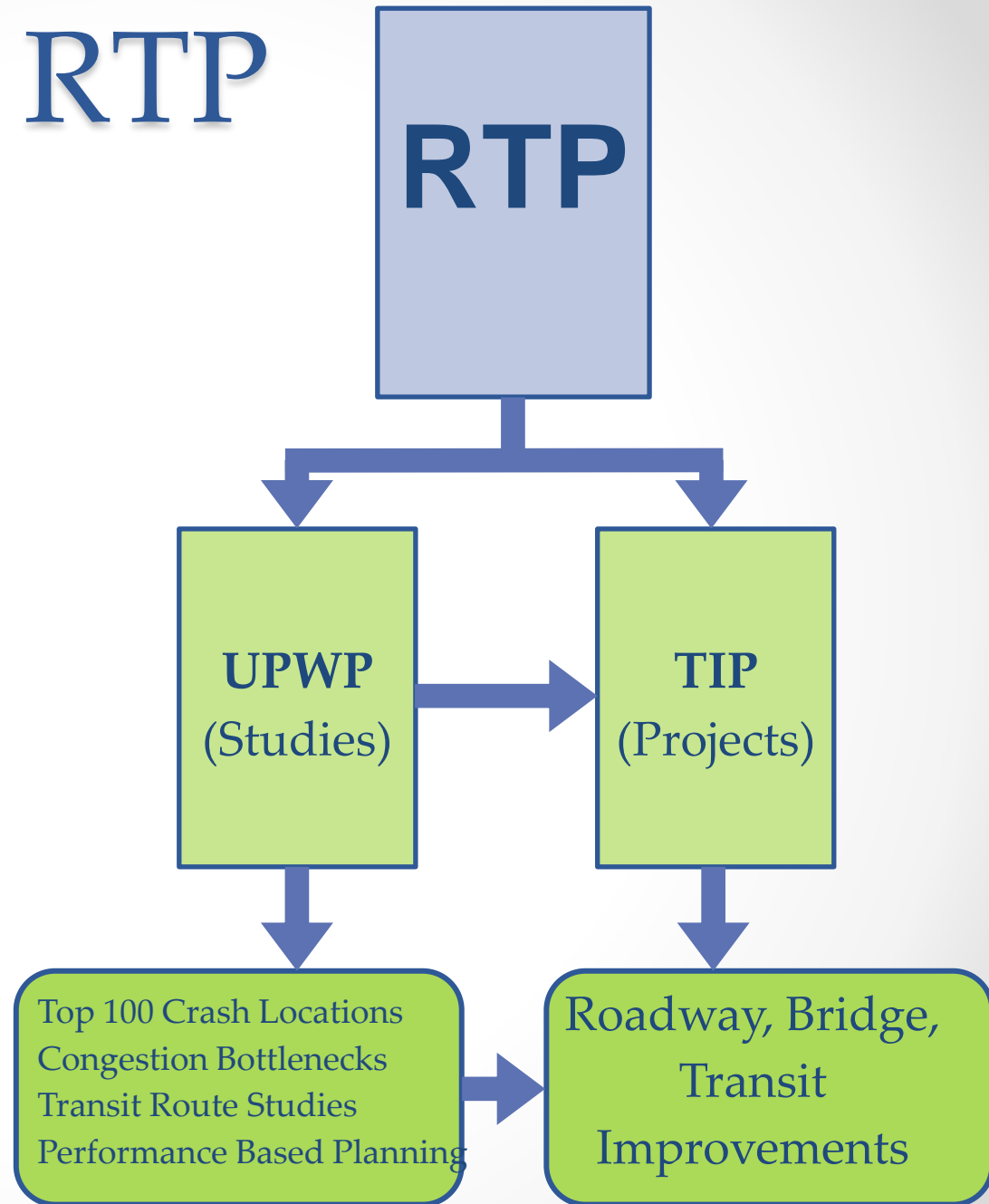


- February 21, 2019

What is the RTP

A long range planning document that:

- Outlines the direction of transportation planning improvements.
- Identifies existing and future regional transportation needs.
- Presents strategies to alleviate deficiencies in the regional transportation system.
- Demonstrates Air Quality Conformity
- Is financially constrained.
- Advances both construction projects and planning studies.
- Is equitable for all transportation users



Vision, Goals, and Emphasis Areas

1 Vision

The Pioneer Valley region strives to create and maintain a safe, dependable, resilient, environmentally sound, and equitable transportation system for all. We pledge to balance performance based strategies and projects that promote sustainable development, reduced use of fossil fuels, healthy and livable communities, provide for efficient movement of people and goods, advance economic vitality and enhance connectivity in the region.

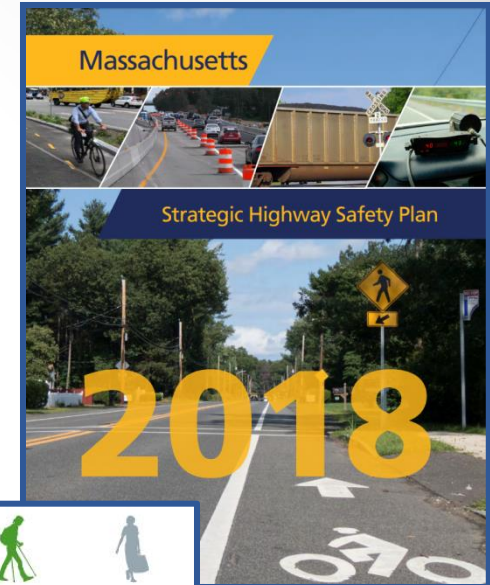
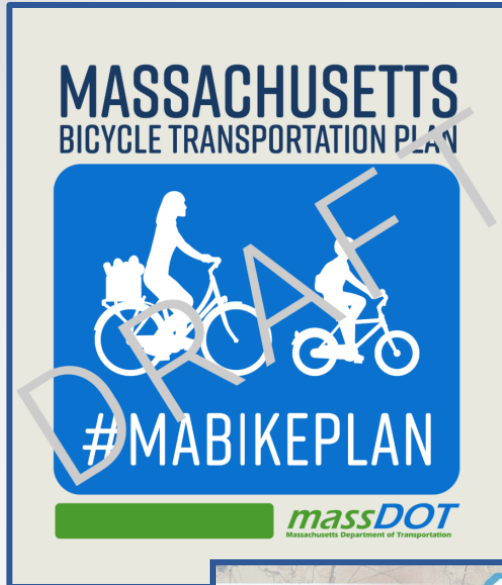
13 Goals

1. Safety
2. Operations and Maintenance
3. Environment
4. Coordination
5. Energy Efficiency
6. Cost Effectiveness
7. Intermodal Access
8. Multimodal Choices
9. Economic Productivity
10. Quality of Life
11. Environmental Justice
12. Land Use
13. Climate Change

5 Emphasis Areas

1. Safety and Security
2. The Movement of People
3. The Movement of Goods
4. The Movement of Information
5. Sustainability

Massachusetts Statewide Planning



- Statewide Planning Goals must be incorporated into the RTP .

Key Challenges

Commission on the Future of Transportation in the Commonwealth

- We can't know the future.
- Disruptive technological change is inevitable.
- Massachusetts is growing and aging.
- The existing transportation system is made up of transportation haves and have-nots.
- Transportation needs vary across the Commonwealth and its communities.
- The transportation system needs to move more people in fewer vehicles.
- Land use and development decisions drive transportation patterns.
- The transportation system needs to be de-carbonized.
- Transportation infrastructure needs to be made resilient to a changing climate.
- Needed investments need to be prioritized and paid for.

RTP Problem Statements

- There are seriously insufficient resources to support the state of good repair of the regional transportation system.
- Expanded regional passenger rail and transit service is integral to education, economic development and workforce development.
- There is a need for innovative, cost-effective solutions independent of the regional transit authorities to provide services to rural areas.
- Intermodal connections are necessary to support and enhance transportation options for downtown areas and village centers.
- Increased and comprehensive resources and policies to improve sustainability in the transportation sector are necessary if the region is to meet its fair share of GHG reductions to comply with the Massachusetts Global Warming Solutions Act.
- The regional transportation infrastructure does not sufficiently accommodate the movement and distribution of freight.
- The built environment for bicycling and walking is hampered by significant barriers that include: narrow road and bridge cross sections, disjointed/unconnected off-road trail networks, a lack of sidewalks, uniformity in signs/markings and maintenance issues.

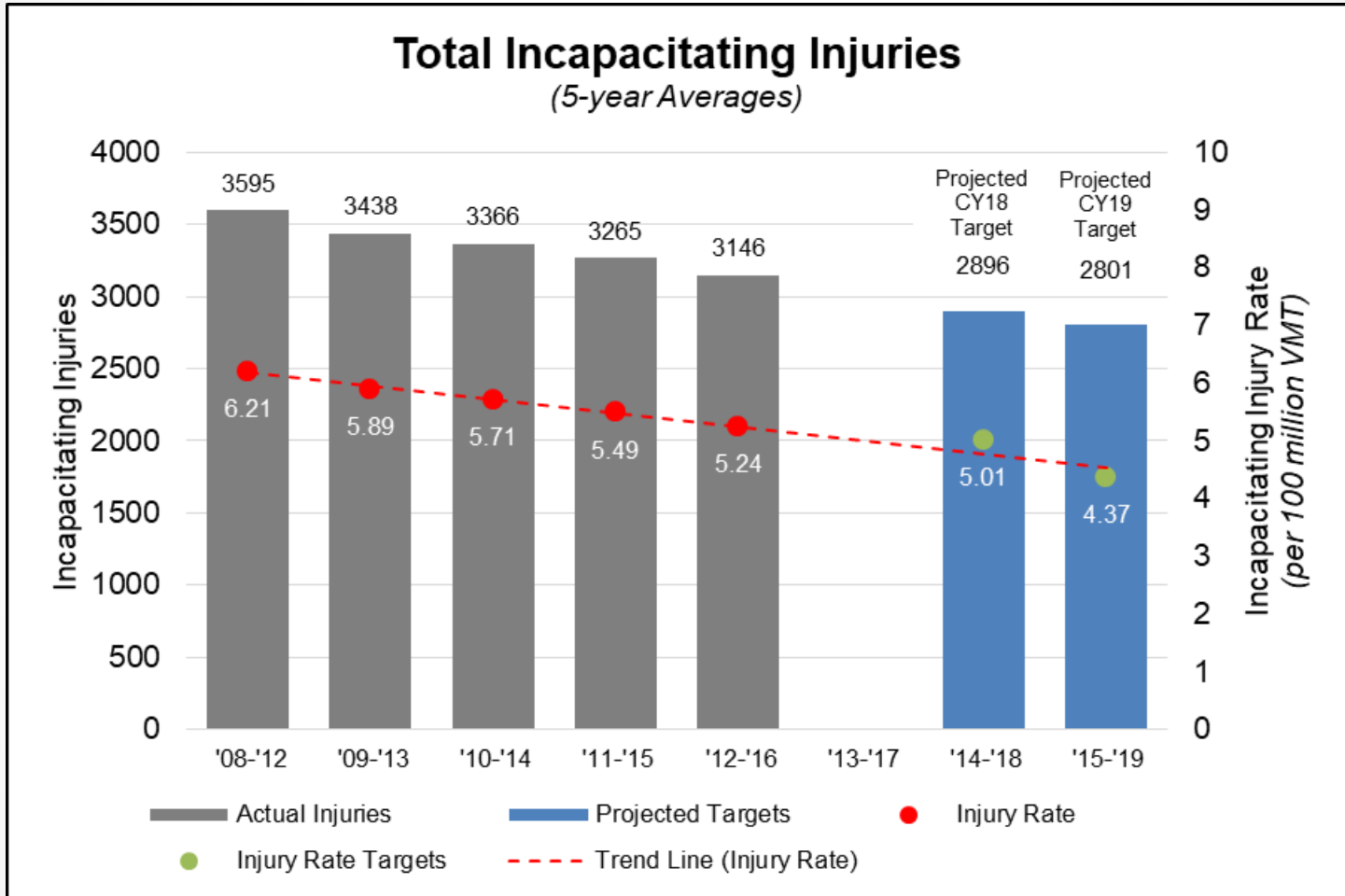
FAST Act

- Fixing America's Surface Transportation Act
 - Replaces and builds on MAP-21
- Signed into law – December 4, 2015.
 - 5 Year Bill
- More consultation and participation
 - Encourages MPO consultation with other types of planning activities
- Other changes to planning and performance
 - TIPs/long-range plans must include facilities that support intercity transportation
 - New planning considerations: resiliency/reliability, stormwater mitigation, and enhancement of travel/tourism
 - Performance measures and targets
 - Adds a new program for the National Highway Freight Program

Performance Measures

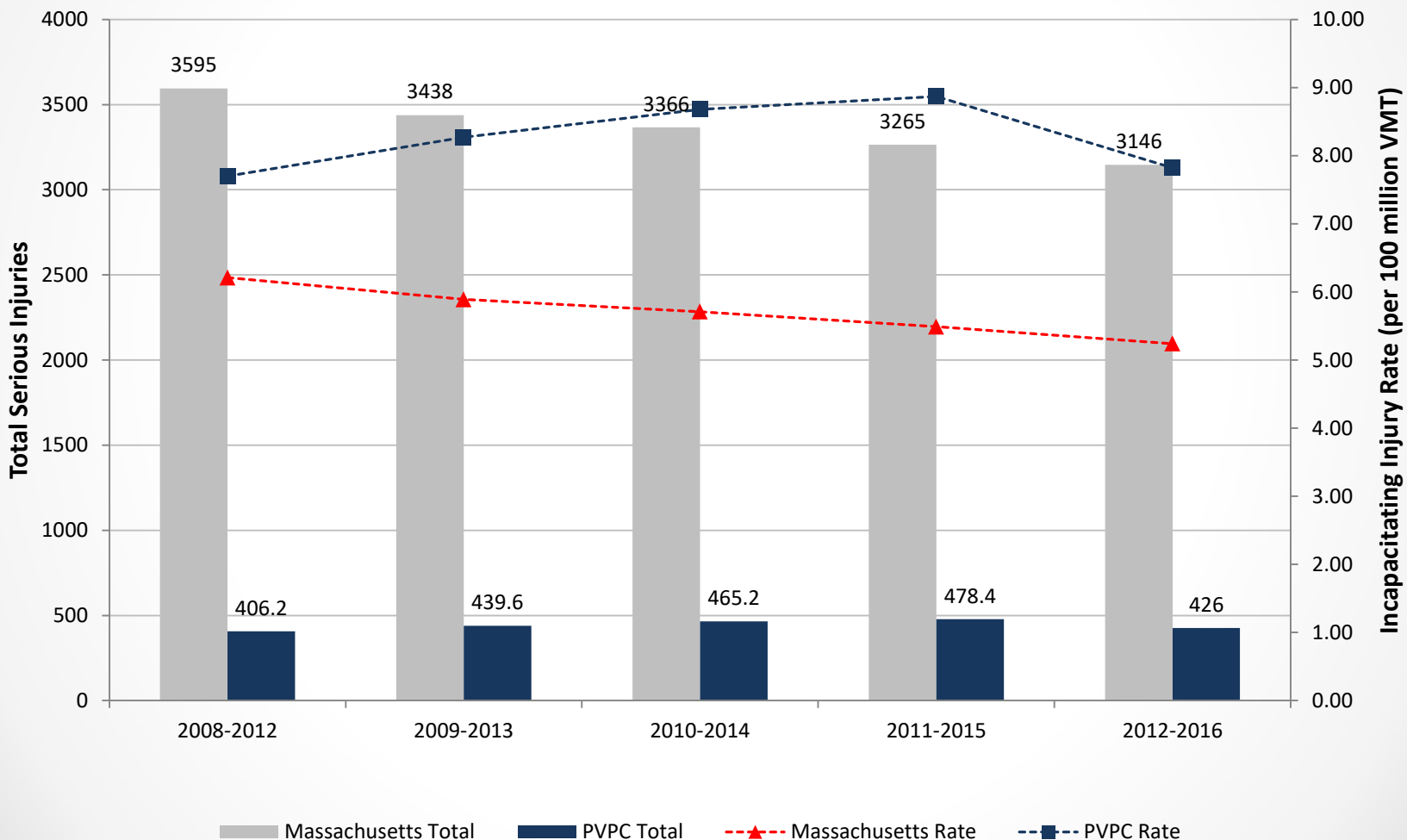
- Required under MAP-21 (Section 1203), continued with FAST Act
- MPO Performance Measure targets required for the following:
 - PM1 – Safety Measures – Set in February 2018 – Updated Annually
 - **Total number of fatalities**
 - **Rate of fatalities per 100 million vehicle miles traveled (VMT)**
 - **Total number of incapacitating injuries**
 - **Rate of incapacitating injuries per 100 million VMT**
 - **Total number of combined incapacitating injuries and fatalities for non-motorized modes**
 - PM2 – Pavement/Bridge Performance – Set in November 2018
 - PM3 – System Performance Measures – Set in November 2018
- Other Information:
 - MPOs establish their own set of quantifiable performance targets or
 - MPOs adopt state performance targets (for the entire Commonwealth – no quantifiable targets required for region)
 - Targets must be incorporated into Certification Documents

2019 MassDOT Safety Performance Measures



Comparison – Massachusetts Vs. Pioneer Valley

Total Incapacitating Injuries - 5 Year Averages



Transportation Evaluation Criteria

System Preservation, Modernization and Efficiency	Livability	Mobility	Smart Growth and Economic Development	Safety and Security	Environment and Climate Change	Quality of Life	Environmental Justice and Title VI
Improves Substandard Pavement 8	Design is consistent with Complete Streets policies 3	Improves efficiency, reliability and attractiveness of public transit 4	Encourages development around existing infrastructure 2	Reduces number and severity of collisions 7	Preserves floodplains and wetlands 1	Enhances or preserves greenways and blueways 1	Reduces and limits disproportionate impacts on an EJ community 0.5
Improves Intersection Operations 6	Provides multi-modal access to a downtown, village center, or employment center 2	Improves existing peak hour LOS 6	Prioritizes transportation investments that support land use and economic development goals 1	Promotes safe and accessible pedestrian and bike environment 5	Promotes green infrastructure and low impact development to reduce stormwater impacts 2	Improves access to parks, open lands and open space 1	Reduces and limits disproportionate impacts on Title VI community 0.5
In a Congestion Management Process Area 5	Reduces auto-dependency 2	Reduces traffic congestion 7	Provides services to a TOD, TND or cluster development district 0.5	Improves emergency response 4	Reduced impervious surfaces 0.5	Improves access to jobs 2	Improves transit for EJ populations 1
	Project serves a targeted development site 2		Supports mixed-use downtowns and village centers 0.5		Protects or enhances environmental assets 0.5	Preserves historical and cultural resources 0.5	Improves transit for Title VI populations 1
	Completes off-road bike and ped network 3		Improves Intermodal Connections 4		Supports Brownfield redevelopment 0.5	Preserves prime agricultural land 0.5	Creates an EJ Burden -5
			Reduces congestion on freight routes 2		Improves air quality 1	Provides safe and reliable access to education 0.5	Creates an Title VI Burden -5
					Reduces CO2 emissions 1	Supports designated scenic byways 0.5	
					Promotes mode shift 1	Implements ITS Strategies 2	
					Improves fish and wildlife passage 1	Improves Network Wayfinding 1	
					Supports Green Communities 0.5	Health Impact Assessment 1	
					Improves storm resilience 3	Length of Time Project has been in queue for TIP funding 1	
Maximum Score	19	12	17	10	16	12	3

RTP Survey

- <https://www.surveymonkey.com/r/T3N5M2K>

What type of projects are most important to you?	
Projects that improve the roadway surface.	4.64
Projects that enhance the movement and connectivity of pedestrians and bicycles.	7.17
Projects that expand or enhance transit.	6.29
Projects that reduce traffic congestion and travel time.	3.58
Projects that promote responsible economic growth and development.	4.42
Projects that improve safety.	5.58
Projects that protect or enhance environmental resources	4.88
Projects that preserve existing regional assets	4.64
Bridge projects	3.80

Top 3 Transportation Improvements	
New Mass Turnpike Exit	15%
East/West Passenger Rail to Boston	75%
Improvements to I-91 in Springfield	12%
Adequate Regional Transit Funding	72%
Bicycle/Pedestrian Connectivity	68%
Adequate Road Maintenance Funds	41%
Other	15%

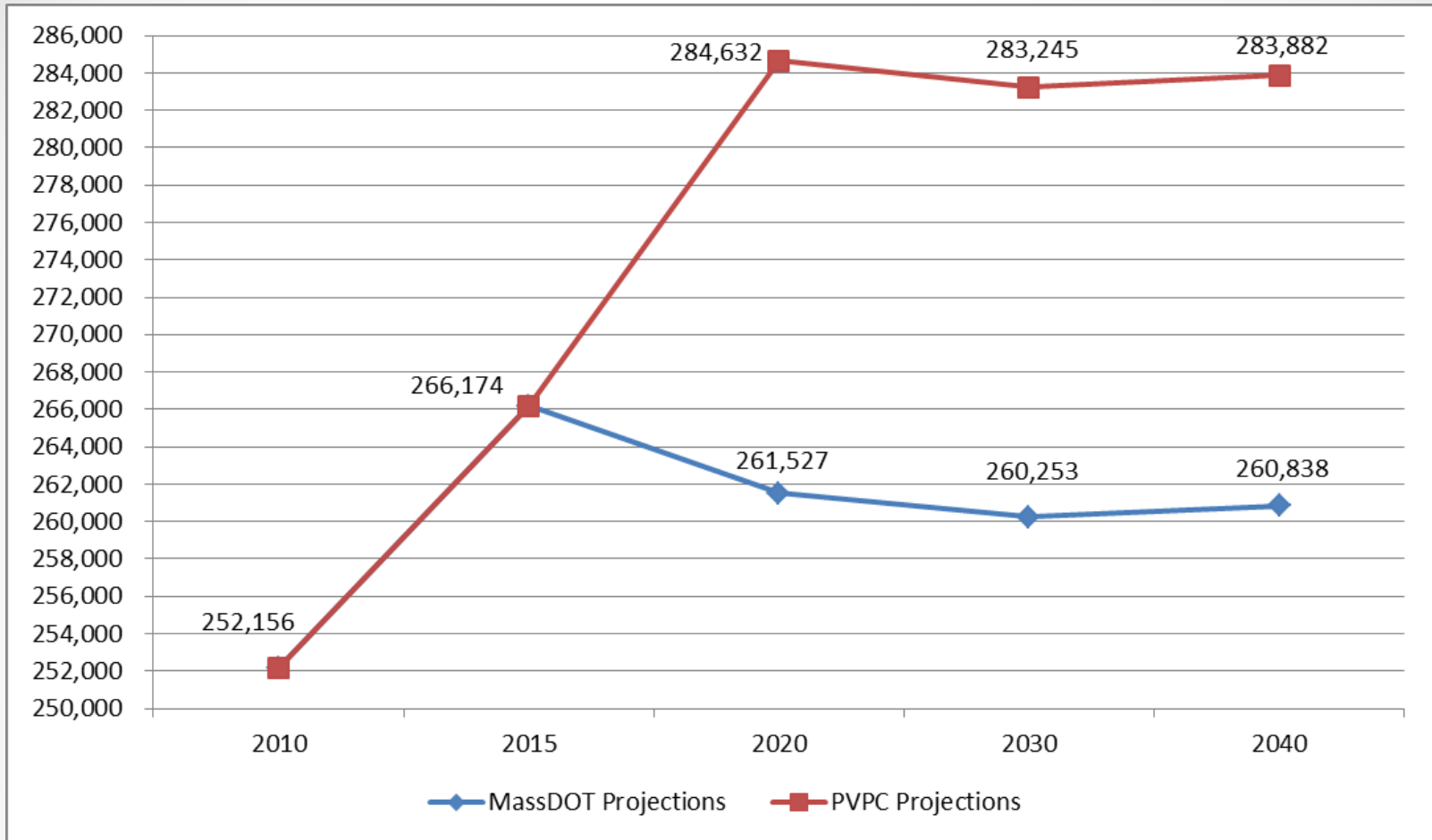
Mode	Primary	Desired
Car	71%	19%
Bus	6%	13%
Train	0%	9%
Walking	10%	17%
Bicycle	10%	36%
Other	3%	6%

Demographics

- The RTP considers projected changes in population, households, and employment.
 - Used for Air Quality Conformity and to identify traffic impacts of future improvements.
- MassDOT led effort coordinated with a statewide committee.
 - UMass Donahue Institute hired to assist
- Population and Households both projected to increase. Employment is projected to slightly decrease.

	2010	2020	2030	2040
Population	621,570	632,012	647,277	656,992
Households	238,629	255,326	270,293	278,094
Employment	252,156	261,527	260,253	260,838

Demographics - Employment



- PVPC Employment Scenario results in an additional 23,105 employees.
- MassDOT Employment Projections will be used for Air Quality Conformity
- PVPC Employment Projections will be used in the Regional Transportation Model.

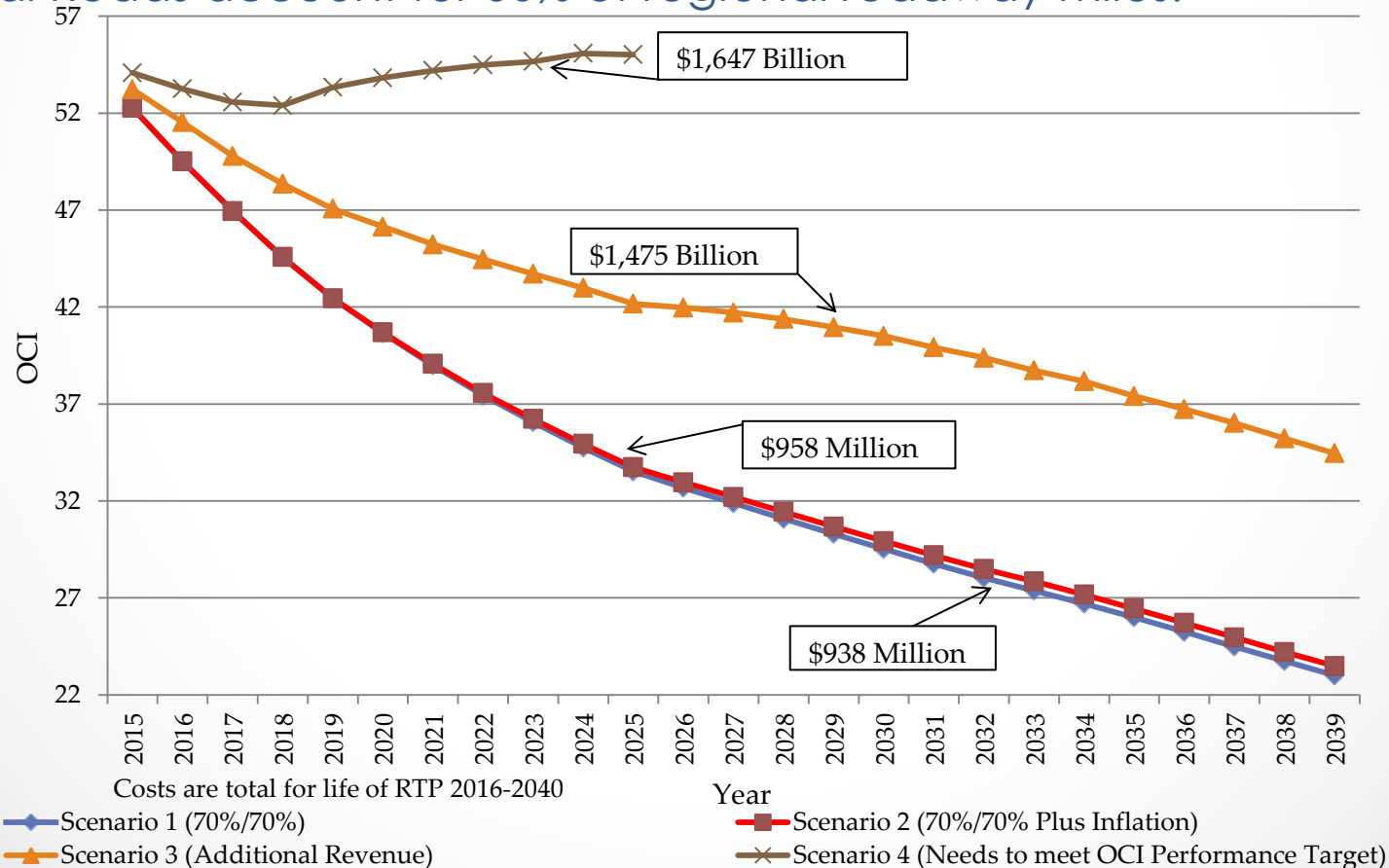
Funding

- Projects must come from a conforming RTP in order to be eligible for Federal Funding
- The RTP must demonstrate Financial Constraint
- As transportation construction costs continue to rise, it is becoming much more difficult to maintain the regional transportation system
- FY2020 Highway TIP Funding = \$25,782,146 (not including bridges)
- Must consider the impacts of inflation – currently 4%/year

	2020-2024	2025-2029	2030-2034	2035-2039	2040	Total
Highway Financial	\$ 134,136,805	\$ 153,789,263	\$ 188,833,296	\$ 209,293,530	\$ 44,516,326	\$ 730,569,220
Interstate Pavement	\$ 13,381,406	\$ 16,897,096	\$ 20,747,445	\$ 22,995,447	\$ 4,891,087	\$ 78,912,481
Non-Interstate Pavement	\$ 47,144,718	\$ 56,120,172	\$ 68,908,303	\$ 76,374,571	\$ 16,244,722	\$ 264,792,486
Remaining Statewide Programs	\$ 121,332,223	\$ 136,359,264	\$ 167,431,515	\$ 185,572,848	\$ 39,470,984	\$ 650,166,834
Bridge Preservation	\$ 54,049,500	\$ 55,238,589	\$ 56,453,838	\$ 57,695,822	\$ 11,793,026	\$ 235,230,775
Total	\$ 370,044,652	\$ 418,404,384	\$ 502,374,397	\$ 551,932,218	\$ 116,916,145	\$ 1,959,671,796

Roadway Maintenance Needs

- Scenario Planning used in 2016 RTP Update to estimate the investment needs to bring federal aid eligible roadways to a state of good repair.
- Scenario 4 assumes investments are made to increase regional pavement condition by 5% by 2025. This required more than double the current investment - \$328 million over 5 years.
- Local Roads account for 66% of regional roadway miles.



Transit Funding Needs

STATE ASSISTANCE TO PVTA

FY14 **\$18.40M** – Transportation Reform Act

FY15 **\$22.90M** – Service added; ridership hits 12M

FY16 **\$23.56M** – More Service; ridership hits 12.5M

FY17 **\$23.55M** – Used Capital Funds to cover deficit

FY18 **\$23.00M** – Deficit \$1.2M; service cut 4%; ridership drops 800,000

FY19 **\$23.00M** – Fare increase implemented 7/1/2018, \$800,000 in service reductions implemented 9/1/2018

FY20 \$23.00M – Governor's Budget = Level Funding

I-91 VIADUCT STUDY

Springfield, Massachusetts



New Massachusetts Turnpike Interchange



Algerie Road, Otis



Blandford
Maintenance Area



Blandford Rest
Area

Passenger Rail

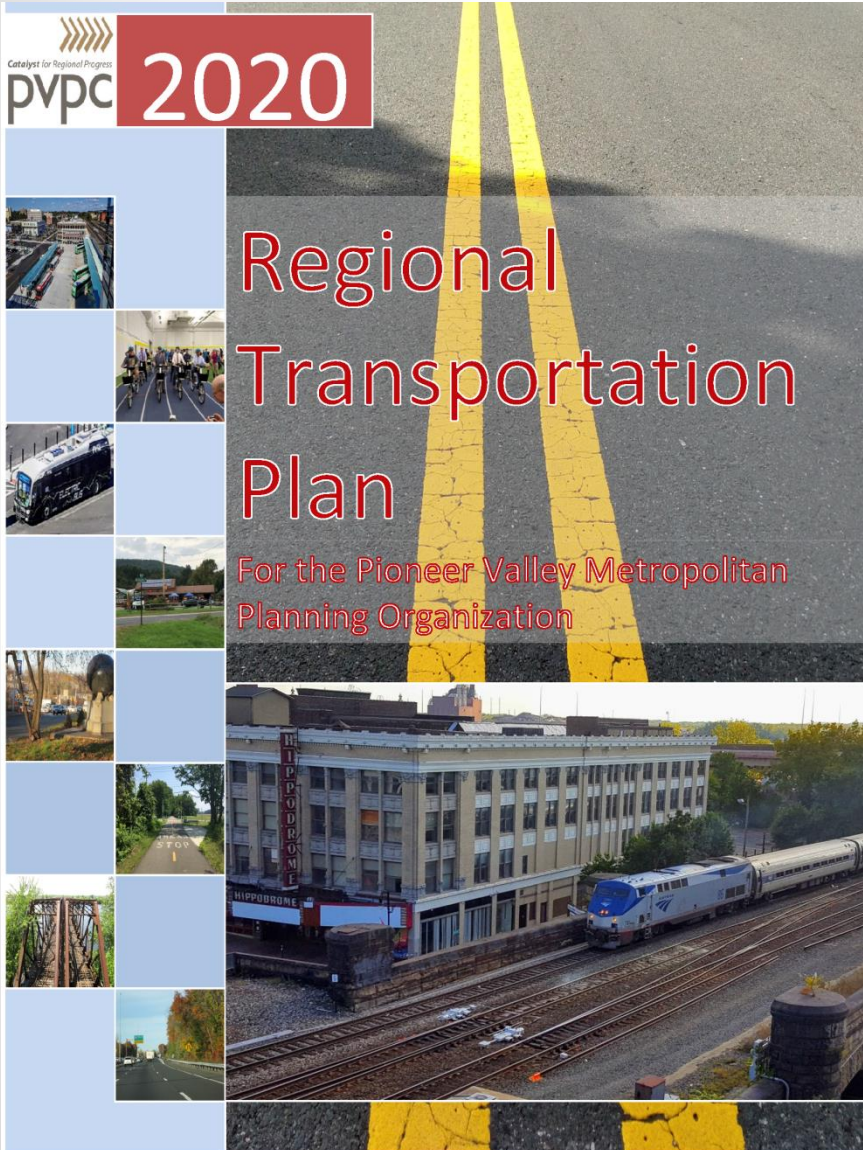


- North - South Improvements
 - Springfield to New Haven
 - Joint project with Connecticut
 - Expanded service to 12 total southbound trips/day in 2018.
 - Greenfield to Springfield
 - Currently 1 train/day (Vermont)er)
 - Exploring possibility of providing additional trips/day
 - Increased service could begin June/July.
- East – West Improvements
 - Currently 1 train/day (Amtrak Lake Shore Limited)
 - Ongoing study for passenger rail service connections between Pittsfield and Boston.
 - Unlike previous NNEIRI Study (2014) this will not include service to Montreal and will include 1 high speed (>90 mph) option.
 - Study expected to be complete in late 2019/early 2020

Travel Operations and Performance



RTP Development Schedule



pvpc Catalyzes for Regional Progress
2020

Regional Transportation Plan

For the Pioneer Valley Metropolitan Planning Organization

The collage features a central image of a road with yellow double lines. To the left, there are several smaller images: a train, a road, a building, and a bridge. The text '2020' is in a red box, and 'Regional Transportation Plan' is in large red letters. Below it, 'For the Pioneer Valley Metropolitan Planning Organization' is in smaller red letters.

- Focus Groups – Nov./Dec. 2018
- RTP Project Website
- RTP Survey – ongoing
- Vision, Needs, Strategies – January 2019
- Existing Conditions – early March
- Environmental Consultation – early April
- Financial Plan/Conformity – April/May 2019
- Draft RTP – June 2019
- 21 Day Public Comment Period
- Plan Endorsement – 7/23/2019
- Comments to:
gmroux@pvpc.org