

Goods Movement in Massachusetts

Dollars \$\$\$, Sense and Impacts

The Massachusetts Smart
Growth/Smart Energy Conference

December 7, 2007
Worcester, MA

HNTB





Agenda

- Freight topics
- Capacity challenge – 2020
- All politics is local (MPO role)
- Not in my back yard!
 - Environmental
 - Quality of life



Panel

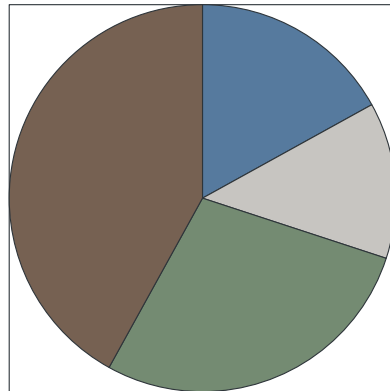
- Richard Rydant, project manager, Central Massachusetts Regional Planning Commission
- Abby Swain, coordinator, Smart Way Transport Partnership, US EPA
- Dennis Coffey, manager government affairs, HNTB Corporation



Common Themes

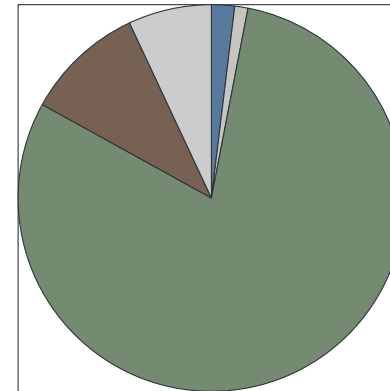
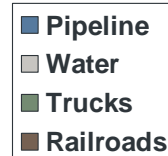
- Freight demand continues to grow
- State and regional economy is dependent on goods movement
- Our infrastructure is aging and needs investment
- Technology will help

U.S. Freight Intercity Modal Market Share



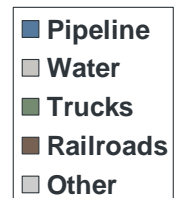
Ton-Miles

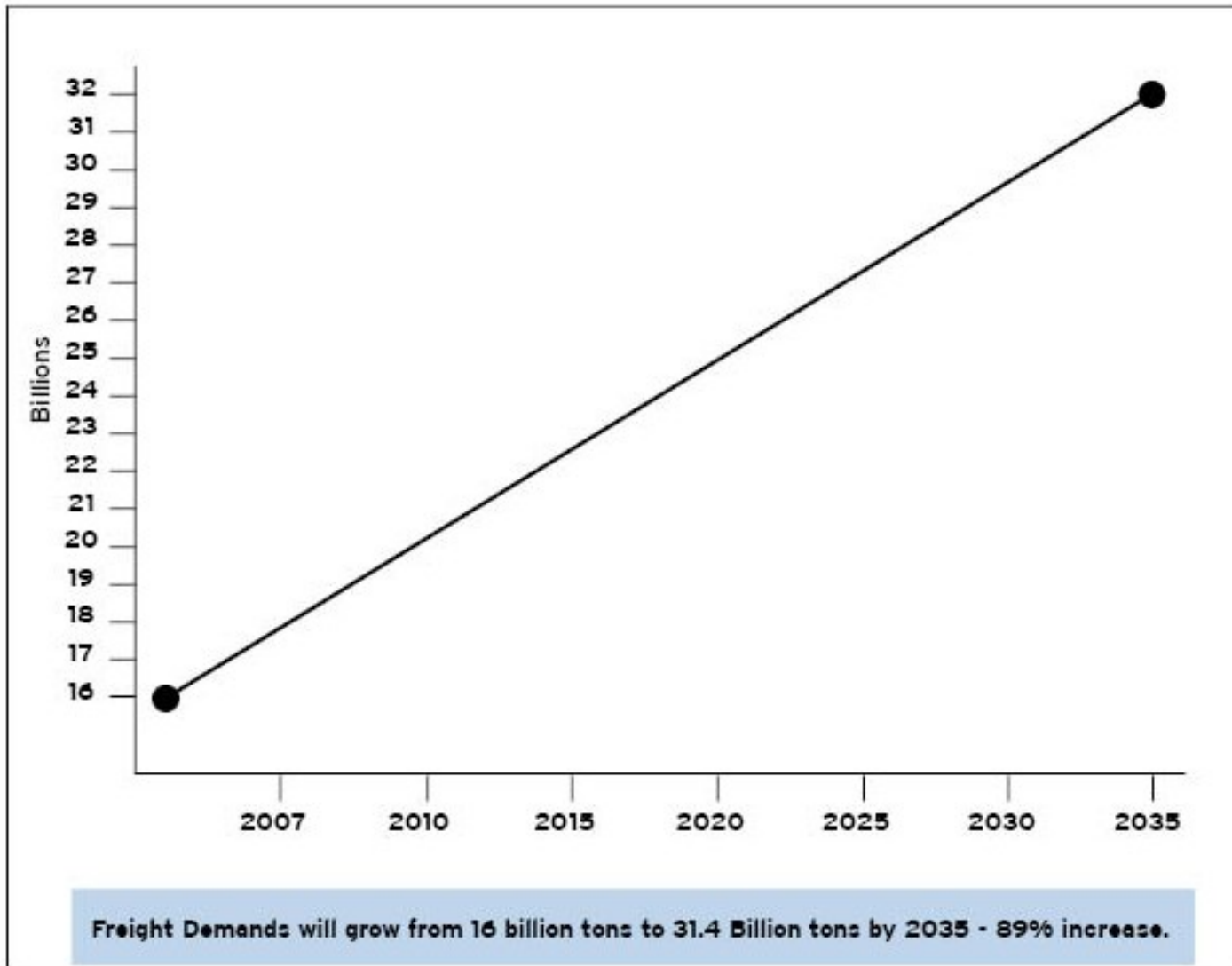
“Other” for ton-miles is less than
0.5%

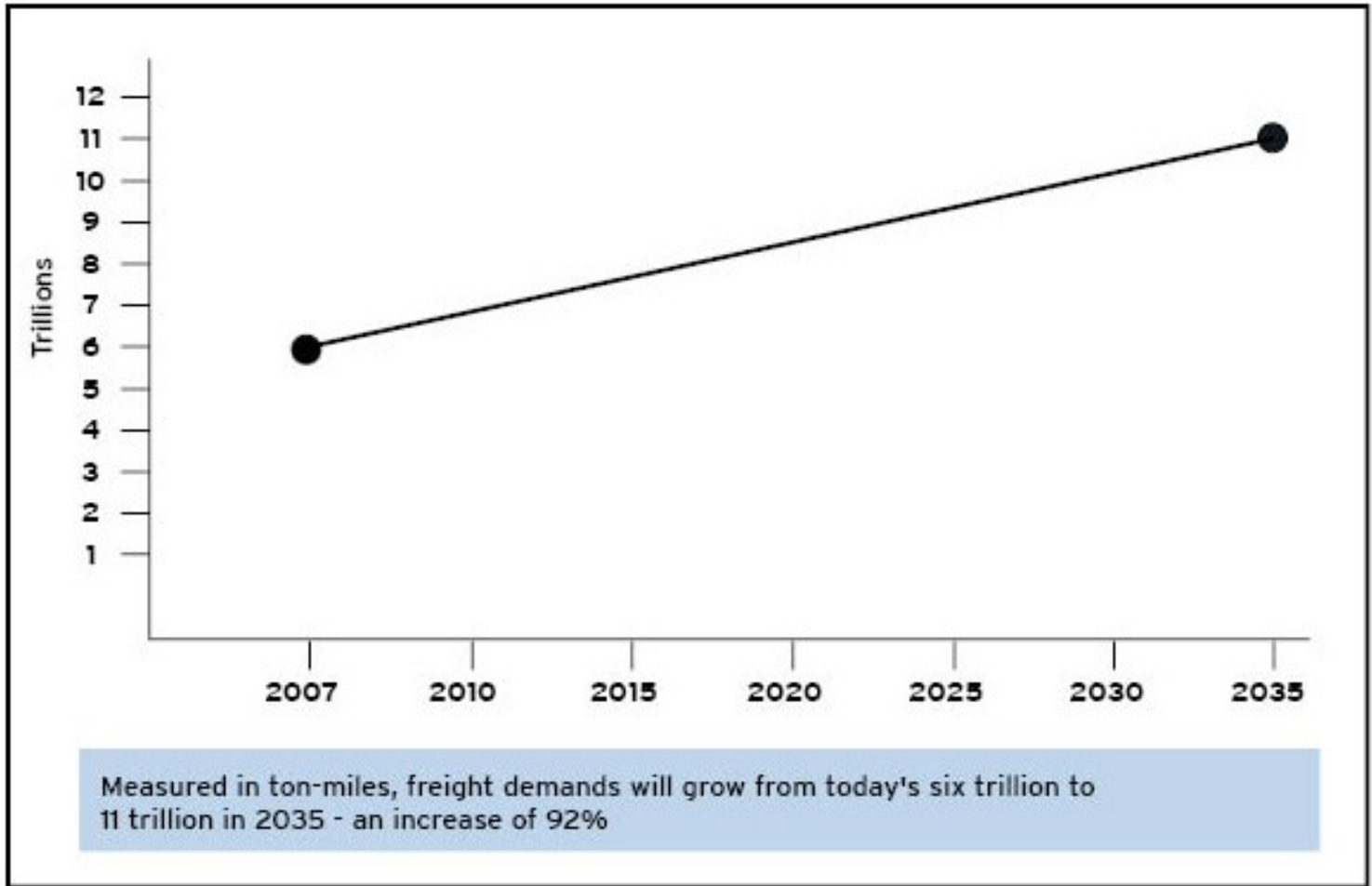


Revenue

Source – Eno
Transportation Foundation







**Table 3-1: Shipments by Mode of Transportation for the United States: 2002
(Commodity Flow Survey data)**

	Value		Tons		Ton-miles ³		Average miles per shipment
	Number (\$ millions)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
All modes	8,483,123	100.0	11,572,780	100.0	3,204,410	100.0	589
Single modes	7,052,924	83.1	10,878,148	94.0	2,913,015	90.9	285
Truck ¹	6,200,469	73.1	7,622,257	65.9	1,311,085	40.9	199
For-hire	3,838,514	45.2	3,665,982	31.7	1,001,463	31.3	577
Private truck	2,340,328	27.6	3,920,474	33.9	302,026	9.4	70
Rail	320,469	3.8	1,816,528	15.7	1,199,407	37.4	911
Water	90,895	1.1	713,884	6.2	323,085	10.1	577
Shallow draft	56,480	0.7	499,699	4.3	236,619	7.4	423
Great Lakes	787	Z	39,485	0.3	19,544	0.6	391
Deep draft	33,628	0.4	174,700	1.5	66,922	2.1	683
Air (including truck and air)	279,489	3.3	3,891	Z	5,560	0.2	1,819
Pipeline ²	161,601	1.9	721,588	6.2	S	S	S
Multiple modes	1,110,975	13.1	198,454	1.7	214,833	6.7	911
Parcel, U.S. Postal Service, or courier	1,022,033	12.0	26,447	0.2	20,536	0.6	910
Truck and rail	S	S	S	S	S	S	S
Truck and water	17,053	0.2	31,814	0.3	59,147	1.8	1,946
Rail and water	S	S	S	S	S	S	S
Other multiple modes	5,528	Z	28,047	0.2	19,600	0.6	173
Other and unknown modes	319,224	3.8	496,178	4.3	76,563	2.4	153

¹ "Truck" as a single mode includes shipments that were made by private truck only, for-hire truck only, or a combination of private and for-hire truck.

² Estimates for pipeline exclude shipments of crude petroleum.

³ Ton-miles estimates are based on estimated distances traveled along a modeled transportation network.

Source: USDOT Bureau of Transportation Statistics

Freight Demand

Freight Demand

- *Transport Demand:* U.S. DOT says freight traffic will increase nearly 70 percent by 2020; international higher.
- *Service Quality:* Reliability, speed, frequency.
- *Price.*
- *Highway Congestion:* Pressure to reduce congestion, emissions, fuel use and enhance safety.
- *Passenger:* Demands for freight-owned track.

- Daunting growth forecast.
- Infrastructure is preeminent issue.
- Tap public/private partnerships.
- Continued focus on meeting customer needs

Search for public benefits



Public-Private Partnerships

- Projects to meet public needs.
- Carriers pay for their benefits and public pays for public benefits.
- No “subsidy” to carriers

“Relatively small public investments in the nation’s freight railroads can be leveraged into relatively large benefits for the nation’s highway infrastructure, highway users, and freight shippers.” --AASHTO

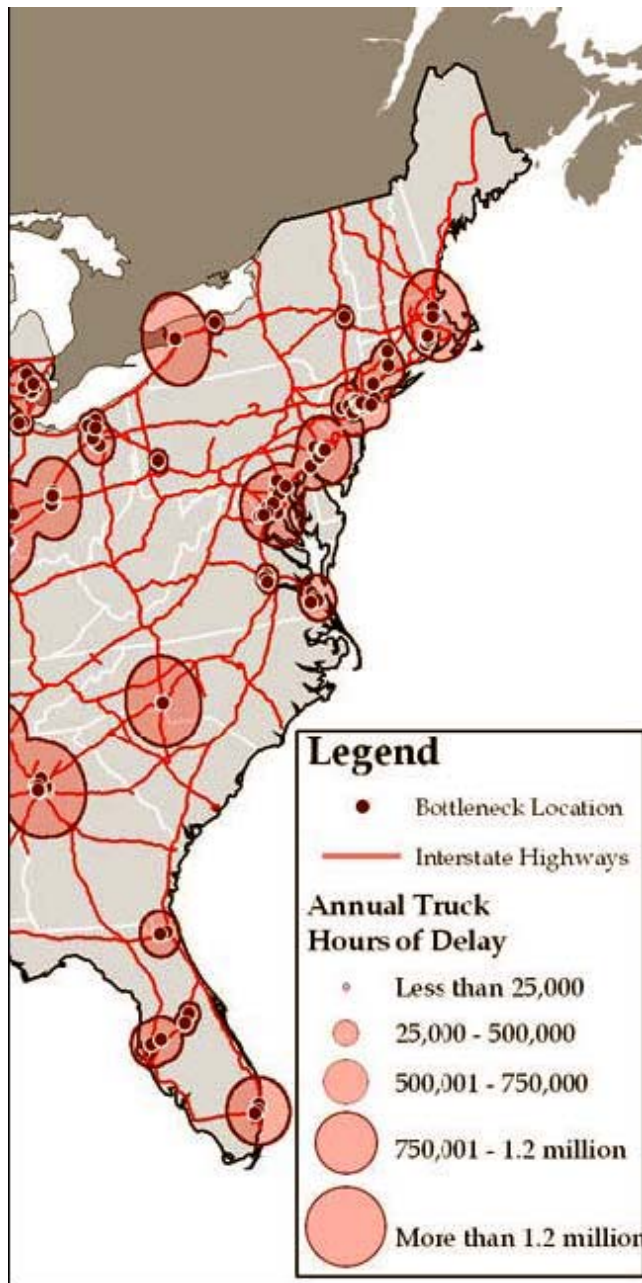
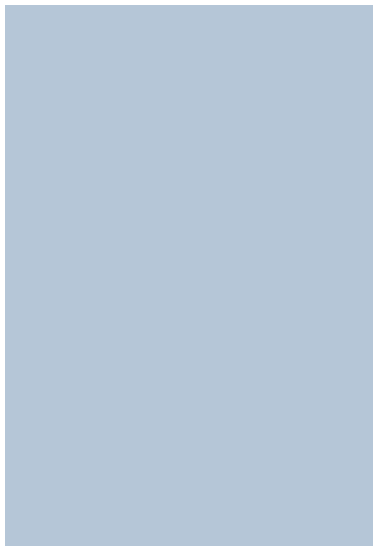


Today's Railroads Providing Better Service

- Multi-Modal Alliances
- Technological applications
- Innovations in locomotive operations, staffing, asset utilization, scheduling
- Better equipment and infrastructure
- New offerings

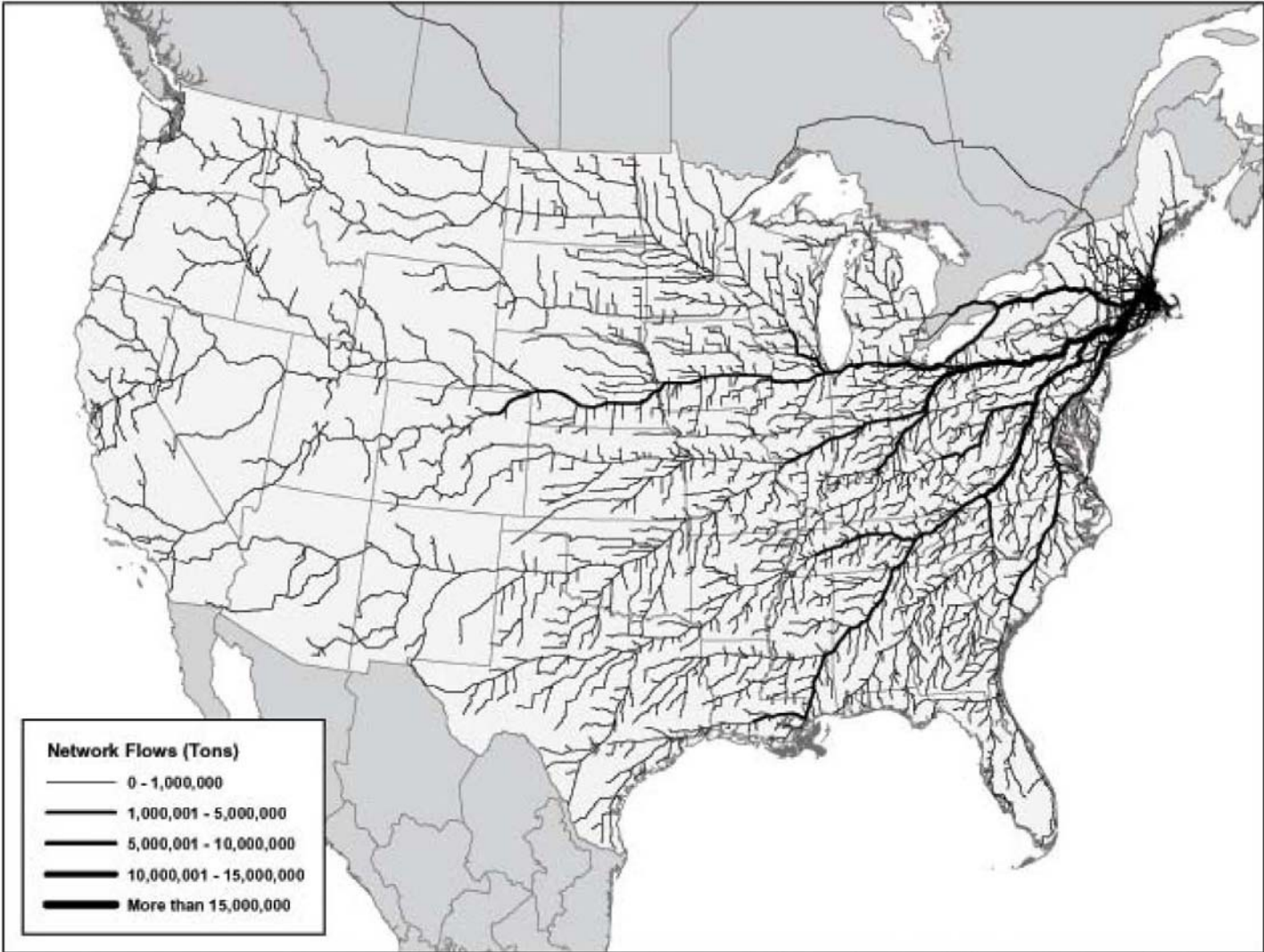
Freight Challenges





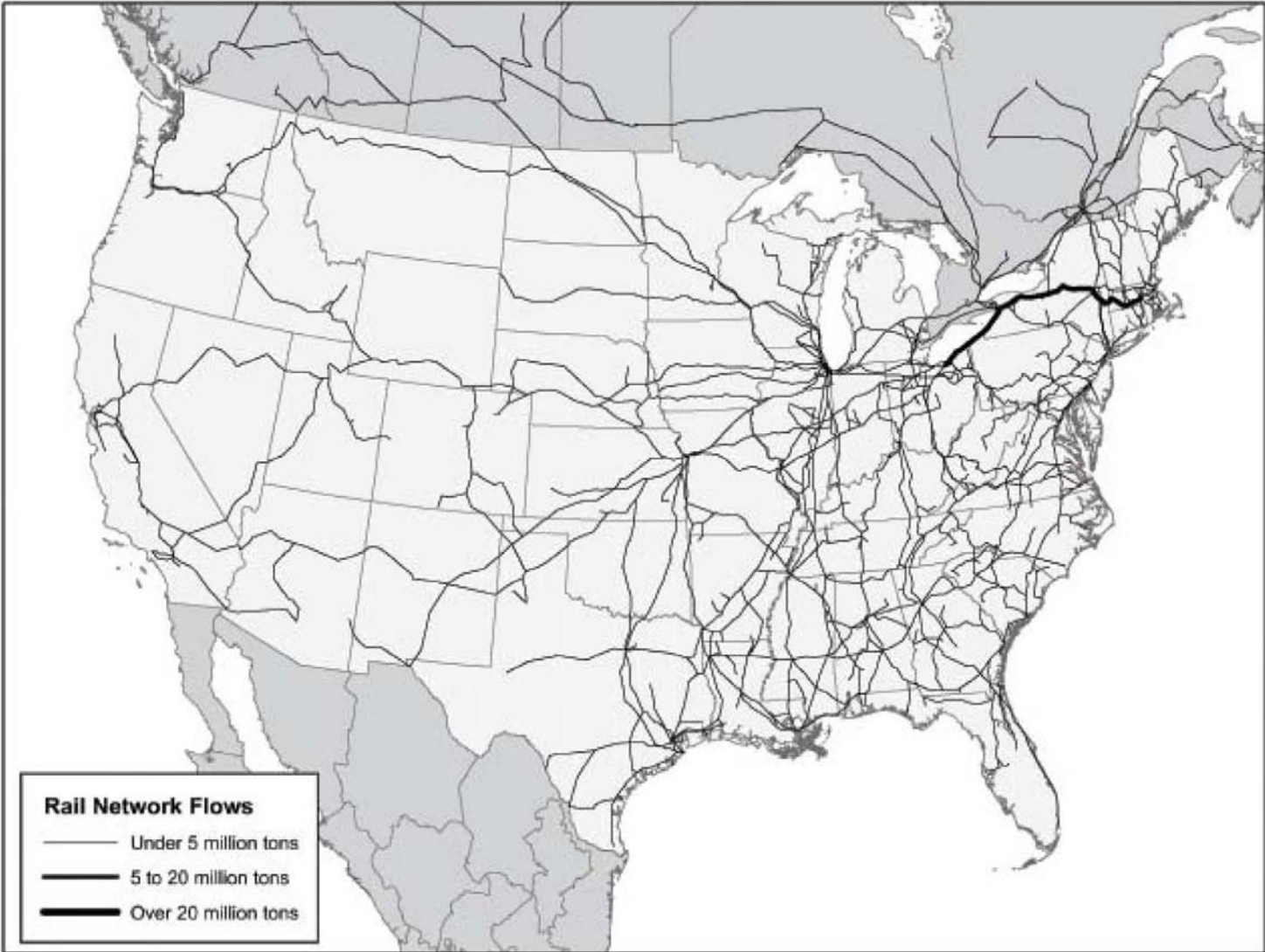
Picture Source: AASHTO

Map 3-1: Massachusetts Truck Flows: 1998



SOURCE: U.S. Department of Transportation, Federal Highway Administration, Operations Core Business Unit, Office of Freight Management and Operations

Map 3-2: Massachusetts Total Rail Flows: 1999



SOURCE: U.S. Department of Transportation, Federal Railroad Administration, Office of Policy



Freight Villages: The Freight Dilemma

- Trade -- value and growth are high
- Urban areas as market -- benefit from cheap goods, jobs, value-added businesses
- Real estate for freight is scarce/expensive
- Congestion, VMT and emissions
- Urban area loses business/quality of life
- Interstate truck impact to environment, congestion, and infrastructure



Freight Villages: Public benefits

- Support/enable trade
- Relieve congestion, VMT
- Encourage a growth sector of the economy
- Provide jobs in urban area and access to jobs
- Restore lands to tax roles
- High-value use of property
- Landscaping and natural resource protection
- Esthetic



Moving On

Regional Planning Perspective

- The MPO
- The State
- Partnerships

Federal Environmental Perspective

- Enforcement
- Partnerships