

Portland North Alternative Modes Project

Public Meeting
March 30, 2010

Agenda

- Introductions
- Progress Update
- Summary of Alternatives
- Ridership Projections
- Preliminary Costs
- Small Starts
- Amtrak Extension Feasibility Study
- Next Steps
- Questions

What We Have Accomplished

PHASE 1

- Developed Initial Range of Alternatives
- Met with Stakeholder groups and communities
- FTA coordination
- Alternative refinement
 - Alignment
 - Station
 - Cost
 - Ridership
- Screened from alternatives 30 to 6 (with terminus options)

What Is Underway Now

PHASE 2

- Refine data
 - Station locations
 - Station layouts
 - Rail and Road infrastructure
 - Economic
 - Environmental
 - Costs
- Stakeholder Coordination
- FTA coordination
- Screen range of alternatives to 1

Key Issues We've Heard

- Bus vs. Rail
- Highway Widening
- Cost
- Funding
- Evaluation Criteria
- Public Input
- Amtrak Service
- Schedule

What Would be Served

- Three service alternatives

- Yarmouth
- Brunswick (Bath)
- South Auburn (Lewiston)

- Three route alternatives:

- Saint Lawrence and Atlantic Railway (SLR)
- Pan Am Railway
- Highways (Bus)

- Five Portland terminal alternatives:

- Bayside (SLR)
- India Street (SLR)
- Union Station (Pan Am)
- Center Street (Pan Am)
- Monument Square (Express Bus)

How Often Service Would Operate

- 22 Roundtrips per Weekday (Train/Bus)
- Service Headways
 - 30 minute peak
 - 60 minute off-peak
- First trip arrives Portland: 6:45 AM
- Last trip departs Portland: 10:55 PM
- Shuttle Bus Service in Portland from all but Center Street rail station

Where Would it Leave You



Yarmouth Rail Service

SLR

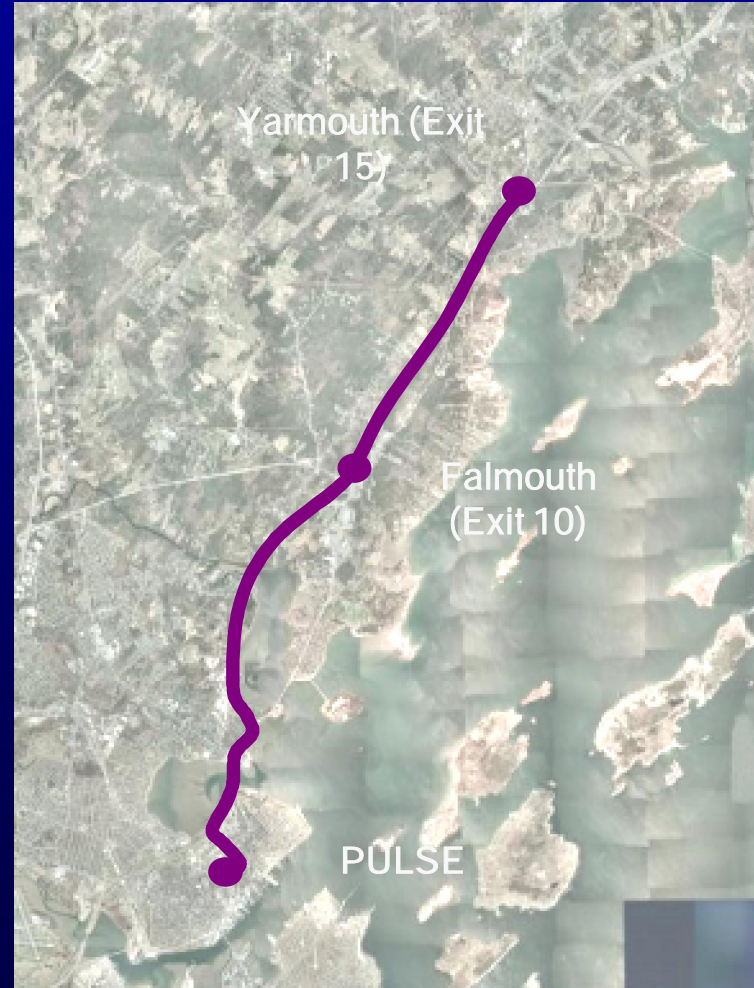
Pan Am



Yarmouth Express Bus Service

Exclusive ROW

Highway Shoulder Running



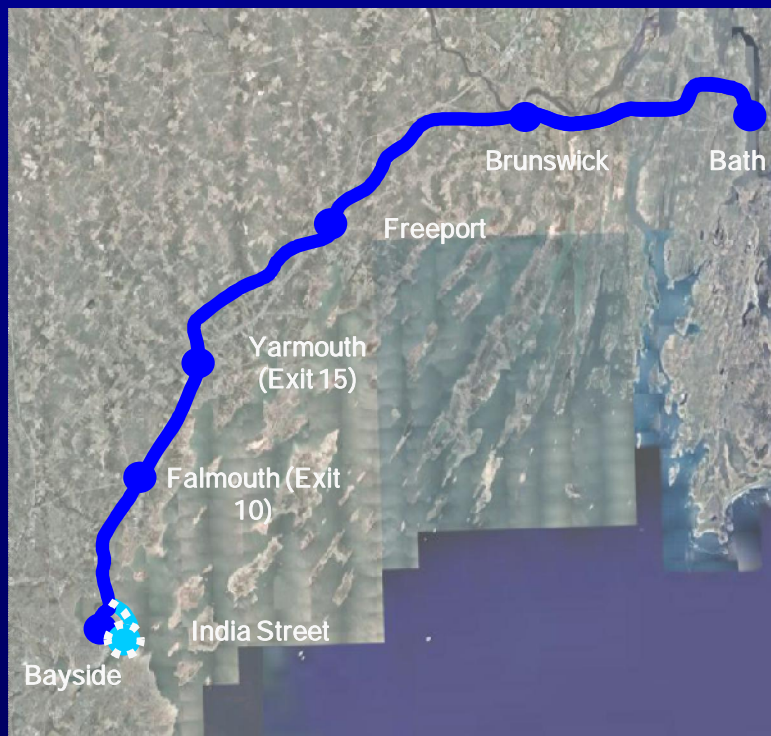
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Express Bus

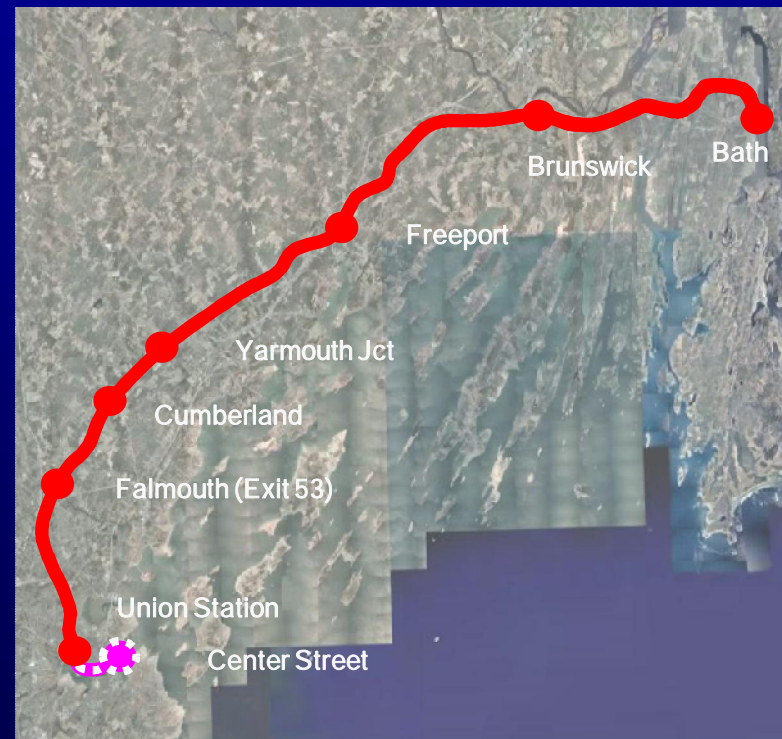


Bath Rail Service

SLR



Pan Am



Bath Express Bus Service

Exclusive Bus ROW

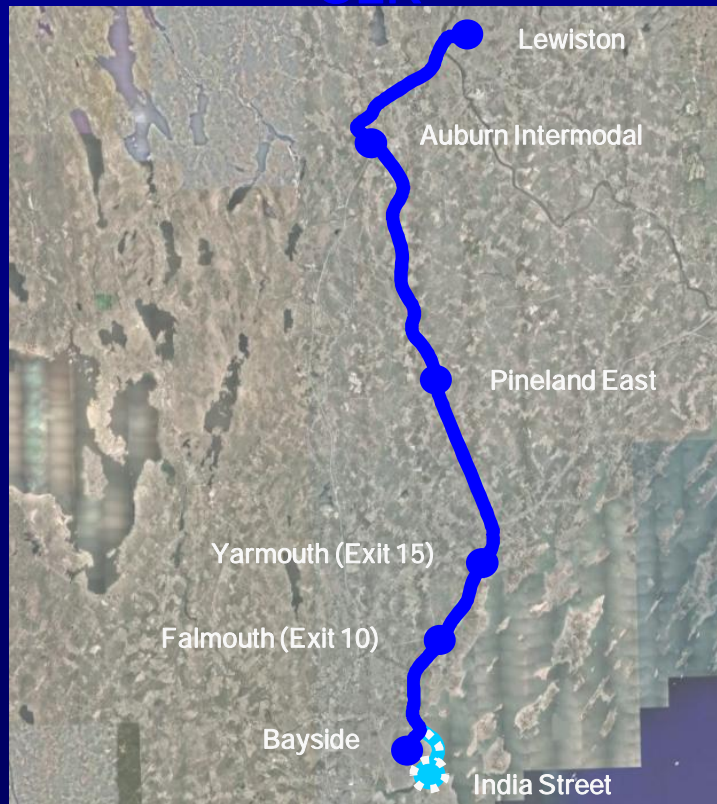


Highway Shoulder Running



Lewiston Rail Service

SLR



Pan Am

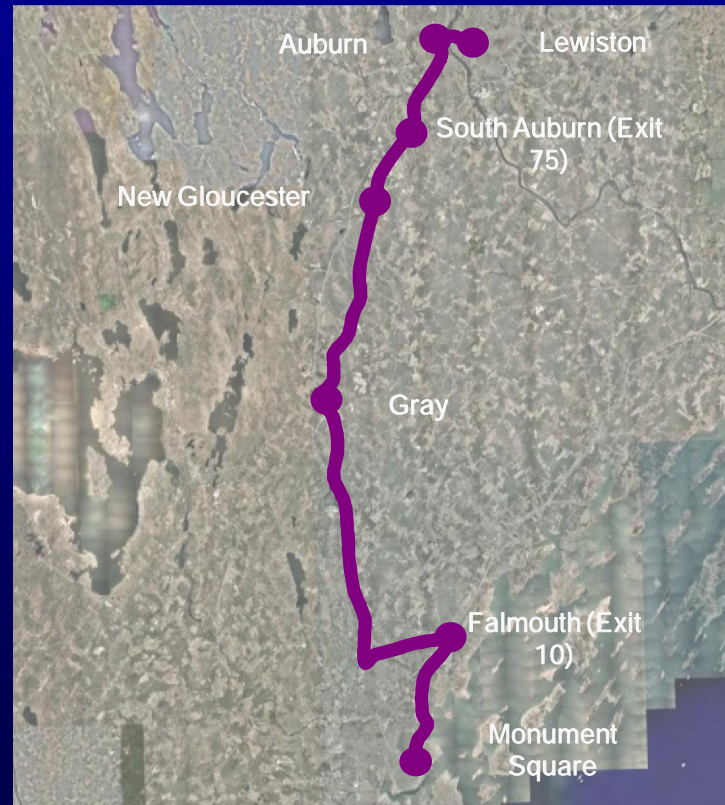


Lewiston Express Bus Service

Exclusive Bus ROW



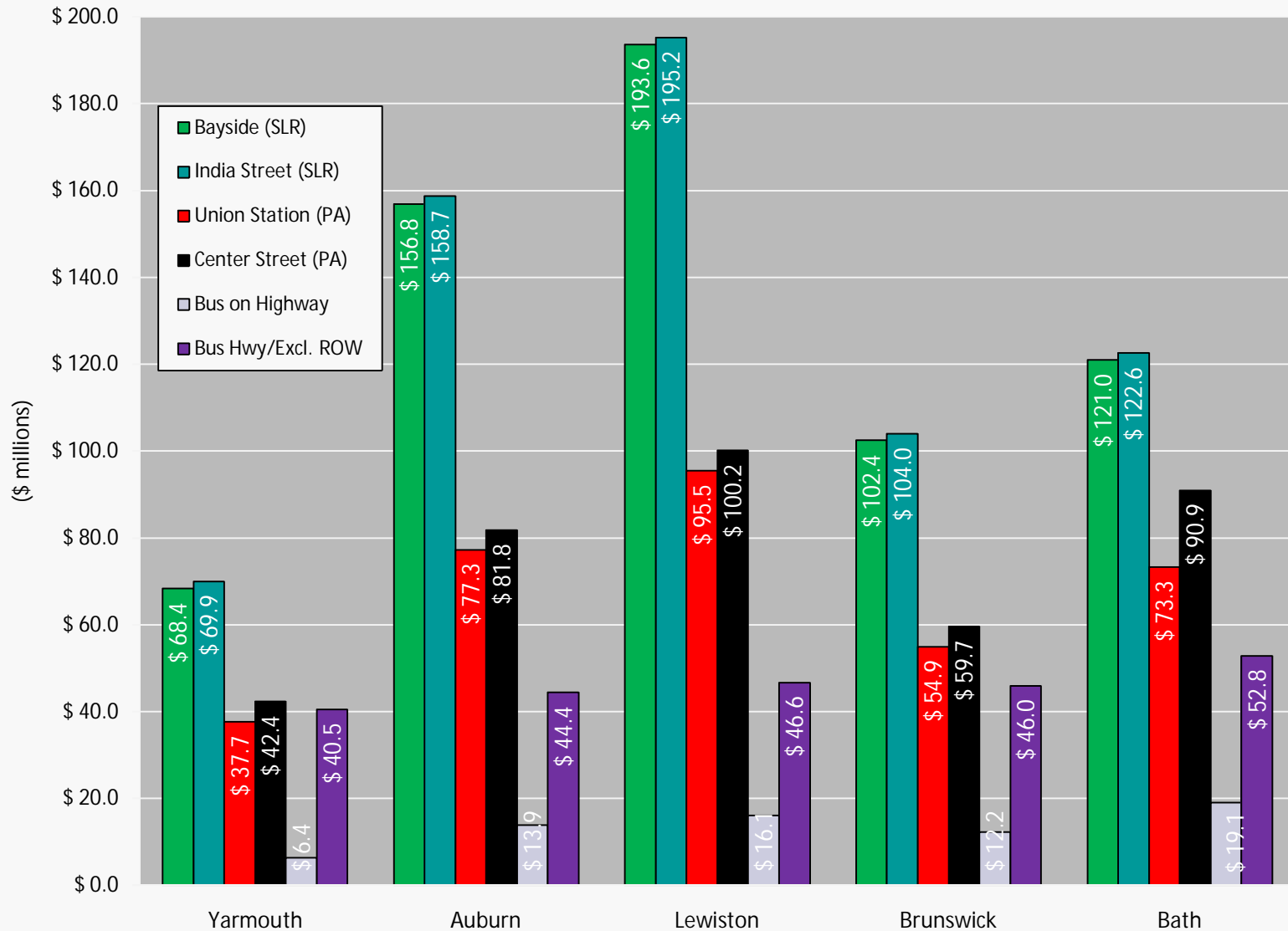
Express Bus



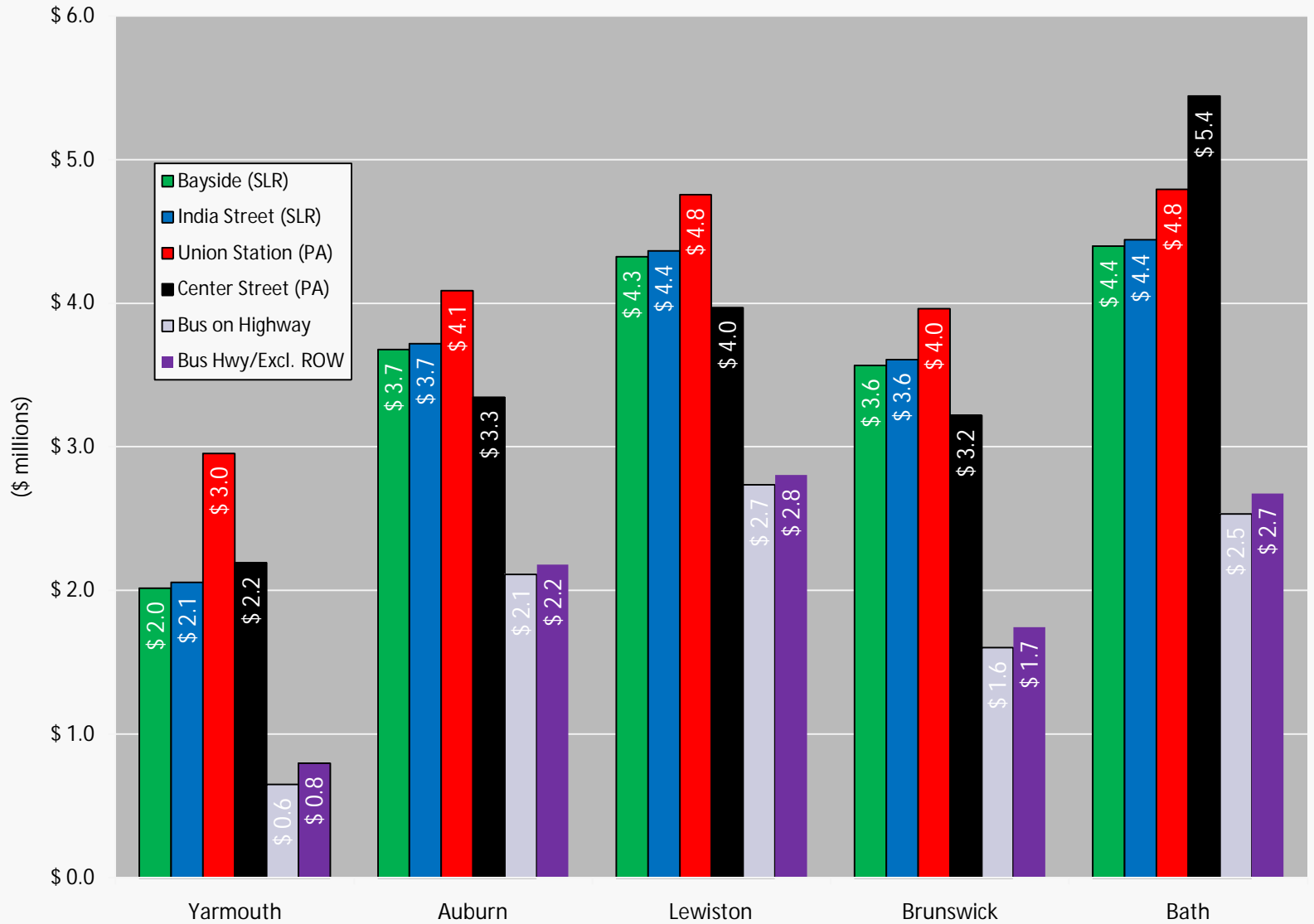
Costs

- **Capital**
 - **Track**
 - **Bridges**
 - **Train sets**
 - **Signals**
 - **Stations**
- **Operating**
 - **Management**
 - **Fuel**
 - **Maintenance**
 - **Management**

Capital Cost Summary (\$ millions)



Summary of Annual Operating Costs (\$millions)



Our Approach to Calculating Riders

We methodically examine key questions:

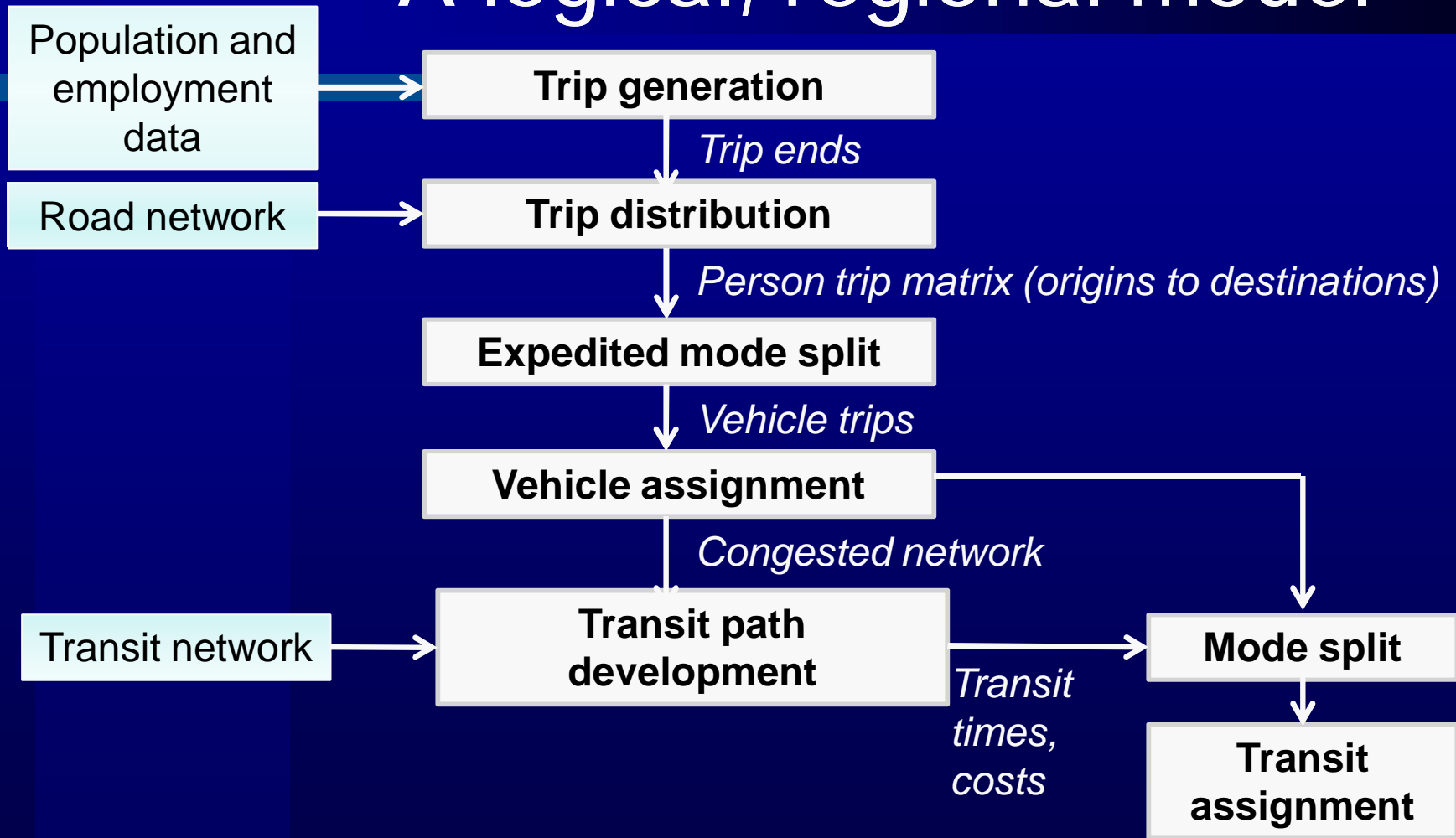
- For what purposes will people travel?
- Where would these trips begin?
- How many of these trips will people make?
- Where are the trips headed?
- What are the attributes of traveling by car or by transit that would affect mode choice?
- What would determine a motorist's choice of route?

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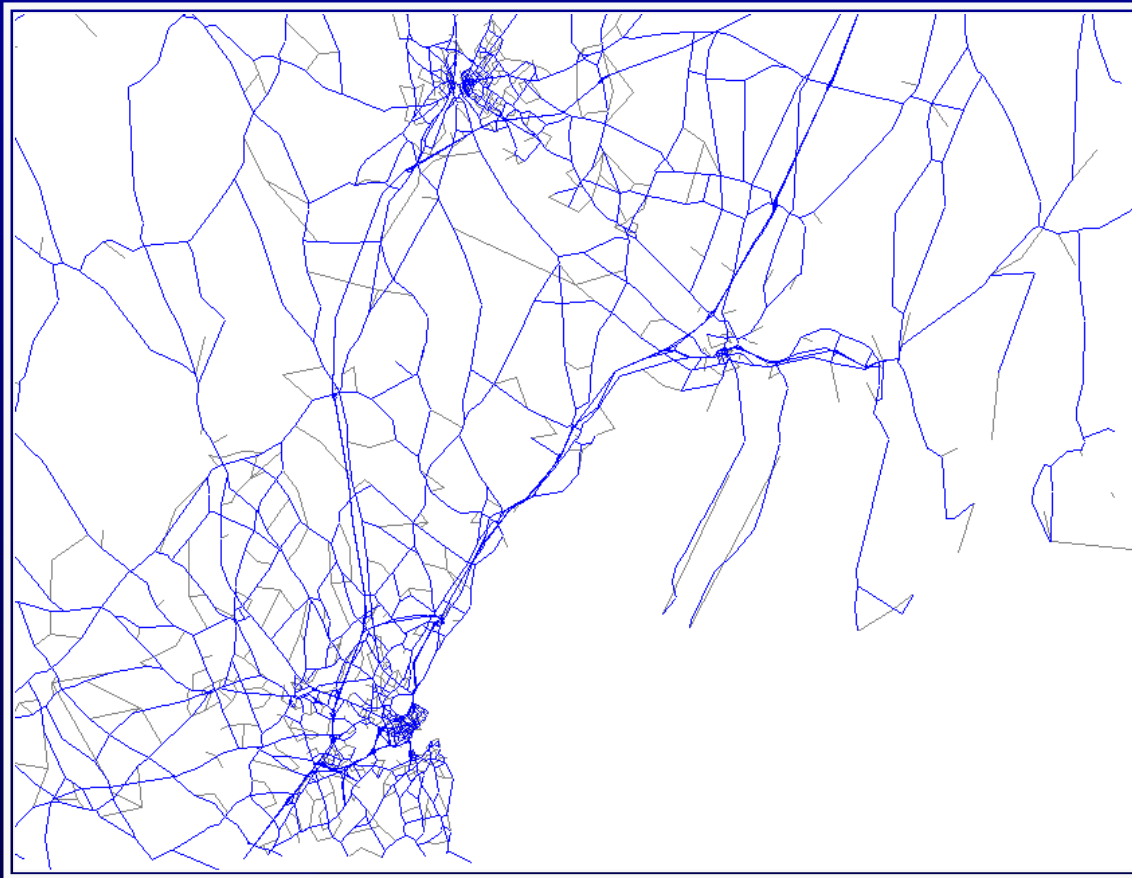
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A logical, regional model



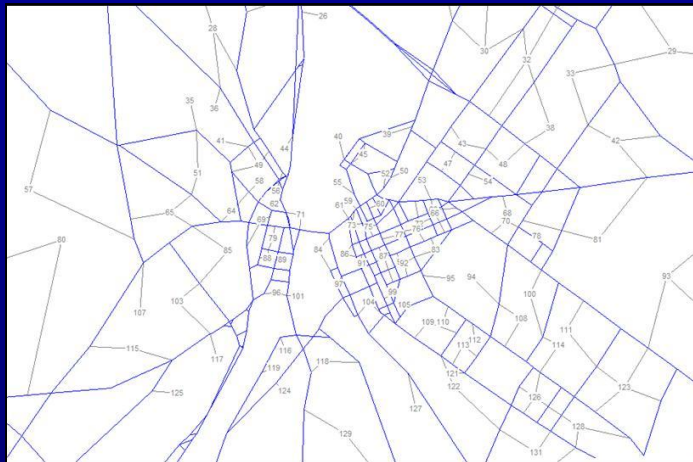
Transit boardings

The modeled region

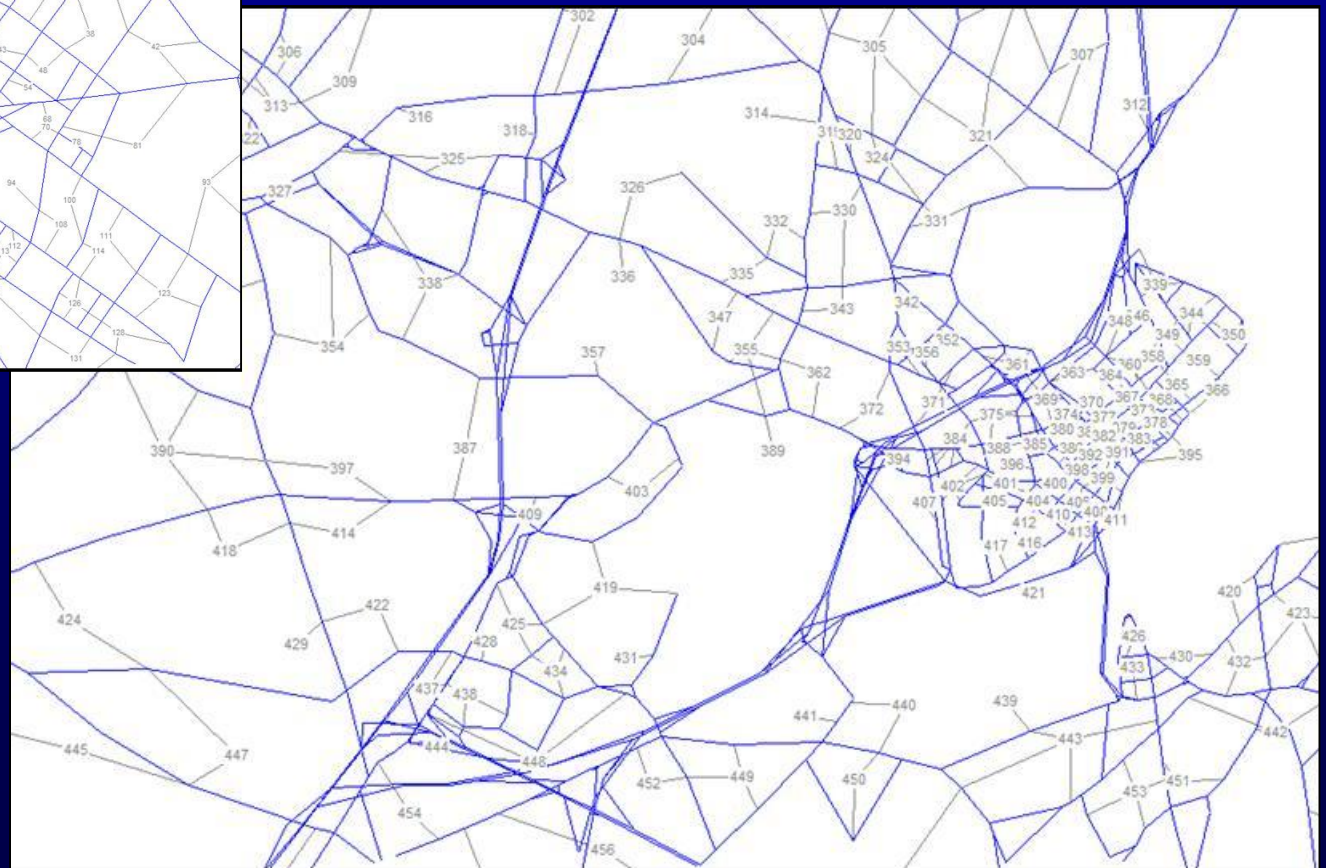


- 1027 Transportation Analysis Zones

Local details



← Lewiston / Auburn



Portland
area



How well does model represent flows?

Vehicle volumes (screenlines)

screenline	Average daily traffic	model	% difference
North of Saco	137,225	137,545	0.23
East of Gorham	82,730	72,289	-12.62
North of Portland	75,220	59,049	-21.50
South of Yarmouth	80,122	88,701	10.71
South of Auburn	49,345	53,781	8.99
SE of Lewiston	22,968	31,776	38.35
South of Freeport	87,365	91,261	4.46
all screenlines	534,975	534,402	-0.11

How well does model represent flows?

Travel times (minutes)

	<i>model</i>	<i>observed times</i>	
	AM peak 3 hrs	leave 6:15	leave 7:35
from Lewiston (Oak & Bates) to Portland (Franklin & Marginal Way)	49.8	46	49
	AM peak 3 hrs	Zoom schedule	
from Saco P&R to Congress & Bramhall	22.9	20 to 23	

How well does model represent flows?

ZOOM Turnpike Express Boardings

Daily boardings in either direction

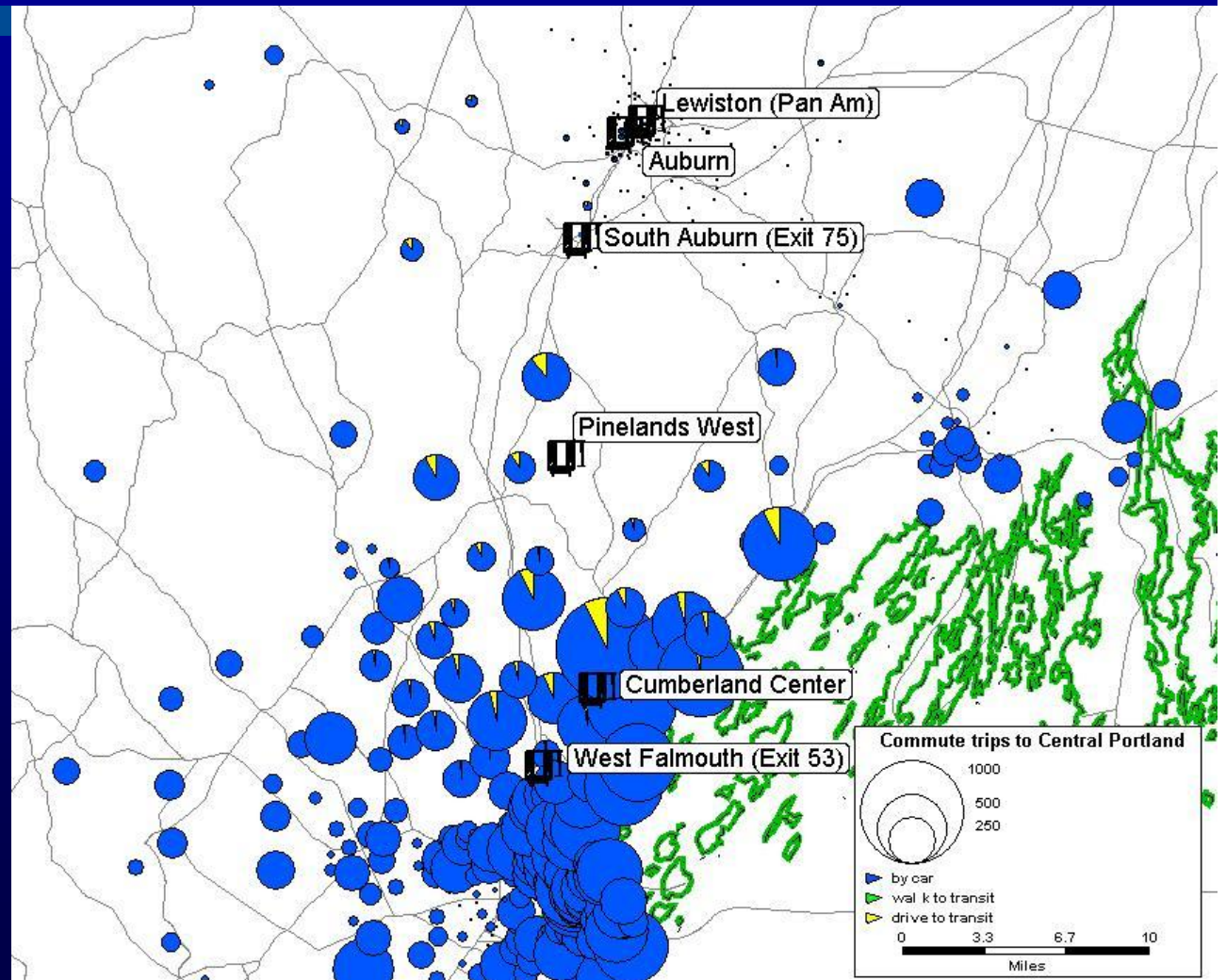
	<u>model</u>	<u>observed</u>
Biddeford P&R	82	85
Saco P&R	80	75
Bramhall & Congress	33	29
High & Congress	82	25
Monument Square	36	98
USM	11	8
Total	324	320

Key Factors Affecting Behavior

- Strong preference for auto
- Increasing, non-linear penalty for walks over 10 minutes
- Direct service preferable to local bus connection
- Travelers “don’t drive backwards” to a park & ride
- “let someone else drive” more important with increasing distance
- No modeled preference for rail compared to bus

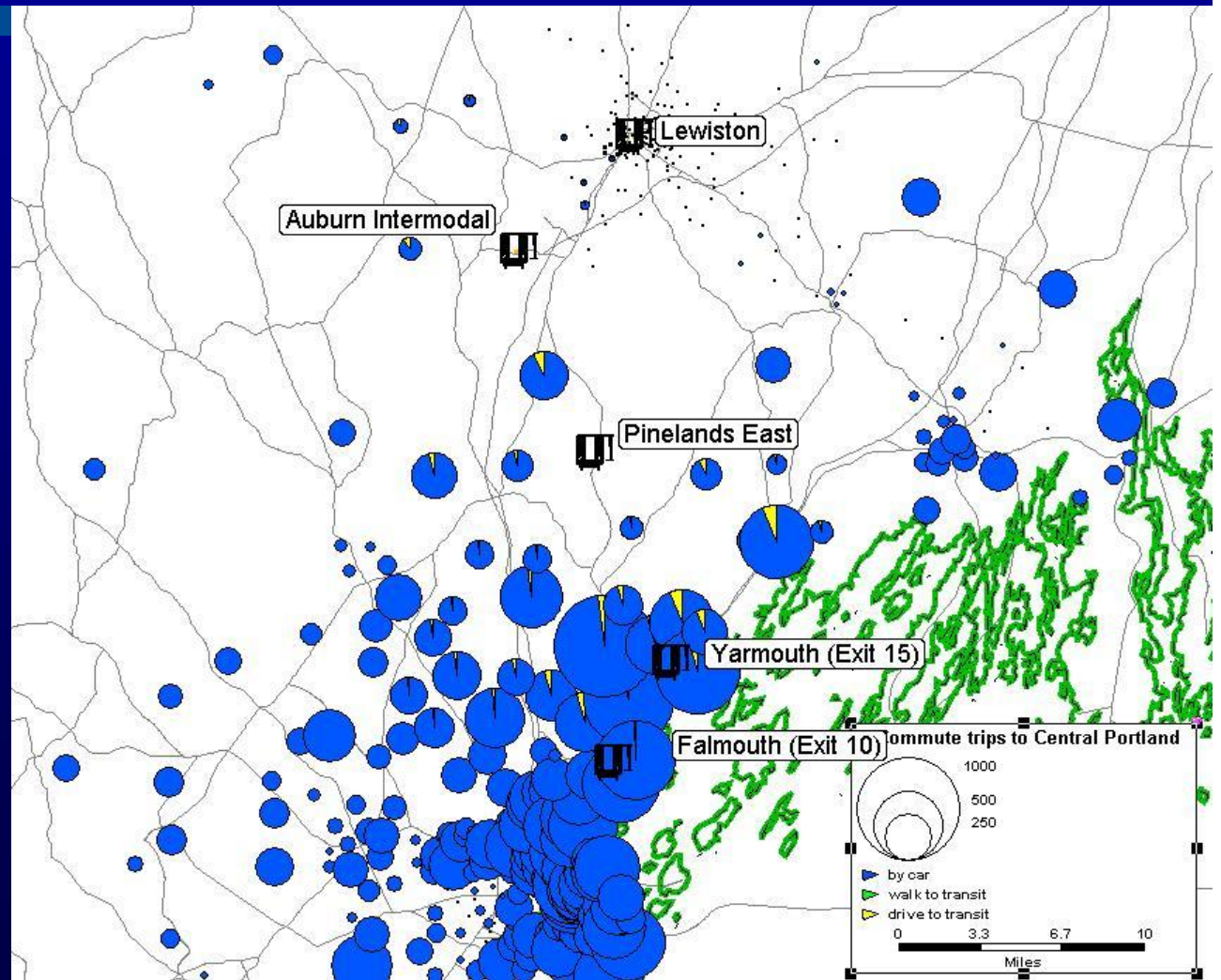
Mode Shares to Central Portland

- Lewiston to Center Street alignment
- 2035 forecast
- Commute trips only



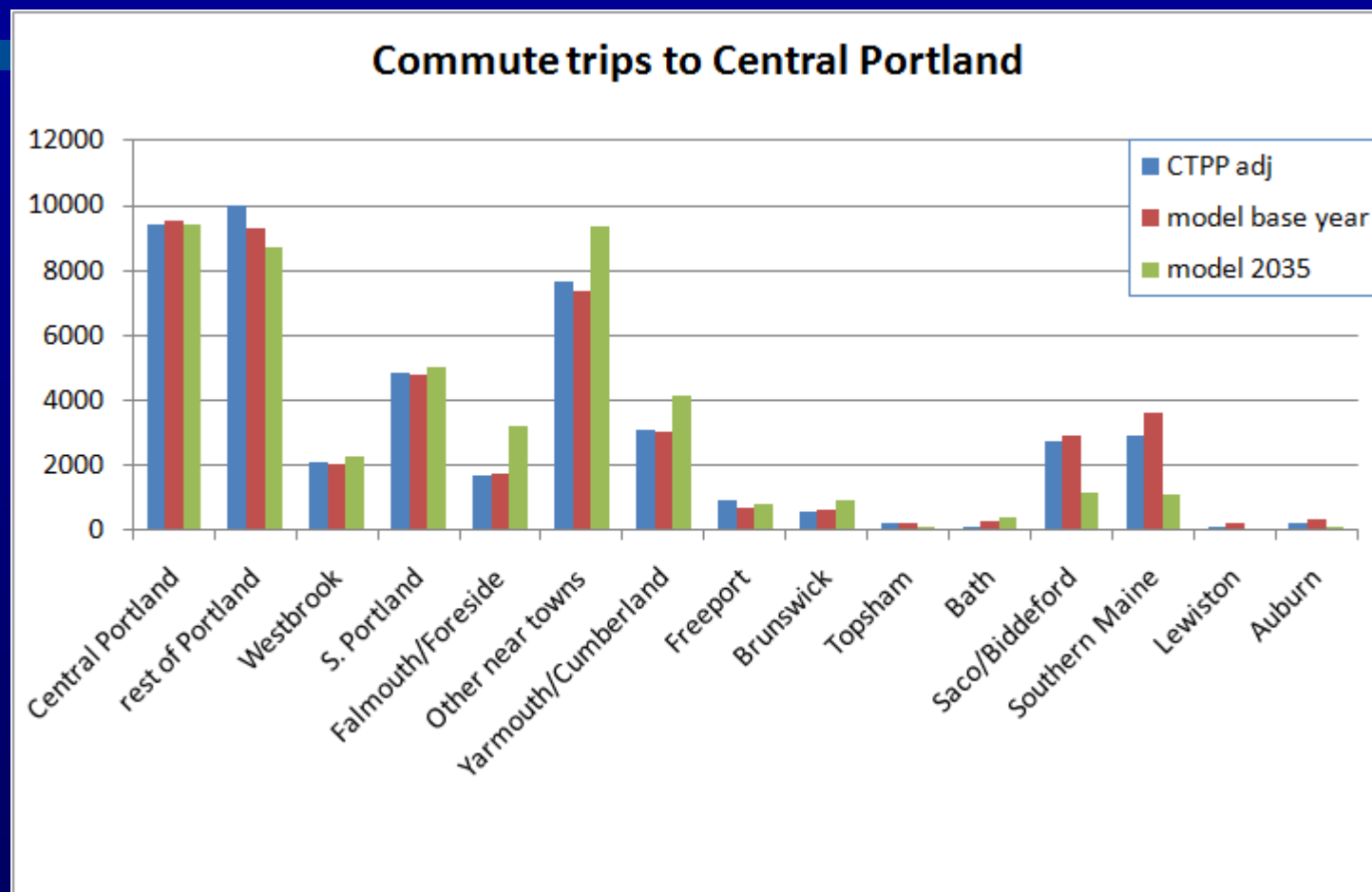
Mode Shares to Central Portland

- Lewiston to Bayside alignment
- 2035 forecast
- Commute trips only



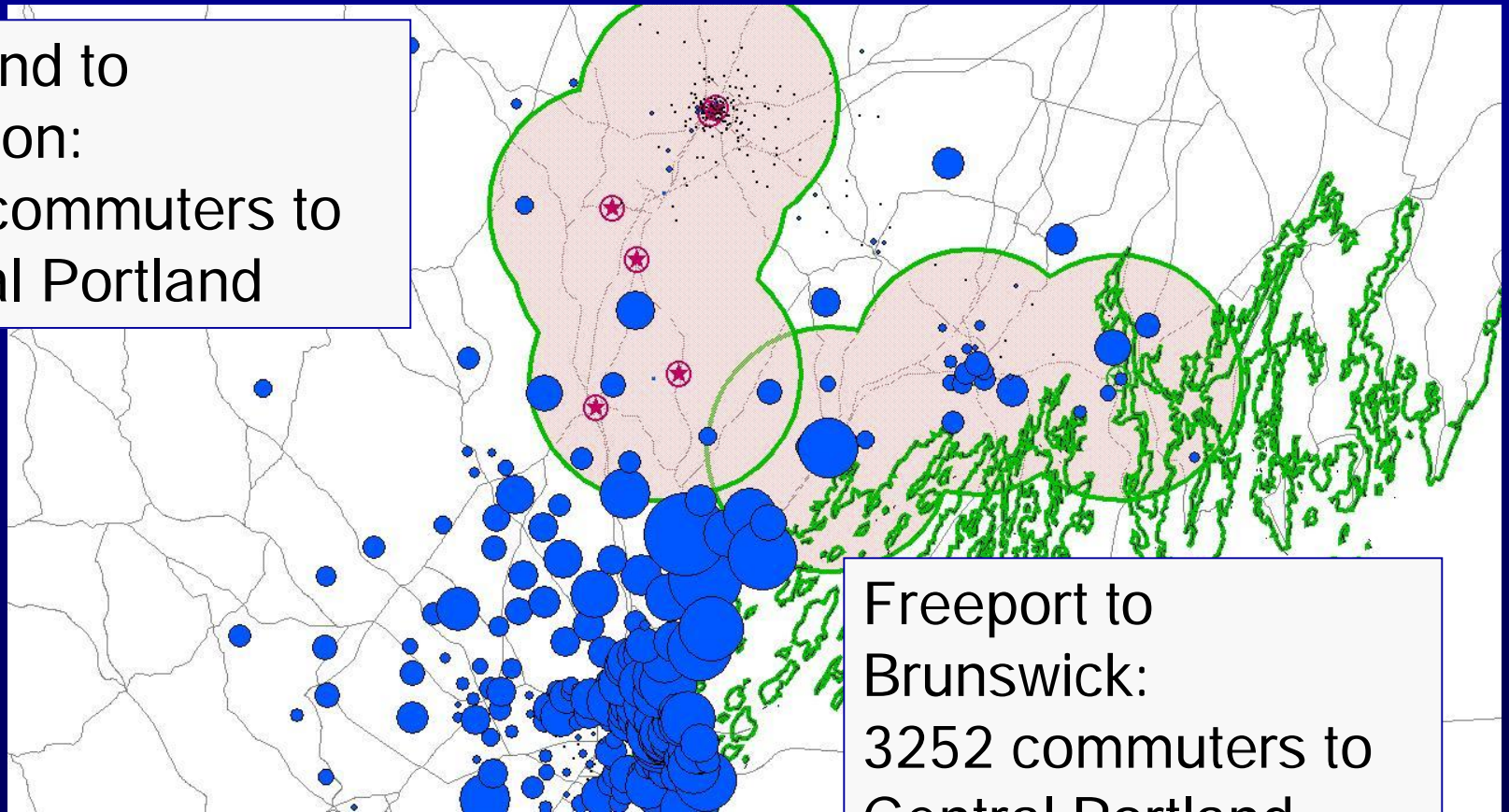
Forecasting to 2035

Trip origins of commuters to Portland



Portland-bound Commuters (2035)

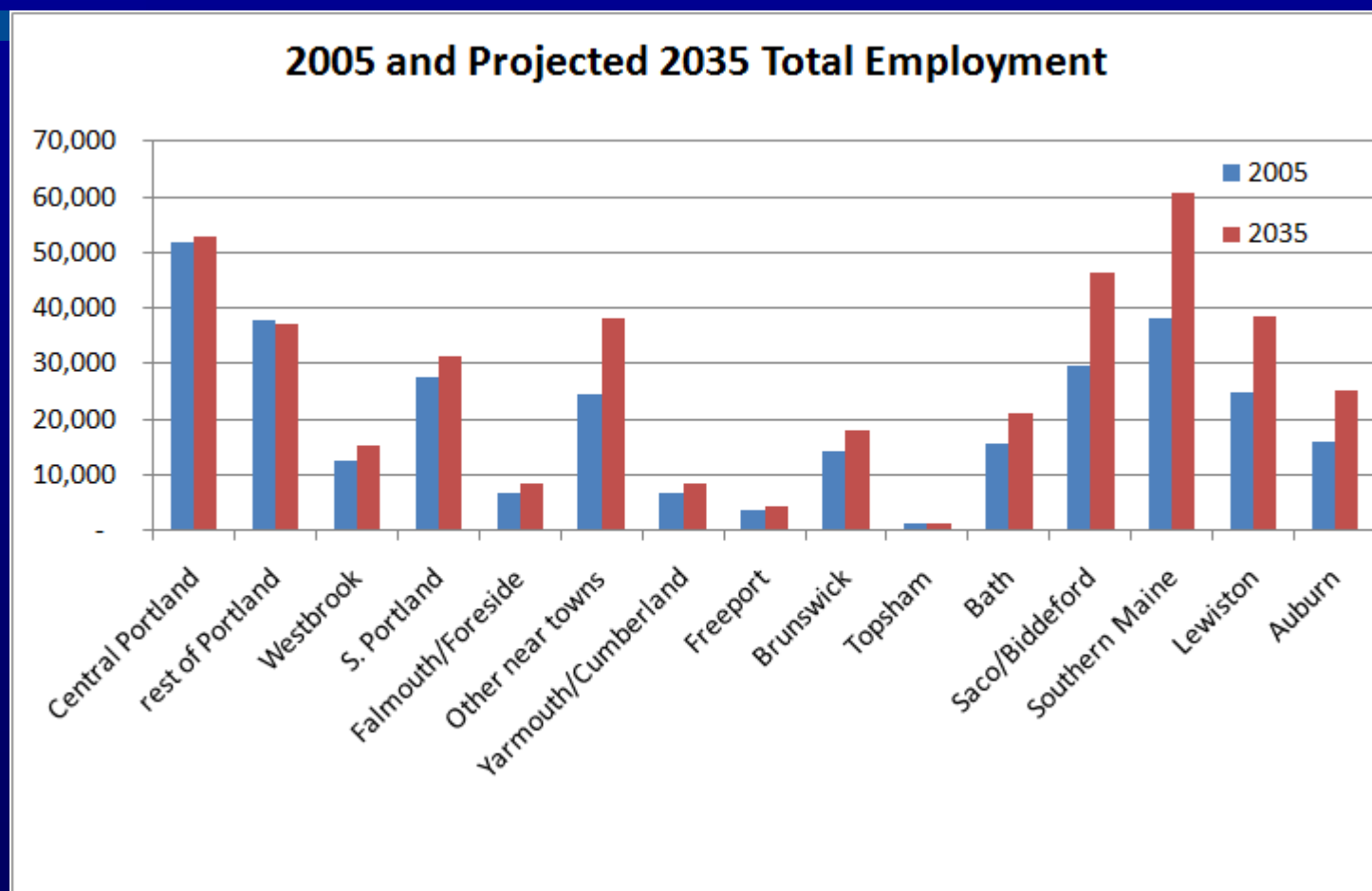
Pineland to
Lewiston:
1627 commuters to
Central Portland



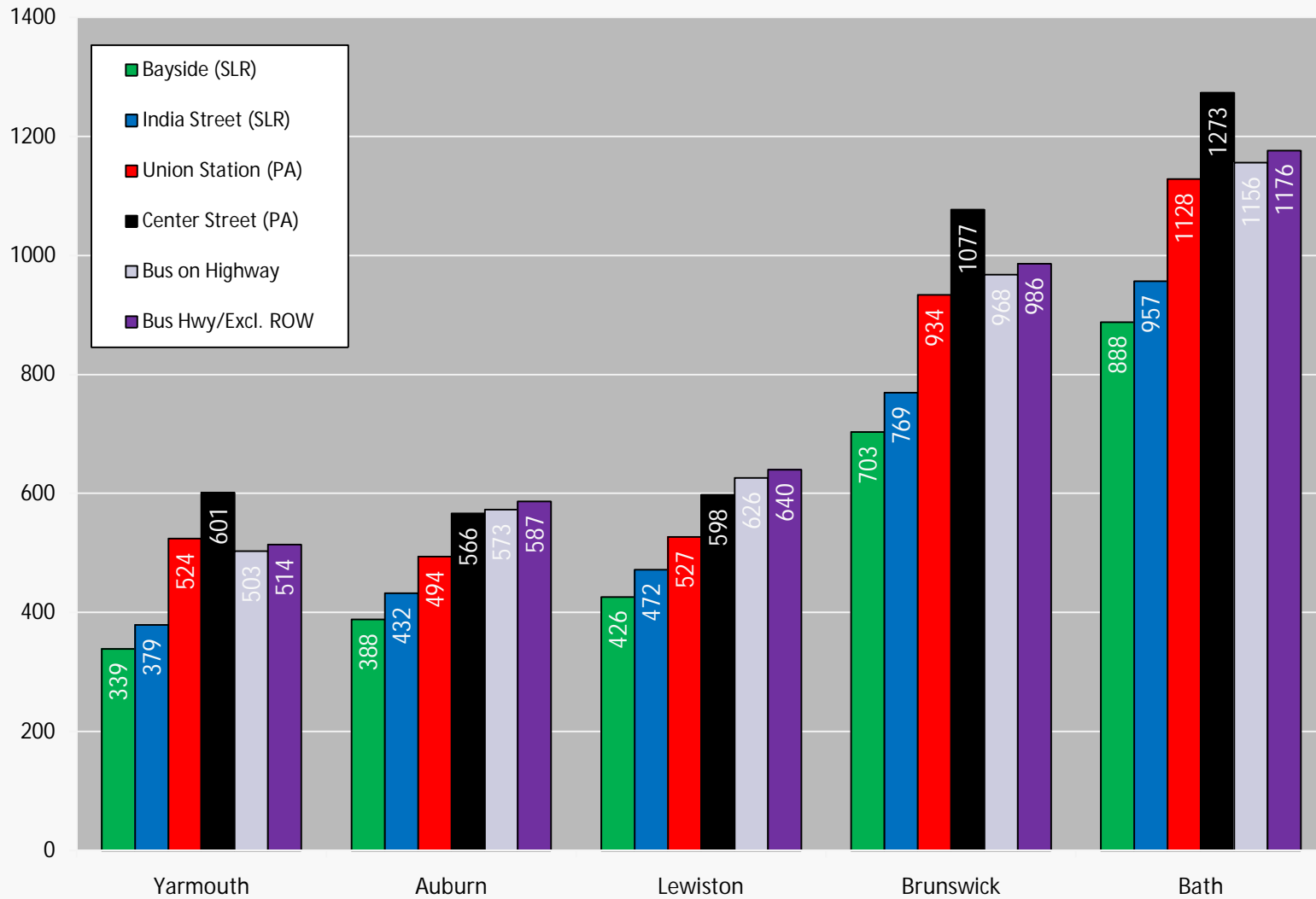
Freeport to
Brunswick:
3252 commuters to
Central Portland

Forecasting to 2035

Changing work trip destinations



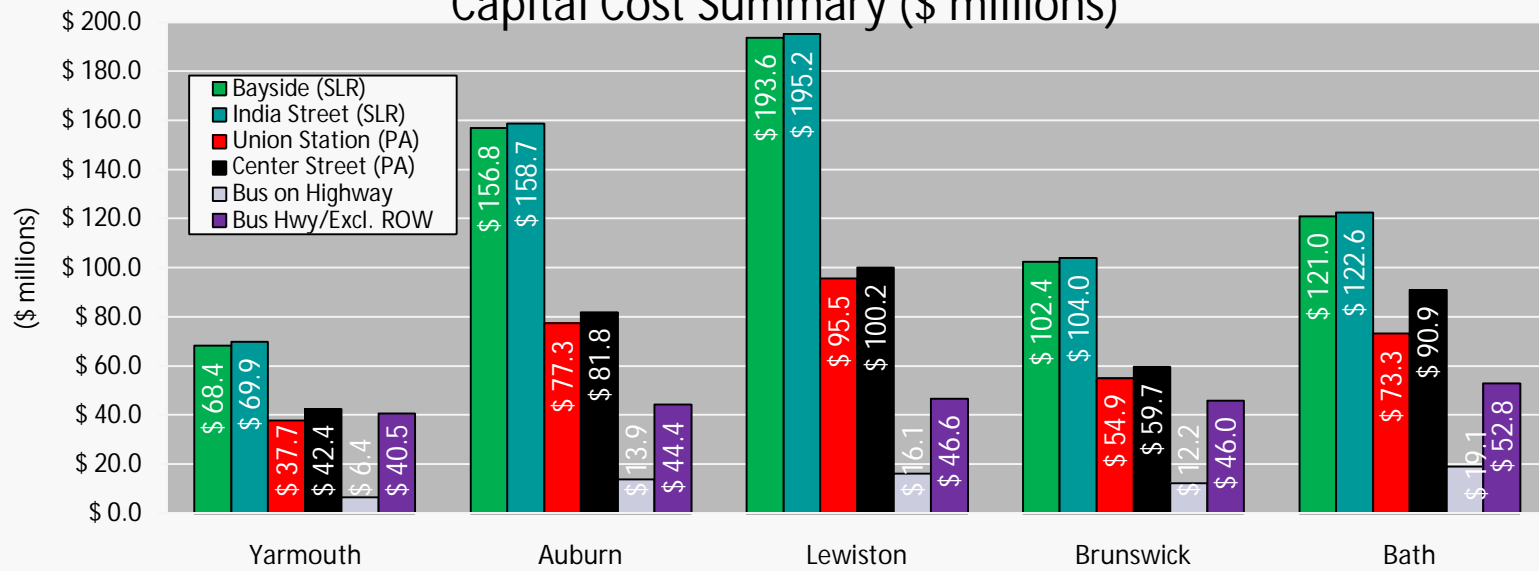
2035 Commute Trips



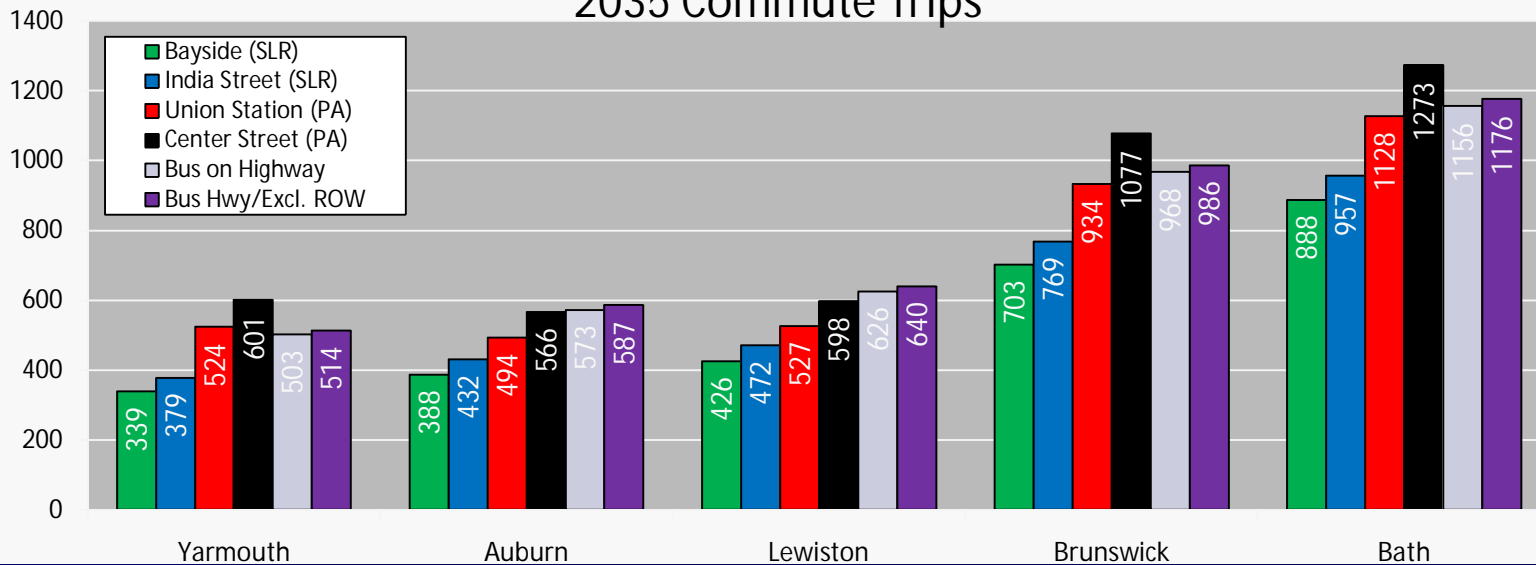
Ridership Observations

- Model reveals a sensible pattern by station
- Center Street service has highest ridership for each starting point
- Two key reasons for this:
 - Two stops in Portland, short walk to business centers
 - Line stops at Cumberland Center, not served by SLR or bus options
- Portland is attraction end for at least 79 percent of trips (99 percent for alignments only to Yarmouth)

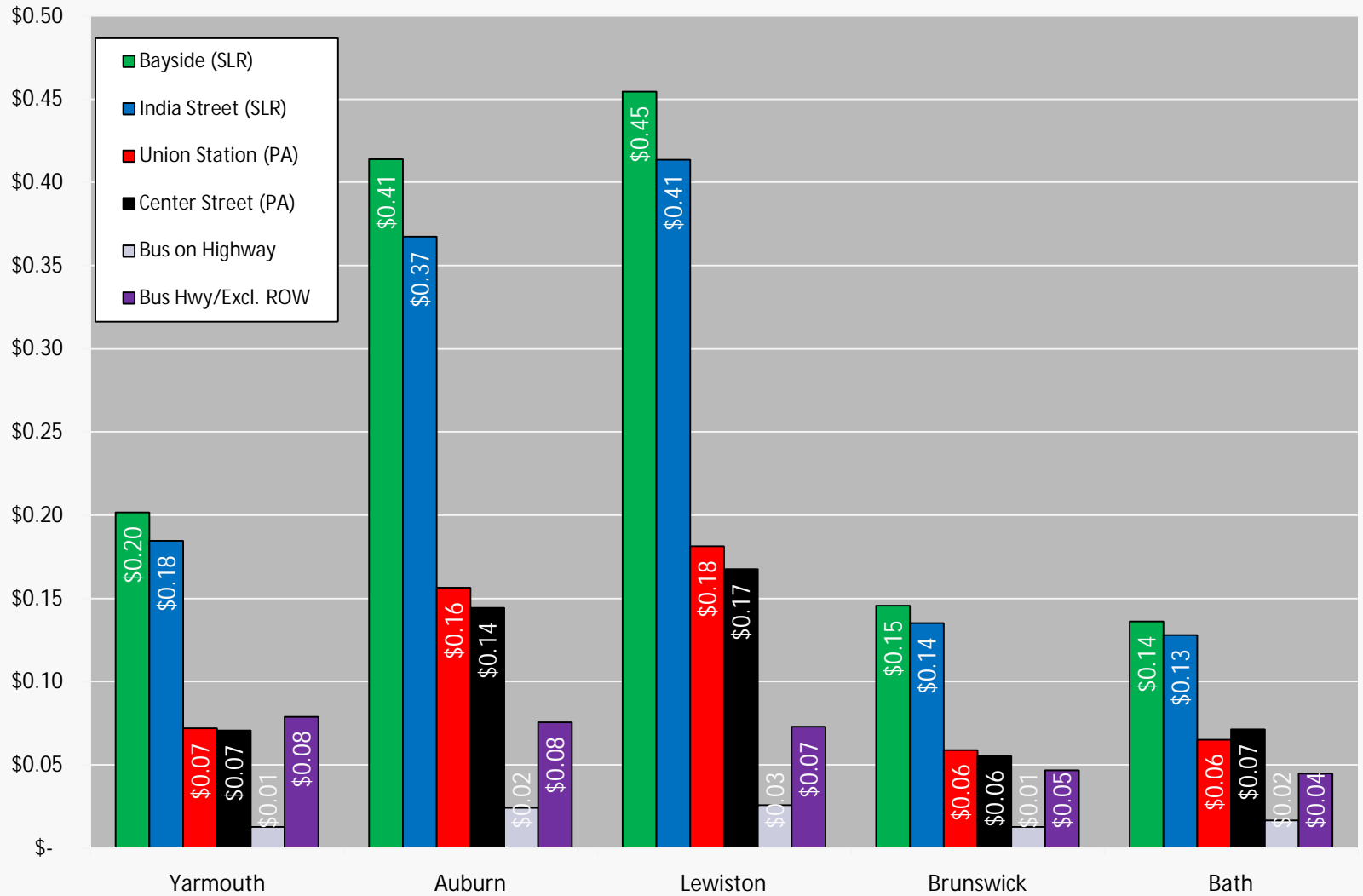
Capital Cost Summary (\$ millions)



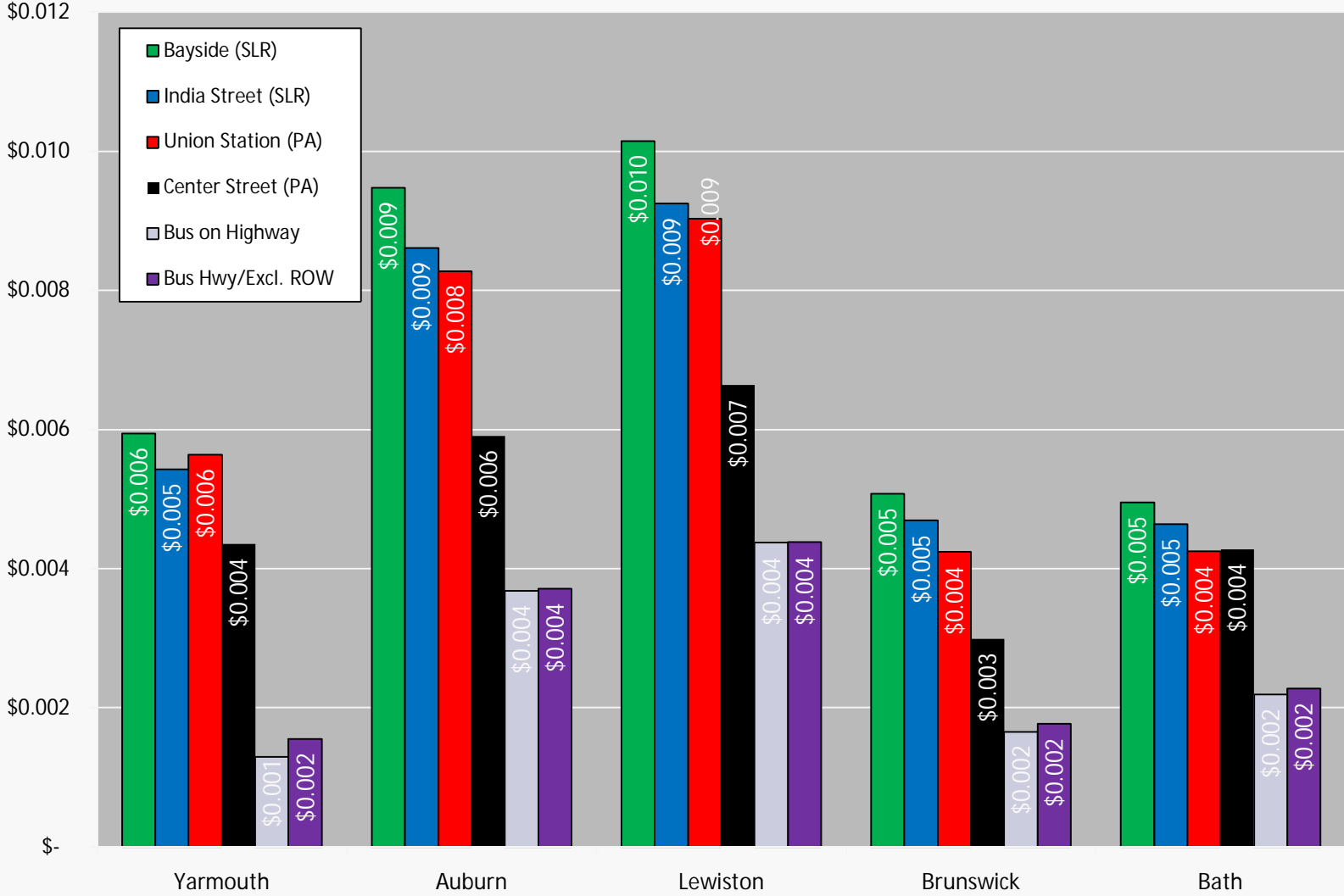
2035 Commute Trips



Capital Cost per 2035 Commute Trip



Operating Cost per 2035 Commute Trip



Phase 2 Alternatives

- Rail:
 - Pan Am to Yarmouth
 - Pan Am to Auburn/Lewiston
 - Pan Am to Brunswick/Bath
- Bus:
 - Portland to Yarmouth on Highway and Shoulder
 - Portland to Auburn/Lewiston on Highway and Shoulder
 - Portland to Brunswick/Bath on Highway and Shoulder

Small Starts Parameters

- Capital costs associated with new fixed guideway systems, extensions, and bus corridor improvements
- Requests under \$75 million and total project costs must be under \$250 million
- In addition, Small Starts eligible if:
 - (a) meet the definition of a fixed guideway for at least 50 % of the project length in the peak period
 - (b) be a new fixed guideway project, or

Small Starts (cont.)

- (c) be new corridor-based bus project with all of the following minimum elements:
 - Substantial transit stations
 - Traffic signal priority/pre-emption, to the extent, if any, that there are traffic signals on the corridor
 - Low-floor vehicles or level boarding
 - Branding of the proposed service
 - 10 minute peak/15 minute off peak headways or better while operating at least 14 hours per weekday

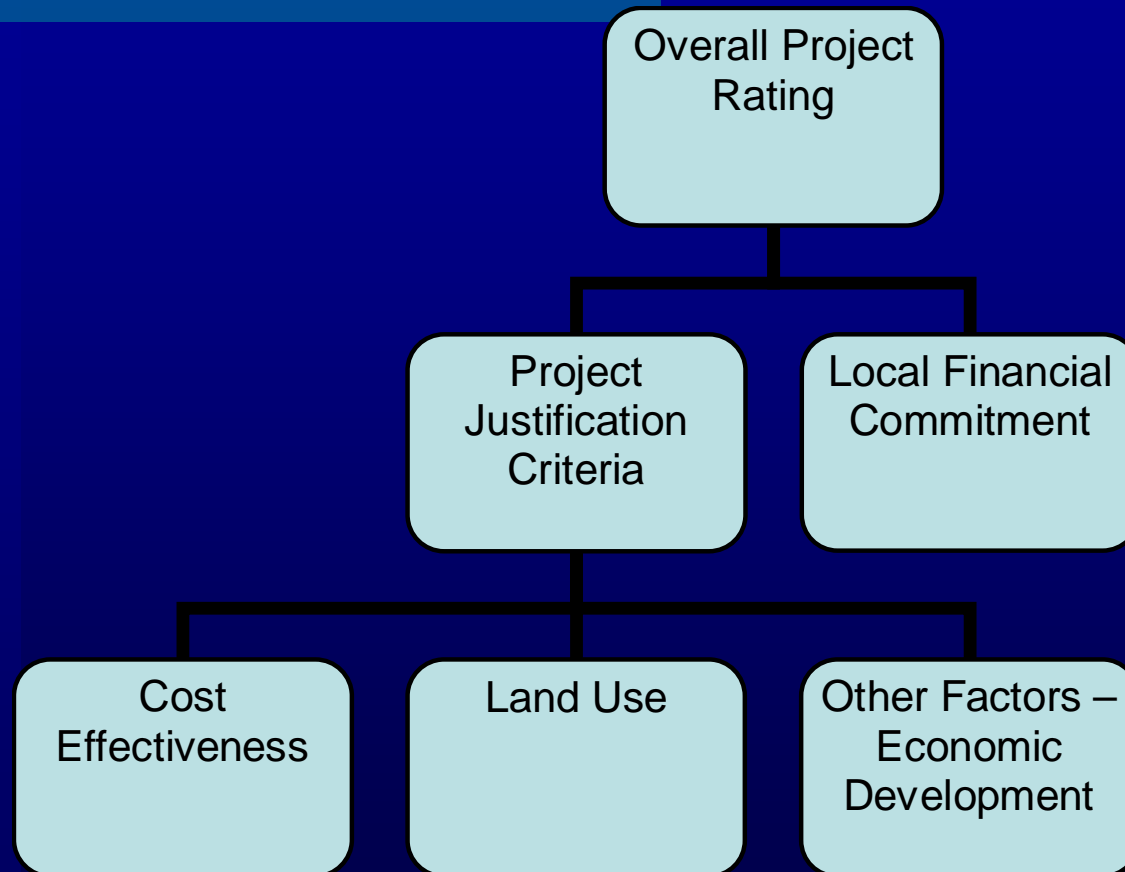
What Has Been Funded (FY10)

- \$174 Million for 16 projects
- Maximum grant \$54.5 Million

Geographic and Modal Distribution

- Flagstaff, AZ, Mountain Links BRT
- Livermore, CA, Livermore-Amador Route 10 BRT
- Los Angeles, CA, Metro Rapid Bus System Gap Closure
- Los Angeles, CA, Wilshire Boulevard Bus-Only Lane
- Monterey, CA, Monterey Bay Rapid Transit
- Riverside, CA, Perris Valley Line Medium
- San Bernardino, CA, E Street Corridor BRT
- San Diego, CA, Mid-City Rapid
- San Joaquin, CA, Metro Express - Airport Way Corridor BRT Project
- Fort Collins, CO, Mason Corridor BRT
- Roaring Fork Valley, CO, BRT Project
- Fitchburg, MA, Commuter Rail Improvements
- Kansas City, MO, Troost Corridor BRT
- Austin, TX, Metro Rapid BRT
- King County, WA, Bellevue - Redmond BRT
- King County, WA, Pacific Highway South BRT

FTA Critical Success Factors



FTA Small Starts Evaluation Criteria

- Cost Effectiveness (which is a combined measure of annual travel time savings and annualized cost)
- Total Cost compared to State and Local Financial Capacity
 - Capital cost (including highway or rail improvements including railroad bridge costs)
 - Operations and Maintenance (O&M) costs
- Transportation Measures (which would be roughly proportional to vehicular emissions)
 - Level of Service
 - Total System Vehicle Miles Traveled
 - Total System Vehicle Hours Traveled
- Land Use
 - Existing Land Use Patterns
 - Transit supportive plans and policies
 - Performance and impact of these policies
- Economic Development

Amtrak Extension Feasibility Study

- Scope of Work

- Modes

- Intercity Rail for Portland to Auburn/Lewiston
- Intercity Rail from Portland to Montreal
- Bus service from Auburn/Lewiston to Brunswick and Portland

- Elements

- Schedule
- Costs (capital and operating)
- Ridership

What Happens Next

- Public Meeting Portland (April)
- Public Meeting in Brunswick (May)
- Finalize Phase 2 (June)
- Provide recommendation for Small Starts (June)
- Final Report (July)
- Initiate Small Starts application
- Initiate Amtrak Study (April)

Questions?
