Portland North
Alternative Modes Project

Public Meeting
May 4, 2010

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Agenda

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

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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)

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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

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Key Issues We've Heard

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

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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)**

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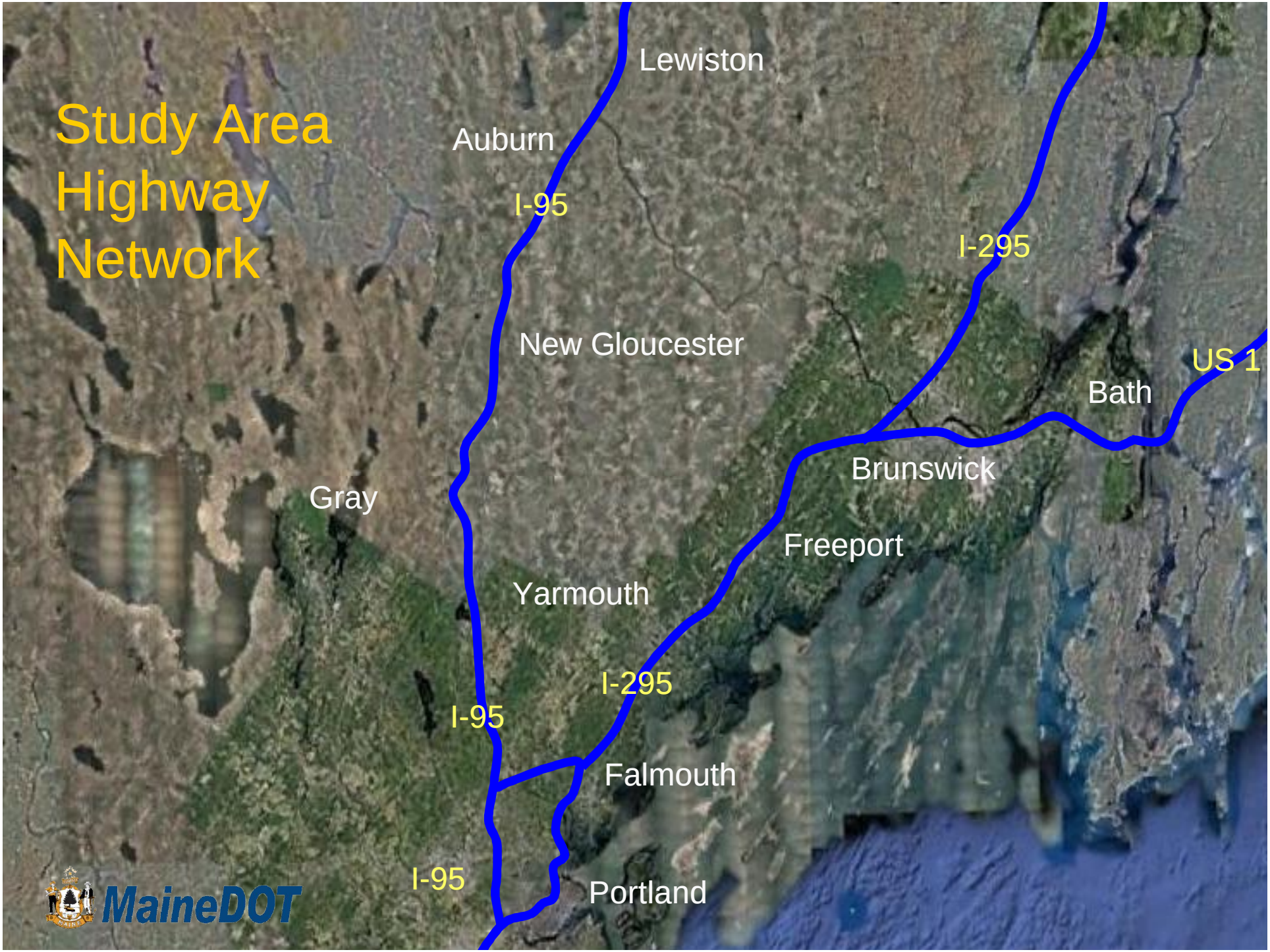
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Auburn
I-95
I-295
New Gloucester
US 1
Bath
Brunswick
Gray
Freeport
Yarmouth
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I-95
Falmouth
I-95
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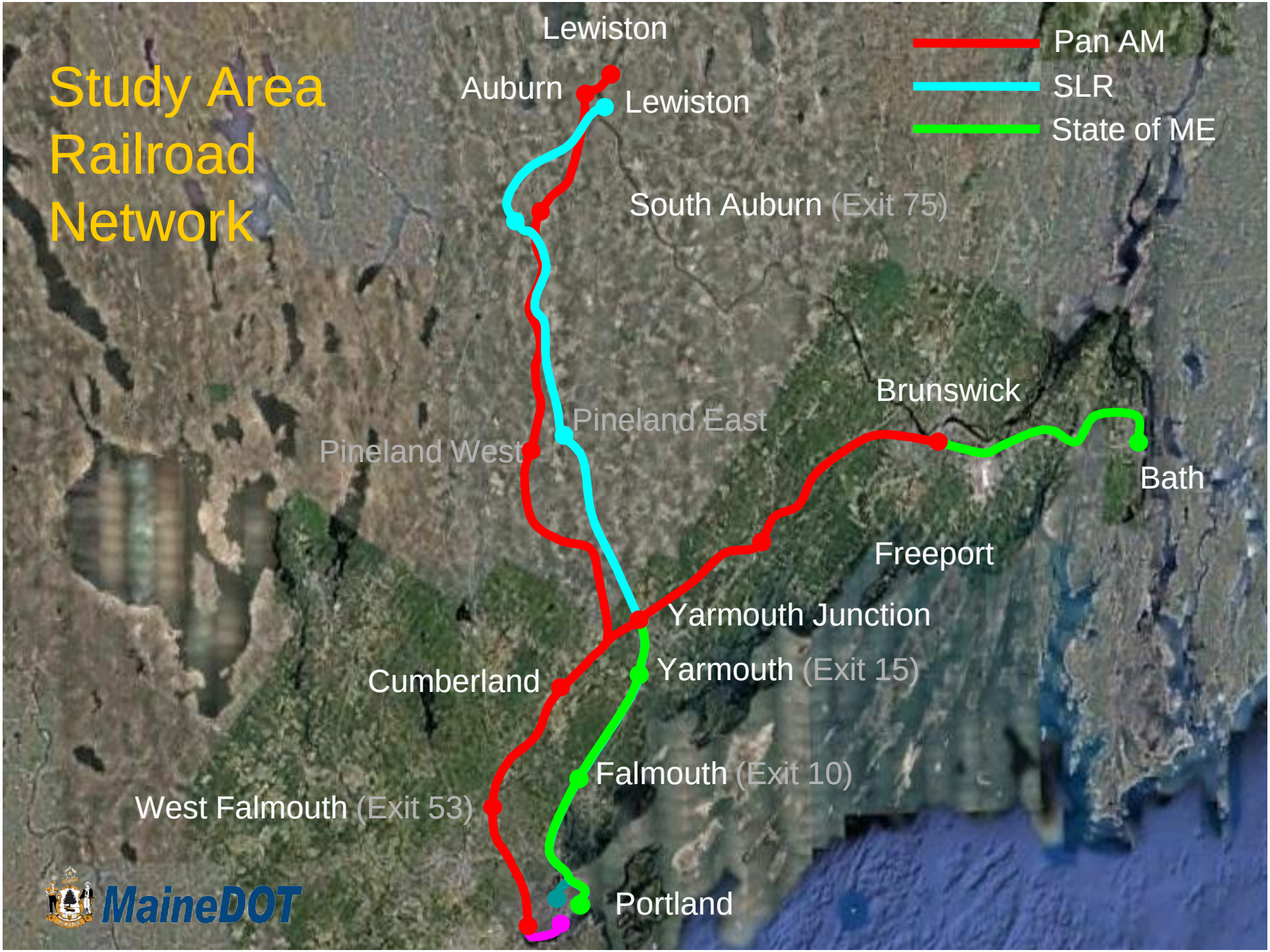
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Rail Options

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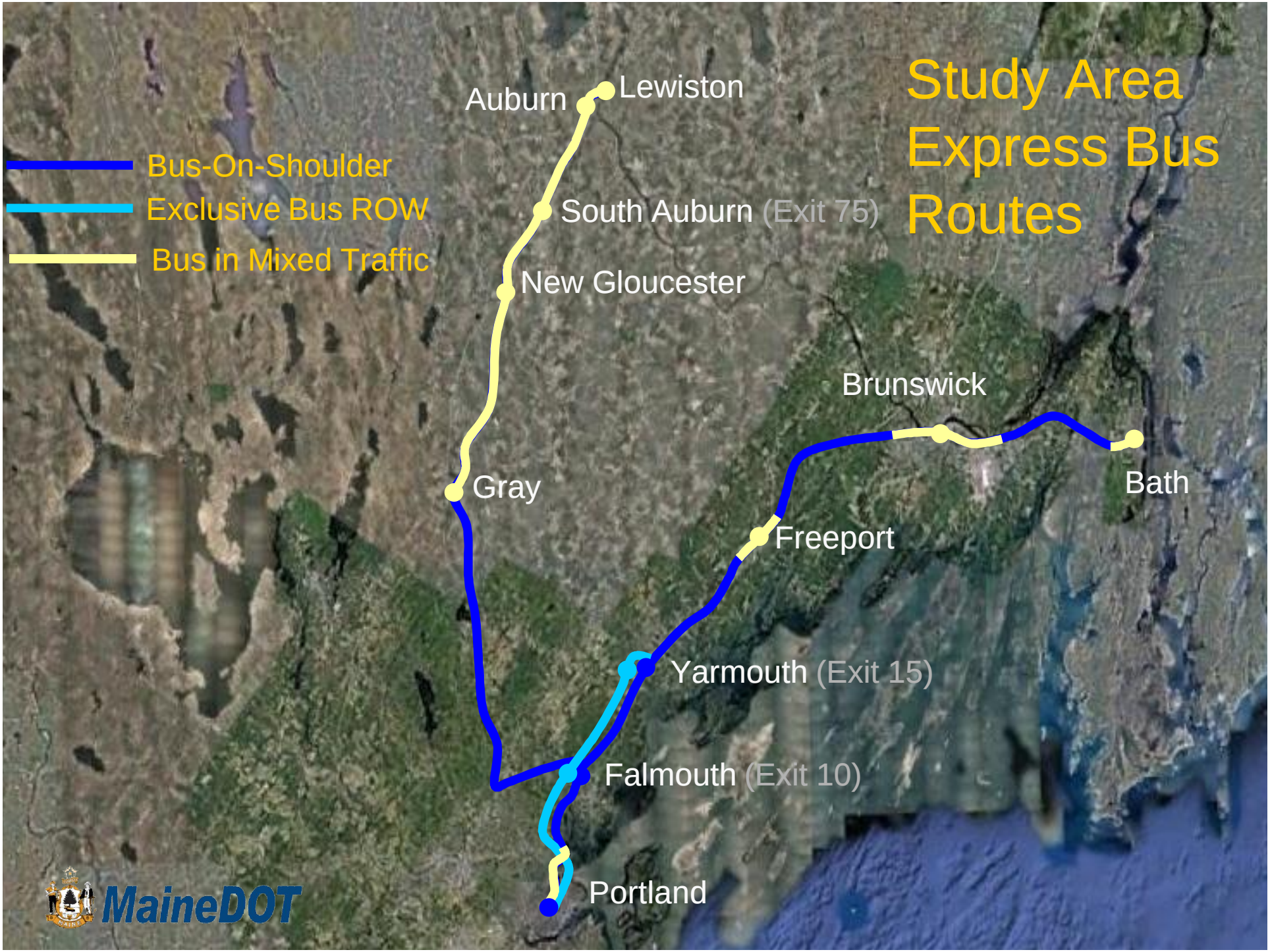
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Express Bus

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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

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Where Would it Leave You

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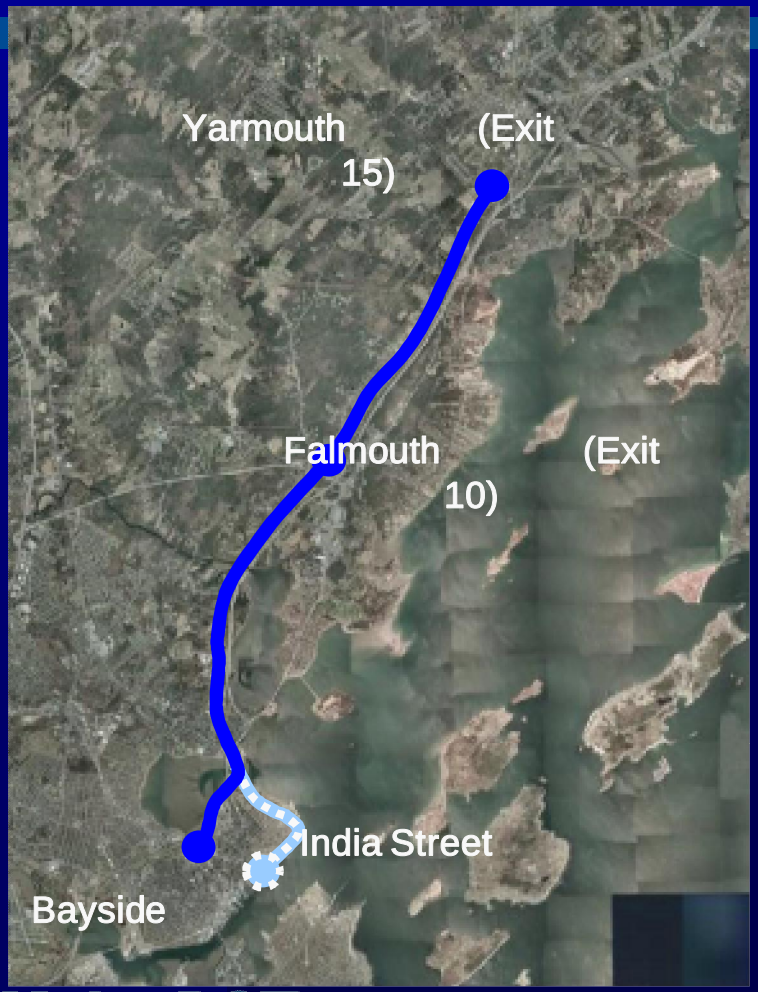
Yarmouth Rail Service

SLR



Pan Am

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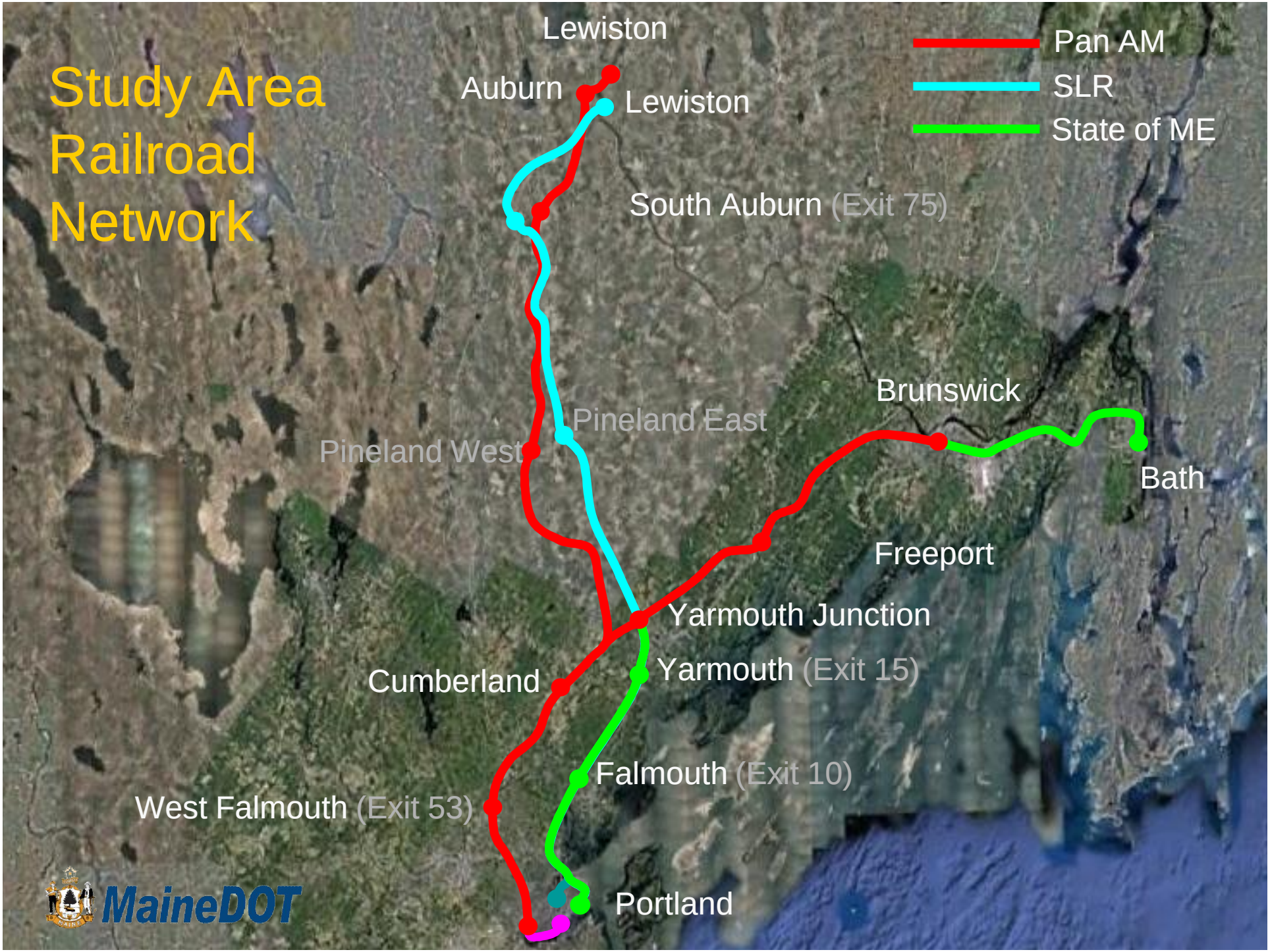
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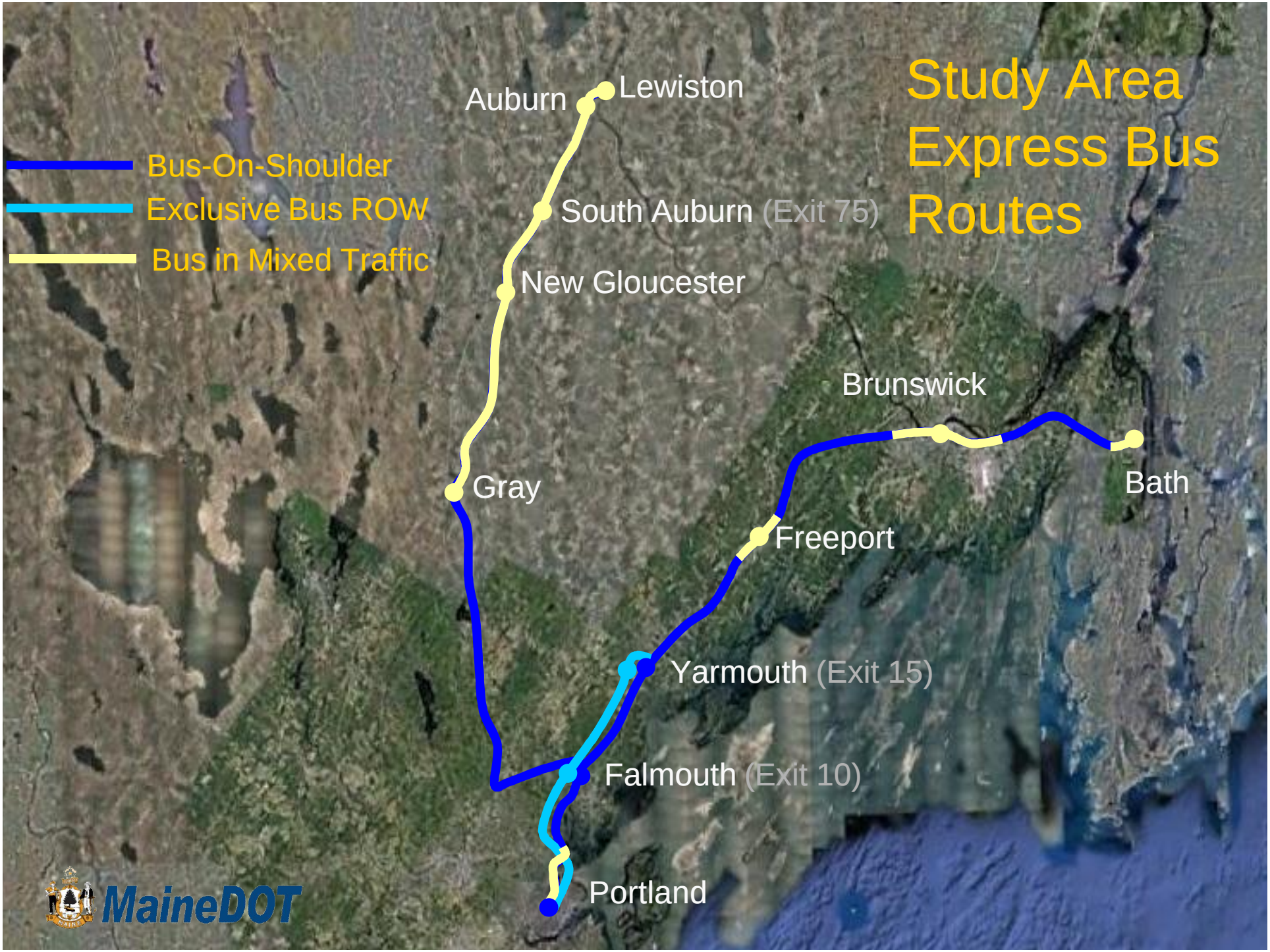
Yarmouth Express Bus Service

Exclusive ROW

Highway Shoulder Running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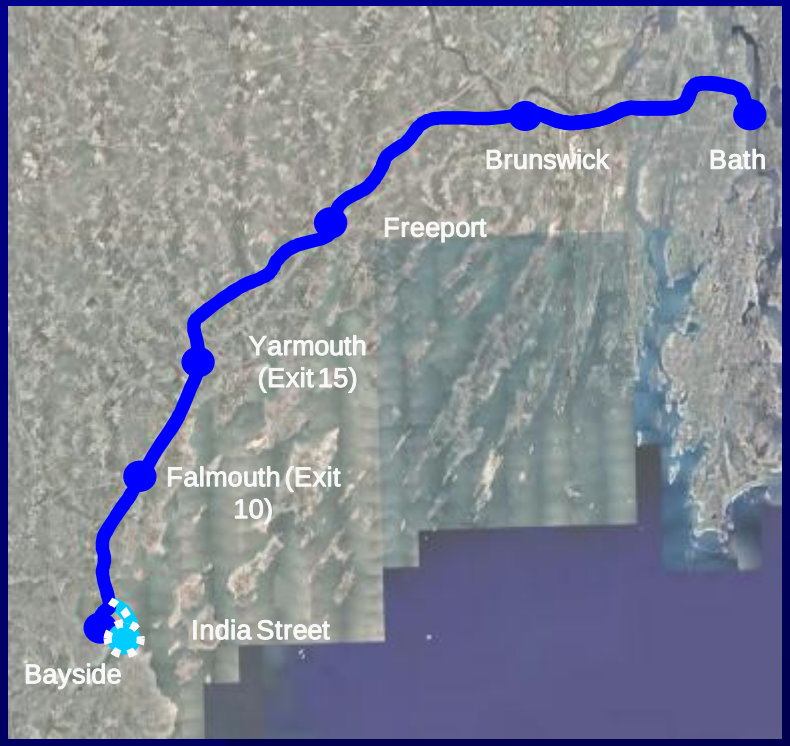
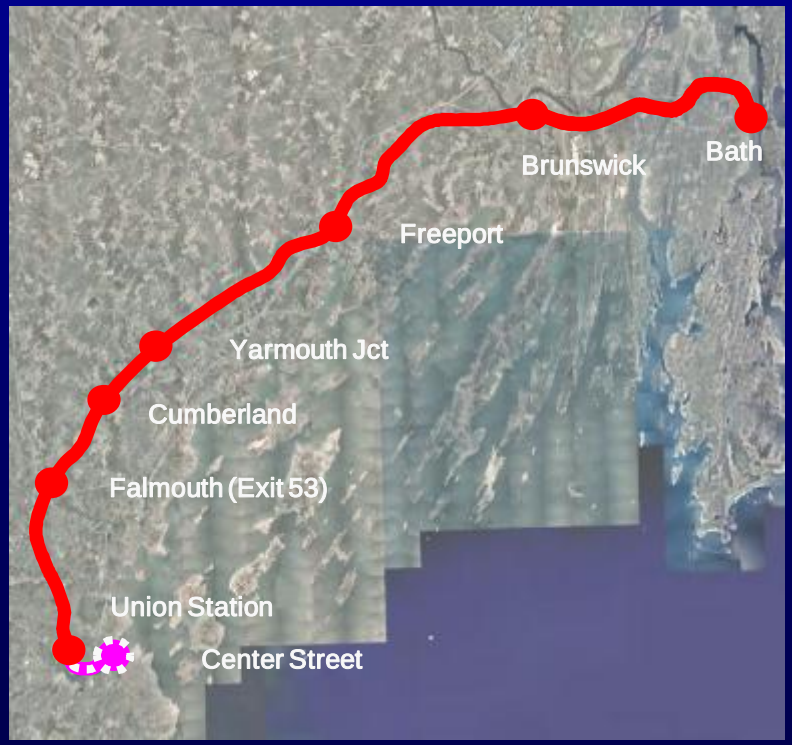
Bath Rail Service

SLR



Pan Am



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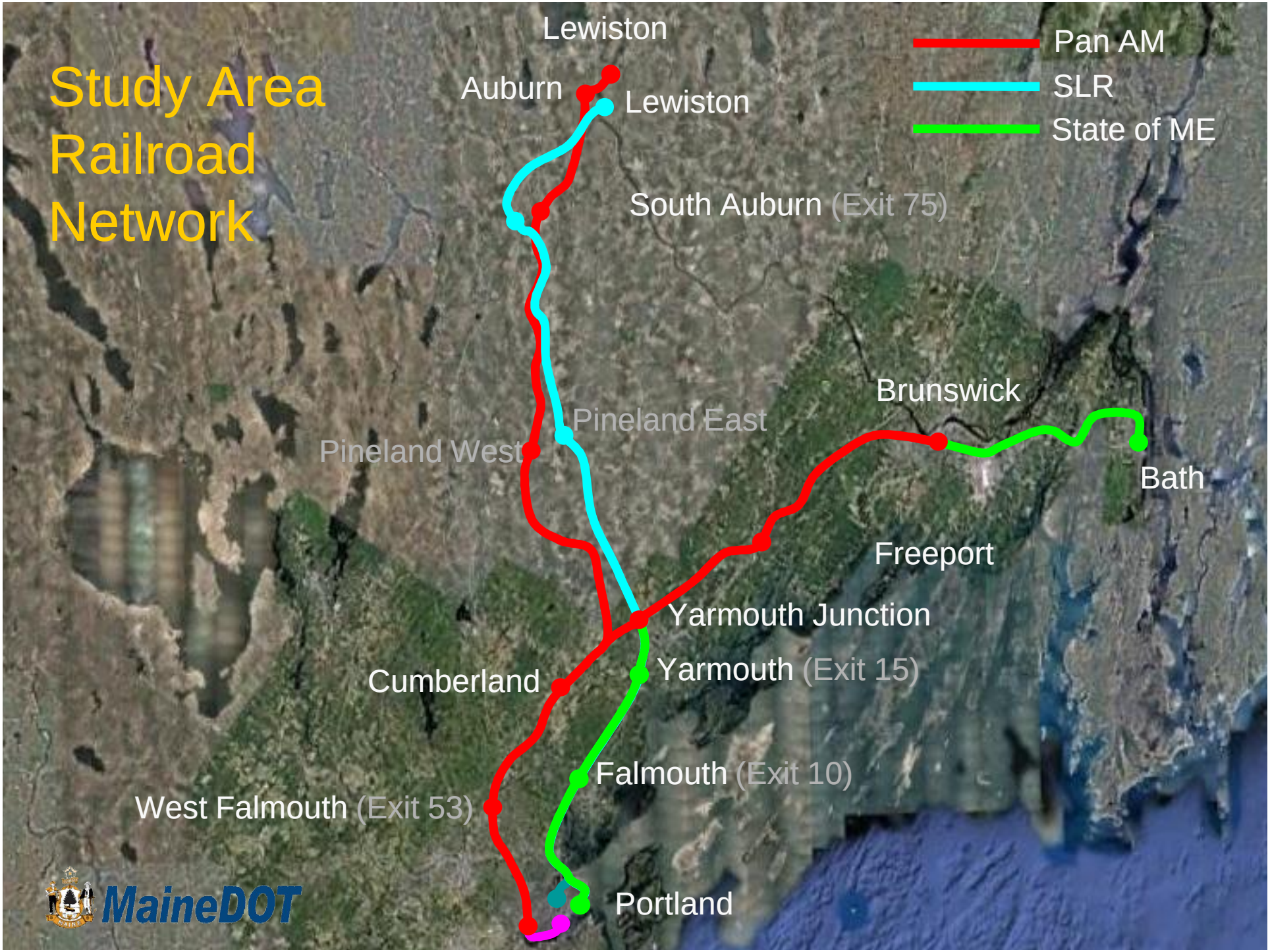
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Bath Express Bus Service

Exclusive Bus ROW

Highway Shoulder Running

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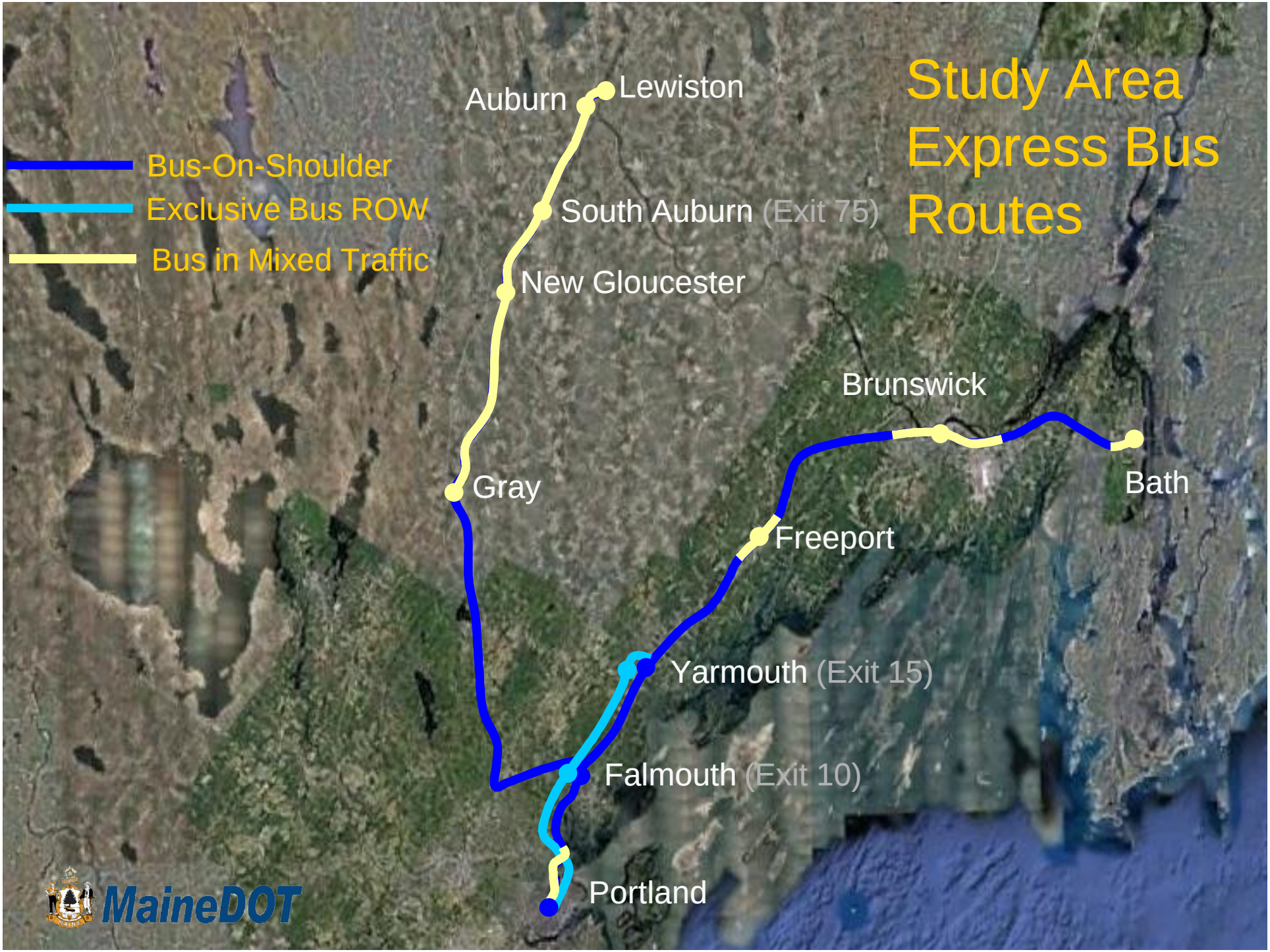
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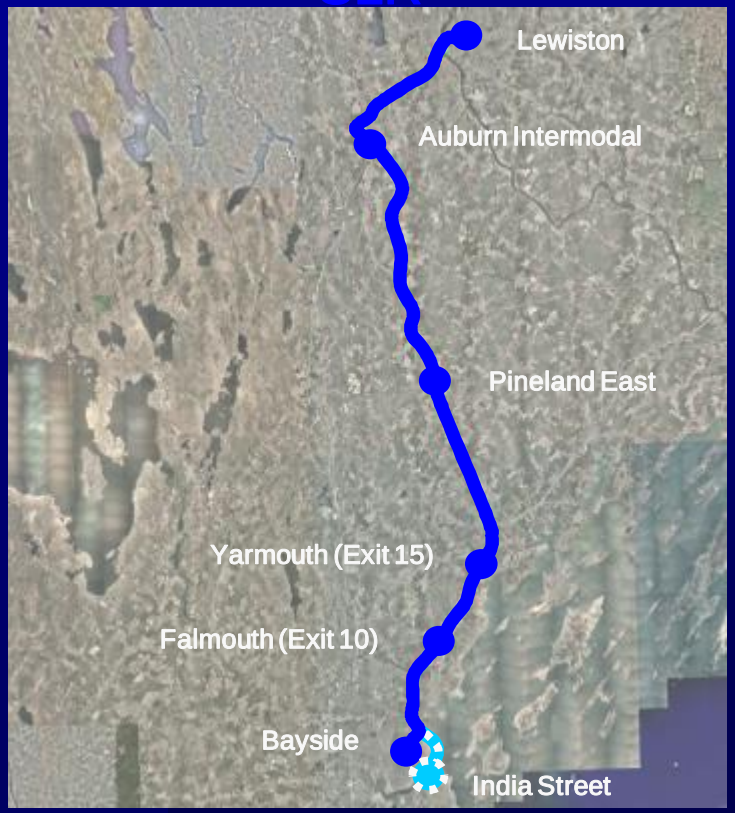
Lewiston Rail Service

SLR



Pan Am

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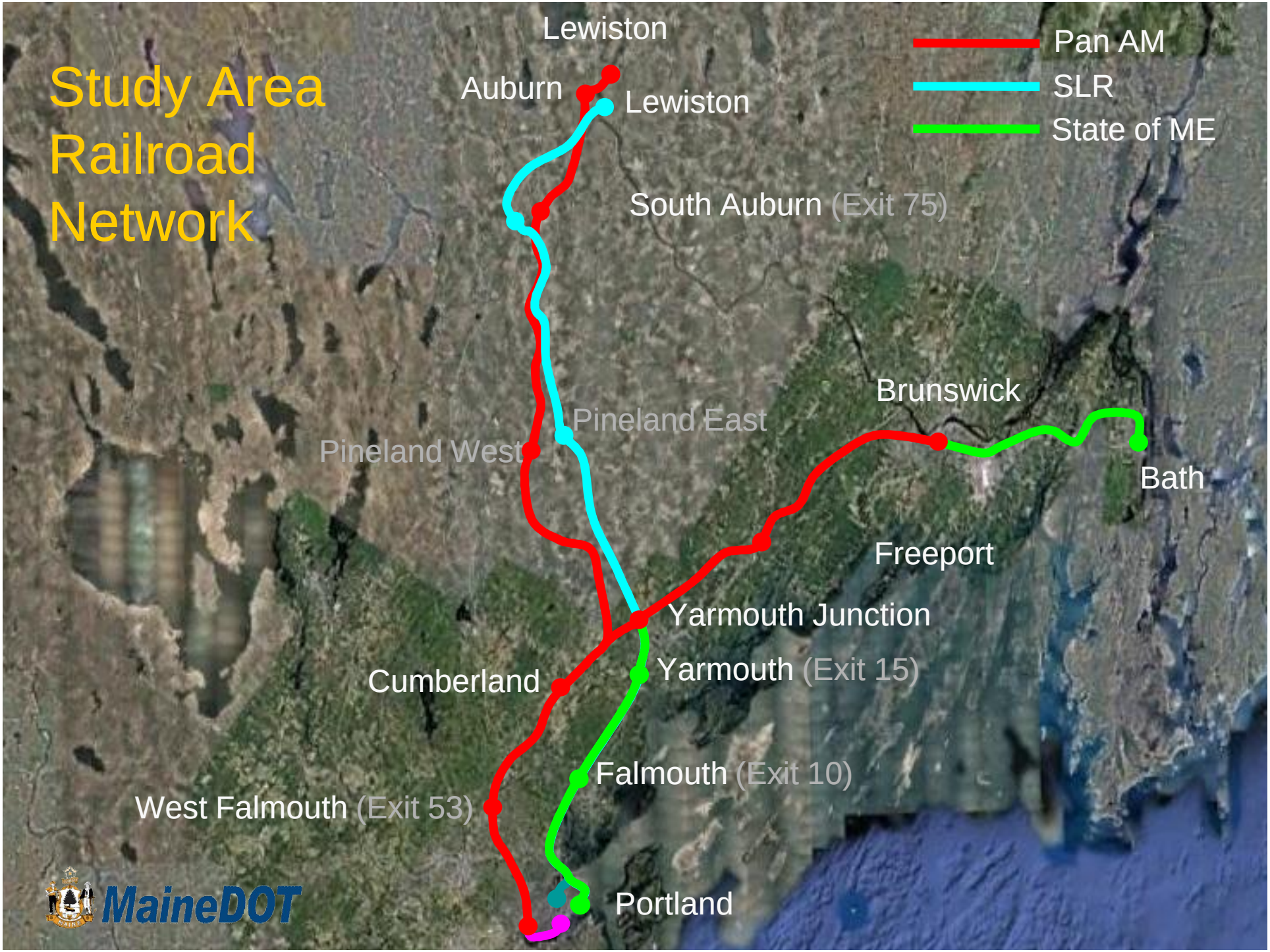
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Lewiston Express Bus Service

Exclusive Bus ROW

Express Bus

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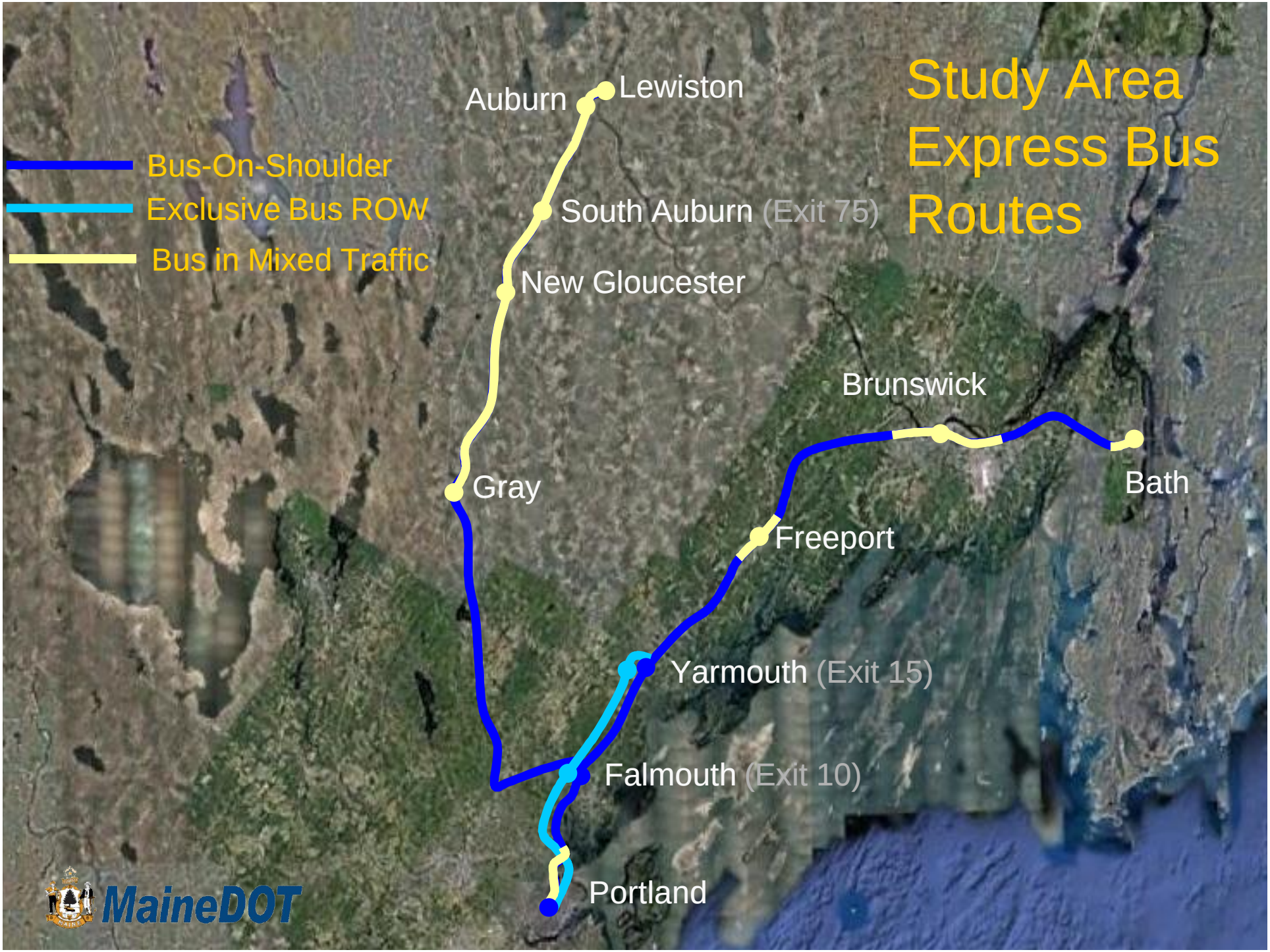
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Costs

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

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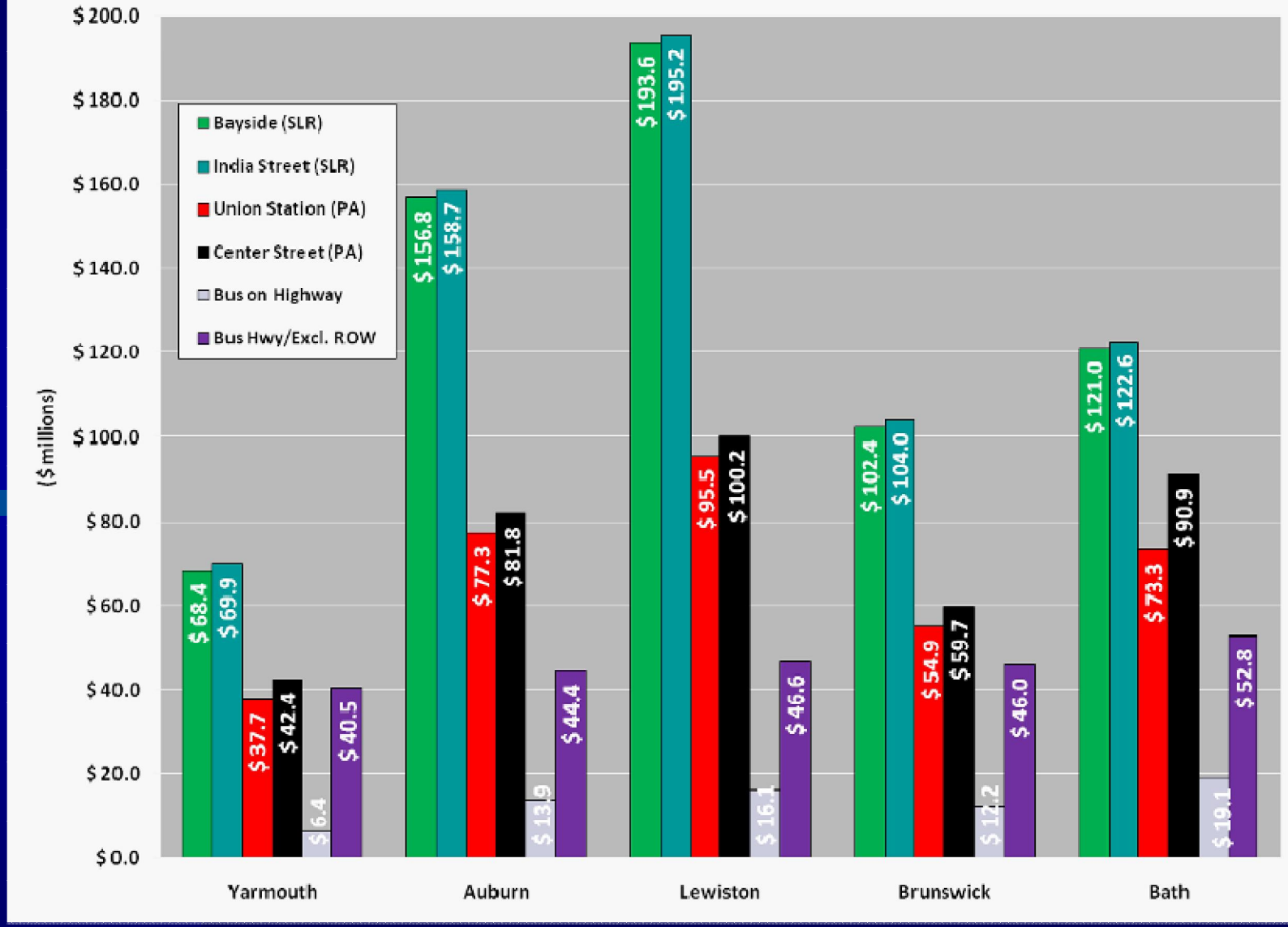
Capital Cost Summary ($ millions)



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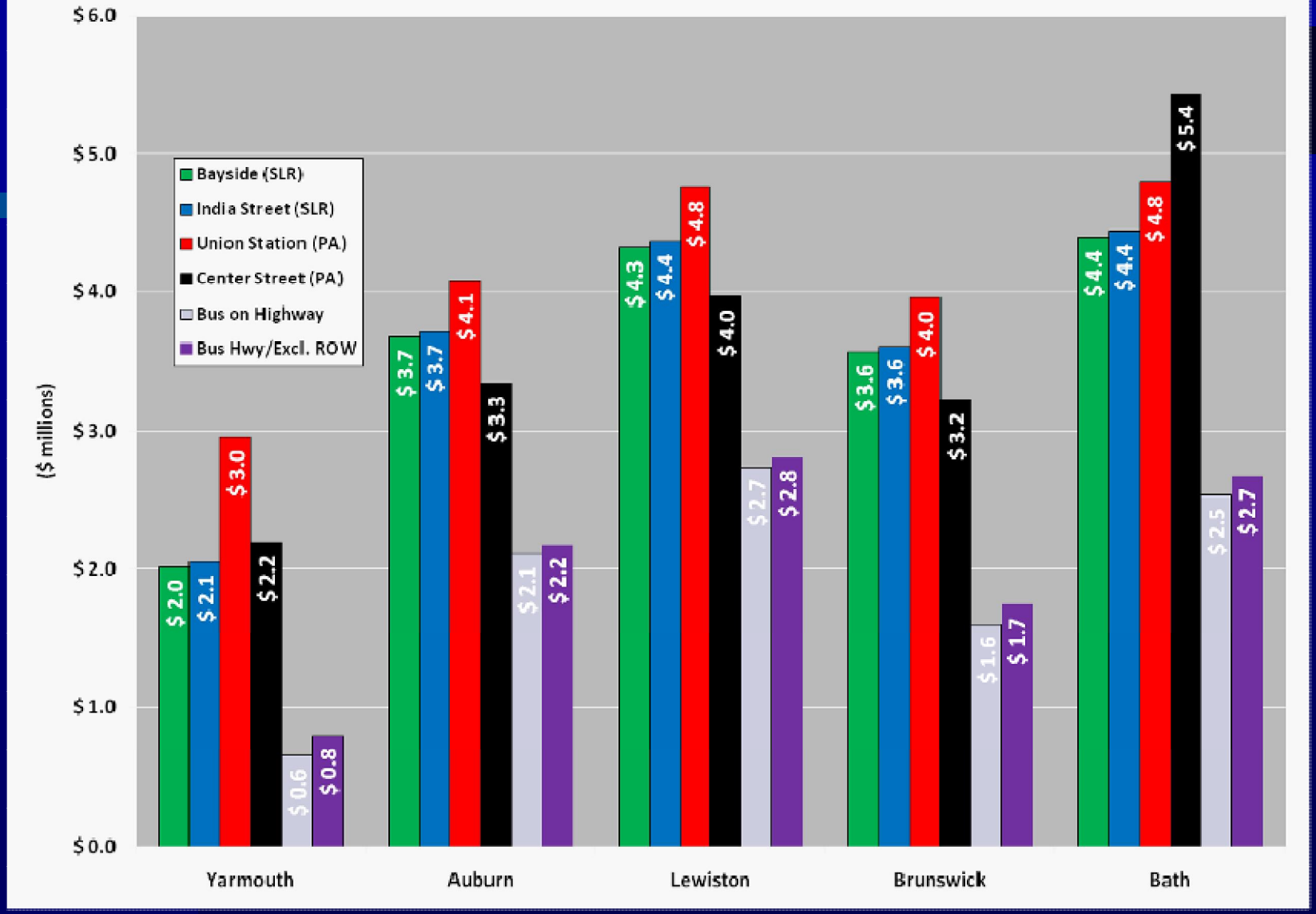
Summary of Annual Operating Costs ($millions)



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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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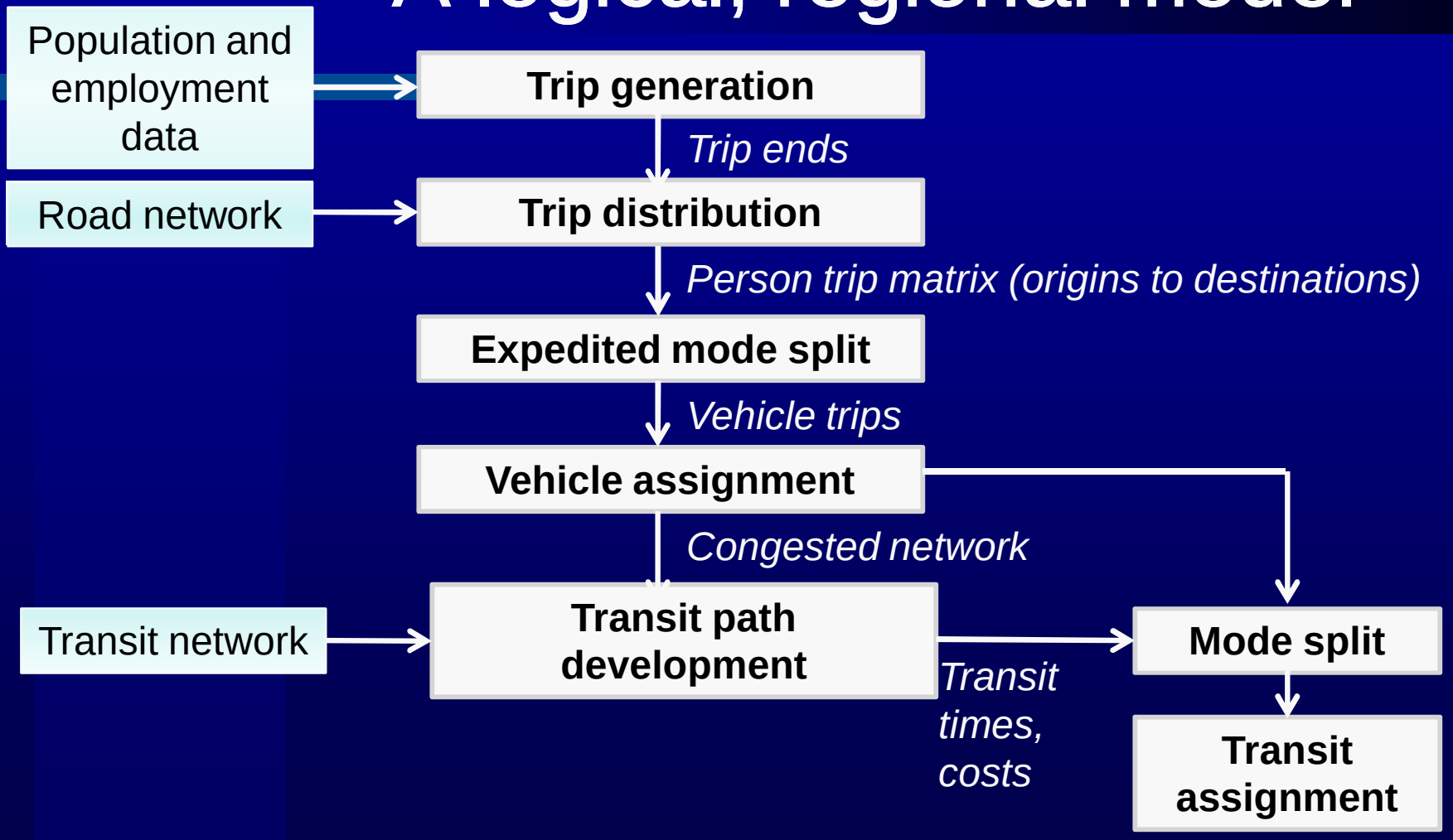
A logical, regional model



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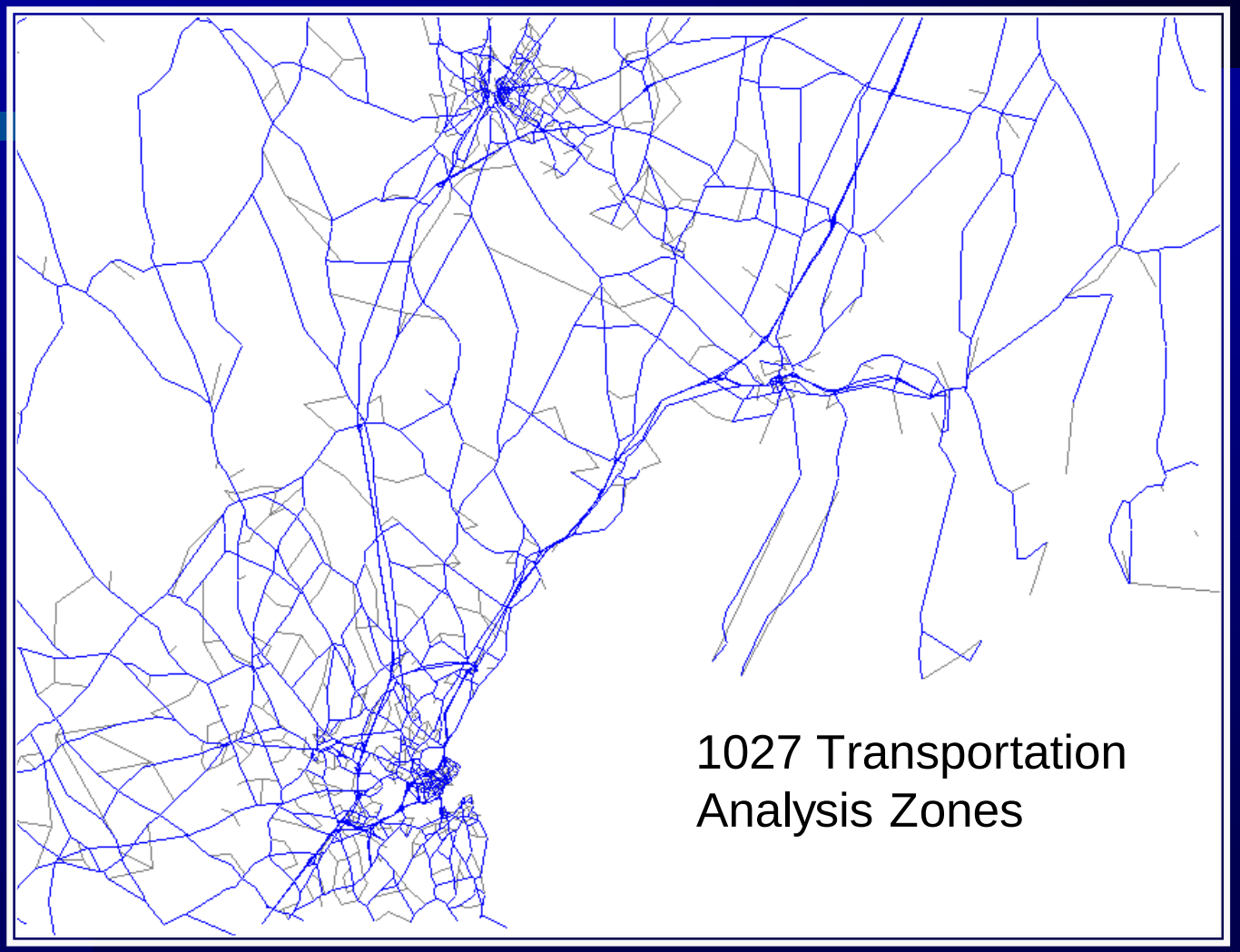
The Modeled Region



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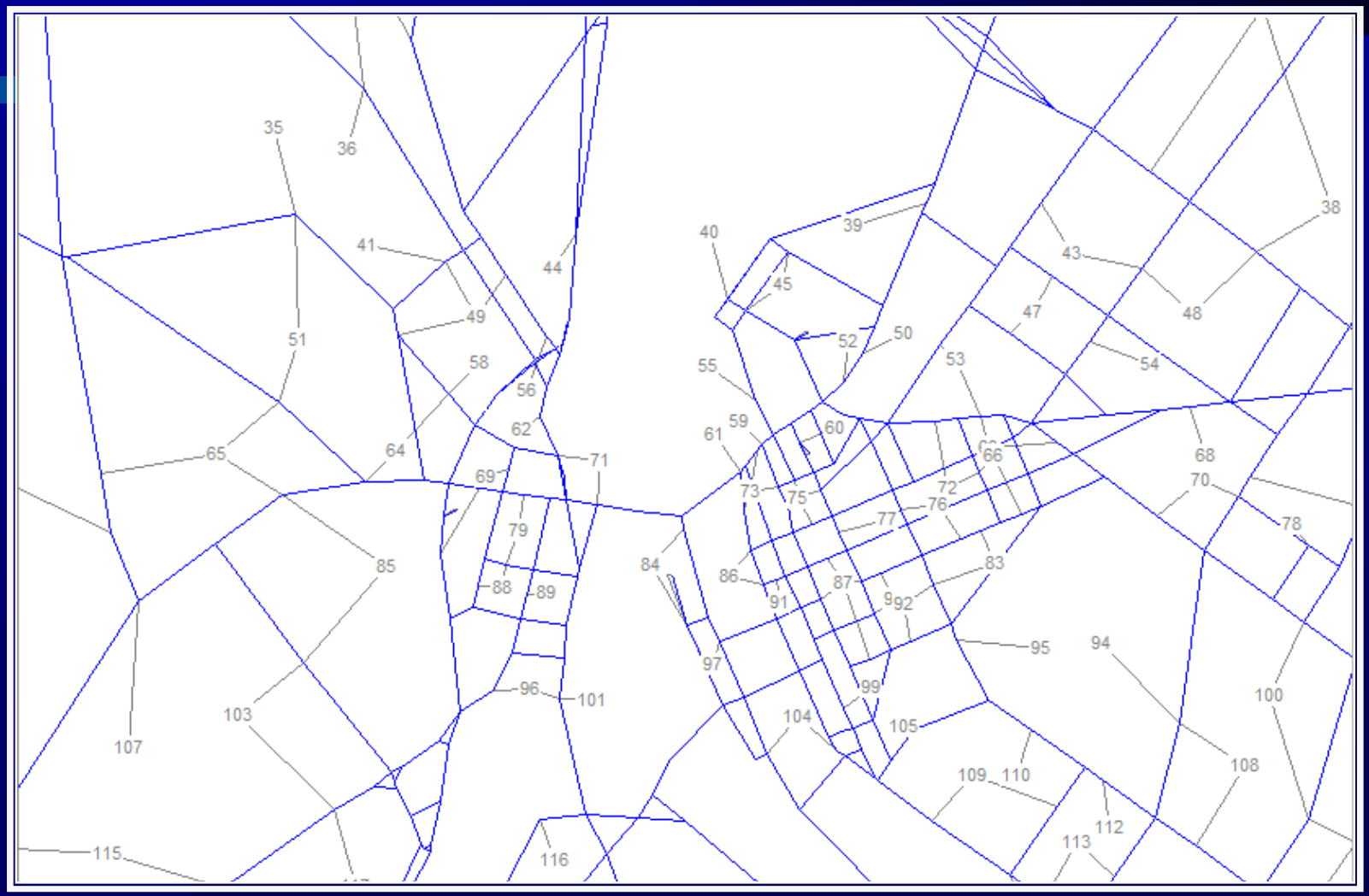
Lewiston / Auburn



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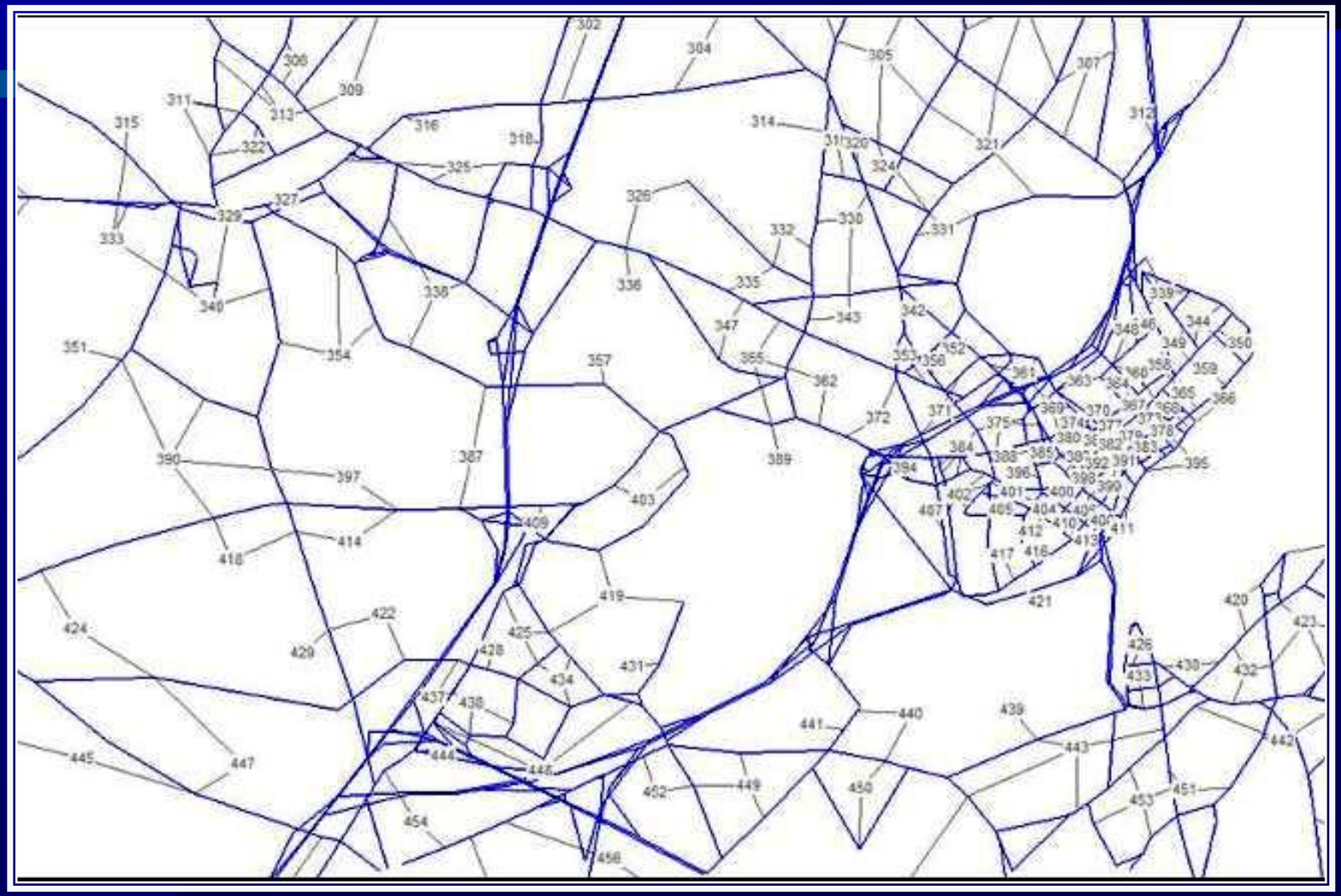
Portland



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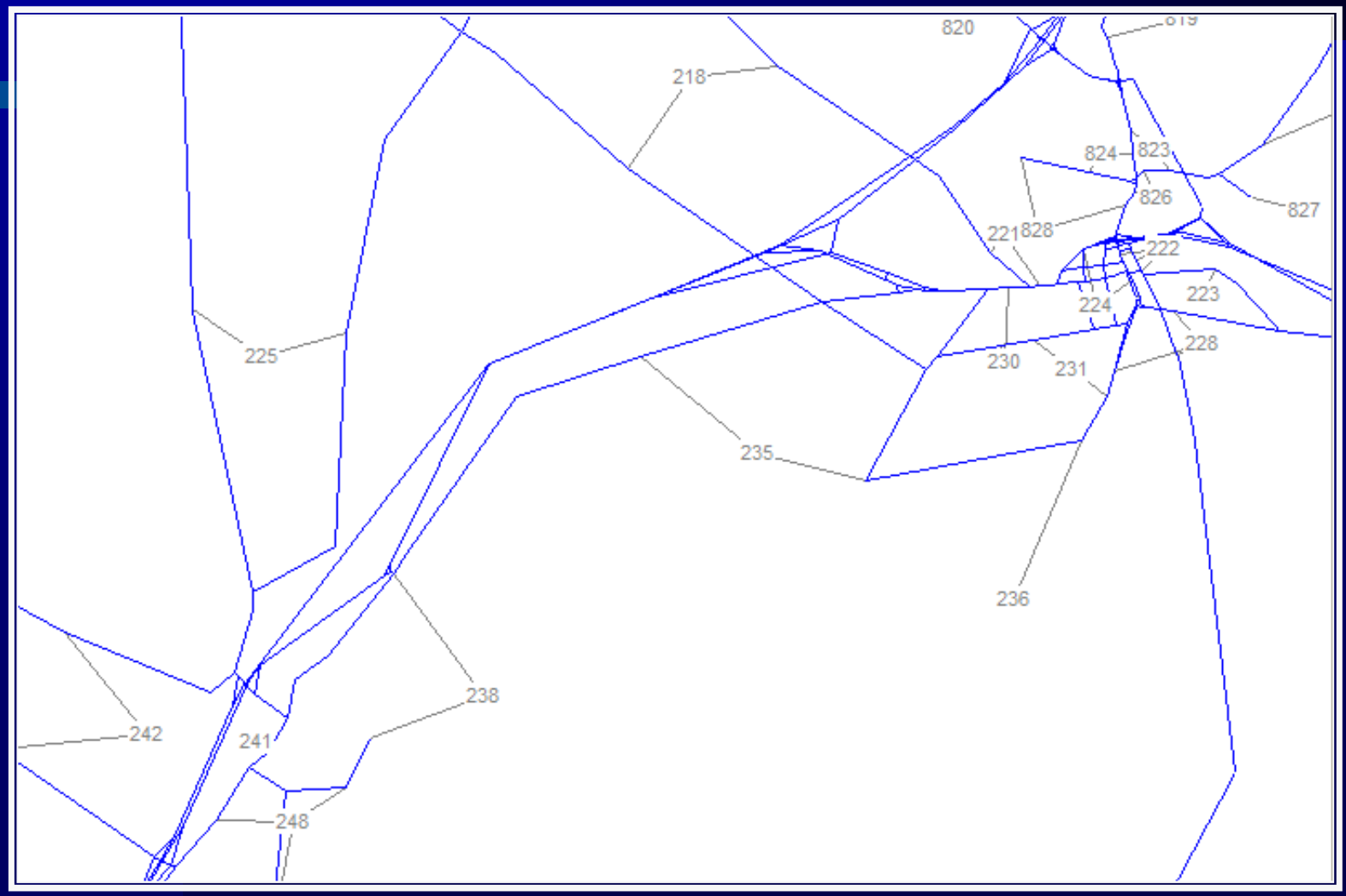
Brunswick and Freeport



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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

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How well does model represent flows?

Travel times (minutes)

	model	*observed times*	
	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	leave 6:00	leave 7:58
from Bath (Rt 1 & Washington St) to Portland (Franklin & Marginal Way)	45.3	37	34
	AM peak 3 hrs	Zoom schedule	
from Saco P&R to Congress & Bramhall	22.9	20 to 23	

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How well does model represent flows?

ZOOM Turnpike Express Boardings

Daily boardings in either direction

	model	observed
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

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Key Factors Affecting Behavior

- Not just comparison of auto vs. transit in-vehicle times
  - **wait time, need for a transfer, fare, and time to/from stations also matter**
- 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

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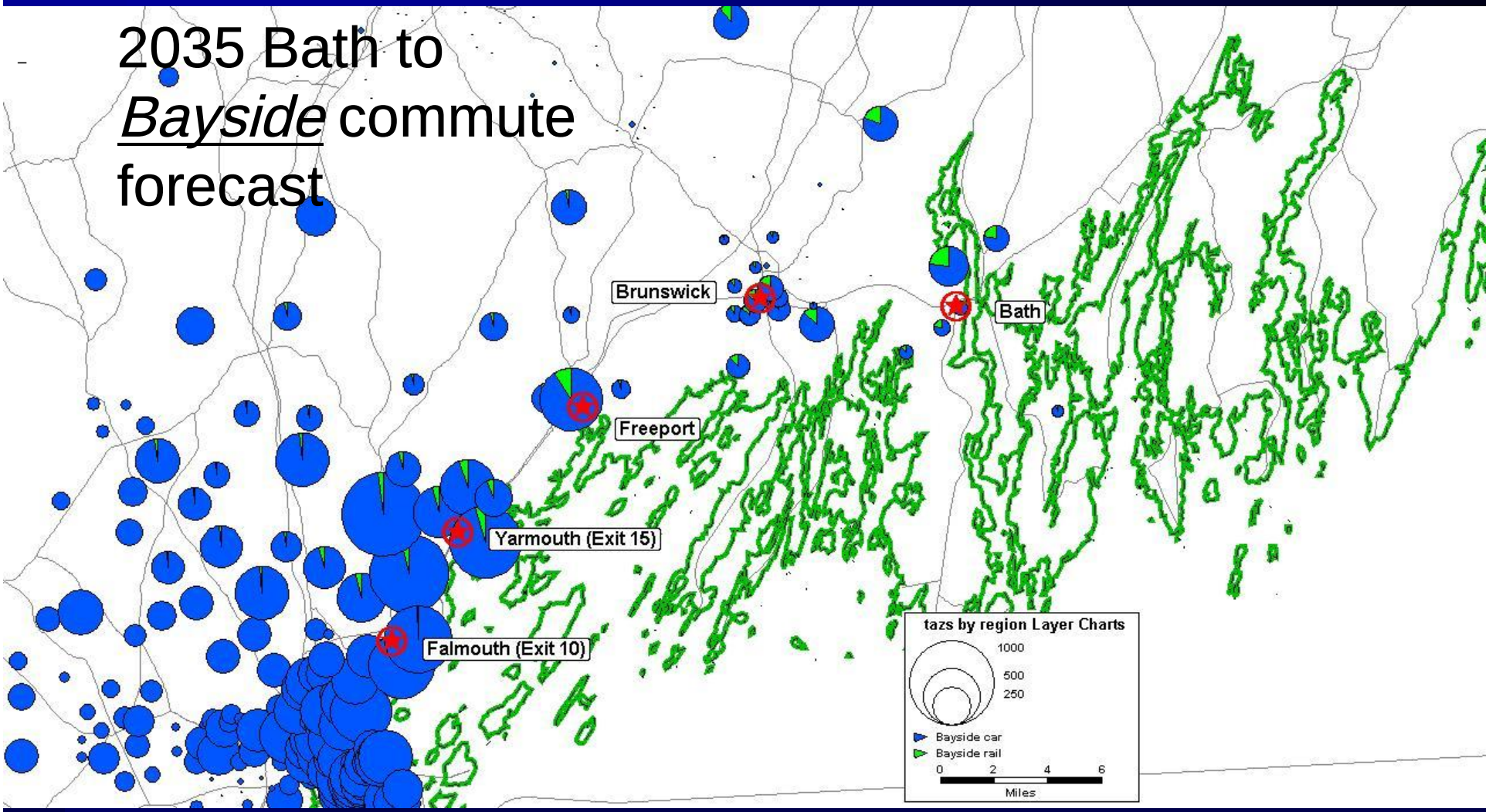
Mode Shares to Central Portland

2035 Bath to *Bayside* commute forecast



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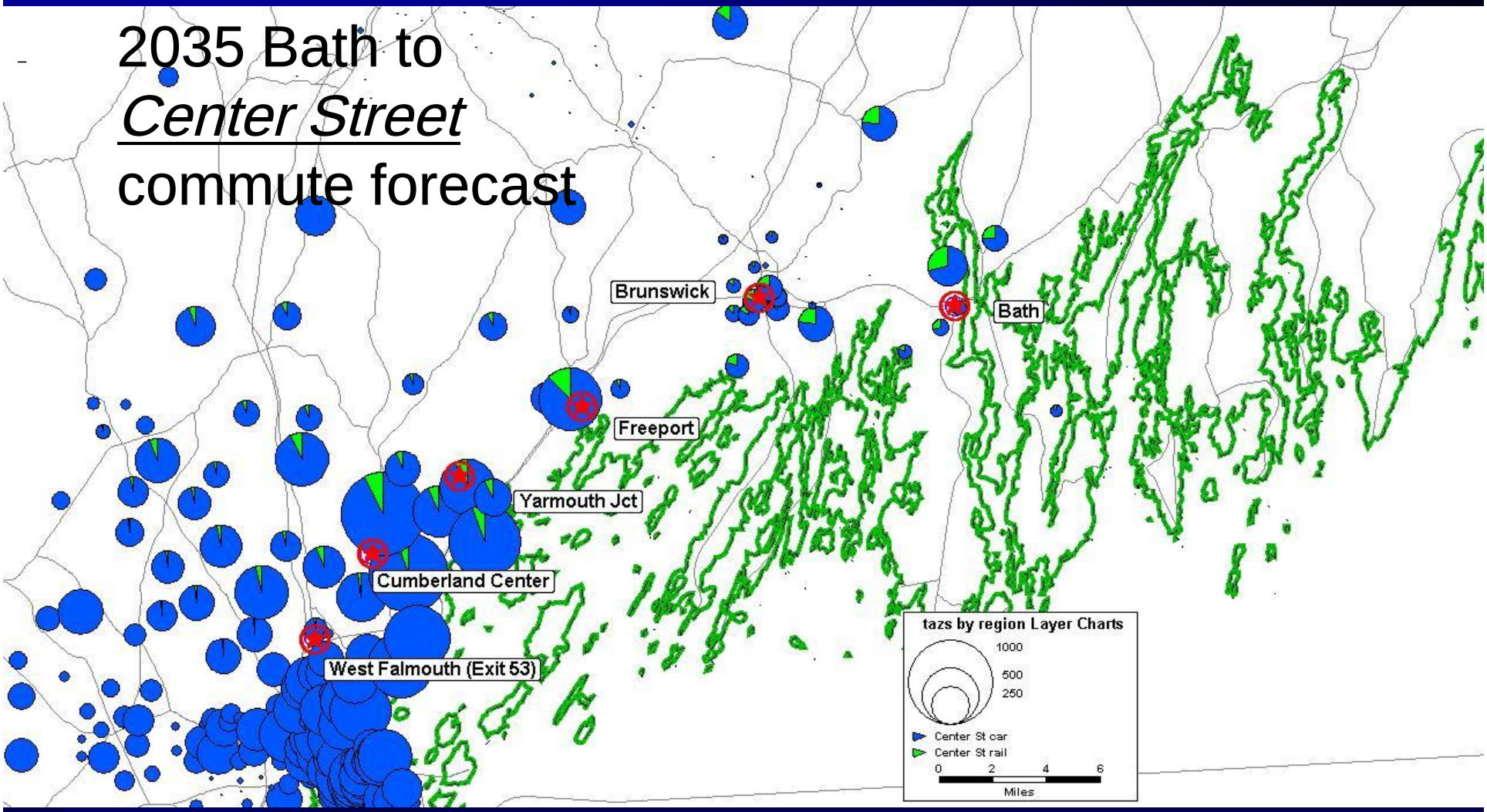
Mode Shares to Central Portland

2035 Bath to
Center Street
commute forecast



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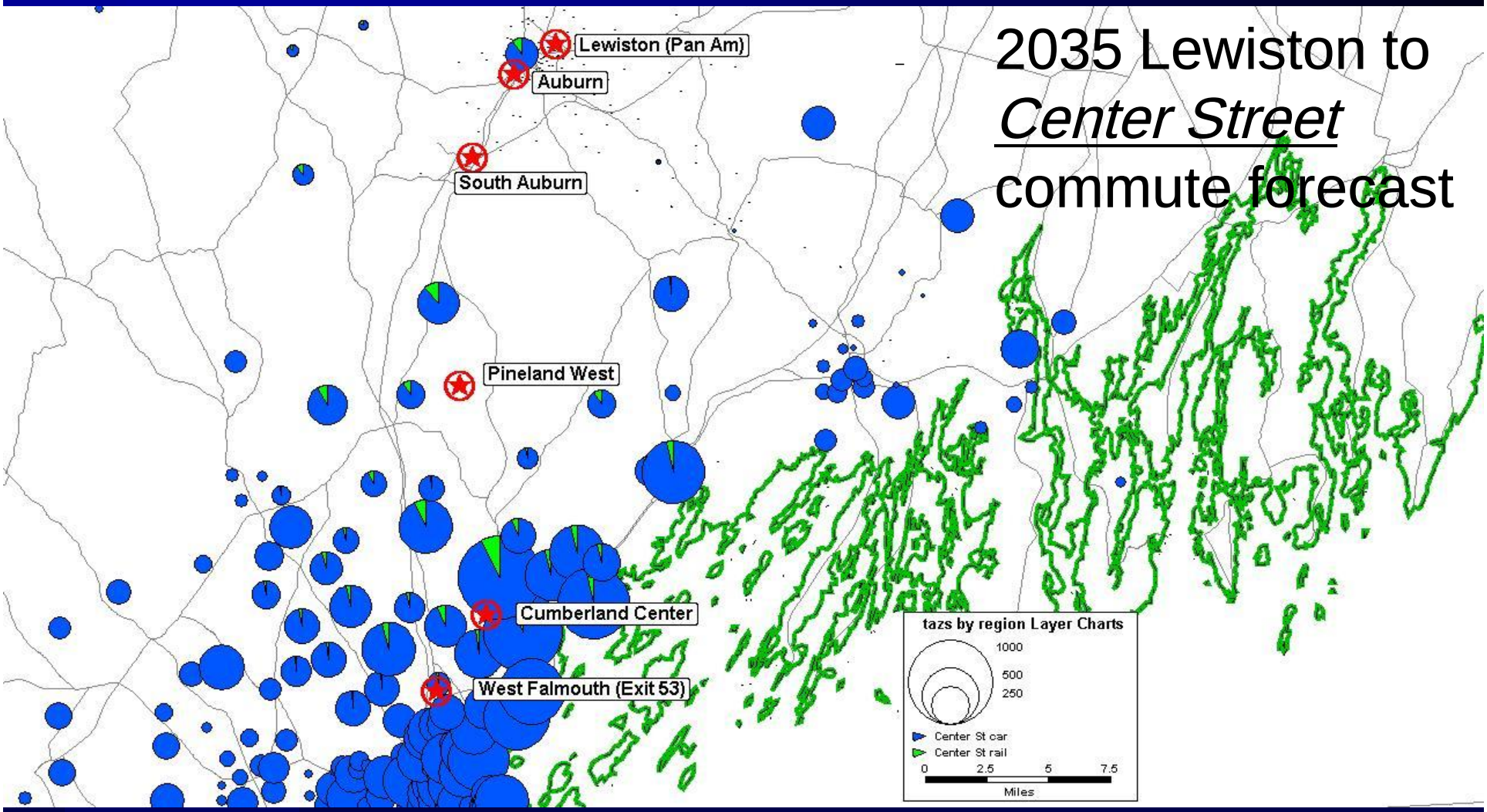

2035 Lewiston to *Center Street* commute forecast

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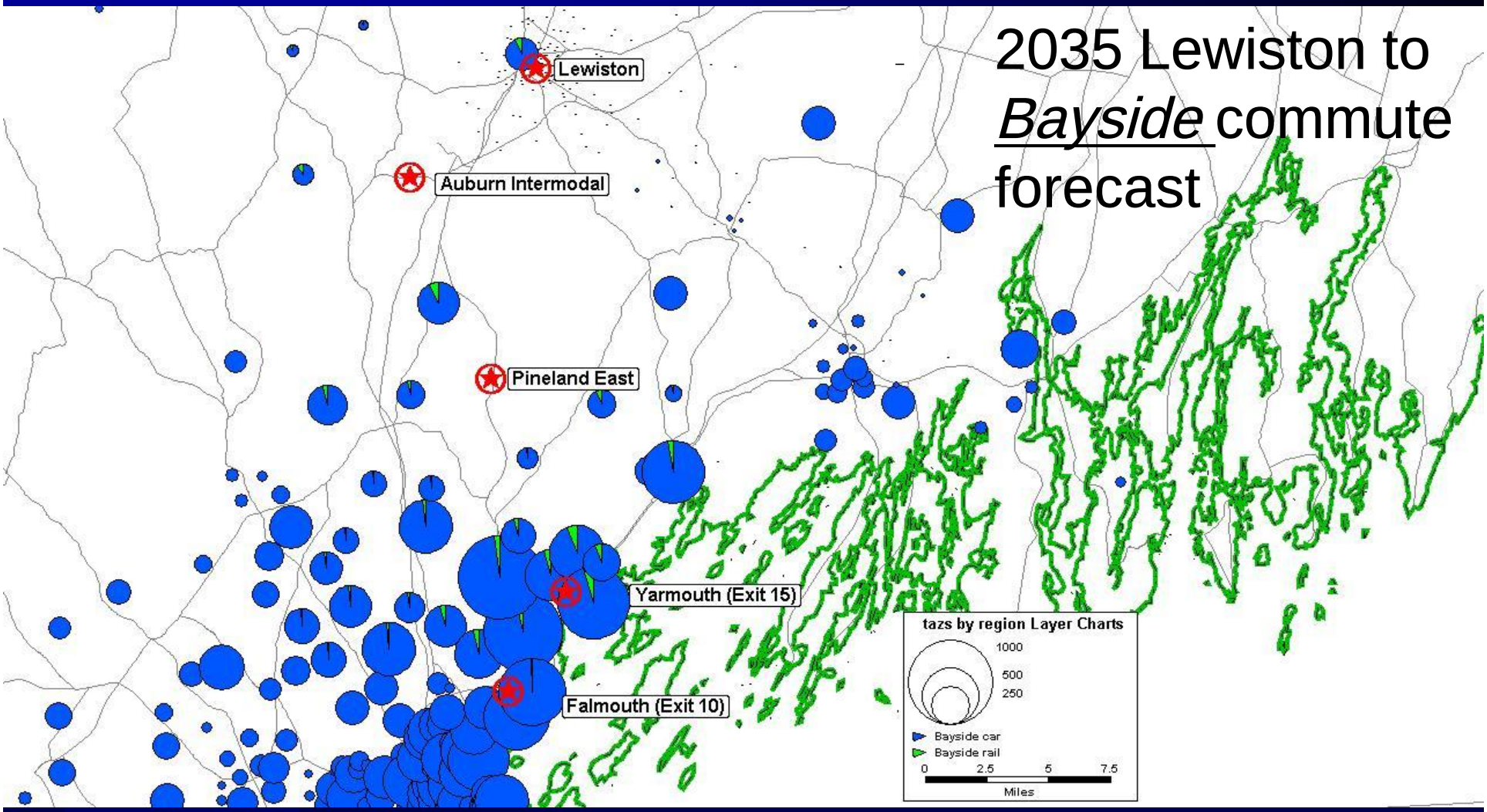
Mode Shares to Central Portland



2035 Lewiston to *Bayside* commute forecast

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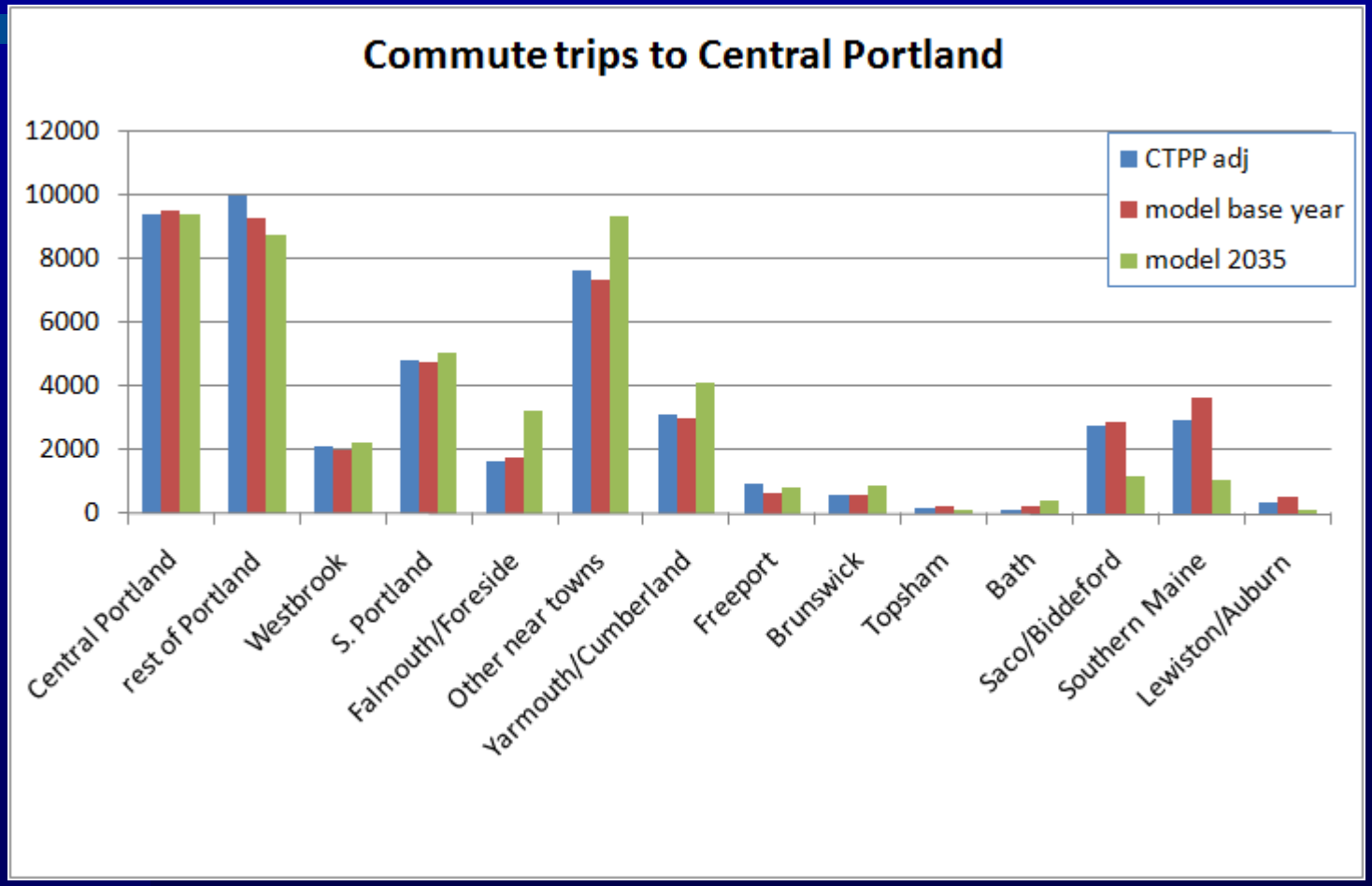
Forecasting to 2035

Trip origins of commuters to Portland



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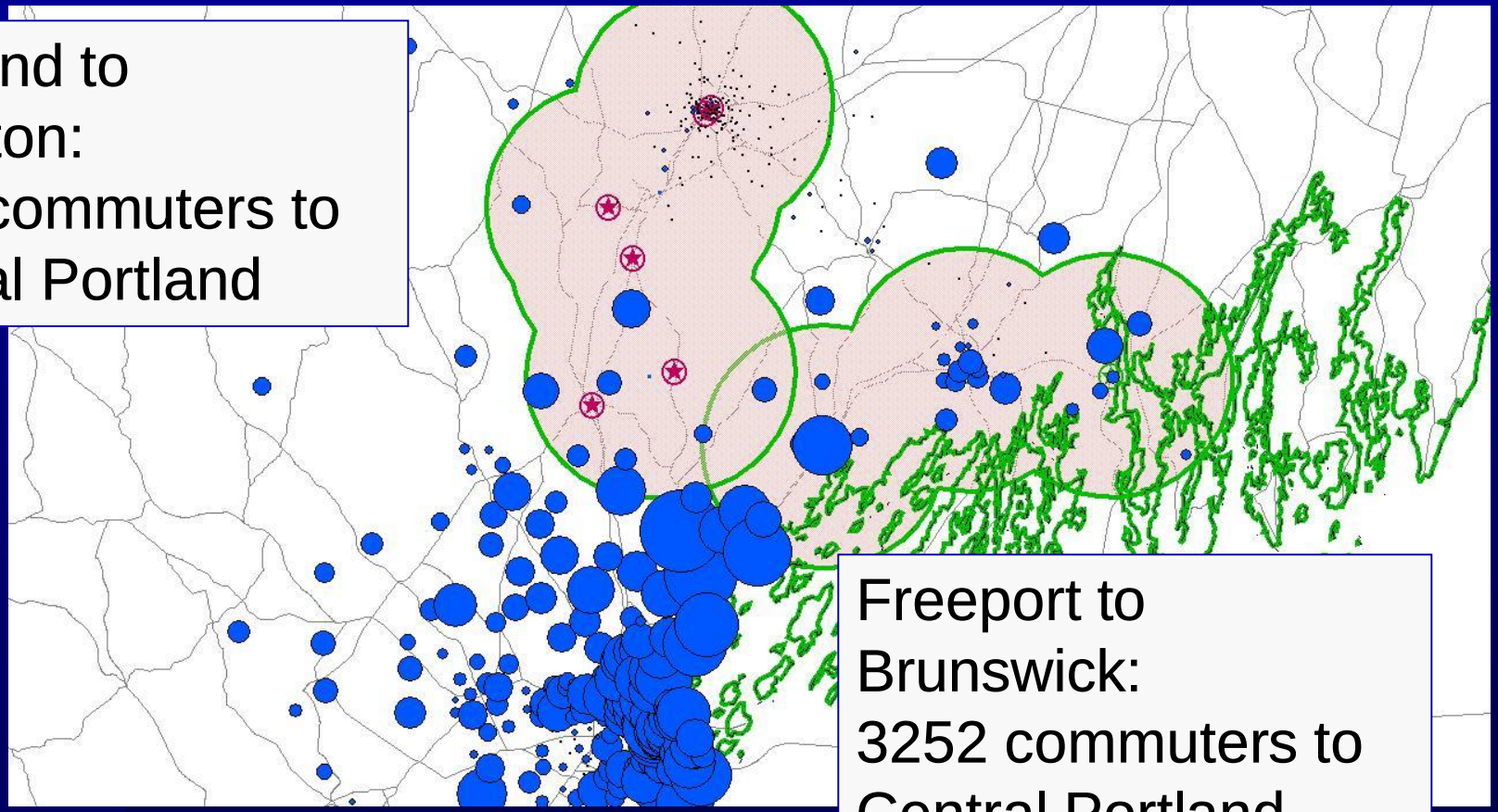
Portland-bound Commuters (2035)

Pineland to Lewiston:
1627 commuters to Central Portland



Freeport to Brunswick:
3252 commuters to Central Portland

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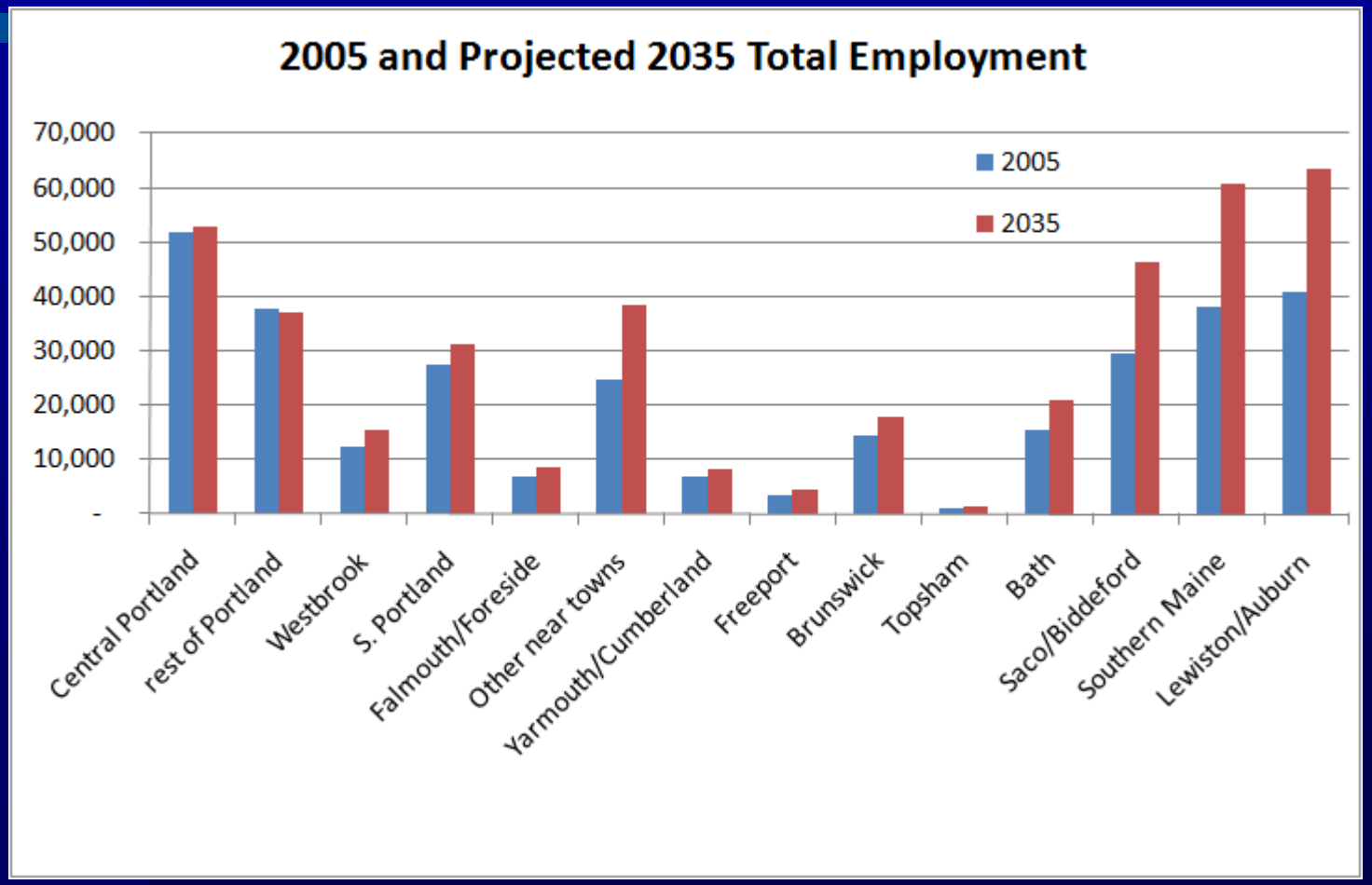
Forecasting to 2035

Changing work trip destinations



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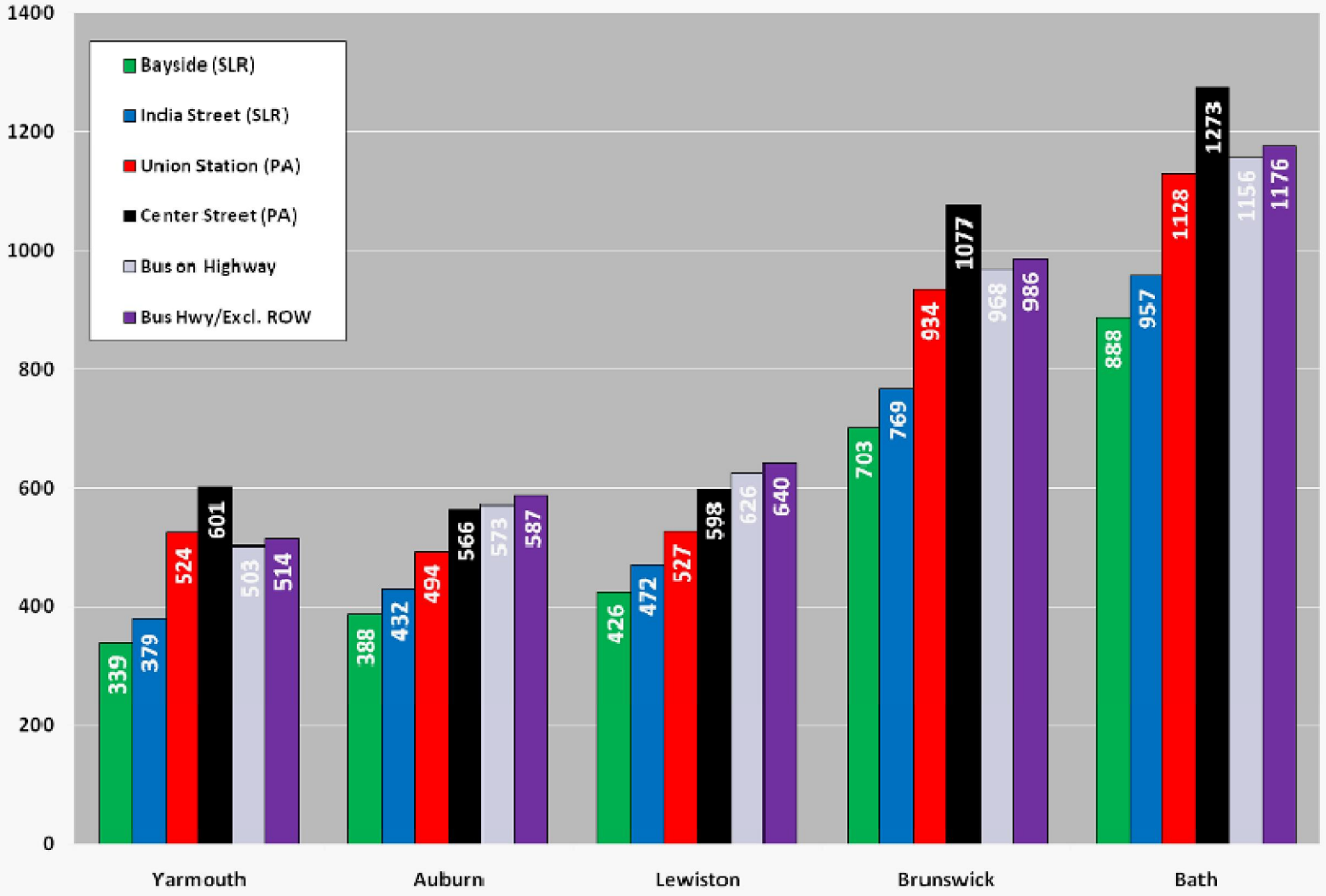
2035 Commute Trips



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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)

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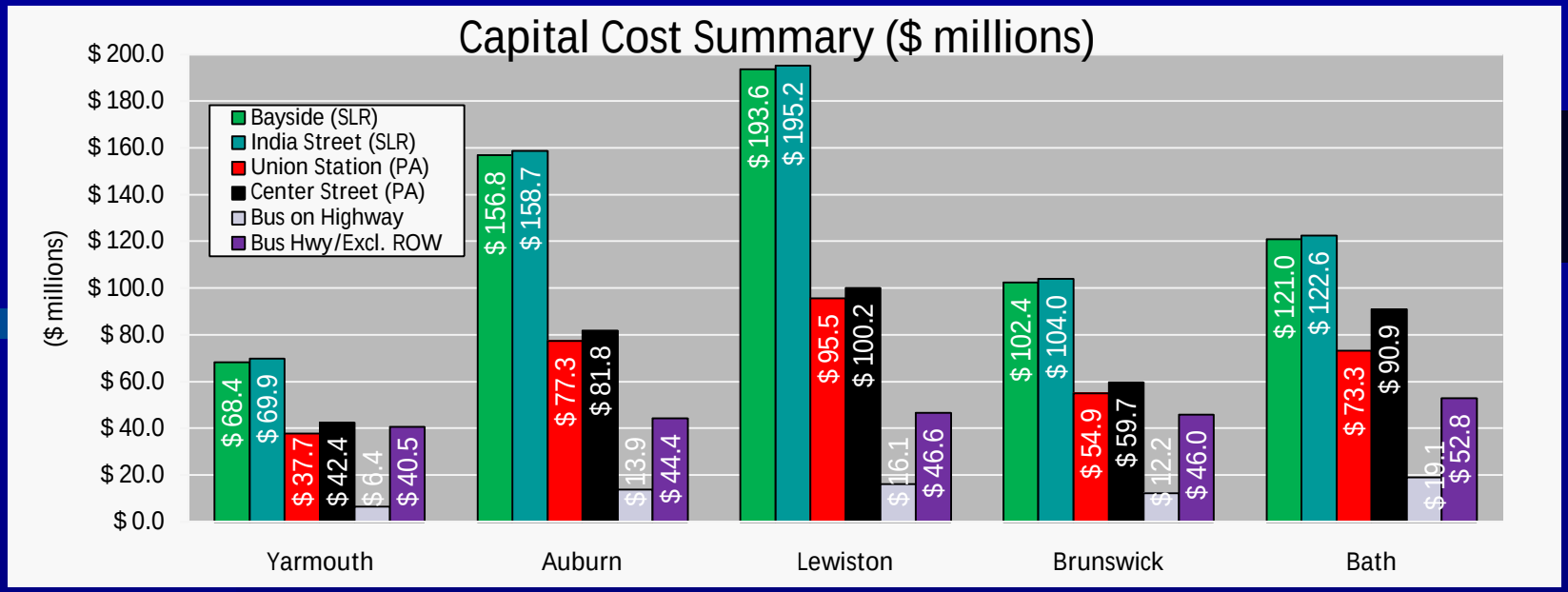

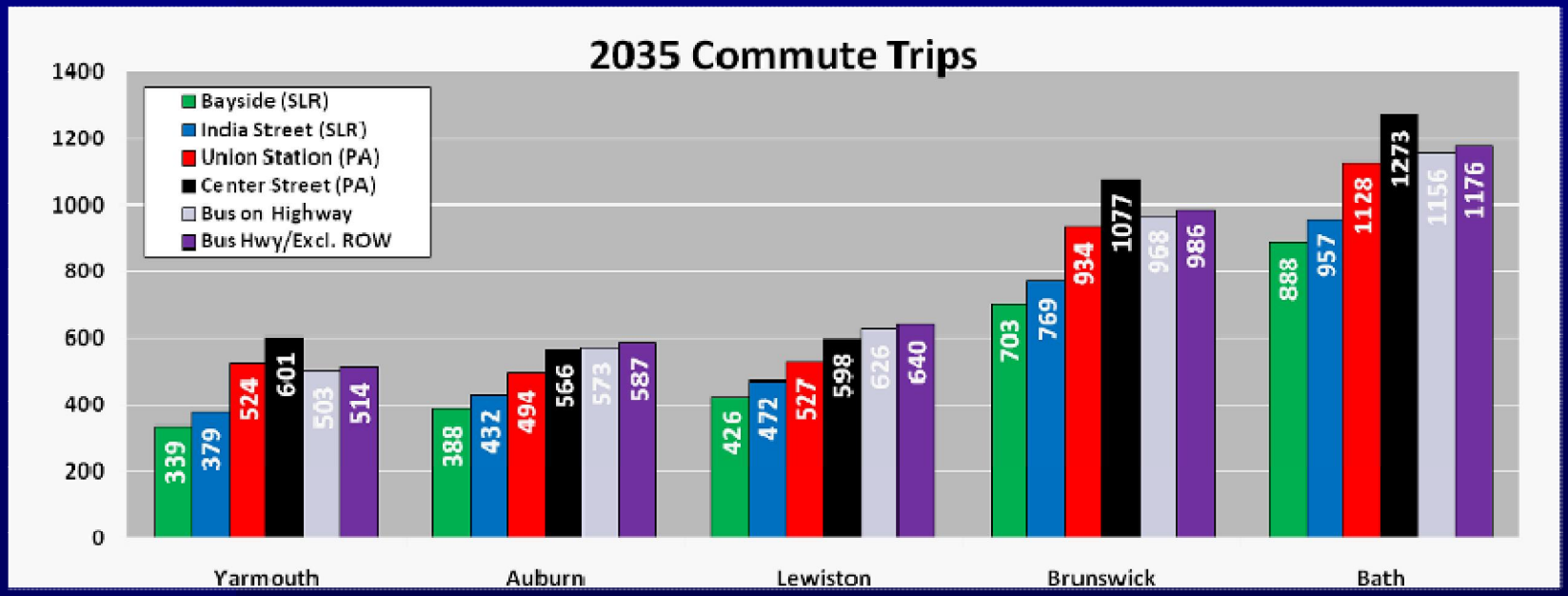

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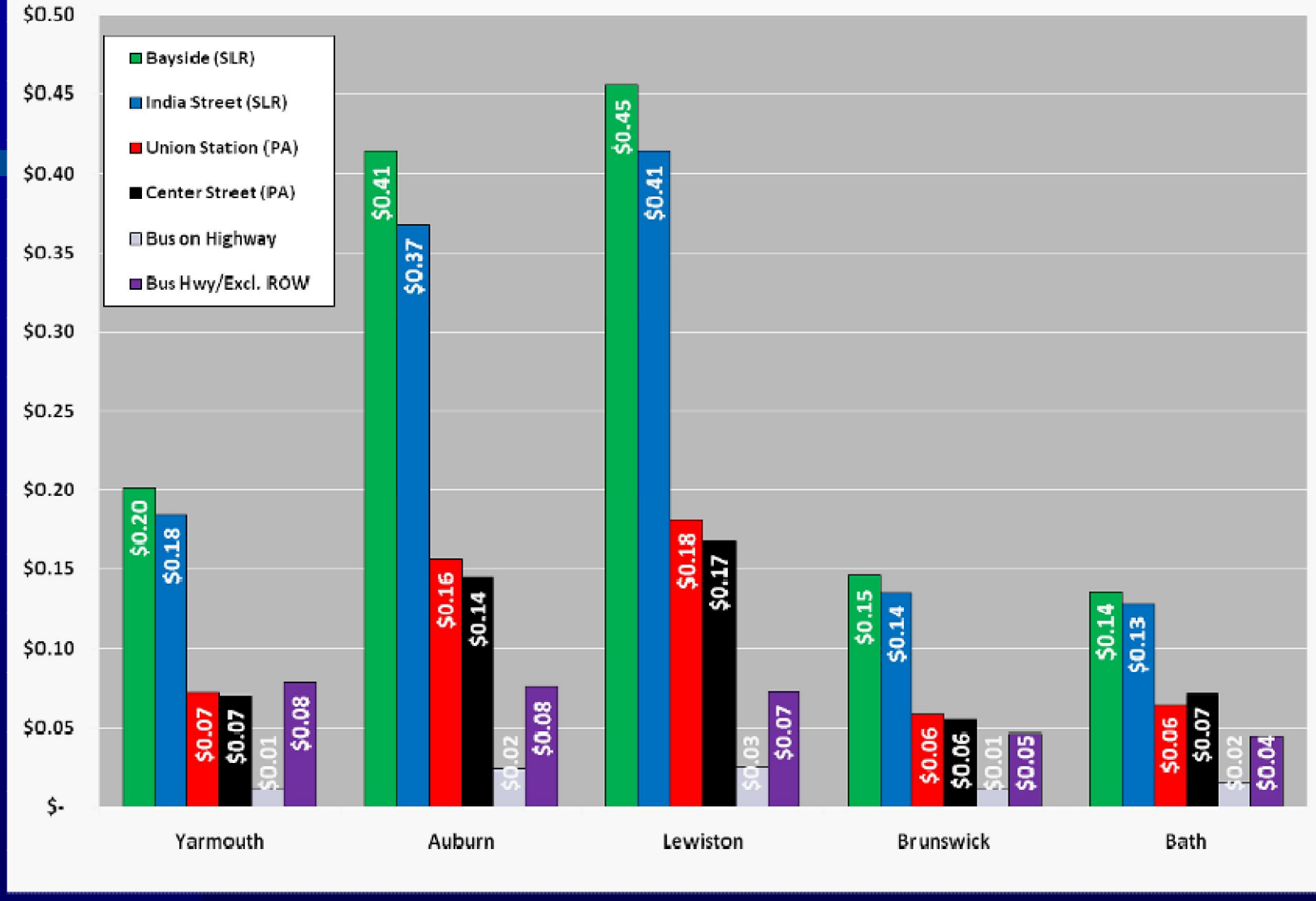
Capital Cost per 2035 Commute Trip



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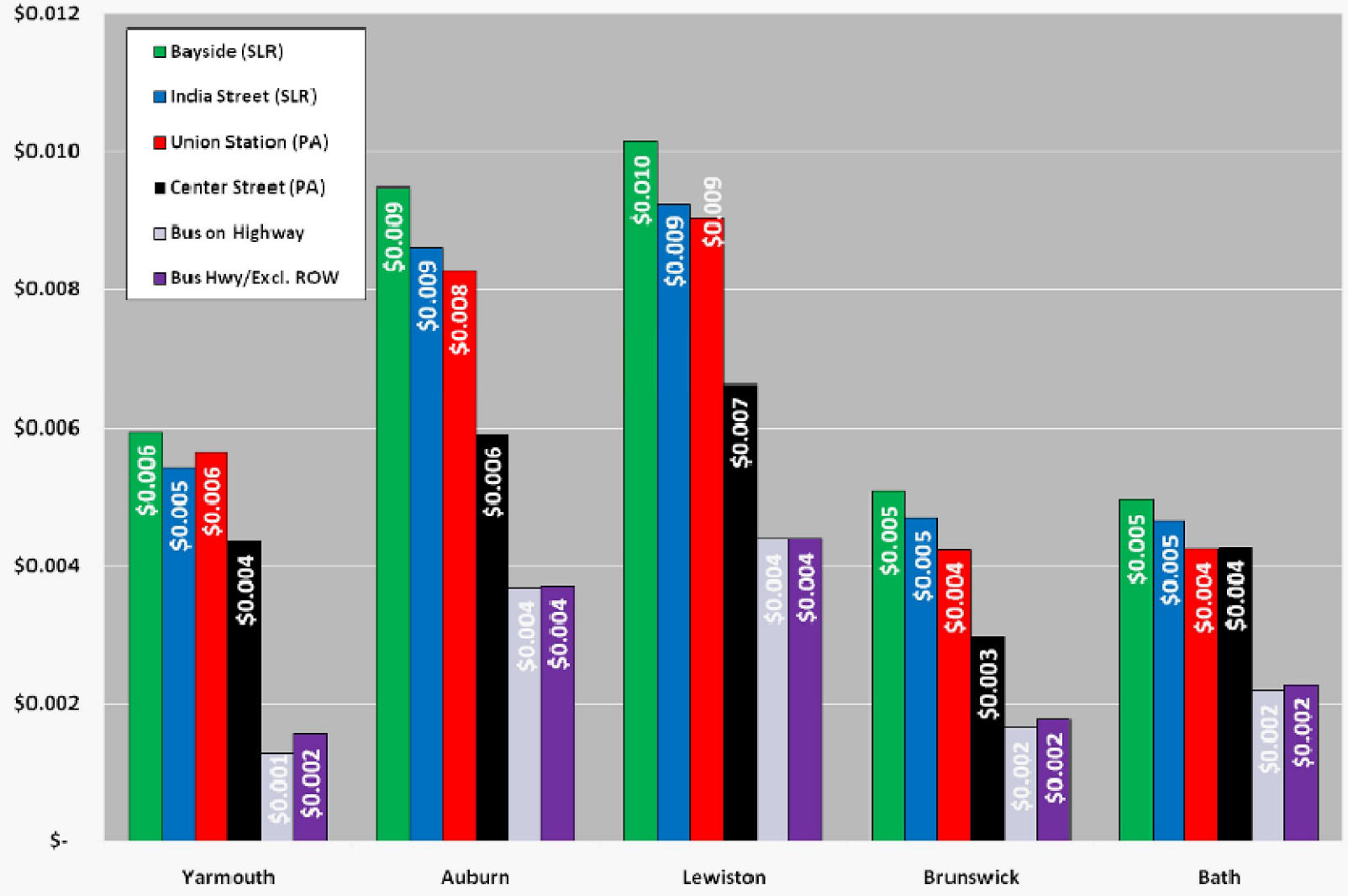
Operating Cost per 2035 Commute Trip



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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

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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**

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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**

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What Has Been Funded (FY10)

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

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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
- 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
- Kansas City, MO, Troost Corridor BRT
- Austin, TX, Metro Rapid BRT
- King County, WA, Bellevue - Redmond BRT
- King County, WA, Pacific Highway South BRT
- Riverside, CA, Perris Valley Line Medium
- Monterey, CA, Monterey Bay Rapid Transit
- Fitchburg, MA, Commuter Rail Improvements

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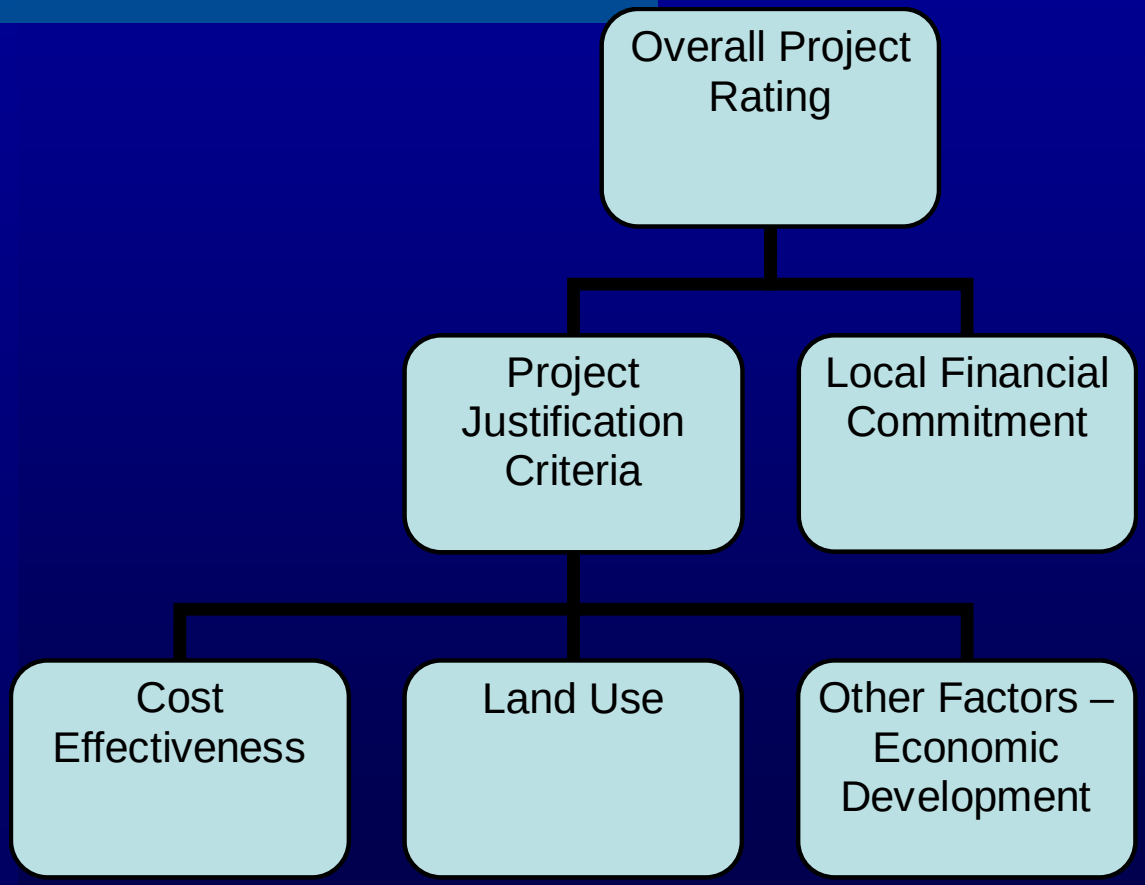
FTA Critical Success Factors



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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

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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

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What Happens Next

- Finalize Phase 2 (June)
- Provide recommendation for Small Starts (June)
- Final Report (July)
- Initiate Small Starts application (July)
- Initiate Amtrak Study (May)

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Questions?

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