

52nd Pacific Northwest Regional Economic Conference



Rough Roads Ahead 2

Economic Implications of
Deteriorating Highway
Conditions

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Highway Condition Impacts the Economy



**The Cost of Poor Highway Conditions
to Oregon's Economy**

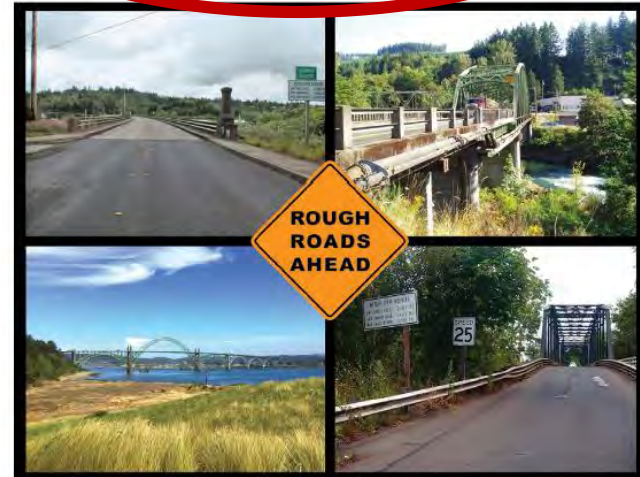
Available online:
[http://www.oregon.gov/ODOT/Planning/
Documents/Rough-Roads-Ahead-1.pdf](http://www.oregon.gov/ODOT/Planning/Documents/Rough-Roads-Ahead-1.pdf)



2014

Rough Roads Ahead 2

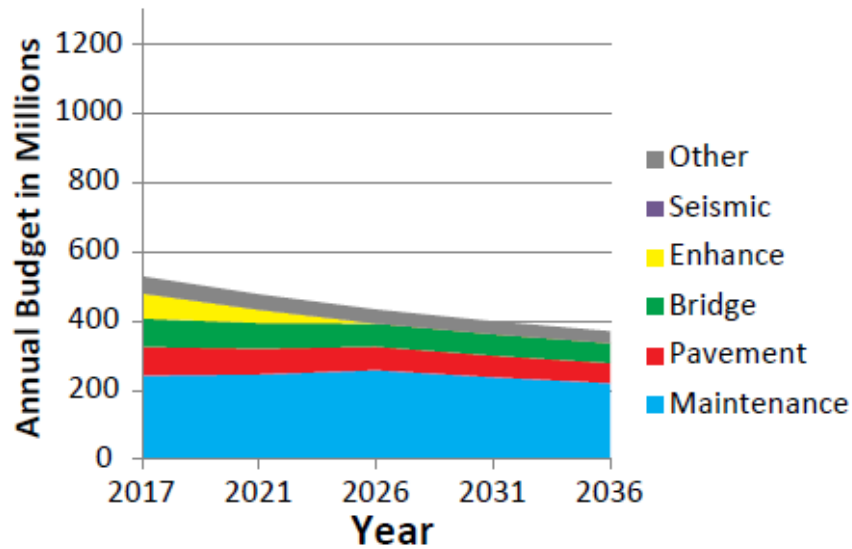
**Economic Implications of
Deteriorating Highway Conditions**



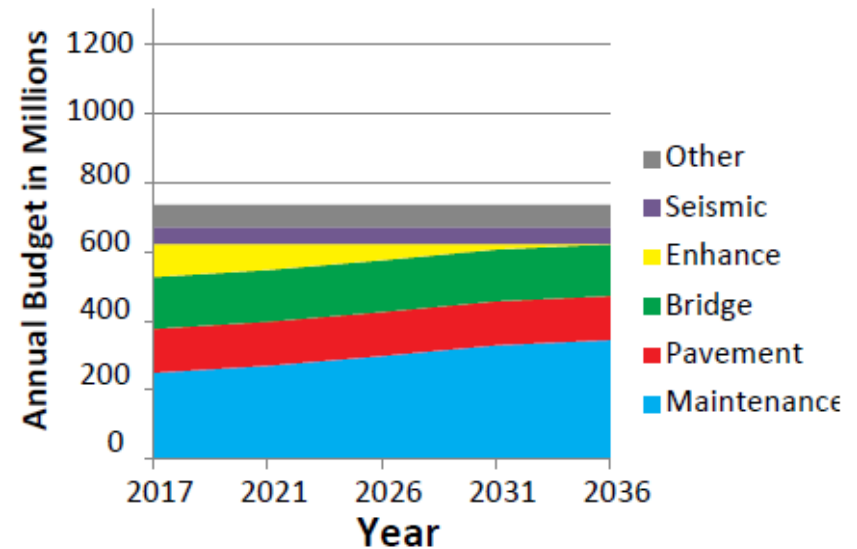
Available online:
[http://www.oregon.gov/ODOT/Planning/
Documents/Rough-Roads-Ahead-2.pdf](http://www.oregon.gov/ODOT/Planning/Documents/Rough-Roads-Ahead-2.pdf)

2017

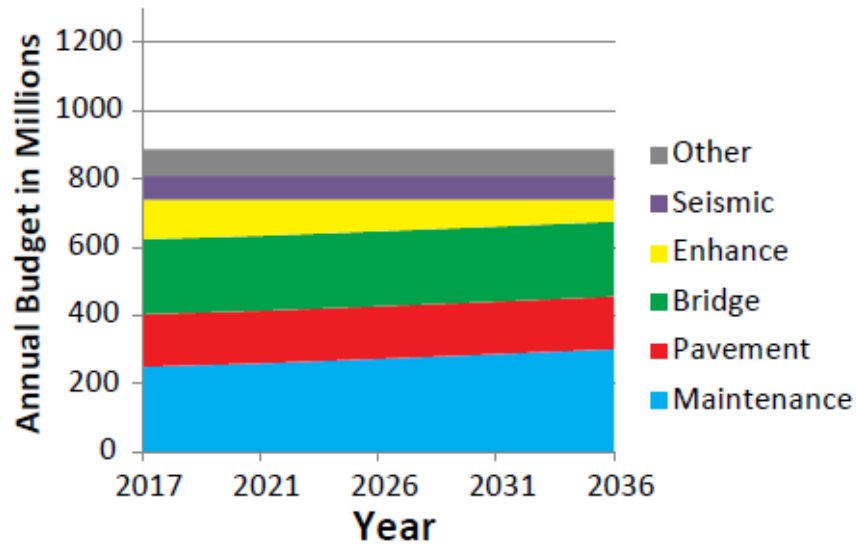
Scenario 1 Budget



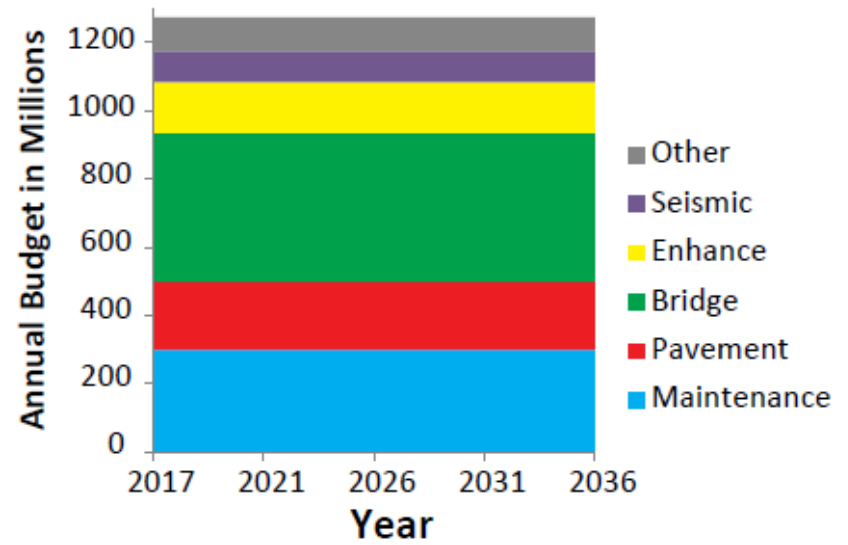
Scenario 2 Budget



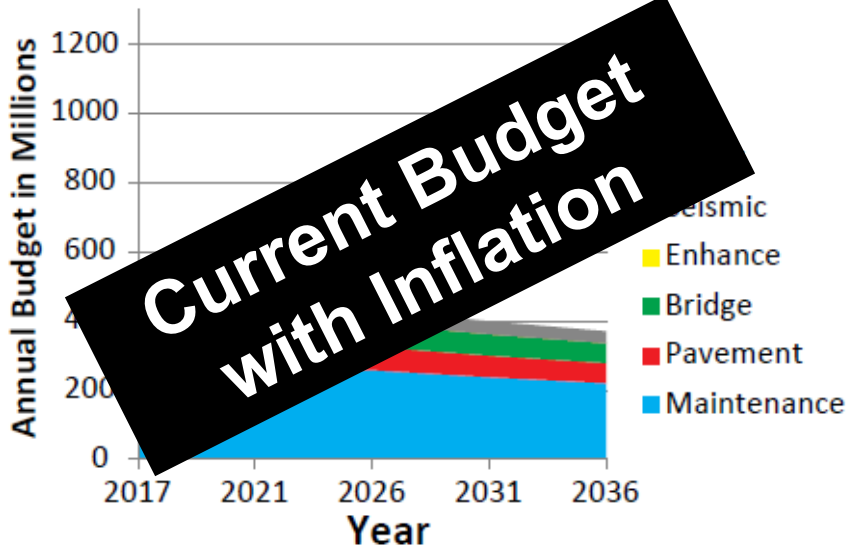
Scenario 3 Budget



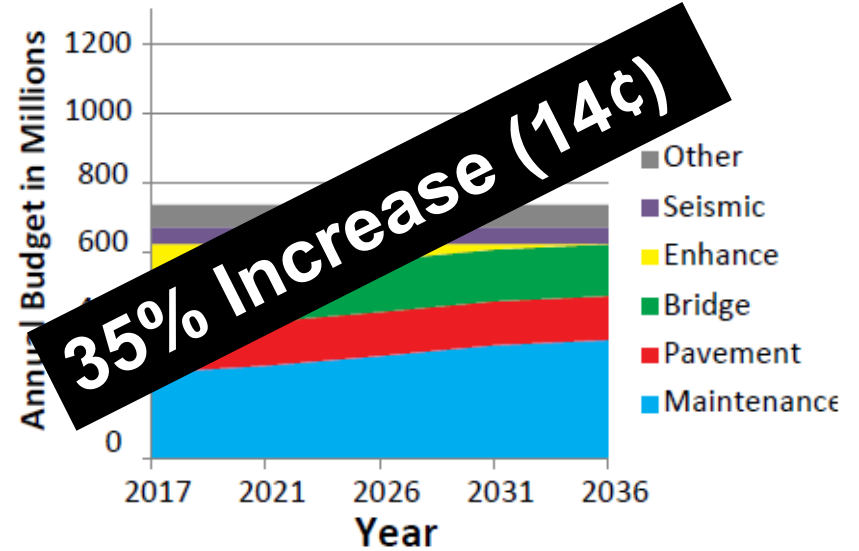
Scenario 4 Budget



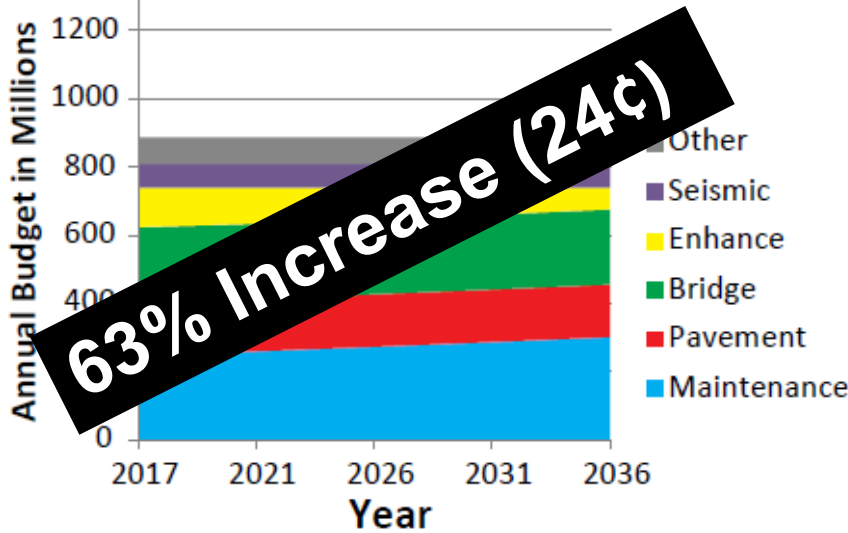
Scenario 1 Budget



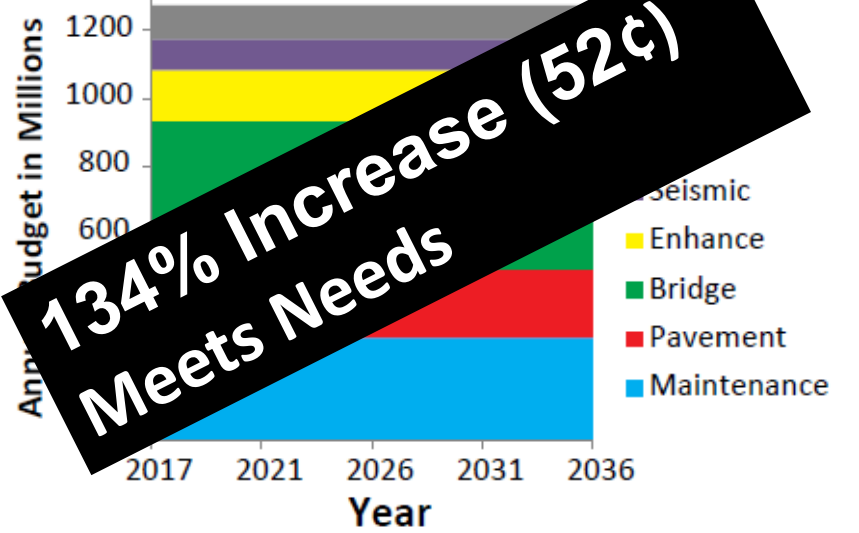
Scenario 2 Budget



Scenario 3 Budget



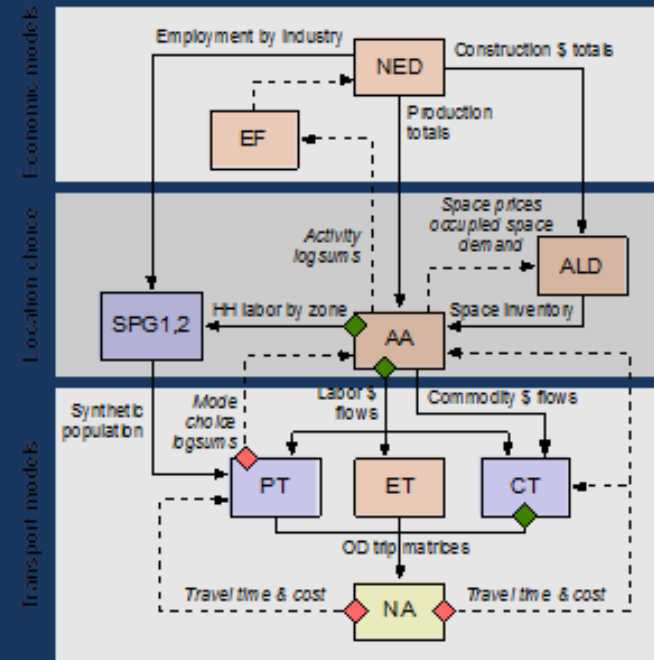
Scenario 4 Budget



Methodology: Tools



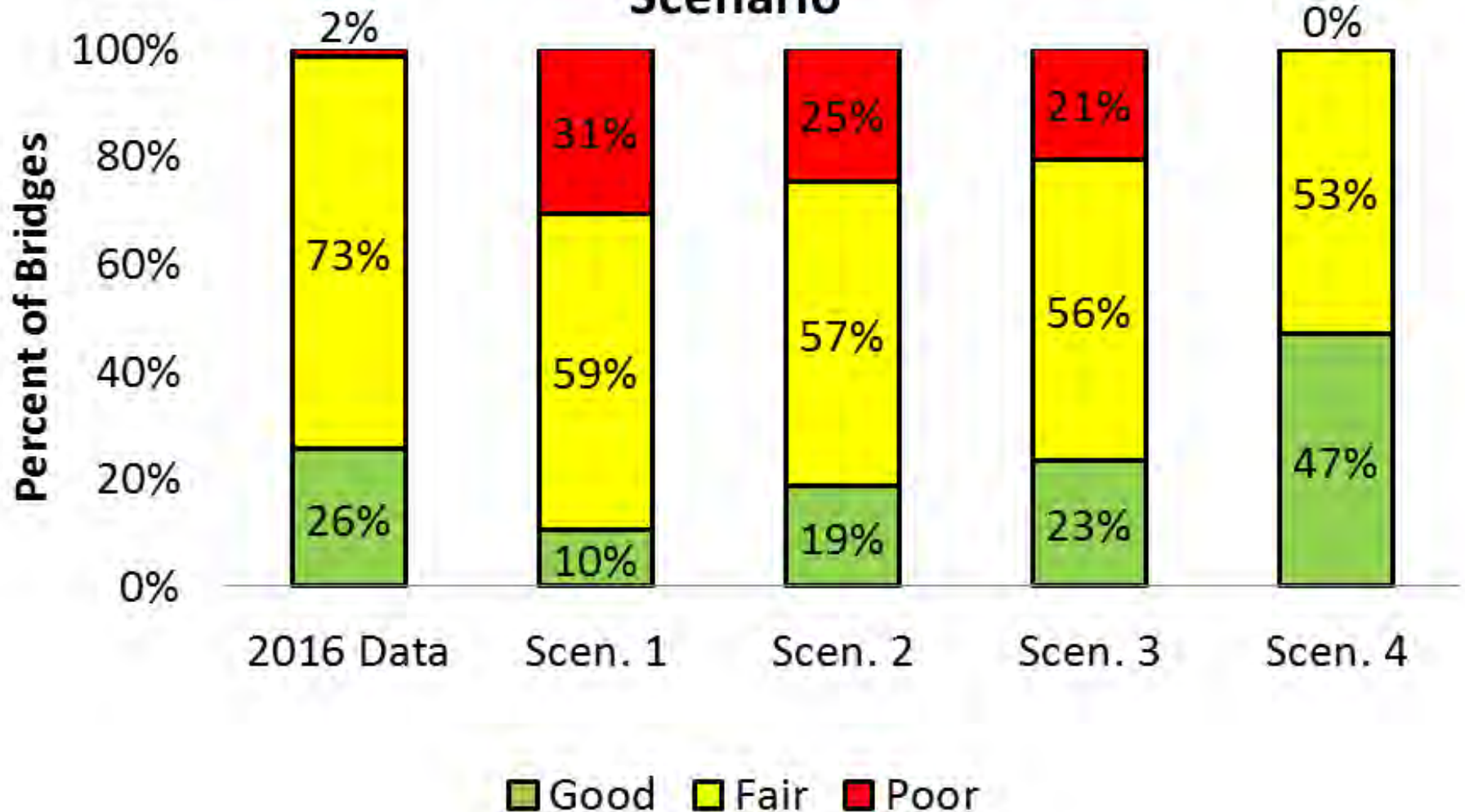
ODOT Bridge Model



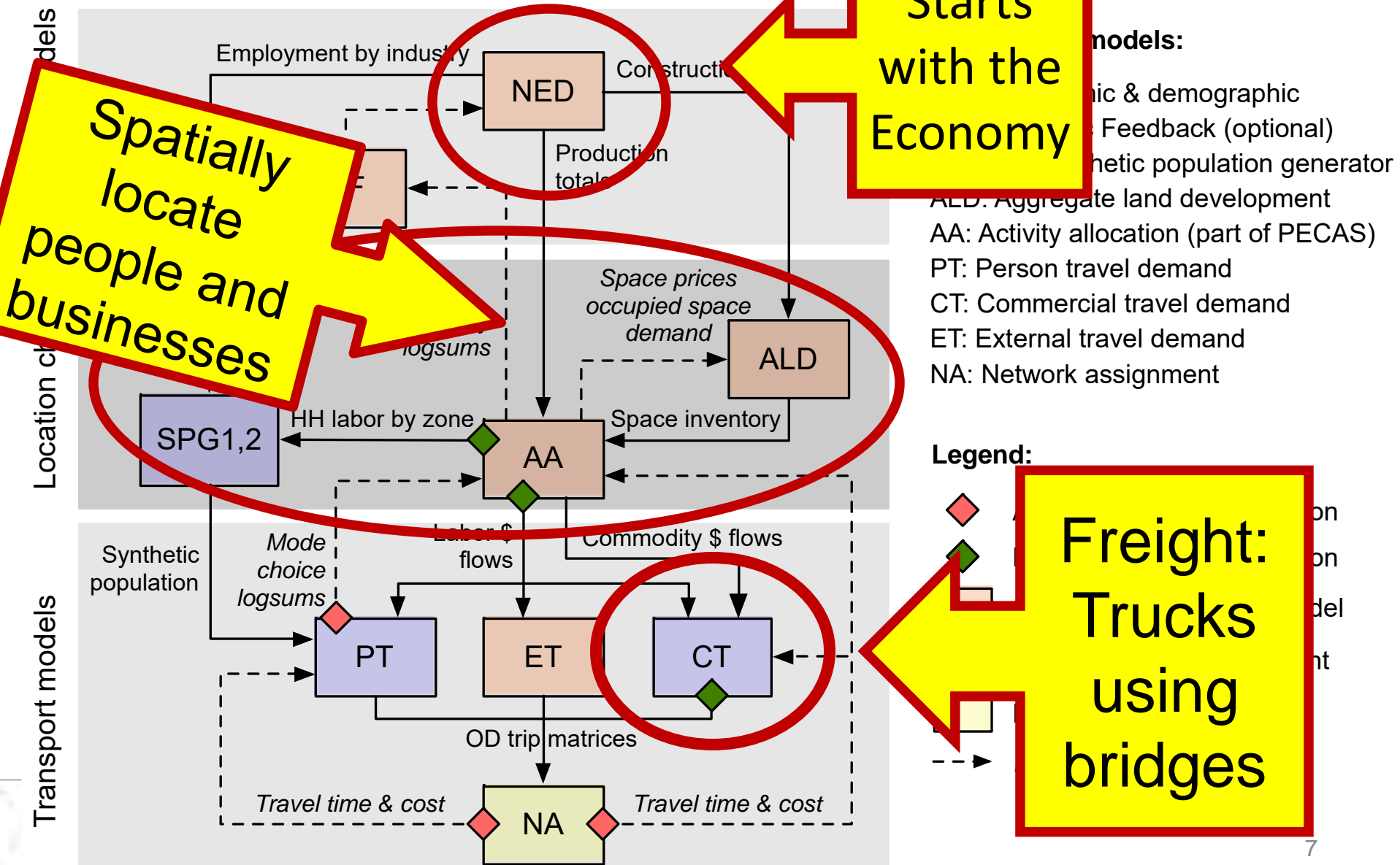
Oregon Statewide Integrated Model V2.5

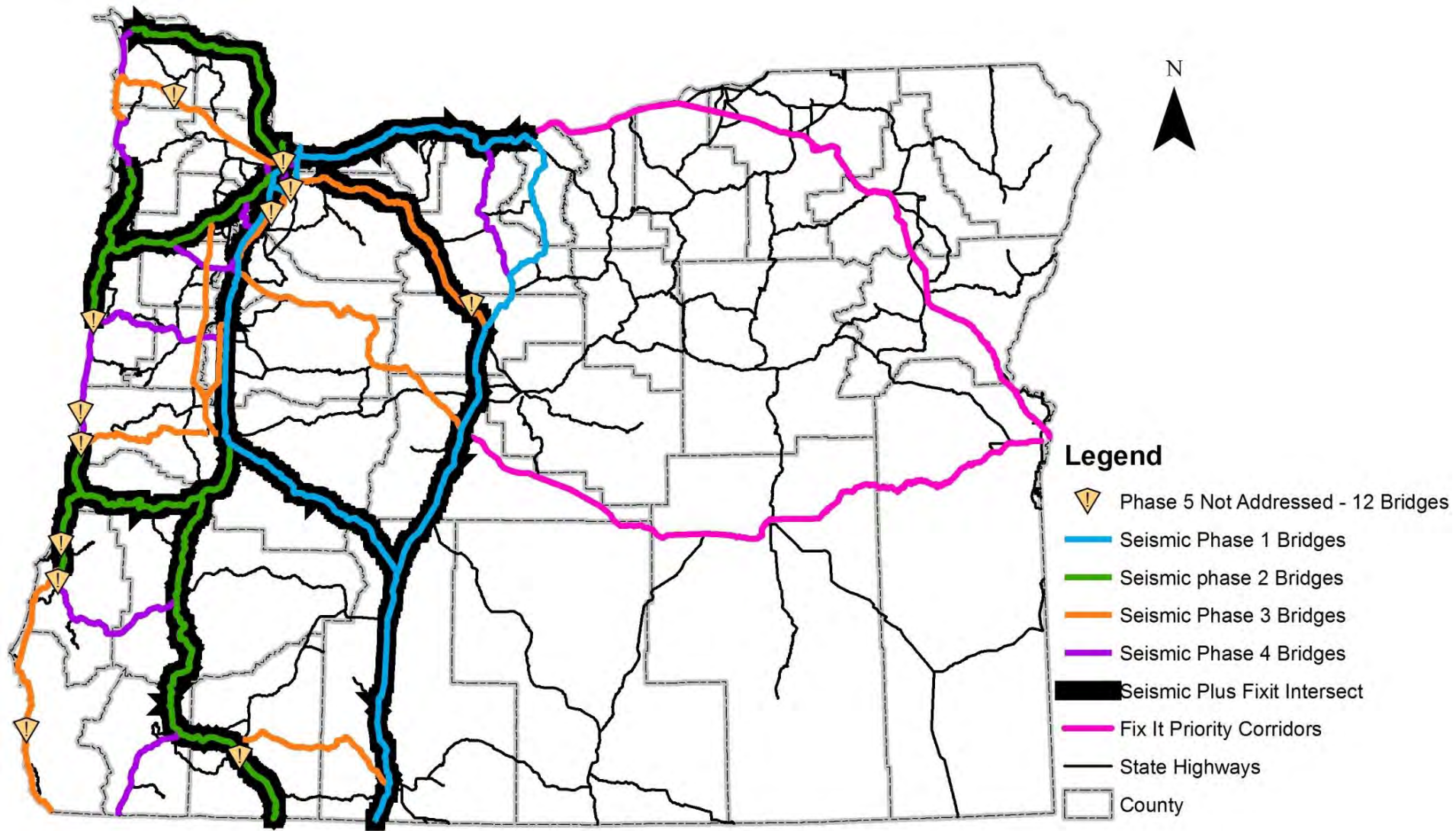
Bridge Model

Bridge Conditions: Current & 2036 Forecast by Scenario



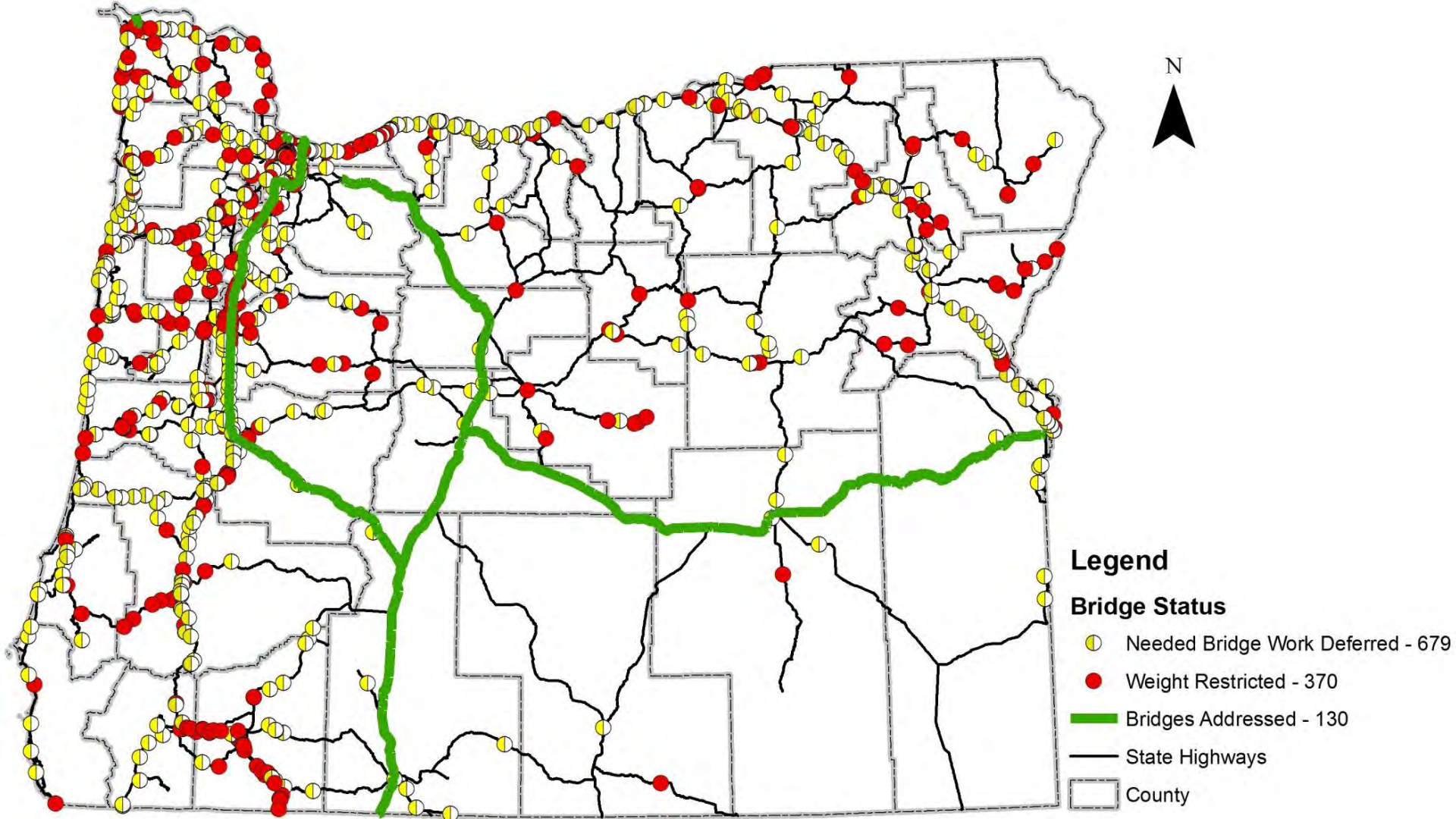
SWIM Schematic





Priority Corridors

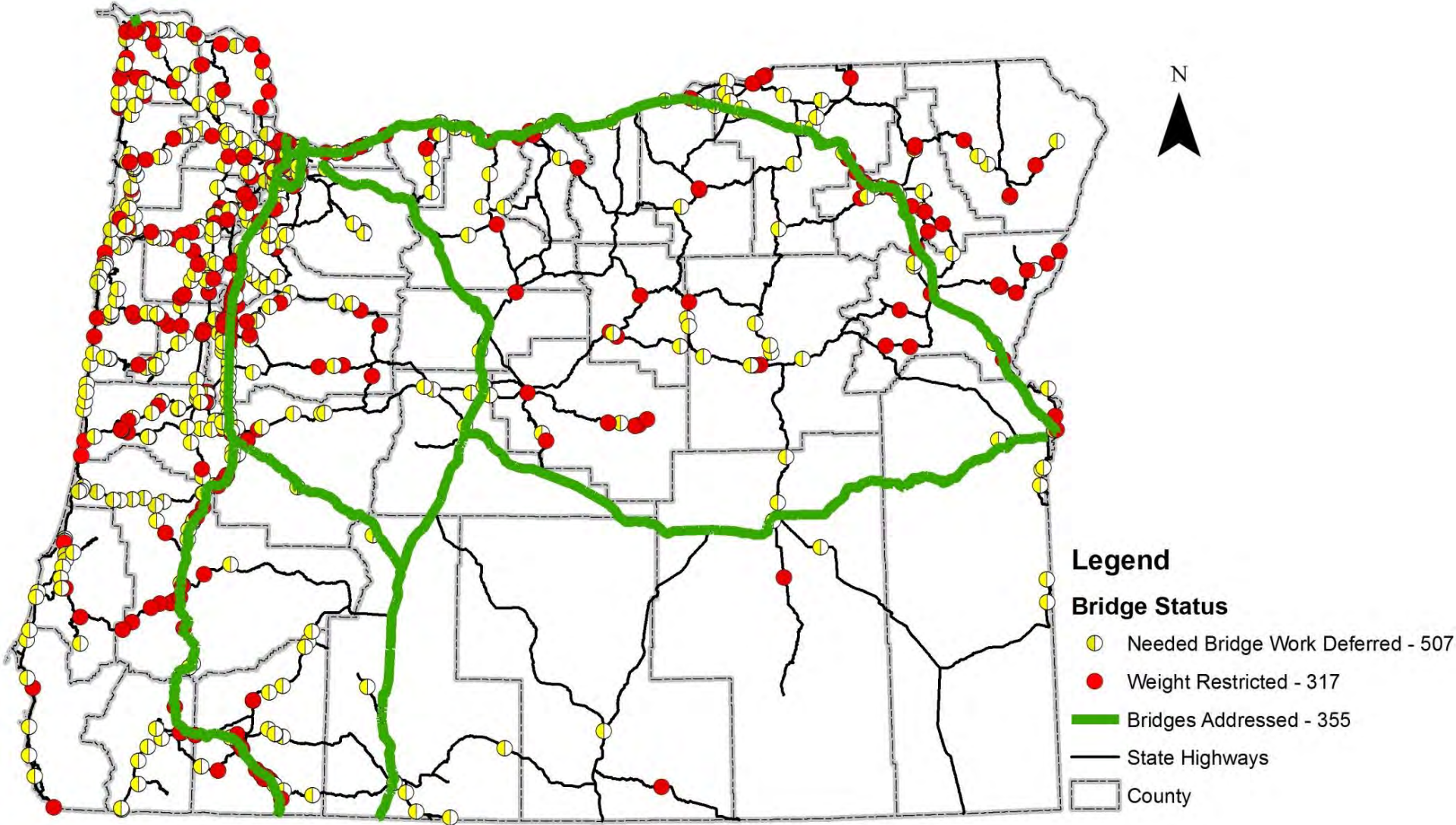




Current Budget Scenario

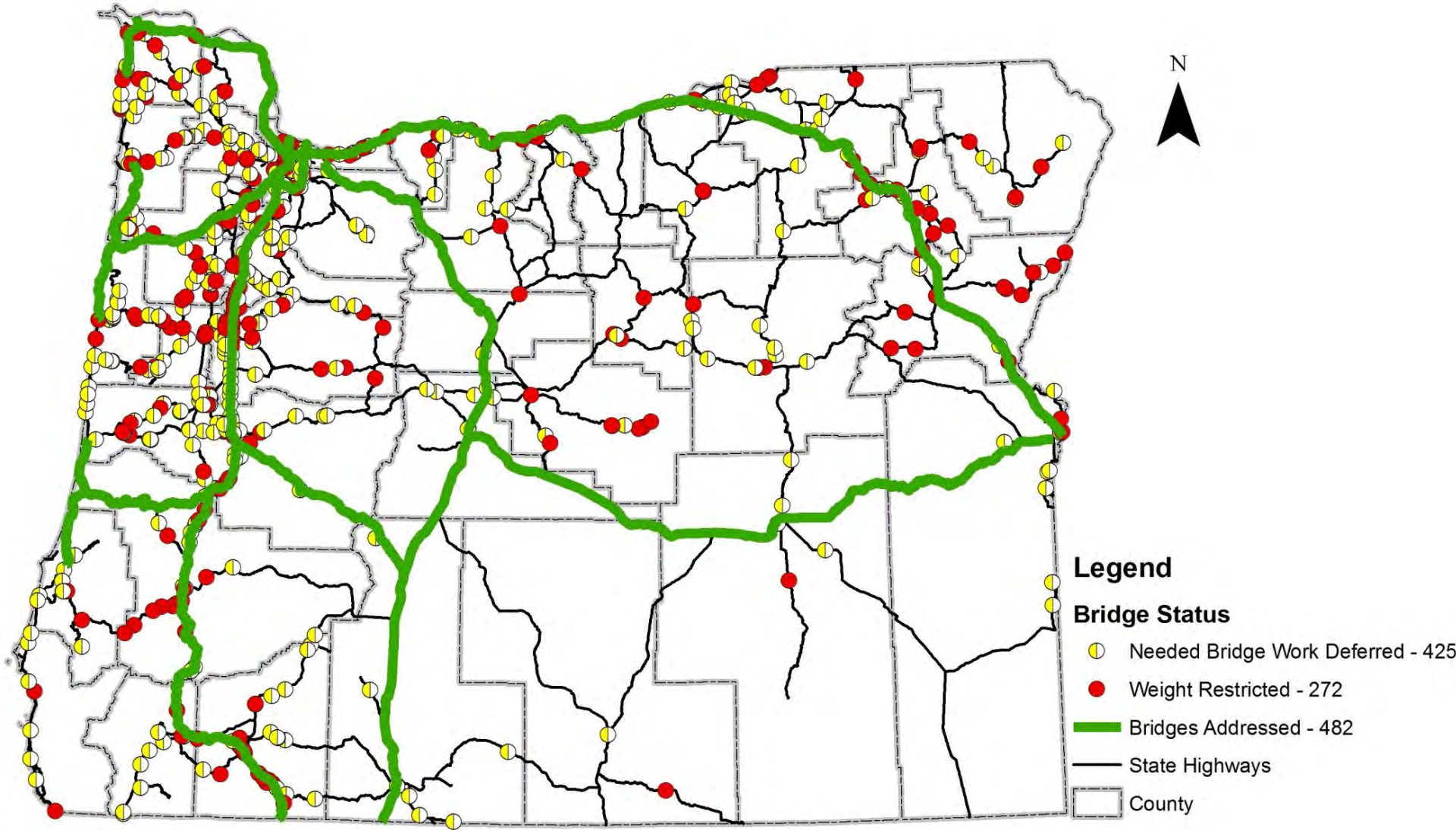
Treat 130 Bridges Weight Restrict 370

Defer work on 679 No Seismic Investment



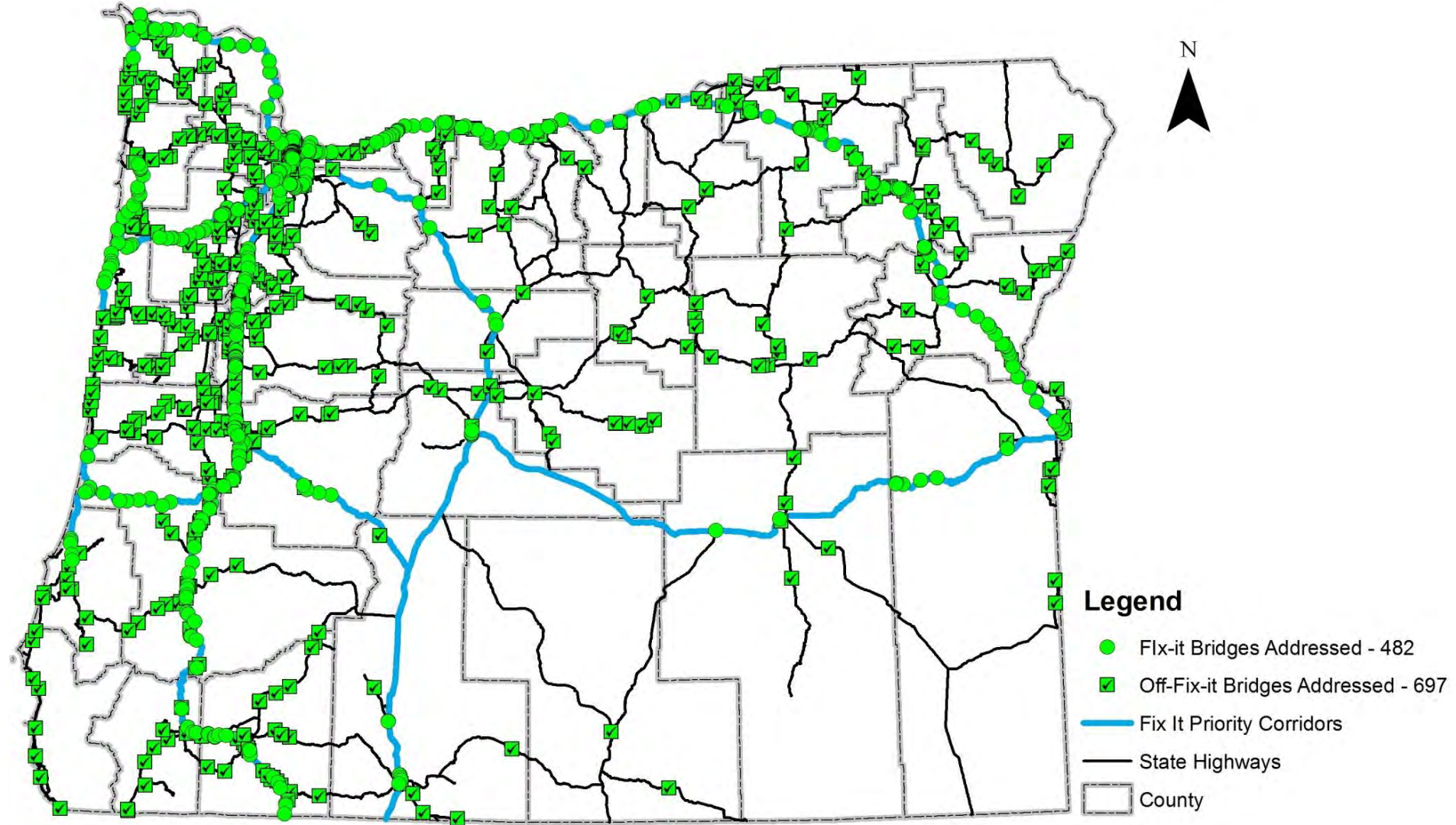
Scenario 2

**Treat 355 Bridges Weight Restrict 317
Defer work on 507 Seismic \$49M**



Scenario 3

**Treat 482 Bridges Weight Restrict 272
Defer work on 425 Seismic \$70**



Scenario 4

Treat 1179 Bridges Weight Restrict 0
Defer work on 0 Seismic \$90M

Economic Impacts

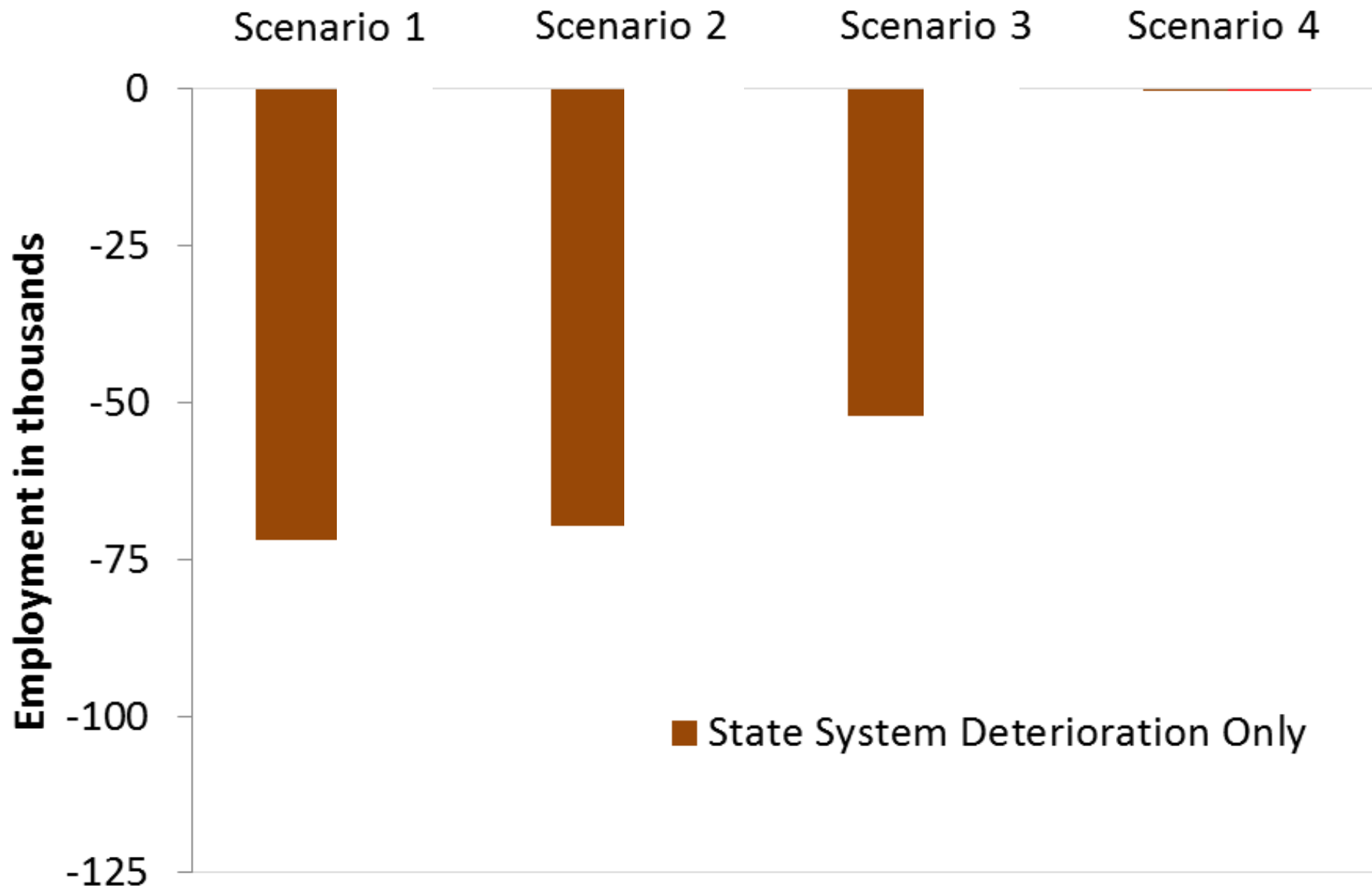
Jobs



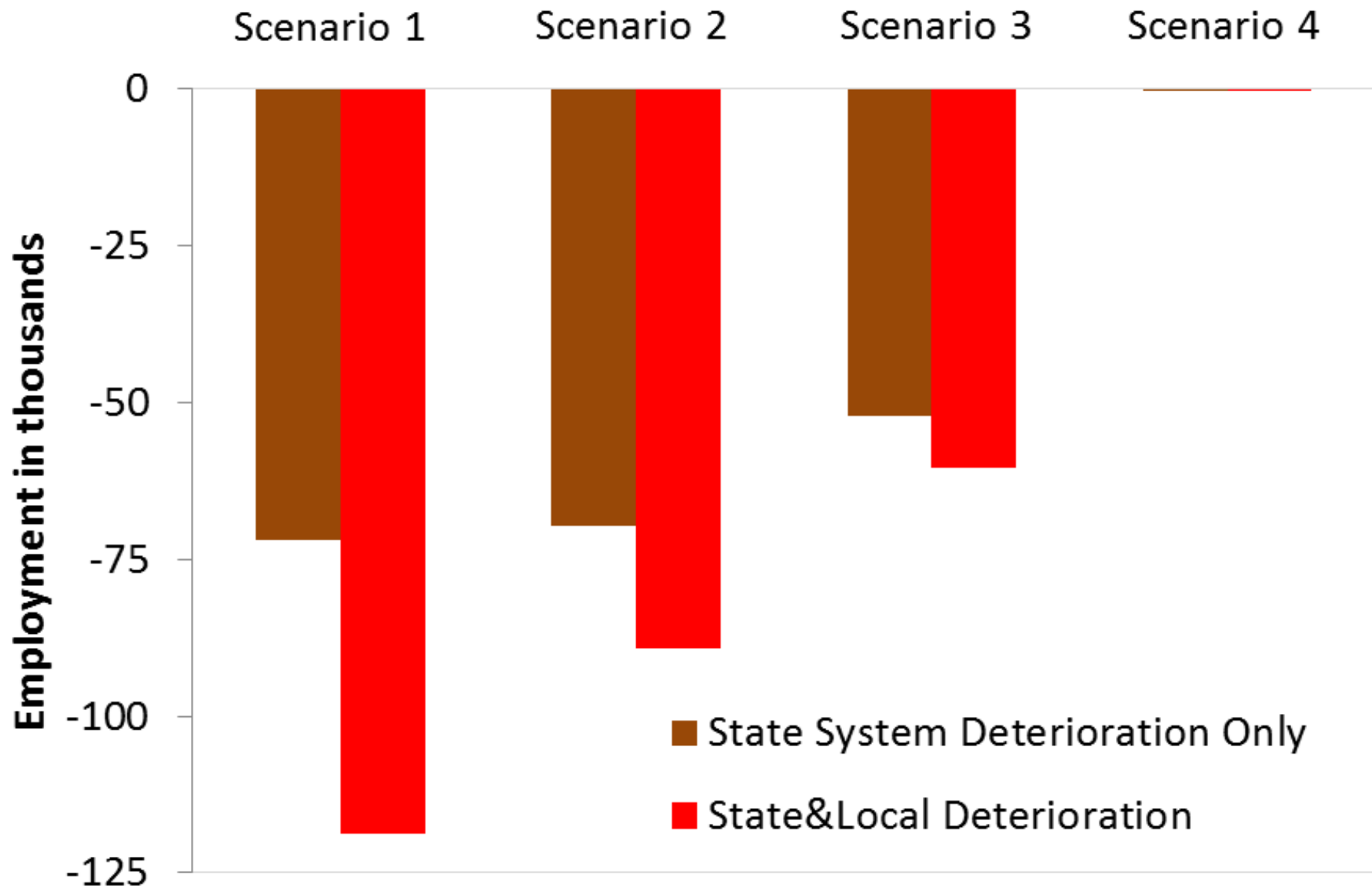
Domestic Product



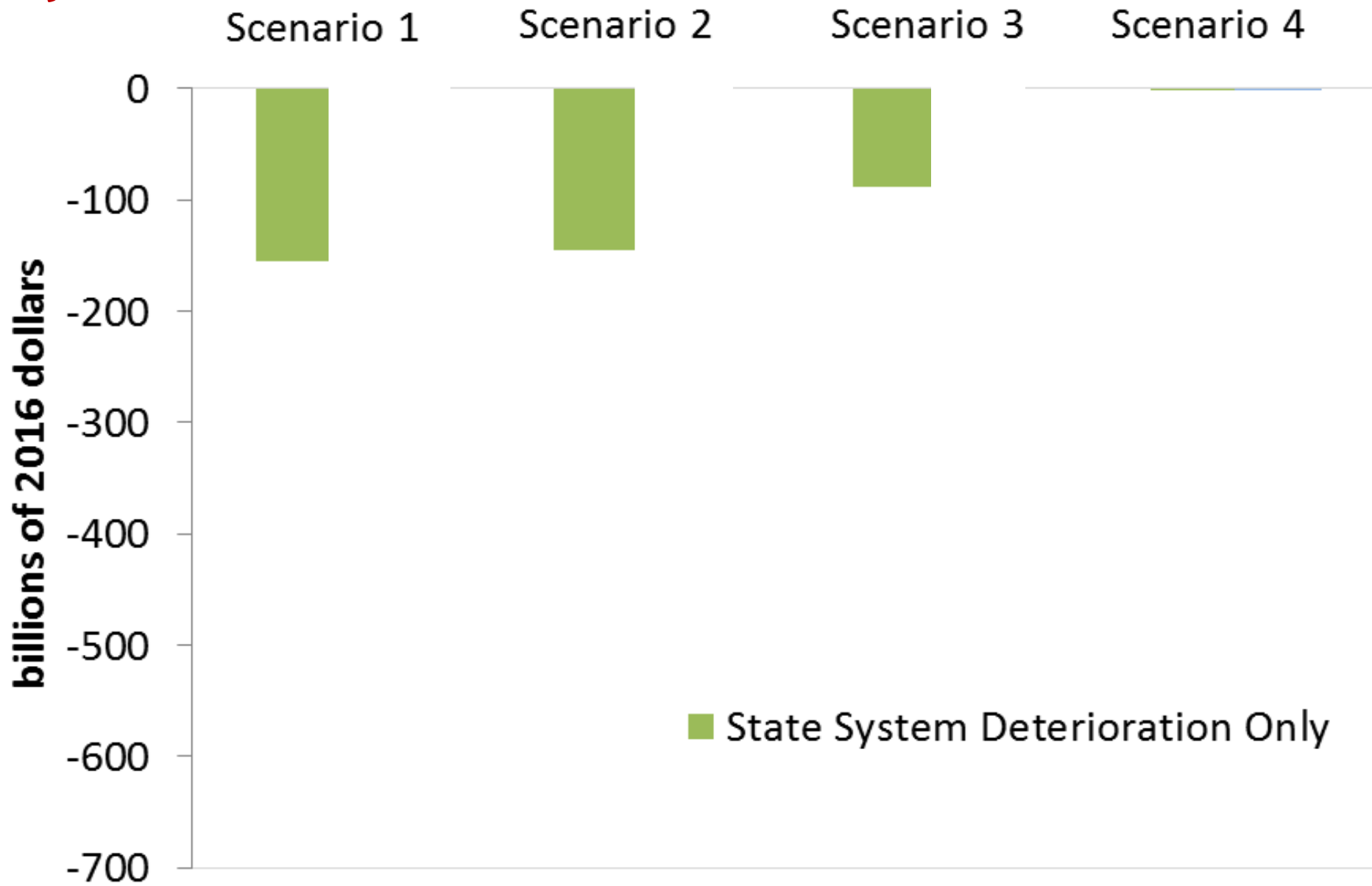
Forfeit Employment Statewide



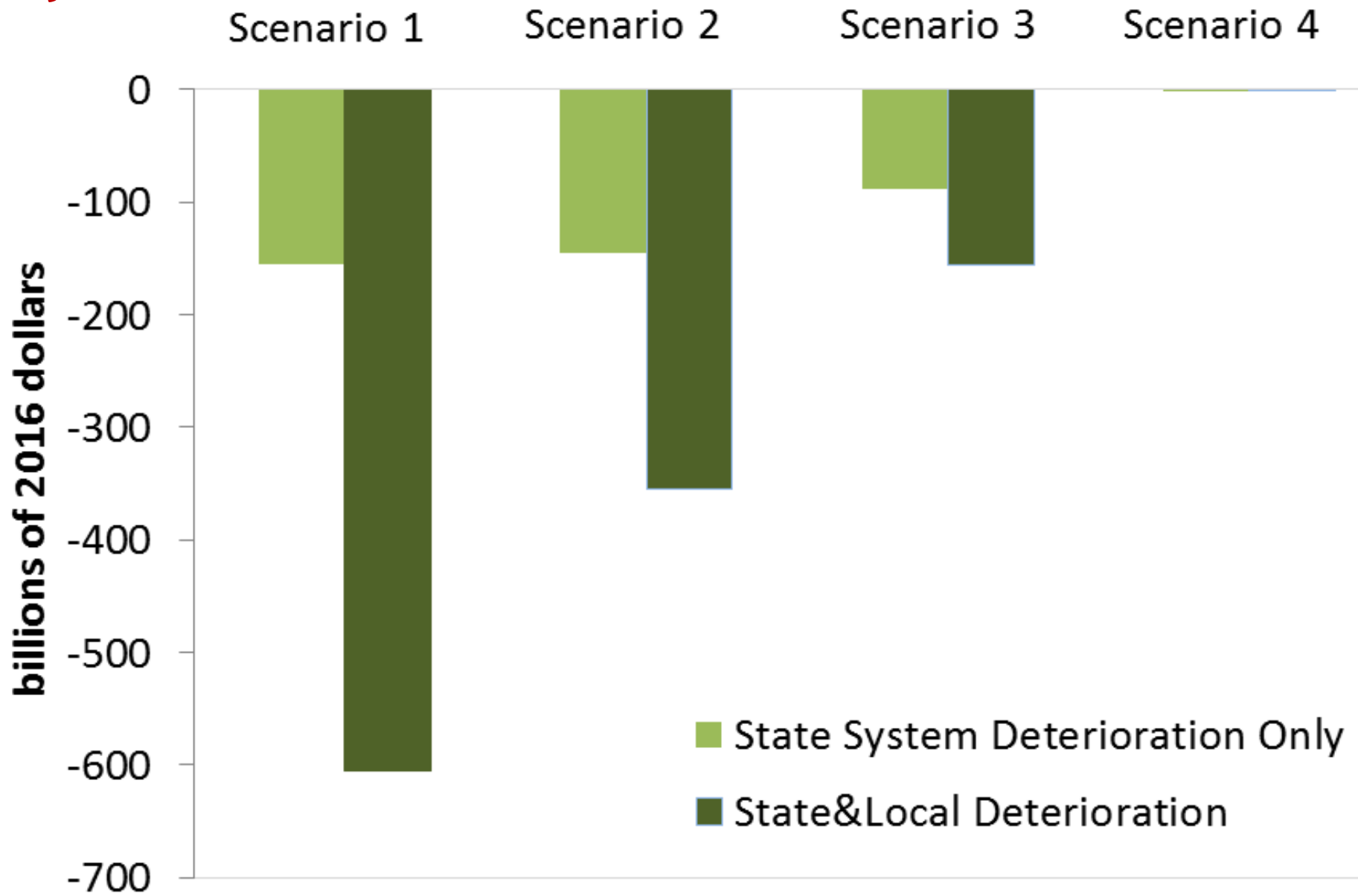
Forfeit Employment Statewide



Potential Cumulative Losses to Oregon GDP



Potential Cumulative Losses to Oregon GDP





**ODOT
Pavement
Model &
NCHRP
Report 720**

**Rough Pavement Increases
Vehicle Operating Costs**



Rough Pavement Increases Vehicle Operating Costs



Driving 20% of vehicle-miles of travel on rough pavement increases operating costs over 4%, which translates into over \$300 million increase in annual spending

- ↓ Fuel efficiency declines
- ↑ Oil and tire costs rise
- ↑ Repair costs rise



Rough Pavement Impacts Safety



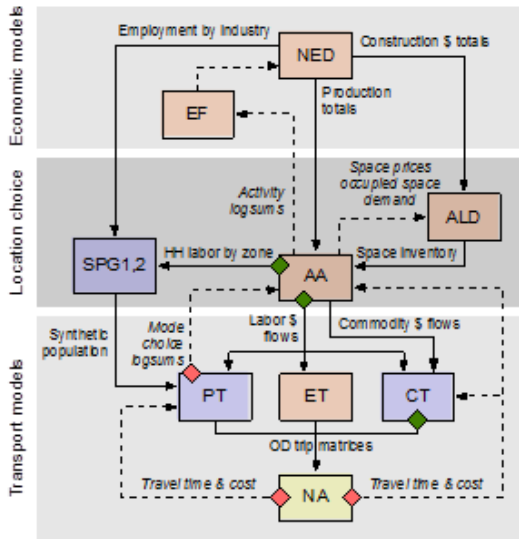
Vehicle-miles
rough
increases
over 4%,
into over
increase in
ending



Repair costs rise

Closing Thoughts

Key Features of Success



Economic
Land-Use
Transport
Model

Teamwork
and
Collaboration

House Bill 2017
TRANSPORTATION
FUNDING





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Full Report Available online:

<http://www.oregon.gov/ODOT/Planning/Documents/Rough-Roads-Ahead-2.pdf>

Modeling Program Retrospective Journal Article:

<http://www.oregon.gov/ODOT/Planning/Documents/JTLU-TLUMIP-Retrospective.pdf>

