JTC Freight Investment Study
Joint Transportation Committee

presented to

Joint Transportation Committee

presented by

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Transportation leadership you can trust.

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Agenda

- Measure economic impact of funding (Task 5 Report)
- Attributes of a project recommendation body (Task 9 Report)
- Findings, consequences, and policy options (Task 12 Report)
- Next steps

Overview of the Study
Review of Study Tasks

- ✓ 1. Evaluate Existing & Potential Funding Incentives
- ✓ 2. Analyze Current Industry Taxes & Fees
- ✓ 3. National & International Comparison of Freight Funding
- ✓ 4. Assess Non-Freight Funding Sources
- ✓ 5. Measure Economic Impact of Funding
- ✓ 6. Assess Diversion of Marine Cargo
- ✓ 7. Measure ROI of Freight Infrastructure (Benefit Analysis)
- ✓ 8. Examine Other Potential Project Specific Fees
- ✓ 9. Recommend a Project Recommendation Body
- ✓ 10. Supplemental Work Tasks
- ✓ 11. Stakeholder/Legislator Groups

✓ Completed

✓ Today's Discussion

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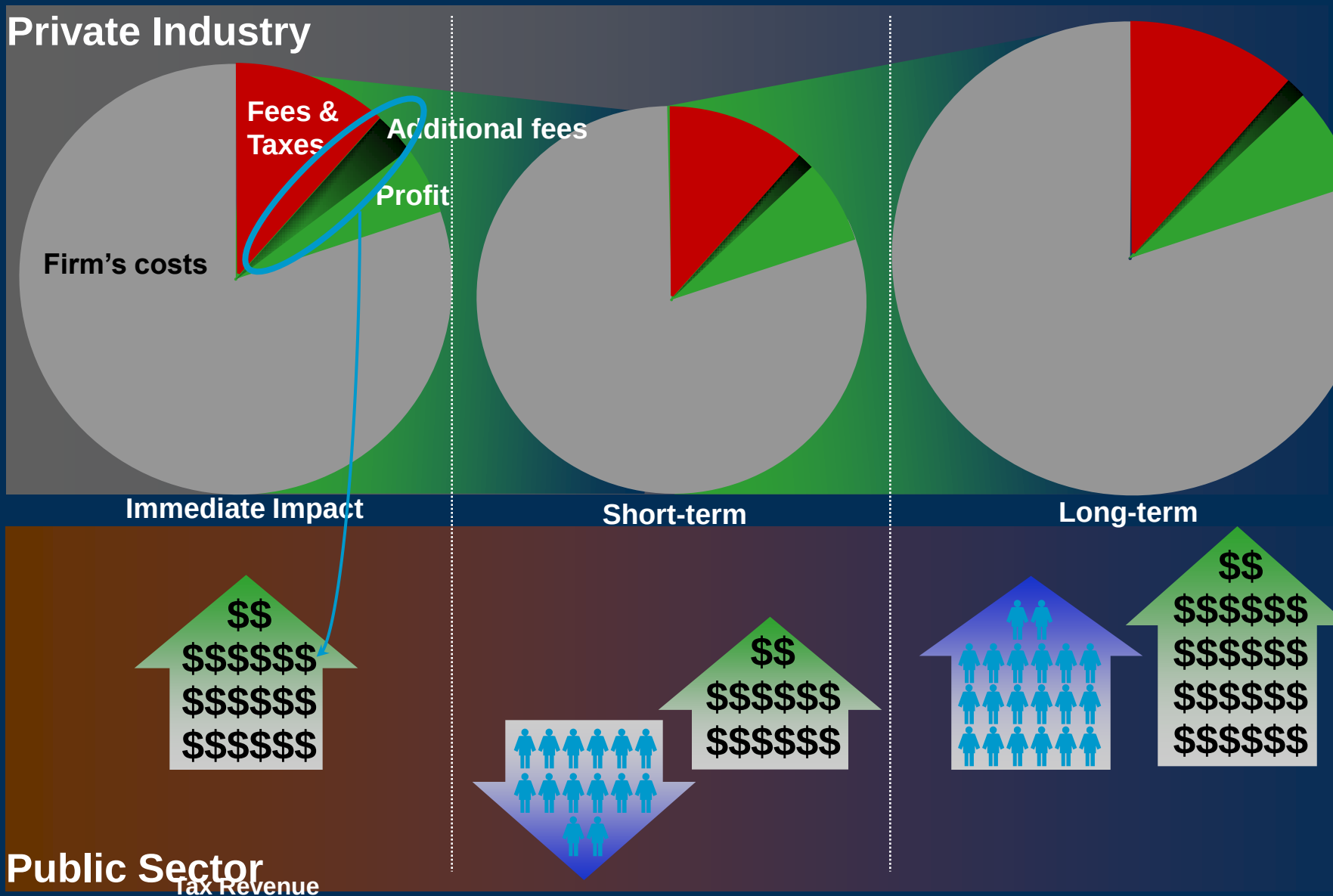
Measure Economic Impact Of Funding
Summary of Task 5 Report



Attributes of a Project Selection Process
Guiding Principles - Summary of Task 9

- Attributes of project selection
  - Appropriate to types of taxes and fees
  - Reflect the incidence of the tax and fee
  - Reflect funding contributions
- Public interest must be safeguarded
- Efficiencies can be gained by making use of existing institutions

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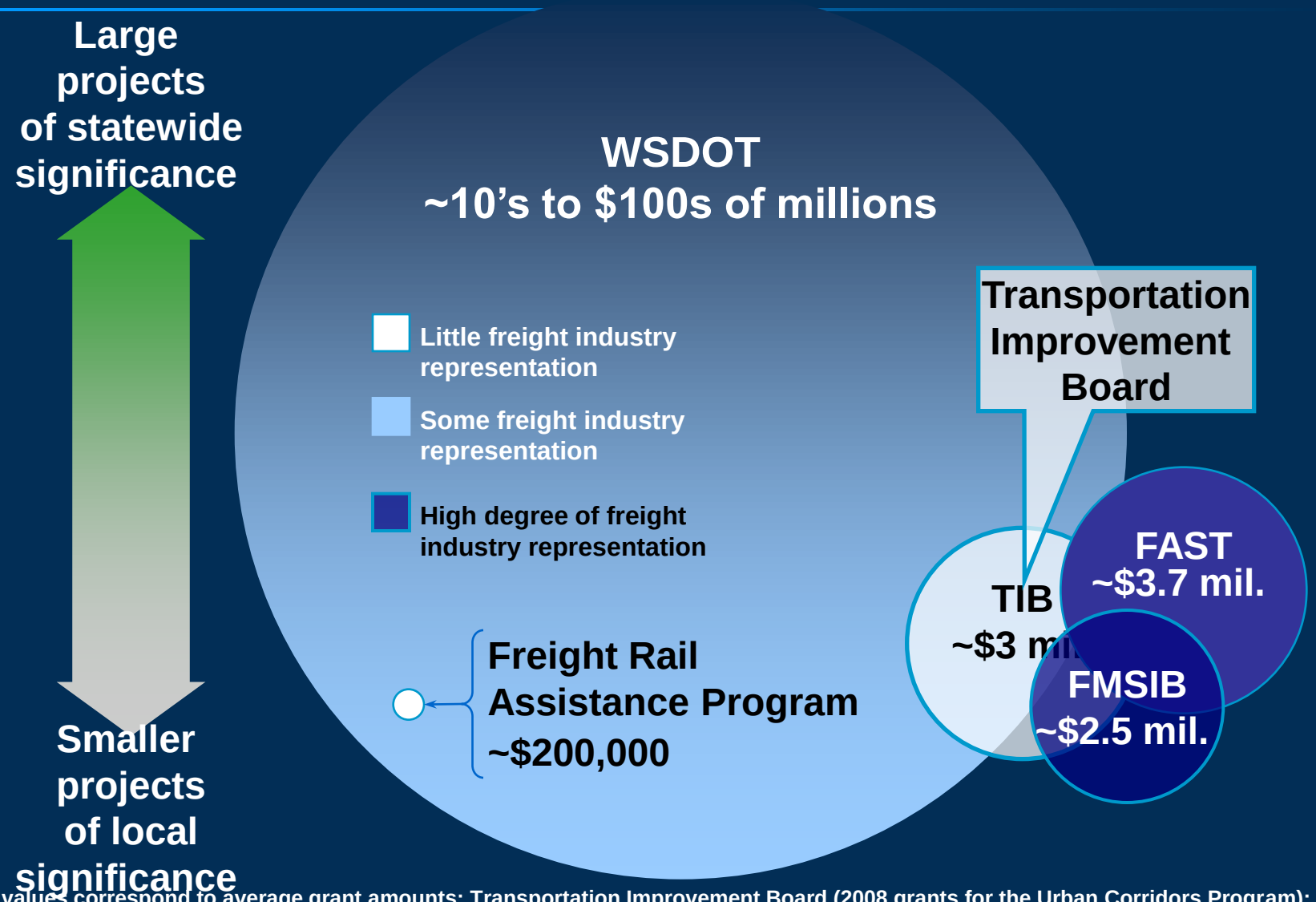
Comparison between Exiting Programs
Key Characteristics of WSDOT, FMSIB, TIB, and FRAP



Note: values correspond to average grant amounts; Transportation Improvement Board (2008 grants for the Urban Corridors Program); Freight Mobility Strategic Investment Board (grant amounts for completed projects); Freight Action Strategy Team (average federal earmark), Freight Rail Assistance Program (current projects), and the Washington State DOT (programmed projects with medium- and high-freight benefits).

Draft Findings, Consequences, & Policy Options Benefits

1. Finding: For most roadway projects, a majority of the benefits from projects tend to accrue to passenger vehicles, while a smaller share accrues to commercial, light, and heavy trucks (railroad benefits and mitigation are being assessed)

2. Finding: In general, the larger the roadway facility, the lower the proportion of benefit accruing to commercial, light and heavy trucks

- Consequence: Proportionate funding from trucks will not be sufficient to fund these large projects
  - Policy option: Given the unfunded amounts for most large projects, freight user fees could become one part of a portfolio of funds

- Consequence: Partial funding from user fees may require a commitment of public sources that reorder project priorities
  - Policy Option: Should the priority freight projects be increased by partial funding from freight fees

Draft Findings, Consequences, & Policy Options Nexus

3. **Finding: Truck benefits may be understated because trucks are more limited in their route choices than passenger vehicles, because trucks movements are regulated by local, state, and federal governments**

- **Consequence: Trucks benefit more from improvements in the limited routes available to them than do passenger vehicles**

- **Consequence: The nexus between freight user fees and funding share may be defined by the monetary amount of the benefits generates for freight users**
  - **Policy Option: Freight user fees could be priced to generate revenues that match benefits to heavy trucks, which would be higher than a strict apportionment of unfunded project costs**

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Draft Findings, Consequences, & Policy Options Nexus (Continued)

4. **Finding: Many FAST and FMSIB projects have significant freight benefits**

- **Consequence: A subset of these projects provide opportunities to implement freight user fees to provide proportionate funding**
  - **Policy Option: There may be opportunities to coordinate implementation of freight user fees with appropriate evaluation and screening of small projects**

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Draft Findings, Consequences, & Policy Options Revenues

5. **Finding:** Most freight user fees would not raise revenues sufficient to fund major corridor projects

- **Consequence**: Assuming fee levels within the range of those in place in Washington State or elsewhere, these amounts would not be sufficient to fund major new highway projects
  - ***Policy Option:*** One exception is the truck vehicle miles traveled fee. A fee of about 10 cents per mile, a level in the range of what is currently applied in Germany would generate hundreds of millions of dollars in revenue a year
  - **Policy Option**: Target freight user fees at smaller projects with significant secured funding sources

Draft Findings, Consequences, & Policy Options Revenues (Continued)

6. **Finding: The effects of container fees lower than $30 per TEU on diversion are unknown**

- **Consequence: The revenue stream from a trial fee could not be bonded, thus funding would be pay-as-you-go**
  - **Policy Option: A trial container and bulk fee could be tested for any adverse effects of container traffic. If significant diversion occurs, the fee could be lowered or removed**

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Draft Findings, Consequences, & Policy Options Revenues (Continued)

7. **Finding: Tolling can provide a direct proportionality to benefits; however, tolling feasibility is project specific**

- **Consequence: Prior studies have shown that tolling can provide a significant project funding and can have a direct proportionality to freight use and benefits**

- **Consequence: Tolling is not possible or appropriate for all projects due to diversion and other considerations**

  - **Policy Option: Projects should be analyzed for the feasibility of tolling**

Draft Findings, Consequences, & Policy Options Revenues (Continued)

8. **Finding: Declining fuel use and the impact of inflation on transportation infrastructure costs will continue to erode existing revenue sources while escalating the costs**

- **Consequence: Even if new freight user fees are imposed, these new revenues may only replace the lost purchasing power of fuel taxes**
  - **Policy Option: Adjust existing tax and fee levels to ensure that any currently planned projects with freight benefits can be completed**
  - **Policy Option: Consider indexing new taxes and fees to maintain their parity for future projects**

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Draft Findings, Consequences, & Policy Options Institutional Structure

9. **Finding: Private industry stakeholders want the composition of a panel to be appropriate to types of taxes and fees and correspond the incidence of the tax and fee and the funding contributions**

10. **Finding: Private industry stakeholders want a say in the selection of eligible projects and in the ranking and phasing of selected projects**

- **Consequence: As currently established, public agencies such as the WSDOT Freight Rail Assistance Program (FRAP) and the Transportation Improvement Board (TIB) do not provide the desired level of private industries representation**
  - **Policy Option: Provide appropriate level of private industry representation is project selection process.**

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Draft Findings, Consequences, & Policy Options Institutional Structure (continued)

11. **Finding: The public has two interests that should be safeguarded:**
    - **Appropriate use of public funds for transportation projects that benefit freight**
    - **Selection (and prioritizing) projects that mitigate impacts of freight on communities**

- **Consequence: The selection process should include sufficient and appropriate public sector membership to ensure safeguarding of the public interest**
  - **Policy Option: State and regional governments could be represented in proportion to ownership of the facilities and the use of public funds for transportation projects with freight benefits**
  - **Policy Option: State legislature could regulate and review freight projects to incorporate mitigation**

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Draft Findings, Consequences, & Policy Options Institutional Structure (continued)

12. **Finding: Efficiencies can be gained by making use of existing project selection processes and institutions**

- **Consequence: Several existing bodies in Washington State select, program and prioritize freight transportation projects Most could handle administration of a new tax or fee with minor modifications to the structure of their project recommendation panel**
  - **Policy Option: If new user fees were implemented, the State Legislature could modify the panel of an existing agency to conform with the findings of this study**

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Next Steps

- Final report
- Presentation to State Legislature in January

Questions & Discussion

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Back-up Slides

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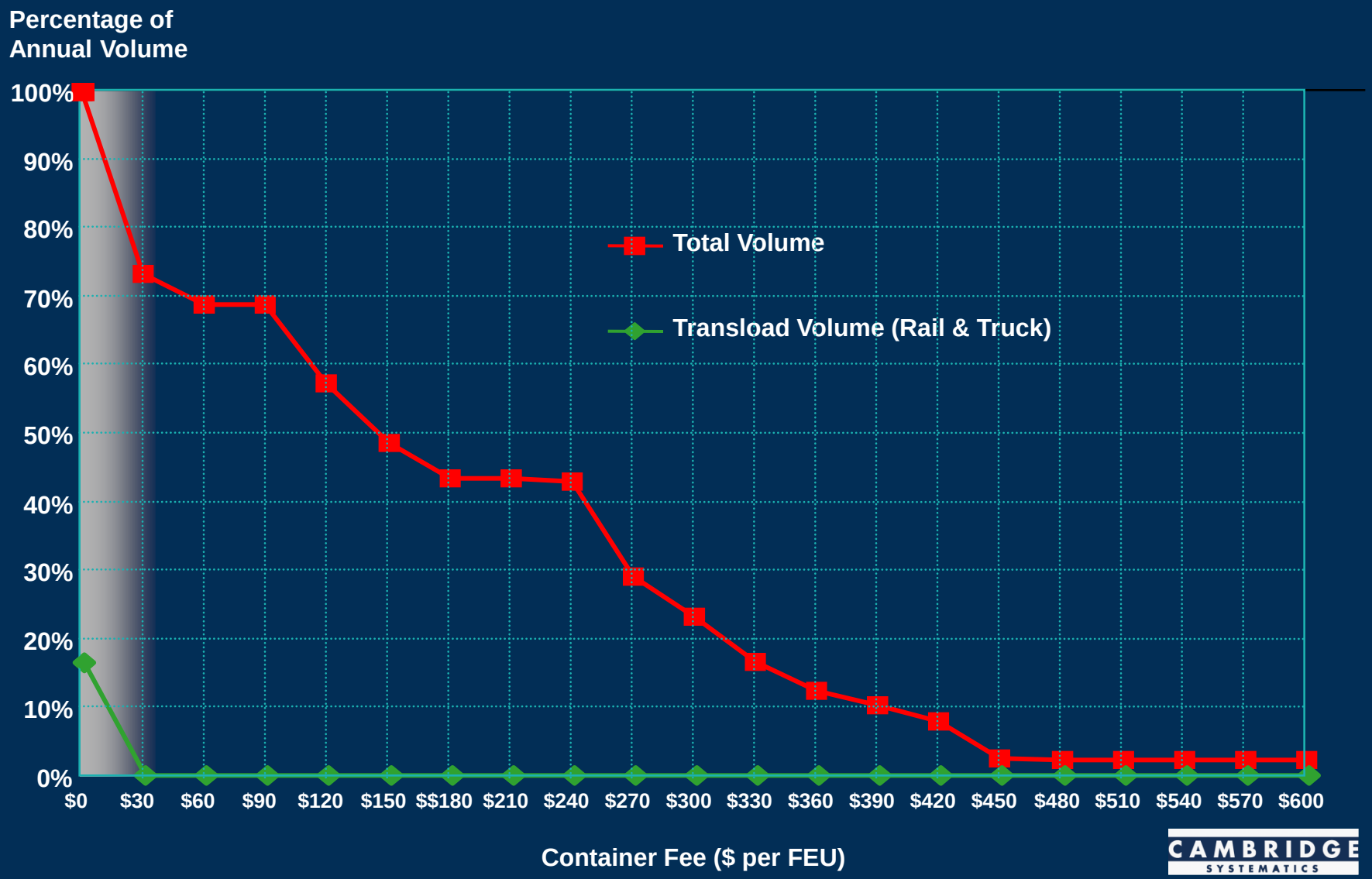
Initial Findings (Continued)
Response of PNW Imports to Potential Container Fee



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Limitations of the analysis

- **Static long-run elasticity model**
  - **Does not account for short-term impedances (e.g., contracts)**
  - **Does not account for possible changes in competitive forces (e.g., development of Mexican ports)**
- **Focus on imports from Asia (about 1/3 of volumes).**
  - **Does not include exports, empties, non-Asia cargo**
- **Not sensitive to fees below $30 per TEU**

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Limitations of the Analysis (Continued)

- Model not used to test for effect of ongoing congestion at Seattle and Tacoma and competitor ports
- Model not used to test for effect of infrastructure improvements at Seattle and Tacoma
  - i.e., projects funded with fee revenues)
- Model not used to test for effect of customs duties in Canada and Mexico
- Not sensitive to benefits of diversification of risk

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BST Associates Follow-Up
Paul Sorenson

- Impact of fee on exports & empties not assessed; these are more sensitive to cost
- Planned capacity improvements at competitor ports not accounted for
  - e.g. new publicly-funded terminal at Prince Rupert
- Puget Sound ports have recently lost market share without imposition of user fees
- Bottom line: Leachman may be underestimating the extent of diversion

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Comparison with Southern California Analysis

- Leachman conducted similar analysis for San Pedro Bay Ports
- Analysis included a “congestion relief” scenario
- Import volumes much more elastic with respect to congestion than with respect to container fees
- Without congestion relief, a $60/TEU fee would cut total import and transload volumes by 6%
- With congestion relief, a $200/TEU fee would cut total import volumes by 4% and *increase* transload volumes by 12.5%

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Stakeholder Comments on Analysis

- Stakeholders agreed with analysis results
- Leachman's findings borne out in their experience
  - Slim profit margins
  - Fierce competition
- Agreed with BST Associates that Leachman may be underestimating effects of diversion
- Freight has economic development benefits for the region
  - Public support for infrastructure, rather than industry fees, are warranted

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Stakeholder Comments (Continued)

- Concerned that modeling focuses on comparisons to Ports of LA/Long Beach
  - International ports (Prince Rupert) also major competitor
- Concerned that even temporary imposition of a fee would cause irreversible damage
- Range of comments on tolling as an alternative
  - Ports view it as a more true system user fee; some others see it as another threat to the state's trade volumes

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Bottom Line
Knowns and Unknowns

- **Knowns:**
  - **Imports into Puget Sound ports are highly elastic (unlike LA and Long Beach)**
  - **Fees greater than $30 will cause significant diversion**
- **Unknowns:**
  - **Impact of fees below $30**
  - **Impact of investing fees in congestion-relief**
  - **Relative value of diversification of risk**
  - **Impact of congestion-reduction investments at other ports**

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Alternative Freight Revenue Sources
Task 8 Report

Option 1
Re-direct freight-related revenues to freight-only projects

Option 2
Raise existing taxes or fees

- Freight specific
- Non-freight specific

Option 3
Implement new taxes or fees

- Freight specific
- Non-freight specific

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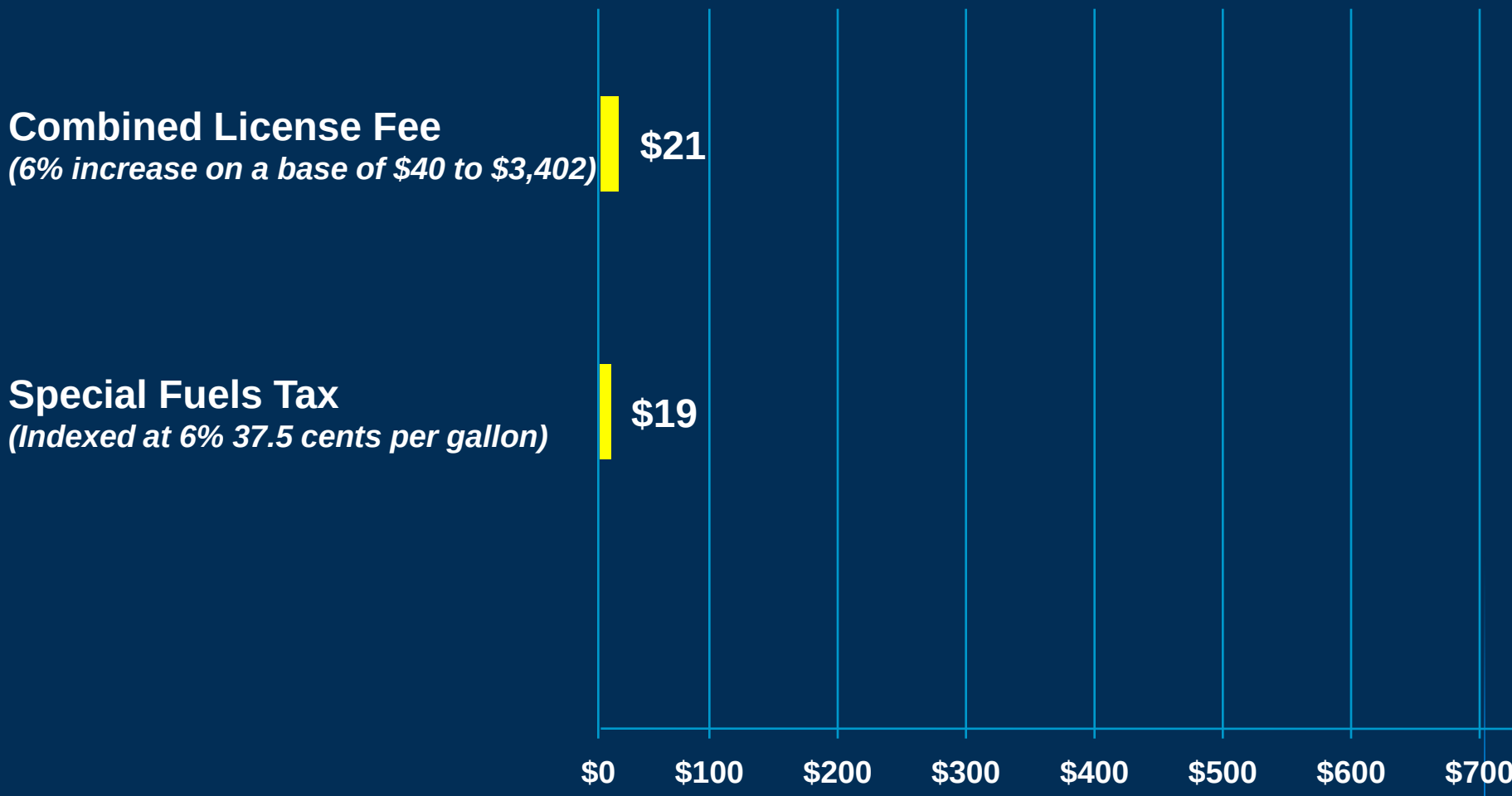
Increase Existing Freight Related Sources
Biennium 2007-2009 (Millions of $2007)

Option 2
Increase



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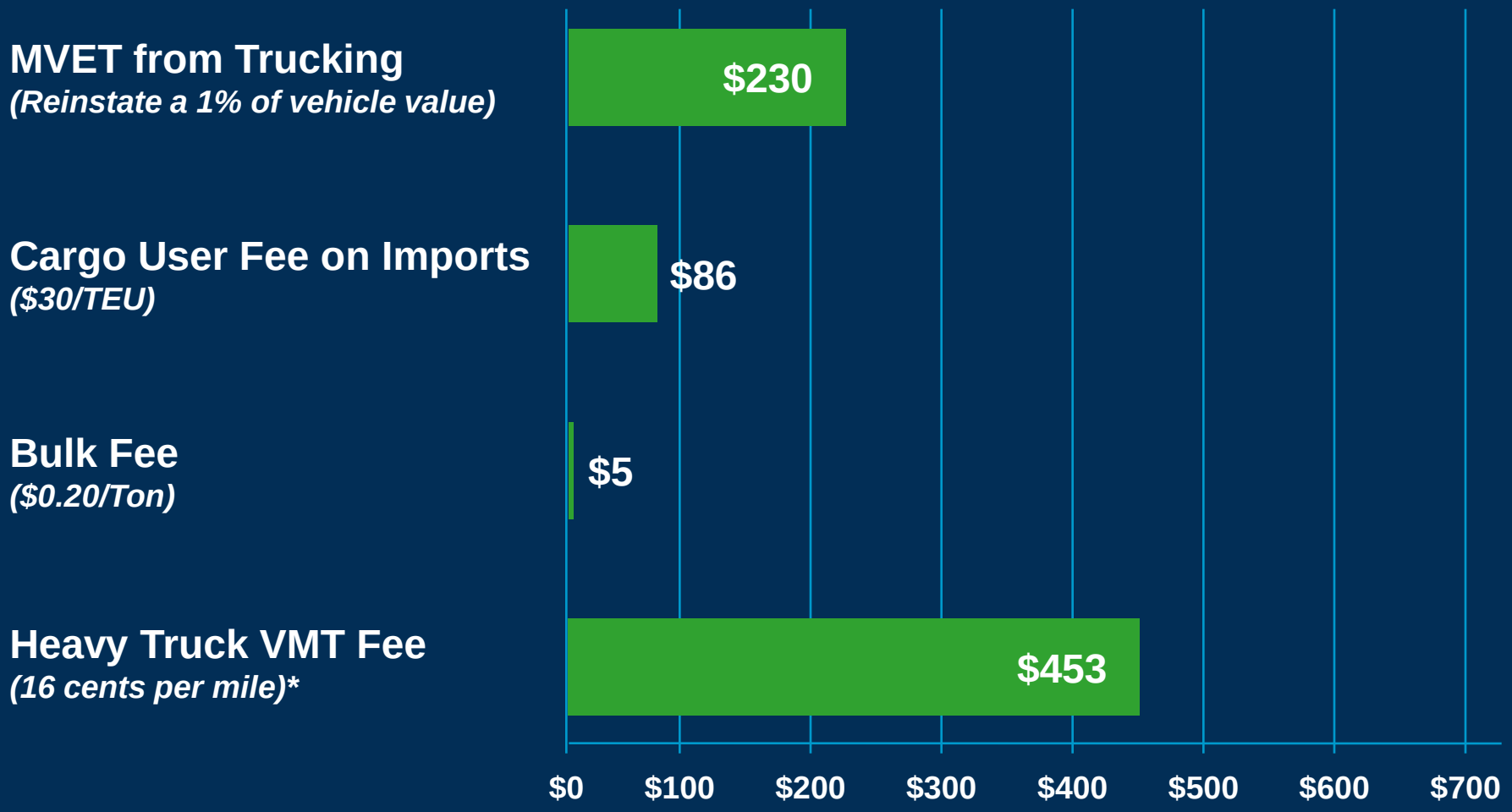
New Freight Related Revenue Sources
Biennium 2007-2009 (Millions of $2007)

Option 3
New Sources



Note: *Truck VMT rate same as Germany

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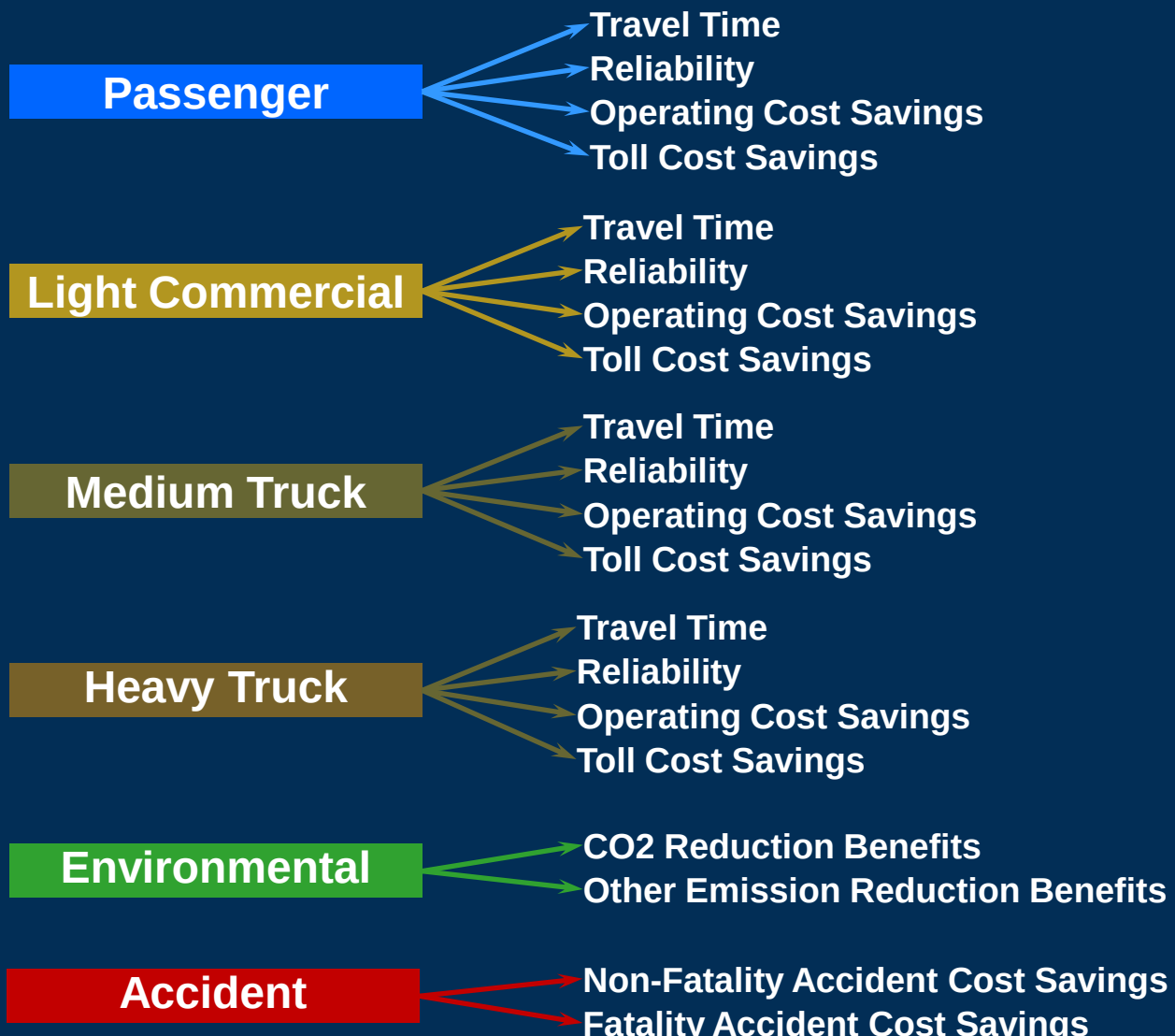
Project Benefit Analyses
Detailed Project Benefits (Millions of Current Dollars)



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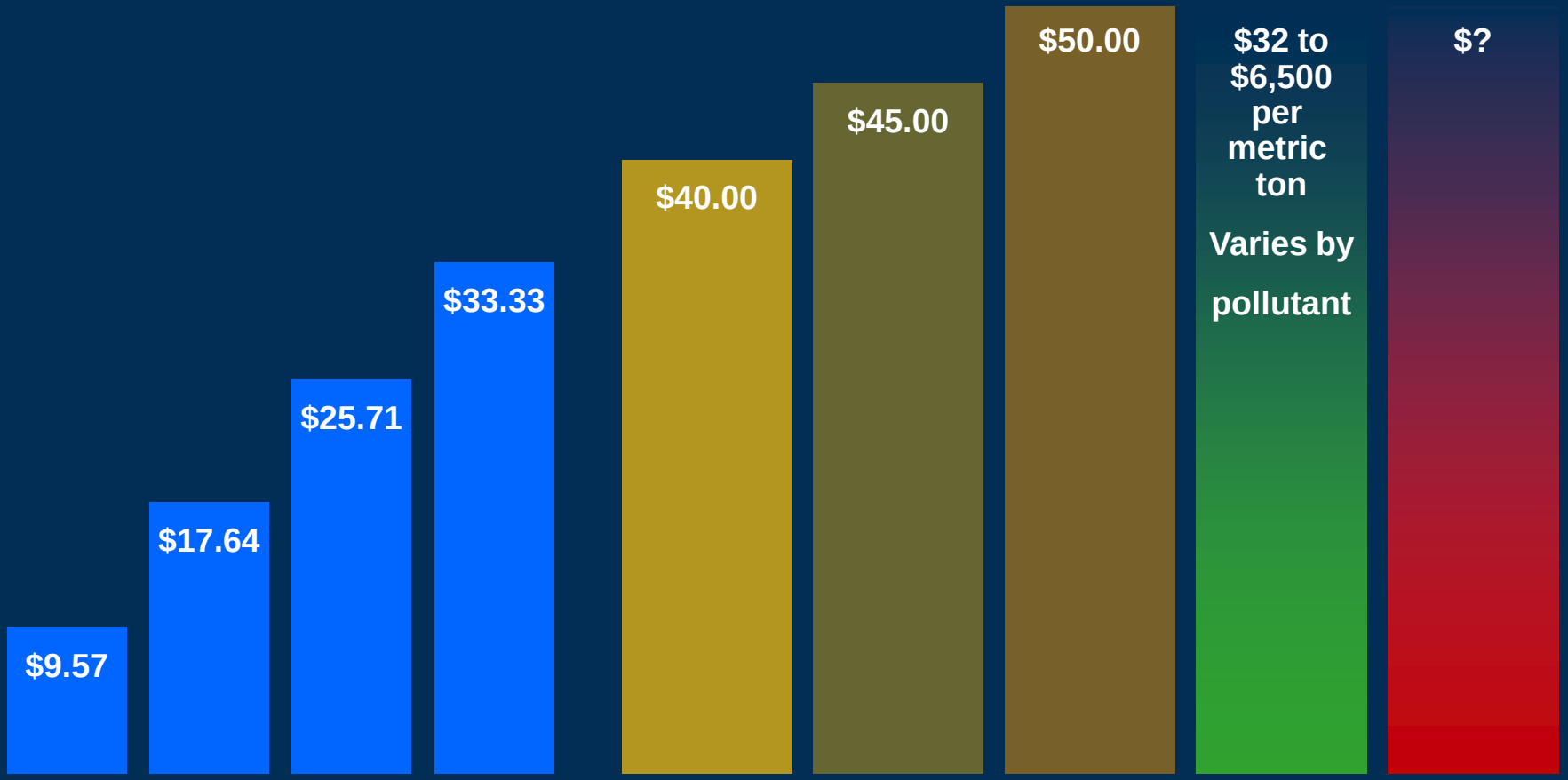
Project Benefit Analyses
Value of Time (Year 2000 Dollars)



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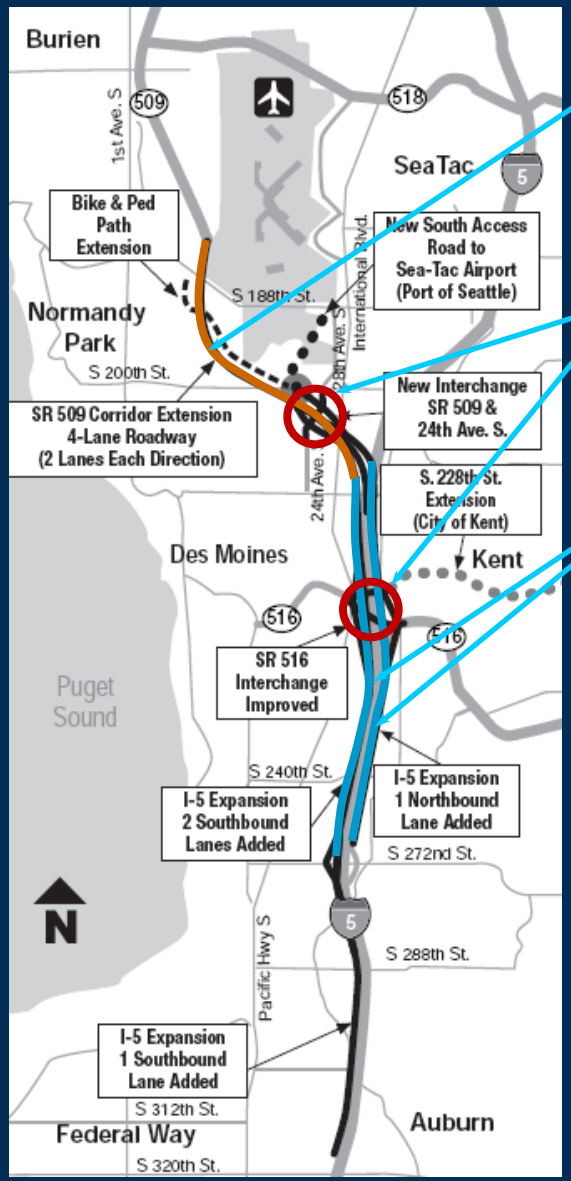
I-5/SR 509 Corridor Completion
Project Description



- Completes SR 509 corridor with three-plus miles of new freeway
- Includes new SR 509 interchange access
- Includes new lanes on I-5 between S. 210th and S. 272nd Street vicinity
- Listed as priority freight project in:
  - Legislative Budget
  - FMSIB List
  - Regional Blueprint (RTID)
  - WA Transportation Plan

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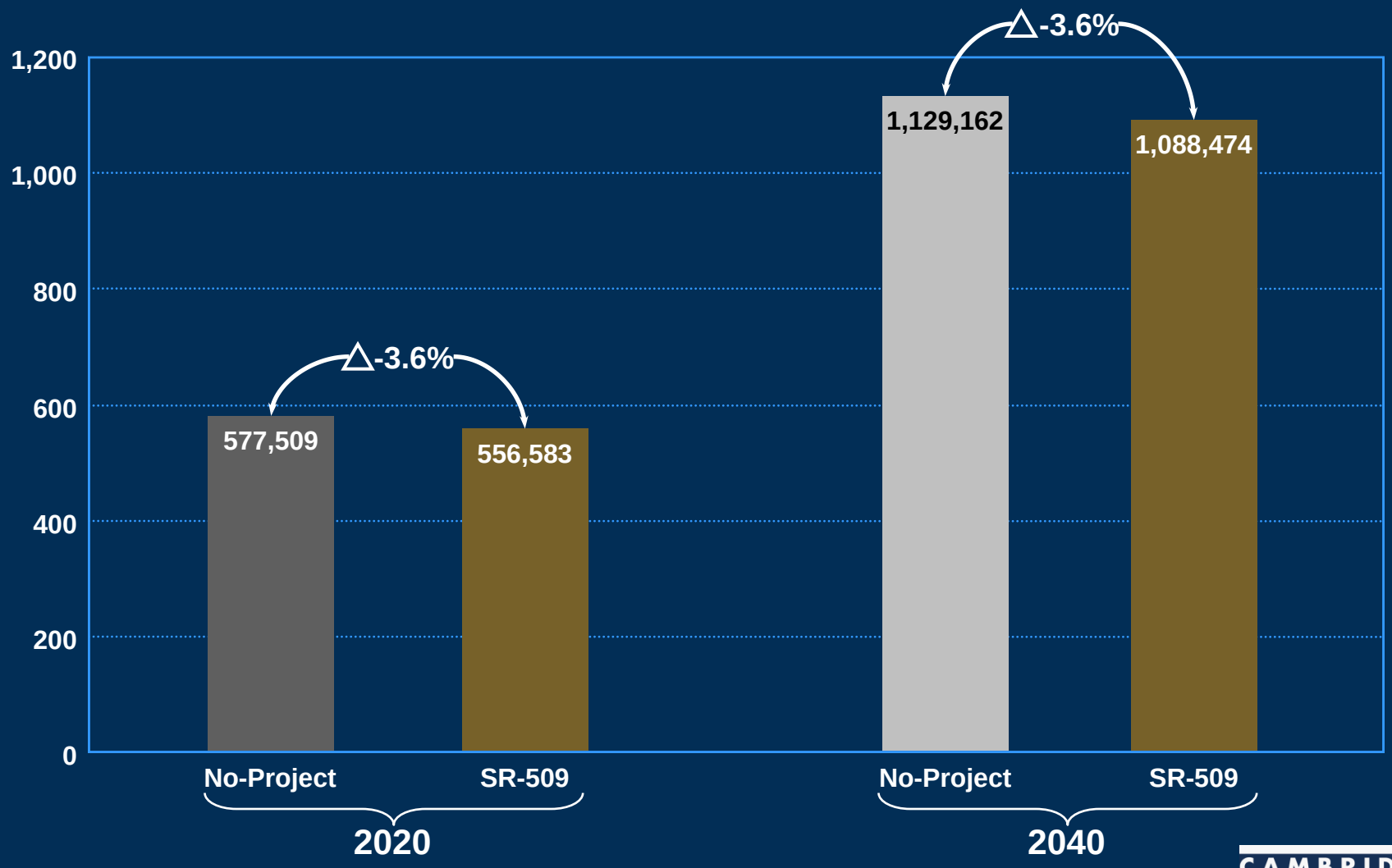
Performance of SR-509 in 2020 and 2040
Average Daily Vehicle-Hours of Delay



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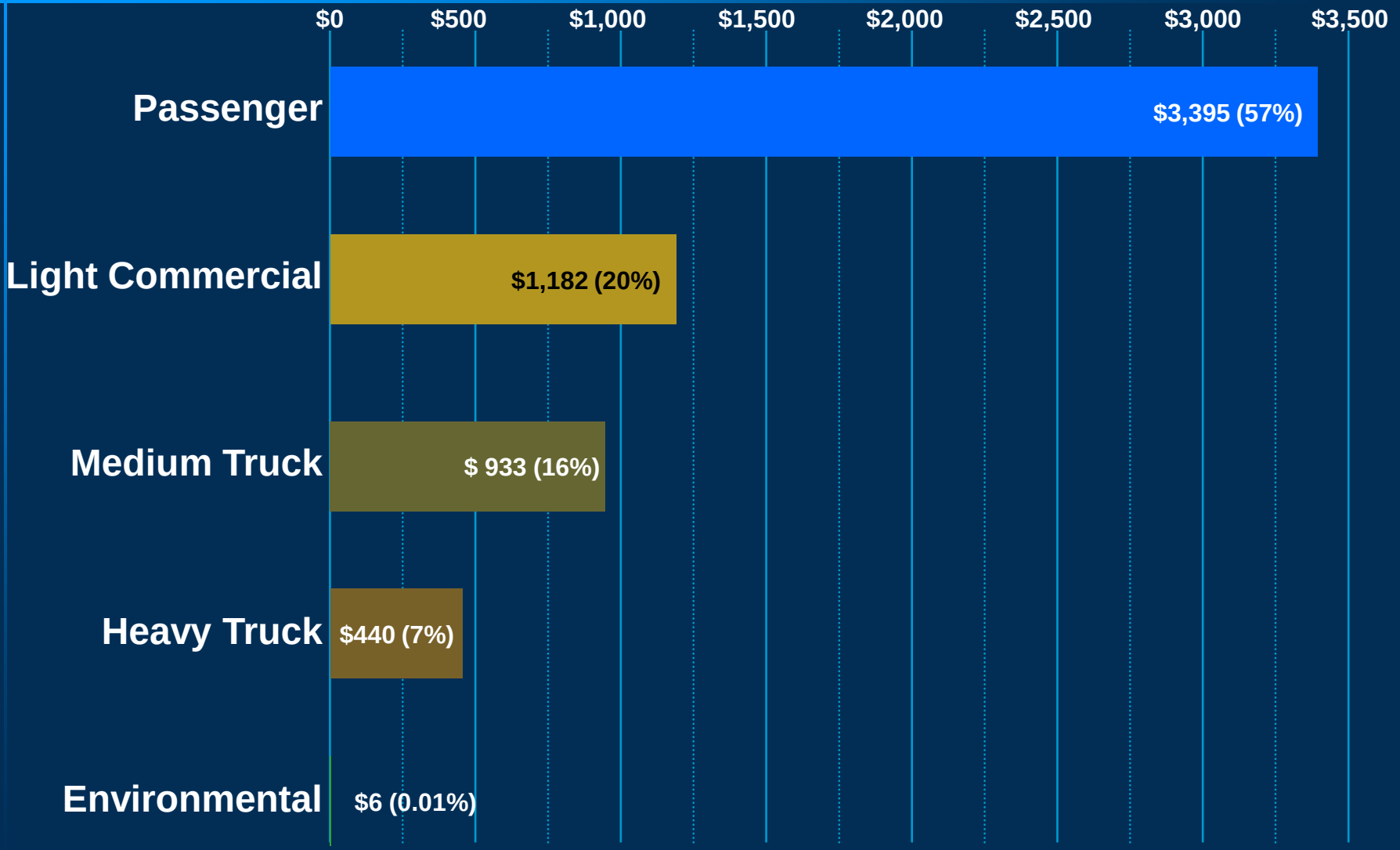
I-5/SR 509 Corridor Completion
Project Benefits *(Millions of Current Dollars, 2021 - 2050)*



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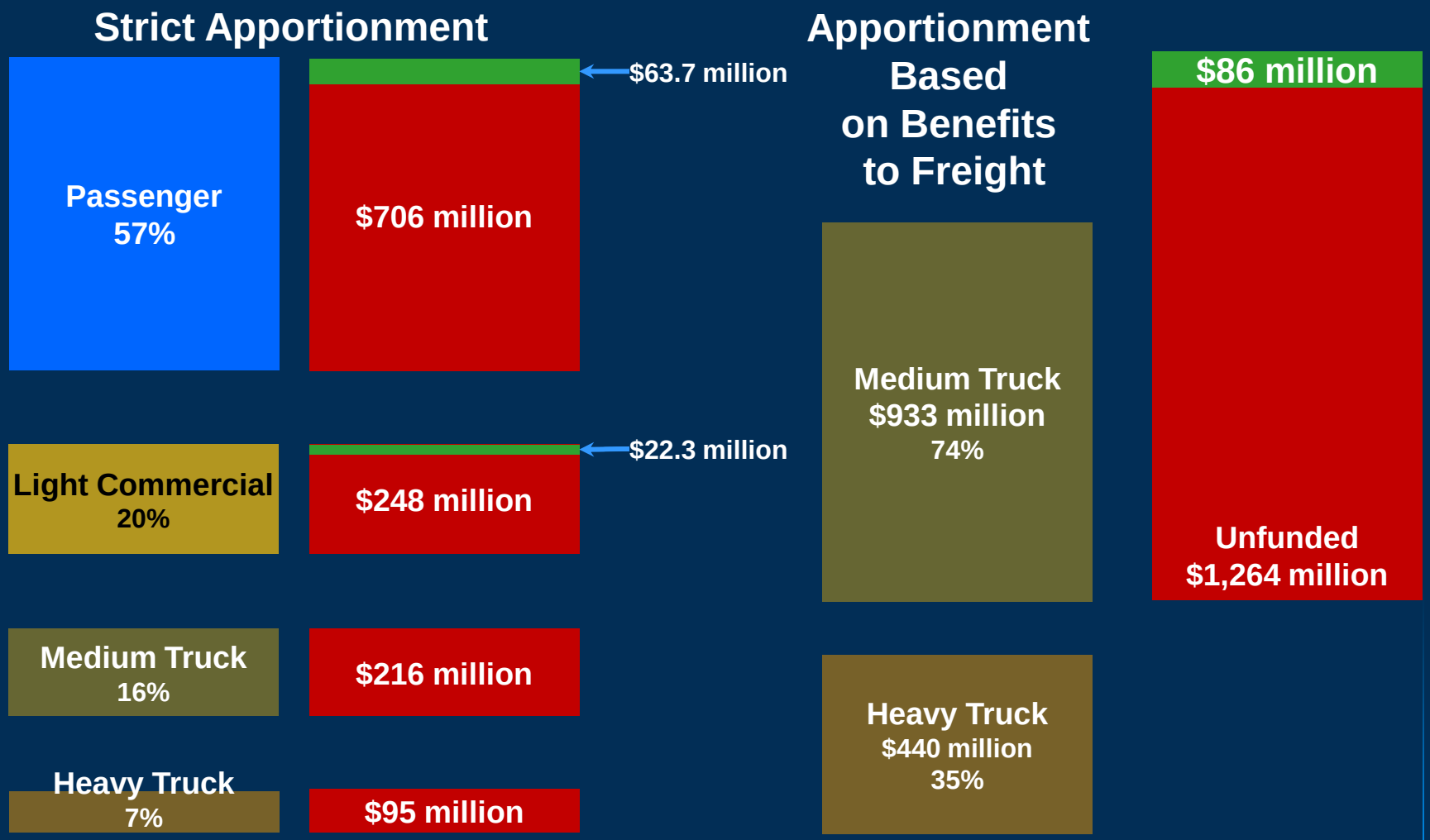
I-5/SR 509 Corridor Completion
Possible Funding Scenario



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SR 167 Extension
Project Description

- Two miles of 4-lane highway between SR 509 and I-5
- Four miles of 6-lane highway between Puyallup and I-5
- Interchanges at SR 161, Valley Ave. E, Interstate 5, 54th Ave. E and SR 509 .Two weigh stations and two park and ride lots
- Listed as priority freight project in:
  - Legislative Budget
  - WSDOT
  - FMSIB

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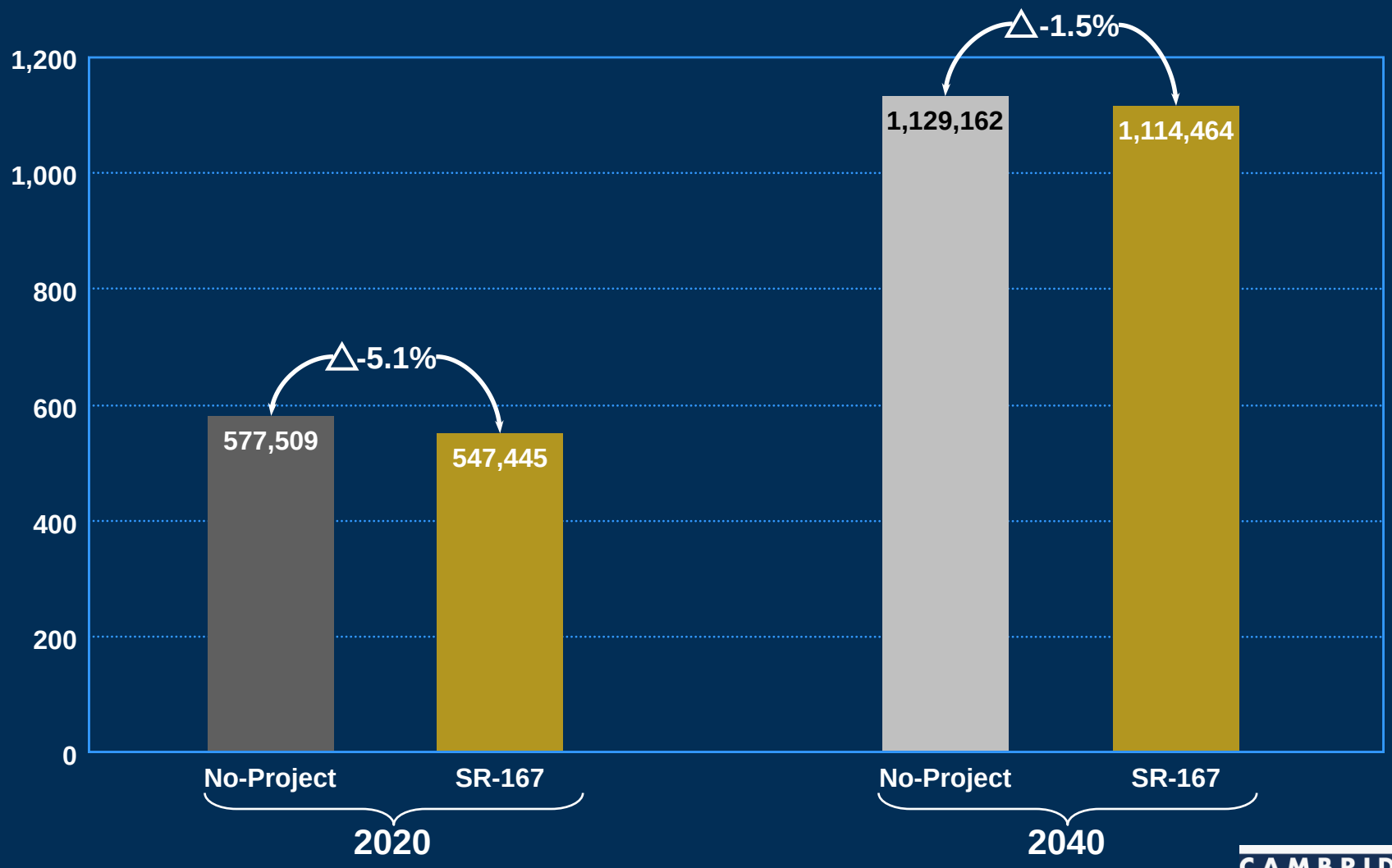
Performance of SR-167 in 2020 and 2040
Average Daily Vehicle-Hours of Delay



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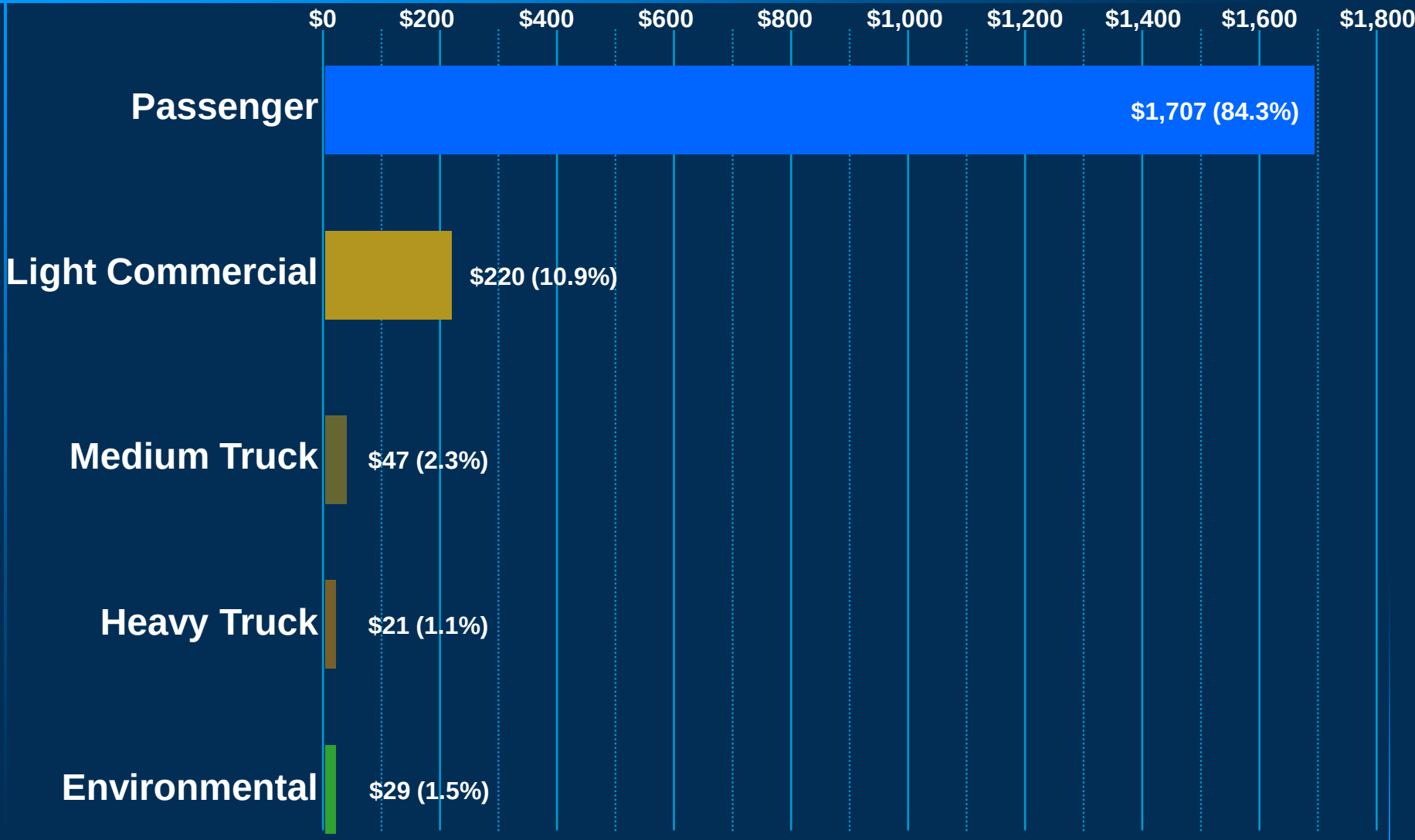
SR 167 Extension
Project Benefits *(Millions of Current Dollars, 2021 - 2050)*



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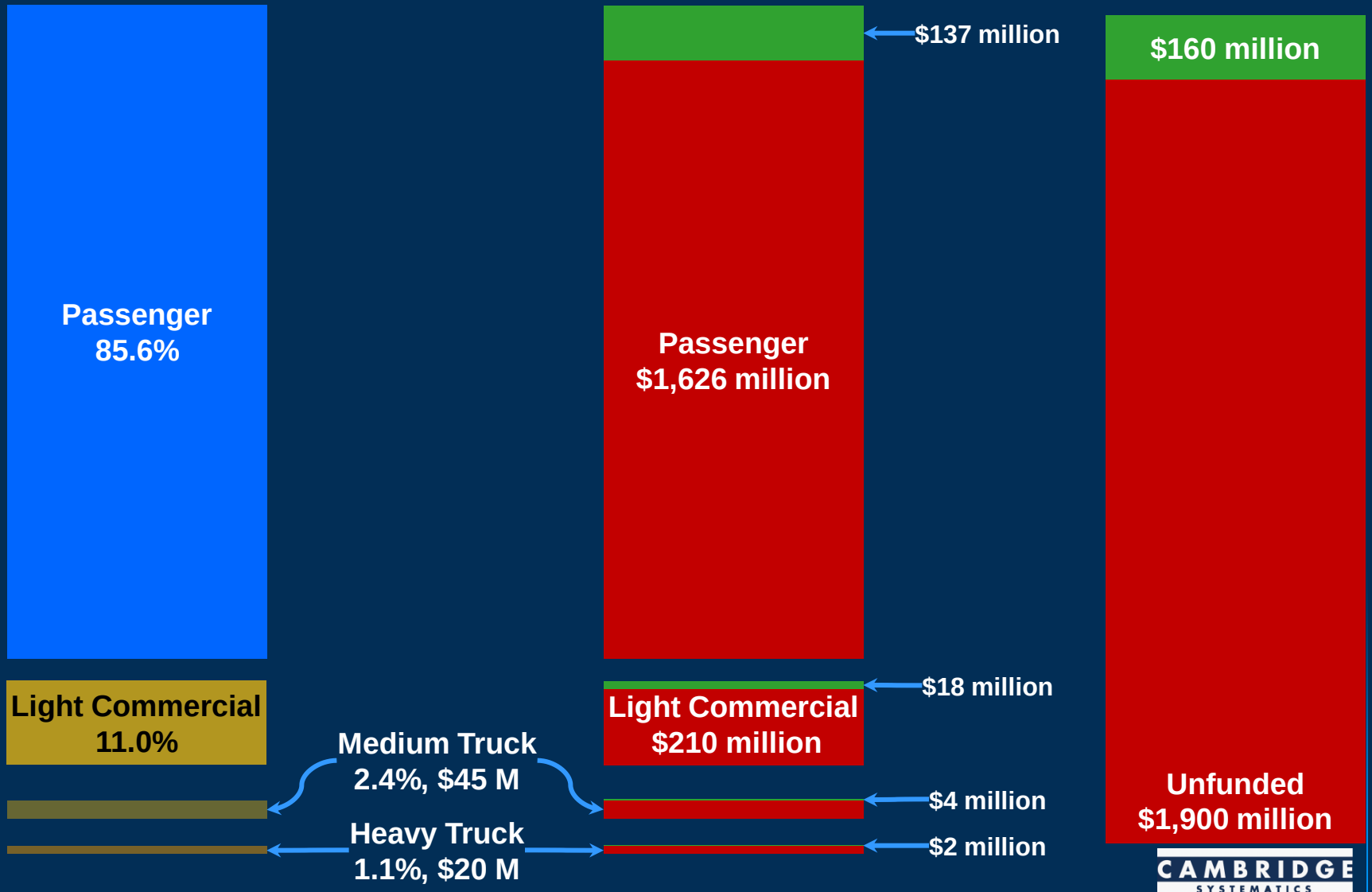
SR 167 Extension
Funding Allocation



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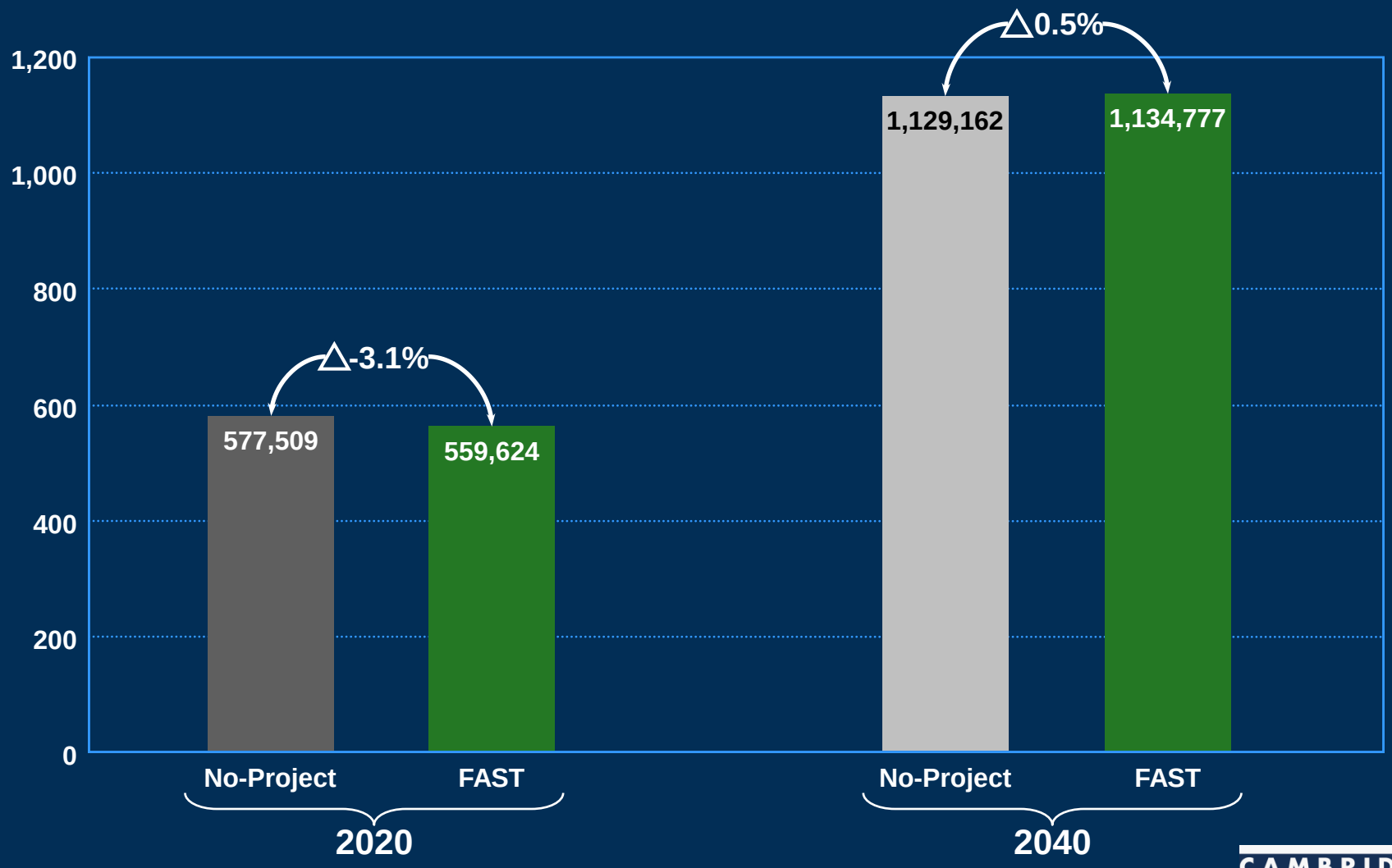
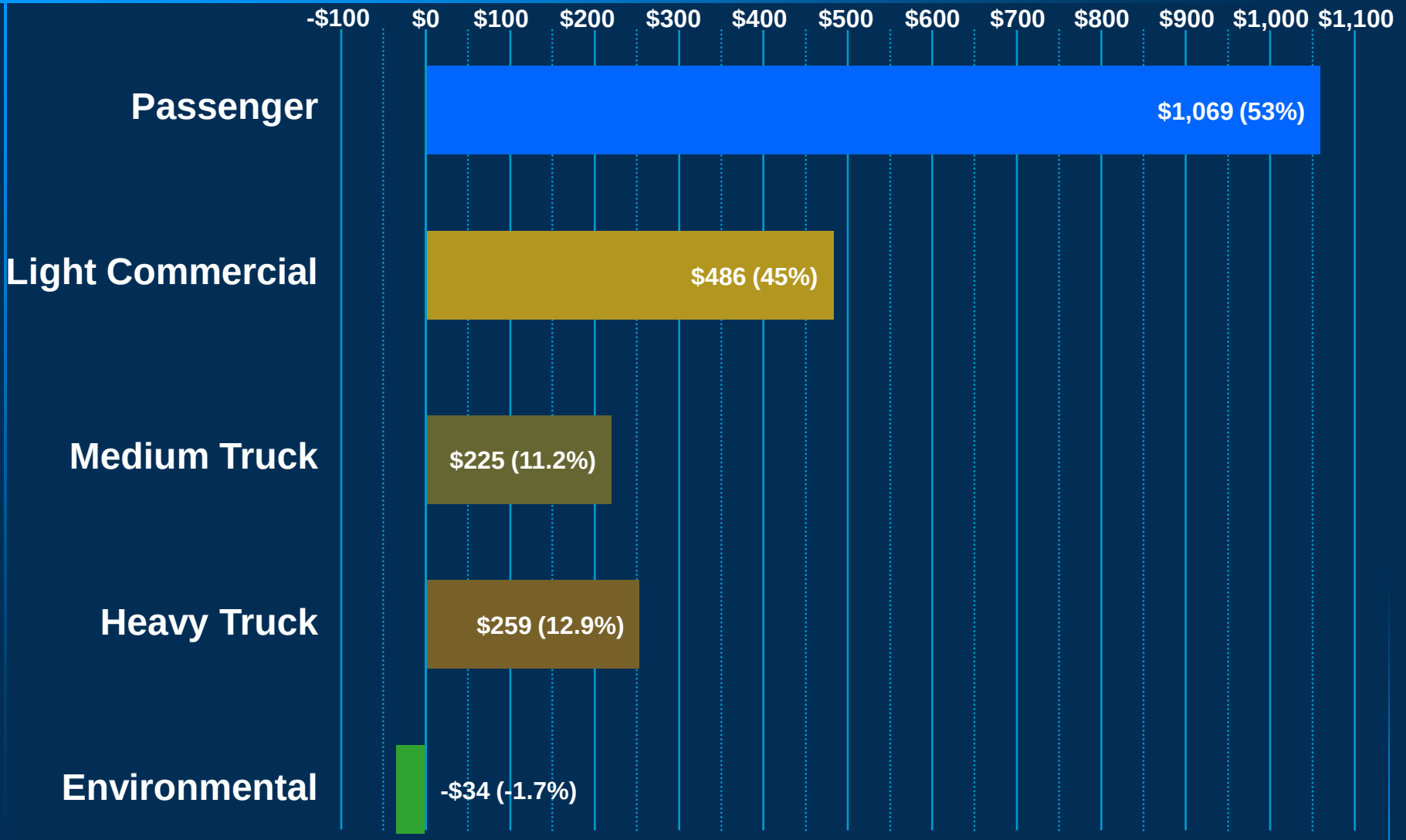
FAST Corridor Unfunded Projects
Grade Separations and Widenings

1. North Canyon Rd Extension Grade Separation
2. East Marginal Way Widening
3. South Spokane Widening
4. M St. SE Grade Separation
5. 70th Ave. E & Valley Ave. Widening
6. Lincoln Ave. Grade Separation
7. Lander St. Overpass
8. Willis St. Double Grade Separation
9. S. 228th St. Double Grade Separation & Widening
10. Strander Boulevard Grade Separation & Widening
11. SR 202 Corridor Widening *(FMSIB, not on FAST Corridor)*
12. SR 18 Widening
13. I-5 Port of Tacoma Rd. Overcrossing Widening
14. S 212th St. Double Grade Separation
15. 8th St.-UP Grade Separation & Widening *(Deferred)*

Performance of FAST Corridor Projects
Average Daily Vehicle-Hours of Delay in 2020 and 2040



FAST Corridor Projects
Project Benefits *(Millions of Current Dollars, 2021 - 2050)*



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FAST Corridor Projects
Possible Funding Scenario