

## Freight Rail Grant and Loan Program Applicant Resources

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By statute, the benefits of your project must be greater than the costs to construct, purchase and/or maintain the infrastructure. Furthermore, you must be able to quantify the benefits in order for them to be included as part of the Benefit Cost Analysis for the application.

This guide is intended to help to direct you to data resources that will be used to evaluate your project application and score the benefit cost section. To help complete the benefit/cost portion of your application and better compete for project funding, please provide the detailed information requested in each section. This Resource document should not be considered an exhaustive list and will only provide links to information for the most common benefits associated with freight rail infrastructure improvements.

### **Safety - Reduction in truck trips and vehicle miles travelled (VMT)**

Projects that reduce the total number of truck trips lead to safer roadways. The following federal data is available to help monetize the safety benefits accrued to removing trucks from the road. Please detail the annualized reduction in truck vehicle miles travelled (VMT) and provide details to support how your projects meets that reduction.

- Value of Statistical Life (VSL) and Value of Injuries

Data source – <http://www.dot.gov/office-policy/transportation-policy/guidance-treatment-economic-value-statistical-life>

- Property Damage

Data source - <http://www-nrd.nhtsa.dot.gov/Pubs/812013.pdf>

### **Impacts to roadways - Reduction in truck trips and vehicle miles travelled (VMT)**

Projects that reduce the total vehicle miles travelled (VMT) lead to a reduced impact and damage to roadways.

- Reduction in pavement damage to highways

Data source - <http://www.fhwa.dot.gov/policy/hcas/addendum.htm>

### **Emissions Reductions - Reduction in truck trips and vehicle miles travelled (VMT)**

Shifts in mode from truck to rail transport for goods will often lead to a reduction in greenhouse gas emissions. Using annual vehicle miles travelled (VMT), calculate the total reduction in short tons (2,000 pounds) of Carbon Dioxide (CO<sub>2</sub>), Volatile Organic Compounds (VOCs), Nitrogen Oxides (NO<sub>x</sub>), Particulate Matter (PM) and Sulfur Dioxide (Sox).

- Value of Reduction or Avoidance of Emissions

Data source –

<http://www.dot.gov/sites/dot.gov/files/docs/TIGER%20BCA%20Resource%20Guide%202014.pdf>

- The Social Cost of Carbon

Data source - <http://www.whitehouse.gov/sites/default/files/omb/assets/inforeg/technical-update-social-cost-of-carbon-for-regulator-impact-analysis.pdf>

## **Other Resources**

- <http://www.dot.gov/sites/dot.gov/files/docs/TIGER%20BCA%20Resource%20Guide%202014.pdf>
- <http://www.dot.gov/sites/dot.gov/files/docs/TIGER%20BCA%20Guidance%202014.pdf>