

Technical Advisory – Updating Federal Grant Mode Purpose Fixed Factors

An update to the fixed factors in TREDIS 5 was made to bring the following values in line with the 2018 Benefit-Cost Analysis (BCA) Guidance for Discretionary Grant Programs.

<https://www.transportation.gov/sites/dot.gov/files/docs/mission/office-policy/transportation-policy/284031/benefit-cost-analysis-guidance-2018.pdf>

This update currently only affects the grant application specific modes:

- Passenger Car – Federal Grants (Business, Personal & No Split Purposes), and
- Truck – Federal Grants

This change affects all new projects created on or after June 18, 2018. Prior projects will not be affected unless these modes are removed and added back into the analysis. Other default mode-purposes in TREDIS have not yet been updated and users should take care to apply consistent factors during multimodal analysis scenarios.

As of June 18, 2018, the new values are as follows:

Value of Time ¹ (\$ per person hour)	Previous Value (\$/incident)	New Value (\$/incident)
Business	\$25.40	\$26.50
Personal	\$13.60	\$14.20
All Purposes (No Split)	\$14.10	\$14.80
Freight Truck Operators	\$27.20	\$28.60

Vehicle Operating Costs ² (\$ per veh. mile)	Previous Value (\$/incident)	New Value (\$/incident)
Light Duty Vehicles	\$0.144	\$0.291
Commercial Trucks	\$0.451	\$0.563

Safety Costs	Previous Value (\$/incident)	New Value (\$/incident)
Fatality	\$ 9,600,000	\$ 9,600,000
Personal Injury	\$ 174,030	\$ 174,030
Property Damage	\$ 4,252	\$ 4,327

Environmental Costs	Previous Value (\$/short ton)	New Value (\$/short ton)
Carbon dioxide (CO ₂) ³	\$ 0	\$ 0
Volatile Organic Compounds (VOCs)	\$ 1,872	\$1,905
Nitrogen oxides (NOx)	\$ 7,377	\$7,508
Particulate matter (PM)	\$ 337,459	\$343,442
Sulphur dioxide (SOx)	\$ 43,600	\$44,373

Notes:

1. Default values in TREDIS are for total travel, most of which is local trips. Federal guidance also allows for higher passenger value of time factors for long-distance and intercity travel.
2. TREDIS utilizes a methodology that tracks fuel prices separate from other operating costs and uses local fuel price levels. The non-fuel operating cost components have been updated to exactly match the ATRI and AAA data used by USDOT for the combined values reported in the 2018 guidance document. Previous TREDIS values included mileage-based depreciation and insurance, but USDOT recommends counting all depreciation and no insurance.
3. Federal guidance provides no default factor for greenhouse gas emissions. The guidance document advises against using global damage values as represented in the previous social cost of carbon values but suggests applicants could utilize local or domestic damage values.