

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 2020 Benefit-Cost Analysis (BCA) Guidance for Discretionary Grant Programs.

<https://www.transportation.gov/sites/dot.gov/files/docs/mission/office-policy/transportation-policy/14091/benefit-cost-analysis-guidance-2020.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 February 5, 2020. 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.

The new values are as follows:

Value of Time ¹ (\$ per person hour)	Previous Value	New Value
Business	\$26.50	\$27.10
Personal	\$14.20	\$15.20
All Purposes (No Split)	\$16.10	\$16.60
Freight Truck Operators	\$28.40	\$29.50

Value of Vehicle Buffer Time ¹ (\$ per person hour)	Previous Value	New Value
Business	\$26.50	\$27.10
Personal	\$14.20	\$15.20
All Purposes (No Split)	\$16.10	\$16.60
Freight Truck Operators	\$28.40	\$29.50

Value of Freight (\$ per Freight Ton Hour)	Previous Value	New Value
Freight Trucks	\$1.79	\$1.83

Vehicle Occupancy (Passengers per Vehicle)	Previous Value	New Value
Business	1.68	1.67
Personal	1.68	1.67
All Purposes (No Split)	1.68	1.67

Safety Costs	Previous Value (\$/incident)	New Value (\$/incident)
Property Damage	\$ 4,300	\$ 4,400

Environmental Costs (Cost per ton)	Previous Value	New Value
Voc	\$2,000	\$2,100
Nox	\$8,300	\$8,600
Sox	\$48,900	\$50,100
PM	\$377,800	\$387,300

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.