



2023 - 2024

College of Engineering

I-10 FREEWAY SENIOR PROJECT

California State Polytechnic University, Pomona

Benefit Cost Analysis

I-10 Interchange at Ramsey and Main

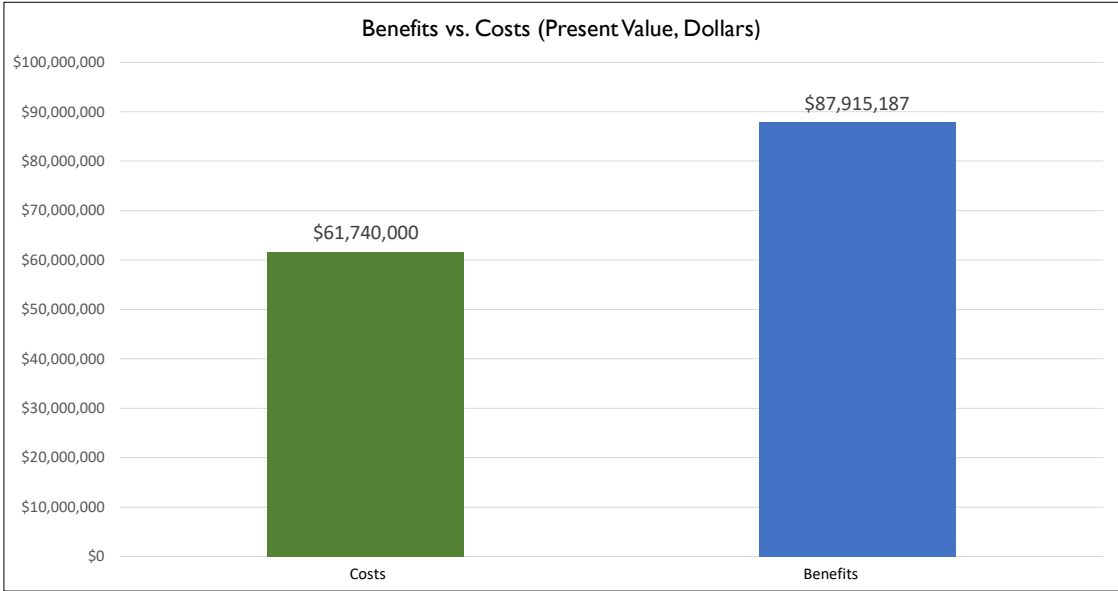
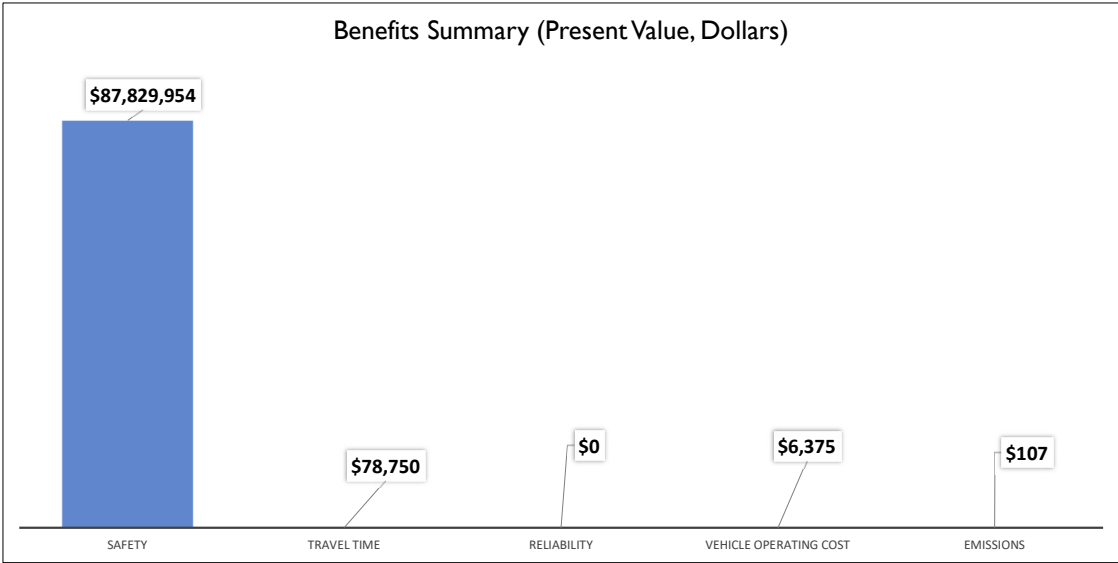
Benefit-Cost Analysis Summary Results

AGENCY: Caltrans

DATE 2/29/2024

Present Value Costs (\$ Dollars)	\$61,740,000
Present Value Benefits (\$ Dollars)	\$87,915,187
Net Present Value (\$ Dollars)	\$26,175,187
Benefit / Cost Ratio:	1.42
Discount Rate	3.1%

ITEMIZED BENEFITS (\$ Dollars)	Present Value
Safety	\$87,829,954
Travel Time	\$78,750
Reliability	\$0
Vehicle Operating Cost	\$6,375
Emissions	\$107
TOTAL BENEFITS	\$87,915,187



I-10 Interchange at Ramsey and Main

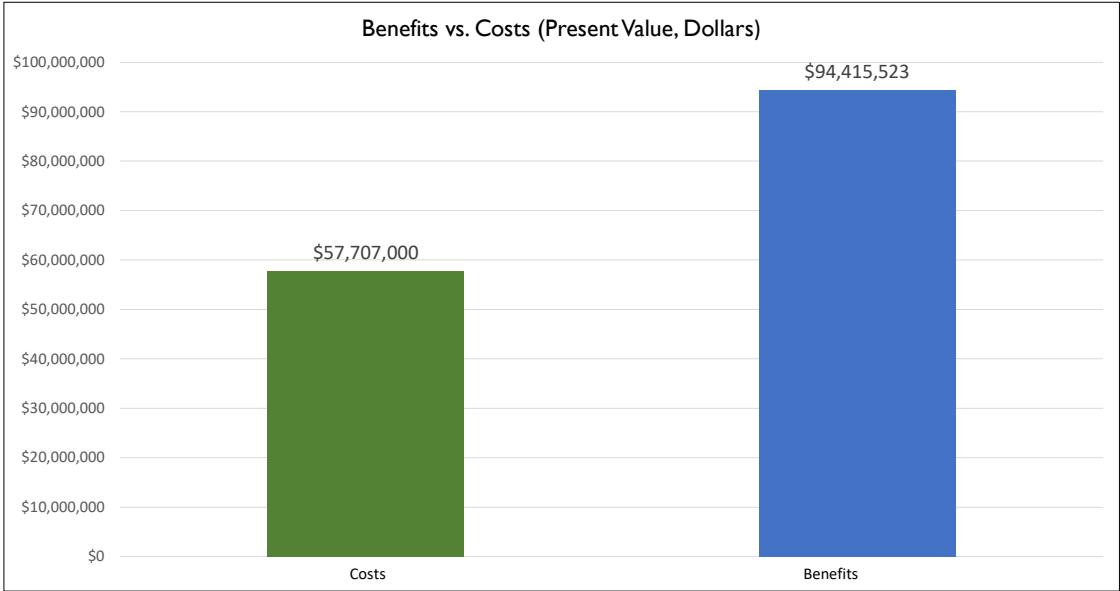
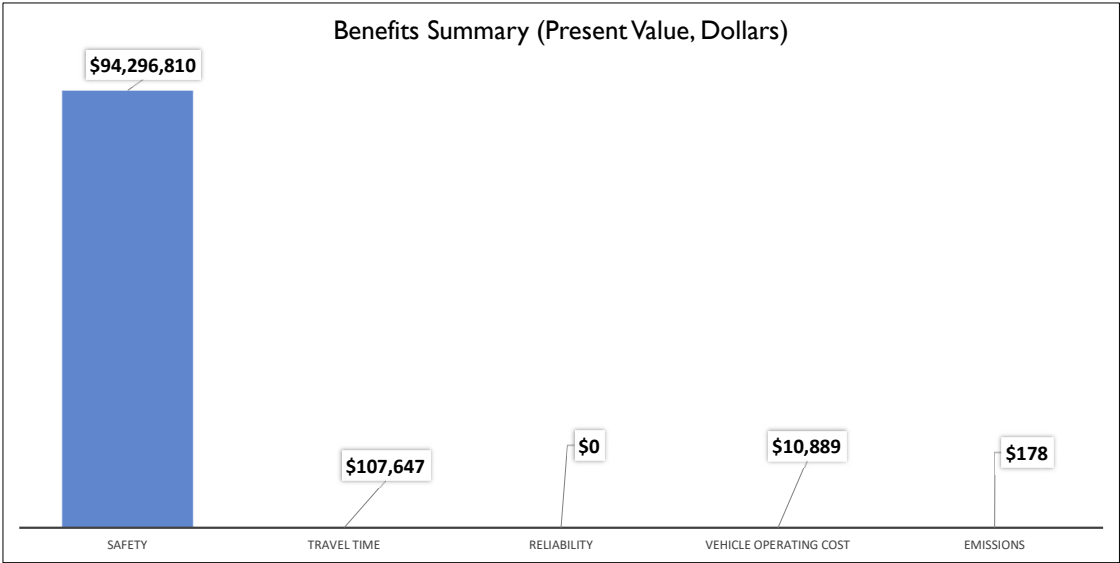
Benefit-Cost Analysis Summary Results

AGENCY: Caltrans

DATE 2/29/2024

Present Value Costs (\$ Dollars)	\$57,707,000
Present Value Benefits (\$ Dollars)	\$94,415,523
Net Present Value (\$ Dollars)	\$36,708,523
Benefit / Cost Ratio:	1.64
Discount Rate	3.1%

ITEMIZED BENEFITS (\$ Dollars)	Present Value
Safety	\$94,296,810
Travel Time	\$107,647
Reliability	\$0
Vehicle Operating Cost	\$10,889
Emissions	\$178
TOTAL BENEFITS	\$94,415,523



I-10 Interchange at Ramsey and Main

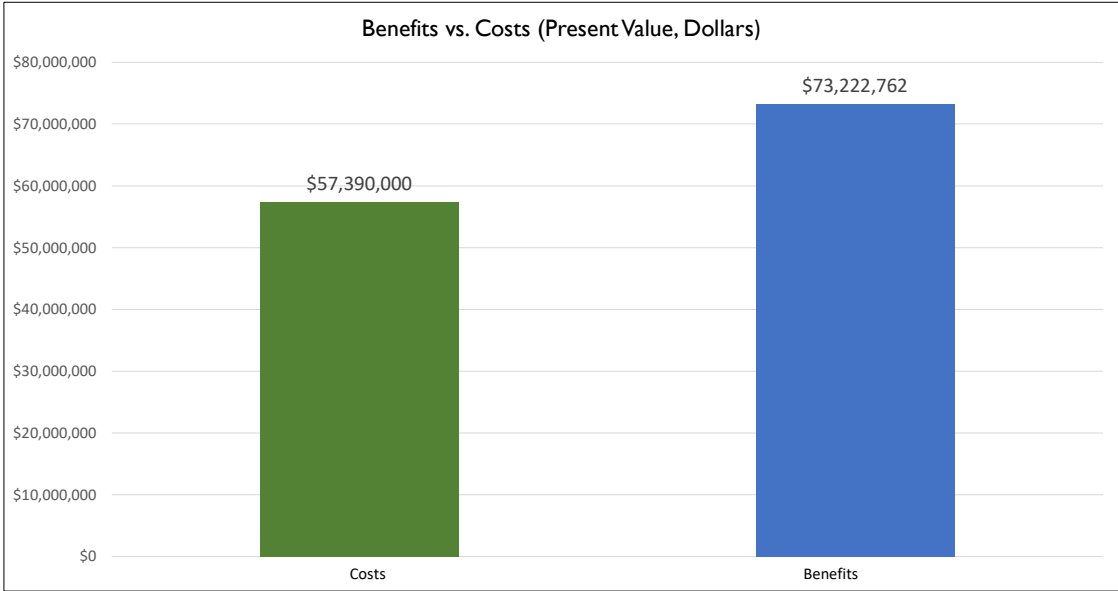
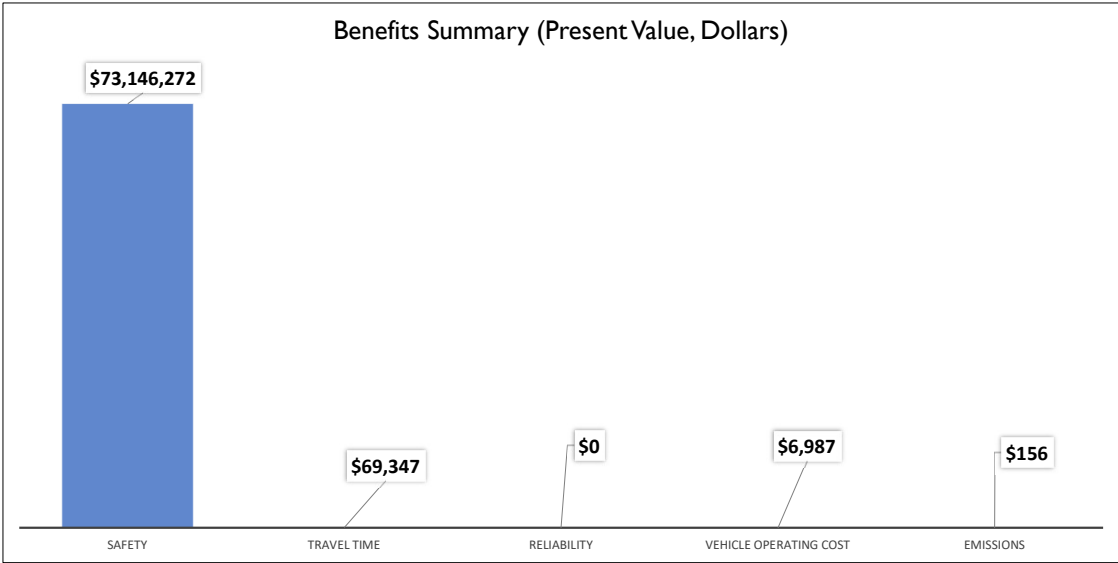
Benefit-Cost Analysis Summary Results

AGENCY: Caltrans

DATE 2/29/2024

Present Value Costs (\$ Dollars)	\$57,390,000
Present Value Benefits (\$ Dollars)	\$73,222,762
Net Present Value (\$ Dollars)	\$15,832,762
Benefit / Cost Ratio:	1.28
Discount Rate	3.1%

ITEMIZED BENEFITS (\$ Dollars)	Present Value
Safety	\$73,146,272
Travel Time	\$69,347
Reliability	\$0
Vehicle Operating Cost	\$6,987
Emissions	\$156
TOTAL BENEFITS	\$73,222,762



I-10 Interchange at Ramsey and Main

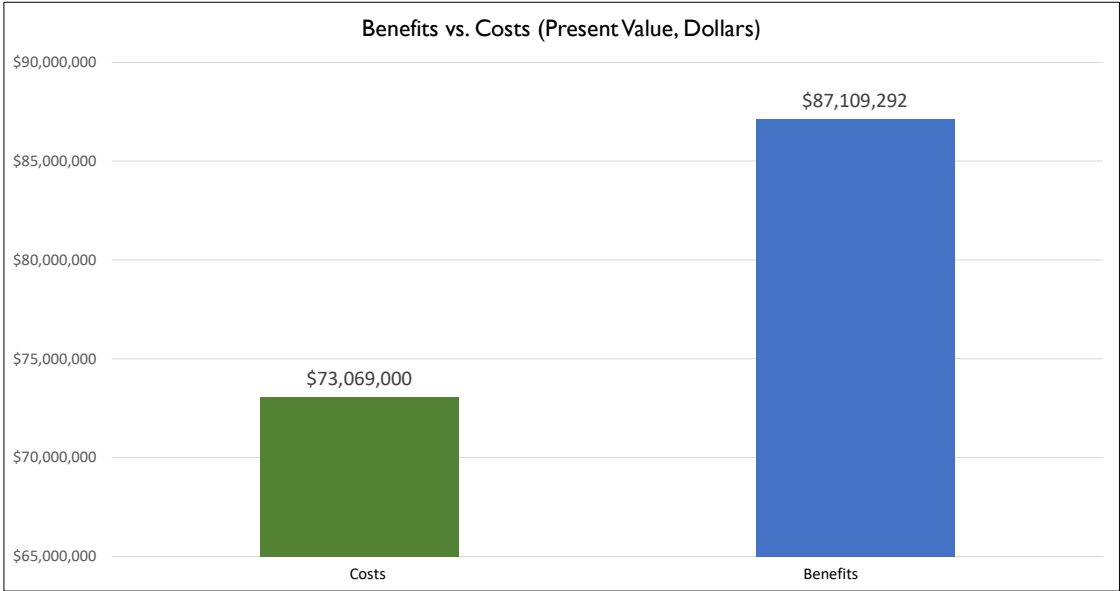
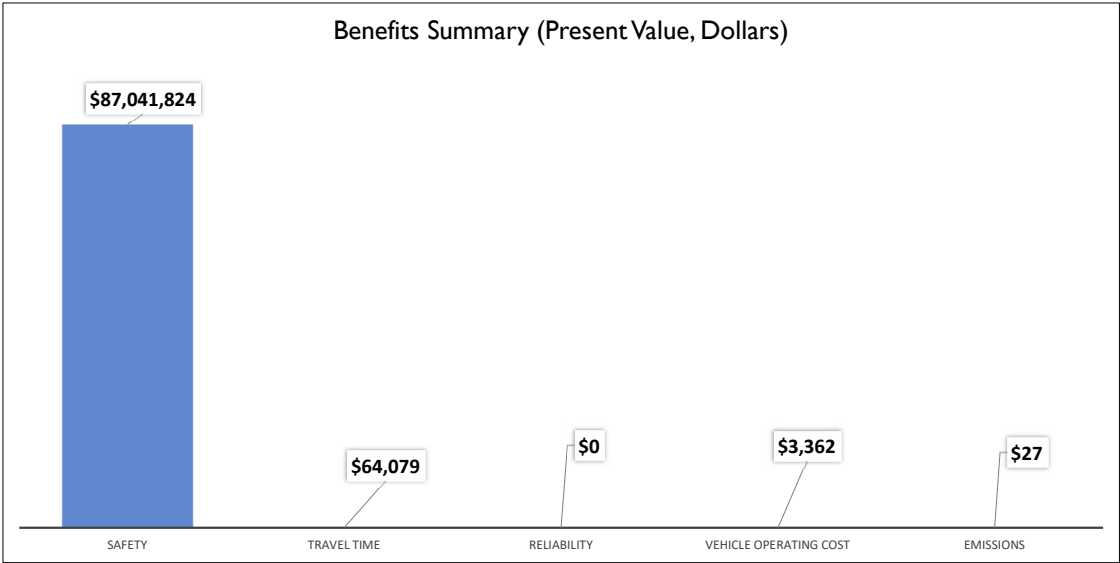
Benefit-Cost Analysis Summary Results

AGENCY: Caltrans

DATE 2/29/2024

Present Value Costs (\$ Dollars)	\$73,069,000
Present Value Benefits (\$ Dollars)	\$87,109,292
Net Present Value (\$ Dollars)	\$14,040,292
Benefit / Cost Ratio:	1.19
Discount Rate	3.1%

ITEMIZED BENEFITS (\$ Dollars)	Present Value
Safety	\$87,041,824
Travel Time	\$64,079
Reliability	\$0
Vehicle Operating Cost	\$3,362
Emissions	\$27
TOTAL BENEFITS	\$87,109,292



I-10 Interchange at Ramsey and Main

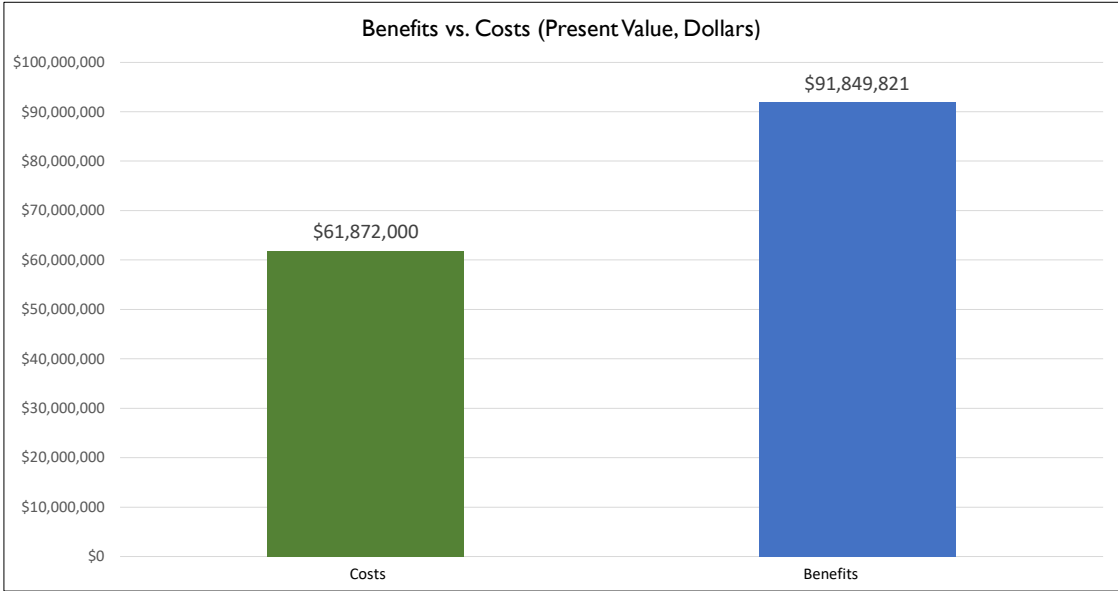
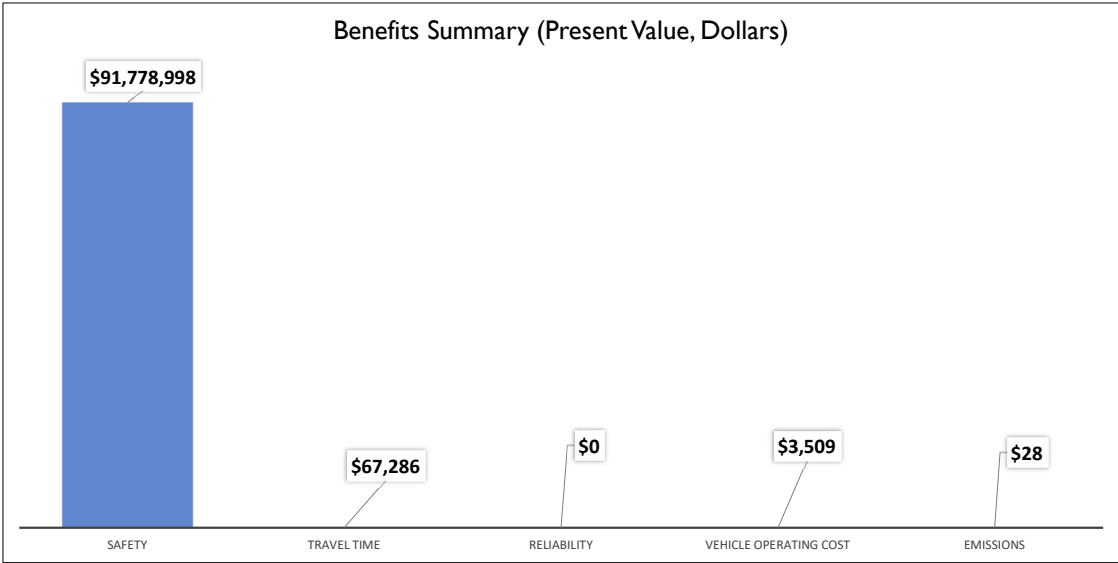
Benefit-Cost Analysis Summary Results

AGENCY: Caltrans

DATE 2/29/2024

Present Value Costs (\$ Dollars)	\$61,872,000
Present Value Benefits (\$ Dollars)	\$91,849,821
Net Present Value (\$ Dollars)	\$29,977,821
Benefit / Cost Ratio:	1.48
Discount Rate	3.1%

ITEMIZED BENEFITS (\$ Dollars)	Present Value
Safety	\$91,778,998
Travel Time	\$67,286
Reliability	\$0
Vehicle Operating Cost	\$3,509
Emissions	\$28
TOTAL BENEFITS	\$91,849,821



I-10 Interchange at Ramsey and Main

Benefit-Cost Analysis Summary Results

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DATE 2/29/2024

Present Value Costs (\$ Dollars)	\$36,619,000
Present Value Benefits (\$ Dollars)	\$47,099,207
Net Present Value (\$ Dollars)	\$10,480,207
Benefit / Cost Ratio:	1.29
Discount Rate	3.1%

ITEMIZED BENEFITS (\$ Dollars)	Present Value
Safety	\$47,072,687
Travel Time	\$25,824
Reliability	\$0
Vehicle Operating Cost	\$685
Emissions	\$10
TOTAL BENEFITS	\$47,099,207

