

Equity Evaluation and Safety Equity

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Equity Evaluation

Type of Equity	Equity Impacts Felt by Users	Units of Equity Measurement	Demographic Categorizations
Horizontal Equity	Differences in Travel Time	Monetary	Racial Demographics
Vertical Equity	Economic Impacts	Per Person	Income Demographics
		Per Travel Unit	Spatial Distribution

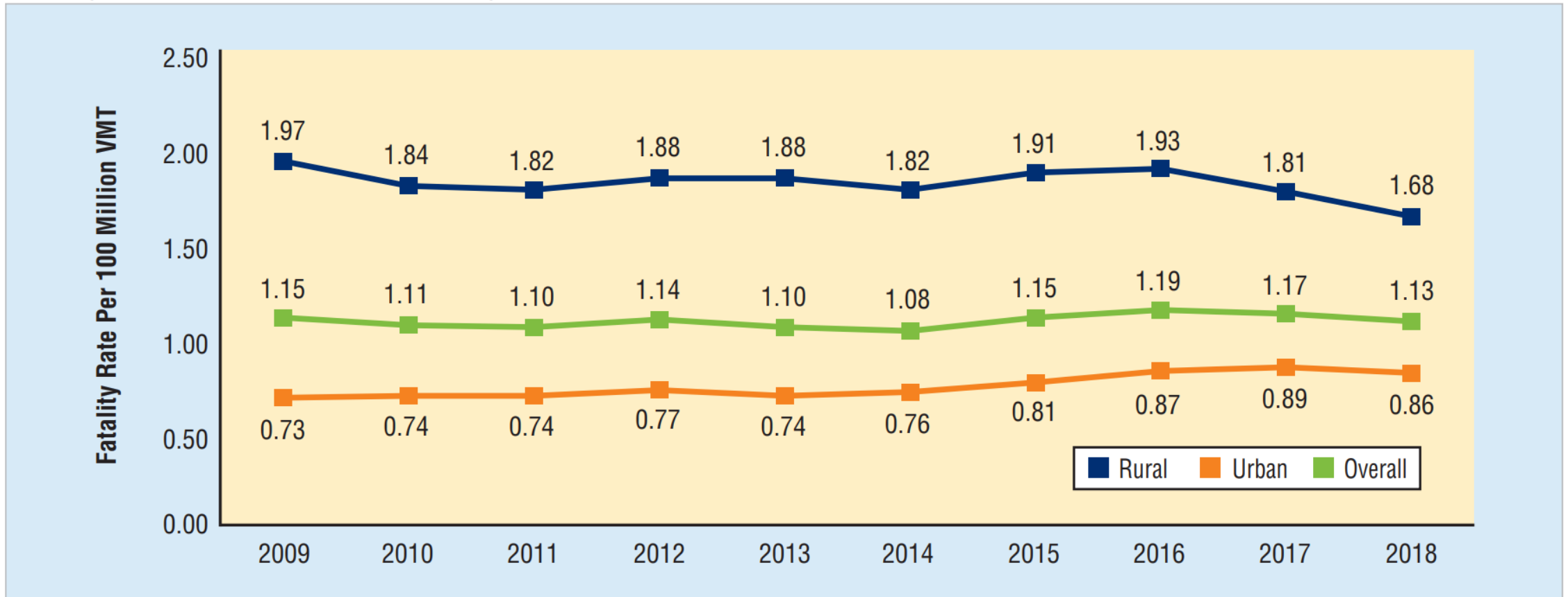


Addressing Rural Disparities in Equity Analysis

- There is little framework to inform analytical methods and choices that shape equity outcomes in rural communities
 - Transit
 - Active Transportation

Safety Equity Analysis Issues

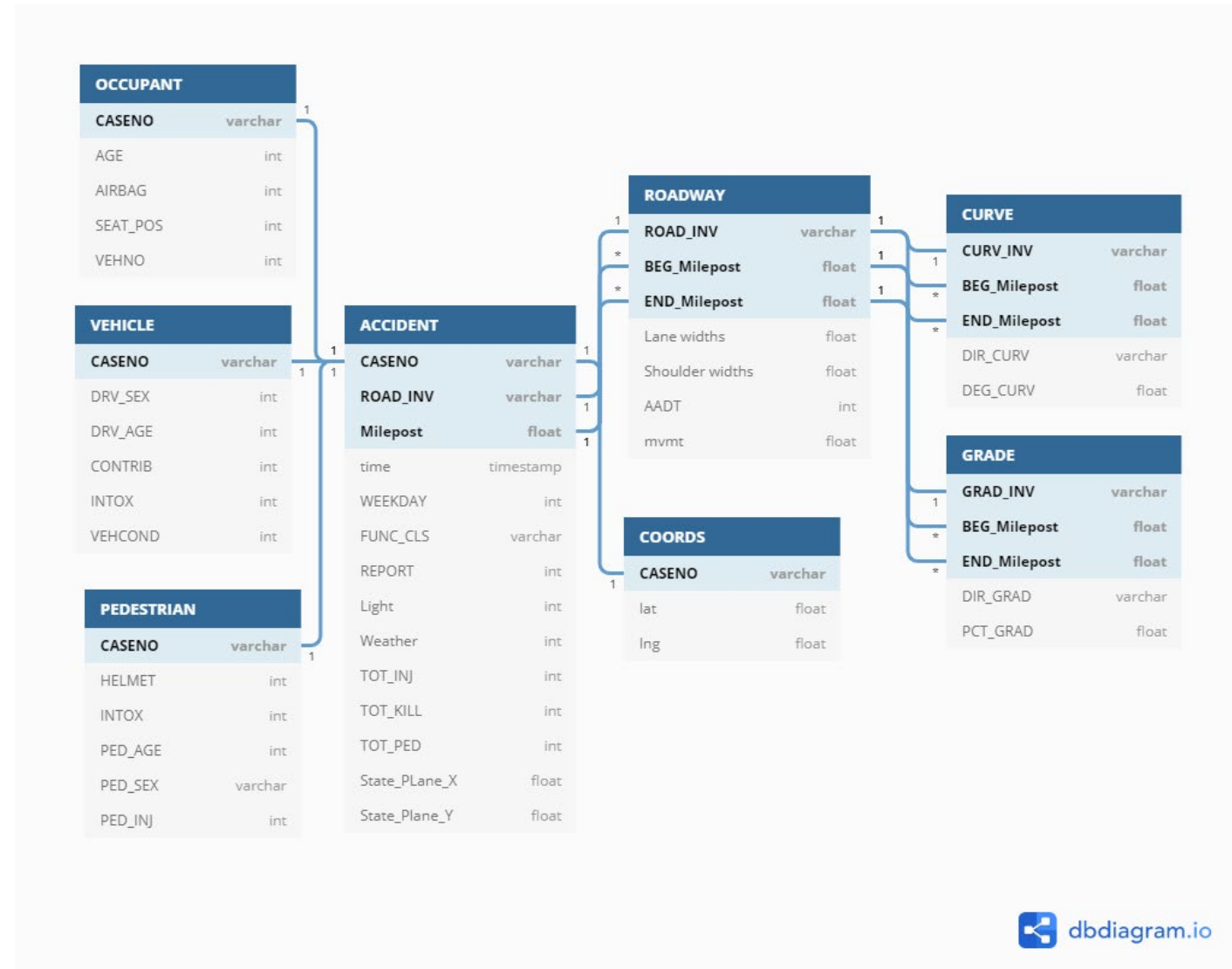
Fatality Rates per 100 Million VMT, by Year and Land Use, 2009–2018



Sources: FARS 2009-2017 Final File, 2018 ARF; VMT – FHWA

Safety Equity Analysis Enhancements - Data

- Collision Reporting
 - Data discrepancies
 - Database Storage

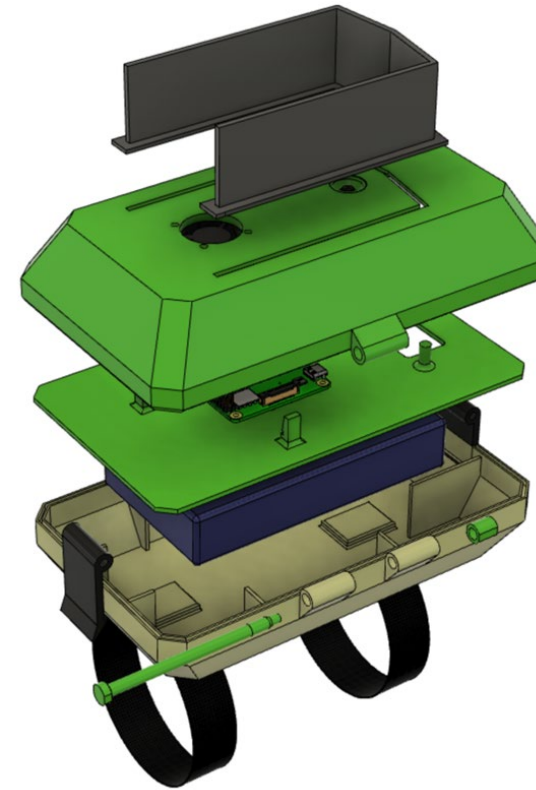


Safety Equity Analysis Enhancements - Data

- Low-Cost Data Collection



MUST Sensing Unit



CTRA Traffic Counter

Safety Equity Analysis Enhancements - Data

- Data Equity Concerns

Income Bracket	Odds Ratio	Representation Ratio
Intercept	0.08968709	0.0000000
Less Than \$10,000	0.25117588	0.1650180
\$10,000 to \$14,999	0.41353887	0.4528046
\$15,000 to \$24,999	0.77978287	0.4367580
\$25,000 to \$34,999	0.97030766	0.4937001
\$35,000 to \$49,999	5.99589433	1.9315133
\$50,000 to \$74,999	1.70480543	0.3367387
\$75,000 to \$99,999	2.16974532	0.4993840
\$100,000 to \$149,999	8.48180961	1.2370952
\$150,000 to \$199,999	13.98075973	3.4849663
\$200,000 or Above	1.00000000	0.1617624

Thank you!

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