



Scalable Risk Assessment Methods for Pedestrians and Bicyclists



U.S. Department of Transportation
Federal Highway Administration



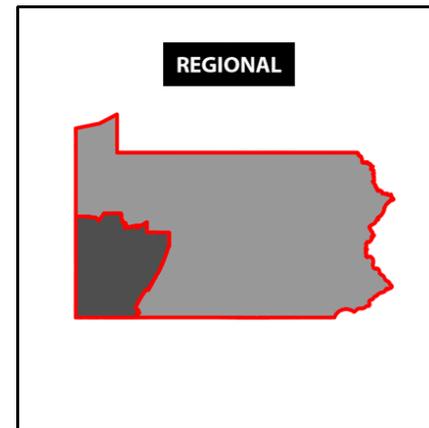
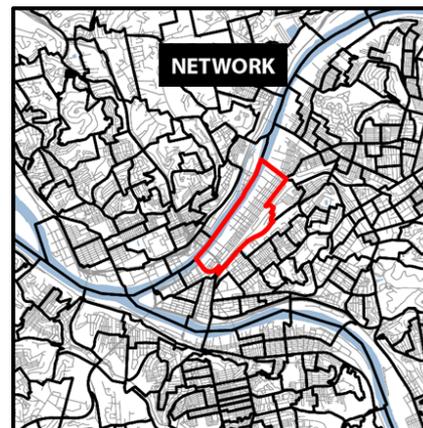
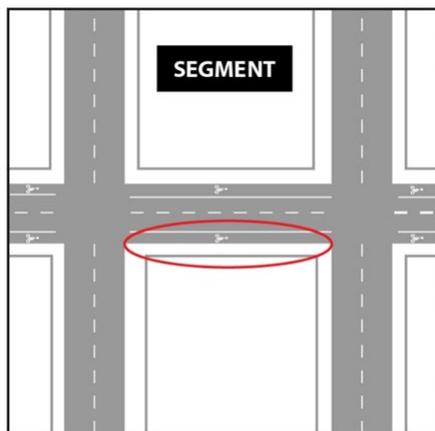
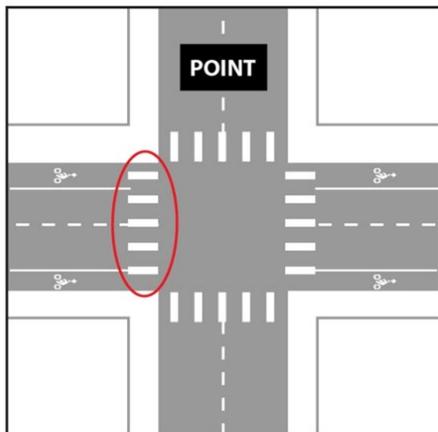
<http://safety.fhwa.dot.gov>

What is Scalable Risk?

→ → → → → **Scalable** → → → → →

Facility-Specific

Areawide



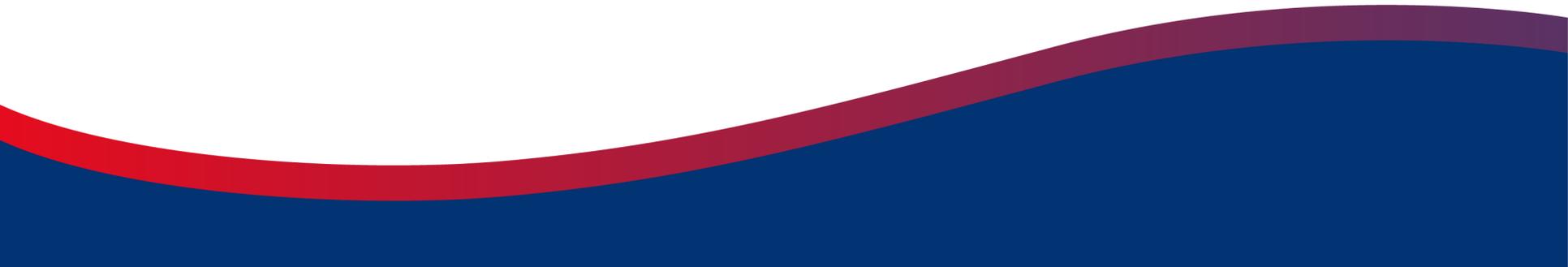
-----Counts-----

-----Travel Surveys-----

-----Estimation Models-----

Risk → Exposure

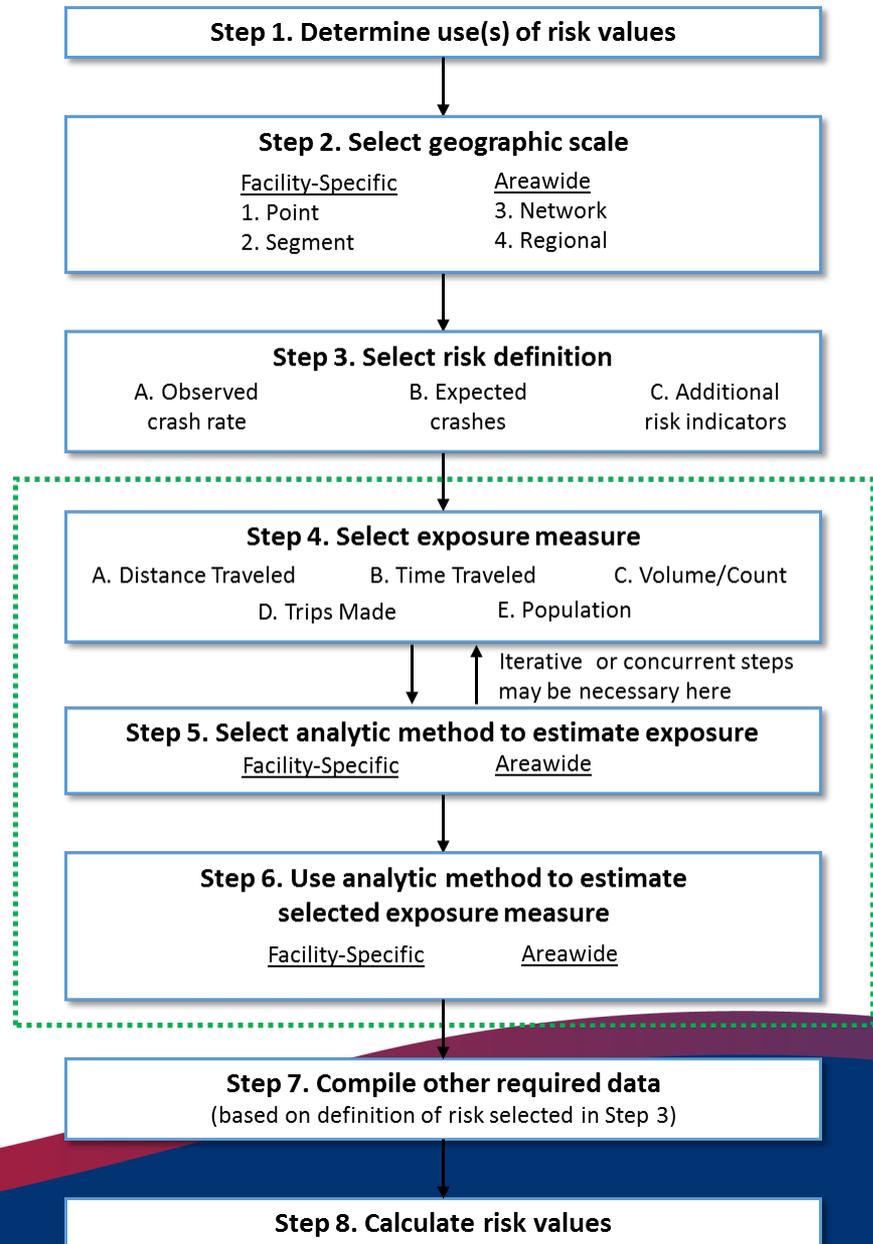
Resources

- Guide: Scalable Risk Assessment (FHWA-SA-18-032)
 - https://safety.fhwa.dot.gov/ped_bike/tools_solve/fhwas_a18032/
 - Spreadsheet tool for statewide and MPO area exposure estimates
 - Phase 1: Synthesis of Methods (FHWA-SA-17-041)
 - https://safety.fhwa.dot.gov/ped_bike/tools_solve/fhwas_a17041/index.cfm
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Tech Assistance

- Working with public agencies to implement parts of Scalable Risk Assessment Methods

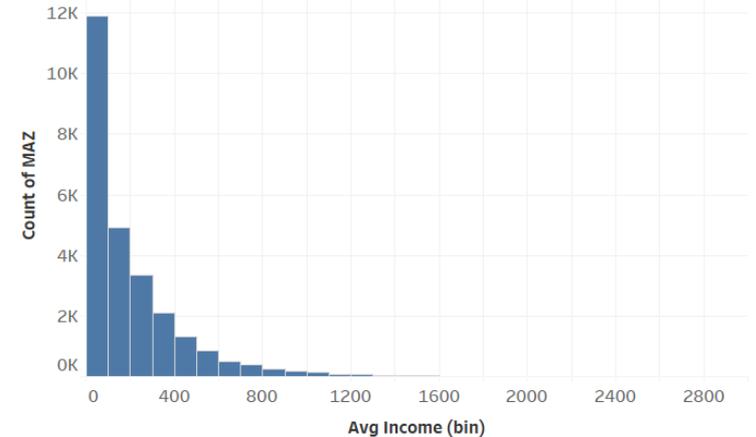
Exposure Estimation Steps (inside dashed box)



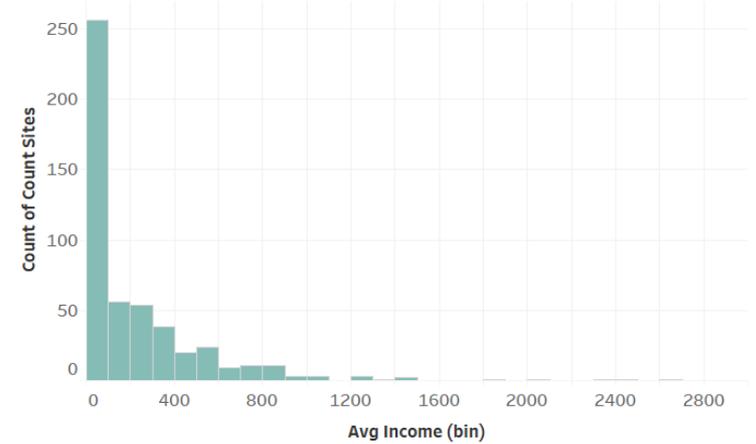
Count Site Representative

- Possible influential variables
 - Population & employment measures
 - Household income
 - Bike/ped infrastructure
 - Transit infrastructure Trip generator proximity
 - Land use
 - Network characteristics

MAZ avg income distribution



Count Site avg income distribution



Next Steps

- MAG Travel Model Data
 - Spatial linkages
 - Proportion calculations
 - Distribution calculations

