#6: TRANSPORTATION MODES & MILES

CORE METRIC FOR CATEGORY **A** & **B** COMMUINTIES; **OPTIONAL** FOR CATEGORY **C** COMMUNITIES

Bold, green font indicates metrics that must improve to be recognized at Step 5

METRICS

- ▪ **Vehicle Miles Traveled**
  - **6.1 All users: Vehicle miles traveled per person, per day**
  - **6.2 Govt. Employees in Single Occupancy Vehicles: Vehicle miles traveled per person, per day (round trip)**
  - 6.3 All users: mean travel time to work (one-way)
  - 6.4 Percent of city or tribal government employees commuting 20 or fewer minutes

- ▪ **Transportation Mode of Commuters**
  - 6.5 Percent who "drove alone"
  - 6.6 Percent using a "carpool"
  - 6.7 Percent using "public transportation"
  - 6.8 Percent who "walk"
  - 6.8a Percent who commuted using "other means"
  - 6.9 Percent who "worked at home"

METRIC DEFINITION

- **VMT (vehicle-miles traveled)** within city or reservation boundaries totals all miles measured and estimated to have been traveled by all road vehicles annually. Normalizing (dividing) this total by a city's population and dividing by 365 gives an average VMT per person per day. (Metric 6.1)

- **Percent of city population and city employees, who commute** to work in fewer than 20 minutes from home roughly captures the extent to which a community has a close and socially/personally beneficial mix of housing and employers, and thus the relative need for roads, transit and other transportation infrastructure like sidewalks. (Metrics 6.3 and 6.4)

- **Transportation modes of commuters** in the community are estimated averages, counting journey-to-work trips by all employed people within the city, 16 years and older. (Metrics 6.5-6.9)

- **Drove alone** includes those using single-occupancy vehicles to commute. (Metrics 6.5)

- **Carpools** include van pools and ride sharing services (taxis, Uber, Lyft). (Metric 6.6)

- **Alternative metrics:** If you have been gathering or want to gather different metrics, report those and explain why they are a better fit for your city. For example, you may want a different commuting time break point – perhaps under/over 15, or 30 minutes, or more than one percentage break point - to better reflect local conditions and commuting factors.

DATA SOURCES

- Regional Indicators Initiative has VMT per person, per day for selected cities, at https://www.regionalindicatorsmn.com/travel-chart (Metric 6.1)

- Annual VMT for all jurisdiction roads (federal, State, county, local) is MnDOT data, http://www.dot.state.mn.us/roadway/data/data-products.html#VMT. Select "VMT by Route System in each City, within

each County." Sum all "Annual (Total) Vehicle Miles" by all "Route System"s in the city. Divide the sum by total city population and divide that by 365. (Metric 6.1)

- City or Tribal mapping data, government employee survey data, timesheet data for employee commuting single occupancy miles and time. (Metrics 6.2 and 6.4)

- Total population commuting by time and percent commute mode is from Census Data: type in table S0801 and type in your city name and then select "Commuting Characteristics by Sex." See the guide to using census data for more help. (Metric 6.3; 6.5-6.9)

- See the Data Collection Process Guide for more sources and optional methods on:
    - Vehicle Miles Traveled
    - Origin-Destination Data
    - Commute Characteristics

METRIC CALCULATION AND PUBLIC REPORTING

- **Report VMT using** the Regional Indicators data or the annual MnDOT data. Use data for a one-year period ending before the GreenStep reporting year. (Metric 6.1)

- **Mean Travel Time to Work** American Community Survey (ACS). Use the latest estimated data before the GreenStep reporting year. Report the number in minutes. (Metric 6.3)

- **Percent of city employees commuting** fewer than 20 minutes from home requires either estimates using employee home addresses and Google Maps or data from an employee survey/timesheet. (Metric 6.4)

- **Travel mode for all commuters** is from the same ACS table that reports commuting time. (Metrics 6.5-6.9)

METRIC RATIONALE

Vehicles are typically a significant expense for individuals, roads are usually a significant expense for city budgets, and vehicle emissions exact documented high health care costs and are a key contributor to greenhouse gases.

Local and tribal governments - through what they directly administer and in what they influence - can lower these transportation costs by providing and incentivizing more transportation options to their residents, businesses, and employees. Data on VMT, commute time and modal split is an essential first step, because it's hard to manage changes in what you don't measure.

STEP 5 METRIC TARGETS

Among the Minnesota Department of Transportation's legislatively delegated authorities and purposes are the goals of: (1) promoting and increasing bicycling and walking as a percentage of all trips as energy-efficient, nonpolluting, and healthy forms of transportation, and (2) reducing greenhouse gas emissions from the state's transportation sector. Supporting these goals are Statewide Health Improvement Program (SHIP) dollars from the Minnesota Department of Health to increase active transportation in communities and work sites.

The Sustainable Transportation Advisory Council recommended a preliminary goal for a 20% reduction in Vehicle Miles Traveled (VMT) statewide by 2050. MnDOT adopted the recommendation, among others, March 2021.

At this point in time GreenStep thinks individual communities are best equipped to set realistic goals for metric improvement, and any improvement in metrics – lower VMT, shorter commutes, mode-shifting away from single-occupancy car use – has clear, quantifiable, and multiple benefits.

LEED FOR CITIES & COMMUNITIES CRITERIA

https://www.usgbc.org/leed/rating-systems/leed-for-cities-communities

TR Prerequisite: Transportation Performance

- Modal Split:

    o Collect and disclose data for one whole calendar year within the last 5 years on modal split showing the percentage of population commuting to work by using the following transportation modes:

        - Walk
        - Bicycle
        - Public transportation
        - Carpool/vanpool
        - Taxicab/transportation network company (TNC)
        - Drive alone
        - Telecommute/work from home
        - Other transportation modes

    o Disclose modal split for travel to other places (e.g., non-work trips, all trips) if available, but document separately from commute modal split.

- Transportation Performance

    o Measure the daily Vehicle Miles Travelled (VMT) per capita for all passenger vehicles within the city. Total VMT must be calculated for one whole calendar year within the last 5 years using either of the following methodologies:

        - Non-traffic count based
        - Traffic count based
        - Transportation modeling software derived

    o Obtain a minimum transportation performance score of 40 (use Arc reporting tool)

NEED HELP? CONTACT

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