



## Travel Demand Model Update

### Overview & Purpose

The Wichita Area Metropolitan Planning Organization (WAMPO) is in the process of updating the Travel Demand Model (TDM) for the region. A TDM is a necessary tool for metropolitan planning organizations to develop long range plans and properly evaluate future projects in the region, as well as ensuring compliance with Federal Highway Administration (FHWA) regulations. The purpose of the model is to provide a picture of existing and future travel in the region and the demand it places on the road, sidewalk, bike-path, and public transportation networks. The model also helps decision-makers understand how well future or proposed transportation projects will serve the needs of the region.

JEO Consulting Group and Caliper Corporation were hired to work with the WAMPO project team to update the TDM. The update project kicked off in October 2022 and will conclude in Spring 2024.

Travel demand modeling helps answer questions such as:

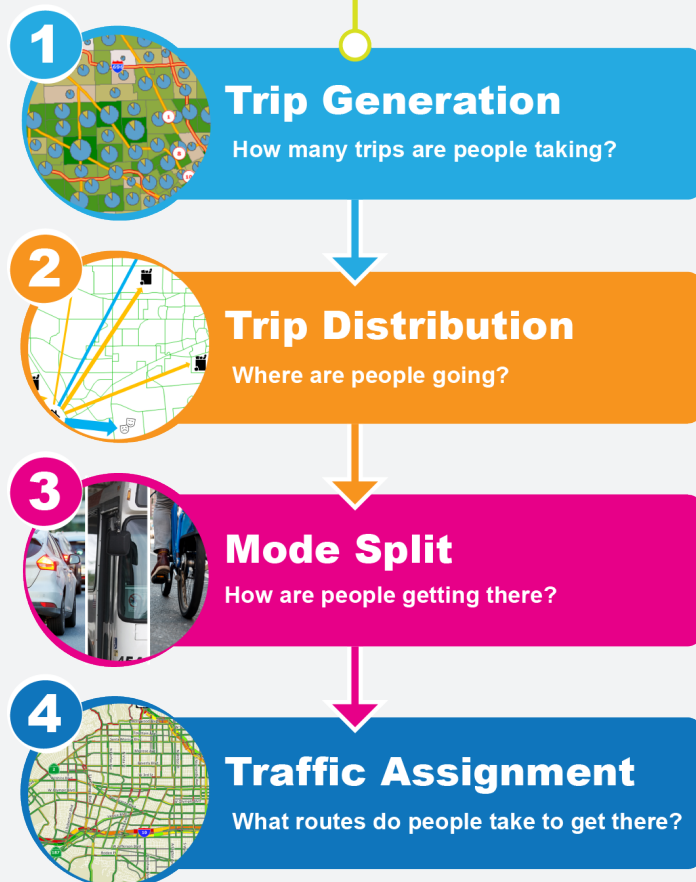
- ? *Which streets will become congested in the future?*
- ? *What transportation projects will best improve the region's modes of future travel?*
- ? *How many people can be expected to use the transportation system in the future, and how will the system be used?*

## Travel Demand Modeling Process

The WAMPO TDM includes a four-step process that helps forecast future transportation system needs.

### Local Data Inputs

- Land Use
- Population
- Employment
- Road, Public Transit, and Bicycle/Pedestrian Networks





## Travel Demand Model Integration into Long-Range Planning

The WAMPO model will be used to provide information on the potential impacts of proposed transportation projects. For example, if a road is found to be congested, meaning more cars are on the road than the road can accommodate, the model can show how much that congestion will be reduced by widening the roadway or providing alternatives, such as highway, transit, or bike/ped improvements. The outcomes of these project types can be modeled, showing how much each will increase or decrease congestion or travel times/distances. This information is used to help decision-makers with the process of selecting and prioritizing future projects.

A travel demand model is a tool; like any other tool, it can only be used for certain purposes and not others. Understanding what the model can and cannot do is important for understanding how it will be integrated into WAMPO's long-range transportation plan, the Metropolitan Transportation Plan (MTP).

### What the model CAN do:

- ☑ Show the impact of road widening/narrowing and road additions/removals
- ☑ Analyze the impacts of transportation plans on the regional transportation system
- ☑ Show the impact of new interchanges on traffic patterns
- ☑ Show the impact of large developments on traffic patterns and the transportation network
- ☑ Forecast corridor volumes
- ☑ Test alternative land use plans
- ☑ Provide input for air quality conformity analysis

### What the model CAN'T do:

- ☒ Simulate traffic for specific sections of roadway or a specific intersection
- ☒ Model small or local roads very accurately
- ☒ Model bottlenecks
- ☒ Show the land use impact of a new road
- ☒ Show the impacts of small developments



For more information on the WAMPO TDM and the update to the model, please reach out to WAMPO staff: **Ashley Bryers** at [wampo@wampo.org](mailto:wampo@wampo.org) or **316.779.1313**.



Interested in receiving updates on the TDM update project? Sign up for our RSS newsfeed at: <https://www.wampo.org/tdm>.

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