In a Nutshell...

• What it looks like
• How does it work
• What does and doesn’t do
• How/whether it can be improved
The Model is Not Much to Look at....
Travel Demand Models

**Inputs**
- Roadway speed, capacity, function, etc.
- Demographic: households, autos, employment types

**Trip Generation**
- Different types of trips
- Also external trips (to/from outside region)

**Trip Distribution**
- Trips go from one place to another
- Factors include time, amount of activity

**Mode Choice**
- MIC Model: No transit
- Auto occupancy a factor

**Traffic Assignment**
- What road to take for trip?
- Somewhat reflects congestion
Inputs: Transportation Analysis Zones (TAZ)

- Land Use/Demographic Data
- Census Data
- Existing and Forecast
- “Building Blocks”
Inputs: Networks

- Functional types
- Speeds
- Capacities
- Area types, etc.
- Volumes, etc. in output files
Trip Generation

- People do various activities
Trip Distribution

- People **travel** to do those activities
- “Gravity model” - activities’ attractiveness based on proximity, size
- Does not include portion of trips outside of region
Roadway Assignment

- Volume on roadways
- Volume/Capacity ratios
- “Select link/zone” who is using roadway
- Growth rates
Types of Project Uses

- Long-range Transportation Plans
- Land use plans/traffic impacts
- Site development
- Construction traffic management
- Corridor studies
- Subarea studies
Other Things

• Peak Period/Hour Model
• Transit Mode Choice Model
• Visitor Traffic Model
• Truck/Freight Model
What’s New in the Industry

• Streetlight Analytics Data
• “Smart” Travel Data Collection
• Dynamic Traffic Assignment
• Parking Destination