



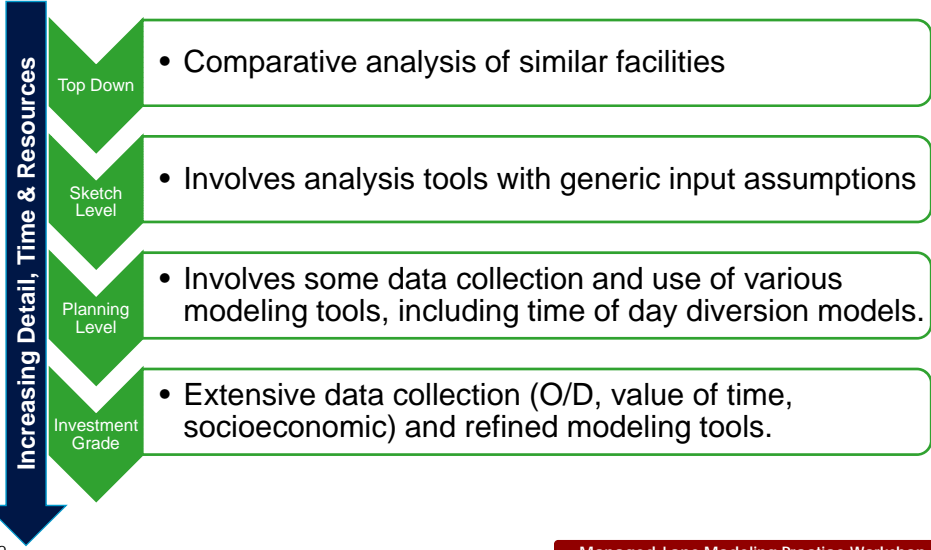
Florida Experience



Josiah Banet
URS/FTE




Types of Traffic & Revenue Studies



- Comparative analysis of similar facilities
- Involves analysis tools with generic input assumptions
- Involves some data collection and use of various modeling tools, including time of day diversion models.
- Extensive data collection (O/D, value of time, socioeconomic) and refined modeling tools.

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Top Down T&R Study

- Compare Roadway Characteristics
 - Number of General Lanes
 - Existing Traffic
 - Future Traffic Estimates
 - Number of Express Lanes
 - Type of Barrier

- Operational Assumptions (HOV, Transit, Trucks, etc.)



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Top Down T&R Study


- Benefits
 - Limited Data Needs
 - Quick Turn Around

- Limitations
 - Not Very Detailed
 - High Level Comparison With An Existing or Proposed Project

- Schedule – 1 month




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Sketch-Level T&R Study

- Use MPO/Regional Demand Model As Is
 - May or May Not Be Period Demand Model
 - Preliminary Access Point Locations
 - Regional Value of Time

- Subarea Time of Day Model
 - Existing Time-of-Day Traffic Distribution
 - Express/General Use Lane Capacities
 - Initial Pricing Policy



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Sketch-Level T&R Study


- Benefits
 - Utilizes Data Sources Readily Available
 - More Corridor Specific Detailed Analysis

- Limitations
 - May Be Using Outdated Input Data
 - Demand Model Likely Not Validated Enough Within Project Corridor
 - General Tolling Assumptions
 - General Access Assumptions

- Schedule – 3-6 months



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Planning-Level T&R Study

- Refined and Re-Validated MPO/Regional Demand Model
 - Update Socioeconomic Assumptions
 - Time-of-Day Period Demand Model
 - Refine Express Lanes Access Points
 - Representative Value of Time For Corridor
- Subarea Time-of-Day Model (Pricing Policy, Capacities, Traffic & Speed Distribution Characteristics)
- Initiate Stated Preference Survey and Corridor O-D Study as Needed
- Initial Operational Analysis of Express/General Use Lanes
- Initiate Risk Analysis

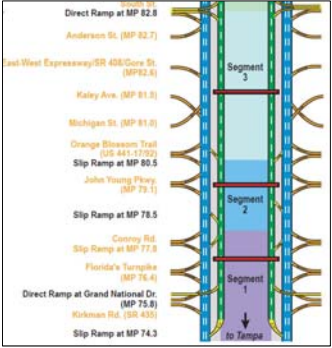
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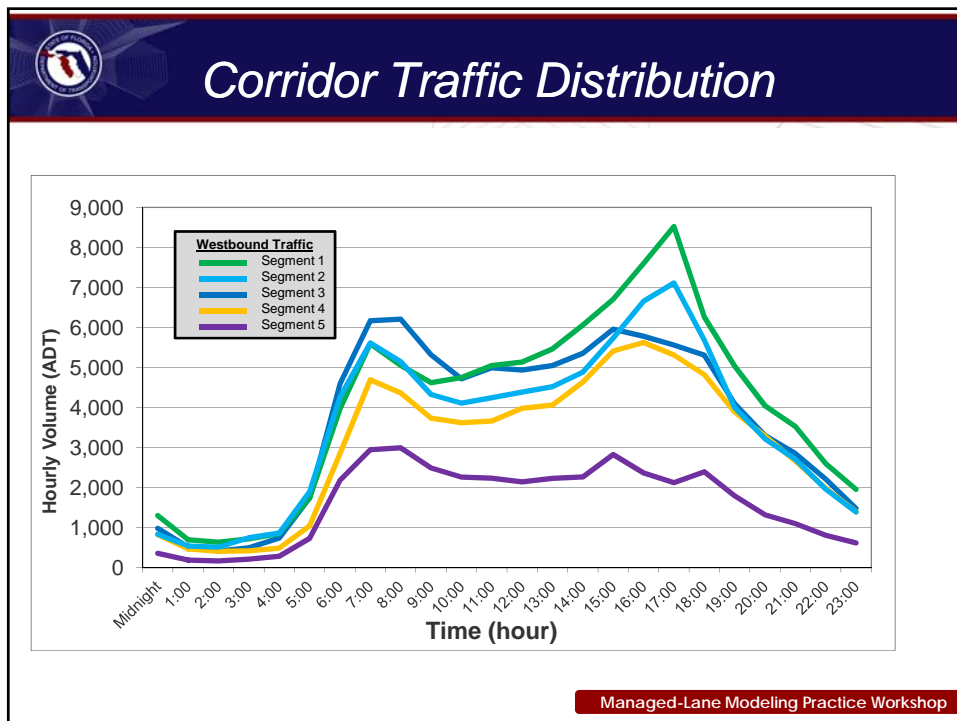
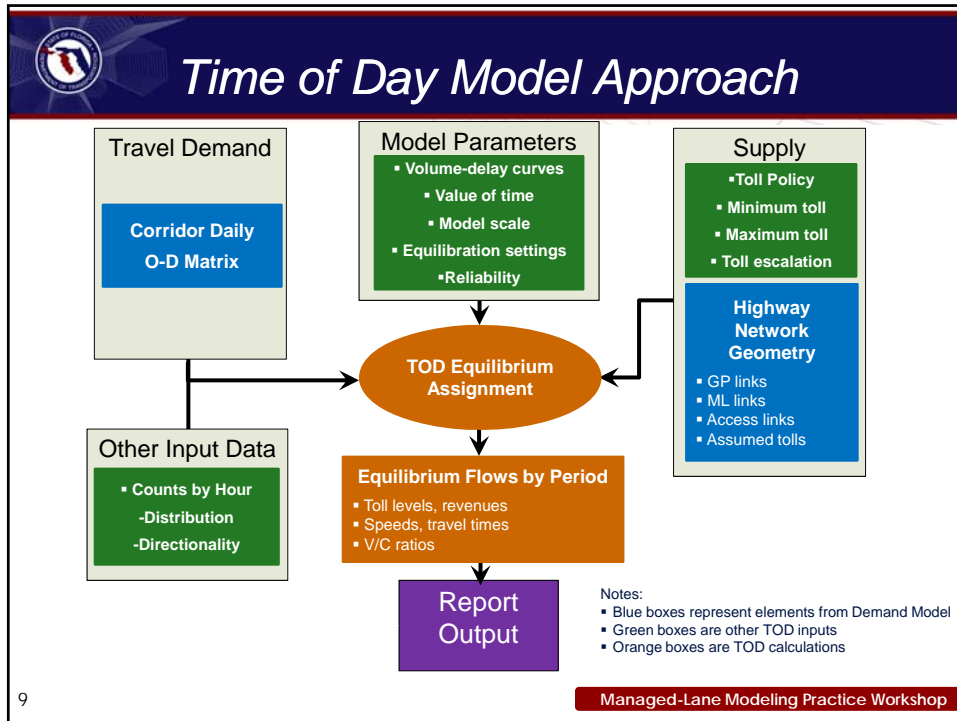
Planning-Level T&R Study

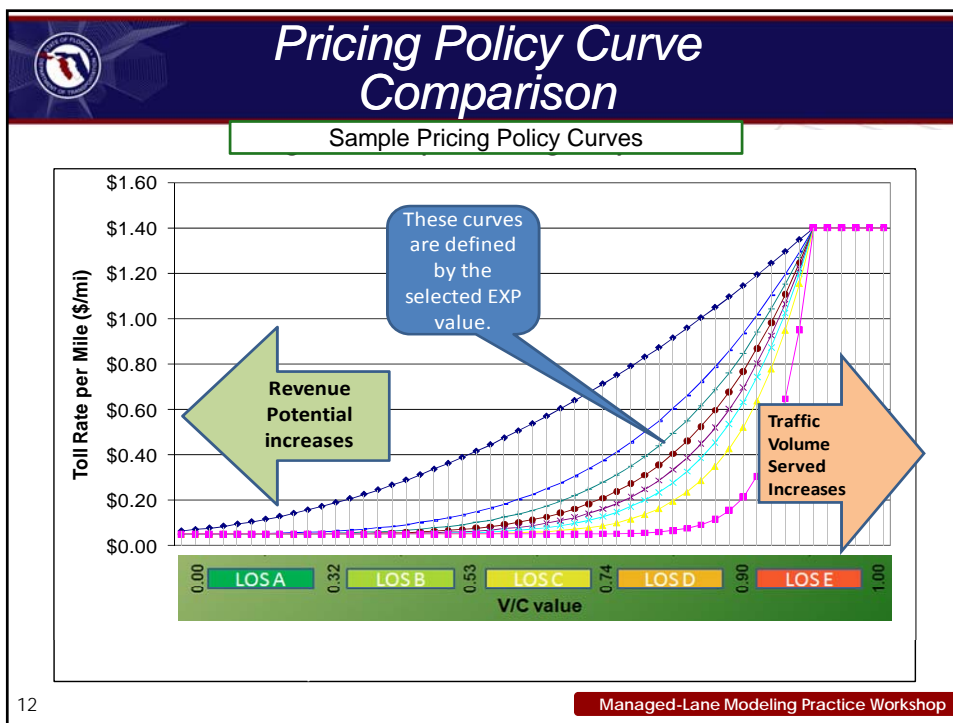
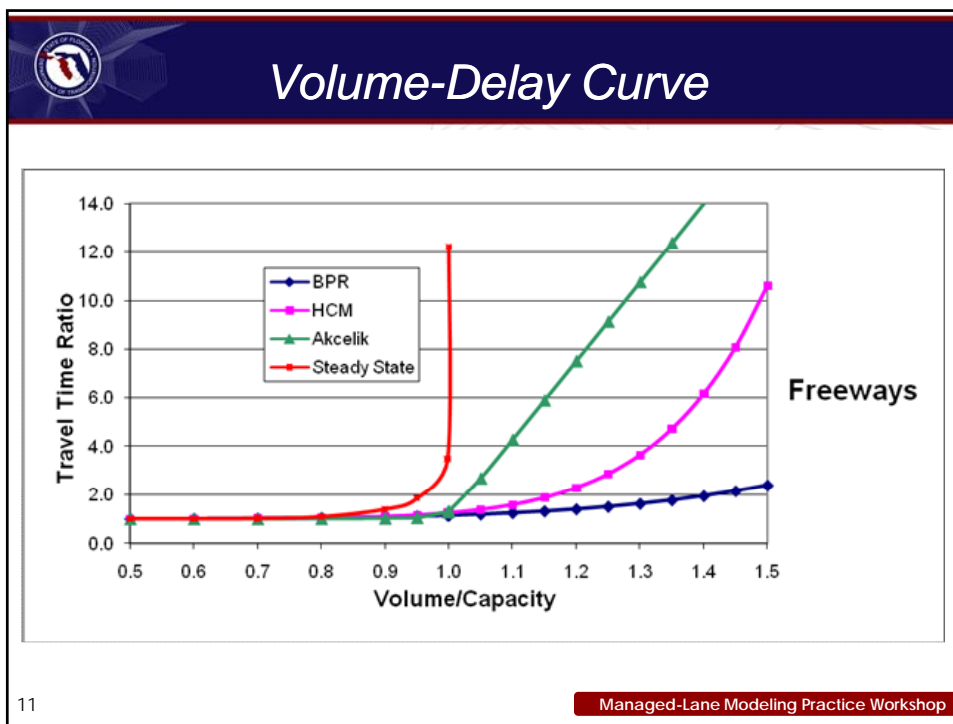
- Benefits
 - Corridor Level Demand Model Validation
 - Time-of-Day Demand Model Outputs
 - Corridor Specific Data
 - Corridor Specific Tolling Assumptions
 - Refined Access Assumptions
- Limitations
 - May Need More Data Related to Corridor Users and O-D Trip Patterns
 - May Need More Detailed Operational Analysis
- Schedule – 6-9 months

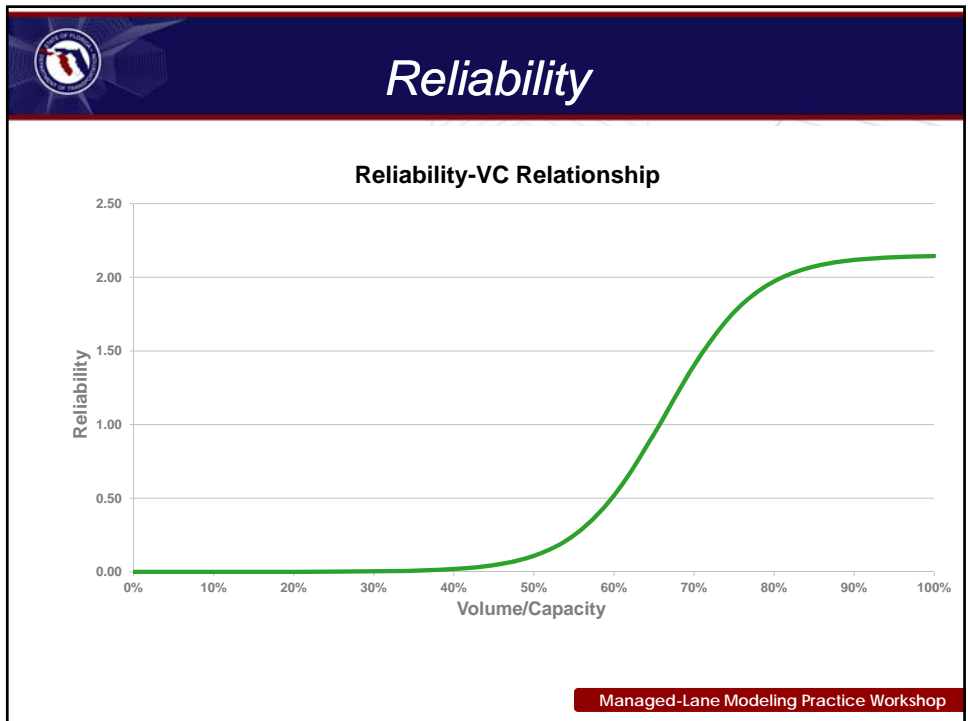
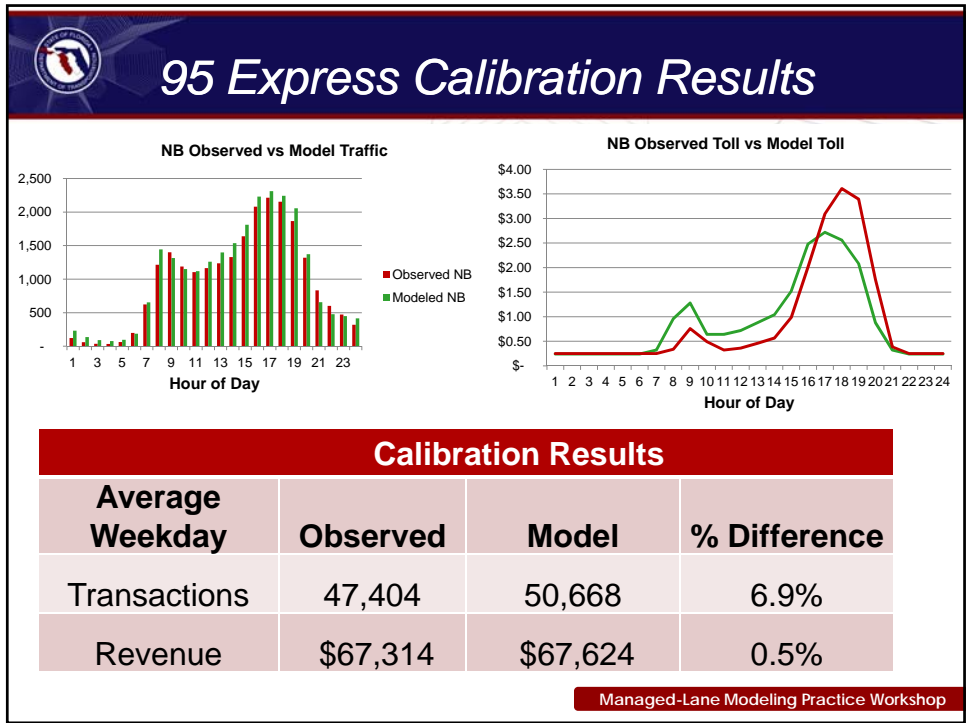



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Investment Grade - Level T&R Study

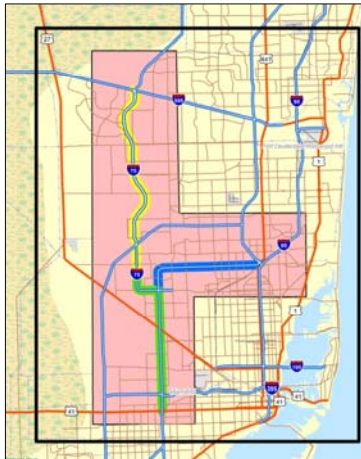
- Refined and Re-Validated MPO/Regional Time-of-Day Demand Model with Updated Socioeconomic Assumptions
 - Refine Express Lanes Access Points
 - Stated Preference Survey for Corridor Specific Value of Time
 - Corridor O-D Study for Corridor Travel Patterns
- Operational Analysis of Express/General Use Lanes Interactions
- Refined Subarea Time-of-Day Model (Corridor Validation, Pricing Policy, Capacities, Corridor O-D Patterns)
- Probability Model (One Forecast)

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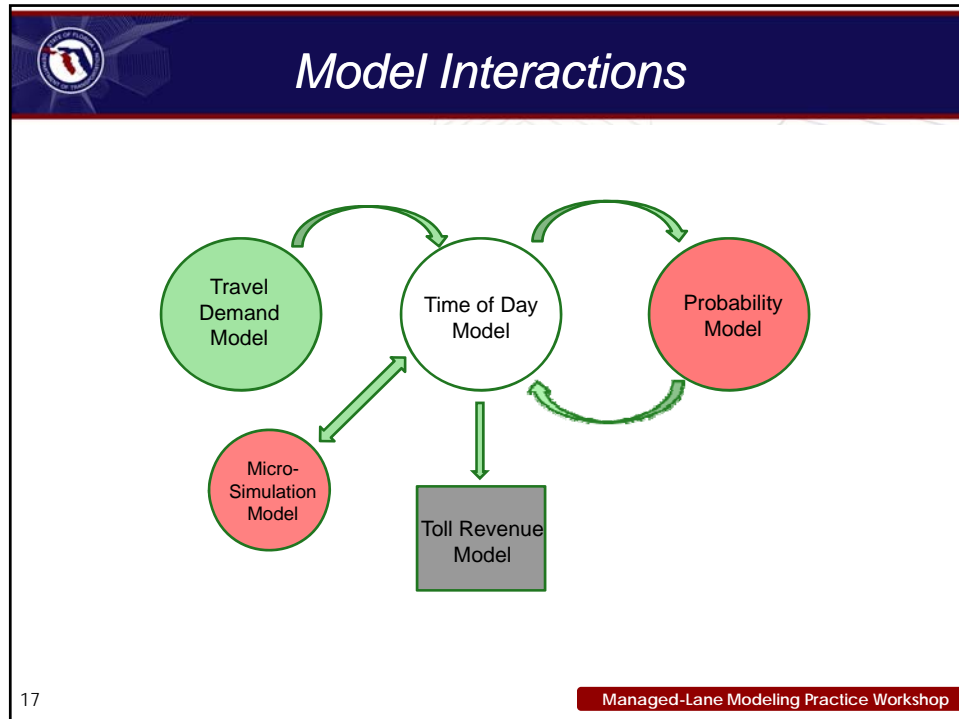


Investment Grade-Level T&R Study

- Benefits
 - Corridor Level Demand Model Validation
 - Time-of-Day Demand Model Outputs
 - Corridor Specific Traffic Data
 - Corridor Specific Value of Travel Time Savings
 - Corridor O-D Travel Patterns
 - Corridor Specific Tolling Assumptions
 - Finalized Access Assumptions
 - Probability Analysis
 - Detailed Operational Analysis
- Schedule – 12-15 months



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Future Enhancements

- Activity Based Models
- Dynamic Traffic Assignment
- Peak Spreading
- Real Time Speed/Traffic Data

An aerial photograph of a multi-lane highway during peak traffic. The road is filled with cars, and the traffic appears to be moving slowly, illustrating the need for future enhancements in traffic modeling.

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