

futureplan



Robert G. Schiffer, AICP, FPC President
Principal Transportation Planner/Modeler

PROFESSIONAL BACKGROUND

Mr. Schiffer is a proven leader in the transportation planning community. He is an acknowledged expert in transportation planning, travel demand modeling, and analysis of travel patterns. Rob has provided leadership and volunteer work for the Transportation Research Board, Institute of Transportation Engineers, and American Planning Association. His experience encompasses transportation planning studies in 28 states and commonwealths for a wide range of clients. He has worked on 33 MPO long-range transportation plans, 30 subarea transportation studies, more than 50 travel demand model updates, and over 60 corridor studies. Rob also serves as National Practice Leader in Travel Demand Forecasting for Metro Analytics.

RECENT MPO LONG-RANGE TRANSPORTATION PLANS

Montgomery MPO 2045 LRTP, Montgomery-Prattville, AL – Primary subconsultant on the Montgomery MPO's 2045 Long-Range Transportation Plan Update. His responsibilities included leading development and validation of a Cube Voyager transportation planning model, incorporating big data on origin/destination (O/D) patterns, applying the model for future conditions, recommending needed future transportation projects and evaluating project performance for prioritization.

Eastern Shore MPO 2045 LRTP, Fairhope-Daphne-Spanish Fort, AL – Primary subconsultant on the Eastern Shore (AL) MPO's 2045 Long-Range Transportation Plan Update. His responsibilities included support on socioeconomic data development, leading an update and validation of the Cube Voyager transportation planning model, incorporating big data on O/D patterns, applying the model for future conditions, recommending needed future transportation projects and evaluating project performance.

Huntsville MPO 2045 LRTP, Huntsville, AL – Sole subconsultant on the Huntsville Area MPO's 2045 Update to their Long-Range Transportation Plan. His responsibilities included updating the Cube Voyager transportation planning model application, refinement and validation of the model, technical support and troubleshooting with MPO staff on use of the model, testing and evaluating long-range transportation projects, and summarizing travel demand metrics.

TRAVEL DEMAND MODELING/ANALYSIS OF TRAVEL PATTERNS

St. Cloud APO Travel Demand Model Improvements, St. Cloud, MN – Project Manager on an update of the St. Cloud Area Planning Organization travel demand forecasting model. Tasks included updating traffic analysis zones; external trips; highway networks; trip generation, distribution, and assignment; post-processing; and model validation. External trips were revised to reflect big data on O/D patterns. Trip generation models were modified from an ITE vehicle trip approach to person trips from NHTS 2017, with the addition of new socioeconomic attributes, a new auto occupancy step, and time-of-day model.

Iowa Statewide Planning Model Update, Iowa Statewide – Project Manager on an update of the Iowa Statewide Travel Model. The first phase of this project was leading a workshop on the model's strengths, weaknesses, opportunities, and threats (SWOT). He subsequently used the SWOT assessment to scope out, recommend, budget, and schedule the model update. He led the addition of new model features, an updated base year model validation, and year 2050 traffic forecasts.

Huntsville MPO Regional Commuter Study, Huntsville, AL – Project Manager for a study focused on identifying regional commuting patterns in northern Alabama and southern Tennessee, using big data O/D analyses with a special emphasis on 40,000 employees of the Redstone Arsenal. The Arsenal is a garrison for the US Army Materiel Command, Army's Aviation and Missile Command, the Missile Defense Agency of the Department of Defense, and NASA's Marshall Space Flight Center. Analysis included commute patterns for different time periods, truck origins and destinations, and a pre- and post-COVID 19 assessment of trip making and temporal distribution patterns.

EDUCATION

- M.S., Urban and Regional Planning, Transportation Specialization Florida State University, 1984
- B.A., Geography and Urban Studies, Memphis State University, 1982 (now University of Memphis)

CERTIFICATIONS

- American Institute of Certified Planners, Since 1987, #040968

EXPERIENCE

- 38 years, transportation planning & travel demand modeling/forecasting
- ✓ 3 years at FuturePlan Consulting
- ✓ 34 years at other consulting firms
- ✓ Located in Tallahassee, Florida

SPECIALIZATIONS

- travel demand modeling, long-range transportation plans, travel behavior & origin-destination travel surveys, site impact traffic studies, forecasting corridor multi-modal travel demand

Walton County Mobility Plan, DeFuniak Springs, FL – Providing travel demand and travel pattern analyses for preparation of a mobility plan and fee for fast growing Walton County in Northwest Florida. He led travel demand modeling and travel behavior analysis using big data on trip O/D patterns along with the Northwest Florida Regional Planning Model.

Metro-South CID Freight Cluster Study, Suburban Atlanta, GA – Supporting a study to develop a freight plan for a Community Improvement District southeast of Atlanta, near the I-285 and I-675 interchange. He assessed alternate big data sources for obtaining truck O/D flows; designed a zone system for data summary; analyzed resulting O/D matrices from ATRI (American Transportation Research Institute); summarized findings; and led desire line mapping of truck flows.

RELEVANT TRANSPORTATION RESEARCH EXPERIENCE

American Planning Association Transportation Planning Division Grant: Comparing Model Forecasts to Traffic Counts, National – Mr. Schiffer recently received a grant from the APA TPD to compare model forecasts from over 20 years ago (many from Florida studies) to actual recent traffic counts. The goal is to identify how well four-step models estimate traffic growth.

FHWA/TRB Joint Expert Meeting: Emerging Trends, Role of Changing Consumer Preference in Mobility – Served as a panelist for a symposium held at TRB's offices in Washington, DC. Vehicle connectivity, on-demand ride services, shared mobility, and vehicle automation were discussed in terms of travel behavior and travel pattern impacts.

NCHRP 08-122: MPO Strategies for Future Success – Assisted with quality control and document review on this research study designed to help Metropolitan Planning Organizations (MPOs) succeed in the 21st-century. The end product is a comprehensive resource to inform and guide the evolving roles and functions of MPOs.

NCHRP 20-44 Right Sizing Transportation Investments – Helped implement alternate economic forecasts into the Iowa Statewide Travel Analysis Model (iTRAM) for use in testing model sensitivity to alternative economic futures. Tools were also added to compute and map user benefits from transportation strategies in support of updating iTRAM for Iowa DOT.

NCHRP 20-125: Incorporating Resilience in Transportation Networks – Supporting research into using travel demand models to assess the resilience of transportation systems, including assessing failure probability of roads under multiphase events; integrating hazard data and risk models with travel demand models for evacuation planning; probabilistic risk and resilience assessment methodologies for bridges; and accounting for uncertainty in travel models.

NCHRP Project 8-36, Task 89 – Evaluating and Communicating Model Results: Guidebook for Planners – Project Advisor on this report to make the modeling process more understandable to planning practitioners and minimize the potential for misinterpretation, misrepresentation, and misapplication of forecasts.

NCHRP Report 735: Long-Distance and Rural Travel Transferable Parameters – Principal Investigator on this study to develop and document transferable parameters for long-distance and rural trip-making for statewide models. The resulting NCHRP Guidebook serves as a supplement to NCHRP “quick response” guidance on urban model parameters and highlights parameter ranges for rural and long-distance trip-making. The study included extensive analysis using the 2008 National Household Travel Survey, 1998 American Travel Survey, and other sources to document key rural and long-distance travel.

NCHRP Report 716: Travel Demand Forecasting: Parameters and Techniques – Project Advisor on this update to NCHRP 365 that queried 69 MPO models and synthesized a set of transferable model parameters for use when locally specific data are not available for model estimation. The parameters presented in this report, largely based on analysis using the 2008 NHTS, are also useful to practitioners who are modeling urban areas that have local data but wish to check the reasonableness of model parameters estimated from such data.

NCHRP Project 8-36, Task 91: Validation and Sensitivity Considerations for Statewide Models – Principal Investigator on this study focused on establishing validation standards and procedures for statewide models, describing common practices, reasonableness, sensitivity, validation, modal issues, freight integration and integrated transportation/land use models. Documentation on nearly every available statewide model within the U.S. was obtained to identify typical model inputs, outputs, and results.

NCHRP Project 8-36, Task 70: Scoping Study for Statewide Travel Forecasting National Model – As Principal Investigator, Mr. Schiffer prepared specifications for developing a national travel demand forecasting model to assist states in estimating external freight and passenger trip flows for use in statewide models.

TRB Transportation Research Circular E-C075, Statewide Model Peer Exchange – Co-author of this Research Circular that summarized a 2004 Statewide Model Peer Exchange. The Exchange included a series of presentations by different states and consultants that featured each statewide model and discussed how statewide models could be improved in the future. He is now assisting with an updated peer exchange planned for 2022.

CORRIDOR/SUBAREA STUDIES

Madison County Transportation Master Plan, Huntsville, AL – Using 2045 traffic forecasts, identified missing roadway corridor segments that could reduce forecasted congestion in outlying areas. Ran the model for alternative land use scenarios and a scenario with the recommended future roadway connections and produced a variety of 2045 traffic metrics and visuals.

Treasure Coast Area Mobility Plans: Port St. Lucie, Indiantown, and Palm Beach Gardens, FL – Conducted subarea model extractions of the Activity-Based Southeast Florida and Treasure Coast Regional Planning Models to summarize vehicle-miles traveled and demographic characteristics. Scripting was completed to summarize trip flows for a series of planning districts.

Corridor N Completion Analysis & Impact Study, Meyersdale, PA – For the Southern Alleghenies Planning & Development Commission (SAP&DC), supported use of the Pennsylvania Statewide Travel Forecasting Model to evaluate impacts of constructing the last remaining segments of US 219 in southern Pennsylvania and northern Maryland.

Central Florida Mobility Plans: Oviedo and St. Cloud, FL – Mr. Schiffer is using the new Central Florida Regional Planning Model 7.0 geodatabase to extract subarea model networks, summarize vehicle-miles traveled (VMT) and compute vehicle-miles of capacity for Mobility Plans in Oviedo and St. Cloud. He is also using the CFRPM to identify key demographic characteristics within the two cities for multiple analysis years and has identified analysis districts for additional summaries.

Avalon Park Traffic Impact Study, Daytona Beach, FL – Reviewed the Avalon Park due diligence work previously prepared by the prime consultant to determine if any issues were overlooked based on model results for internal capture. Specifically, reviewed socioeconomic data inputs for the specific zones associated with this development, evaluated the internal roadway network coding (focusing on the centroid connector coding that could affect network access times internal to the project), and evaluated the resulting trip table to confirm what the CFRPM projected for internal capture.

Olympus Sports & Entertainment Traffic Impact Study, Clermont, FL – Provided travel demand modeling services for a traffic impact study of the proposed Olympus Sports and Entertainment development, to be located along US 27 in Lake County, south of Clermont, Florida. Resulting traffic forecasts were used to identify impacts on existing and proposed future roadway corridors. The project required refinement of the CFRPM and coordination with multiple government agencies and representatives of adjacent properties also planned for future development.

I-70 Rocheport Bridge, Missouri DOT – In support of a successful grant application to finance replacement of the I-70 Rocheport Bridge, used the multi-state Institute for Trade and Transportation Studies (ITTS) Southern Highway Interactive Freight Traffic Model (SHIFT) to estimate vehicle-miles traveled (VMT) with and without this bridge under varying scenarios.

Southwest Florida Mobility Plans: Lake Wales, FL and Sarasota County, FL – Using the FDOT District One Regional Planning Model (D1RPM) v. 2.0 to extract subarea model networks, summarize 2015 and 2045 vehicle-miles traveled (VMT) and compute vehicle-miles of capacity for Mobility Plans in Lake Wales and Sarasota County. Lake Wales included analysis of existing and proposed future city limits.

Grissom Parkway PD&E Study, Port St. John, FL – Subconsultant leading travel demand modeling and traffic forecasting on a residential street connecting Cocoa with Titusville, near the Kennedy Space Center. A subarea validation of the Central Florida Regional Planning Model (CFRPM) was conducted to enhance the simulation of available traffic counts prior to forecasting 2045 traffic estimates.

I-95 Maytown Road Interchange Justification Report (IJR), Oak Hill, FL – Subconsultant supporting approval of a proposed new interchange on I-95 in southern Volusia County, Florida. Provided an evaluation of CFRPM forecasts in the vicinity of the interchange and scripted an innovative approach to apply ITE Trip Generation rates to zones located in a large, proposed development adjacent to the interchange. This modification enabled the model to better reflect traffic impact studies.

St. Augustine Mobility Plan and Mobility Fee, St. Augustine, FL – Conducted subarea model extractions of the Northeast Florida Regional Planning (Activity-Based) Model to summarize vehicle-miles traveled and key demographic characteristics within the St. Augustine city limits and surrounding areas of St. Johns County, Florida.