Mr. Spielberg expertise has been gained in over forty years work in research and applied travel forecasting, travel forecasting and transit planning. He directed the research in support of TRB Special Report 288 – State of the Practice in Travel Forecasting -, has served on numerous TCRP project panels, served as principal investigator for two TCRP projects, and served as chair of the TRB Bus Transit Systems committee.

As a consultant to the Federal Transit Administration, Mr. Spielberg conducted reviews of the forecasts of patronage demand prepared in support of applications for funding under the New Starts program. He also prepared a report documenting the projected and achieved costs and patronage for completed projects funded under the New Starts program and prepared draft guidance for conducting the Congressionally mandated Before and After studies of New Starts projects. Mr. Spielberg served in 2005 as Principal Investigator for research into MPO travel forecasting practices in support of a National Academy of Sciences project to document the State-of-the-Practice in metropolitan area travel forecasting (Special Report 288) and served as the principal investigator for TCRP projects B-3 and B-36, both dealing with the demand for passenger transportation services in rural communities. He has developed forecasts of commuter rail patronage for proposed projects in Little Rock AR, Kansas City MO, and Nashville TN. He has conducted transit planning and operational studies in areas as diverse as Aspen, CO; Lexington, KY; and Westchester County, NY. Mr. Spielberg was active in making transportation professionals sensitive to the concepts of Neo-Traditional Neighborhood Development and The New Urbanism. He authored several papers, made numerous presentations at professional meetings and chaired a committee of the Institute of Transportation Engineers that developed guidelines for roadway design in communities to be developed in accord with the principles of The New Urbanism.

Recent Consulting Activity

Mr. Spielberg has served as consultant for a review of proposals for commuter rail service in the Miami-Ft. Lauderdale Corridor in Florida, for a study of long-range transit needs in Fairfax County Virginia, for an NCHRP project to examine the effects of demographic and land use factors on long-range transportation investment needs, for a study of the impact of WMATA Metrorail on tax revenues in Virginia, and for the development of a long-range plan for Bus Rapid Transit in Montgomery County MD.

Comprehensive Transportation Planning

Chair of TMIP sponsored travel demand forecasting peer review panels for Cincinnati (2003), Denver (2003-04), Baltimore (2004-05), St. Louis (2006) and Boise (2007). Participated in and prepared documentation of FTA/FHWA sponsored forum to discuss acceptable methods for travel forecasting (2003). Member of Peer Review Panel for NYMTC model development (1994-2000). Conducted demand analysis for development of Multiple Occupancy Vehicle Emphasis program for the Mid-Hudson region (NY) (1995). Consultant on long-range transportation plan for the Little Rock, Arkansas region with responsibility for concept development and transit elements (1994). Developed work program for the development of a new travel demand model set for the New York metropolitan region (1992). For the Federal Highway Administration prepared a white paper on the applicability of household time and money budget constraints to travel forecasting. Developed, for Metropolitan Washington COG, a budget-constrained direct demand model for non-work transit travel. Managed several large comprehensive urban transportation studies including studies to develop transportation plans and policies for Atlanta GA, Baltimore MD, San Juan PR, Tallahassee FL, York PA and others. Developed route level transit demand estimation models for Buffalo, NY (1990) and Providence, RI (1992). Experience encompasses total system planning -- highway and transit systems analysis. Major focus was on developing techniques for travel projections and systems analysis. Directed the application of models and evaluation techniques for the Baltimore continuing planning program and a major environmental assessment of alternative systems. Conducted reviews (1979 and 1990) of state-of-the-art in transportation

modeling for Baltimore Regional Planning Council. Directed a study of feasibility of high-speed rail service in the Atlanta-Macon Corridor.

Transit System Planning and Alternatives Analysis

Directed travel forecasting for analysis of proposed Downstate Commuter Rail (Delaware) (2004). Conducted study for FTA of projected and achieved values for New Starts ridership, capital cost and operating cost (2002). Project manager Charlottesville VA TDP (2004), for collection and analysis of WMATA bus passenger data related to analysis of proposed light rail alternatives in the District of Columbia (2004), for Route 1 Corridor Bus Studies in Northern Virginia (2001), Comprehensive Transit Operations Analysis, Westchester County, NY (2000); Transit Development Program for Rockland County, NY (1999); Transit Service Needs Assessment for New Castle County, Delaware and Cecil County, Maryland (1995-97). Participant in studies in support of the Kansas City Metropolitan Transit Initiative (1999) and the Commuter Rail Feasibility Studies (2001). Provided on-call technical support on a range of transit planning topics to the Mass Transit Administration, Maryland (2000). Provided assistance to Chesterfield County, VA, for development of new transit services implemented in 2001. Provided task order based transit planning services to DelDOT Planning from 1996 through 1999. Tasks have included planning of transit services related to I-95 reconstruction, site location studies for a DART First State Maintenance Facility and analysis of Park-Ride needs. Directed analysis of functional needs for DART First State local bus operations and intercity bus operations as part of planning studies for the Wilmington DE train station area. Provided task order-based transit planning and analysis services to Tidewater Regional Transit, Norfolk, VA (1997-2000). Directed study of downtown transit center and parking garage in Poughkeepsie, NY (1991). Conducted Case Studies and participated in handbook development for TCRP B-6, Improving Transit Connections for Enhanced Suburban Mobility (1995-96). Principal investigator for Transit Cooperative Research Project on Demand Forecasting for Rural Passenger Transportation (1993-94). Provided assistance to UMTA in review of Alternatives Analysis projects (1990-1995). Consultant on development of strategic transit plans for Eau Claire, Wisconsin and Pocatello, Idaho (1994). Directed preparation of Statewide Public Transportation Needs Assessment and Action Plan for the Arkansas Governor's Task Force on Public Transportation (1991-92). Project director for Westchester County, New York, Year 2010 Strategic Transit Plan (1993). Directed feasibility analysis for downtown shuttle, Colorado Springs, CO (1990). Conducted analyses of Potomac River High Speed Ferry Service (1988 and 1999). Directed development of Prince William County, Virginia, Six Year Transit Development Plan (1988-89). Directed feasibility analysis of passenger rail service, Little Rock, Arkansas (1987). Directed travel demand element of Alternatives Analysis for Indianapolis (1985). Consultant on demand analysis for Denver RTD Systems Planning study (1984) and Corridor Technology Assessment (1985). Directed Alternatives Analysis for Madison WI (1981) and detailed operations transition analysis (1985). Developed suburban service transit demand model and budget analysis software for Henrico County, Virginia (1986). Directed Net Income Analysis Studies for the Washington Metropolitan Area Transit System (WMATA), 1971 and 1974. Directed transit systems planning study in San Juan, PR (1974). Responsible for patronage reasonableness analysis and corridor identification, transit systems long-range study in Denver CO (1984). Project manager for UMTA study of Dual-Mode Transit, Orange County CA (1974).

Bus Maintenance

Directed FTA study of bus maintenance needs and developed facility-planning guidelines. Directed development of Capital Facilities Plan for Southeastern Pennsylvania Transportation Authority (SEPTA). Conducted for WMATA analysis of costs

of a proposed closing of the Northern Garage. Provided transit needs analysis for design of bus maintenance facility, Fairfax County, Virginia. Prepared functional plan for transit maintenance facility, Prince William County, VA. Responsible for maintenance contracting analysis, Mississauga, Ontario. Conducted assessment of bus storage and maintenance functional needs and alternative facility site evaluation, El Dorado County, CA and Hickory, NC. Co-author of TCRP Synthesis on Regulatory Impacts on Design and Retrofit of Bus Maintenance Facilities.

Transportation Systems Management (TSM)

Directed market research and marketing program development for Transportation Management Program in the Cross-Westchester Expressway Corridor, Westchester County, NY (1990). Directed Market Research elements of a Suburban Mobility Study, Little Rock, AR (1991). Prepared strategic plan for the Greater BWI Commuter Transportation Center (1989). Directed SG work on Federal Highway Administration research project on "Integrated Traffic Operations Systems". For the Office of the Secretary of Transportation directed a study of the effectiveness of alternative strategies for affording priority to high-occupancy vehicles. On FHWA research project, developed model for predicting transit and carpool demand for implementation of Reserved Freeway Lane. As part of DOT carpool/vanpool program at time of 1973-74 energy crisis evaluated carpool matching procedures and programs. Participated as lecturer in Carpooling seminars for industry sponsored by the Highway Users Federation.

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Education

University of Pennsylvania, B.S. in Civil Engineering
University of California at Berkeley, M.S. in Civil Engineering

Publications

"Evaluation of Data Requirements for Continuing Transportation Planning," Transportation Information Systems and Data Requirements Committee, Highway Research Board, January 1971.

"Analysis of Travel Peaking," co-authored with R. Easler and W. Ockert, Highway Research Record No. 369, 1971.

"An Analysis of the Need for Goods Movement Forecasts," co-authored with D. Fresco ad G. Shunk, Proceedings of the American Society of Civil Engineers, Vol. -98, No. -UPI, July 1971.

"Use of Census Data in Transportation Planning," ITE Committee Report.

Contributor to section on "Models in Transportation," A Guide to Models in Governmental Planning and Operations, U. S. Environmental Protection Agency, August 1974.

"Transportation Improvement Programs Using Road Pricing, A Preliminary Analysis for Madison, Wisconsin," The Urban Institute, November 1976.

"Impact of Reductions in Metrorail Extent on Patronage, Revenue and Operating Costs," Washington Metropolitan Area Transit Authority, September 1976.

"Auto Restricted Zones for North American Cities," Presented at the Institute of Transportation Engineers Annual Meeting, Mexico City, 1977.

"Procedures for Demand Forecasting Subject to Household Travel Budget Constraints," co-authored with James McLynn, prepared for the FHWA conference on Application of New Concepts in Travel Forecasting, April 1978.

"Systematic Procedure for Analysis of Bus Garage Locations," co-authored with M. Golenberg, Transportation Research Record 746, 1980.

"The Shape of the 1980s: Demographic, Economic and Travel Characteristics," with E. Weiner and U. Ernst, Transportation Research Record 807, 1981.

"Service and Supply Trips at Federal Institutions in the Washington, D.C. Area," with S. Smith, Transportation Research Record 834, 1981.

"The Planner's Role in Urban Goods Movement" in Goods Transportation in Urban Areas -- GUTA IV. Proceedings of the Fourth Engineering Foundation Conference, U. S. Department of Transportation, January 1982.

"Issues in Strategic Planning," Transportation Research Board Special Report 201, Travel Analysis Methods for the 1980s, 1983.

"Garage Location for an Urban Mass Transit System," with M. Ball, A. Assad, L. Bodin and B. Golden, Transportation Science, Operations Research Society of America, Volume 18, No. 1, February 1984, pp. 56-75.

"Employer Participation in Transit Passes," Innovative Public-Private Sector Resource Management in Public Transportation, U.S. Department of Transportation Report No.: DOT-I-85-17, Washington, D.C., 1985, pp. 149-156.

"The Implications of Demographic Change on Transportation Policy," with S. Andrle in Journal of the American Planning Association, Volume 48, No. 3, Summer 1982.

"The Fare Cutter Card: A Revenue-Efficient and Market-Segmented Approach to Transit Pass Pricing," with R. Oram and V. Milione, Transportation Research Record 947, 1983.

"The Next Ten Years," presented at the 1985 Meeting of the Institute of Transportation Engineers, New Orleans, Louisiana.

"How Citizen Associations View Developers' Offers of Innovative Transportation Solutions," presented at the Conference on Innovative Financing for Transportation, Fredericksburg, Virginia, December 1985.

"Demographics of the Elderly as Related to Transportation Needs," Transportation Research Board, Human Factors Workshop, January 1986.

"Estimating Small Area Public Transit Use By Direct Survey," with S. Andrle, R. Hitlin and E. Barber, Transportation Research Record 1144, 1987.

"A Comparison of Telephone and Door-to-Door Survey Results For Transit Market Research" with R. Hitlin, E. Barber and S. Andrle, Transportation Research Record 1144, 1987.

"Some Thoughts on Suburban Transportation," Journal of the Institute of Transportation Engineers, February 1987, pp. 23-25.

Parking Analysis for Main Street, presented at Conference on Main Street Planning, Maryland Chapter, American Planning Association, Bel Air, Maryland, May 1988.

"Future Patterns of Urban Development," presented at the Transportation Research Board Conference on Year 2020 -- A Look at the Future, Washington, D.C., 1988.

"Traditional Neighborhood Development -- How Will Traffic Engineers Respond," Journal of the Institute of Transportation Engineers, September 1989.

"Traditional Neighborhood Development: How Are Traffic Engineers Responding?", Compendium of Technical Papers, 60th Annual Meeting, Institute of Transportation Engineers, August 1990.

"Lessons from the Broome County Distance-Based Fare Demonstration: Effects of Zone Fares and Off-Peak Discounts on Ridership, Revenue, Pass Sales, and Public Opinion," with Steve Andrle and Janet Kraus, Transportation Research Record 1297, 1991.

"What Did You Do For Lunch Today? Midday Activities of Downtown Workers," Transportation Research Record 1349, p. 115, Transportation Research Board, Washington, D.C.

"Development of a Strategic Plan for the Greater BWI Commuter Transportation Center," Association for Commuter Transportation TMA Summit, Williamsburg, Virginia, November 1992.

Traffic Engineering for Neo-Traditional Neighborhood Design, Technical Council Committee 5P-8, Institute of Transportation Engineers, Washington, DC, February 1994.

"Introduction to the New Urbanism," Institute of Transportation Engineers Conference on Transportation and the Environment, La Jolla, CA, March 1994.

"Transportation Planning; Past, Present and Future," presented at the Forum of the National Endowment for the Arts -- The Mayors Institute on City Design, Charlottesville, Virginia, April 28-30, 1994.

"Evidence of the Effectiveness of Employer Sponsored Transportation Fairs," American Public Transit Association, Bus Operations Conference, Richmond, VA, May 1994.

Abrams, E. and Frank Spielberg, Regulatory Impacts on Design and Retrofit of Bus Maintenance Facilities, Transit Cooperative Research Program, Synthesis of Transit Practice 7, Transportation Research Board, Washington, DC, 1994.

Implementation of a Timed Transfer Network at Norfolk, Virginia,@ with A. J. Becker, Transportation Research Record 1666, p. 3, Transportation Research Board, Washington, DC, 1999.

"*Mating Habits of Slugs: Dynamic Carpool Formation in the I-95/I-395 Corridor of Northern Virginia*," with Phil Shapiro, Transportation Research Record 1711, pp31-38, Transportation Research Board, National Research Council, Washington DC, 2000.

A Query Engine for Graphic Analysis of On-Board Survey Data, with R. Gibson and R. Jagannathan, presented at the Transportation Research Board Planning Applications conference, Portland OR, April 2005

Goldfarb, D. and F. Spielberg, *"Does the Emperor Have Clothes? A Comparative Evaluation of Assignment Techniques"* presented at the Transportation Research Board Planning Applications conference, Portland OR, April 2005

Using GIS-Based Query Engine for Graphic Analysis of On-Board Survey Data, with R. Gibson and R. Jagannathan, presented at the American Public Transit Association Bus Operation Conference, Columbus OH, May 2005

Predicted Costs and Ridership of New Starts Projects Versus Actuals, findings on Capital Cost, presented at the Transportation Research Board, Washington DC, January 2008

Application of Pedestrian Intersection Safety Index in Planning Access to New Rail Stations, Transportation Research Record 2112, Transportation Research Board, Washington DC 2009

Affiliations

Institute of Transportation Engineers, Chair, Committee 5P-08, Traffic Engineering Considerations for Neo-Traditional Neighborhood Design.

Past Member, Transportation Advisory Commission, Fairfax County, Virginia.

Institute of Traffic Engineers, Past Chairman of Planning Applications Division, ITE Department 6, Past Chairman of "Use of Census Data for Transportation Planning."

American Society of Civil Engineers.

Transportation Research Board, past Chair Bus Transit Systems Committee, Past - Member "Urban Goods Movement" Committee.

Congress for The New Urbanism.

Registrations

Registered Professional Engineer in the District of Columbia and California, Virginia, Retired professional engineer in Maryland and California.