

RESUME

NAME James Calvin Williams
Civil Engineering Department
University of Texas at Arlington
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DATE 11 January 2012

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EDUCATION

Ph.D., Civil Engineering, December 1986, University of Texas at Austin

Dissertation: "Urban Traffic Network Performance: Flow Theory and Simulation"
Major course work in transportation systems analysis, traffic system control and operation, statistics, and operations research; with additional course work in computer simulation, geometric design, and pavement design.
Grade Point Average: 3.86 (on a 4.0 scale)

Master of Science, Civil Engineering, December 1977, University of New Mexico

Course work emphasized traffic planning, design, and operation. Also a Masters Problem was completed involving the coordination of traffic signals along a major arterial in cooperation with the City of Albuquerque's Traffic Engineering Division. Dr. Robert L. Bleyl, Dr. Jerome W. Hall, supervising professors.
Grade Point Average: 3.83 (on a 4.0 scale).

Bachelor of Science, Civil Engineering, May 1976, University of New Mexico

Graduated with distinction and departmental honors.
Grade Point Average: 3.66 (on a 4.0 scale).

RESEARCH INTERESTS

Transportation systems analysis, traffic flow theory, traffic system operation and management, highway engineering

EMPLOYMENT

University of Texas at Arlington, September 1986 to present

Positions:	Professor (September 1999 to present) Associate Professor (September 1991 to August 1999) Assistant Professor (September 1986 to August 1991)
Teaching Duties: (current)	Introduction to Engineering (freshman class) Traffic Engineering Operations Traffic Engineering Characteristics Introduction to Transportation Engineering Geometric Design
(historical)	Introduction to Railroad Engineering Traffic Control Systems Traffic Flow Theory Airport Engineering Urban Transportation Planning Introduction to Engineering Design Computer Aided Analysis and Design Civil Engineering Practice (freshman class) Introduction to Civil Engineering (freshman class) Professional Practice Senior Project

University of Texas at Austin, August 1982 to August 1986

Teaching Duties:	Teaching Assistant, Dept. of Civil Engineering Engineering Measurements (Surveying Lab) Transportation Systems
Research Duties:	Dissertation Research Model performance of traffic in urban CBD networks and development of macroscopic relationships between network-level variables and parameters using computer simulation. Dr. Hani S. Mahmassani, Dr. Robert Herman, supervising professors Research Assistant, Center for Transportation Research, August 1982 to August 1984 "Automatic Turning Movement Count System for Signalized Intersections" Dr. Randy Machemehl, supervising professor Texas State Department of Highways and Public Transportation, sponsoring agency

EMPLOYMENT (continued)

Texas State Department of Highways and Public Transportation, January 1978 to August 1982
(Agency's current name: Texas Department of Transportation)

Position: Engineering Assistant to June 1981, Engineer thereafter
Freeway Operations Area, Traffic Engineering Section, Headquarters
Mr. Herman E. Haenel, supervisor

Job Duties: Development of traffic signal patterns for small computer systems (6
to 8 traffic signals)
Department contact and assistant contact person for a variety of
research studies in traffic operations
Freeway capacity studies with recommendations for improving levels
of service
Review of guide signs (existing and proposed) on the urban freeways
in Texas
Design and supervision of a study to determine the effectiveness of
multiple detection for traffic signals
Development of a report which recommends the elimination of
concurrent routing on Texas Interstate Highways
Assisting districts (field offices) in installing and operating highway
advisory radio systems

University of New Mexico, Civil Engineering Dept., August 1975 to December 1977

Graduate Asst.: Assisted in surveying labs and transportation classes, principally
taught the labs for the second semester surveying class (Route
Surveying)

Grader: Statics

Middle Rio Grande Council of Governments of New Mexico, June to August 1976

Asst. to Planner: Assisted in constructing a mathematical model for modal choice in
Albuquerque; primary duty was preparation of data for computer
analysis from the original questionnaires

AWARDS

Faculty Advisor Certificate of Commendation, Committee on Student Activities, ASCE (national), 2011.
Certificate of Appreciation for Outstanding Membership, Fort Worth Section, ITE, 2011.
Engineer of the Year, Texas Society of Engineers, DFW Mid-Cities Chapter, 2010.
Faculty Advisor Certificate of Commendation, Committee on Student Activities, ASCE (national), 2010.
Outstanding Academic Advisor – Honorable Mention, 2006-07, UTA.
Faculty Advisor Certificate of Commendation, Committee on Student Activities, ASCE (national), 2006.
Transportation Engineer of the Year, District 9, ITE (TexITE), 2005
Traffic Jeopardy, member of winning team, TexITE, June 2004
ASCE Faculty Advisor Award, American Society of Civil Engineers (national), 2002
Professional Service to Students Award, Texas Section ASCE, March 2002
ASCE Faculty Advisor Award, American Society of Civil Engineers, 2001
Award of Appreciation for service as president, Texas Section, Institute of Transportation Engineers (TexITE), June 1998
Outstanding Student Organization Advisor, UTA, April 1998
Certificate of Appreciation, Texas Section, American Society of Civil Engineers, awarded for service as the chair of the Student Activities Committee, October 1995
1996 ITS America State Chapters Council Award, presented to the ITS Texas 1995 Board of Directors for “Outstanding Leadership and Excellence in Advancing the Development and Deployment of ITS” (awarded for our outreach program and forums to involve local traffic engineers in the development of the national ITS architecture)
Section Technical Award, Institute of Transportation Engineers, 1990
University Fellowship from the University of Texas, August 1982 to May 1985
Academic Scholarship from the University of New Mexico, August 1972 to May 1976
"Doc" Harrington Scholarship from the Civil Engineering Department at UNM and the New Mexico Chapter of ASCE, 1975-1976 school year
First Place in the Rio Grande Conference (ASCE) Student Paper Contest
Civil Engineering Student of the Year, New Mexico Section of ASCE, 1975-1976
Engineering Student of the Year, New Mexico Society of Professional Engineers, 1975-1976

HONOR SOCIETIES

Tau Beta Pi (engineering honorary)
Faculty Advisor, UTA Chapter, 1989-
Chief Faculty Advisor, UTA Chapter, 1992-
Member, Installation Team, Texas Mu (UTSA), 2 March 2002
President, UNM Chapter, 1975-1976
Corresponding Secretary, UNM Chapter, 1975
Chi Epsilon (civil engineering honorary)
President, UNM Chapter, 1975-1976
Omicron Delta Kappa (leadership honorary)
Phi Kappa Phi (general honorary)
Phi Eta Sigma (freshman honorary)

PROFESSIONAL ACTIVITIES

Registration Professional Engineer, No. 49220, Texas, 26 May 1981

Society & Committee Memberships

American Society of Civil Engineers, Fellow

Member, Committee for Student Activities (national), 2009-2012

Chair, 2010-2011

Member, Rules Committee, National Student Steel Bridge Competition, 2003-
joint ASCE/AISC committee

Vice President (Education) Elect, Texas Section, 2001-2002

Vice President (Education), Texas Section, 2002-2003

Member, Student Activities Committee, Texas Section, 1991-

Chair, 1994-95

Vice-Chair, 1992-1994

Faculty Advisor, UTA Student Chapter, 1992-

Director (1 of 3), Fort Worth Branch, 1992-1993

Institute of Transportation Engineers, Fellow

District/Section Administrator, Texas Section/District, 2001-

Immediate Past President, Texas Section, 1998-1999

President, Texas Section, 1997-1998

Vice President, Texas Section, 1996-1997

Secretary/Treasurer, Texas Section, 1995-1996

Member, Educators Council, 1992-

Member, ITS Council, 1995-

Member, Historic Aspects of Transportation Engineering, 1996-2000

Member, Technical Committee, Texas Section, 1983-2001

President, UT Student Chapter, 1983-1984

Secretary, UT Student Chapter, 1984-1985

Transportation Research Board, Individual Affiliate

Member, Committee on Traffic Flow and Characteristics, 1987-2006

Secretary, 1992-1999

Friend, 2006-

Friend, Committee on Traffic Signal Systems, 1995-

Friend, Task Force on Transportation History, 1999-2002

American Railway Engineering and Maintenance-of-Way Association, Member

American Society for Engineering Education, Member

ITS Texas

Director-at-Large, 1993-1995

Institute of Electrical and Electronic Engineers, Associate Member

PROFESSIONAL ACTIVITIES (continued)

Public Works Historical Society, Member

Society for Industrial Archeology, Member

Other Acted as referee for papers submitted to Transportation Science and ITE, ASCE, and TRB publications

Boards & Committees

Technical Advisory Committee (TAC) of the LBJ Executive Board (LBJEB). The LBJEB developed the conceptual plan for the reconstruction of I-635 between I-35E and US 80 in Dallas. The TAC serves in an advisory capacity to the Executive Board, which is made up of community representatives (no engineers or planners). The Executive Board and the TAC were established by the Dallas District of TxDOT in Spring 1993. The work of the board and TAC was largely complete by mid 1996.

Long-Range Planning Committee of the Special Transit Advisory Board of the City of Arlington (Texas). Formed in mid 1993 and essentially a long-range planning committee for Handitran, the city-subsidized transportation program for handicapped and elderly residents, the activities of the committee have been coordinated with a study sponsored by the North Central Texas Council of Governments examining the potential for transit in Arlington. The committee's work was completed in the spring of 1996.

Task force to establish IVHS Texas as a regional chapter of IVHS America. The task force was formed in September 1992 to identify the requirements established by IVHS America for regional chapters and to write bylaws. The task force was dissolved in November 1993 at the first annual meeting of IVHS Texas. IVHS Texas was renamed ITS Texas in 1994.

Member of steering committee for Dallas ITS (Intelligent Transportation Systems) Early Deployment Study, September 1994 through August 1996. The steering committee was formed by the Texas Transportation Institute and the Texas Department of Transportation to assist in the preparation of an implementation plan for ITS in the Dallas area.

Member of steering committee for Fort Worth Regional ITS Early Deployment Study, beginning in September 1996 and expected to continue through August 1998. The committee was formed by the Texas Transportation Institute and the Texas Department of Transportation to assist in the preparation of an implementation plan for ITS in the Fort Worth area.

Member of the Technical Advisory Panel (TAP) for the Texas Department of Transportation's Research Management Committee 9 (Traffic Operations). The TAP offers advice to TxDOT's research program in the preparation of problem statements and proposal evaluation. The TAP was formed in mid-1996.

REFEREED PUBLICATIONS

- C. Yang, J.C. Williams, S.P. Mattingly, "Microscopic Simulation Model (VISSIM) Calibration for Freeways with Managed Lanes," *Journal of the Eastern Asia Society for Transportation Studies*, Vol. 9, 2011.
- K. Khosla, J.C. Williams, "Saturation Flow at Signalized Intersection During Longer Green Times," *Transportation Research Record* 1978, 2006.
- J.C. Williams, "Macroscopic Flow Models," Chapter 6 of *Monograph on Traffic Flow Theory*, N.H. Gartner, C. Messer, A.K. Rathi, eds., Federal Highway Administration, <http://www.tfhrc.gov/safety/safhome.htm>, 1998.
- S.A. Ardekani, J.C. Williams, "Impacts of Signal Installation at Marginally Warranted Intersections," submitted to *Transportation Research Board*, August 1997.
- S.A. Asante, S.A. Ardekani, J.C. Williams, "A Simulation Study of the Operational Performance of Left-Turn Phasing and Indication Sequences," *Transportation Science*, Vol. 30, Nr. 2, May 1996.
- J.C. Williams, H.S. Mahmassani, R. Herman, "Sampling Strategies for Estimating Network Traffic Flow Characteristics," *Transportation Research, Part A*, Vol. 29A, Nr. 3, 1995.
- S.A. Asante, S.A. Ardekani, J.C. Williams, "Selection Criteria for Left-Turn Phasing and Indication Sequence," *Transportation Research Record* 1421, 1993.
- J.C. Williams, S.A. Ardekani, S.A. Asante, "Motorist Understanding of Left-Turn Signal Indications and Auxiliary Signs," *Transportation Research Record* 1376, 1992.
- S.A. Ardekani, J.C. Williams, S. Bhat, "The Influence of Urban Network Features on the Quality of Traffic Service," *Transportation Research Record* 1358, 1992.
- R.A. Berry, J.C. Williams, "Evaluation of Delay Models for Motor Vehicles at Light Rail Crossings," *Transportation Research Record* 1324, 1991.
- G.-L. Chang, J.C. Williams, "Empirical Investigation of Commuting Decision Rules in a Congested Corridor," *Transportation Quarterly*, Vol. 43, Nr. 3, July 1989.
- G.-L. Chang, J.C. Williams, "Estimation of Independence of Vehicle Arrivals at Signalized Intersections: A Modelling Methodology," *Transportation Research Record* 1194, 1988.
- H.S. Mahmassani, J.C. Williams, R. Herman, "Performance of Urban Traffic Networks," *Transportation and Traffic Theory (Proceedings of the Tenth International Symposium on Transportation and Traffic Theory)*, Nathan H. Gartner and Nigel H.M. Wilson, editors, Elsevier, 1987.

REFEREED PUBLICATIONS (continued)

- J.C. Williams, H.S. Mahmassani, R. Herman, "Urban Traffic Network Flow Models," *Transportation Research Record* 1112, 1987.
- J.C. Williams, "Urban Traffic Network Performance: Flow Theory and Simulation Experiments," Ph.D. Dissertation, University of Texas, December 1986.
- J.C. Williams, "Church, Los Ranchos de Taos" and "Fajada Butte, Chaco Canyon" (photographs), Chaparral, March 1986.
- J.C. Williams, H.S. Mahmassani, R. Herman, "Analysis of Traffic Network Flow Relations and Two-Fluid Model Parameter Sensitivity," *Transportation Research Record* 1005, 1985.
- H.S. Mahmassani, J.C. Williams, R. Herman, "Investigation of Network-Level Traffic Flow Relationships: Some Simulation Results," *Transportation Research Record* 971, 1984.
- C.-S. Wu, C.E. Lee, R.B. Machemehl, J.C. Williams, "Effects of Multiple Point Detectors on Delay and Accidents," *Transportation Research Record* 881, 1982.

PROCEEDINGS, REPORTS, ETC.

- J.C. Williams, S.P. Mattingly, C. Yang, "Assessment and Validation of Managed Lanes Weaving and Access Guidelines," Report 0-5578-1, Texas Department of Transportation, 2010.
- K.O. Obeng-Boampong, L. Ding, R.H. Henk, J.C. Williams, S.P. Mattingly, P. Vo, "An Assessment of Yield Treatments at Frontage Road-Exit Ramp and Frontage Road-U-Turn Merge Areas," Report 0-4986-1, Texas Department of Transportation, 2008.
- S.A. Cooner, S.P. Venglar, Y. Rathod, E.J. Pultorak, J.C. Williams, P. Vo, S.P. Mattingly, "Ramp Reversal Project: Guidelines for Successful Implementation," Report 0-5101-1, Texas Department of Transportation, 2007.
- Jianling Li, Stephen P. Mattingly, Shekhar Govind, James C. Williams, Siamak Ardekani and Richard Cole, "Developing a Comprehensive Pricing Evaluation Model for Managed Lanes," final report, project 4818, Texas Department of Transportation, 2006.
- Jianling Li, Stephen P. Mattingly, James C. Williams, Ardeshir Anjomani, and Theresa M. Daniel, "Projected Changes in Transportation Demand and System Needs," final report, Project 4057, Texas Department of Transportation, 2006.
- Richard W. Denney, Jr., and James C. Williams, "Capacity and Quality of Service of Weaving Areas," NCHRP 3-55(5), final report, November 2005.

PROCEEDINGS, REPORTS, ETC. (continued)

- J. Li, S. Govind, J.C. Williams, S.A. Ardekani, R. Cole, "Assessing Pricing Strategies and Users' Attitudes Towards Managed Lanes," Research Report 4009-1, Texas Department of Transportation, January 2002.
- J.C. Williams, "Numbered Highway Systems in the United States," Proceedings, Fall 2000 Meeting of the Texas Section, American Society of Civil Engineers, Texas Section, ASCE, 2000.
- H.S. Mahmassani, D.M. Valdes, R.B. Machemehl, J. Tassoulas, J.C. Williams, "Integrated Arterial and Freeway Operation Control Strategies for ITS Advanced Traffic Management Systems," Research Reports 1468-1 and Project Summary Report 1468-S, Texas Department of Transportation, September and October 1998.
- R.W. Denney, J.C. Williams, S.L. Cohen, R.M. Roupail, "Capacity and Quality of Service of Weaving Zones, Interim Report," Project 3-55(5), National Cooperative Highway Research Program, Transportation Research Board, National Research Council, February 1998.
- J.C. Williams, S.A. Ardekani, H.E. Haenel, "A Comprehensive ITS Plan for Texas," Research Report Nr. 1447-1F, Texas Department of Transportation, November 1996.
- J.C. Williams, S.A. Ardekani, "Air Quality Impact of Transportation Improvements in the Dallas-Fort Worth Region," North Central Texas Council of Governments, August 1996.
- J.C. Williams, S.A. Ardekani, "Impacts of Traffic Signal Installation at Marginally Warranted Intersections," Research Report 1350-1F, Texas Department of Transportation and Federal Highway Administration, August 1996.
- R.W. Denney, Jr., J.C. Williams, S.C.S. Bhat, "Calibrating NETSIM Using the Two-Fluid Model," Compendium of Technical Papers (Proceedings of the 64th Annual Meeting of the Institute of Transportation Engineers, Dallas), Institute of Transportation Engineers, 1994.
- J.C. Williams, S.A. Ardekani, H.E. Haenel, A. Hedfi, "A Comprehensive IVHS Plan for Texas," Research Report Nr. 1346-1F, Texas Department of Transportation, first draft submitted June 1994.
- R.W. Denney, Jr., J.C. Williams, S.C.S. Bhat, S.A. Ardekani, "Calibrating NETSIM for a CBD Using the Two-Fluid Model," Large Urban Systems -- Proceedings of the Advanced Traffic Management Conference, Sam Yagar, Alberto Santiago, editors, Federal Highway Administration, 1993.

PROCEEDINGS, REPORTS, ETC. (continued)

- J.C. Williams, S.A. Ardekani, S.A. Asante, "Guidelines for the Selection of Left-Turn Phase Sequence and Signal Indications," Compendium of Technical Papers, Institute of Transportation Engineers, District 6 (Western US) Annual Meeting, Las Vegas (Nevada), Proceedings, 1993.
- S.A. Asante, S.A. Ardekani, J.C. Williams, "Selection Criteria for Left-Turn Phasing, Indication Sequence, and Auxiliary Sign," Research Report Nr. 1256-1F, Texas Department of Transportation, February 1993.
- S.C.S. Bhat, J.C. Williams, S.A. Ardekani, "The Influence of Urban Network Features on the Quality of Traffic Service," Final Report, Advanced Research Program, Texas Higher Education Coordinating Board, May 1992.
- R.A. Berry, J.C. Williams, "Traffic Characteristics of At-Grade Light Rail Crossings," Compendium of Technical Papers (Proceedings of the 59th Annual Meeting of the Institute of Transportation Engineers, San Diego), Institute of Transportation Engineers, 1989.
- H.S. Mahmassani, R. Herman, C.M. Walton, M.H. Baaj, S. Govind, C.-C. Tong, J.C. Williams, "Characterizing the Evolution of Urban Patterns and Traffic Network Performance," Research Report GM-1986-F, Center for Transportation Research, University of Texas, November 1986.
- J.C. Williams, J.P. Light, A.C. Mao, "SH 225 FACTS System in Deer Park, District 12: Study and Evaluation," Texas State Department of Highways and Public Transportation, September 1982.
- J.C. Williams, "Concurrent Routes on Texas Interstate Highways," Freeway Operations, Traffic Engineering Section, Texas State Department of Highways and Public Transportation, June 1981.
- J.C. Williams, H.E. Haenel, "Capacity Analysis - SH 358 (Padre Island Drive): Everhart Road to SH 286 (Crosstown Expy.)," Freeway Operations, Traffic Engineering Section, Texas State Department of Highways and Public Transportation, August 1980.
- J.C. Williams, "Traffic Signal Timing on Lomas Blvd.," unpublished Masters Problem report, 1977.

PRESENTATIONS

J.C. Williams, S.P. Mattingly, C. Yang, "Development of Minimum Weaving Lengths for Access to Median HOT Lanes," Transportation and Development Institute (T&DI), Fort Worth Chapter, ASCE, March 2011.

James C. Williams, Kwaku Obeng-Boampong, "Frontage Road Yield Treatment Effectiveness," Fort Worth District, Texas Department of Transportation, workshop presented as part of TxDOT project 4986, 2008.

Gene Hawkins, James C. Williams, "Civil Engineering and Transportation Curricula at Texas A&M and UTA," Dallas Section, Institute of Transportation Engineers, December 2007.

Russell Henk, James C. Williams, "An Assessment of Frontage Road Yield Treatment Effectiveness," Research Management Committee, Texas Department of Transportation, November 2006.

Karan Khosla, James C. Williams, "Saturation Flow at Signalized Intersection During Longer Green Times," Transportation Research Board, Annual Meeting, January 2006.

Stephen P. Mattingly, Phong Vo, Isradatta Rasmidatta, and James C. Williams, "Assessing the Performance of a Statewide Multimodal Transportation System," Transportation Research Board, Annual Meeting, 9-13 January 2005.

J.C. Williams, "Numbered Highway Systems in the United States," American Society of Civil Engineers, Texas Section, October 2000.

R.W. Denney, Jr., J.C. Williams, "Capacity, Density, and Speed in Type A Freeway Weaving Areas," Transportation Research Board, Washington, D.C., January 1999.

J.C. Williams, R.W. Denney, Jr., "On-going Research on Weaving Area Capacity on Freeways," Institute of Transportation Engineers, Dallas Chapter, 12 November 1998.

R.W. Denney, J.C. Williams, "Freeway Weaving Areas: Progress Report," Committee on Highway Capacity and Quality of Service, Transportation Research Board, Summer Meeting, Copenhagen, Denmark, June 1998.

J.C. Williams, R.W. Denney, "Capacity of Weaving Zones on Freeways," Institute of Transportation Engineers, Texas Section (TexITE), Austin, June 1998.

J.C. Williams, "Development of Numbered Highway Systems in the United States," Graduate Seminar, Civil Engineering Department, University of New Mexico, Albuquerque, 26 March 1998.

PRESENTATIONS (continued)

- J.C. Williams, "Development of Numbered Highway Systems in the United States," Fort Worth and Dallas Chapters (joint meeting), Institute of Transportation Engineers, Arlington, 12 March 1998.
- R.W. Denney, Jr., J.C. Williams, "Interim Results: Weaving Areas," Transportation Research Board Annual Meeting, Washington, D.C., January 1998.
- J.C. Williams, S.A. Ardekani, "Impacts of Signal Installation at Marginally Warranted Intersections," Transportation Research Board Annual Meeting, Washington, D.C., January 1998.
- J.C. Williams, "Development of the U.S. Highway System," Institute of Transportation Engineers, Annual Meeting, Boston, August 1997.
- J.C. Williams, "Impact of Marginally Warranted Traffic Signals," ITE Student Chapter, Texas A&M University, College Station, April 1997.
- S.C.S. Bhat, J.C. Williams, S.A. Ardekani, "Effect of Geometric and Control Features of Traffic Networks on Quality of Traffic Service," Transportation Research Board Annual Meeting, Washington, D.C., January 1995.
- J.C. Williams, "Impact of Marginally-Warranted Traffic Signals," Institute of Transportation Engineers, Dallas Chapter, 12 January 1995.
- R.W. Denney, Jr., J.C. Williams, S.C.S. Bhat, "Calibrating NETSIM Using the Two-Fluid Model," Institute of Transportation Engineers, Annual Meeting, Dallas, October 1994.
- J.C. Williams, S.A. Ardekani, "Motorist Understanding of Left-Turn Indications and Signs," Institute of Transportation Engineers, Houston Chapter, April 1994.
- J.C. Williams, S.A. Ardekani, "Decision-Making Guidelines in the Installation of Marginally-Warranted Traffic Signals," Institute of Transportation Engineers, Texas Section (TexITE), winter meeting, Austin, February 1994.
- J.C. Williams, S.A. Asante, S.A. Ardekani, "A Simulation Study of the Operational Performance of the Left-Turn Signal Phasing Design," Operations Research Society of America/The Institute of Management Science, joint fall meeting, Phoenix, November 1993.
- R.W. Denney, J.C. Williams, S.C.S. Bhat, S.A. Ardekani, "Calibrating NETSIM for a CBD Using the Two-Fluid Model," Advanced Traffic Management Conference, Federal Highway Administration, St. Petersburg (Florida), October 1993.

PRESENTATIONS (continued)

- J.C. Williams, S.A. Ardekani, S.A. Asante, "Guidelines for the Selection of Left-Turn Phase Sequence and Signal Indications," Institute of Transportation Engineers, District Annual Meeting, Las Vegas (Nevada), July 1993.
- J.C. Williams, S.A. Ardekani, "Guidelines for the Selection of Left-Turn Phase Sequence and Signal Indications," Institute of Transportation Engineers, Dallas Chapter, July 1993.
- S.A. Asante, S.A. Ardekani, J.C. Williams, "Selection Criteria for Left-Turn Phasing and Indication Sequence," Transportation Research Board, Annual Meeting, Washington, D.C., January 1993.
- S.A. Ardekani, J.C. Williams, S. Bhat, "The Influence of Urban Network Features on the Quality of Traffic Service," Transportation Research Board, Annual Meeting, Washington, D.C., January 1992.
- J.C. Williams, S.A. Ardekani, S.A. Asante, "Motorist Understanding of Left-Turn Signal Indications and Auxiliary Signs," Transportation Research Board, Annual Meeting, Washington, D.C., January 1992.
- J.C. Williams, S.A. Ardekani, "The Influence of Network Service Features on Traffic Service Quality," joint Operations Research Society of America/The Institute of Management Science, Annual Fall Meeting, Anaheim, California, November 1991.
- J.C. Williams, S.A. Ardekani, "Motorists' Understanding of Left-Turn Signals," American Society of Civil Engineers, Texas Section, Fall Meeting, South Padre Island, October 1991.
- R.A. Berry, J.C. Williams, "Evaluation of Delay Models for Motor Vehicles at Light Rail Crossings," Transportation Research Board, Annual Meeting, Washington, D.C., January 1991.
- J.C. Williams, "Quality of Traffic Service in Urban Street Networks," Semana Interdisciplinaria, la Unidad Profesional Interdisciplinaria de Ingeniería y Ciencias Sociales y Administrativas (UPIICSA), México City, November 1990.
- J.C. Williams, R. Herman, "Speed Distributions on a Multilane Highway," joint Operations Research Society of America/The Institute of Management Science Annual Spring Meeting, Las Vegas, Nevada, May 1990.
- G.-L. Chang, J.C. Williams, "Empirical Investigation of Commuting Decision Behavior Under Highly Congested Traffic Systems," joint Operations Research Society of America/The Institute of Management Science Annual Spring Meeting, Washington, D.C., April 1988.

PRESENTATIONS (continued)

- G.-L. Chang, J.C. Williams, "Estimation of Independence of Vehicle Arrivals at Signalized Intersections: A Modelling Methodology," Transportation Research Board Annual Meeting, Washington, D.C., January 1988.
- J.C. Williams, H.S. Mahmassani, R. Herman, "Sampling Strategies for Estimation of Traffic Network Parameters with Individual Vehicles," joint Operations Research Society of America/The Institute of Management Science Annual Fall Meeting, St. Louis, October 1987.
- H.S. Mahmassani, J.C. Williams, R. Herman, "Performance of Urban Traffic Networks," Tenth International Symposium on Transportation and Traffic Theory, Cambridge, Massachusetts, July 1987.
- J.C. Williams, H.S. Mahmassani, R. Herman, "Urban Traffic Network Flow Models," Transportation Research Board Annual Meeting, Washington, D.C., January 1987.
- J.C. Williams, H.S. Mahmassani, R. Herman, "Urban Traffic Network Performance and Flow Relations," joint Operations Research Society of America/The Institute of Management Science Annual Fall Meeting, Miami Beach, October 1986.
- J.C. Williams, "Multiple Loop Detectors at Signalized Intersections," Annual Traffic Engineering Conference, Texas State Department of Highways and Public Transportation, Austin, May 1986.
- H.S. Mahmassani, J.C. Williams, R. Herman, "Sampling Strategies for Estimating Network Traffic Flow Characteristics," Transportation Research Board Annual Meeting, Washington, D.C., January 1986.
- J.C. Williams, H.S. Mahmassani, R. Herman, "Modelling Urban Traffic Network Performance," joint Operations Research Society of America/The Institute of Management Science Annual Fall Meeting, Atlanta, November 1985.
- J.C. Williams, "Modelling Traffic Performance in Networks," invited presentation, Civil Engineering Department, University of Illinois, Champaign-Urbana, September 1985.
- J.C. Williams, H.S. Mahmassani, R. Herman, "Analysis of Traffic Network Flow Relations and Two-Fluid Model Parameter Sensitivity," Transportation Research Board Annual Meeting, Washington, D.C., January 1985.
- J.C. Williams, H.S. Mahmassani, R. Herman, "Development of Network-Level Traffic Performance Models Using Simulation Experiments," joint Operations Research Society of America/The Institute of Management Science Annual Fall Meeting, Dallas, November 1984.

PRESENTATIONS (continued)

H.S. Mahmassani, J.C. Williams, R. Herman, "Investigation of Network-Level Traffic Flow Relationships: Some Simulation Results," Transportation Research Board Annual Meeting, Washington, D.C., January 1984.

J.C. Williams, "Characteristics of Traffic Flow in a Network," Institute of Transportation Engineers, Texas Section, Summer Meeting, Waco, June 1983.

C.-S. Wu, C.E. Lee, R.B. Machemehl, J.C. Williams, "Effects of Multiple Point Detectors on Delay and Accidents," Transportation Research Board Annual Meeting, Washington, D.C., January 1982.

H.E. Haenel, J.C. Williams, "Texas Stand-Alone Arterial Systems," Institute of Transportation Engineers, Georgia Division, Summer Meeting, Jekyll Island, June 1981.

PROPOSALS (funded)

"Assessment and Validation of Managed Lanes Weaving and Access Guidelines," Texas Department of Transportation, PIs: J.C. Williams, S.P. Mattingly, \$213,417, September 2006 - August 2008.

"An Assessment of Frontage Road Yield Treatment Effectiveness," Texas Department of Transportation, PIs: R. Henk (TTI), J.C. Williams, S.P. Mattingly, \$286,813 (total), \$71,166 (UTA's portion), September 2004 - August 2006. This project was extended to August 2007 (an additional year) for \$25,000 (UTA's portion).

"Development of Guidelines for Ramp Reversal Projects," Texas Department of Transportation, PIs: S. Cooner (TTI), J.C. Williams, S.P. Mattingly, \$135,262 (total), \$36,249 (UTA's portion), September 2004 - August 2005. Note: the completion date was extended to February 2006 for an additional \$6,248 (UTA's portion).

"Developing a Comprehensive Pricing Evaluation Model for Managed Lanes," Texas Department of Transportation, PIs: J. Li, S. Govind, S.A. Ardekani, S.P. Mattingly, R.Cole, and J. Williams, \$103,708, September 2003 - August 2004.

"Projected Changes in Transportation Demand and System Needs," Texas Department of Transportation, PIs: J. Li, J.C. Williams, D. Taebel, A. Anjomani, \$216,436, September 2002 - August 2004.

"Planning for Innovative Transportation Technologies," Texas Department of Transportation, PIs: S. Govind, J.C. Williams, S.A. Ardekani, \$220,000, September 2001 - August 2003.

PROPOSALS (funded) (continued)

- “Capacity and Quality of Service of Weaving Areas,” National Cooperative Highway Research Program (NCHRP) Project 3-55(5), PIs: R.W. Denney, J.C. Williams, \$299,829, December 1996 - January 1999. (Note: The UT-System will not sign the NCHRP liability form, I proposed as a consultant to Viggen Corporation.)
- “Air Quality Impact of Transportation Improvements in the Dallas-Fort Worth Region,” North Central Texas Council of Governments, PIs: J.C. Williams, S.A. Ardekani, \$7,500, July-August 1996.
- “Databases for Assessment of Operational Tests and Traffic Models,” Federal Highway Administration, PI: J.C. Williams (for UTA), approx. \$900,000 (Kaman Sciences Corporation is the team leader, UTA’s share: \$59,214), October 1995 - September 1999.
- “A Comprehensive ITS Plan for Texas - Phase 2,” Texas Department of Transportation, PIs: J.C. Williams, S.A. Ardekani, \$15,015, August 1995 - January 1996. (Note: This is an extension of an earlier project, “A Comprehensive IVHS Plan for Texas,” for which TxDOT asked for additional work.)
- “Integrated Arterial Freeway Operation Control Strategies for IVHS Advanced Traffic Management Systems,” Texas Department of Transportation, PIs: J.C. Williams, S.A. Ardekani, \$200,000 (prepared with UT-Austin, UTA’s share: \$100,000), September 1994 - August 1996. Extension to August 1997 funded at \$75,000 (\$25,000 for UTA).
- “The Dallas Area Rapid Transit Personalized Public Transit Operational Test,” Federal Highway Administration, PIs: S.A. Ardekani, J.C. Williams, \$491,560 (prepared with Texas Southern University; UTA’s share of project funds: \$391,560), January 1995 - December 1998.
- “Impacts of Traffic Signals at Marginally Warranted Intersection,” Texas Department of Transportation, PIs: J.C. Williams and S.A. Ardekani, \$61,315, September 1992 - August 1993.
- “A Comprehensive IVHS Plan for Texas,” Texas Department of Transportation, PIs: Sia A. Ardekani and J.C. Williams, \$183,887, January 1993 - August 1994.
- “Network-Level Evaluation of Traffic Control Patterns in the San Antonio Central Business District,” City of San Antonio, PIs: J.C. Williams and S.A. Ardekani, \$111,000, April 1992 - June 1993.
- “The Influence of Urban Network Features on the Quality of Traffic Service (Supplemental),” Advanced Research Program Supplemental Funds (Texas Higher Education Coordinating Board), PIs: S.A. Ardekani and J.C. Williams, \$9,894, June 1991 - December 1991.

PROPOSALS (funded) (continued)

“Selection Criteria for Left-Turn Phasing, Indication Sequence, and Auxiliary Signs,” Texas State Department of Highways and Public Transportation, PIs: J.C. Williams and S.A. Ardekani, \$95,687, September 1990 - August 1991 (extended to February 1992).

“The Influence of Urban Network Features on the Quality of Traffic Service,” Advanced Research Program (Texas Higher Education Coordinating Board), PIs: S.A. Ardekani and J.C. Williams, \$47,300, January 1990 - December 1991 (extended to May 1992), funded at \$50,000.

PROPOSALS (not funded)

“Design and Scope of Impact of Auxiliary Lanes,” Texas Department of Transportation, PIs: Stephen P. Mattingly, James C. Williams, \$249,748, September 2011 - August 2013.

“Synthesis Study of Traffic Signal Systems,” Texas Department of Transportation, PIs: Stephen P. Mattingly, James C. Williams, \$50,000, September 2011 - August 2013.

“Sketch Planning Techniques to Assess Regional Air Quality Impacts of Congestion,” Texas Department of Transportation, PIs: James C. Williams, Stephen P. Mattingly, \$90,567, September 2008 - August 2010.

“Benefits of Public Roadside Safety Rest Areas in Texas,” Texas Department of Transportation, PIs: Stephen P. Mattingly, Siamak Ardekani, James C. Williams, \$175,390, September 2008 - August 2010.

“Development of Guidelines for Triple Left and Dual Right Turn Lanes,” Texas Department of Transportation, PIs: Stephen P. Mattingly, James C. Williams, \$91,122, September 2008 - August 2010.

“Understanding Airspace, Objects, and Their Effects on Airports,” Airport Cooperative Research Program, Transportation Research Board, PIs: Stephen P. Mattingly, James C. Williams, \$199,999, July 2008 - June 2010.

“Guidelines for Ramp Terminal Spacing for Freeways,” Texas Department of Transportation, PIs: Stephen P. Mattingly, James C. Williams, \$258,000, September 2007 - August 2009.

“Integrated Corridor Management (ICM) Tools, Strategies, and Deployment Support,” Federal Highway Administration, Overall PI: Moe Zarean, Iteris, Inc., PI for UTA: James C. Williams, approx. \$800,000 (overall), \$39,000 (UTA’s share), 5 year project to begin in October 2006.

PROPOSALS (not funded) (continued)

- “Development of a Traffic Signal Timing Manual,” Federal Highway Administration, Overall PI: Richard W. Denney, Iteris, Inc., PI for UTA: James C. Williams, approx. \$500,000 (overall), \$10,950 (UTA’s share), submitted in August 2005.
- “Rural Two-Lane Roadway Crash Analysis,” Texas Department of Transportation, PIs: S.P. Mattingly, J.C. Williams, \$224,592, September 2004 - August 2006. [Note: Proposal was sent to the wrong address by the Office of Contracts and Grants and was therefore not considered by TxDOT.]
- “Evaluation of Wind Load on Short Term and Temporary Work Zone Sign Supports,” Texas Department of Transportation, PIs: A. Abolmaali, Yeol Choi (CE post doc), Raul Fernandez (ARRI), J.C. Williams, S.P. Mattingly, \$321,256, September 2004 - August 2006. [Note: Proposal was sent to the wrong address by the Office of Contracts and Grants and was therefore not considered by TxDOT.]
- “Investigation of Control Strategies for the 8 Hour Ozone Standard,” Texas Department of Transportation, PIs: M. Sattler, Tory Chen (IE), John W. Priest (IE), S.P. Mattingly, J.C. Williams, \$248,204, September 2004 - August 2006. [Note: Proposal was sent to the wrong address by the Office of Contracts and Grants and was therefore not considered by TxDOT.]
- “How Effective Will 1-Hour Ozone Controls be for the 8-Hour Standard? What New 8-Hour Controls Will Be Effective?” Texas Commission on Environmental Quality, PIs: Stephen P. Mattingly, Melanie Sattler, Tory Chen, John W. Priest, James C. Williams, \$191,697, 2 years.
- “Development of Freeway Traffic Time Prediction Capabilities in Conjunction with Detector Coverage Analysis,” Texas Department of Transportation, PIs: J.C. Williams, S.P. Mattingly, \$191,303, September 2004 - August 2006.
- “Evaluation and Integration of Texas Airports into the Trans Texas Corridor,” Texas Department of Transportation, PIs: S.P. Mattingly, J.C. Williams, \$79,334, September 2003 - August 2004.
- “Application of Credit-Based Congestion Pricing in Texas: Operational Considerations and Impacts,” Texas Department of Transportation, PIs: S.P. Mattingly, J.C. Williams, S. Govind, M. Sattler, \$255,587, September 2003 - August 2005.
- “Evaluation of Ramp Metering Algorithms,” Texas Department of Transportation, PIs: J.C. Williams, S.P. Mattingly, S.A. Ardekani, \$166,606, September 2003 - August 2005.

PROPOSALS (not funded) (continued)

- “Assessment of Regional Thoroughfares,” North Central Texas Council of Governments, PIs: S. Taylor (Carter & Burgess), R. Denney (Iteris), J.C. Williams, D. Bullock (Purdue), two year period; proposal was turned in in June 2002.
- “Public Sector Benefits of Intermodal Transportation Improvements,” Texas Department of Transportation, PIs: S. Govind, J.C. Williams, \$109,746, September 2002 - August 2003.
- “Creating a Long Range Vision for Traffic Operations,” Texas Department of Transportation, PIs: G. Hawkins (Texas A&M), T.W. Rioux (UT-Austin), J.C. Williams (UT-Arlington), L. Yu (TSU), V. Zaloom (Lamar), \$206,474 (UTA’s share: \$15,508), September 2002 - December 2003.
- “Operating Freeways with Managed Lanes,” Texas Department of Transportation, PIs: J.C. Williams, S.A. Ardekani, S. Govind, J. Li, \$850,000 (proposed with UT-Austin, UTA’s share: \$280,000), January 2001 - December 2003.
- “Improvements to Signal Timing Software,” Texas Department of Transportation, PIs: J.C. Williams, S.A. Ardekani, \$99,385, September 2000 - August 2001.
- “Development of the Texas Freeway System: From the Perspective of the Engineers Who Planned and Built Them,” Advanced Research Program (Texas Higher Education Coordinating Board), PI: J.C. Williams, \$36,100, January - December 2000.
- “An Evaluation of Dallas Area HOV Lanes,” Texas Department of Transportation, PIs: J.C. Williams, S.A. Ardekani, \$217,800, September 1999 - August 2002.
- “Evaluation and Enhancement of Texas Ramp Metering Strategies, Compliance, and Alternative Enforcement Techniques,” Texas Department of Transportation, PI: J.C. Williams, \$175,200 (prepared with UT-Austin, UTA’s share: \$82,000), September 1995 - August 1997.
- “Evaluation of Real-Time, Traffic-Adaptive Signal Control Prototypes,” Federal Highway Administration, PIs (UTA): J.C. Williams, S.A. Ardekani, approx. \$1.1 million (UTA subcontracted to Loral Aerosys, UTA's share: \$92,729.55), January 1995 - June 1998.
- “Compatibility of Design Speed and Posted Speed for Texas Highways,” Texas Department of Transportation, PI: J.C. Williams, \$114,000 (prepared with UT-Austin, UTA's share: \$57,000), September 1994 - August 1995, RFP withdrawn after proposal submitted.
- “Multi-Modal System Planning Evaluation for Peak Period Operation,” Texas Department of Transportation, PIs: S.A. Ardekani, J.C. Williams, \$386,000 (prepared with UT-Austin, UTA's share: \$115,000), September 1994 - August 1996.

PROPOSALS (not funded) (continued)

- “IVHS Operational Test: Travel Demand Management (Emissions Detection),” Federal Highway Administration, PI: J.C. Williams, \$1,563,000 (submitted by National Center for Transportation and Air Quality, UTA's share (CE Dept.): \$150,000), October 1994 - September 1996.
- “A Feasibility Study of High-Speed Rail for D/FW Airport Access Using Alternative Fuel,” Texas Alternative Fuel Council, PIs: J.C. Williams, S.A. Ardekani, \$250,000 (prepared with Airport Access Group), April 1994 - June 1995.
- “Intelligent Vehicle Highway Systems (IVHS) Research Center of Excellence,” Federal Highway Administration, prepared in cooperation with the University of Texas at Austin, PIs (Arlington): J.C. Williams, S.A. Ardekani, \$116,691 (UTA's share of project funds).
- “Determination of Capacity and Level of Service on Freeway Frontage Roads,” Texas Department of Transportation, PI: J.C. Williams, \$160,412, September 1993 - August 1995.
- “Analysis of Institutional Issues Associated with Implementing IVHS in Texas,” Texas Department of Transportation, PIs: J.C. Williams, A. Anjomani, H.E. Haenel, \$101,310, September 1992 - August 1993, RFP withdrawn after proposal submitted.
- “Guidelines for Effective Utilization of Changeable Message Signs for Advanced Management,” Texas Department of Transportation, PIs: J.C. Williams, S.A. Ardekani, G.V. Kondraske, and K. Maxwell, \$82,200, September 1992 - August 1993, RFP withdrawn after proposal submitted.
- “Traffic Strategies to Reduce Urban Fuel Consumption and Emissions,” Advanced Research Program (Texas Higher Education Coordinating Board), PIs: J.C. Williams and S.A. Ardekani, \$97,215, November 1991 - October 1993.
- “Evaluation Tools for At-Grade Light-Rail Operations within Urban Signal Systems,” Texas State Department of Highways and Public Transportation, PIs: J.C. Williams and S.A. Ardekani, \$180,484, September 1991 - August 1993.
- “Modelling Lane-Changing Behavior in Multilane Flow,” Research Enhancement Program (UTA), PI: J.C. Williams, \$4,500, September 1991 - December 1991.
- “Urban Traffic Strategies to Reduce Vehicular Fuel Consumption and Emissions,” Environmental Protection Agency, PIs: J.C. Williams and S.A. Ardekani, \$116,420, September 1991 - August 1993.

PROPOSALS (not funded) (continued)

- “The Influence of Urban Network Features on the Quality of Traffic Service (Supplemental),” Advanced Research Program Supplemental Funds (Texas Higher Education Coordinating Board), PIs: S.A. Ardekani and J.C. Williams, \$15,420, January 1991 - December 1991.
- “Rail Systems: Statistical Profiles,” Urban Mass Transportation Administration (U.S. Department of Transportation), PIs: J.C. Williams and S.A. Ardekani, \$49,470, September 1990 - August 1991.
- “Urban Traffic Strategies to Reduce Vehicular Fuel Consumption,” Energy Research in Applications Program (Texas Higher Education Coordinating Board), PIs: J.C. Williams and S.A. Ardekani, \$88,052, December 1990 - November 1992.
- “Modelling Freeway Lane-Changing Behavior,” Research Enhancement Program (UTA), PIs: S.A. Ardekani and J.C. Williams, \$9,680, January 1990 - August 1990.
- “An Automatic Congestion Control and In-Vehicle Guidance System for Urban Transportation Networks,” Advanced Research Program (Texas Higher Education Coordinating Board), PIs: G.-L. Chang and J.C. Williams, \$112,742, September 1988 - August 1990.
- “Optimal Location of Vehicle Detectors in Computerized Traffic Control Systems,” Research Enhancement Program (UTA), PI: J.C. Williams, \$4,400, January 1988 - August 1988.