

PAUL M. SCHONFELD, PH.D., P.E.

PROFESSOR

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

UNIVERSITY OF MARYLAND

COLLEGE PARK, MARYLAND 20742

PHONE: [301] 405-1954 FAX: [301] 405-2585 E-MAIL: PSCHON@UMD.EDU

PROFESSIONAL REGISTRATION

- ☐ Maryland Professional Engineering License #14013 [1984]

EDUCATION

- ☐ B.S. Civil Engineering, Massachusetts Institute of Technology [1974]
- ☐ M.S. Civil Engineering, Massachusetts Institute of Technology [1974]
Thesis: "Optimization of Urban Transportation Networks"
Advisor: Prof. Nigel Wilson
- ☐ Ph.D. Civil Engineering, University of California, Berkeley [1978]
Thesis: "A Macroscopic Methodology for Transportation Policy Analysis"
Advisor: Prof. William Garrison
Minor areas: Economics and Business Administration

ACADEMIC EXPERIENCE

- ☐ **University of Maryland, College Park, MD**
Assistant Professor of Civil Engineering [1978]
Associate Professor [1984]
Professor [1993]
- ☐ **University of California, Berkeley, CA**
Research Assistant (then Research Specialist) [1975 - 1977]
- ☐ **Massachusetts Institute of Technology, Cambridge, MA**
Teaching Assistant [1972 - 73]

PROFESSIONAL EXPERIENCE (Full-time)

- ☐ **Transportation Engineer, IBM Scientific Center, Cambridge, MA.** Development of simulation, evaluation, optimization, and control techniques for innovative transportation systems, including automated personal rapid transit systems, demand-responsive ride sharing and automatic vehicle location and control, 1973 - 1975.
- ☐ **Student Engineer, General Motors Research Labs., Warren, MI.** Development of evaluation and optimization methods for automated transportation systems, 1972.
- ☐ **Consulting Technician, Peat, Marwick, Mitchell & Company, Boston, MA.** Modal split forecasting for the Boston area, 1971.

PROFESSIONAL AND HONOR SOCIETIES

- ☐ **American Society of Civil Engineers.**
Fellow since August 1994, member since 1983.
Editor, Journal of Transportation Engineering. ASCE Air Transport Division, Feb. 1991 – Oct. 1994.
Chairman, Publications Committee of the Air Transport Division. Feb. 1991 - Oct. 1994. Member since June 1990.
Chairman, Planning Committee of the Air Transport Division. 1996 - 1998. Vice Chairman, 1992 - 1996.
Vice Chairman of Air Cargo Subcommittee. 1986 - 1991. Secretary 1988 - 1992. Member since 1981.
Member of Steering Committee and Proceedings Editor of the 1997 Conference on Aviation Simulation and Modeling.
Chairman, Waterways Committee of the Waterways, Port, Coastal and Ocean Engineering Division. 1996 - 1998. Vice Chairman, 1995 - 1996. Secretary, 1994 - 1995. Member since 1993.
Member, Publications Committee of the Urban Transportation Division. 1991 - 1995.

- ◻ **Advanced Transit Association**
 Associate Editor, then Editor, Journal of Advanced Transportation, since March 1990.
- ◻ **Institute of Transportation Engineers**
 Fellow since January 1998. Member since 1979.
 Chairman, International Committee 6A-26 on Travel Reduction Options. 1981 - 1985. Prepared ITE report on the effectiveness of travel reduction options.
 Chairman, International Committee 6Y-45 on Transportation Demand Reduction Measures, May 1988 - January 1990.
 Faculty Advisor to the ITE Student Chapter at the University of Maryland, 1979 - 1991, 1996 - 2003.
 Chairman, Washington, DC Section Education Committee, 1980 - 1984.
 Chairman, Washington, DC Section Technical Affairs Committee, 1987 - 1988.
- ◻ **Association for International Transportation Technology Exchange**
 Vice President, 1988 - 2000. Responsible for developing transportation courses and cooperative research programs, and for teaching transportation courses in China.
- ◻ **Transportation Research Board**
 Member, Aircraft-Airport Compatibility Committee. 1980 - 1985. Organized and Chaired Aircraft-Airport Compatibility Session at the 1981 TRB meeting.
 Member, Ports and Waterways Committee. 1983 - 1989.
 Chairman, Session 220 on "Network Design and Supply Models," sponsored by the Supply Analysis Committee. January 1990.
 Chairman, Subcommittee on Air Traffic Management Performance. March 1997 - January 2001.
 TRB Representative at the University of Maryland, December 1998 - present.
- ◻ **Operations Research Society of America (now INFORMS)**
 Chairman, Urban Transportation Session, May 1984 ORSA Meeting, San Francisco, CA.
 Chairman, Public Transportation Session, May 1990 ORSA Meeting, Las Vegas, NE.
 Chairman, Public Transportation Session, October 1990 ORSA Meeting, Philadelphia, PA.
- ◻ **IVHS America (IVHS = Intelligent Vehicle Highway Systems)**
 Member, Systems Architecture Committee, 1991-2001.
 Member, Advanced Public Transportation Systems Committee, March 1991-2001.
- ◻ **Tau Beta Pi**
- ◻ **Chi Epsilon**
- ◻ **Sigma Xi**

GRADUATE ADVISEMENT

PH.D. DISSERTATIONS SUPERVISED

1. Shou-min Tsao, "Analysis of Zonal Transit Service," December 1981, (Professor, Civil Engineering Department, National Taiwan University, Taipei, Taiwan).
2. Yi-chin Hu, "Traffic Flow Optimization on Rural Networks," June 1983.
3. Georgine Glatz, "Design and Performance Evaluation of an Attenuating Highway Barrier," December 1988.
4. Osama Sharafeldien, "Hierarchical Traffic Flow Optimization for Congested Networks," December 1988, (Assistant Professor, Civil Engineering Department, George Washington University, Washington, DC).
5. Jason S.K. Chang, "Analytic Optimization of Bus Systems in Heterogeneous Environments," May 1990, (Professor, Civil Engineering Department, National Taiwan University, Taipei, Taiwan).
6. Melody D.M. Dai, "Delay Estimation on Congested Waterways," August 1991, (Associate Professor, Dept. of Transportation Management & Communication, National Cheng Kung University, Tainan, Taiwan).
7. David Martinelli, "Investment Planning of Interdependent Waterway Projects," August 1991, (Chairman, Civil Engineering Department and Director of Transportation Center, West Virginia University, Morgantown, WV).
8. Kurt K.T. Lee, "Transfer Coordination in Transportation Terminals," February 1993, (Associate Professor, Civil Engineering Department, Feng Chia University, Taipei, Taiwan).
9. Louis C.H. Wei, "Neural Network Applications in Priority Programming for Congested Transportation Networks," August 1993, (Chairman, Dept. of Transportation & Communication Management, National Cheng Kung University, Tainan, Taiwan).
10. Henry Lieu, "An Integrated Diversion Control System for Freeway Corridors," December 1993.

11. Chin Chang, "Flight Sequencing and Gate Assignment in Airport Hubs," May 1994, (Associate Professor, Dept. of Transportation Technology & Logistics Management, Chung Hua University, Hsin Chu, Taiwan).
12. Steven Chien, "Optimization of Coordinated Intermodal Transit Networks," October 1995, (Professor, Civil Engineering Department, New Jersey Inst. of Technology, Newark, NJ).
13. Yeon Myung Kim, "Methodology for Design and Evaluation of Airport Terminal Configuration," May 1997.
14. Ching Jung Ting, "Transfer Coordination in Transit Networks," December 1997, (Associate Professor, Yuan Ze University, Chung-Li, Taiwan).
15. Jyh-Cherng Jong, "Optimizing Highway Alignments with Genetic Algorithms," June 1998.
16. Manoj Jha, "A Geographic Information Systems-based Model for Highway Design Optimization," May 2000, (Associate Professor, Civil Engineering Department, Morgan State University, Baltimore, MD).
17. Shiaau Lir Wang, "Simulation and Optimization of Interdependent Waterway Improvement Projects," May 2001.
18. Sze-Wei Chang, "Integrated Flight Scheduling and Fleet Assignment," August 2001, (Brigadier General and Associate Professor, Taiwan Air Force Academy).
19. Eungcheol Kim, "Intersections in Highway Alignment Optimization," December 2001, (Assistant Professor, Civil Engineering Department, Incheon University, Incheon, Korea).
20. Jasenka Rakas, "Models for Air Traffic Management Performance during Equipment Outages," Dec. 2001.
21. Peter Chen, "Integrated Management of Highway Maintenance and Traffic," December 2002.
22. Guey Shi Lin, "Adaptive Signal Control for Improved Bus Transit Operations," expected May 2008, (Lecturer, National Chiao Tung University, Taiwan).
23. Xianding Tao, "Parallel Genetic Algorithms for Selection and Scheduling of Interdependent Transportation Projects," May 2003, (Assistant Professor, Beijing Institute of Technology, China).
24. Ying Luo, "Heuristics and Performance Metamodels for the Dynamic Dial-A-Ride Problem," May 2006.
25. Somnuk Ngamchai, "Air Express Network Design with Hub Sorting," Sept. 2007.
26. Richard Huang, "Optimization of Station Locations along Rail Transit Lines," expected May 2008.
27. Min Wook Kang, "Alignment Optimization for Small Road Networks," expected May 2008.
28. Dongwook Kim, "Multimodal Road Space Allocation and Network Evolution," expected May 2008.
29. Ning Yang, "Simulation and Optimization of Work Zones," expected Aug. 2008.
30. Alex Tien, "Relations among Air Traffic, Controllers and System Performance," expected Aug. 2008.
31. Guiyan Xing, "Logistics of Air Express Package Deliveries," expected Dec. 2008.
32. Xiaorong Lai, "Alignment Optimization for Rail Transit Lines," expected Dec. 2008.
33. Frank Chen, "Intermodal Transfer Coordination in Ports," expected Dec. 2008.

M.S. THESES SUPERVISED

1. Dan Takacs, "An Analysis of the Maryland Demonstration Bikeway Projects," July 1979.
2. James Cardenas, "Optimum Traffic Flow Assignment Model" March 1981.
3. Warren Hughes, "Analysis of Recreational Travel Management Alternatives," May 1981.
4. Farid Khorsandian, "Evaluation of Crash Attenuators," December 1984.
5. Chung-sue Chen, "Effects of Vehicle Size on Parking Facility Design," June 1985.
6. Lazar Spasovic, "Optimization of Public Transportation System Coverage," December 1986.
7. Abdulrahman Al-Mesainid, "Comparison of Alternative Highway Maintenance Strategies," December 1987.
8. Rahul Trivedi, "A Methodology for Estimating Truck Volumes," June 1988.
9. Natacha Thomas, "The Effects of Additional Through Lanes on Intersection Performance," December 1989.
10. Xu Fang, "Operating Strategies for Containerport Storage Yards," December 1989.
11. Mamadou Sevede, "Analysis of Air Cargo Transfer Operations," May 1990.
12. Lu Bin, "Coordination Options for Intersecting Bus Routes," May 1990.
13. Lori Lehnerd, "Base Airport Selection for General Aviation Aircraft," December 1990.
14. Li Hsin Wang, "Simulation of Curbside Transfer of Passengers and Baggage at Transportation Terminals," December 1990.
15. Steven Chien, "Joint Optimization of Rail Transit Lines and Feeder Bus Networks," December 1991.
16. Sharon Kuo, "Optimal Mixed Bus Fleets for Urban Operations," May 1992.
17. Jiangeng Song, "A Method for Fitting Rail Transit Modes in Urban Areas," December 1992.
18. Kang-Min Xu, "Optimal Road Space Allocation among Competing Transportation Modes," December 1993.
19. Kangzhi Liang, "Optimal Maintenance Cycles for Single Track Railroads," December 1993.
20. Peter Shen, "Real-time Control of Flight Departures from Hub Airports," May 1994.
21. Ping Liang, "Control of Service Reliability for Bus Transit Systems," May 1994.

22. Ramanathan Venkatesh, "Optimal Inspection and Maintenance Scheduling for Waterway Locks," August 1994.
23. Dong Keun Seo, "Optimal Traffic Signal Adjustments to Assist Bus Operations," May 1997.
24. Jasenka Rakas, "Terminal Airspace Route Design for Tiltrotor Aircraft," December 1997.
25. Sonia Viera-Colon, "Highway Maintenance Procedures and Schedules," December 1999.
26. Allen Proper, "Arterial Signal Control for Bus Operations," May 2000.
27. Daliborka Stanojevic, "Scheduling of Waterway Lock Operations," August 2001.
28. Lulu Mao, "Synchronized Optimization of Multiple Intersections Using Dynamic Programming," December 2001.
29. Liang Zhu, "Performance Analysis for Automated Intersections," August 2002.
30. Shu-ta Yeh, "Integrated Optimization of Kinematics and Vertical Alignment for Rail Transit," December 2003.
31. Hyunah Kim, "Effects of Subsidies on Bus Transportation Optimization," August 2004.
32. Sangjae Park, "Scheduling and Coordination of Bus Routes with Genetic Algorithms," May 2005.
33. Sameer Kamble, "Relations among Traffic, Staffing and Performance in Air Traffic Management Systems," December 2005.
34. LaToya Johnson, "Optimization Models for Comparing Conventional Bus, Dial-A-Ride and Taxi Systems in Rural Areas," August 2006.
35. Wei-Chen Cheng, "Phased Implementation of Rail Transit Lines," August 2007.

M. S. SCHOLARLY PAPERS SUPERVISED

1. Michael Jobanek, "The Benefits of Implementing a Microwave Landing System," August 1978.
2. John Moeller, "Citizen Participation in Transportation Decisions," May 1979.
3. Gary Johnson, "Carpooling Experiences in Prince George's County," July 1979.
4. Ray Benaquista, "Airport Location and Access" April 1980.
5. Ron Boenau, "Driver Eye Height and Changing Vehicle Dimensions," July 1980.
6. Richard Baker, "Temporary Noise Abatement for Three Sites in Baltimore," August 1980.
7. Norman Bellamy, "Highway Safety Implications of Changes in Maryland's Vehicle Fleet," December 1981.
8. John St. Louis, "Transportation Planning for the Elderly and Handicapped," December 1981.
9. Jannie Lathan, "Automobile Travel Reduction Options," August 1982.
10. Abdulla Meer, "Models for Optimizing Zonal Transit Service," December 1982.
11. Feng Lee Lin, "Models of Search Time and Walk Distance for Parking," January 1983.
12. Steven Frank, "An Analysis of Ship Loading Operations," May 1983.
13. Sokari Bob-Manuel, "Data Needs for Air Cargo Planning," October 1983.
14. Hani Maghrabi, "Analysis of Storage Arrangements in Containerports," June 1985.
15. Gary Luczak, "The Cost Effectiveness of High Speed Exits for Airport Runways," June 1987.
16. Ghazi Barrawi, "Analysis of Methods to Reduce Skidding Accidents," June 1987.
17. Steven Lucchesi, "Selection of Design Aircraft for Runway Length Decisions" December 1987.
18. Mohammed Al-Nayel, "Statistical Estimation of Urban Bus Service Costs," December 1987.
19. Matt Storck, "Safety Evaluation of Walking Routes to Schools," August 1988.
20. Obi Chukuka, "Cargo Transfer Optimization in Airport Hubs," August 1992.
21. Mazen Dawoud, "Phased Development of a Rail Transit Line," December 1993.
22. Ping-Hsiu Ho, "Scheduling of Airline Hub Operations," May 1995.
23. Jiung Ting Ke, "Hub Location Decisions in Airline Planning and Scheduling," August 1996.
24. Kuangda Hsu, "Coordination of Crane and Truck Operations in Container Ports," December 1996.
25. Guang-Chen Zhou, "Maintenance Scheduling on Two-Lane Roads," December 1996.
26. Panja Hanjongkol, "Toll Plaza Operating Strategy Analysis," January 1997.
27. Shiaau Lir Wang, "Waterway Queuing Delays with Equilibrium Demand," August 1997.
28. Don Stefanick, "Automated People Mover Systems for Airports," December 1997.
29. Ying Zhou, "Tradeoffs in Bus Transit Systems between Subsidies and Welfare Maximization," December 2000.
30. Shirlene Cleveland, "An Analysis of Unseparated High Occupancy Toll Lanes," December 2001.
31. Jothsna Rao, "Effect of Accessibility to a Transit Station on Land Use," May 2004.
32. Serese Aranha-Scott, "Construction Time versus Cost Tradeoffs in Pavement Resurfacing," August 2004.
33. Ming-Yu Chien, "Optimization of Runway Exit Locations," May 2005.
34. Ravi Amin, "Determination of Parking Facility Location and Configuration with a GIS," March 2006.
35. Koffi Amefia, "Noise Analysis of Aircraft Arrival Trajectories," Aug. 2006.
36. Sun Ho Kwak, "Minimization of User Delays in Freeway Work Zones based on Optimized Diversion Rates,"

December 2006.

PH. D. STUDENT DISSERTATION COMMITTEES

Harry Dawson	Errol Noel	William Fromm
William Stewart, DBA	Robert Heightchew	Jonathan Upchurch
Dong-deuck Cha	Douglas Robertson	Jack Fellows
Sam Venkatesh	David Renshaw	Taiwo Ahmed
Claude Ligon	Eric Bers	Peter Kuah
Augusto Jugo	Manu Shah	Timothy Ryan
Abdulla Meer	Kenneth O'Connell	Sompong Sirisoponsilp
Faisal Awadallah	Eric Ho	Hsien-Ming Chiu
Carolyn Merry	James Kling, DBA, 1989	Daniel Casco, DBA
Martin Pietruca	Feng-lee Lin, DBA, 1992	Myung Lee, DBA
Sei Chang-Oh, 1993	Sungwoo Moon	Miles Hamby
Eric Chen	Ram Kumar, DBA	Amar Kanaan
Michael Lee	I Ming Chao, DBA, 1993	Chi Chiang Su, 1994
Maureen Sevigny	Xiaoyun Sun, DBA	Angel Diaz, DBA, 1995
Ching-Sung Chin, 1993	Jifeng Wu, 1995	Henry Lieu, 1993
Carol Emerson, DBA	Kefeng Xu, DBA, 1996	Sang Yong Lee, 1995
Joe Bared	Kuo-Yang Chang, 2001	Chi Kuo Lin, 1996
Paul Needham, DBA	Yusef Shafahi, 1997	Ezekiel Dada (U. of Calgary)
Chris Lin, DBA	Steven Coy, DBA, 1998	C. Valsala, 1993 (ITT Kanpur)
Shaheed Rowshan	Mohamed Banhashemi, 1998	Iljoon Chang, 2001
Robert Hoffman, DBA	Suzan Jung, 2000	John Sniezek, DBA, 2001
Hugh Turner, DBA	Tasha Innis, (Applied Math)	Michael Kniemeyer, DBA
Meenakshi Vasudevan, 2005	Rahul Kale, DBA, 2003	Yi Su, DBA
Aileen Ghormley, DBA	Taehyung Kim	Jiun-Sheng Lin, DBA, 1998
Tong Zhao, 2004	Evangelos Kaiser 8/06	Panta Lucic, 2002 (VPI)
Tom Vossen, DBA, 2002	Haying Qiao	Paul Hess
Matthew Morris, DBA, 2005	Satheesh Sundarajan	Chika Sugiyama
Praveen Edara, 2005 (VPI)	Yimin Tang (NJIT)	Emad Elshafei 12/06
Venkatesh Ramanathan	Min Xue, Aero Engineering 5/06	Victor Cheng, DBA, 2005
Saini Yang 8/06	Somchai Pathomsiri 8/06	Pei Wei Lin, 5/06
Xiao Qin 5/06	Taehyeong Kim 5/06 Pr	William Howell, MAPL 5/06 Pr
Kok-Hua Loh, DBA 8/06	Kyeong-pyo Kang 8/06	Behrang Hejazzi 5/07 Pr
Deepak Shrestha 9/06 Pr	Ying Liu 3/07	Yeonjoo Min 3/07
Nan Zou 5/07	Hayssam Sbayti 11/06 Pr	Masoud Hamed 3/07 Pr
Xiang Fei 5/07 Pr	Chung-Cheng Jason Lu 5/07	Roger Chen 7/07
John Macdonald, DBA		

M. S. STUDENT THESIS COMMITTEES

Mark Conway	Shou-min Tsao	Seymour Stern
David Eadie	Kenneth O'Connell	Osama Sharafeldien
Michael Colgan	Kenneth Hausman	Eric Keller
Jeffrey Lindley	Jeffrey Paniati	Hong Jer Chen
Paul Pisano	Mohammed Raza	Irfan Hameed
Ku Tak Lee	Asad Kayani	Daniel Walsh
Tung An Lin	Matthew Miller	David Levinsohn
Quazi Bari	Ming-Ying Chen	Patrick Chuang
Simone Bambini	Srikanth Kanathur	Steven Rochon
Alok Bhardwaj	Vijay Gupta	Cicero de Salles
Cherian Eapen	Anna Baldwin	Amy Tang
Mohammed Rafay	Patrick Chuang	Ravi Kadhiresan
Kimberly Fisher	David Jones	Joan Peyrebrune
Ming Chin Chen	Jim Murray	Menakshi Vasudevan

Robert Larsen
 Michael Griffith
 Cyrus McCall
 Sriram Chellappan
 Kun-Hung Chiang
 Huayang Hu
 Nan Zou
 Carolina Burnier, 2005
 Kyeong-pyo Kang, 2005
 Andrew Churchill 4/07

Preety Goel
 Christian Lindfors
 Haying Qiao
 Evangelos Kaisar
 Somnuk Ngamchai
 Qiang Tian
 Xiang Hua
 Candice Fults, 2005
 Rowin Andruscavage ENSE
 Vishnu Arcot, 8/07

Jessie Yung
 Daniel Leonard
 Kunnawee Kanitpong
 Beth Alicandri
 Shihab Toobaie
 Lewis Chen
 Subrat Mahapatra, 2005
 Huijun Hu 8/2005
 Dan Iliescu, 2005

M. S. STUDENT SCHOLARLY PAPER COMMITTEES

William Kuipers
 Richard Steeg
 Davey Warren
 Donald Pommer
 Joseph Cheung
 Aladin Barkawi
 Rakesh Gupta
 LeAnn Parmenter
 Anne Tsang
 Huayang Hu
 Michael Lenhart
 Eileen Singleton
 Jenish Joseph
 Andrey Petrov
 Chun-Fu Lin
 Erin Morrow, 2005
 Jina Mahmoodi, 4/06

Kay Colpitts
 Dung Duong
 Thomas Hannan
 David Molinaro
 Ellen Gallagher
 Mohammed Khan
 Ashok Chatra
 Wenhong Ge
 Xianding Tao
 Joan Peyrebrune
 Brigita Van Doornik
 Bhagavan Neelakantachar
 Cathy Romero
 Adil Rizvi
 Mark Suennen
 Petru Horvath, 2005
 Alireza Khavari 5/06

F. Robert Burns
 Manu Shah
 Faisal Awadallah
 James Barrack
 Ema Obiarinze
 Derek Garbia
 Anawat Kitjalaksana
 Nestor Flores
 Jean Yves Point du Jour
 Fernando Galup
 Brian Biddle
 Tom Jacobs
 Daniel Leonard
 Paryia Tantakasem
 Gil Chlewicki, 2005
 Nam Seok Kim, 2005
 Matt Mulbrandon, 5/07

SELECTED RESEARCH PROJECTS DIRECTED AT THE UNIVERSITY OF MARYLAND

1. **A Systems Analysis of Recreational Travel to Maryland's Eastern Shore Network**, Federal Highway Administration and Maryland State Highway Administration, 1979 - 1983, \$230,000.
2. **Highway Safety Training Needs Study**, Maryland Department of Transportation, Safety Division, 1979 - 1980, \$30,000.
3. **Air Cargo Market for the Baltimore - Washington International Airport**, Maryland Aviation Administration, 1980 - 1981, \$30,000, Co - directed with Dr. Thomas Corsi.
4. **Statistics for Traffic Safety Analysis**, Maryland Department of Transportation, 1980 - 1981, \$15,000.
5. **Implications of Changes in Maryland's Vehicle Fleet**, Maryland Department of Transportation, Safety Division, 1981 - 1982, \$35,000.
6. **Evaluation of Crash Attenuators**, Maryland State Highway Administration, 1983 - 1985, \$30,000.
7. **Analysis Methods for Weaving Traffic on Arterial Streets**, Maryland State Highway Administration, 1986, \$5,000.
8. **Truck Lane Restrictions on Freeways**, Maryland State Highway Administration, 1986, \$8,200.
9. **Analysis and Forecasting of Truck Traffic Volumes**, Maryland State Highway Administration, 1986, \$30,000.
10. **Safety Benefits of Highway Lighting**, Maryland State Highway Administration, 1986 - 1987, \$6,030.
11. **Intersections and Driveways near Freeway Ramps**, Maryland State Highway Administration, 1986 - 1987, \$8,850.
12. **Service Levels for Different Interchange Configurations**, Maryland State Highway Administration, 1986 - 1987, \$7,500.
13. **Increasing Intersection Capacity with Additional Through Lanes**, Maryland State Highway Administration, 1986 - 1987, \$6,500.
14. **Traffic Response to Variable Message Signs**, Maryland State Highway Administration, 1986 - 1987, \$7,400, Co - directed with Dr. E.C. Carter.
15. **Evaluation of Maryland's Seat Belt Use Law**, Maryland Department of Transportation, Office of

- Transportation Planning, 1986 - 1987, \$97,100, Co - directed with Dr. E.C. Carter.
16. **Analysis of Dundalk Containerport Crane Operations**, Maryland Port Administration, 1987, \$7,000.
 17. **Anne Arundel County Airport Study**, Anne Arundel County, Maryland 1989, \$18,000, Co - directed with Dr. E.C. Carter.
 18. **Analysis of the Brakemaster Truck Braking System**, Maryland Industrial Partnerships Program, 1989 - 1990, \$30,000, Co - P. I. with Dr. E.C. Carter.
 19. **Selection and Scheduling of Transportation Corridor Improvements**, Office of Transportation Planning, Maryland Department of Transportation, 1989 - 1990, \$33,000.
 20. **Lock Performance Evaluation**, U. S. Army Corps of Engineers, 1989 - 1990, \$48,000.
 21. **Economic Evaluation Methods for Waterway Improvements**, U. S. Army Corps of Engineers, 1987 - 1991, \$322,000.
 22. **Expert System Development for Isolated Intersection Signalization**, Federal Highway Administration, 1989 - 1991, \$87,000, Co - P. I. with Drs. G.L. Chang and E.C. Carter.
 23. **Integration of Geographic Information Systems in Transit Planning**, Maryland Mass Transit Administration, 1990 - 1991, \$50,000, Co - P. I. with Dr. G.L. Chang.
 24. **Methods for Analyzing Weaving Flows on Arterials**, Maryland State Highway Administration, 1990 - 1992, \$49,000.
 25. **Priority Programming for Congested Networks**, Maryland State Highway Administration, 1990 - 91, \$58,250.
 26. **The Joint Cost of Highway Maintenance and Traffic Operation**, Maryland State Highway Administration, 1991 - 1992, \$10,000.
 27. **Non - motorized Transportation for Asian Cities**, World Bank, 1991 - 92, \$8,000.
 28. **Waterway Network Performance**, U. S. Army Corps of Engineers and U. S. Department of Agriculture, 1991-1992, \$60,000.
 29. **Control Systems for Waterway Operations**, U. S. Army Corps of Engineers and U. S. Department of Agriculture, 1992 - 1995, \$352,000.
 30. **Adaptive Control of Transit Operations**, Federal Transit Administration, 1993 - 1995, \$85,000.
 31. **Analysis Methods for Vertiport Capacity and Delays**, Federal Aviation Administration, 1994 - 1995, \$25,000.
 32. **Civil Tiltrotor Air Traffic Control**, Federal Aviation Administration, through CSSI, Inc., 1994 - 1995, \$35,000.
 33. **Waterway Network Planning and Operations**, U. S. Army Corps of Engineers and U. S. Department of Agriculture, 1995 - 1996, \$125,000.
 34. **Airspace System Performance during Equipment Outages**, Federal Aviation Administration, 1996 - 1997, \$58,000.
 35. **Development of CADD Software for Highway Design**, Maryland State Highway Administration, 1996, \$30,000.
 36. **BWI Airport Capacity and Delay Analysis**, Maryland Aviation Administration, 1996, \$10,500.
 37. **Analysis Methods for Inland Waterway Transportation**, U. S. Army Corps of Engineers and U. S. Department of Agriculture, 1996 - 2000, \$310,000.
 38. **Development of CADD Software for Highway Design-Phase II**, Maryland State Highway Administration, 1997 - 1998, \$150,000, Co - directed with Dr. A. Haghani.
 39. **Preliminary Optimization with the SIMMOD Air Traffic Model**, Federal Aviation Administration, 1997, \$13,000, Co - directed with Dr. M. Fu.
 40. **Systems Analysis of Air Traffic Management Reliability**, Federal Aviation Administration, 1996 - 1999, \$63,000.
 41. **Noise Analysis with SIMMOD and INM**, Maryland Aviation Administration, 1997 - 2001, \$153,000.
 42. **CADD Software for Highway Design Automation and Optimization**, Maryland State Highway Administration, 1998 - 1999, \$227,000, Co - directed with Dr. A. Haghani.
 43. **Human and Automated Decisions in Traffic Management**, Maryland State Highway Administration, May - Dec. 1999, \$51,000.
 44. **Detailed Highway Design Optimization**, Maryland State Highway Administration, 1999 - 2000, \$92,000.
 45. **Intersection Evaluation and Optimization Methods**, Maryland State Highway Administration, 2000 - 2001, \$50,000.
 46. **Integrated Management of Maintenance and Traffic**, Maryland State Highway Administration, 2001 - 2004, \$177,000.
 47. **Analysis of Airport Development with INM and GIS**, Maryland Aviation Administration, 2001 - 2002, \$78,000.

48. **Development of Strategic Simulator**, Federal Aviation Administration, 2002 - 2007, \$180,000.
49. **Statistical Analysis of Maryland Accidents**, Maryland State Highway Administration, 2003 - 2004, \$98,100.
50. **Alignment Optimization for Brookeville Bypass**, Maryland State Highway Administration, 2003 - 2004, \$25,000.
51. **Improvements to IWR Simulation Models**, U. S. Army Corps of Engineers, 2003 - 2005, \$185,000.
52. **Optimization of Work Zone Decisions through Simulation**, Maryland State Highway Administration, 2004 - 2006, \$80,000.
53. **Simulation-Based Optimization Models for Waterway Project Planning**, U. S. Army Corps of Engineers, 2005 - 2007, \$247,900.
54. **Statistical Analyses of Maryland Accidents - Phases 5 & 6**, Maryland State Highway Administration, 2005 - 2007, \$92,496.
55. **Improved Alignment Evaluation and Optimization Model**, Maryland State Highway Administration, 2006 - 2007, \$59,500.
56. **Port Operations and Security Analysis**, MTI Center for Intermodal Freight Transportation, 2006 - 2007, \$87,000.
57. **Development of Detailed Lock Model**, U.S. Army Corps of Engineers, 2007 - 2008, \$304,461.
58. **A Multi-Objective Bilevel Approach to Highway Alignment Optimization**, National Science Foundation, Jan. 1 - Dec. 31, 2008, \$60,000.

SERVICE TO THE UNIVERSITY OF MARYLAND

- ☐ **Transportation Program Director.** Civil Engineering Department, Aug. 1979 - Aug. 1980, Aug. 1981 - June 1994, July 2003 - Aug. 2007.
- ☐ **Director.** Center for Intermodal Freight Transportation. Aug. 2007 - present.
- ☐ **Faculty Advisor of the Institute of Transportation.** Engineers Student Chapter. June 1979 - June 1991, Jan. 1997 - Feb. 1999.
- ☐ **Faculty Advisor.** Delta Kappa Epsilon Fraternity. 1991 - 1996.
- ☐ **Representative of the Civil Engineering Department on the Engineering School's Appointments, Promotions and Tenure Committee.** 1993 - 1995 and 2001 - 2003.
- ☐ **Instructor and developer of continuing education courses for the UM Transportation Studies Center.** 1978 - 1997.
- ☐ **Instructor in EIT Exam review course for undergraduates.** 27 times since Spring 1987.
- ☐ **Director of unfunded Intercampus Transportation Study for the Office of the President.** Sep. 1979 - Jan. 1980.
- ☐ **Representative of the Civil Engineering Department on the Math and Phys. Sciences Division Council.** Jan. 1982 - Jan. 1983.
- ☐ **Representative of the Civil Engineering Department on UMCP Campus Senate.** 2003 - 2005.
- ☐ **Member of University Committee on Appointments, Promotion and Tenure.** 1979 - 1980.
- ☐ **Member of Civil Engineering Department External Relations Committee.** 2003 - 2008.
- ☐ **Member of Civil Engineering Department Awards Committee.** 2007 - 2008.
- ☐ **Member of Civil Engineering Department Undergraduate Education Committee.** 2007 - 2008.
- ☐ **Member of Civil Engineering Department Executive Committee.** 2003 - 2007.
- ☐ **Chairman of Civil Engineering Department Graduate Committee.** 2002 - 2003, Member 1999 - 2002.
- ☐ **Chairman of Transportation Faculty Search Committee.** 1988, 2000-2001, 2001-2002, 2005-2006, 2007-2008.
- ☐ **Chairman of Civil Engineering Department Organization Committee.** 2001 - 2002.
- ☐ **Chairman of Civil Engineering Department Faculty Evaluation Committee.** 2004.
- ☐ **Chairman of Civil Engineering Department Committee on Teaching Workload.** 2005.
- ☐ **Member of 26 Doctoral Committees in the College of Business and Management.** 1980 - 2007
- ☐ **Library Representative of the Civil Engineering Department** 1995 - 2002.
- ☐ **Undergraduate Track Advisor for Transportation and Project Management.** 2004 - 2005.

COURSES TAUGHT

UNIVERSITY OF MARYLAND UNDERGRADUATE COURSES [JAN 1978 - DEC 2007]

- ☐ ENCE 370 - Fundamentals of Transportation Engineering - 12 times
- ☐ ENCE 463 - Engineering Economics and Systems Analysis - 13 times

- ☐ ENCE 466 - Design of Civil Engineering Systems (Capstone) - 2 times
- ☐ ENCE 472 - Transportation Engineering - 10 times
- ☐ ENCE 473 - Air and Water Transportation Engineering - 2 times
- ☐ ENCE 474 - Rail and Mass Transit Engineering - 13 times
- ☐ Over 18 independent study courses

UNIVERSITY OF MARYLAND GRADUATE COURSES [JAN 1978 - DEC 2007]

- ☐ ENCE 670 - Highway Traffic Characteristics and Measurements - 1 time
- ☐ ENCE 672 - Regional Transportation Planning - 24 times
- ☐ ENCE 674 - Public Transportation Planning - 16 times
- ☐ ENCE 675 - Airport Planning and Design - 20 times
- ☐ Over 50 independent study courses

UNIVERSITY OF MARYLAND CONTINUING EDUCATION COURSES [1978 - DEC 2007]

- ☐ Urban Transportation Planning - 5 times
- ☐ Traffic Engineering - 15 times
- ☐ Basic Statistics for Traffic Safety Analysis: 4 times in 1980 - 1981
- ☐ Energy Conservation in Transportation - once in 1979
- ☐ Engineering Economics Review for the EIT Exam - 28 times
- ☐ Highway Design Review for PE Exam - 7 times since Sept 2004

MASSACHUSETTS INSTITUTE OF TECHNOLOGY (AS TEACHING ASSISTANT)

- ☐ Information Systems (Computer Science): 2 sections in Fall 1972
- ☐ Transportation Economics: Spring 1973
- ☐ Transportation Systems Analysis: Spring 1973

BECHTEL COMPANY, GAITHERSBURG, MD

- ☐ Engineering Economics Review for P.E. Exam: 6 times in 1979 - 1982

NORTHERN JIAO TONG UNIVERSITY, BEIJING, CHINA

- ☐ Analysis and Optimization of Transportation Systems: Aug 3 - 15, 1987

MARYLAND STATE HIGHWAY ADMINISTRATION

- ☐ Engineering Economics and Transportation Engineering Review for P.E. Exam: Fall 1987, Spring 1989

CHINA DEPARTMENT OF TRANSPORTATION, BEIJING, CHINA

- ☐ Planning and Design of Freeway Facilities (with 4 other instructors): Jan 15 - 19, 1990

UNIVERSITY OF MARYLAND - BALTIMORE COUNTY

- ☐ Highway Engineering Review for P.E. Exam: 40 times in 1994 - 2007

PUBLICATIONS

SELECTED ARTICLES IN REFEREED JOURNALS

1. Tsao, S.M., and Schonfeld, P. "Optimization of Zonal Transit Service," *Journal of Transportation Engineering*, ASCE, 109-2, March 1983, pp. 257-272.
2. Tsao, S.M., and Schonfeld, P. "Branched Transit Services: An Analysis," *Journal of Transportation Engineering*, ASCE, 110-1, Jan. 1984, pp. 112-128.
3. Carter, E., Chadda, H., and Schonfeld, P. "A Comparison of Transportation Planning in Developed and Developing Countries," *Transportation Quarterly*, Jan. 1984, pp. 69-86.
4. Meer, A., and Schonfeld, P. "Small Cars: Problems and Opportunities," *ITE Journal*, March 1984, pp. 49-53.
5. Hu, Y.C., and Schonfeld, P. "Simulation and Optimization of Regional Networks," *Journal of Transportation Engineering*, ASCE, 110-4, July 1984, pp. 431-443.
6. Schonfeld, P., and Frank, S. "Optimizing the Utilization of a Containership Berth," *Transportation Research Record 984*, 1984, pp. 50-63.
7. Hu, Y.C., and Schonfeld, P. "Optimizing Traffic Diversion Around Bottlenecks," *Transportation Research Record*

- 957, 1984, pp. 22-27.
8. Chadda, H., and Schonfeld, P. "Are Pedestrians Safe at Right on Red Intersections?," *Journal of Transportation Engineering*, ASCE, 111-1, Jan. 1985, pp. 1-16.
 9. Schonfeld, P., and Chadda, H. "Automobile Travel Reduction Options for Urban Areas," *ITE Journal*, April 1985, pp. 44-48.
 10. Schonfeld, P. and Chadda, H. "An Assessment of Urban Travel Reduction Options," *Transportation Quarterly*, July 1985, pp. 391-406.
 11. Schonfeld, P., and Sharafeldien, O. "Optimal Berth and Crane Combinations in Container Ports," *Journal of Waterway, Port, Coastal and Ocean Engineering*, ASCE, 111-6, Nov. 1985, pp. 1060-1072.
 12. Chen, C.S., and Schonfeld, P. "Optimum Stall Angle for Large Parking Lots," *Journal of Transportation Engineering*, ASCE, 114-5, Sept. 1988, pp. 574-583.
 13. Chang, S.K. and Schonfeld, P. "Optimization Models for Comparing Conventional and Subscription Bus Feeder Services," *Transportation Science*, 25-4, Nov. 1991, pp. 281-298.
 14. Chang, S.K. and Schonfeld, P. "Multiple Period Optimization of Bus Transit Systems," *Transportation Research Part B*, 2B-6, Dec. 1991, pp. 453-478.
 15. Lee, K.T. and Schonfeld, P. "Optimal Slack Times for Timed Transfers at a Transit Terminal," *Journal of Advanced Transportation*, 25-3, Fall 1991, pp. 281-308.
 16. Carter, E., and Schonfeld, P. "Safety Belt Use and Highway Safety in Maryland," *Transportation Research Record 1325*, 1991, pp. 45-50.
 17. Dai, D.M. and Schonfeld, P. "Simulation of Waterway Transportation Reliability," *Transportation Research Record 1313*, 1991, pp. 98-105.
 18. Chang, S.K. and Schonfeld, P. "Integration of Fixed and Flexible Route Bus Systems," *Transportation Research Record 1308*, 1991, pp. 51-57.
 19. Wei, C.H., Dai, M.D.M. and Schonfeld, P. "Computational Characteristics of a Numerical Model for Series of Waterway Queues," *Transportation Research Record 1333*, 1992, pp. 45-54.
 20. Martinelli, D., Dai, M.D.M., Schonfeld, P. and Antle, G. "A Methodology for Planning Interdependent Waterway Improvements," *Transportation Research Record 1383*, June 1993, pp. 49-57.
 21. Chang, S.K. and Schonfeld, P. "Optimal Dimensions of Bus Service Zones," *Journal of Transportation Engineering*, ASCE, 119-4, July/Aug. 1993, pp. 567-585.
 22. Wei, C.H. and Schonfeld, P. "An Artificial Neural Network Approach for Evaluating Transportation Network Improvements," *Journal of Advanced Transportation*, Vol. 27-2, Summer 1993, pp. 129-152.
 23. Chang, S.K. and Schonfeld, P. "Welfare Maximization with Financial Constraints for Bus Transit Systems," *Transportation Research Record 1395*, Aug. 1993, pp.48-57.
 24. Spasovic, L.N. and Schonfeld, P. "A Method for Optimizing Transit Service Coverage," *Transportation Research Record 1402*, Oct. 1993, pp. 28-39.
 25. Ramanathan, V. and Schonfeld, P. "Approximate Delays Caused by Lock Service Interruptions," *Transportation Research Record 1430*, Jan. 1994, pp. 41-49.
 26. Lee, K.T. and Schonfeld, P. "Real - time Dispatching Control for Coordinated Operation in Transit Terminals," *Transportation Research Record 1433*, Sept. 1994, pp. 3-9.
 27. Martinelli, D. and Schonfeld, P. "Priority Scheduling of Interdependent Lock Improvement Projects," accepted for the *Journal of Waterway, Port, Coastal and Ocean Engineering*, ASCE, Sept. 1994.
 28. Wei, C.H. and Schonfeld, P. "Multi - period Network Improvement Model," *Transportation Research Record 1443*, Oct. 1994, pp. 110-118.
 29. Lee, K.T., Kuo, H.F. and Schonfeld, P. "Optimal Mixed Bus Fleet for Urban Operations," *Transportation Research Record 1503*, July 1995, pp. 39-48.
 30. Kim, Y.M. and Schonfeld, P. "Neural Network Estimation of Lock Service Times," *Transportation Research Record 1497*, July 1995, pp. 36-43.
 31. Chang, C. and Schonfeld, P. "Flight Sequencing in Airport Hub Operations," *Transportation Research Record 1506*, July 1995, pp. 26-33.
 32. Martinelli, D. and Schonfeld, P. "Approximating Delays at Interdependent Locks," *Journal of Waterway, Port, Coastal and Ocean Engineering*, ASCE, 121-6, Nov. 1995, pp.300-307.
 33. Ting, C.J. and Schonfeld, P. "Effects of Tow Sequencing on Lock Capacities and Service Times," *Journal of Waterway, Port, Coastal and Ocean Engineering*, ASCE, 122-1, Jan./Feb. 1996, pp. 16-26.
 34. Kim, D.N. and Schonfeld, P. "Benefits of Dipped Vertical Alignments for Rail Transit Routes," *Journal of Transportation Engineering*, ASCE, 123-1, Jan./Feb. 1997, pp. 20-27.

35. Chien, S. and Schonfeld, P. "Optimization of Grid Transit System in Heterogeneous Urban Environments," *Journal of Transportation Engineering*, ASCE, 123-1, Jan./Feb. 1997, pp. 28-35.
36. Dai, D.M. and Schonfeld, P. "Metamodels for Estimating Delays through Series of Waterway Queues," *Transp. Res. Part B*, 32B-1, Jan. 1998, pp. 1-19.
37. Wei, C. H. and Schonfeld, P. "A Research Framework for Cost Effective Highway Maintenance Planning," *Public Works Management and Policy*, 2-4, April 1998, pp. 340-349.
38. Ting, C. J. and Schonfeld, P. "Optimization through Simulation of Waterway Transportation Investments," *Transportation Research Record* 1620, 1998, pp. 11-16.
39. Chien, S. and Schonfeld, P. "Joint Optimization of a Rail Transit Line and its Feeder Bus System," *Journal of Advanced Transportation*, 32-3, Fall 1998, pp. 253-284.
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41. Schonfeld, P. and Chien, S. "Optimal Work Zone Length for Two-lane Highways," *Journal of Transportation Engineering*, ASCE, Vol. 125-1, Jan./Feb. 1999, pp. 21-29.
42. Ting, C. J. and Schonfeld, P. "Effects of Speed Control on Tow Travel Costs," *Journal of Waterway, Port, Coastal and Ocean Engineering*, ASCE, 125-4, July/Aug. 1999, pp. 203-206.
43. Jong, J. C. and Schonfeld, P. "Cost Functions for Optimizing Highway Alignments," *Transportation Research Record* 1659, Aug. 1999, pp. 58-67.
44. Zhu, L, Schonfeld, P., Kim, Y. M. Flood, I. and Ting C. J. "Waterway Network Analysis with Artificial Neural Networks," *Artificial Intelligence for Engineering Design, Analysis and Manufacturing*, Vol. 13, 1999, pp. 365-375.
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46. Jong, J. C. and Schonfeld, P. "A Genetic Algorithm for Selecting and Scheduling Interdependent Projects," *Journal of Waterway, Port, Coastal and Ocean Engineering*, ASCE, 127-1, Jan./Feb. 2001, pp. 45-52.
47. Jha, M. and Schonfeld, P. "Integrating Genetic Algorithms and GIS to Optimize Highway Alignments," *Transportation Research Record* 1719, 2000, pp. 233-240.
48. Jha, M. and Schonfeld, P. "GIS - based Analysis of Right - of - way Cost for Highway Optimization," *Transportation Research Record* 1719, 2000, pp. 241-249.
49. Ting, C.J. and Schonfeld P. "Control Alternatives at a Waterway Lock," *Journal of Waterway, Port, Coastal and Ocean Engineering*, 127-2, March/April 2001, pp. 89-96.
50. Ting, C. J. and Schonfeld, P. "Efficiency Versus Fairness in Priority Control: A Waterway Lock Case," *Journal of Waterway, Port, Coastal and Ocean Engineering*, ASCE, 127-2, March/April 2001, pp. 82-88.
51. Chien, S. and Schonfeld, P. "Optimal Work Zone Lengths for Four - lane Highways," *Journal of Transportation Engineering*, ASCE, 127-2, March/April 2001, pp. 124-131.
52. Jha, M., McCall, C. and Schonfeld, P. "Using GIS, Genetic Algorithms and Visualization in Highway Development," *Journal of Computer - aided Civil and Infrastructure Engineering*, 16-6, 2001, pp. 399 - 414.
53. Kim, E. and Schonfeld, P. "Estimating Highway Earthwork Cross Sections Using Vector and Parametric Representation," *Transportation Research Record* 1772, 2001, pp. 48-54.
54. Chien, S., Tang Y., and Schonfeld, P. "Optimizing Work Zones for Two - lane Highway Maintenance Projects," *Journal of Transportation Engineering*, ASCE, 128-2, March/April 2002, pp.145-155, (awarded Best Paper of 2002 in the ASCE Journal of Transportation Engineering).
55. Jong, J. C. and Schonfeld, P. "Evolutionary Algorithms for Optimizing 3 - dimensional Highway Alignments," *Transportation Research*, Part B, 37B-2, Feb. 2003, pp. 107-128.
56. Jha, M. and Schonfeld, P. "Tradeoffs between Initial and Maintenance Costs of Highways in Cross - slopes," *Journal of Infrastructure Systems*, ASCE, 9-1, March 2003, pp.16-25.
57. Jha, M. and Schonfeld, P. "A Highway Alignment Optimization Model Using Geographic Information Systems," *Transportation Research*, Part A, 38A-6, July 2004. pp. 455-481.
58. Kim, E., Jha, M. and Schonfeld, P. "Intersection Cost Functions for Alignment Optimization," *Journal of Transportation Engineering*, ASCE, 130-2, March/April 2004, pp. 194-203.
59. Kim, E., Jha, M. and Schonfeld, P. Closure to "Intersection Construction Cost Functions for Alignment Optimization," *Journal of Transportation Engineering*, ASCE, 131-9, Sept. 2005, p. 723.
60. Chang, S.W. and Schonfeld, P. "Optimized Schedules for Airline Routes," *Journal of Transportation Engineering*, ASCE, 130-4, July 2004, pp.412-418.
61. Rakas, J. and Schonfeld, P. "Deterministic Models for Degraded Airside Capacity and Delays," *Journal of*

- Transportation Engineering*, ASCE, 130-5, September 2004, pp. 545-554.
62. Kim, E., Jha, M., Lovell, D., and Schonfeld, P. "Intersections Modeling for Highway Alignment Optimization," *Computer Aided Civil and Infrastructure Engineering*, Vol. 19, 2004, pp. 119-129.
 63. Jong, J. C. and Schonfeld, P. "A Genetic Algorithm for Selecting and Scheduling Interdependent Projects," *Journal of Waterway, Port, Coastal and Ocean Engineering*, ASCE, Vol. 127 No. 1, Jan./Feb. 2001, pp. 45-52.
 64. Ting, C.J. and Schonfeld, P. "Schedule Coordination in a Multiple - hub Transit Network," *Journal of Urban Planning and Development*, ASCE, 131-2, June 2005. pp. 112-124.
 65. Chen, C.H. and Schonfeld, P. "Work Zone Lengths for a Four - lane Road with an Alternate Route," *Journal of Transportation Engineering*, ASCE, 131-10, Oct. 2005, pp. 780-789.
 66. Chen, C.H., Schonfeld, P. and Paracha, J. "Work Zone Optimization for Two - lane Highway Resurfacing Projects with an Alternate Route," *Transportation Research Record 1911*, October 2005, pp. 51-66.
 67. Pathomsiri, S., Schonfeld, P., and Haghani, A. "Vehicle Miles Traveled in Multi - vehicle Households," *Transportation Research Record 1926*, Dec. 2005, pp. 198-205.
 68. Tao, X., and Schonfeld, P. "A Simulation Method for Selecting and Scheduling Waterway Projects," *Transportation Research Record 1931*, 2005, pp. 74-80.
 69. Wang, S., Tao, X., and Schonfeld, P. "Modeling Shippers' Response to Scheduled Waterway Lock Closures," *Transportation Research Record 1963*, Oct. 2006, pp. 33-43.
 70. Tao, X., and Schonfeld, P. "Selection and Scheduling of Interdependent Transportation Projects with Island Models," *Transportation Research Record 1981*, Dec. 2006, pp. 133-41.
 71. Kim, E., Jha, M., Schonfeld, P. and Kim, H.S., "Highway Alignment Optimization Incorporating Bridges and Tunnels," *Journal of Transportation Engineering*, ASCE, 133-2, Feb. 2007, pp. 71-81.
 72. Kang, M.W., Schonfeld, P. and Jong, J.C., "Highway Alignment Optimization through Feasible Gates," *Journal of Advanced Transportation*, 41- 2, Spring 2007, pp. 115-144.
 73. Wang, S.L., and Schonfeld, P. "Demand Elasticity and Benefit Measurement in a Waterway Simulation Model," forthcoming in the *Transp. Res. Record*, 2007.
 74. Ting, C.J. and Schonfeld, P. "Dispatching Control at Transfer Stations in Multi-Hub Transit Networks," *Journal of Advanced Transportation*, 41-3, Fall 2007, pp. 217-243.
 75. Luo, Y. and Schonfeld, P., "A Rejected-Reinsertion Algorithm for the Static Dial-A-Ride Problem", *Transp. Research - Part B*, 41B-7, Aug. 2007, pp. 736-755.
 76. Chen, P. and Schonfeld, P. "Pavement Resurfacing Intervals in Work Zone Optimization," submitted to the *Transp. Res. Record*, July 2006.
 77. Jha, M., Schonfeld, P. and Samanta, S., "Optimizing Rail Transit Routes with Genetic Algorithms and GIS," *J. of Urban Planning and Development*, ASCE, Vol. 133-3, Sept. 2007, pp. 161-171.
 78. Wang, S.L., and Schonfeld, P. "Demand Elasticity and Benefit Measurement in a Waterway Simulation Model," forthcoming in the *Transp. Res. Record*, 2007.
 79. Tien, S.L. and Schonfeld, P. "Passenger Market Equilibrium for Competing Airports in a Multiple Airport Region," forthcoming in the *Transp. Res. Record*, 2007.
 80. Zhou, Y., Kim, H.S., Schonfeld, P. and Kim, E., "Subsidies and Welfare Maximization Tradeoffs in Bus Transit Systems," accepted for *Annals of Regional Science*, Oct. 2007.
 81. Wang, S.L. and Schonfeld, P., "Scheduling of Waterway Projects with Complex Interrelations," accepted for *Transportation Research Record*, Sept. 2007.

SELECTED ARTICLES IN REFEREED CONFERENCE PROCEEDINGS

1. Hu, Y.C., and Schonfeld, P. "Flow Optimization on Intercity Road Networks," Compendium of Technical Papers, Annual ITE Meeting, London, UK, August 1983, pp.16-21.
2. Dai, M.D.M. and Schonfeld, P. "Meta - modeling Approach for Approximating Series of G/G/1 Queues on Congested Waterways," Proceedings of the First ASCE Congress on Computing in Civil Engineering, Washington, DC, June 1994.
3. Schonfeld, P. "Modeling of Airport Hub Operations," Proceedings of the Airport Modeling and Simulation Conference, August 1997, Roslyn, VA, ASCE 1999.
4. Jong, C. J. and Schonfeld, P. "Optimizing Vertical Alignments for Highways with Genetic Algorithms," Annual TRB Meeting, January 1999 (99-0719 on CD-ROM).
5. Jong, J. C. and Schonfeld, P. "Cost Functions for Optimizing Highway Alignments," Annual TRB Meeting, Jan. 1999 (99-0700 on CD-ROM).
6. Ting, C. J. and Schonfeld, P. "Optimal Headways for Transit Networks with Coordinated Transfers," Annual

- TRB Meeting, January 1999 (99-0701 on CD-ROM).
7. Jha, M. and Schonfeld, P. "Integrating Genetic Algorithms and GIS to Optimize Highway Alignments," Annual TRB Meeting, January 2000.
 8. Rakas, J. and Schonfeld, P. "Air Traffic Management Performance during Equipment Outages," Annual TRB Meeting, January 2000 (00-0954 on CD-ROM).
 9. Jha, M. and Schonfeld, P. "GIS - based Analysis of Right-of-Way Cost for Highway Optimization," Annual TRB Meeting, January 2000 (00-1065).
 10. Jha, M. and Schonfeld, P. "Considering Maintainability in Highway Alignment Optimization," Annual TRB Meeting, January 2001 (01-3170).
 11. Kim, E. and Schonfeld, P. "Estimating Highway Cross Section Using Vector and Parametric Representation," Annual TRB Meeting, January 2001(01-2682).
 12. Kim, E., Jha, M. and Schonfeld, P. "Intersection Cost Modeling for Highway Alignment Optimization," Proc. of the 9th World Conference on Transportation Research, Seoul, Korea, July 2001.
 13. Kim, E., Jha, M., Lovell, D., and Schonfeld, P. "Local Optimization of Intersections for Highway Alignments," Annual TRB Meeting, January 2002 (02-2712).
 14. Wang, S.L. and Schonfeld, P. "Development of Generalized Waterway Simulation Model," Annual TRB Meeting, January 2002, (02-2194 on CD_ROM).
 15. Jha, M. and Schonfeld, P. "Transit Line Optimization with Genetic Algorithms and GIS," Annual TRB Meeting, January 2003, (03-4383).
 16. Chen, C.H.P. and Schonfeld, P. "Work Zone Lengths for a Four - lane Road with an Alternate Route," Annual TRB Meeting, January 2003, (03-2944).
 17. Chen, C.H.P. and Schonfeld, P. "Work Zone Optimization for Two - lane Highway Maintenance Projects," Annual TRB Meeting, January 2004 (04-3898).
 18. Tao, X. and Schonfeld, P. "A Simulation Method for Selecting and Scheduling Waterway Projects," Annual TRB Meeting, January 2004 (04-2899 on CD-ROM).
 19. Pathomsiri, S., Haghani, A. and Schonfeld, P. "Operational Efficiency of Airports in Multiple Airport Systems," Annual TRB Meeting, January 2005, (05-0495).
 20. Luo, Y. and Schonfeld, P. "Tour Length of Many-to-One Dial-A-Ride Service," Annual TRB Meeting, January 2005 (05-0561).
 21. Chen, C.H.P., Schonfeld, P. and Paracha, J. "Work Zone Optimization for Two-lane Highway Work Zone Projects with an Alternate Route," Annual TRB Meeting, January 2005 (05-1820).
 22. Tao, X., and Schonfeld, P. "A Lagrangian Relaxation Algorithm for Selecting Interdependent Projects under Cost Uncertainty," Annual TRB Meeting, January 2005 (05-0565).
 23. Pathomsiri, S., Haghani, A. and Schonfeld, P. "Vehicle Miles Traveled in Multi - vehicle Households," Annual TRB Meeting, January 2005, (05-0494).
 24. Kim, E., Schonfeld, P., Kim, H.S. and Jha, M.K. "Highway Alignment Optimization Incorporating Bridges and Tunnels," Annual TRB Meeting, January 2005, (05-2574).
 25. Kang, M., Jha, M., and Schonfeld, P. "Three- Dimensional Highway Alignment Optimization for the Brookeville Bypass," Annual TRB Meeting, January 2006, (06-1023).
 26. Tao, X., and Schonfeld, P. "Selection and Scheduling of Interdependent Transportation Projects with Island Models," Annual TRB Meeting, January 2006, (06-1105).
 27. Wang, S., Tao, X., and Schonfeld, P. "Modeling Shippers' Response to Scheduled Waterway Lock Closures," Annual TRB Meeting, January 2006, (06-1833).
 28. Chen, C.H.P., and Schonfeld, P. "Work Zone Optimization for Multiple - Lane Highway Resurfacing Projects with Time Constraints and an Alternate Route," Annual TRB Meeting, January 2006, (06-1812).
 29. Tien, S.L. and Schonfeld, P. "Duration versus Cost Tradeoffs in Work Zone Optimization," Annual TRB Meeting, January 2006, (06-1789).
 30. Tao, X. and Schonfeld, P. "Island Models for a Stochastic Problem of Transportation Project Selection and Scheduling," Annual TRB Meeting, January 2007, (07-1895).
 31. Tien, S.L. and Schonfeld, P. "Passenger Market Equilibrium for Competing Airports in a Multiple Airport Region," Annual TRB Meeting, January 2007, (07-1635).
 32. Wang, S.L., and Schonfeld, P. "Demand Elasticity and Benefit Measurement in a Waterway Simulation Model," Annual TRB Meeting, January 2007, (07-2579).
 33. Wang, S.L., and Schonfeld, P. "Modeling Demand Response to Unscheduled Waterway Lock Closures," Annual TRB Meeting, January 2007, (07-1849).

34. Chen, C.H.P. and Schonfeld, P. "Pavement Resurfacing Intervals in Work Zone Optimization," Annual TRB Meeting, January 2007, (07-1625).
35. Kim, D. and Schonfeld, P., "Road Space Allocation in a Congested Transportation Network with Bus and Toll Lanes," Proc. of the 11th World Conference on Transport Research, Berkeley, California, June 2007.
36. Ngamchai, S. and Schonfeld, P., "Air Express Network Design with Hub Sorting," Proc. of the 11th World Conference on Transport Research, Berkeley, California, June 2007.
37. Tien, S.L. and Schonfeld, P. "Model of Controller Requirements for Enroute Traffic," Proc. of the 29th International Air Transport Conference, Irving, Texas, Aug. 2007.
38. Wang, S.L. and Schonfeld, P., "Scheduling of Waterway Projects with Complex Interrelations," accepted for Annual TRB Meeting, January 2008, (08-2512).
39. Wang, S.L., Yang, N. and Schonfeld, P. "Simulation-Based Maintenance Planning for Waterway Networks," accepted for Annual TRB Meeting, January 2008, (08-2602).
40. Kim, D. and Schonfeld, P. "Road Network Design with Road Space Allocation and Toll Funding," accepted for Annual TRB Meeting, January 2008, (08-2873).
41. Kim, D. and Schonfeld, P. "Integrated Analysis of Toll Lanes and Bus-priority Lanes," accepted for Annual TRB Meeting, January 2008, (08-2906).
42. Tien, S.L. and Schonfeld, P. "Ordinal Regression Model for Forecasting Enroute Controller Requirements," accepted for Annual TRB Meeting, January 2008, (08-1652).

BOOKS

1. Schonfeld, P. "Transportation Systems," Section 12.4 of The Engineering Handbook, edited by R. Dorf, CRC Press. 1995. Revised as Section 85 in Second Edition, 2005.
2. Schonfeld, P. "Transportation Systems," Section 10.4 of The CRC Handbook of Mechanical Engineering, edited by F. Kreith, CRC Press, 1998.
3. Mumayiz, S. and Schonfeld, P., Eds. Airport Simulation and Modeling, Proceedings of the Aviation Simulation and Modeling Conference, August 1997, Roslyn VA, ASCE, 1999, 303 pp.
4. Schonfeld, P. "Inland Waterways," section of forthcoming World Book Encyclopedia, 2005.
5. Jha, M., Schonfeld, P.S., Jong, J.C. and Kim, E. Intelligent Transportation Systems, WIT Press, 2006.

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1. Schonfeld, P. "Optimization of Urban Transportation Networks," MIT M.S. Thesis. September 1974, 200 pp.
2. Schonfeld, P. "Transportation System Optimization Model," IBM Report FSD 75-0129. July 1975.
3. Jones, D., Garrison, W., May, A., and Schonfeld, P. "Managing the Future Evolution of the Urban Transportation System," Special Report UCB-ITS-SR-77-1. Berkeley, October 1976.
4. Schonfeld, P. "A Macroscopic Methodology for Transportation Policy Analysis," Ph.D. Dissertation UCB-ITS-DS-77-6. University of California, Berkeley, December 1977, 237 pp.
5. Jones, D., Garrison, W., May, A., and Schonfeld, P. "Transportation System Management: Promise, Performance and Prognosis," ITS Research Report UCB-PR-78-2. University of California, Berkeley, December 1977.
6. Schonfeld, P. "A Macroscopic Approach to Transportation Policy Analysis," ITS Research Report, University of California, Berkeley, January 1978.
7. Tsao, S., Banks, J., and Schonfeld, P. "Safety Belt Usage in Maryland," Transportation Studies Center Report 79-003, University of Maryland, College Park, December 1979.
8. Schonfeld, P. "Transportation Service between College Park and Catonsville," Summary Report for the Intercampus Transportation Study. University of Maryland, College Park, December 1979.
9. Mulinazzi, T., White, J., Hanscom, J., and Schonfeld, P. "Highway Safety Training Needs for Maryland," TSC Report 79-015. University of Maryland, College Park, January 1980.
10. Corsi, T., Schonfeld, P., and Steadman, C. "International Air Cargo Potential at BWI Airport," TSC. University of Maryland, College Park, January 1981.
11. Bixby, R., Reno, A., Corsi, T., Carter, E., and Schonfeld, P. "Analysis of the Impacts of Future Fuel Shortage Scenarios," Prelim. Res. Report 194, New York State, Department of Transportation, January 1981, 150 pp.
12. Bixby, R., Reno, A., Corsi, T., Carter, E., Schonfeld, P., and Hess, M. "Analysis of Actions Appropriate for Transportation Energy Contingencies," Preliminary Res. Report 195, New York State Department of Transportation, January 1981, 170 pp.
13. Hughes, W. and Schonfeld, P. "Survey of Recreation Travel Behavior on the Maryland Eastern Shore," TSC.

- University of Maryland, College Park, March 1981.
14. Schonfeld, P. and Tsao, S. "Statistics for Traffic Safety Analysis," Evaluation Report, TSC. University of Maryland, College Park, April 1981.
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CONFERENCE PRESENTATIONS

1. Schonfeld, P. "Aircraft-Airport Compatibility Tradeoffs," Annual TRB Meeting, Washington DC, January 1980.
2. Schonfeld, P. "A Transportation System Optimization Model," Second ASCE Conference on Computing in Civil Engineering, Baltimore, MD, June 1980.
3. Schonfeld, P. "Efficiency Implications of Aircraft Size," Annual TRB Meeting, Washington, DC, January 1982.
4. Hu, Y., and Schonfeld, P. "Flow Optimization on Intercity Road Networks," Annual ITE Meeting, London, UK, August 1983.
5. Schonfeld, P., and Frank, S. "Optimizing the Utilization of a Containership Berth," Annual TRB Meeting, Washington DC, January 1984.
6. Hu, Y., and Schonfeld, P. "Optimizing Traffic Diversion around Bottlenecks," Annual TRB Meeting, Washington DC, January 1984.
7. Schonfeld, P., and Sharafeldien, O. "Containerport Sizing," ORSA Meeting, Operations Research Society of America, San Francisco, CA, May 1984.
8. Schonfeld, P. "Optimization Guidelines for Urban Transit Systems," ORSA Meeting, San Francisco, CA, May 1984.
9. Schonfeld, P., and Sirisoponsilp, S. "Optimizing Container Handling in Ports," Annual TRB Meeting, Washington DC, January 1987.
10. Schonfeld, P. "Railroad Transportation Developments in the United States," China Railway Administration, Chengdu, China, August 1987.
11. Chadda, H., Schonfeld, P., and Carter, E. "Criteria for Pedestrian Overpasses and Underpasses," Annual ITE Meeting, New York, NY, August 1987.
12. Schonfeld, P. and Carter, E. "Optimal Timing of Airport Facility Development," 20th International Air Transportation Conference, Orlando, FL, June 1988.
13. Lee, K. and Schonfeld, P. "Influence of Belly and All-cargo Operations on Airport Design," Annual TRB Meeting, Washington DC, January 1989.
14. Dai, D.M. and Schonfeld, P. "Simulation of Waterway Transportation Reliability," Annual TRB Meeting, Washington DC, January 1989.
15. Chang, S.K. and Schonfeld, P. "Optimization of Feeder Bus Services," ORSA Meeting, New York, NY, October 1989.
16. Dai, D.M. and Schonfeld, P. "Analysis of Service Time Reliability on Waterways," ORSA Meeting, New York, NY, Oct. 1989.
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19. Chang, S.K. and Schonfeld, P. "Analytic Optimization of Integrated Bus Systems," ORSA Meeting, Las Vegas, NV, May 1990.
20. Chang, S.K., and Schonfeld, P. "Integration of Fixed and Flexible Route Bus Systems," Annual TRB Meeting, Washington DC, January 1991.

21. Schonfeld, P. and Chang, S.K. "Public Transit Optimization Guidelines," ORSA Meeting, Philadelphia, PA, October 1990.
22. Carter, E. and Schonfeld, P. "Safety Belt Use and Highway Safety in Maryland," Annual TRB Meeting, Washington DC, January 1991.
23. Chang, S.K. and Schonfeld, P. "Analytic Optimization of Bus Routes With Time Dependent Equilibrium," Annual TRB Meeting, Washington DC, January 1991.
24. Dai, D.M. and Schonfeld, P. "Metamodels for Estimating Waterway Delays through Series of G/G/1 Queues," Annual TRB Meeting, Washington DC, January 1992.
25. Dai, M.D.M. and Schonfeld, P. "Approximation Methods for Queuing Delays in Waterway Networks," World Transportation Research Conference, Lyon, France, June 1992.
26. Chang, S.K. and Schonfeld, P. "Welfare Maximization with Financial Constraints for Bus Transit Systems," Annual TRB Meeting, Washington DC, Jan. 1993.
27. Dai, M.D.M., Schonfeld, P. and Antle, G. "Optimal Speeds on Waterways with Lock Congestion and Unreliability," Annual TRB Meeting, Washington DC, January 1993.
28. Spasovic, L.N. and Schonfeld, P. "A Method for Optimizing Transit Service Coverage," Annual TRB Meeting, Washington DC, January 1993.
29. Lee, K.T. and Schonfeld, P. "Schedule Optimization for Multiple-Route Timed-transfer Terminals," Annual TRB Meeting, Washington DC, January 1993.
30. Martinelli, D., Dai, M.D.M., Schonfeld, P. and Antle, G. "A Methodology for Planning Interdependent Waterway Improvements," Annual TRB Meeting, Washington DC, January 1993.
31. Wei, C.H. and Schonfeld, P. "An Artificial Neural Network Approach for Estimating Multiperiod Travel Times in Transportation Networks," Annual TRB Meeting, Washington DC, January 1993.
32. Schonfeld, P. "A Queuing Model for Optimizing Containerport Operations," Baltimore Port Operations Conference, February 1992.
33. Schonfeld, P. "Queuing and Simulation Methods for Analyzing Inland Waterway Improvements," Baltimore Port Operations Conference, February 1993.
34. Lee, K.T. and Schonfeld, P. "Real - time Control for Coordinated Operations in Transit Terminals," Annual TRB Meeting, January 1994.
35. Dai, M.D.M. and Schonfeld, P. "Metamodeling Approach for Approximating Series of G/G/1 Queues on Congested Waterways," First ASCE Congress on Computing in Civil Engineering, Washington, DC, June 1994.
36. Schonfeld, P., Lee, K.T. and Chang, C. "Scheduling and Real-Time Dispatching of Flights in Hub Operations," Annual ASCE Meeting, Atlanta, GA, October 1994.
37. Chang, C. and Schonfeld, P. "Efficient Gate Assignment for Airport Hub Operations," Annual ASCE Meeting, Atlanta, GA, October 1994.
38. Schonfeld, P. "Management of Airport Hub Operations," 30th Annual Transportation Symposium. Tainan, Republic of China, December 1994.
39. Chang, C. and Schonfeld, P. "Flight Sequencing in Hub Airports," Annual TRB Meeting, January 1995.
40. Kim, Y.M. and Schonfeld, P. "Neural Network Estimation of Lock Service Times," Annual TRB Meeting, January 1995.
41. Wei, C.H. and Schonfeld, P. "Computational Issues in Neural Network Applications to Multiperiod Network Design," National INFORMS Meeting. Los Angeles, CA, April 1995.
42. Wei, C.H. and Schonfeld, P. "Research Framework for Cost Effective Highway Maintenance Planning," Annual TRB Meeting, January 1996.
43. Schonfeld, P. "Optimization Options with SIMMOD," Annual Meeting of the North American SIMMOD Users Group. Washington, DC, March 1997.
44. Schonfeld, P. "Analysis of Hub Terminal Operations," ASCE Aviation Simulation and Modeling Conference. Rosslyn, VA, August 1997.
45. Zhu, L. Schonfeld, P., Kim, Y. M., Flood, I. and Ting, C. J. "An Artificial Neural Network Analyzer for Waterway Traffic," Annual TRB Meeting, January 1998.
46. Ting, C. J. and Schonfeld, P. "Optimization through Simulation of Waterway Transportation Investments," Annual TRB Meeting, January 1998.
47. Jong, C. J. and Schonfeld, P. "Optimizing Vertical Alignments for Highways with Genetic Algorithms," Annual TRB Meeting, January 1999 (99-0719 on CD-ROM).
48. Jong, J. C. and Schonfeld, P. "Cost Functions for Optimizing Highway Alignments," Annual TRB Meeting, January 1999, (99-0700 on CD-ROM).

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50. Jha, M. and Schonfeld, P. "Integrating Genetic Algorithms and GIS to Optimize Highway Alignments," Annual TRB Meeting, January 2000.
51. Rakas, J. and Schonfeld, P. "Air Traffic Management Performance during Equipment Outages," Annual TRB Meeting, January 2000 (00-0954 on CD-ROM).
52. Jha, M. and Schonfeld, P. "GIS - based Analysis of Right-of-Way Cost for Highway Optimization," Annual TRB Meeting, January 2000 (00-1065 on CD-ROM).
53. Rakas, J. and Schonfeld, P. "Airspace Reliability Models," NEXTOR Symposium. Washington DC, November 14, 2000.
54. Jha, M. and Schonfeld, P. "Considering Maintainability in Highway Alignment Optimization," Annual TRB Meeting, January 2001 (01-3170 on CD-ROM).
55. Kim, E. and Schonfeld, P. "Estimating Highway Cross Section Using Vector and Parametric Representation," Annual TRB Meeting, January 2001 (01-2682 on CD-ROM).
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58. Wang, S.L. and Schonfeld, P. "Development of Generalized Waterway Simulation Model," Annual TRB Meeting, Jan. 2002 (02-2194 on CD-ROM).
59. Jha, M. and Schonfeld, P. "Transit Line Optimization with Genetic Algorithms and GIS," Annual TRB Meeting, January 2003 (03-4383 on CD-ROM).
60. Chen, C.H.P. and Schonfeld, P. "Work Zone Lengths for a Four - lane Road with an Alternate Route," Annual TRB Meeting, January 2003 (03-2944 on CD-ROM).
61. Schonfeld, P. "Selection and Scheduling of Interdependent Projects," Korea Transport Inst. Incheon. ROK, August 6, 2003.
62. Chen, C.H.P. and Schonfeld, P. "Work Zone Optimization for Two - lane Highway Maintenance Projects," Annual TRB Meeting, January 2004 (04-3898 on CD-ROM).
63. Tao, X. and Schonfeld, P. "A Simulation Method for Selecting and Scheduling Waterway Projects," Annual TRB Meeting, January 2004 (04-2899 on CD-ROM).
64. Tao, X. and Schonfeld, P. "Parallel Genetic Algorithms for Selecting and Scheduling Interdependent Transportation Projects," INFORMS Meeting. Denver, October 27, 2004.
65. Pathomsiri, S., Haghani, A. and Schonfeld, P. "Operational Efficiency of Airports in Multiple Airport Systems," Annual TRB Meeting, January 2005, (05-0495 on CD-ROM).
66. Luo, Y. and Schonfeld, P. "Tour Length of Many-to-One Dial-A-Ride Service," Annual TRB Meeting, January 2005 (05-0561).
67. Chen, C.H.P., Schonfeld, P. and Paracha, J. "Work Zone Optimization for Two-lane Highway Work Zone Projects with an Alternate Route," Annual TRB Meeting, January 2005 (05-1820).
68. Tao, X., and Schonfeld, P. "A Lagrangian Relaxation Algorithm for Selecting Interdependent Projects under Cost Uncertainty," Annual TRB Meeting, January 2005 (05-0565).
69. Pathomsiri, S., Haghani, A. and Schonfeld, P. "Vehicle Miles Traveled in Multi - vehicle Households," Annual TRB Meeting, January 2005, (05-0494).
70. Kim, E., Schonfeld, P., Kim, H.S. and Jha, M.K. "Highway Alignment Optimization Incorporating Bridges and Tunnels," Annual TRB Meeting, January 2005, (05-2574).
71. Wang, S. and Schonfeld, P. "Genetic Algorithms for Selecting and Scheduling Waterway Projects," NETS Symposium. Salt Lake City, January 12-14, 2006.
72. Kang, M., Jha, M., and Schonfeld, P. "Three- Dimensional Highway Alignment Optimization for the Brookeville Bypass," Annual TRB Meeting, January 2006, (06-1023).
73. Tao, X., and Schonfeld, P. "Selection and Scheduling of Interdependent Transportation Projects with Island Models," Annual TRB Meeting, January 2006, (06-1105).
74. Wang, S., Tao, X., and Schonfeld, P. "Modeling Shippers' Response to Scheduled Waterway Lock Closures," Annual TRB Meeting, January 2006, (06-1833).
75. Chen, C.H.P., and Schonfeld, P. "Work Zone Optimization for Multiple - Lane Highway Resurfacing Projects with Time Constraints and an Alternate Route," Annual TRB Meeting, January 2006, (06-1812).
76. Tien, S.L. and Schonfeld, P. "Duration versus Cost Tradeoffs in Work Zone Optimization," Annual TRB

- Meeting, January 2006, (06-1789).
77. Schonfeld, P. "Optimizing Challenging Problems with Artificial Intelligence Heuristics," Annual TRB Meeting, January 21, 2007.
 78. Tao, X. and Schonfeld, P. "Island Models for a Stochastic Problem of Transportation Project Selection and Scheduling," Annual TRB Meeting, January 2007, (07-1895).
 79. Tien, S.L. and Schonfeld, P. "Passenger Market Equilibrium for Competing Airports in a Multiple Airport Region," Annual TRB Meeting, January 2007, (07-1635).
 80. Wang, S.L., and Schonfeld, P. "Demand Elasticity and Benefit Measurement in a Waterway Simulation Model," Annual TRB Meeting, January 2007, (07-2579).
 81. Wang, S.L., and Schonfeld, P. "Modeling Demand Response to Unscheduled Waterway Lock Closures," Annual TRB Meeting, January 2007, (07-1849).
 82. Chen, C.H.P. and Schonfeld, P. "Pavement Resurfacing Intervals in Work Zone Optimization," Annual TRB Meeting, January 2007, (07-1625).
 83. Zhou, Y., Kim, H.S., Schonfeld, P. and Kim, E., "Subsidies and Welfare Maximization Tradeoffs in Bus Transit Systems," Western Regional Science Association Conference, Newport Beach, California, Feb. 2007.
 84. Karri, G.A.K., Jha, M.K., Kang, M.W. and Schonfeld, P., "Application of GIS in Highway Alignment Optimization," 20th Annual Geographic Information Sciences Conference, Towson Univ., Baltimore, Maryland, March 2007.
 85. Kim, D. and Schonfeld, P., "Road Space Allocation in a Congested Transportation Network with Bus and Toll Lanes," 11th World Conference on Transport Research, Berkeley, California, June 2007.
 86. Ngamchai, S. and Schonfeld, P., "Air Express Network Design with Hub Sorting," 11th World Conference on Transport Research, Berkeley, California, June 2007.
 87. Tien, S.L. and Schonfeld, P. "Model of Controller Requirements for Enroute Traffic," 29th International Air Transport Conference, Irving, Texas, Aug. 2007.
 88. Tien, S.L. and Schonfeld, P. "Estimation of Enroute Controller Requirements in Response to Future traffic Growth," INFORMS Meeting, Nov. 6, 2007.
 89. Wang, S.L. and Schonfeld, P., "Scheduling of Waterway Projects with Complex Interrelations," accepted for Annual TRB Meeting, January 2008, (08-2512).
 90. Wang, S.L., Yang, N. and Schonfeld, P. "Simulation-Based Maintenance Planning for Waterway Networks," accepted for Annual TRB Meeting, January 2008, (08-2602).
 91. Kim, D. and Schonfeld, P. "Road Network Design with Road Space Allocation and Toll Funding," accepted for Annual TRB Meeting, January 2008, (08-2873).
 92. Kim, D. and Schonfeld, P. "Integrated Analysis of Toll Lanes and Bus-priority Lanes," accepted for Annual TRB Meeting, January 2008, (08-2906).
 93. Tien, S.L. and Schonfeld, P. "Ordinal Regression Model for Forecasting Enroute Controller Requirements," accepted for Annual TRB Meeting, January 2008, (08-1652).