



June 2013

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Date of Birth: June 24, 1938  
Registered Professional Engineer in the State of Ohio

Degrees	Field	Institution	Date Conferred
B.S.	Civil Engineering	Northwestern University	1961
Master	City Planning	University of Pennsylvania	1963
M.A.	Regional Science	University of Pennsylvania	1964
Ph.D.	Regional Science	University of Pennsylvania	1965

### Academic Positions

#### Northwestern University

2004- Adjunct Professor, Department of Civil and Environmental Engineering,  
McCormick School of Engineering and Applied Science

#### University of Illinois at Chicago

2003- Professor Emeritus of Transportation and Regional Science  
1997-2003 Professor of Transportation and Regional Science, Department of Civil  
and Materials Engineering; retired May 31, 2003  
1988-1996 Director, Urban Transportation Center, and Professor of Transportation  
and Regional Science in the College of Urban Planning and  
Public Affairs and in the Department of Civil and Materials  
Engineering  
1993-1995 President, Illinois Universities Transportation Research Consortium  
1988-1993 Member, Administrative Committee, Illinois Universities Transportation  
Research Consortium  
1999-2002 Member, Senate Executive Committee

#### University of Illinois at Urbana-Champaign

1977-1988 Professor of Transportation and Regional Science, Department of Civil  
Engineering; secondary appointment in Department of Urban  
and Regional Planning  
1980-1988 Chair, Regional Science Program in the Graduate College  
1979-1988 Director, Office of Transportation Research, Office of the Vice Chancellor  
for Research  
1981-1988 Administrative Committee Member, Illinois Universities Transportation  
Research Consortium

## University of Pennsylvania

1966-1968	Assistant Professor of City and Regional Planning
1968-1977	Assistant Professor, Associate Professor, Professor of Regional Science and Transportation
2003	Visiting Professor of Systems Engineering

### **Other Academic Experience:**

1972-1973	Senior Visiting Fellow, University of Leeds, England
1982	Lecturer, International School on Transportation Planning, Amalfi, Italy,
1983	Visiting Professor of Optimization, Department of Mathematics, University of Linköping, Sweden, and Royal Institute of Technology, Stockholm, Sweden, Aug.-Dec.
1984	Visiting Professor of Transportation and Urban Planning, Northwestern University, Evanston, Jan.-June
1996	Visiting Professor of Urban and Regional Research, Technical University of Vienna, Austria, March-May
1996	Visiting Professor of Regional Science, University of Karlsruhe, Germany, June-July
1996	Visiting Professor of Transportation Planning, Royal Institute of Technology, Stockholm, Sweden, Sept.-Oct.
1996	Visiting Professor of Optimization, Linköping University, Sweden, Nov.-Dec.
2003	Visiting Professor of Civil Engineering, National University of Singapore, Singapore, Jan.-Feb.
2003	Visiting Erskine Fellow in Civil Engineering, University of Canterbury, Christchurch, New Zealand, April-June
2003, 2007, 2008	Visiting Lecturer, Department of Civil Engineering, University of Arizona

### **Honors, Prizes, Awards:**

Tau Beta Pi, Northwestern University	1960
Sears-Roebuck Foundation Fellowship	1961-1963
National Science Foundation Fellowship	1963-1964
Japan Society for the Promotion of Science Short Term Fellowship	1984 (declined)
Who's Who in America,	1980-2003
Medal of the City of Kulmbach, Germany	1984
John Nuveen Center for International Affairs, University of Illinois at Chicago	1994
Distinguished Service Award, North American Regional Science Council	1994
ADVANCE Project Steering Committee, Recognition of Service to the ITS Field	1995
North American Regional Science Association Reception Guest of Honor	1996
College of Engineering Faculty Research Award	2000
UIC Inventor of the Year Award	2000
Founder's Medal of the Regional Science Association International	2000
UIC Flame Award for Teaching Excellence	2001
Fellows Award (Inaugural) of the Regional Science Association International	2002
Life Member, American Society of Civil Engineers	2003
Emeritus Member, Transportation Research Board	2003
Robert Herman Lifetime Achievement Award, TSL, INFORMS	2003
Fellows Award of INFORMS	2003
Fellows Award of ASCE	2009
Honorary Member of Japan Section, Regional Science Association International	2009
Distinguished Transport Lecture, Inst. of Transport Studies, Univ. of Hong Kong	2011

### **Honors Received by Students Supervised:**

Hillel Bar-Gera, Transportation Science 2000 Dissertation Prize, INFORMS.  
Der-Horng Lee, The Technology Review 100: World 100 top innovators under 35 whose work and ideas will change the world, *MIT Technology Review*, 2002.  
Muanmas Wichiensin, Thai Government Scholarship, Ph.D., Imperial College, London, 2003.

### **Professional Societies and Activities:**

Regional Science Association International	1961-
Secretary	1969-1978
International Conference Coordinator	1978-1988
Program Chairman, North American Meetings	1977-1989
President	1987
Chair and Past Chair, North American Regional Science Council	1989-1992
Secretary, Benjamin H. Stevens Graduate Fellowship Fund	1998-
Archivist	1998-
Founder's Medal	2000
Fellow (one of four Inaugural Fellows designated by RSAI Council)	2002
Institute for Operations Research and the Management Sciences (formerly Operations Research Society of America)	1964-
Transportation Science Section Council	1978-1981
Member, TS Lifetime Achievement Award Selection Committee	1993-1996, 2007
Chair, Transportation Planning Interest Group, TS Section	1995-2002
Robert Herman Lifetime Achievement Award, Transportation and Logistics Section	2003
Fellows Award of INFORMS	2003
Transportation Research Board	
Committee on Urban Activity Systems, Chairman	1974-1979
Committee on Transportation Network Modeling, or predecessors	1979-2002
University Representative, University of Illinois at Chicago	1988-1999
Emeritus Member	2003
American Society of Civil Engineers	1960-
Life Member Award	2003

### **Public Service or Similar Activity:**

Associate Editor: Transportation Science	1978-1994
Guest Editor: Transportation Research	1978, 1985
Co-Editor: Environment and Planning A	1979-1988
Journal Editorial Advisory Boards:	
Annals of Regional Science	1977-1982
	1989-1992
Environment and Planning A	1977-1978
	1988-1991
International Regional Science Review	1976-1982
	1989-1991
Journal of Regional Science	1970-1977
Transportation Research	1974-
Transportation Science	1995-
Networks and Spatial Economics	2003-

Member, Panel on Transportation Systems Research, Engineering Research Board, National Research Council	1984-1985
Council of University Transportation Centers: Director, NSF Workshop on Transportation Research	1984-1985
Chair, NSF Liaison Committee	1986-1989
Member, Milton Pikarsky Dissertation Award Judging Committee	1992-1994
PRT Advisory Group, Regional Transportation Authority, Chicago	1991-1992
Metropolitan Planning Council, Chicago: Transportation Committee	1993-2002
Market Based Solutions Advisory Committee	1994-1995
Co-chair, Research Community Panel, Forum on Future Directions of Transportation R & D, National Science and Technology Council	1995
Chair, 14 <sup>th</sup> Annual International EMME/2 Users' Group Conference, Chicago	1997-1999
Member, Organizing Committee for NSF-ESF Conference on Social Change and Sustainable Transport	1998-1999

### Consulting Activities:

Battelle Memorial Institute, Columbus, OH	1966-1968
General Motors Research Laboratories, Warren, MI	1972-1976
Regional Science Research Institute, Philadelphia, PA	1975-1977
Metropolitan Transportation Commission, Berkeley, CA	1978
Korea Institute of Science and Technology, Seoul, Korea	1979-1980
LJL and Associates, Nashville, TN	1983-1991
JFT and Associates, Pacific Palisades, CA	1988-1992
University of Texas, Austin, TX	1991-1993
Comsis Corporation, Silver Spring, MD	1995
SRF Consulting Group, Inc.	2003
MCT Limitada, Santiago, Chile	2011

### Teaching Activity at the University of Illinois at Chicago:

Courses	Credit Hours	Clock Hrs. Per Week	Number of Students	Type of Instruction	%
<u>Fall, 2000, Spring, 2001, Summer, 2001</u>					
CEMM 302	4	3	21	Lect.-Disc	100
CEMM 594-UT	4	3	4	Lect.-Disc	100
CEMM 594-TN	4	3	5	Seminar	
Honors 201	1	1	15	Lect.-Disc	100
CEMM 508	4	3	11	Lect.-Disc	100
CEMM 509	4	6	3	Lect.-Disc	100
<u>Fall, 2001, Spring, 2002, Summer, 2002</u>					
CEMM 302	4	3	25	Lect.-Disc	100
CEMM 501	4	3	8	Seminar	
CEMM 508	4	3	12	Lect.-Disc	100
CEMM 509	4	6	5	Lect.-Disc	100
<u>Fall, 2002</u>					
CEMM 302	4	3	31	Lect.-Disc	100
CEMM 501	4	3	8	Seminar	

**Teaching Activity at Northwestern University:**

<b>Courses</b>	<b>Course Units</b>	<b>Clock Hrs. Per Week</b>	<b>Number of Students</b>	<b>Type of Instruction</b>	<b>%</b>
Winter, 2005 CIV ENG 371-0	1	4	3	Lect-Disc	100%
Spring, 2005 CIV ENG 471-2	1	4	5	Lect-Disc	100%
Winter, 2006 CIV ENG 471-1	1	4	7	Lect-Disc	100%
Spring, 2006 CIV ENG 471-2	1	4	3	Lect-Disc	100%

**Fields of Active Research:**

Urban and regional transportation planning methods;  
Dynamic transportation system models for planning of Intelligent Transportation Systems

**Principal Investigator on Recent Contracts at the University of Illinois at Chicago:**

Illinois Department of Transportation	1990	\$80,000
Illinois Department of Transportation	1991	42,000
University of Texas	1991	15,000
Illinois Department of Transportation	1992 (ADVANCE Project)	339,000
Illinois Department of Transportation	1993 (ADVANCE Project)	432,000
Meridian Engineers	1993	18,000
Illinois Department of Transportation	1994 (ADVANCE Project)	296,000
T.Y. Lin, International BASCOR (2 projects)	1994	19,000
Illinois Department of Transportation	1995 (ADVANCE Project)	275,000
National Institute of Statistical Sciences/NSF	1995	139,000
Regional Transportation Authority	1995	3,000
National Institute of Statistical Sciences/NSF	1996	104,000
Illinois Department of Transportation	1996 (ADVANCE Project)	27,000
Resource Systems Group	1996	25,000
National Institute of Statistical Sciences/NSF	1998	70,000
National Academy of Sciences – ITS IDEA Prog.	1998	15,236
Regional Transportation Authority	1998	15,000
National Institute of Statistical Sciences/NSF	1999	174,000
SUNY at Buffalo/NSF	1999	145,000
Resource Systems Group	1999	32,000
National Institute of Statistical Sciences/NSF	2000	150,000
Chicago Metropolis 2020	2001	86,000
Illinois Department of Natural Resources	2001	60,000

**Principal Investigator on Recent Contracts at Northwestern University**

Federal Highway Administration (Co-PI)	2008	100,000
Center for the Commercialization of Technology	2013	3,500

**Invention Disclosures**

Origin-based Traffic Assignment Algorithm	2000
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**Ph.D. Thesis Students Supervised at Present:      M.S. Thesis Students Supervised at Present:      Other Ph.D. Committee Service:**

**Students Supervised who Received M.S. Degree:**

D. Poo	1978
T. Wells	1979
S. MacArthur	1981
M. Dunn	1982
P. Fahrenwald	1982
Y. J. Lee	1982
J. Parsons	1982
J. Hicks	1985
J. Hochmuth	1986
C. Meneguzzer	1986
K. Lennerstrand	1987
D. Reiland	1987
M. Tatineni	1992
O. Smoliak	1993
M. Lupa	1994
K. Compere	1995
H. Ran	1996
S. May	1998
J. Souden	1998
K. Balasubramaniam	1999
M. Wichiensin	2000
E. Chang, NU (Co-sup.)	2000
A. Morshed	2000
B. Ralevic-Dekic	2001
K. Nizamuddin	2000
A. Sreenivasan	2001
M. Sanakkayala	2001
O. Cuceu	2001
F. Noeth	2001
Q. Xiong	2002
T. Sonkhya	2003
B. Pandey	2003
A. Stryker	2003

**Students Supervised who Received Ph.D. Degree:**

J. M. Choukroun	1972
C. McDonald	1972
R. Mudge	1972
J. Platt	1972
P. Slater	1972
G. Desfor	1973
S. Hakin	1974
A. Isserman	1975 (d. 2010)
T. Miller	1975
F. Tang	1975
J. Green	1976
C. Yang	1976
C. DeFiglio	1977
B. Douglas	1977 (d. 2012)
C. Frank	1978
B. N. Janson	1981
K. S. Chon	1982
M. E. Ferris	1982
Y. J. Lee	1985
C. K. Lee	1987
O. Ben-Ayed (Co-sup.)	1988
D. G. Brown	1988
H. K. Chen	1989
C. S. Griffin	1990
C. Meneguzzer	1990
J. E. Hicks	1992
B. Ran	1993
K. Said (Co-sup.)	1993
S. Berka	1994
Y. Zhang	1995
F. Karuma	1995
M. Tatineni	1996
D-H. Lee	1996
M. Hribar, NU (Co-sup.)	1997
X. Tian	1999
H. Bar-Gera	1999
B. Hafeez	2000
H. Ham, UIUC (Co-sup.)	2001
V. Bernardin Jr. NU (Co-sup.)	2009

**Post-Doctoral Students and Visiting Scholars Supervised or Co-supervised:**

K. Mouskos	1991	P.-W. Chang	1998
A. Tarko	1994	H. Bar-Gera	1999
S. Berka	1995	Y. Hu, NU (Co-Sup.)	2009
M. Tatineni	1997	J. Xie, NU (Co-Sup.)	2011-12

## **Reviewer Activities**

Journals, publishers, and research supporting agencies for whom papers, books, or proposals were reviewed:

Transportation Research  
Transportation Science  
Transportation Research Board  
Journal of Transportation Engineering, ASCE  
Environment and Planning A  
Journal of Regional Science  
Annals of Regional Science  
International Regional Science Review  
Papers in Regional Science  
Journal of the American Institute of Planners  
National Science Foundation  
National Research Council, Canada  
University Grants Committee, Research Grants Council of Hong Kong  
North-Holland Publishing Company  
Elsevier Science, Oxford  
John Wiley and Sons  
Springer  
Kluwer Academic Publishers  
World Conference on Transport Research  
TRISTAN

## **Publications:**

1. Boyce, D. E. The Effect of Direction and Length of Persons Trips on Urban Travel Patterns, **Journal of Regional Science**, **6** (1966): 65-82.
2. Boyce, D. E. and R. W. Cote. Verification of Land Use Forecasting Models: Procedures and Data Requirements, **Highway Research Record**, **126** (1966): 60-65.
3. Boyce, D. E. and S. E. Goldstone. A Regional Economic Simulation Model for Urban Transportation Planning, **Highway Research Record**, **149** (1966): 29-41; reprinted in **Managerial Applications of Systems Dynamics** (E. B. Roberts, ed.) MIT Press, Cambridge (1978): 561-576.
4. Boyce, D. E. Effect of Trip Direction on Interzonal Trip Volumes: Test of a Basic Assumption of Trip Distribution Models, **Highway Research Record**, **165** (1967): 76-88.
5. Boyce, D. E. Communication in the Field of Urban Development Models, **Highway Research Board Special Report**, **97** (1968): 239-250.
6. Boyce, D. E., A. Farhi and R. Weischedel. A Computer Program for Optimal Regression Analysis, **Discussion Paper Series No. 28**, Regional Science Research Institute, Philadelphia, 27 pp. (1969).
7. Boyce, D. E., N. D. Day and C. McDonald. **Metropolitan Plan Making, Monograph Series No. 4**, Regional Science Research Institute, Philadelphia, 491 pp. (1970).
8. Hickey, R. J., D. E. Boyce, E. B. Harner and R. C. Clelland. Ecological Statistical Studies Concerning Environmental Pollution and Chronic Disease, **IEEE Transactions on Geoscience Electronics**, **GE-8** (1970): 186-202; reprinted as Chapter 11, Environmental Pollution and Human Health, **Urban Environmental Management Planning for Pollution Control**, B. J. L. Berry and F. E. Horton (eds.), Prentice-Hall, Englewood Cliffs (1974).
9. Hickey, R. J., D. E. Boyce, E. B. Harner and R. C. Clelland. Ecological Statistical Studies on Environmental Pollution and Chronic Disease in Metropolitan Areas of the U.S., **Discussion Paper Series No. 35**, Regional Science Research Institute, Philadelphia, 111 pp. (1970).
10. Boyce, D. E. Notes on the Methodology of Urban Transportation Impact Analysis, **Highway Research Board Special Report**, **111** (1970): 41-44.
11. Boyce, D. E. The Role of Urban Development Models in Metropolitan Plan Making, in **Models of Urban Structure**, D. C. Sweet (ed.), D. C. Heath Co., Lexington (1971): 27-36.
12. Boyce, D. E., C. McDonald and A. Farhi. **An Interim Report on Procedures for Continuing Metropolitan Planning**, Regional Science Department, University of Pennsylvania, Philadelphia, xxxiii + 565 pp. (1971).
13. Boyce, D. E. The Metropolitan Plan Making Process: Its Theory and Practical Complexities, in **Urban and Regional Planning, London Papers in Regional Science**, **2**, A. G. Wilson (ed.) Pion Ltd., London (1970): 96-109.



14. Hickey, R. J.; D. E. Boyce; E. B. Harner and R. C. Clelland. **Exploratory Ecological Studies of Variables Related to Chronic Disease Mortality Rates**, National Technical Information Service, Springfield, VA, PB246383, 195 pp. (1971).
15. Boyce, D. E. (ed.) Studies of the Philadelphia-Lindenwold Rapid Transit Line, **Discussion Paper Nos. 1-4**, University of Pennsylvania, Philadelphia (1971).
16. Boyce, D. E. and B.V.A. Murthy. **Analysis of Peak Period Passenger Flows**, National Technical Information Service, Springfield, VA PB203780, 23 pp. (1971).
17. Boyce, D. E. Toward a Reformulation of the Modal Choice Problem of Urban Transportation Planning, in **Recent Developments in Regional Science, Karlsruhe Papers in Regional Science**, R. Funck (ed.), Pion Ltd., London (1972): 61-84.
18. Boyce, D. E. Toward a Framework for Defining and Applying Urban Indicators in Plan Making, **Urban Affairs Quarterly**, 6 (1970): 145-171; reprinted in I. M. Robinson (ed.) **Decision-Making in Urban Planning**, Sage Publications, Beverly Hills (1972): 61-84.
19. Boyce, D. E., C. McDonald and A. Farhi. Specification of Plan Making Procedures for a Given Planning Situation, **Highway Research Record**, 394 (1972): 19-32.
20. Boyce, D. E. and C. McDonald. **The Refinement of Procedures for Continuing Metropolitan Planning**, Regional Science Department, University of Pennsylvania, Philadelphia (1972).
21. Boyce, D. E. Assessing Impacts of Urban Transportation, **Transportation Engineering Journal, ASCE 98, TE3** (1972): 645-652.
22. Boyce, D. E., B. Allen, R. Mudge, P. Slater and A. Isserman. **Impact of Rapid Transit on Suburban Residential Property Values and Land Development**, National Technical Information Service, Springfield, VA PB220693, 370 pp. (1972).
23. Boyce, D. E., B. Allen, G. Desfor and R. Zuker **Impact of Access Distance and Parking Availability on Suburban Rapid Transit Station Choice**, National Technical Information Service, Springfield, VA PB220694, 360 pp. (1972).
24. Boyce, D. E., A. Farhi and R. Weischedel. Optimal Network Problem: A Branch and Bound Algorithm, **Environment and Planning**, 5, (1973): 519-533.
25. Boyce, D. E. and B. Allen. Transportation Research: Problems and Prospects, **Papers of the Regional Science Association**, 32 (1974): 21-51.
26. Boyce, D. E. and C. McDonald. **Procedures for Continuing Metropolitan Planning**, Federal Highway Administration, Washington, D.C., 142 pp. (1974).
27. Boyce, D. E., A. Farhi and R. Weischedel. **Optimal Subset Selection: Multiple Regression, Interdependence and Optimal Network Algorithms, Lecture Notes in Economics and Mathematical Systems**, 103, 187 pp. Springer-Verlag, Heidelberg (1974).
28. Boyce, D. E. and W. B. Allen. Impact of Rapid Transit on Suburban Residential Development, in **New Jersey Trends**, T. P. Norman (ed.), Rutgers University, New

- Brunswick (1974): 478-497.
29. Boyce, D. E. and W. B. Allen. Impact of a High Speed Rapid Transit Facility on Residential Property Values, **High Speed Ground Transportation**, **8** (1974): 53-60.
  30. Boyce, D. E. and G. Desfor. **Impact of Suburban Rapid Transit Station Location, Fare and Parking Availability on Users' Station Choice Behavior**, Office of the Secretary, U.S. Department of Transportation, Washington, D.C., 313 pp. (1974).
  31. Boyce, D. E., K. Nguyen, T. Noyelle and K. Webb. **Impact of a Suburban Rapid Transit Line on Fuel Consumption and Cost for the Journey-to-Work**, Federal Energy Administration, Washington, D.C., vi + 68 pp. (1975).
  32. Boyce, D. E., W. B. Allen and F. Tang. Impact of Rapid Transit on Residential-Property Sales Prices. **Space, Location and Regional Development**, M. Chatterji (ed.), Pion Ltd., London (1976): 143-153.
  33. Boyce, D. E. and H. Rosen. **Locational Choice and Travel Behavior of Commercial and Governmental Offices in Suburban Rapid Transit Station Areas**, Federal Energy Administration, Washington, D.C. (1977).
  34. Boyce, D. E. and J. Kohlhase. **Choice of Mode and Suburban Apartment Location During a Period of Gasoline Shortages and Price Increases**, Federal Energy Administration, Washington, D.C. (1977).
  35. Coughlin, R. E., D. Berry, K. Bieri, D. Boyce, J. Kohlhase, E. Leonardo, J. Pickett, T. Plaut, B. Stevens, A. Strong, D. Vining and K. Wallace. **Saving the Garden: The Preservation of Farmland and Other Environmentally Valuable Land**, Report to NSF (RANN) (1977).
  36. Boyce, D. E., J. Kohlhase and T. Plaut. **Estimating the Value of Development Easements on Agricultural Land: Methods and Empirical Analysis, Appendix to Saving the Garden**, Report to NSF (RANN) (1977).
  37. Boyce, D. E. Equilibrium Solutions to Combined Urban Residential Location, Mode Choice and Trip Assignment Models, in **Competition Among Small Regions**, W. Buhr and P. Friedrich (eds.), Nomos Verlagsgesellschaft, Baden-Baden, Germany (1978): 246-264.
  38. Murawski, C. A. and D. E. Boyce. Variation in Trip Length by Mode, Location, and Worker Characteristics, **Transportation Research**, **12** (1978): 97-109.
  39. Boyce, D. E., J. Kohlhase and T. Plaut. The Development of a Planning Oriented Method for Estimating the Value of Development Easements on Agricultural Land, **Discussion Paper Series No. 105**, Regional Science Research Institute, Philadelphia (1978).
  40. Boyce, D. E., M. E. Ferris and K. Nguyen. Energy Consumption of the Journey-to-Work With and Without a Suburban Rapid Transit Line, **Transportation Research Record**, **689** (1978): 38-44.
  41. Boyce, D. E. and J. Soberanes. Solutions to the Optimal Network Problem with Shipments Related to Transportation Cost, **Transportation Research**, **13B** (1979): 65-80.
  42. Boyce, D. E. (guest editor) **Transportation Network Design**, **Transportation Research**, **13B** (1979): 1-90.

43. Boyce, D. E. and F. Southworth. Quasi-dynamic Urban Location Models with Endogenously Determined Travel Costs, **Environment and Planning A**, **11** (1979): 575-584.
44. Eash, R. W., D. E. Boyce, and B. N. Janson. Equilibrium Trip Assignment: Advantages and Implications for Practice, **Transportation Research Record**, **728** (1979): 1-8.
45. Boyce, D. E., G. Provenzano, F. Southworth, K. Cromwell-Cain and K. S. Chon. **Modeling the Impacts of Transportation Systems Management on Vehicle Emissions, Phase I Report, Document No. 79/09**, Illinois Institute of Natural Resources, Chicago, vi + 119 pp. (1979).
46. Boyce, D. E. and B. N. Janson. A Discrete Transportation Network Design Problem with Combined Trip Distribution and Assignment, **Transportation Research**, **14B** (1980): 147-154.
47. Boyce, D. E. A Framework for Constructing Network Equilibrium Models of Urban Location. **Transportation Science**, **14** (1980): 77-96; reprinted in **Classics in Regional Science**, P. Nijkamp and K. Button (eds.), Edward Elgar, Cheltenham, (1995).
48. Boyce, D. E. Impact of Federal Rail Transit Investment Programs on Urban Spatial Structure, in **The Urban Impacts of Federal Policies**, N. J. Glickman (ed.), Johns Hopkins Press, Baltimore (1980): 398-425.
49. Boyce, D. E., F. Southworth, T. J. Kim, G. Provenzano, K. S. Chon, K. Cromwell-Cain and T. R. Wells. **Testing Models for Estimating the Impact of Transportation Systems Management on Travel Choices and Vehicle Emissions, Phase II Report, Document No. 81/32**, Illinois Institute of Natural Resources, Chicago, ix + 187 pp. (1981).
50. Eash, R. W., B. N. Janson and D. E. Boyce. Direct Energy Consumption for Personal Travel in the Chicago Metropolitan Area, **Transportation Research Record**, **801** (1981): 15-22.
51. Boyce, D. E., M. C. Romanos, B. N. Janson, P. Prastacos, M. Ferris and R. W. Eash. **Urban Transportation Energy Accounts, Report No. IL-11-0027, Volumes I and II**, Urban Mass Transportation Administration, Washington, D.C., 239 pp., PB 82-135542 (1981).
52. Boyce, D. E., M. C. Romanos, B. N. Janson, M. Ferris, P. Prastacos, R. W. Eash and A. Vyas. **Personal Travel Energy Consumption**, Chicago Area Transportation Study, Chicago, iii + 78 pp. (1981).
53. Boyce, D. E., B. N. Janson and R. W. Eash. The Effects on Equilibrium Trip Assignment of Different Link Congestion Functions, **Transportation Research**, **15A** (1981): 223-232.
54. Boyce, D. E., G. R. Provenzano, M. R. Thompson, R. Bender, M. Engelhardt, L. Keasler, J. Schneider and T. Wells. **Implications of Expanding Coal Production for Illinois Transportation Systems, Document No. 81/10**, Illinois Institute of Natural Resources, Chicago, vii + 106 pp. (1981).
55. Fisk, C. S., D. E. Boyce and D. G. Brown. **A Perspective on the Problem of Combining Network Equilibrium with Urban Systems Models**, Publication No. 1, Department of Civil Engineering, University of Illinois at Urbana-Champaign (1981).

56. Boyce, D. E., R. R. Braeutigam, T. J. Kim, R. P. Ancar, C. S. Griffin, J. T. Lefever and J. Parsons. **Analysis of Selected Problems Related to Transportation of Illinois Coal, Document No. 83-03**, Illinois Department of Energy and Natural Resources, Springfield, xi + 190 pp. (1982).
57. Boyce, D. E., K. S. Chon and R. W. Eash. Development of a Family of Sketch Planning Models, **Research News**, Chicago Area Transportation Study, **22(1)**, (1982): 1-11.
58. Eash, R. W., K. S. Chon, Y. J. Lee and D. E. Boyce. Equilibrium Traffic Assignment on an Aggregated Highway Network for Sketch Planning, **Transportation Research Record**, **994** (1983): 30-37.
59. Boyce, D. E., L. J. LeBlanc, K. S. Chon, Y. J. Lee and K. T. Lin. Implementation and Computational Issues for Combined Models of Location, Destination, Mode and Route Choice, **Environment and Planning A**, **15** (1983): 1219-1230.
60. Fisk, C. S. and D. E. Boyce. A Note on Trip Matrix Estimation from Link Count Data, **Transportation Research**, **17B** (1983): 245-250.
61. Fisk, C. S. and D. E. Boyce. Alternative Variational Inequality Formulations of the Network Equilibrium-Travel Choice Problem, **Transportation Science**, **17** (1983): 454-463.
62. Kim, T. J., D. E. Boyce and G. J. D. Hewings. Combined Input-Output and Commodity Flow Models for Interregional Development Planning: Insights from a Korean Application, **Geographical Analysis**, **15** (1983): 330-342; also published in **Proceedings of the Conference on Urban Planning and Regional Development in a Rapidly Changing Society**, Princeton University, Princeton (1983); reprinted in **Classics in Planning**, A. Reggiani, K. Button and P. Nijkamp (eds.), Edward Elgar, Cheltenham (2006).
63. Fisk, C.S. and D. E. Boyce. A Modified Composite Cost Measure for Probabilistic Choice Modeling, **Environment and Planning A**, **16** (1983): 241-248.
64. Boyce, D. E. Network Models in Transportation/Land Use Planning, in **Transportation Planning Models**, M. Florian (ed.), North-Holland Publishing Company, Amsterdam (1984): 475-498.
65. Boyce, D. E. Urban Transportation Network Equilibrium and Design Models: Recent Achievements and Future Prospects, **Environment and Planning A**, **16** (1984): 1445-1474.
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