

OLEG A. SMIRNOV

Department of Economics | Department of Geography and Planning
The University of Toledo, 2801 W Bancroft St, Toledo, OH 43606
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EDUCATION

1998 Ph.D, Natural Resource Economics, West Virginia University
Dissertation titled Computational Aspects of Spatial Data Analysis; advisor: Luc Anselin
1992 M.A., Economics, West Virginia University
1985 B.S. *summa cum laude*, Economic Cybernetics, Novosibirsk State University, Russia

ACADEMIC APPOINTMENTS

2020–present Professor of Economics, Adjunct Professor of Geography and Planning, The University of Toledo

2018 – present: Graduate Director, Department of Economics

2024 – present: Fellow, Institute of Constitutional Thought and Leadership

2011– 2020 Associate Professor of Economics, Adjunct Associate Professor of Geography and Planning, The University of Toledo

Graduate courses: SISS Theory, Advanced Spatial Data Analysis, Econometric Modeling II, Advanced Microeconomic Theory, Regional Economics

Undergraduate courses: Principles of Microeconomics, Principles of Macroeconomics, Urban Economics

2006–11 Assistant Professor, Department of Economics, University of Toledo

Graduate courses: Econometric Models and Methods I & II, Regional Economics;

Undergraduate: Urban Economics, Intermediate Microeconomic Theory, Principles of Microeconomics, Principles of Macroeconomics

Faculty Member (2009–present), PhD Program in SISS (Spatially Integrated Social Sciences)

Graduate courses: SISS Theory, Advanced Spatial Data Analysis

2005–06 Lecturer, Department of Economics, San Diego State University

Graduate courses: Econometrics; Undergraduate: Introduction to Econometrics, Principles of Economics

Lecturer, Department of Geography, San Diego State University Courses: Location of Economic Activity

Research Fellow, Regional Analysis Laboratory, San Diego State University Foundation

2001–04 Senior Research Associate, Regional Economics Applications Laboratory, University of Illinois, Urbana-Champaign

1999–01 Senior Lecturer, School of Social Sciences, University of Texas at Dallas

Graduate courses taught: Computer Techniques in Policy Analysis, Software Development for GIS Applications; Undergraduate: Mathematical Economics, Techniques for Economic Research, Economic History

1998–01 Research Associate, Bruton Center for Development Studies, School of Social Sciences, University of Texas at Dallas

1998 Visiting Research Assistant Professor, Regional Research Institute, West Virginia University

1990–97 Graduate Research Assistant, Regional Research Institute, West Virginia University

1986–90 Instructor, Department of Economics, Novosibirsk State University, Russia Courses taught: Economic Models and Methods

1985–90 Junior Research Associate, Institute of Economics & Industrial Organization, Russian Academy of Sciences, Novosibirsk, Russia

HONORS

* 2013 Included in the list of Top 22 Business Professors in Ohio (<http://onlineschoolsohio.com/top-college-professors-in-ohio/business-management>)

* 2011-12 University of Toledo Student Impact Award.

* Listed as one of the “new generation” spatial econometricians credited for technical advancements in the field (in Anselin, L. (2010), *Papers in Regional Science* 89(1): 3–25)

EDITORIAL APPOINTMENT

2008– Member, Editorial Board, *Letters in Spatial and Resource Science*

SUPERVISION OF Ph.D. STUDENTS

Jeffrey J. Eloff (SISS, 2014), Isabelle M. Nilsson (SISS, 2015), Michael L. Chohaney (SISS, 2018), Matthew Lehnert (SISS, 2021), Salaha Uddin (SISS, 2020), Rebekka Apardian (SISS, ongoing), Md. Rifat Hossain (SISS, ongoing), Esther Amoako (SISS, ongoing)

PUBLICATIONS IN PEER-REVIEWED SCIENTIFIC JOURNALS

Hossain, Md Rifat, Oleg Smirnov (2023) Analyzing the risk factors of residential fires in urban and rural census tracts of Ohio uniting panel data analysis, *Applied Geography*, 151, DOI: 10.1016/j.apgeog.2022.102863

Uddin, Muhammad Salaha, Oleg Smirnov (2022) Spatial Distribution of the Annual Atmospheric Carbon Dioxide in the Contiguous USA and Their Controlling Factors, *Environmental Modeling and Assessment*, 27(1), 57–76, DOI: 10.1007/s10666-021-09780-8

Smirnov, Oleg A (2020) A Closed-Form Consistent Estimator for Linear Models with Spatial Dependence, *Geographical Analysis*, DOI: 10.1111/gean.12268

Apardian, Rebekka E.; Smirnov, Oleg (2020) An analysis of pedestrian crashes using a spatial count data model, *Papers in Regional Science*, DOI: 10.1111/pirs.12523

Nilsson, Isabelle; Smirnov, Oleg; Reid, Neil; and Lehnert, Matthew (2019) To cluster or not to cluster? Spatial determinants of closures in the American craft brewing industry, *Papers in Regional Science* (forthcoming), DOI: 10.1111/pirs.12434

Nilsson, Isabelle; and Oleg Smirnov (2017) Limited Location Options: Measuring Spatial Interactions Among Retailers Under Zoning Restrictions, *Geographical Analysis*, 50(4), 358–377

Nilsson, Isabelle M.; Smirnov, Oleg A. (2017). Clustering vs. relative location: Measuring spatial interaction between retail outlets, *Papers in Regional Science*, 96(4), 721-741

Smirnov, Oleg. A. (2016) Geographic space: an ancient story retold, *Transactions of the Institute of British Geographers*, 41(4), 585-596

Nilsson, Isabelle M.; Smirnov, Oleg A. (2016). Measuring the effect of transportation infrastructure on retail firm co-location patterns, *Journal of Transport Geography*, 51, 110–118.

Smirnov, Oleg A. (2014) Cognitive Value and Numerical Accuracy in Geo-computation: Choosing a Method to Compute the Log-Jacobian Term, *Geographical Analysis*, 46(3), 274–296.

Eloff, Jeffrey J; Smirnov, Oleg A; and Lindquist, Peter S. (2013) Transportation Infrastructure, Industrial Productivity, and Return on Investment: A Spatial Spillover Approach, *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2345, 109–116.

Smirnov, Oleg A.; and Egan, Kevin J. (2012) Spatial Random Utility Model with an Application to Recreation Demand, *Economic Modelling*, 29(1), 72–78.

Smirnov, Oleg A. (2010) Spatial Econometrics Approach to Integration of Behavioral Biases in Travel Demand Analysis, *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2157, 1–10.

Smirnov, Oleg A. (2010) Modeling Spatial Discrete Choice, *Regional Science & Urban Economics*, 40(5), 292–298.

Smirnov, Oleg A. and Anselin, Luc E. (2009). An $O(N)$ Parallel Method of Computing the Log-Jacobian of the Variable Transformation for Models of Spatial Interactions on a Lattice, *Computational Statistics & Data Analysis* 53(8), 2980–2988

Brueckner, Jan K. and Smirnov, Oleg (2008) Social Networks and the Convergence of Population Attributes: A Generalization, *Journal of Regional Science* 48(2), 359–365

Brueckner, Jan K. and Smirnov, Oleg (2007). Workings of the Melting Pot: Social Networks and the Evolution of Population Attributes, *Journal of Regional Science* 47(2), 209—228

Smirnov, Oleg (2005) Computation of the Information Matrix for Models with Spatial Interaction on a Lattice, *Journal of Computational and Graphical Statistics* 14(4), 910–927

Smirnov, Oleg (2002) Measuring Self-sustainability of Economic Development at the County Level, *Annals of Regional Science* 36(4), 683–696

Smirnov, Oleg and Anselin, Luc (2001) Fast Maximum Likelihood Estimation of Very Large Spatial Autoregressive Models, *Computational Statistics and Data Analysis* 35, 301–319

Anselin, Luc and Smirnov, Oleg (1996). Efficient Algorithms for Constructing Proper Higher Order Spatial Lag Operators, *Journal of Regional Science*, 36(1), 67–89

REFEREED PUBLICATIONS

Nilsson, Isabelle; Smirnov, Oleg A. (2014) Demand for Transportation Infrastructure and Strategic Interactions in Firm Location Choices. *Proceedings of Logistics, Trade and Transportation Symposium*, February 26-27, 2014, Gulfport, MS, University of Southern Mississippi.

Eloff, Jeffrey; Smirnov, Oleg A; Lindquist, Peter. 2013. Transportation Infrastructure, Industrial Productivity, and Return on Investment: A Spatial Spillover Approach, *The TRB 92nd Annual Meeting Compendium of Papers*, paper 13-2812, Washington, DC, January 2013 (DVD).

Smirnov, Oleg A., A Spatial Econometrics Approach to Integration of Behavioral Biases in Travel Demand Analysis, The TRB 89th Annual Meeting Compendium of Papers, paper 10-1310, Washington, DC, January 2010 (DVD)

OTHER PUBLICATIONS

[book review] Smirnov, Oleg A., Modelling Regional Scenarios for the Enlarged Europe by R. Capello, R. Camagni, B. Chizzolini, and U. Fratesi, *Journal of Regional Science* 49(3), 2009: 596–598

[proceedings] Rey, Sergio, Mark Janikas, and Oleg Smirnov, Exploratory Geovisualization of Spatial Dynamics, in Y. Xie and D. Brown (Eds.), *Proceedings of the 8th International Conference on GeoComputation*, University of Michigan, Ann Arbor, MI, August 2005 (CD-ROM)

[book review] Smirnov, Oleg, *Spatial Autocorrelation and Spatial Filtering* by D. Griffith, *Journal of Regional Science* 44(3), 2004: 633–635

[proceedings] L. Anselin, I. Syabri, O. Smirnov, and Y. Ren, Visualizing Spatial Autocorrelation with Dynamically Linked Windows, in *Computing Science and Statistics 33, Proceedings of Interface 01*, Orange County, CA, June 13-16, 2001 (CD-ROM)

[proceedings] Anselin, Luc, Ibnu Syabri, and Oleg Smirnov, Visualizing Multivariate Spatial Correlation with Dynamically Linked Windows, in L. Anselin and S. Rey (Eds.), *New Tools for Spatial Data Analysis: Proceedings of a Workshop*, Center for Spatially Integrated Social Science, University of California, Santa Barbara, May 2002 (CD-ROM)

[book chapter] S. Gerking, A. Isserman, W. Hamilton, T. Pickton, D. Sorenson, and O. Smirnov, Anti-Suppressants and the Creation and Use of Non-Survey Regional Input-Output Models, in Michael L. Lahr and Ronald Miller (Eds.) *Regional Science Perspectives in Economic Analysis: A Festschrift in Memory of Benjamin H. Stevens*, Amsterdam: North Holland, 2001

[software manual] L. Anselin and O. Smirnov, *SpaceStat Extension for ArcView 3.0*, Morgantown, WV: Regional Research Institute, West Virginia University, 1997 (Version 1.0), 1998 (Version 1.5), 1998 (Version 3.0)

[monograph] E. Burke, A. Isserman, T. Rephann, D. Sorenson, and O. Smirnov, *West Virginia Population Projections by County, Age, and Sex, 1990–2020*, Morgantown, WV: Regional Research Institute, West Virginia University, 1996

TECHNICAL REPORTS

- O. Smirnov. The Economic Impact of Toledo Community Foundation, Inc., June 2020.
- O. Smirnov and A. Thompson. The Economic Impact of the Opioid Epidemic in Northwest Ohio. The University of Toledo, June 2019.
- O. Ajilore and O. Smirnov, Economic Impacts of the University of Toledo, March, 2017.
- O. Smirnov and N. Reid. The return on Investment and Economic Value of Toledo Public School System, July 2014.
- O. Smirnov. Toledo-Lucas County Public Library: Economic Value and Return on Investment, 2012. O. Smirnov and D. Black, Forecasting Income Tax Revenue for the City of Toledo, 2008–11: Quarterly
- D. Black; O. Smirnov., 2007–2014: City of Toledo income tax revenue forecasts and updates, 2007–2014.
- O. Smirnov. Economic impact of health and human services programs in Lucas County, OH: a follow up, Ohio. 2011
- D. Haase, T. Ligibel, B. Lynn, A. Mirzoyants, N. Recchie, P. Ross, and O. Smirnov, Exploring the Public Value of Ohio’s History–Public Value Study Report to Ohio Historical Society, 2009: Urban Affairs Center, University of Toledo, OH
- O. Smirnov. Economic impact of health and human services programs in Lucas County, Ohio. 2008
- S. Rey, J. Duque, O. Smirnov, Y. Kim, and P. Stephens. Identifying Value-Added Industry Clusters in San Diego County. Regional Analysis Laboratory Technical Report, 2005: REGAL 050615
- S. Rey, J. Duque, O. Smirnov, Y. Kim, and P. Stephens. Geocoding the Connector. Regional Analysis Laboratory Technical Report, 2005: REGAL 050627
- O. Smirnov and A. Smirnova, An Assessment of the Economic Base of Distressed and Near-distressed Counties in Appalachia, Technical Report to Appalachian Regional Commission, 2000: Washington, DC

EXTERNALLY FUNDED RESEARCH

2019-2020 Oleg Smirnov, Economic Impacts of the Toledo Community Foundation, (\$34,759)

2014 Neil Reid and Oleg Smirnov (Co-PI). Return on Investment in Toledo Public School System. (\$52,013).

2012 O. Smirnov (PI) and Neil Reid (Co-PI). Toledo-Lucas County Public Library: Economic Value and Return on Investment, Sponsor: Toledo-Lucas County Public Library, (\$27,992).

2007–13 P. Lindquist, M. A. Vonderembse, and O. Smirnov (Co-PI), Academic Partnership Under CFIRE for Transportation Research. Sponsor: National Center for Freight and Infrastructure Research and Education (\$600,000)

2008–14 D. Black and O. Smirnov (Co-PI). Forecasting Income Tax Revenue for City of Toledo. Sponsor: The City of Toledo (\$42,000)

2008 D. Haase, T. Ligibel, N. Recchie, and O. Smirnov (Co-PI), Exploring the Public Value of Ohio's History. Sponsor: Ohio Historical Society (\$75,000)

2007 P. Lindquist, M. A. Vonderembse, and O. Smirnov (Co-PI), Expanding Regional Freight Information Resources for the Upper Midwest: The Great Lakes Maritime Information Delivery System Phase III. Sponsor: Great Lakes Maritime Research Institute (\$75,000)

2000 J. Murdoch and O. Smirnov (Co-PI), Toxic Proximity. Sponsor: The Belo Corporation (\$8,000)

1999–00 O. Smirnov, PI. An Assessment of the Economic Base of Distressed Counties and Near-distressed Counties in Appalachia. Sponsor: Appalachian Regional Commission (\$75,057)

PARTICIPATION (AS KEY PERSONNEL) IN OTHER FUNDED RESEARCH

2005–06 Regional Socioeconomic Modeling in Support of Economic Development Networks. Research Associate. Sponsor: Defense Logistics Agency (\$1,200,000)

2005 An Analysis of the Sources of Regional Economic Growth in Appalachia's Non-metropolitan Counties. Consultant. Sponsor: Appalachian Regional Commission through the Department of Urban Studies and Planning, Massachusetts Institute of Technology (\$5,000)

2001–04 Center for Spatially Integrated Social Science, Software Tools Program. Associate Director. Sponsor: National Science Foundation through the University of California, Santa Barbara (\$940,000)

1998–99 The Spatial Patterning of County Homicide Rates in the Post-war Period: An Exploration of Diffusion Effects. Research Associate. Sponsor: National Consortium on Violence Research (\$97,100)

1997–98 Survey of High Technology Use in West Virginia Manufacturing Industry. Research Assistant. Sponsor: Byrd Institute for Flexible Manufacturing, Marshall University (\$75,000)

1995–96 New Methods for the Exploratory Analysis of Geographical Data. Research Assistant. Sponsor: National Science Foundation (\$82,000)

CONFERENCE PARTICIPATION & PRESENTATIONS

58th Annual Meeting of the Southern Regional Science Association, April 2019, Washington, DC.: On the Importance of Good Measurement: Does Moran's I Measure Spatial Dependence?

58th Annual Meeting of the Southern Regional Science Association, April 2019, Washington, DC.: Defining the Urban Study Area for Mid-Sized Metropolitan Areas (with Rebekka Apardian)

65th North American Meeting of Regional Science Association International, Nov. 2018, San Antonio, TX: An Analysis of Pedestrian Crashes Using a Spatial Count Data Model (with Rebekka Apardian)

64th North American Meeting of Regional Science Association International, Nov. 2017, Vancouver, BC, Canada: To Cluster or Not to Cluster? Patterns of Closures in the American Craft Brewing Industry (with Isabelle Nilsson, Neil Reid, and Matthew Lehnert)

63rd North American Meeting of Regional Science Association International, Nov. 2016, Minneapolis, MN: Identifying High-Leverage Locations in Spatial Autoregressive Models

63rd North American Meeting of Regional Science Association International, Nov. 2016, Minneapolis, MN: Above Averages: A Nonparametric Approach to Decomposing Industrial Structure Using Establishment Size Distributions (with Michael Chohaney)

63rd North American Meeting of Regional Science Association International, Nov. 2016, Minneapolis, MN: Measuring the Relationship Between Local Industrial Structure and Economic Growth in U.S. Metropolitan Statistical Areas from 2001 to 2014 (with Michael Chohaney)

62nd North American Meeting of Regional Science Association International, Nov. 2015, Portland, OR: Establishment Size Structure and Economic Performance in U.S. Metropolitan Areas (with Michael Chohaney)

62nd North American Meeting of Regional Science Association International, Nov. 2015, Portland, OR: When SL equals SLX and when it doesn't.

61st North American Meeting of Regional Science Association International, Nov. 2014, Bethesda, MD: Maximum Likelihood Inference for Linear Regressions with Dependent Data

61st North American Meeting of Regional Science Association International, Nov. 2014, Bethesda, MD: Industrial Cluster Differentiation: An Empirical Approach (with Isabelle Nilsson)

2015 The Association for Education Finance and Policy, Feb. 2015, Washington, DC: The Taste for Education, School Financing, and Academic Achievement

2013 Meeting of the Midwest Economic Association, Columbus, OH, March 13-15, 2013 : (1) Strategic Interactions in Firm Location Choices: The Role of Cross-Price Elasticity of Demand (with Isabelle Nilsson); (2) Evaluating Efficiency of Transportation Infrastructure Investments (with Jeffrey Eloff); and (3) The Ok Model of Economic Growth.

59th Annual Meeting of the Regional Science Association International, Ottawa, ON, Canada, Nov. 7-10, 2012: (1) Modeling spatial dependence: the importance of choosing a method in geocomputation; and (2) Discrete Spatial Model of Voting Behavior.

The 2010 AAG Annual Meeting, Washington, DC, April 14–18, 2010: Geographic Space and the Rediscovery of Theoretical Geography

The Transportation Research Board 89th Annual Meeting, Washington, DC, January 10–14, 2010: Spatial Econometrics Approach to Integration of Behavioral Biases in Travel Demand Analysis

Meeting of the Midwest Economic Association, Cleveland, OH, March 19–21, 2009: Special Econometric Approach to the Study of the Stages of Economic Development in the Midwest (with B. Tien); The Relation Between Historic Preservation and Economic Growth in Ohio (with Ll. Ebright)

ASSA Meetings, San Francisco, CA, Jan. 3–6, 2009: Spatial Dependence in Random Utility Models with an Application to Recreation Demand (with K. Egan)

55th Annual Meeting of the Regional Science Association International, New York, NY, Nov. 19–22, 2008: On Topological Dimension of Spatial Data

II World Conference of the Spatial Econometrics Association, New-York, NY, Nov. 17–18, 2008: Modeling Spatial Discrete Choice

54th Annual Meeting of the Regional Science Association International, Savannah, GA, Nov. 7–11, 2007: Spatial Sampling in the Presence of Spatial Dependence

53rd Annual Meeting of the Regional Science Association International, Toronto, ON, Canada, Nov. 15-18, 2006: An Economist's Guide to Spatial Interactions; Regional Capabilities and the Structure of the Californian Economy (with J. Duque and S. Rey)

52nd Annual Meeting of the Regional Science Association International, Las Vegas, NE, November 10–12, 2005: Minimum Distance Estimation Method for Models with Spatial Interactions; Cashing in on a Distant Neighbor: Property Rights in the Spatial Economy; Regional Analysis in Support of Economic Development (with S. Rey, J. Duque, P. Stephens, and Y. Kim); Exploratory Geovisualization of Spatial Income Dynamics (with S. Rey and M. Janikas)

8th International Conference on GeoComputation, University of Michigan, Ann Arbor, MI, August 2005: Exploratory Geovisualization of Spatial Dynamics (with S. Rey and M. Janikas)

80th Annual Meeting of the Western Economic Association International, San Francisco, CA, July 4–8, 2005: A Theory of Spatial Production; The Rational Firm and Aggregate Fluctuations

44th Annual Meeting of the Western Regional Science Association, San Diego, CA, February 23–26, 2005: A Theory of Spatial Production

51st Annual Meeting of the Regional Science Association International, Seattle, WA, November 11–13, 2004: Workings of the Melting Pot: Social Networks and the Evolution of Population Attributes (with J. Brueckner)

50th Annual Meeting of the Regional Science Association International, Philadelphia, PA, November 20–22, 2003: Parallel Method for Maximum Likelihood Estimation of Models with Spatial Dependence; The Misadventures of Gibrat's Law and Size Distribution of Establishments in the United States

9th International Conference on Computing in Economics and Finance, University of Washington, Seattle, July 11–13, 2003: Computation of the Information Matrix for Models with Spatial Interaction

41st Southern Regional Science Association Meeting, Washington, DC, April 11–14, 2002: Measuring Gross County Product

33rd Symposium on the Interface of Computing Science and Statistics (Interface 01), Orange County, CA, June 13-16, 2001: Visualizing Spatial Autocorrelation with Dynamically Linked Windows (with L. Anselin, I. Syabri, and Y. Ren)

47th Annual Meeting of the Regional Science Association International, Chicago, IL, November 9–12, 2000: On Dynamic Version of the Export Base Model with Spatial Lag

39th Southern Regional Science Association Meeting, Miami Beach, FL, April 13–15, 2000: Measuring Self-sustainability of Economic Development at the County Level

39th Annual Meeting of the Western Regional Science Association in Poipu, HI, February 26–March 1, 2000: Regional Multipliers, Location Quotients, and Spatial Patterns in Location of Telecommunications Industry

Annual Conference of Geospatial Information & Technology Association (North Central Texas Regional Chapter), Dallas, TX, November 4, 1999: Spatial Patterns in the Telecommunications Industry: An Analysis using a Dynamically Linked Windows Extension for ArcView

50th Annual Spring Meeting of the International Biometric Society Eastern North American Section, Pittsburgh, PA, March 29–April 1, 1998: LISA with dynamically linked windows (with L. Anselin)

94th Annual Meeting of the Association of American Geographers, Boston, MA, March 25–29, 1998: Local indicators of spatial association with dynamically linked windows (with L. Anselin)

41st North American Meetings of the Regional Science Association International, Niagara Falls, ON, Nov 17–20, 1994: Efficient algorithms for constructing proper higher order spatial lag operators (with L. Anselin)

INVITED TALKS AND PUBLIC PRESENTATIONS

Cleveland State University, Department of Economics, Cleveland, OH (October 2009): Modeling Spatial Discrete Choice

University of Toledo, Department of Economics, Toledo, OH (December 2008): Spatial Dependence in Random Utility Models with an Application to Recreation Demand (with K. Egan)

Ohio Board of Regents, Columbus, OH (August 2008): The Ph.D. in Spatially Integrated Social Science Proposal (with P. Lindquist, P. Lawrence, L. Bachelor, and M. Morrissee)

University of Louisville, Urban and Public Affairs, Louisville, KY (March 2008): An Economist's Guide to Spatial Interactions

Defense Logistics Agency, US Department of Defense, San Diego, CA (November 2005):
Approaches to the Analysis of Regional Capabilities

Defense Logistics Agency, US Department of Defense, San Diego, CA (August 2005):
Development of Econometric Tools for the Analysis of the Regional Economy

East County Economic Development Commission, San Diego, CA (May 2005): Spatial Analysis
of Industrial Activity: Methodology and Applications

SOFTWARE DEVELOPMENT

GeoDA (original version) – software for spatial data analysis (with L. Anselin, I. Syabri); current
versions at <http://geodacenter.asu.edu/>

SMiLE – Spatial Maximum Likelihood Estimation for models with spatial dependence -
construction of point and interval ML estimates for SAR

DynESDA (prototype of GeoDA) – interactive tool for exploratory spatial data analysis and
visualization (with L. Anselin)

CleanCBP – suite of programs for regional economic analysis (with A. Isserman)

DEMOS – suite of computer programs for analysis of migration, fertility, and survival data; still
in use to generate state and county population projections in West Virginia (with A. Isserman)

PROFESSIONAL AFFILIATIONS

American Economic Association, Association of American Geographers, Econometric Society,
Regional Science Association International, Spatial Econometrics Association

REFEREEING SERVICE

The National Science Foundation;
[Scientific Journals] Computational Statistics and Data Analysis, Environmental and Resource
Economics, Geographical Analysis, International Journal of Geographical Information Science,
Journal of Computational and Graphical Statistics, Journal of Regional Science, Papers in
Regional Science, Regional Science and Urban Economics, Journal of State and Local
Government

UNIVERSITY and COLLEGE SERVICE

Graduate Council, member, 2018–present

College (Arts and Letters) Committee on Academic Personnel, member, 2018–present

Opioid Task Force (UT–local community research and engagement partnership), 2019–present

Member Kohler Grants Committee, member, 2015-16

Ad hoc University Committee on Data Sciences Degree Programs, member, 2015-16

Member, Strategic Planning Committee on Development of Ph.D. Program for Spatially Integrated Social Sciences, University of Toledo, 2006–08

Chair, Junior Positions Search Committee (Economics, Applied Econometrics), The University of Toledo, 2015-2016

Member, Junior Positions Search Committee, University of Toledo, 2006–07

Member, Strategic Planning Committee on Research Centers for School of Social Sciences, University of Texas at Dallas, 2000

Member, Strategic Planning Committee on Development of Ph.D. Program Proposal for GIScience, University of Texas at Dallas, 2000