

Curriculum Vitae
Sumeeta Srinivasan

Harvard University CGIS South Rm 310
1730 Cambridge St, Cambridge MA 02138
Phone: 617-496-1321 (work) 617-642-0425 (cell)
Email: ssriniv@fas.harvard.edu

Academic Positions

Preceptor in Geospatial Methods, Department of Government, Harvard University, September 2006-
Research Affiliate, Center for Geographic Analysis, Institute for Quantitative Social Sciences, Harvard University, September 2006-
Research Affiliate, China Project, School of Engineering and Applied Sciences, Harvard University, September 2006-
Lecturer, Harvard School of Public Health, 2006-2009
Research Fellow in Urban Systems, China Project, Department of Environmental Sciences 2005-2008
Lecturer in Spatial Analysis, Department of Environmental Sciences and Engineering, Harvard University, Spring 2005-2008, 2010, 2012, 2013, 2015
Research Associate, China Project, School of Engineering and Applied Sciences, Harvard University Center for the Environment, Harvard University, 2003-2006
Postdoctoral Fellow in Urban Systems, Ford-India/ China project, Department of Environmental Sciences and Engineering, Harvard University, 2000-2003

Research and Teaching Interests

Land development, infrastructure, and the environmental

Urbanization, Energy use, Urban Geography, Infrastructure, Transportation, Sustainable cities, Environmental Management, South and East Asian comparative studies
Methodology: Spatial Statistics, Spatial Models, Geographical Information Systems (GIS), Remote Sensing, Quantitative methods

Education

Massachusetts Institute of Technology, Cambridge, MA, PhD in Urban and Regional Planning, 2000

Dissertation: Linking land use and transportation: Understanding travel behavior in terms of spatial characteristics
Committee: Profs J. Ferreira, MIT, Q. Shen, University of Washington, Seattle, M. Ben-Akiva, MIT
Specialization: Information Systems, International development and Transportation

University of Illinois, Urbana-Champaign, Urbana, IL, Masters in Urban Planning, 1994

Indian Institute of Technology, Kharagpur, India, Bachelor of Architecture (Honors), 1990

Teaching Experience

Department of Government, Harvard University, Cambridge, MA

Preceptor, Sep 2006-

- Created a new upper level undergraduate and graduate course titled "Introduction to Geographic Information Systems" (Gov 1008), Fall 2006. Responsibilities include lectures, devising and leading laboratory exercises, creating and maintaining a course website, grading and advising student on projects. (Offered Fall 2006-present).
- Designed and taught a new junior seminar on spatial methods Gov 94dn (Offered Fall 2007-present)
- Designed and taught a new course "Advanced Workshop in GIS" (Gov 1009) (Offered Spring 2008-present)
- Created a new graduate level course "Spatial Models for Social and Environmental Analysis" Gov 1016 Spring 2009. (Offered Spring 2009-present)
- Developed and taught a new course titled Bio 504 "Introduction to GIS using ArcGIS" in the School of Public Health
- Developed and co-taught intensive two week full time GIS Institute for faculty, postdoctoral and doctoral students since Summer 2009, Winter 2010 (offered twice every year since)
- Developed two hour workshops in introductory and advanced topics in GIS and Remote Sensing for the Center for Geographic Analysis (Fall 2007-present)
- Advise students in thesis projects that use geospatial methods

- Guest lecturer at several courses in Harvard University

Division (now School) of Engineering and Applied Sciences, Harvard University, Cambridge, MA

Lecturer, Spring 2005, Spring 2006, Spring 2007, Spring 2008, Spring 2010, Spring 2012, Spring 2013

- Taught a new upper level undergraduate course titled “Spatial analysis of environmental and social systems” (ES103). Responsibilities include lectures, setting up data, devising and leading laboratory exercises, creating and maintaining a course website, grading and advising student on projects.
- Lectures in Environmental Assessment (ES167) assisting Prof. P. Rogers in Spring 2001, 2002, Fall 2005, 2009.
- Lectures in Environmental and Engineering Economics for Environmental Science and Technology (ES6) an introductory undergraduate course for Spring 2003.

Metropolitan College, Boston University, Boston, MA

Adjunct Lecturer in Urban Affairs, 2004-2005

- Taught graduate level courses “Urban and Regional Land Use Planning,” and “Introduction to GIS”. Responsibilities include lectures, devising and grading assignments and examinations, creating and maintaining a course website, and advising students on projects.

Department of Urban Studies and Planning, MIT, Cambridge, MA

Teaching Assistant to Profs J. Ferreira, Q. Shen, J. M. Schuster and J. Davis, 1995-2000

Research Experience

Division of Engineering and Applied Sciences, Harvard University, Cambridge, MA

Research Associate in Urban Systems, 2000-present

- Created GIS and statistical tools to understand air pollution risks and land use change in New Delhi and other cities in India and China
- Modeled land use change and its relationship to transportation in New Delhi and other cities in India and China using available GIS data
- Devised comparative multivariate statistical studies using data compiled for cities in India and China
- Helped review papers, select participants and presentations for three Workshops on Transportation, Land use and the Environment held in Pune, India
- Devised surveys of travel choices of low-income residents in Chennai, Delhi and Mumbai, India.
- Helped write proposal on land use change and transportation models for Chinese cities. Exploratory workshop September 2002, Beijing, China; Follow up workshop held in Chengdu, China August 2004;
- Wrote research proposals on linking transportation, land use and the environment in India and China (submitted to Harvard University Center for the Environment, Harvard Medical School, Harvard University Asia Center, Harvard University Real Estate Academic Initiative, National Science Foundation, Volvo Research Foundation and Environmental Planning Agency)
- Participated in writing NSF research proposals to create an Eco-Atlas in collaboration with the Department of Computer Science, University of Maryland at College Park, MD (not funded)
- Supervised undergraduate summer research projects
- Devised travel demand and location survey of Chengdu, China. Includes a detailed travel diary. Survey was carried out in November 2005 with collaborators at Research Center on Contemporary China (RCCC) at Beijing University (this will be repeated in Winter 2014)
- Survey of energy use in Chennai (Summer 2010) with funding from the Harvard University Real Estate Academic Initiative
- Estimating travel demand and land use models in Chengdu, Sichuan (in progress)
- Geographical regressions of health effects in Vietnam (with Dr. Toan Do, World Bank)
- Syllabus for spatial methods course for the Indian Institute of Human Settlements (with MIT, Cambridge)
- Land use change in Beijing (in progress with Dr. Deng Yu, China Academy of Sciences)
- Land use and traffic safety in Costa Rica (in progress with Dr. Beth Berkowitz, Foundation Prevencion, Costa Rica)
- Using GIS to understand health inequity in Ghana (in progress with the Dr. Joan LaRovere, Virtue Foundation and Center for Geographic Analysis, Harvard)

Other Work Experience

Ahmedabad Study Action Group (ASAG), Ahmedabad, India

ASAG, a non-profit organization of architects, planners and engineers, Research Associate, 1990-92

Awards

- Creative and Performing Arts Fellowship for first year of graduate study in the University of Illinois, College of Architecture, University of Illinois, Urbana-Champaign, 1992-93.
- Voorhees Fellowship for doctoral studies in the Department of Urban Studies and Planning, MIT, Cambridge, 1994-97
- Lincoln Institute of Land Policy Dissertation Fellowship, Cambridge, 1997-98
- Voorhees Teaching Fellowship, 2000
- Asia Society Travel Fellowship for World Bank visit, Spring 2001
- American Institute of Indian Studies Senior Research Fellowship, University of Chicago, Chicago, IL 2002-2003
- Award for travel to NSF sponsored SPACE Workshop on GIS and Spatial Modeling for Use in Undergraduate Education, June 28 - July 2, 2004, Ohio State University, Columbus, OH
- SPACE workshop award for travel to present a paper on devising a new spatial analysis course (June 2005)
- Climate Change and Cities award for travel to workshop at Columbia University, NY. (October 2008)
- SPACE workshop award for multilevel modeling course at Penn State University (June 2009)
- SPACE workshop award for course on Africamap training (2010)

Research related publications and presentations

Refereed journals and proceedings

Srinivasan, S. 1992. "The Vastu House." *Space and Society*. Vol. 15: 94-100. December 1992.

Srinivasan, S., V. George and B. Aten. 1996. "A computer-based tool to define regions." *Computers, Environment and Urban Systems*. Vol. 20: 111-130.

Srinivasan, S., Ferreira, J. and Q. Shen. 1997. "Using GIS to understand trip chaining." *Proceedings of the International Conference on Computers in Urban Planning and Urban Management*, Bombay, India. December 1997.

Srinivasan, S., Ferreira, J. and Q. Shen. 1999. "Quantifying neighborhood characteristics that influence trip linking." *Proceedings of the URISA*. URISA, Chicago, IL, August 1999.

Kokaz, K., Rao, H. N., Rogers, P. and S. Srinivasan. 2001. "A Simulation Analysis of Transportation Policies on Health and Environment in Delhi, India." *Proceedings of the International Conference on Computers in Urban Planning and Urban Management*, Honolulu, Hawaii. July 2001

Srinivasan, S. 2001. "Quantifying spatial characteristics for travel behavior models." *Transportation Research Record*, Washington DC, January 2001.

Srinivasan, S. 2001. "Land use change as a tool: A framework to link transportation and the environment in New Delhi, India." *Workshop on Transportation, Land use and the Environment in India*. Pune, India. December 2001.

Srinivasan, S and J. Ferreira. 2002. "Policy impacts of corridor level land use changes: a study in the Boston area." *Transportation Research, Part D, Transportation and the Environment*. Vol. 7 (3): 225-242.

Srinivasan, S., P. Rogers. And K. Kokaz. 2002. *Effects of Regional Growth on the Environment: A Case Study in Delhi, India*. *International Urban Planning and the Environment Conference*, Oxford, UK, September 23rd, 2002.

Srinivasan, S. 2002. "Quantifying spatial characteristics of cities." *Urban Studies*. Vol. 39 (11): 2005-2028.

Srinivasan, S. 2004. "The influence of location on the travel behavior of women: a case study in Chennai, India." *Proceedings of the Transportation Research Board "Research on Women's Issues in Transportation Conference"*, Chicago.

Srinivasan, S. 2005. *Linking land use and transportation in a rapidly urbanizing context: A study in Delhi, India*. *Transportation*, Vol. 32: 87-104.

Srinivasan, S. and P. Rogers. 2005. "Travel behavior of low-income residents: studying two contrasting locations in the city of Chennai, India." *Journal of Transport Geography*, Vol. 13 (3): 265-274.

Srinivasan, S. "The travel behavior and accessibility characteristics of women in Chengdu, China." *World Transport and Policy Practice*. (forthcoming)

Srinivasan, S. 2008. "A Spatial Exploration of the Accessibility of Low-income Women: Chengdu, China and Chennai, India." Book chapter in *Gendered Mobility*. Ashgate Publishers.

Srinivasan, S., P. Rogers and S. Padam. 2008. "E-Seva in Hyderabad, India: Implications for data sharing amongst planning agencies." Chapter in Knowledge-based urban development: concepts, approaches and practices, Tan Yigitcanlar, Koray Velibeyoglu and Scott Baum Editors. Information Science Reference.

Srinivasan, S., Lin, J. and P. Rogers. "Multivariate analysis of Air Quality and Urbanization Characteristics: A Comparative study of cities in China and India" (International Journal of Environment and Waste Management forthcoming)

Zegras, C. and S. Srinivasan. 2008. Household Income, Travel Behavior, Location and Accessibility: Sketches From Two Different Developing Contexts. Transportation Research Record.

Rogers, P and S. Srinivasan. 2008. "The Sustainable City: A China-US Comparison" Book Chapter in Sustainable Urban Development in China: Wishful Thinking or Reality, Edited by Marco Keiner.

Srinivasan, S. 2010. "Spatial regression for hedonic price modeling of real estate" Chapter for "Visual Assessment: GIS in Real Estate"

Srinivasan, S. 2010. "Linking travel behavior and location in Chengdu, China: A geographically weighted approach." Transportation Research Record.

Malhotra, Srinivasan et al, 2011, Climate Change and Urban Transportation, Chapter 6 in Climate change and cities: first assessment report of the urban climate change research network edited by Cynthia Rosenzweig et al

Yoon, H. and S. Srinivasan, 2014 "Open Space a magnet for Industries? : A Spatial Analysis of New York" International Journal of Sustainable Development & World Ecology

Yoon, H. and S. Srinivasan, 2014 Are They Well Situated? Spatial Analysis of Privately Owned Public Space, Manhattan, New York City." Urban Affairs Review

Conferences and other invited talks

Srinivasan, S. and V. George. 1995. "A tool for defining regions of similar characteristics." Paper presented at the American Collegiate Schools of Planning (ACSP) Conference at Detroit, MI. October 1995.

Srinivasan, S., Ferreira, J. and Q. Shen. 1996. "Using GIS to model accessibility in a low income urban community." Presented at the ACSP/AESOP Joint International Congress, Toronto, Canada. July, 1996

Srinivasan, S., Ferreira, J. and Q. Shen. 1997. "Understanding trip chaining and its relationship with land use patterns." Presented at the ACSP conference, Ft Lauderdale, FL. November 1997.

Srinivasan, S. and J. Ferreira, 1998. "Comparing trip chaining behavior in center city versus suburbs: using GIS to understand the link between spatial characteristics and trip chaining in the Boston metropolitan area." Presented at the ACSP conference, Pasadena, CA. November 1998.

Srinivasan, S., Ferreira, J. and Q. Shen. 1999. "Quantifying neighborhood characteristics that influence trip linking." URISA, Chicago, IL, August 1999.

Srinivasan, S. and J. Ferreira, 1999. "Estimating and simulating the transportation impacts of neighborhood-level changes in spatial characteristics: a Boston metropolitan area study." Presented at the ACSP conference, Chicago, IL. October 1999.

Srinivasan, S. and J. Ferreira, 2000. "Travel behavior at the household level: understanding linkages with residential choice." Presented at the ACSP conference, Atlanta, GA. October 2000.

Srinivasan, S. 2001. "Quantifying spatial characteristics for travel behavior models." Annual Transportation Research Board Meeting, Washington DC, January 2001.

Srinivasan, S. 2001. "Land use and transportation modeling for New Delhi, India." Ford Motor Company Workshop, University of California, Riverside, CA. June 2001.

Srinivasan, S. 2001. "Linking transportation, land use and the environment: comparing New Delhi and Chennai, India." Invited talk at IIT, Madras, November 2001.

Srinivasan, S. 2001. "Travel behavior of low income residents: studying Chennai, India." Invited talk at Division of Urban Systems Development, Anna University, Chennai, November 2001.

Srinivasan, S. 2002. "Land use change as a tool to link land use and transportation." Clark University, Worcester, MA. February 2002.

Srinivasan, S. 2002. "Land use change in developing countries: Comparing India and China." Harvard University Center for the Environment. June 2002

Srinivasan, S. and P. Rogers. "Land use and transportation planning: An integrated framework for Chinese cities." Beijing, China. September, 2002.

Srinivasan, S., P. Rogers, and K. Kokaz. Effects of Regional Growth on the Environment: A Case Study in Delhi, India. International Urban Planning and the Environment Conference, Oxford, UK, September, 2002.

Srinivasan, S. and P. Rogers. Sustainable regional development: modeling regional accessibility in the National Capital Region of Delhi, India. 2nd Workshop in Transportation, land use and the environment, Hyderabad, India. December 2002.

Srinivasan, S. and P. Rogers. "Travel behavior of low-income residents: studying two contrasting locations in the city of Chennai, India. Transportation Research Board Annual Meet, Washington DC. January 2003.

Srinivasan, S. "Understanding how the poor travel." University of Madras, Chennai, July 2003.

Srinivasan, S. "Integrating land use and transportation models." University of Madras, Chennai, August 2003.

Srinivasan, S. and P. Rogers. "E-Seva in Hyderabad, India: Implications for data sharing amongst planning Agencies" International Conference on Public Participation and Information Technologies, MIT, Cambridge November 2003.

Lin, J., Srinivasan, S. and P. Rogers. "Transportation and land use characteristics of cities: comparing India and China." Transportation Research Board Annual Meet, Washington DC, January 2004.

Srinivasan, S. and P. Rogers. "A Multivariate Analysis of Land Use, Transportation and Air Quality Characteristics in Indian cities." 3rd Workshop in Transportation, land use and the environment, Hyderabad, India, January 2004.

Srinivasan, S., Lin, J. and P. Rogers. "Comparing Air quality, land use and transportation characteristics in urban China and India: Making the case for integrated transit planning", American Association of Geographers Annual Meeting, Philadelphia, PA. March 2004

Srinivasan, S. "Challenges to sustainable transportation: Research in China and India" Boston Social Forum, University of Massachusetts, Boston, MA July 2004.

Srinivasan, S. "The influence of location on the travel behavior of women: a case study in Chennai, India." Transportation Research Board Research on Women's Issues in Transportation Conference, Chicago, November 2004.

Srinivasan, S. Participant in the roundtable on gender issues in transportation in developing countries. Transportation Research Board midyear meeting, Boston, MA, July 2005.

Srinivasan, S. "Integrating Land Use, Transportation and the Environment: The Challenges of Modeling Urbanization and Its Effects in Urban China and India." Harvard Center for Risk Analysis, Harvard School of Public Health, Boston, October 2005.

Srinivasan, S. "A spatial analysis of the travel behavior of low income households in Chennai, India" Department of Statistics, Harvard University, November 2005.

Srinivasan, S. "Teaching spatial analysis and GIS in a multi-disciplinary setting" American Association of Geographers Annual Meeting, Chicago, March 2006.

Srinivasan, S. "Beyond Mapping: GIS as Science versus GIS as a Tool." Tufts University, May 2006.

Srinivasan, S. "The Influence of Location on the Travel Behavior of Low Income Households: A Case Study in Chennai, India." Department of Urban Planning, McGill University, Montreal, Canada, May 2006.

Srinivasan, S. "Integrating Land Use and Transportation Planning in Indian Cities." Conference on Urban Infrastructure, Transport & Environment in India, The Centre for India and South Asia Research, University of British Columbia, Vancouver, BC, Canada, June 14-15, 2006.

Srinivasan, S. "The case for Accessibility over Mobility in Integrating Transportation and Land use Policy in Chengdu, China." Workshop organized by Harvard University China Project and Southwest Jiaotong University, Chengdu. August 2006.

Srinivasan, S. J. Walker, Boston University; J. Li, Boston University, R. Bolduc. Using Measurement Equations to Estimate Mode Choice Models without Network or Land Use Data: A Model for Chengdu, China. North American Regional Science Conference, Toronto, Ontario November 15-19, 2006

Srinivasan, S. Invited speaker at "Documenting Cities" A conference organized by the Center for Research Center for Urban Cultural History, University of Massachusetts, Boston. April 2007.

Srinivasan, S. Invited speaker at "Urban Climate Change Research Network" Columbia University, New York City, May, 2007.

S. Srinivasan. (Co-author: C. Zegras) 2007. Household Income, Travel Behavior, Location and Accessibility: Sketches From Two Different Developing Contexts. Paper presented at Transportation Research Board Annual Meeting, Washington DC, Jan 2007.

Srinivasan, K. K., Bhargavi, L.P.P., Ramadurai, G., Muthuram, V. and S. Srinivasan. 2007. Determinants of Changes in Mobility and Travel Patterns in Developing Countries: A Case Study of Chennai. Paper presented at Transportation Research Board Annual Meeting, Washington DC, Jan 2007. (Presented by the first author).

Walker, J, Li, J., S. Srinivasan and D. Bolduc. 2008. Travel Demand Models in the Developing World: Correcting for Measurement Errors. TRB Annual Meeting, Washington DC, Jan 2008.

Rooney, M. and S. Srinivasan, 2008. Making Best Estimates of Spatial Distribution of Average Household Vehicle Miles Traveled: Assays in San Francisco Bay Area and Boston Metropolitan Region. TRB Annual Meeting, Washington DC, Jan 2008.

Srinivasan, S. Travel Behavior, Location and Attitudes: Case Studies in Chennai, India and Chengdu, China, American Association of Geographers Annual Conference, Boston April 2008.

Jieping Li, J. Walker and S. Srinivasan. Modeling Private Auto Ownership in China: Investigating the Impact of Urbanization, American Association of Geographers Annual Conference, Boston April 2008.

Srinivasan, S. and J. Walker. Travel to Work in China: Policies, Trends, and Models. American Sociological Association Conference, Boston, MA. August, 2008.

Srinivasan, S. Methods of interpolating risk. World Bank, October 2008.

Li, Jieping, Srinivasan, S. et al, Modeling Private Auto Ownership in China: Investigating the Impact of Urban Form across Megacities, North American Regional Science Conference, November 2008.

Li, Jieping, Srinivasan, S. et al, Investigating the Impact of Urban Form across in China, Transportation Research Board Conference, Jan 2009.

Srinivasan, S. "Linking travel behavior and location in Chengdu, China: A geographically weighted approach" (Transportation Research Board, Annual Conference, 2010)

Srinivasan, S. "Sustainable urbanization: A case study for Indian cities" Indian Institute of Technology, Madras, Chennai, August 2010

Srinivasan, S. "Spatial patterns in energy use: A case study in Chennai, India" (American Association of Geographers Meeting, Seattle, WA, 2011)

Srinivasan, S. "Land-use Change at the Regional Scale: Implications for Energy Supply and Demand in Chennai, India" (American Association of Geographers Meeting, NY City, NY, 2012)

Manuscripts under preparation (or review)

Srinivasan, S. and O. Aydin. "Linking land use change, urban growth and regional transportation: Case Studies in Ankara, Turkey and New Delhi, India." (Environment and Urbanization, under preparation)

Srinivasan, S. et al, "Multilevel linkages of health effects on travel and urbanization choices: case studies in China" (Under preparation)

Yu, D. and S. Srinivasan, "Urban land use change in Beijing: The influence of urban infrastructure" (Under review Transport Geography)

Srinivasan, S. and D. Yu, "Urban land value, Accessibility and Night Light Data: A Case Study in China" (under review for CUPUM international conference, MIT, Cambridge MA, July 2015)

S. Srinivasan, P. Rogers, "Spatial patterns in household energy expenditure: A Case study in Chennai", Journal of Sustainable Transportation, under review)

S. Srinivasan "Using night light data to understand growth in energy consumption" (Under preparation)

Other Publications

Contributor to Encyclopedia of the City, edited by Roger W. Caves, Routledge. (Pedestrian Malls)

Contributor to Encyclopedia of American Urban History, edited by David Goldfield, Sage Publications. (E. W. Burgess, and Commuting)

Contributor to Encyclopedia of Geographic Information Systems, Science, and Services, edited by S. Shekhar and H. Xiong, Springer-Verlag Publications. (Paper on Spatial Regression Models)

Other Activities

- Transportation Research Board, Member of Committee A5013 on Nonmotorized Transport and Related Issues in Developing Countries 2003-2009
- Transportation Research Board, Subcommittee on Transportation and Land development in Developing countries, 2006
- Reviewer for the journal Transport Geography, 2006-, Environmental Management 2004-, Transportation Research Board Annual Meeting 2000-, Association of Collegiate Schools of Planning Conference 1998-2000, Canadian Journal of Administrative Sciences 2004, National Geographic Society 2005-, Transportation 2006-; Journal of Area Studies 2009-; Sage Open 2012-; Transport Policy 2013-; Transportation Research part D 2014-