Wenzheng Li, Ph.D.

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Education

2019-2024 **Ph.D. in City and Regional Planning**, *Cornell University*, Ithaca, NY, USA

Dissertation: Polycentric Spatial Development—Measures, Explanations, and Performance

Committee: Stephan Schmidt, Department of City and Regional Planning
Shanjun Li, Dyson School of Applied Economics and Management
John I. Carruthers, Field of Regional Science

Funding: This research was supported by the Sage Fellowship awarded by the Graduate School of Cornell University; the C.V. Starr Fellowship awarded by The East Asian Program of the Einaudi Center.

2016-2018 **Master of Regional Planning (MRP)**, *Cornell University*, Ithaca, NY, USA

2012-2016 **Bachelor of Science in Remote Sensing,** *China University of Geosciences,* Wuhan, China

Fields of Interest

Topics Land use and regional governance, regional science, urban and environmental economics, climate change, SDGs, housing, transportation planning, shared-use mobility

Methods urban data science, applied econometrics, spatial statistics and modeling, machine learning, GIS, Remote Sensing

Study Area Europe, United States, China, Africa

Publications (* Corresponding authors)

Refereed Journal Articles

2024 **Li, Wenzheng***, Stephan Schmidt. "Can spatial patterns mitigate the urban heat island effect? Evidence from German metropolitan regions." *Environment and Planning B: Urban Analytics and City Science*. https://doi.org/10.1177/23998083241227500

- Media coverage: Multiple city hubs, dispersed parks keep metro areas cooler, Cornell Chronicle

Li, Wenzheng*, Stephan Schmidt, and Stefan Siedentop. "Can polycentric urban development simultaneously achieve both economic growth and regional equity? A multi-scale analysis of German regions." *Environment and Planning A: Economy and Space*: 56(2), 525-545. https://doi.org/10.1177/0308518X2311919

Li, Wenzheng*, and Stephan Schmidt. "The spatial-temporal evolution of urban development patterns in Chinese cities: Dynamics and interpretations." *Growth and Change* 55, no. 2: e12722. https://doi.org/10.1111/grow.12722

Schmidt, Stephan*, Said Nuhu, Ryan Thomas, **Wenzheng Li**. "Place attachment, regional identity and perceptions of urbanization in Moshi, Tanzania." *Habitat International*: 150, 103132. https://doi.org/10.1016/j.habitatint.2024.103132

2021 Schmidt, Stephan*, **Wenzheng Li**, John Carruthers, and Stefan Siedentop. "Planning institutions and urban spatial patterns: Evidence from a cross-national analysis." *Journal of Planning Education and Research.* https://doi.org/10.1177/0739456X211044203

Matuke, Samantha, Stephan Schmidt*, and **Wenzheng Li**. "The rise and fall of the American pedestrian mall." *Journal of Urbanism: International Research on Placemaking and Urban Sustainability* 14, no. 2: 129-144. https://doi.org/10.1080/17549175.2020.1793804.
- Media coverage: Lessons From the Rise and Fall of the Pedestrian Mall, Bloomberg CityLab

Journal Articles: Under Review

Li, Wenzheng, John I. Carruthers, Yuanshuo Xu*. "The dynamic adjustment process of population and employment—evidence from Chinese prefectural regions." currently under review

Zhang, Ziye, **Wenzheng Li***, and Yan Wu. "Vertical Price Curve in the Beijing Residential Housing Market." currently under review.

Luming Tan, **Wenzheng Li***, and Yuanshuo Xu. "The Effect of Remediating Severely Polluted Water Bodies: Evidence from Housing Sales in Shanghai"

Journal Articles: In Progress

Polycentric urban development and air pollution—Evidence from German metropolitan regions (with Stephan Schmidt)

How do regions respond to climate change? Using natural language process (NLP) to understand climate change adaptation and mitigation of German regions (with Stephan Schmidt, Yucheng Zhang)

Urban Spatial Patterns and the Accessibility of Private Amenities in the MSAs of the U.S.

Inter-jurisdictional cooperation and sustainable development goals (SDGs)—An evaluation of the Yangtze River Delta (YRD) megacity region (with Yuanshuo Xu)

Does institutional cooperation facilitate the growth of new towns and districts: Evidence from the Yangtze River Delta (YRD) megacity region.

Teaching

Instructor, Cornell University

Summer 2024
CRP 3850/5850 Introduction to Urban Big Data and Machine Learning
- o Developed course materials, including codebooks, assignments, and PPT.
- o Led lectures in three major sections: (1) spatial data management and collection, (1) applied spatial statistic methods, and (3) machine learning

Co-instructor, Cornell University

Spring 2022
CRP 5680/4680 Urban Spatial Data Analytics (Course evaluation: 4.5/5)
- o Developed course materials, including codebooks, problem sets, and class slides.
- o Led lectures for 3 weeks. Topics include Spatial Data Management, Processing, and Visualization, and the Basics of ArcPy and ArcGIS API

Spring 2021
CRP 6290 Advanced topics in GIS (Course evaluation: 4.5/5)
- o Developed materials for Python labs, including codebooks, problem sets, and class slides.
- o Led lectures for 4 weeks. Topics include Python Basics, Data Management, Spatial Data Analytics, Data Visualization, Web Scraping, and Map APIs.

Teaching Assistant (TA), Cornell University

Spring 2024	CRP 1200 Introduction to Statistics for Urban Studies
Fall 2022	CRP 4080 Introduction to GIS (Course evaluation: 4.6/5)
Fall 2021	CRP 5080 Introduction to GIS for Planners (Course evaluation: 4.9/5)
Summer 2020	Big Data & Business Analytics, Cornell Institute for China Economic Research (CICER)
Spring 2017	Graduate Teaching and Research Specialist (GTRS)

Undergraduate Teaching Assistant, China University of Geosciences

Spring 2016	Remote Sensing of Land Resources and Environment

Invited Talks, Presentations, Seminars

May'24	The performance and governance of polycentric urban regions—Evidence from Germany. Invited Talks at the East China Normal University
April'24	Urban form and the urban heat island effect— Evidence from Germany, American Association of Geographers (AAG) Conference (virtual), Honolulu, Hawaii
Oct'23	Can spatial patterns mitigate the urban heat island effect? Evidence from German metropolitan regions, Association of Collegiate Schools of Planning (ACSP) Conference, Chicago
Nov'23	Can polycentric urban development simultaneously achieve both economic growth and regional equity? A multi-scale analysis of German regions, North America Regional Science Council (NARSC) Conference, San Diego
Nov'23	The spatial-temporal evolution of urban development patterns in Chinese cities: dynamics and interpretation, North America Regional Science Council (NARSC) Conference, San Diego
Mar'23	Urban spatial structure and the urban heat island effect? Evidence from German regions, American Association of Geographers (AAG) Conference, Denver, Colorado
Oct'22	Can polycentric urban development simultaneously achieve both economic growth and regional equity? A multi-scale analysis of German regions, Association of Collegiate Schools of Planning (ACSP) Conference, Toronto, Canada
Nov'22	The determinants and Outcomes of Chinese regional growth 2000 to 2020, North America Regional Science Council (NARSC) Conference, Montreal, Canada
May' 22	The spatial-temporal evolution toward polycentricity in Chinese cities: dynamics and explanations, International Association for China Planning (IACP) Conference (virtual)
Oct'21	Toward Polycentricity? Exploring the Dynamic Changes of Urban Spatial Structure in China 2001 – 2017, ACSP Conference (virtual)
Nov'21	Vertical housing gradients—evidence from Beijing, NARSC Conference (virtual), Denver, Colorado
Nov'20	Housing prices and Air Quality in Beijing, NARSC Conference (virtual)
May'20	Developing Mobility-as-a-Service Serving Small Urban & Rural Communities, Tompkins County, NY, MOD On-Ramp Lessons Learned webinar 2020.
Nov'18	Housing Prices and Time-varying NDVI, NARSC Conference, San Antonio, TX

Awards, Grants, and Honors

2023	Sage Dissertation Writing Fellowship, Cornell University

2023 C.V. Starr Fellowship, the Einaudi Center of Cornell University ($15,000 + Tuition + Insurance)

2019 Tompkins County Mobility-as-a-Service (Maas) Pilot Program, funded by the FTA MOD On-Ramp Program (drafted the initial grant proposal, grant received: $820,000)

2018 Alan Black Transportation Planning Grant ($1,700)

Travel Grants

2023 Graduate School Travel Grant ($500)

2023 Department of City and Regional Planning (CRP) Travel Grant ($500)

2022 Graduate School Travel Grant ($600)

2022 Department of City and Regional Planning (CRP) Travel Grant ($500)

2021 Department of City and Regional Planning (CRP) Travel Grant for virtual conference ($120)

Professional Positions

Jun'18- Jun'19 Project Assistant, Tompkins County Department of Social Services, Ithaca, NY
- o Developed business model to facilitate the Mobility-as-a-Service (MaaS) project.
- o Coordinated transportation planning in the southern tier NYS.
- o Assisted with grant application.

Sep'15- May'16 GIS/Remote Sensing Analyst—ToolGeo Technology, Wuhan, China
- o Developed software platform for automatic evaluation of urban public space coverage.
- o Developed computer version algorithms for feature extraction.

Service

Session Chair Regional Challenges and Regional Planning. International Association for China Planning (IACP) Conference (2021)

Polycentric Urban Development and Planning. International Association for China Planning (IACP) Conference (2024)

Discussant NARSC Conference in 2023, 2022, 2021, 2020, 2018

Manuscript Reviewer Applied Geography; Growth and Change; Cities; Asian-pacific Journal of Regional Science; Sustainable Cities and Societies

Media Coverage

Feb'24 [Multiple city hubs, dispersed parks keep metro areas cooler](#): "Polycentric" development patterns can lessen the urban heat island effect by distributing urban density and curbing the sprawl of impervious surfaces," Cornell Chronicle.

Datasets Published

Mar'20 *The Rise and Fall of the American Pedestrian Mall* (2020) available at https://osf.io/ybdev/.
This dataset contains 125 American Pedestrian Mall records with mall properties (e.g., open/removed year) and the demographic and socio-economic factors in the associated cities.

Affiliations/Memberships

Association of Collegiate Schools of Planning (ACSP)
American Association of Geographers (AAG)
Cornell Institute for China Economic Research (CICER)

Cornell East Asian Program (EAP)
Regional Science Association International (RSAI)
International Association for China Planning (IACP)

Language Skills & Technical Competencies

Software	R; Stata; MATLAB, ArcGIS; QGIS; ENVI; Google Earth Engine (GEE), IMPLAN; Microsoft Office
Coding	Python; R, C++, C#, Java, IDL
Languages	English, Mandarin