

TAO TAO

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EDUCATION

University of Minnesota Twin Cities

August 2017 - June 2022

Ph.D. candidate in Urban and Regional Planning
Humphrey School of Public Affairs

University of Minnesota Twin Cities

August 2019 - June 2021

M.S. candidate in Statistics
School of Statistics

Southeast University, Nanjing, China

August 2013 - June 2017

M.E. in Transportation Planning and Management
School of Transportation

Southeast University, Nanjing, China

August 2008 - June 2012

B.E. in Traffic and Transportation
School of Transportation

PROFESSIONAL APPOINTMENT

Research assistant at University of Minnesota

Fall 2017 - Present

Supervisor: Prof. Jason Cao

- Impact of transitways on travel on parallel and adjacent roads and park-and-ride facilities [MnDOT]
- After study of the bus rapid transit A Line impacts [MnDOT]
- Connecting the smart-city paradigm with a sustainable urban infrastructure systems framework to advance equity in communities [NSF]
- Integrated urban infrastructure solutions for environmentally sustainable, healthy and livable cities [NSF]

Supervisor: Prof. Greg Lindsey

- Mobile-device data, non-motorized traffic monitoring, and estimation of annual average daily bicyclist and pedestrian flows [RSI]
- Pedestrian and bicycle crash risk and equity: implications for street improvement projects [MnDOT]

Independent instructor at University of Minnesota

- PA 5234 Urban transportation planning and policy

Spring 2021

- PA 5928 Data management and visualization with R

Fall 2019, Spring 2021

Planning intern at Minnesota Department of Transportation

Summer 2019

Supervisor: Paul Czech & John Tompkins

- Exploring the pedestrian and bicycle crash risk in highway intersections: systemic approach applied in the Twin Cities metro area

HONORS AND AWARDS

TRB annual meeting travel award, Center for Transportation Studies	2018,2019,2020
Second place, University of Minnesota Modeling Competition, Traveler Auto Insurance Company	2019
IACP annual meeting travel award, International Association for China Planning	2018
Jiangsu Daqin Alumni Fellowship, Southeast University	2015
China Road and Bridge Corporation Alumni Fellowship, Southeast University	2011

JOURNAL ARTICLES

5. **Tao, T.**, Wu, X., Cao, J., Fan, Y., Das, K., Ramaswami, A., 2020. Exploring the non-linear relationship between the built environment and active travel in the Twin Cities. *Journal of Planning Education and Research*. [Link]
4. **Tao, T.**, Wang, J., Cao, X., 2020. Exploring the non-linear associations between spatial attributes and walking distance to transit. *Journal of Transport Geography* 82, 102560. [Link][Code]
3. Wu, X., **Tao, T.**, Cao, J., Fan, Y., Ramaswami, A., 2019. Examining threshold effects of built environment elements on travel-related carbon-dioxide emissions. *Transportation Research Part D: Transport and Environment* 75, 1–12. [Link]
2. Dou, X., Gong, X., Guo, X., **Tao, T.**, 2017. Coordination of feeder bus schedule with train service at integrated transport hubs. *Transportation Research Record: Journal of the Transportation Research Board* 2648, 103–110. [Link]
1. Hu, J., Guo, X., **Tao, T.**, Hu, T., 2017. Optimization of LRT network using on k-shortest path algorithm. *Journal of Southeast University* 6, 1274-1278. [In Chinese][Link]

RESEARCH REPORTS

3. Webb, A., Khani, A., **Tao, T.**, Cao, J., Wu, X., 2021. Impact of transitways on travel on parallel and adjacent roads and park-and-ride facilities. [In press]
2. Lindsey, G., **Tao, T.**, Wang, J., Cao, J., 2019. Pedestrian and bicycle crash risk and equity: implications for street improvement projects. [Link]
1. Tomhave, B., Zhang, Y., Khani, A., Hourdos, J., Dirks, P., Olsson, J., **Tao, T.**, Wu, X., Cao, J., 2018. After study of the bus rapid transit A Line impacts. Center for Transportation Studies, University of Minnesota. [Link]

ARTICLES UNDER REVIEW

3. **Tao, T.**, Cao, J., Wu, X., 2021. The road less traveled: Does rail transit matter? [R&R]
2. **Tao, T.**, Lindsey, G., Cao, J., Wang, J., 2021. The effects of pedestrian and bicycle exposure on crash risk in Minneapolis. [R&R]
1. **Tao, T.**, Cao, J., 2021. Exploring the interaction effect of poverty concentration and transit service on highway traffic during the COVID-19 lockdown. [Under review]

WORKING PAPERS

3. Examining non-linear and threshold effects of built environment on people's willingness to own autonomous vehicles in Twin Cities.
2. Exploring the pedestrian and bicycle crash risk in highway intersections: systemic approach applied in Twin Cities
1. How does built environment affect activity space of people living in different income level areas?

PRESENTATIONS

Podium

9. **Tao, T.**, Cao, J., Wu, X., 2020. The road less traveled: Does rail transit matter? In: *2020 ACSP annual conference*.
8. **Tao, T.**, Cao, J., Wu, X., 2020. The road less traveled: Does rail transit matter? In: *Bridging Transportation Researchers (BTR) Conference*, 2020.
7. **Tao, T.**, 2019. How does built environment affect activity space of people living in different income level areas? In: *2019 Annual CTS Transportation Research Conference*.
6. **Tao, T.**, Lindsey, G., Cao, J., Wang, J., 2019. New methods for accessing pedestrian and bicycle exposure to risk, crash risk, and equity. In: *2019 ACSP annual conference*.
5. **Tao, T.**, Lindsey, G., Cao, J., Wang, J., 2019. Pedestrian and bicycle crashes in Minneapolis: an equity perspective. In: *2019 Minnesota Transportation Conference*.
4. **Tao, T.**, Lindsey, G., Cao, J., Wang, J., 2018. Methods and measures for assessing pedestrian exposure to risk, crash risk, and equity. In: *2018 Annual CTS Transportation Research Conference*.
3. **Tao, T.**, Cao, J., Das, K., Fan, Y., 2018. Exploring nonlinear influences of built environment characteristics on carbon emissions of daily travel in Minneapolis. In: *2018 ACSP annual conference*.
2. **Tao, T.**, Cao, J., 2018. Exploring built environment correlates of walking distance of transit access in the Twin Cities: A Machine Learning Approach. In: *2018 IACP annual conference*.
1. **Tao, T.**, 2017. Analysis of operating patterns of the public bicycling sharing system in the Twin Cities. In: *Sharing Economy Research Forum*, 2017.

Poster

5. **Tao, T.**, 2020. Exploring the pedestrian and bicycle crash risk in highway intersections: systemic approach applied in the Twin Cities metro area. In: *Annual Meeting of the Transportation Research Board*, 2020.
4. Lindsey, G., **Tao, T.**, Wang, J., Cao, J., 2020. Exposure, crash risk, and equity: models of pedestrian and bicycle crashes in Minneapolis. In: *Annual Meeting of the Transportation Research Board*, 2020.
3. **Tao, T.**, Cao, J., Das, K., Fan, Y., 2019. Exploring the non-linear relationship between built environment characteristics and people's active travel. In: *Annual Meeting of the Transportation Research Board*, 2019.
2. **Tao, T.**, Guo, X., Li, J., Huang, Y., 2017. Operating characteristics of a public bicycle sharing system based on the status of stations: a case study in Nanning City, China [C]. In: *Proceedings of the 97th Annual Meeting of the Transportation Research Board*, 2017.
1. Wang, W., **Tao, T.**, Tai, J., Yang, J., 2017. Path to success: investment and public opinions are reforming the taxi industry in China [C]. In: *Proceedings of the 97th Annual Meeting of the Transportation Research Board*, 2017.

PROFESSIONAL ORGANIZATIONS

- ACSP student member
- IACP student member

- Friend: TRB Standing Committee on Economic Development and Land Use, Standing Committee on Bicycle Transportation, Standing Committee on Traveler Behavior and Values

PROFESSIONAL SERVICE

Journal Referee

- Transportation Research Part D
- Journal of Transport and Geography
- Transportation
- Journal of Public Transportation
- Urban Studies
- Journal of Transport and Land Use
- Sustainable Cities and Society
- Energy for Sustainable Development

Conference Referee

- COTA International Conference of Transportation Professionals
- World Symposium on Transport and Land Use Research
- Bridging Transportation Researchers Conference