

Matthew Wigginton Conway

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Education

PhD Candidate, Geography (ABD)	September 2017–May 2021 (<i>expected</i>)
School of Geographical Sciences and Urban Planning	GPA: 4.00/4.00
Arizona State University	
Tempe, AZ, USA	
Advisor: Deborah Salon	
Committee members: Deirdre Pfeiffer , Stewart Fotheringham , Michael van Eggermond	
Master of Arts, Geography	May 2019
School of Geographical Sciences and Urban Planning	GPA: 4.00/4.00
Arizona State University	
Advisor: Deborah Salon	
Bachelor of Arts, Geography	June 2014
University of California, Santa Barbara	GPA: 4.00/4.00
Santa Barbara, CA, USA	
Highest Honors, Distinction in the Major	
Certificate of Achievement in Transfer Studies	June 2012
Foothill College	GPA: 3.99/4.00
Los Altos Hills, CA, USA	

Awards and honors

- Dwight David Eisenhower Transportation Graduate Fellow (2018, 2019, 2020), \$20,000 (total).
- TOMNET University Transportation Center Student of the Year (2020), \$1,000.
- Graduate College Travel Award, Arizona State University, \$500 (2019).
- Third place, Tom McKnight Graduate Paper Award, California Geographical Society (2019), \$100, for *Residential parking oversupply: A California case study*.
- Graduate Excellence Award, College of Liberal Arts and Sciences, Arizona State University (2019).
- Brazel Research Award, School of Geographical Sciences and Urban Planning, Arizona State University (2019), \$600, for *Trends in taxi usage and the advent of ridehailing, 1995–2017: Evidence from the US National Household Travel Survey*.
- Graduate and Professional Student Association Award Group Travel Award (2019), Arizona State University, with A. Young, B. Goldberg, and D. Lucero, \$3,550 (total), \$700 (for MWC).

- Honorable mention, NSF Graduate Research Fellowship Program (2017, 2018).
- Nexus (SNRF) Research Fellowship, School of Geographical Sciences and Urban Planning, Arizona State University (2017).
- First place, Tom McKnight Undergraduate Paper Award, California Geographical Society (2014), \$150, for *Predicting the popularity of bicycle sharing stations: An accessibility-based approach using linear regression and random forests*.
- Grand prize, Tour PDX App Contest (with Chris Smith, 2012).

Employment

- Independent contractor for Conveyal (TransitCenter and Metrolinx subcontracts) supporting equity analysis of public transit fares in New York and Toronto (12/2019–8/2020).
- Arizona State University, School of Geographical Sciences and Urban Planning. Graduate Research Assistant (8/2017–*present*). Tempe, AZ, USA.
- Conveyal. Project Manager and Software Developer (10/2014–7/2017). Washington, DC, USA.
- University of Chicago, Data Science for Social Good Program. Fellow (6/2014–8/2014). Chicago, IL, USA.
- University of California, Santa Barbara, Campus Learning Assistance Services. Writing Tutor (9/2013–6/2014). Santa Barbara, CA, USA.
- San Francisco Municipal Transportation Agency. Service Planning Intern (6/2013–8/2013). San Francisco, CA, USA.
- OpenPlans. Software Development Intern (6/2012–8/2012). New York, NY, USA.
- SAIC/Bay Area 511. Data Analyst Intern (6/2011–8/2011). Oakland, CA, USA.

Publications

109 citations in [Google Scholar](#)

Peer-reviewed articles

8. **Conway, M. W.**, Salon, D., Capasso da Silva, D., & Mirtich, L. (2020). How will the COVID-19 pandemic affect urban life? Early evidence from highly-educated respondents in the United States. *Urban Science*, 4(4), article 50. [doi:10.3390/urbansci4040050](https://doi.org/10.3390/urbansci4040050) (open access).
7. King, D. A., **Conway, M. W.**, & Salon, D. (2020). Do for-hire vehicles provide first mile/last mile access to transit? *Transport Findings*. [doi:10.32866/001c.12872](https://doi.org/10.32866/001c.12872) (open access).
6. **Conway, M. W.** and Stewart, A. F. (2019). Getting Charlie off the MTA: A multiobjective optimization method to account for cost constraints in public transit accessibility metrics. *International Journal of Geographical Information Science* 33 (9): 1759–1787. [doi:10.1080/13658816.2019.1605075](https://doi.org/10.1080/13658816.2019.1605075) (also available as an [open access postprint](#)).
5. Salon, D., **Conway, M. W.**, Wang, K., & Roth, N. (2019). Heterogeneity in the relationship between biking and the built environment. *Journal of Transport and Land Use*, 12(1), 99–126. [doi:10.5198/jtlu.2019.1350](https://doi.org/10.5198/jtlu.2019.1350) (open access).

4. **Conway, M. W.**, Salon, D., & King, D. A. (2018). Trends in taxi use and the advent of ridehailing, 1995–2017: Evidence from the US National Household Travel Survey. *Urban Science*, 2(3), 79–23. doi:10.3390/urbansci2030077 (open access).
3. **Conway, M. W.**, Byrd, A., & van Eggermond, M. (2018). Accounting for uncertainty and variation in accessibility metrics for public transport sketch planning. *Journal of Transport and Land Use*, 11(1), 541–558. doi:10.5198/jtlu.2018.1074 (open access).
2. **Conway, M. W.**, Byrd, A., & van der Linden, M. (2017). Evidence-based transit and land use sketch planning using interactive accessibility methods on combined schedule and headway-based networks. *Transportation Research Record*, 2653, 45–53. doi:10.3141/2653-06 (also available as an [open access postprint](#)).
1. Green, B., Caro, A., **Conway, M. W.**, Manduca, R., Plagge, T., & Miller, A. (2015). Mining administrative data to spur urban revitalization. *Proceedings of the 21st ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*. doi:10.1145/2783258.2788568.

Contributions to reports

2. RideKC Smartmoves 3.0 (2017). Contributor to Job Accessibility via Transit section. <http://www.kcsmartmoves.org/plandocuments.htm>
1. Planning for a healthier future: Incorporating health, equity and environmental performance measures in regional transportation plans (2016). Contributor to Access to Opportunities section. <http://t4america.org/docs/planning-for-a-healthier-future-0616.pdf>

Popular press

1. **Conway, M. W.** (2013). [Cyberspace classrooms and E-Professors: One laptop learner considers the merits and downfalls of online classes](#). *Daily Nexus*, 5 March.

Presentations

Interviews

1. [Discussion of trends in ridehailing and taxi usage](#) (with D. Salon). 2018. Television interview on *Arizona Horizon*, Arizona PBS.

Conference presentations

21. **Conway, M. W.** (2021 *forthcoming*). If you build it, who will come? A general equilibrium model of residential location choice and vehicle ownership in response to housing policy changes in Los Angeles. American Association of Geographers Annual Meeting, online.
20. **Conway, M. W.** (2021 *forthcoming*). If you build it, who will come? Simulating effects of changes in housing supply on car ownership in Los Angeles. Transportation Research Board Annual Meeting, online.
19. **Conway, M. W.** (2020 *forthcoming*). Where will upzoning induce changes to the built environment? Association of Collegiate Schools of Planning Conference, online.

18. **Conway, M. W.** (2020). Will zoning changes promote transport affordability? Land Use Regulation and Housing Affordability Conference, online.
17. **Conway, M. W.**, Salon, D. (presenter), Capasso da Silva, D., and Mirtich, L. (2020). [How will the COVID-19 pandemic affect the future of transport?](#) Bridging Transportation Researchers Online Conference.
16. **Conway, M. W.** (2020). Residential self-selection and transit usage around new transit stations. Transportation Research Board Annual Meeting, Washington, DC, USA.
15. **Conway, M. W.**, Harness, N. (presenter), Mirtich, L. (presenter), Ross, A., Hong, S., and Salon, D. (2020). [How important are attitudes in travel behavior models?](#) Bridging Transportation Researchers Online Conference.
14. **Conway, M. W.** (2019). Residential parking oversupply: A California case study. Podium session at the California Geographical Society Annual Meeting, Big Bear Lake, CA, USA.
13. **Conway, M. W.** (2019). Whose right to the city? Just negotiations of the right to urban space. Podium session at the American Association of Geographers Annual Meeting, Washington, DC, USA.
12. Salon, D. (presenter) and **Conway, M. W.** (2019). Variation in the cost of car ownership in the United States. Podium session at the Transportation Research Board Annual Meeting, Washington, DC, USA.
11. **Conway, M. W.** and Stewart, A. F. (2019). Getting Charlie off the M.T.A.: A method for including cost constraints in public transit accessibility metrics. Poster presented at the Transportation Research Board Annual Meeting, Washington, DC, USA.
10. **Conway, M. W.**, Salon, D., and King, D. A. (2019). Trends in taxi usage and the advent of ridehailing, 1995-2017. Podium session at the Transportation Research Board Annual Meeting, Washington, DC, USA.
9. **Conway, M. W.** (2019). Utilization rates and fleet sizes for shared autonomous vehicles. Poster presented at the Transportation Research Board Annual Meeting, Washington, DC, USA.
8. **Conway, M. W.**, Salon, D., and King, D. A. (2018). Trends in taxi usage and the advent of ridehailing, 1995-2017. Podium session at the National Household Travel Survey (NHTS) Data for Transportation Applications Workshop, Washington, DC, USA.
7. Salon, D. (presenter), **Conway, M. W.**, Wang, K., and Roth, N. (2018). Heterogeneity in the relationship between biking and the built environment. Podium session at the International Association of Travel Behavior Research, Santa Barbara, CA, USA.
6. **Conway, M. W.**, Byrd, A., and van Eggermond, M. (2017). A statistical approach to comparing accessibility results: Including uncertainty in public transport sketch planning. Podium session at the World Symposium on Transport and Land Use Research, Brisbane, Queensland, Australia.
5. **Conway, M. W.**, Byrd, A., and van der Linden, M. (2017). Evidence-based transit and land use sketch planning using interactive accessibility methods on combined schedule and headway-based networks. Podium session at the Transportation Research Board Annual Meeting, Washington, DC, USA.
4. Green, B., Caro, A., **Conway, M. W.**, Manduca, R., Plagge, T., and Miller, A. (2015). Mining administrative data to spur urban revitalization. Poster and lightning talk presented at the 21st ACM SIGKDD International Conference, New York, NY, USA.

3. **Conway, M. W.** (2014). Predicting the popularity of bicycle sharing stations: An accessibility-based approach using linear regression and random forests. Podium session at the Annual Meeting of the California Geographical Society, Los Angeles, CA, USA.
2. **Conway, M. W.** (2013). The death and life of great global cities: Jane Jacobs and global cities theory. Podium session at the Annual Meeting of the California Geographical Society, San Luis Obispo, CA, USA.
1. **Conway, M. W.** (2012). Measuring urban mobility and accessibility using OpenTripPlanner Analyst. Poster presented at the Annual Meeting of the California Geographical Society, Davis, CA, USA.

Panel membership

1. The path to implementation: Innovative tools to make your projects happen. (2016). New Partners for Smart Growth Conference. Portland, OR, USA.

Guest lectures

1. Guest lecture on transportation and cities. (2020). Geography 306, Texas A&M University.

Teaching experience

- Co-instructor, seminar on the relationships between land use and travel behavior (three undergraduates and one graduate student, Fall 2019)
- English as a Second Language teacher, Foundry United Methodist Church (2016–2017)
- Writing tutor, Campus Learning Assistance Services, UC Santa Barbara (2013–2014)

Service activities

- Colloquium coordinator, Graduate Student Committee, School of Geographical Sciences and Urban Planning, Arizona State University (2017-2018).
- Subcommittee lead, Use Case chapter, Committee on the Transport Access Manual.
- Reviewer for *Transportation*, *Transportation Research Part A*, *Journal of Transport Geography*, *Journal of Planning Education and Research*, *Journal of Transport and Land Use*, *Transportation Research Record*, *ISPRS International Journal of Geo-Information*, *Transportation Research Board*, and *World Symposium on Transport and Land Use Research*.
- Member, OpenTripPlanner project steering committee, 2013–2016.

Open-source software contributions

- [r5](#): Rapid public transit routing for research and analysis (major contributor)
- [Conveyal Analysis](#): Public transportation scenario planning and accessibility analysis (major contributor)
- [eqsormo](#): library to implement equilibrium sorting models in Python (author)

- [OpenTripPlanner](#): Open-source public transit routing (contributor)
- [statsmodels](#): Statistics and econometrics in Python (minor contributor)
- [gtfsrdb](#): Real time transit data archiving (original author and major contributor)

Professional memberships

- American Association of Geographers
- American Planning Association
- Association of Collegiate Schools of Planning
- Transportation Research Board
- World Society for Transport and Land Use Research
- Zephyr Foundation

Short courses and professional development workshops attended

- Advanced Choice Modelling, with Stephane Hess and Thijs Dekker, University of Leeds. 7/2019.

Skills

- Statistical methods, including spatial statistics
- Network analysis
- Routing algorithms
- Machine learning
- Relational and non-relational databases
- GIS
- \LaTeX
- Programming languages: Python, R, Java, Javascript