

Joanna Moody, Ph.D.

Curriculum Vitae

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EDUCATION

Massachusetts Institute of Technology (MIT), Cambridge, MA

2019 Doctor of Philosophy, Transportation, Civil & Environmental Engineering

Dissertation: *Measuring Car Pride and its Implications for Car Ownership and Use across Individuals, Cities, and Countries*

2016 Master of Science, Transportation, Civil & Environmental Engineering

Thesis: *Development of a Predictive Coalition Building Analysis for Stakeholders of Sociotechnical Systems*

Bates College, Lewiston, ME

2014 Bachelor of Science, Mathematics, Physics, and Japanese

Summa Cum Laude, Phi Beta Kappa, Sigma Xi, Deans list (all semesters)

Honor's Thesis, Physics: *Critical Speed Analysis of Railcars and Wheelsets on Curved and Straight Track*

Honor's Thesis, Japanese: *The Ainu Speak of Famine: How Oral Traditions Reflect and Inform Historical Analysis of Changing Food Practices and Trade Relations in Early Modern Hokkaido*

Nanzan University, Nagoya, Japan

2012 Certificate, Center for Japanese Studies

PROFESSIONAL AND RESEARCH EXPERIENCE

Massachusetts Institute of Technology (MIT), Cambridge, MA

2019-Present Research Program Manager, Mobility Systems Center, MIT Energy Initiative

2016-2019 Research Assistant, JTL: Urban Mobility Lab

2014-2017 Research Assistant, Regional Transportation Planning and High Speed Rail Research Group

World Bank Group, Washington, D.C.

2016-2020 Research and Project Management Consultant, Transportation & Digital Development

PUBLICATIONS

Refereed Journal Articles

2020 **Moody, J.**, N. Bailey, and J. Zhao. Public perceptions of autonomous vehicle safety: An international comparison. *Safety Science*, 121: 634-650. <https://doi.org/10.1016/j.ssci.2019.07.022>

2019 **Moody, J.**, S. Wang, J.W. Chun, X. Ni, and J. Zhao. Transportation policy profiles of Chinese city clusters: A mixed method approach. *Transportation Research Interdisciplinary Perspectives*, 2. <https://doi.org/10.1016/j.trip.2019.100053>

- 2019 Chun, J.W., **J. Moody**, and J. Zhao. Transportation policymaking in Beijing and Shanghai: contributors, obstacles and process. *Case Studies on Transport Policy*, 7(4): 718-731. <https://doi.org/10.1016/j.cstp.2019.09.003>
- 2019 **Moody, J.**, and J. Zhao. Car pride and its bidirectional relation with car ownership: Case studies in New York City and Houston. *Transportation Research Part A: Policy and Practice*, 124: 334-353. <https://doi.org/10.1016/j.tra.2019.04.005>
- 2019 **Moody, J.**, S. Middleton, and J. Zhao. Rider-to-rider discriminatory attitudes and ridesharing behavior. *Transportation Research Part F: Traffic Psychology and Behaviour*, 62: 258-273. <https://doi.org/10.1016/j.trf.2019.01.003>
- 2018 **Moody, J.**, T. P. Doyle, S. Middleton, and J. Sussman. The CLIOSjre Process: A flexible multicriteria, multistakeholder decision framework for transportation planning under uncertainty. *Transportation Research Record: Journal of the Transportation Research Board*, 2672(44): 82-92. <https://doi.org/10.1177/0361198118778930>

Research Reports

- 2019 MIT Energy Initiative. *Insights into Future Mobility: A report from the MIT Energy Initiative Mobility of the Future study*. MITEI: Cambridge, MA. <https://energy.mit.edu/insightsintofuturemobility/>
Coordinating author of report; senior research assistant and manager of 2 study projects
- 2017 Sussman, J.M., **J. Moody**, S. Middleton, T. P. Doyle, M. Peña-Alcaraz, A. Faulkner, D. Mascoop, and M. Mockett. *The evaluation of international HSR markets for JR East: A systems approach*.

Reviewed Books and Book Chapters

- 2018 Pulido, D., G. Darido, R. Munoz-Raskin, and **J. Moody** (eds). *The Urban Rail Development Handbook*. The World Bank: Washington, D.C. <https://openknowledge.worldbank.org/handle/10986/30392>
Editor; co-author of 9 chapters related to the planning, governance, design, procurement, construction, and operations and maintenance of urban rail systems
- 2015 Lawrence, M. and **J. Moody**. "Chapter 7: PKP Cargo: Successful Restructuring & IPO." In *Attracting Capital for Railway Development in China*, pg. 65-73. The World Bank: Washington, D.C. <https://openknowledge.worldbank.org/handle/10986/23800>

Manuscripts under Review

- Y. Zheng, **J. Moody**, and J. Zhao. Measuring policy leakage of Beijing's car ownership restriction in neighboring cities. *Journal of Transport Geography* [revise and resubmit]
- Wang, S., **J. Moody**, and J. Zhao. What prompts the adoption of car restriction policies among Chinese cities? *International Journal of Sustainable Transportation* [revise and resubmit]
- Moody, J.**, and J. Zhao. Adoption of exclusive and shared TNC services in Singapore and the U.S. *ASCE Journal of Transportation Engineering, Part A: Systems* [revise and resubmit]
- Ni, X., **J. Moody**, and J. Zhao. How does public support for sustainable transportation policies vary across countries? *Transportation Research Record: Journal of the Transportation Research Board* [revise and resubmit]
- Kong, H., **J. Moody**, and J. Zhao. ICT's impacts on ride-hailing use and individual travel. *Transportation Research Part A: Policy and Practice*. [revise and resubmit]
- Luo, R., **J. Moody**, T. Fan, and J. Zhao. What drives exclusive and pooled autonomous mobility-on-demand uptake? A behavioral study in Singapore. *Transportation Research Part F: Traffic Psychology and Behavior* [under review]

Moody, J., and J. Zhao. Travel behavior as a driver of attitudes: Car use and car pride in U.S. cities. *Transportation Research Part F: Traffic Psychology and Behaviour* [under review]

Mo, B., Q.Y. Wang, **J. Moody**, Y. Shen, and J. Zhao. Impacts of subjective evaluations and use of existing travel modes on adoption of autonomous mobility-on-demand. *Transportation Research Part C: Emerging Technologies* [under review]

PROJECT GRANTS

- 2019 Mobility Systems Center Project Grant, MIT Energy Initiative (\$275,000)
Project: “Can mobility-as-a-Service (MaaS) really disrupt the private car ownership model?”
Co-PI with Prof. David Keith of the MIT Sloan School of Management
- 2018 Study Visit Grant (Nairobi, Kenya), Volvo Research and Education Foundation (\$4,000)
- 2016 Mobility of the Future Study Grant, MIT Energy Initiative (\$350,000)
Project 1: “Cross-country comparisons of mobility culture”
Project 2: “Mobility management instruments in China”
Co-author of grant proposal and senior research assistant with PI Prof. Jinhua Zhao

FELLOWSHIPS

- 2017 Lee Schipper Memorial Scholarship for Sustainable Transport and Energy Efficiency, WRI
- 2016 Future Leaders Development Fellowship, Eno Center for Transportation
- 2016, 2015 Dwight D. Eisenhower Graduate Fellowship, Federal Highway Administration
- 2014 University Transportation Center Fellowship, U.S. Department of Transportation
- 2011 Goldwater Scholarship, U.S. Congress
- 2011 *Monbukagakusho* Japanese Studies Scholarship, Japanese Ministry of Education, Culture, Sports, Science, and Technology (MEXT)

AWARDS AND HONORS

- 2018 Outstanding Graduate Student of the Year, New England University Transportation Center
- 2017 Leadership and Service Award, Transportation Diversity Council
- 2017 Best Presentation Award: “Cross-city comparison of implicit and explicit measures of car pride,” TRB Standing Committee on Network Modeling, Workshop on Doctoral Research in Transport Modeling and Travel Behavior
- 2017 Best Graduate Poster: “Development of a predictive coalition building analysis for stakeholders of sociotechnical systems,” MIT Department of Civil & Environmental Engineering Research Showcase
- 2016 Charley V. Wootan Memorial Award for outstanding Masters Thesis in Planning and Policy, Council of University Transportation Centers
- 2016 Trond Kaalstad Award recognizing an outstanding graduate student for leadership and community building, MIT Department of Civil & Environmental Engineering

TEACHING AND COURSE DEVELOPMENT

Massachusetts Institute of Technology, Cambridge MA

Behavior Science and Urban Mobility, Department of Urban Studies and Planning

Teaching assistant for graduate level course Spring 2016

Repeatedly invited lecturer on implicit biases and applications of social psychology in understanding attitudes and behaviors of transportation users Spring 2016, 2017, 2019, 2020

Civil and Environmental Engineering Design, Senior Capstone, CEE

Invited guest lecturer on sustainable transportation; co-advisor of undergraduate senior capstone project: a ‘civil systems’ approach to electrification of personal mobility Spring 2020

Project Evaluation and Management, Department of Civil and Environmental Engineering (CEE)

Repeatedly invited lecturer on stakeholder analysis Spring 2016, 2017, 2018

Member of undergraduate student project steering committee Spring 2017

Harvard University, Cambridge MA

Sophomore Tutorial in Behavioral Economics, Department of Economics

Invited discussant on behavioral economics applications in transportation for undergraduate course; designed 1-week module on the fundamentals of prospect theory and issues of endogeneity in attitude-behavior relations Spring 2019, Fall 2019, Spring 2020

World Bank Open Learning Campus, Washington, D.C.

Urban Rail Development e-learning course launching Spring 2020

<https://olc.worldbank.org/content/e-learning-course-urban-rail-development-self-paced>

- Developed a multi-module, self-paced, open online learning course on urban rail project planning, design, assessment, management, and operations
- Authored the narration, designed visuals, identified additional readings, composed case studies, and wrote knowledge check exercises and quiz questions

SERVICE

Committee for Transportation in the Developing Countries, Transportation Research Board

2019 Paper review and conference session coordinator

2018 Member

MIT Transportation Club

2016-2018 President

2016-2018 TransportationCamp New England venue coordinator

2015-2018 MIT Transportation Showcase career fair and research symposium co-coordinator

Transportation Diversity Council (TDC)

2015-2018 TDC-MIT Transportation & Infrastructure Summit coordinator

MIT

2015-2016 Speaker series coordinator – MIT Center for Transportation & Logistics

2015-2016 Social events planning committee – Department of Civil & Environmental Engineering

CONFERENCE PRESENTATIONS

- 2020 Moody, J., and J. Zhao. "Adoption of exclusive and pooled ridehailing in Singapore and the U.S." Lectern presentation at the 99th Annual Meeting of the Transportation Research Board: Washington, D.C., January.
- 2020 Ni, X., J. Moody, and J. Zhao. "How does public support for sustainable transportation policies vary across countries?" Poster presentation at the 99th Annual Meeting of the Transportation Research Board: Washington, D.C., January.
- 2020 Zheng, Y., J. Moody, S. Wang, and J. Zhao. "Measuring policy leakage of Beijing's car ownership restriction in neighboring cities using difference in differences analysis." Poster presentation at the 99th Annual Meeting of the Transportation Research Board: Washington, D.C., January.
- 2019 Moody, J., S. Middleton, and J. Zhao. "Rider-to-rider discriminatory attitudes and ridesharing behavior." Lectern presentation at the 98th Annual Meeting of the Transportation Research Board: Washington, D.C., January.
- 2019 Moody, J., N. Bailey, and J. Zhao. "Public perceptions of autonomous vehicle safety: An international comparison." Poster presentation at the 98th Annual Meeting of the Transportation Research Board: Washington, D.C., January.
- 2018 Moody, J. "International comparison of car pride and its relation with car ownership." Presentation at the Volvo Research and Education Foundation (VREF) Ph.D. and Young Researcher Workshop, Mobilize: Dar es Salaam, Tanzania, June.
- 2018 Moody, J. "Exploration of car pride and attitudes towards sustainable transportation." Lee Schipper Memorial Scholarship Presentation at Transforming Transportation: Washington, D.C., January
- 2018 Moody, J. "Development and validation of measures of car pride and bus shame." Presentation at the VREF Bus Rapid Transit Center of Excellence General Assembly: Washington, D.C., January
- 2018 Chun, J.W., J. Moody, and J. Zhao. "Transportation policymaking in Beijing and Shanghai: Contributors, obstacles, and process." Poster presentation at the 97th Annual Meeting of the Transportation Research Board: Washington, D.C., January
- 2017 Moody, J., J. Li, and J. Zhao. "Measuring car pride: the Implicit Association Test and traditional survey techniques." Poster presentation at the 11th International Conference on Transport Survey Methods: Quebec, Canada, September
- 2017 Moody, J. and J. Sussman. "Development of a predictive coalition building analysis for stakeholders of sociotechnical systems." Poster presentation at the MIT Department of Civil & Environmental Engineering Research Showcase: Cambridge, MA, March.
- 2017 Moody, J. and J. Zhao. "Cross-city comparison of implicit and explicit measures of 'car pride.'" 96th Annual Meeting of the Transportation Research Board (TRB), Workshop on Doctoral Research in Transport Modeling and Traveler Behavior: Washington, D.C., January.
- 2016 Moody, J., J. Li, and J. Zhao. "Car pride in New York City vs. Houston: Towards a cross-cultural comparison." Lectern presentation at the 56th Annual Conference of the Association of Collegiate Schools of Planning (ACSP): Portland, OR, November.
- 2016 Moody, J. and J. Zhao. "Implicit and explicit measures of social status bias in mode choice." Lectern presentation at Cars In/Of Culture: Mobility, Materiality, Representation: Oxford, U.K., September.
- 2016 Moody, J., G. Goulet-Langlois, L. Alexander, L. J. Campbell, and J. Zhao. "Measuring explicit and implicit social status bias in car vs. bus mode choice." Lectern presentation at the 95th Annual Meeting of the Transportation Research Board: Washington, D.C., January.
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PROFESSIONAL SKILLS

- Structural equation modeling, latent variable/factor analysis, psychometrics, econometrics
- Discrete choice and demand modeling
- Survey design and analysis
- Collaborative research, project and program management, project evaluation, event planning
- R, ArcGIS, CUBE Voyager, Biogeme
- Microsoft Access, SQL, HTML, Adobe Creative Suite, Office Suite, LaTeX

LANGUAGES

Japanese (professional working proficiency), Spanish (basic proficiency)
