

Megan Smirti Ryerson, Ph.D.

Assistant Professor
Department of City & Regional Planning
Department of Electrical & Systems Engineering
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Appointments

2018–Present	Associate Dean for Research, PennDesign
2018–Present	Affiliated Faculty Member, Penn Center for Neuroaesthetics, Penn Medicine
2017–Present	Senior Fellow, Center for Injury Research and Prevention (CIRP), The Children's Hospital of Philadelphia
2017–Present	Research Director, Mobility21 Transportation Research Center
2016–Present	Faculty Fellow, University of Pennsylvania Institute for Urban Research
2013–Present	Assistant Professor, Department of City and Regional Planning, School of Design, University of Pennsylvania
2013–Present	Assistant Professor, Department of Electrical and Systems Engineering, School of Engineering and Applied Science, University of Pennsylvania (Secondary Appointment)
2011–2013	Assistant Professor, Department of Civil and Environmental Engineering, College of Engineering, University of Tennessee, Knoxville (UTK)
2010–2011	Postdoctoral Researcher, Department of Civil and Environmental Engineering, College of Engineering, University of California, Berkeley

Education

2006–2010	Doctor of Philosophy, Civil and Environmental Engineering Department of Civil and Environmental Engineering, College of Engineering, University of California, Berkeley <i>Fields:</i> Econometrics, Statistics
2005–2006	Master of Science, Civil and Environmental Engineering Department of Civil and Environmental Engineering, College of Engineering, University of California, Berkeley
1999–2003	Bachelor of Science, Systems Engineering Department of Electrical and Systems Engineering, University of Pennsylvania <i>Minor:</i> Mathematics

Publications (Published between 2013 – Present)

Graduate student co-authors noted in italics. Undergraduate student co-authors noted in underlined italics.

Peer Reviewed Journal Articles

Area of Emphasis 1: Planners Take Flight: The Role of Planners in Shaping the Air Transportation System

- 37 *Li, M., Suh, D., Ryerson, M.S.* (2018). Visualizing aviation impacts: Modeling current and future flight trajectories with publicly available flight data. *Transportation Research Part D: Transport and Environment*, 63, 769-785. doi: [10.1016/j.trd.2018.07.009](https://doi.org/10.1016/j.trd.2018.07.009).
- 36 *Suh, D., Ryerson, M.S.* (2017). Adaptive Airport Planning Frameworks and Techniques for a New Era of Planning. *Transportation Research Record: Journal of the Transportation Research Board*, No. 2603, 1-15. doi: [10.3141/2603-07](https://doi.org/10.3141/2603-07).
- 35 **Ryerson, M.S.** (2016). Incentivize It and They Will Come? How Some of the Busiest U.S. Airports are Building Air Service with Incentive Programs. *Journal of the American Planning Association*, 82(4), 303-315. doi: [10.1080/01944363.2016.1215257](https://doi.org/10.1080/01944363.2016.1215257).
- 34 **Ryerson, M.S.** (2016). An Analytical Approach to Documenting Air Carrier Incentive Programs in Airport Sustainability Plans. *Transportation Research Record: Journal of the Transportation Research Board*, No. 2569, 1-15. doi: [10.3141/2569-01](https://doi.org/10.3141/2569-01). **Winner of the 2016 Fred Burggraf Award for the Best Paper in Transportation Research Record by a Young Scholar**
- 33 **Ryerson, M.S.** (2016). Planners Take Flight: Educating Planners on the Linkages between Planning and Air Transportation. *Journal of Planning Education and Research*, 36(4), 427-439. doi: [10.1177/0739456X15626988](https://doi.org/10.1177/0739456X15626988).
- 32 *Mosbah, S., Ryerson, M.S.* (2016). Can U.S. Metropolitan Areas use Large Commercial Airports as Tools to Bolster Regional Economic Growth? *Journal of Planning Literature*, 31(3), 317-333. doi: [10.1177/0885412216653100](https://doi.org/10.1177/0885412216653100).
- 31 **Ryerson, M.S., Woodburn, A.** (2014). Build Capacity or Manage Demand: Can regional planners lead American aviation into a new frontier of demand management? *Journal of the American Planning Association*, 80(2), 138-152. doi: [10.1080/01944363.2014.961949](https://doi.org/10.1080/01944363.2014.961949).
- 30 **Ryerson, M.S., Ge, X.** (2014). The Role of Turboprops in China's Growing Aviation System. *Journal of Transport Geography*, 40, 133-144. doi: [10.1016/j.jtrangeo.2014.03.009](https://doi.org/10.1016/j.jtrangeo.2014.03.009).
- 29 *Woodburn, A., Ryerson, M.S.* (2014). Airport Capacity Enhancement and Flight Predictability. *Transportation Research Record: Journal of the Transportation Research Board*, No. 2400, 87-97. doi: [10.3141/2400-10](https://doi.org/10.3141/2400-10).
- 28 **Ryerson, M.S., Kim, H.** (2014). The Impact of Airline Mergers and Hub Reorganization on Aviation Fuel Consumption. *Journal of Cleaner Production*, 85, 395-407. doi: [10.1016/j.jclepro.2013.12.032](https://doi.org/10.1016/j.jclepro.2013.12.032).
- 27 **Ryerson, M.S., Kim, H.** (2013). Integrating Airline Operational Practices into Passenger Airline Hub Definition. *Journal of Transport Geography*, 31, 84-93. doi: [10.1016/j.jtrangeo.2013.05.013](https://doi.org/10.1016/j.jtrangeo.2013.05.013).
- 26 *Woodburn, A., Ryerson, M.S., Chester, M.* (2013). Challenges to Air and Rail Alternatives Assessments in Government Environmental Impact Review Processes. *Transportation Research Record: Journal of the Transportation Research Board*, 2336, 9-17. doi: [10.3141/2336-02](https://doi.org/10.3141/2336-02).
- 25 **Ryerson, M.S., Hansen, M.** (2010). The Potential of Turboprops for Reducing Aviation Fuel Consumption. *Transport. Res. Part D: Transport and Environment*, 15(6), 305-314. doi: [10.1016/j.trd.2010.03.003](https://doi.org/10.1016/j.trd.2010.03.003).

Area of Emphasis 2: Planning an Environmentally Sustainable and Resilient Aviation System

- 24 **Ryerson, M.S.** (2018). Diversion Ahead: Modeling the Factors Driving Diversion Airport Choice After an Unexpected Airport Outage. *Journal of Infrastructure Systems*, 24(1). doi: [10.1061/\(ASCE\)IS.1943-555X.0000407](https://doi.org/10.1061/(ASCE)IS.1943-555X.0000407).
- 23 *Kang, L., Hansen, M., Ryerson, M.S.* (2018). Predictability Evaluation Based on Gate-In Fuel Prediction and Cost-to-Carry Estimation. *Journal of Air Transport Management*, 65, 146–152. doi: [10.1016/j.jairtraman.2017.11.006](https://doi.org/10.1016/j.jairtraman.2017.11.006)
- 22 *Suh, D., Ryerson, M.S.* (2017). A Large Neighborhood Search Heuristic to Establish an Optimal Ad-hoc Hubbing Strategy in the Wake of a Large-Scale Airport Outage. *Journal of Air Transport Management*, 65, 156-165. doi: [10.1016/j.jairtraman.2017.06.006](https://doi.org/10.1016/j.jairtraman.2017.06.006)
- 21 Kim, H., **Ryerson, M.S.** (2017). The q-Ad Hoc Hub Location Problem for Multi-modal Networks. *Networks and Spatial Economics*, 17(3), 1015–1041. doi: [10.1007/s11067-017-9357-y](https://doi.org/10.1007/s11067-017-9357-y)
- 20 *Hao, L., Hansen, M., Ryerson, M.S.* (2016). Fueling for Contingencies: The Hidden Cost of Unpredictability in the Air Transportation System. *Transport. Res. Part D: Transport and Environment*, 44, 199–210. doi:[10.1016/j.trd.2016.02.016](https://doi.org/10.1016/j.trd.2016.02.016).
- 19 *Nahlik, M., Chester, M., Ryerson, M.S., Fraser, A.* (2016). Spatial Differences and Local Costs of Air Pollution Damages Across U.S. Airports. *Environmental Science & Technology*, 50(8), 4149–4158. doi: [10.1021/acs.est.5b04491](https://doi.org/10.1021/acs.est.5b04491).
- 18 *Hao, L., Ryerson, M.S., Kang, L., Hansen, M.* (2016). Estimating Fuel Burn Impacts of Taxi-out Delay with Implications for Gate-hold Benefits. *Transport. Res. Part C: Emerging Technologies*, 80, 454-466. doi:[10.1016/j.trc.2016.05.015](https://doi.org/10.1016/j.trc.2016.05.015).
- 17 **Ryerson, M.S.,** Hansen, M., *Hao, L., Seelhorst, M.* (2015). Landing on Empty: Estimating the Benefits from Reducing Fuel Uplift in U.S. Civil Aviation. *Environmental Research Letters*, 10, 1-11. doi:[10.1088/1748-9326/10/9/094002](https://doi.org/10.1088/1748-9326/10/9/094002).
- 16 **Ryerson, M.S.,** Hansen, M., Bonn, J. (2014). Time to Burn: Flight Delay, Terminal Efficiency, and Fuel Consumption in the National Airspace System. *Transport. Res. Part A: Policy and Practice*, 69, 286-298. doi:[10.1016/j.tra.2014.08.024](https://doi.org/10.1016/j.tra.2014.08.024).
- 15 **Ryerson, M.S.,** Churchill, A. (2013). Aircraft Rerouting due to Abrupt Facility Outages: A Case Study of the 2011 Great Tōhoku Earthquake. *Transportation Research Record: Journal of the Transportation Research Board*, 2336, 27–35. doi: [10.3141/2336-04](https://doi.org/10.3141/2336-04).
- 14 **Ryerson, M.S.,** Hansen, M. (2013). Capturing the Impact of Fuel Price on Jet Aircraft Operating Costs with Engineering and Econometric Models. *Transport. Res. Part C: Emerging Technologies*, 33, 282–296. doi:[10.1016/j.trc.2011.05.015](https://doi.org/10.1016/j.trc.2011.05.015).

Area of Emphasis 3: Planning Interdependent Critical Transportation Infrastructures

- 13 *Yoon, T., Cherry, C., Bell, J., Ryerson, M.S.* (2018). A Carsharing Demand Estimation and Fleet Simulation with EV Adoption. *Journal of Cleaner Production*. doi: [10.1016/j.jclepro.2018.09.124](https://doi.org/10.1016/j.jclepro.2018.09.124).
- 12 *Davidson, J., Ryerson, M.S.* (2018). Building Reverse Commute Typologies Through Urban and Suburban Socioeconomic Characteristics. *Cities*. doi: [10.1016/j.cities.2018.04.007](https://doi.org/10.1016/j.cities.2018.04.007).
- 11 **Ryerson, M.S.,** Kim, A. (2018). A drive for better air service: How air service imbalances across neighboring regions integrate air and highway demands. *Transportation Research Part A: Policy and Planning*. doi: [10.1016/j.tra.2017.10.005](https://doi.org/10.1016/j.tra.2017.10.005).
- 10 Kim, A., **Ryerson, M.S.** (2018). A long drive: interregional airport passenger leakage in the U.S. *Tourism Management*, 65, 237-244. doi: [10.1016/j.tourman.2017.10.012](https://doi.org/10.1016/j.tourman.2017.10.012).

- 9 **Ryerson, M.S., Miller, J.E.,** and Winston, F.K. (2018). Edge Conditions and Crash-Avoidance Roles: The Future of Traffic Safety in the World of Autonomous Vehicles. *Injury Prevention*. doi: [10.1136/injuryprev-2017-042567](https://doi.org/10.1136/injuryprev-2017-042567).
- 8 **Li, M. Z., Ryerson, M.S.** (2017). A data-driven approach to modeling high-density terminal areas: A scenario analysis of the new Beijing, China airspace. *Chinese Journal of Aeronautics*, 30(2), 538-553. doi: [10.1016/j.cja.2016.12.030](https://doi.org/10.1016/j.cja.2016.12.030).
- 7 Yang, H., Cherry, C., Zaretski, R., **Ryerson, M.S.**, Liu, X., Fu, Z. (2016). A GIS-based method to identify cost-effective routes for rural deviated fixed route transit. *Journal of Advanced Transportation*, 50(8), 1770-1784. doi: [10.1002/atr.1428](https://doi.org/10.1002/atr.1428).
- 6 Zhao, D., Wang, W., Woodburn, A., **Ryerson, M.S.** (2016). Diagnosing Metro and Feeder Bus Transfers Using Smart Card Data from Nanjing. Isolating high-priority metro and feeder bus transfers using smart card data. *Transportation*, 1–20. doi:[10.1007/s11116-016-9713-7](https://doi.org/10.1007/s11116-016-9713-7)
- 5 Campbell, A., Cherry, C., **Ryerson, M.S.**, Yang, X. (2016). Factors Influencing the Choice of Shared Bicycles and Shared Electric Bikes in Beijing. *Transport. Res. Part C: Emerging Technologies*, 67, 399-414. doi:[10.1016/j.trc.2016.03.004](https://doi.org/10.1016/j.trc.2016.03.004).
- 4 Chester, M., **Ryerson, M.S.** (2014). Grand Challenges for High-speed Rail Environmental Assessment in the United States. *Transport. Res. Part A: Policy and Practice*, 61, 15-26. doi:[10.1016/j.tra.2013.12.007](https://doi.org/10.1016/j.tra.2013.12.007).
- 3 Campbell, A., Cherry, C., **Ryerson, M.S.**, Jones, L. (2014). Stated Preference Survey Methodology in a Data-Poor Environment. *Transportation Research Record: Journal of the Transportation Research Board*, No. 2405, 42-48. doi:[10.3141/2405-06](https://doi.org/10.3141/2405-06).
- 2 **Ryerson, M.S.**, Hansen, M. (2013). Optimal Intercity Transportation Services with Heterogeneous Demand and Variable Fuel Price. *IEEE Systems Journal*, 8(4), 1158–1168. doi: [10.1109/JSYST.2013.2249213](https://doi.org/10.1109/JSYST.2013.2249213).
- 1 **Smirti (Ryerson), M.**, Evans, A., Gougherty, M., Morris, E. (2007). Politics, Public Opinion, and Project Design in California Road Pricing. *Transportation Research Record: Journal of the Transportation Research Board*, No. 1996, 41-48. doi: [10.3141/1996-06](https://doi.org/10.3141/1996-06).

Peer Reviewed Journal Articles Under Review

First Round

- 4 Dong, X., **Ryerson, M.S.** Capacity Mismatch in China’s Rapidly Growing Civil Aviation System. Under review at *Case Studies on Transport Policy*, submitted October 2018.
- 3 **Li, M.Z., Ryerson, M.S.** Reviewing the DATAS of aviation research data: Diversity, Availability, Tractability, Applicability, and Sources. Under review at *Journal of Air Transport Management*, submitted September 2018.
- 2 Pant, Y. V., **Li, M.Z., Quaye, R. A., Abbas, H., Mangharam, R., Ryerson, M.S.** FADS: Framework for Autonomous Drones Safety: Certification, Benchmarks and Enforcement. Under review at *IEEE Transactions on Intelligent Transportation Systems*, submitted August 2018.
- 1 **Li, M.Z., Ryerson, M.S.**, Balakrishnana, H. 1-simplex, 2-simplex, red airplane, blue airplane: New frontiers in aviation data analytics leveraging topological data analysis and persistent homology. Under review at *Transportation Research Part E: Logistics and Transportation Review*, submitted August 2018.

Peer Reviewed Book Chapters

- 2 Chester, M., **Ryerson, M.S.**, Horvath, A. Environmental Life-Cycle Assessment and High-Speed Rail in California (2017). In *High-Speed Rail & Sustainability: Long Term Decision Making and the Political Economy of Investing in Large Infrastructure Projects*, eds. B. P. Henriquez and E. Deakin. Routledge, New York.

- 1 Hansen, M., **Ryerson, M.S.**, Marchi, R. (2013). New Methodologies for Airport Environmental Impact Analysis. In *Modeling and Managing Airport Performance: Theory and Practice*, eds, K. Zografos, A. Odoni, and G. Andreatta. Wiley, New York. [doi: 10.1002/9781118535844.ch6](https://doi.org/10.1002/9781118535844.ch6).

Magazine Articles and Technical Reports

- 4 **Ryerson, M.S.**, Woodburn, A. (2016). Manage Flight Demand or Build Airport Capacity? *ACCESS Magazine of the University of California Center on Economic Competitiveness*. [Available in the Spring Issue](#).
- 3 Coogan, M., Resource Systems Group Inc., et al. (2014). Integrating Aviation and Passenger Rail Planning. [Airport Cooperative Research Program Project 3-23 Report](#).
- 2 Coogan, M., Resource Systems Group Inc., et al. (2013). Innovative Approaches to Addressing Aviation Capacity Issues in Coastal Mega-regions. [Airport Cooperative Research Program Synthesis 3-10 Report](#).
- 1 Chester, M., **Ryerson, M.S.** (2013). Environmental Assessment of Air and High-speed Rail Corridors. [Airport Cooperative Research Program Synthesis 11-03 Report](#).

Honors & Awards

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|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2016 | Winner of the 2016 Fred Burggraf Award for the Best Paper in Transportation Research Record by a Young (<36 years old) Scholar
Named as a top 10 Transportation Thought Leader by the Eno Center for Transportation
Honorable Mention, Woman of the Year Award, Women’s Transportation Seminar, International Chapter (top 3 nominee for Woman of the Year across all 45 WTS – International Chapters) |
| 2015 | Woman of the Year Award, Women’s Transportation Seminar, Philadelphia Chapter
#2 in the list of “Top Downloaded” Articles of the Journal of the American Planning Association for Volume 80 |
| 2013 | Faculty Research Award, University of Tennessee Knoxville
Faculty First Office of Information Technology Grant, University of Tennessee Knoxville |
| 2012 | Certificate of Appreciation, Transportation Research Board of the National Academies |
| 2010 | Best Paper Award in Prospective Studies and Economics, 4th International Conference on Research in Air Transportation |
| 2009 | Best Paper Award in Finance and Policy, 8th USA/Europe Air Traffic Management R&D Seminar |
| 2008 | University-wide Outstanding Graduate Student Instructor Award (average teaching effectiveness rating of 4.8/5), University of California, Berkeley |
| 2008-2010 | Eisenhower Graduate Transportation Fellowship, Federal Highway Administration |
| 2007 | Women in Logistics Graduate Student Scholarship
Women’s Transportation Seminar Graduate Student Scholarship |
| 2006 | Eno Transportation Center Leadership Development Fellow |
| 2005-2007,
2009-2010 | University of California Transportation Center Fellowship |

Grants

Since joining Penn in 2013, secured funding for 10 grants as PI (totaling \$740,000) and 3 grants as co-PI (totaling \$234,000). In addition to these individual grants, I serve as the Director of Research for the Mobility21 Transportation Research Center at the University of Pennsylvania. Mobility 21 is a National University Transportation Center for Improving Mobility funded by the U.S. Department of Transportation (Valued at \$14 million for 5 years; approximately 20% of funding per year for Penn).

Active Grant Applications

2019-2023 Principal Investigator
Funded by: Robert Wood Johnson Foundation
Title: Safe Sensing: Predicting Pedestrian Movements for a Smarter and Safer Transportation System
Value: \$350,000

Current Awards

2018-2019 Principal Investigator
Funded by: Mott MacDonald via the Port Authority of New York and New Jersey
Title: AirTrain Wayfinding Pilot Study
Value: \$236,094.69

2018-2020 Principal Investigator
Funded by: Penn Medicine Public Health Initiative
Title: Safe Mobility at Penn Medicine
Value: \$100,000 over 2 years

2018-2019 Co-Principal Investigator
Funded by: US Department of Transportation University Transportation Center on Competitive Megaregions
Title: Airport Governance in U.S. Metro Regions: Institutional Models and their Implications for Megaregional Transport
Value: \$93,000 for 1 year

2017-2018 Principal Investigator
Funded by: Population Aging Research Center and Center for Health Incentives and Behavioral Economics through the QUARTET program
Title: Towards an Accessible Healthcare Travel Chain for Elderly Populations Through a User-Centered Anthropologic Approach
Value: \$19,958 for 1 year

2017-2018 Principal Investigator
Funded by: University Research Foundation of the University of Pennsylvania
Title: Flying the Urban Airways: The design of freight delivery and emergency response urban airways for Unmanned Aerial Systems
Value: \$43,116 for 1 year

2016-2020 Principal Investigator
Funded by: Mobility 21: National University Transportation Center for Improving Mobility, U.S. Department of Transportation
Title: Safe Mobility and the Intercity Travel Chain
Value: approximately \$50,000/year totaling \$250,000

2016-2017 Principal Investigator
Funded by: Penn Global, Office of the Provost
Title: Planning for Large-Scale Aviation Growth on the Ground and in the Air in China
Value: \$125,000

Past Awards Secured While at Penn (Since 2013)

- 2017 Principal Investigator
Funded by: University of Pennsylvania Undergraduate Research Mentoring Program
Title: Safety of Intercity Transport Travelers
Value: \$7,000 for 1 year
- 2015-2017 Co-Principal Investigator
Funded by: The Children's Hospital of Philadelphia Research Institute, Center for Pediatric and Perinatal Health Care Disparities (CPHD)
Title: Exploring Transportation Access as a Mediator of Healthcare Access: A Community Engaged, Mixed-Methods Approach
Value: \$10,000
- 2015-2016 Principal Investigator
Funded by: University of Pennsylvania Kleinman Energy Center
Title: The Future of the Global Aviation Industry: Implications for Aviation Energy Demands and Environmental Emissions
Value: \$13,500
- 2013-2016 Principal Investigator
Funded by: University of Pennsylvania University Transportation Center
Title: The Role of Autonomous Vehicles in Intercity Transportation
Value: \$50,000
- 2015 Principal Investigator
Funded by: University of Pennsylvania Undergraduate Research Mentoring Program
Title: Balancing Payload and Fuel in International Aviation
Value: \$5,000
- 2015 Principal Investigator
Funded by: University of Pennsylvania Kleinman Energy Center
Title: Airline Fuel Loading: Existing Airline Practices and Future Federal Regulations
Value: \$11,000
- 2014-2015 Co-Principal Investigator
Funded by: Federal Aviation Administration
Title: Evaluation of Predictability as a Performance Measure
Value: \$130,000

Past Awards Secured Prior to Joining Penn (Prior to 2013)

- 2013-2015 Principal Investigator
Funded by: Tennessee Department of Transportation
Title: Aerospace Activity in Tennessee: Inventory and Assessment
Value: \$115,000
(transferred grant to my UTK colleague on my departure to continue to fund students)
- 2012-2013 Principal Investigator
Funded by: US Department of Transportation
Title: Aircraft Fuel Evaluation Simulation Tool (AFEST) Validation
Value: \$75,000
- 2012 Principal Investigator
Funded by: The Mitre Corporation
Title: Analysis and Models for Aviation Environmental Policy Analysis in Support of the United Nations International Civil Aviation Organization Committee on Environment Protection
Value: \$15,000

- 2012 Co-Principal Investigator
Funded by: Howard H. Baker Jr. Center for Public Policy at University of Tennessee, Knoxville
Title: Reducing Transportation Network Vulnerability
Value: \$20,000
- 2011-2012 Principal Investigator
Funded by: Landrum and Brown via the Port Authority of New York and New Jersey
Title: Airport System Capacity Planning Study: Demand Management
Value: \$110,000
- 2011-2012 Principal Investigator
Funded by: Southeastern University Transportation Center
Title: Ad-hoc Hubbing for Goods Movement in an Emergency Evacuation
Value: \$100,000
- 2011-2012 Co-Principal Investigator
Funded by: International Council on Clean Transportation
Title: Airline Operation Efficiency, CO₂ Emissions, and Comparative Airline Ranking
Value: \$140,000
- 2011-2012 Co-Principal Investigator
Funded by: Tennessee Department of Transportation
Title: Tennessee Fuel Policy
Value: \$25,000
- 2010-2011 Co-Principal Investigator (*as Postdoctoral Researcher*)
Funded by: US Department of Transportation, Federal Aviation Administration
Title: Flight Performance Model Development and Validation
Value: \$100,000
- 2010-2011 Co-Principal Investigator (*as Postdoctoral Researcher*)
Funded by: Aligned Research Program of the University Affiliated Research Center (UARC) at NASA Ames
Title: Aviation and the Environment: Models of a Pollutant-Constrained Aviation System
Value: \$100,000

Teaching and Advising

Traditional Courses

- 2017 (Fall) **ESE 400/ESE 540:** Engineering Economics
Electrical and Systems Engineering, University of Pennsylvania
- 2014-2017 (Spring) **CPLN 750/ESE 550:** Advanced Transportation Seminar: Air Transportation (developed new course)
Cross-listed between City and Regional Planning/Electrical and Systems Engineering, University of Pennsylvania (Secured cross-listing as of 2014)
- 2014-2017 (Spring) **CPLN 505:** Planning By Numbers
City and Regional Planning, University of Pennsylvania
- 2013-2015, 2017-2018 (Fall) **CPLN 650/ESE 548:** Transportation Planning Methods
Cross-listed between City and Regional Planning/Electrical and Systems Engineering, University of Pennsylvania (Secured cross-listing as of 2014)
- 2011-2012 (Fall) Transportation Engineering I (Undergraduate Course)
Civil and Environmental Engineering, UTK

2013 (Spring) Air Transportation (developed new course)
Civil and Environmental Engineering, UTK

2012 (Summer) Air Transportation and Logistics (developed new course)
Civil and Environmental Engineering, UTK

Academic Advising Courses

2016-2017 **CPLN 707: Thesis Studio**
2015-2016 Served as Master's Thesis Advisor for Joshua Davidson and Ivan Tereshenko

2017-2018 **ESE 450 and ESE 451: Senior Design Capstone Advisor**
2016-2017 **2018-2019:** Lead advisor for two Senior Design Capstone Groups in the Department of Electrical and Systems Engineering. Student projects include: (1) Design of new Penn Bus System; (2) Wireless Security for Connected and Autonomous Vehicle Networks.
2017-2018: Lead advisor for three Senior Design Capstone Groups in the Department of Electrical and Systems Engineering. Student projects include: (1) Design of Autonomous De-confliction of Unmanned Aerial Systems; (2) Urban Intersection Design and Traffic Feedback; and (3) On-Demand Hospital Transportation for Low-Income Patients.
2016-2017: Lead advisor for a Senior Design Capstone Group in the Department of Electrical and Systems Engineering on medical logistics.

2017 (Spring) **ESE 399/599 Independent Study**
2016 (Spring) **2016 & 2017:** Max Li, Undergraduate and Masters Independent Study, Electrical and Systems Engineering
2014 (Fall) **2016 & 2017:** Dhvani Kapoor, Masters Independent Study, Electrical and Systems Engineering
2014: Chloé le Comte, Undergraduate Independent Study, Electrical and Systems Engineering

Students Supervised as Primary Research Advisor at Penn

<i>Student</i>	<i>Degree Goal</i>	<i>Department</i>	<i>Status</i>	<i>Notes</i>	<i>Graduation Date</i>	
					<i>Realized</i>	<i>Expected</i>
Joshua Davidson	PhD	CPLN	Received MCP, Continuing for PhD	First Year PhD student	2017 (MCP)	2023
Daniel Suh	PhD	CPLN	Received MCP, Continuing for PhD	Passed all exams, Defense Scheduled April 2018	2014 (MCP), 2018 (PhD)	
Amber Woodburn	PhD	CPLN	Graduated	Asst. professor at The Ohio State University in City and Regional Planning (as of Fall 2016)	2016	
Simon Mosbah	PhD	CPLN	Graduated	Consultant at WSP	2016	
Carrie Sauer	MCP	CPLN	Graduated	Funded and supervised, 2018	2018	
Angus Page	MCP	CPLN	Graduated	Funded and supervised, 2017-2018	2018	
Olivia Mobayed	MCP	CPLN	Graduated	Funded and supervised, 2017-2018	2018	
Ivan Tereshenko	MCP	CPLN	Graduated	Funded and supervised, 2015-2016; Pursuing PhD in CEE at UC Berkeley	2016	
Matt Discenna	MCP	CPLN	Graduated	Funded and supervised, 2014	2015	
Veronica Xe	MCP	CPLN	Graduated	Funded and supervised, 2013-2014	2014	
Ransford Antwi	BS	ESE	Junior	Funded and supervised for summer research, 2017		2020
Raouf Tawfik	BS/BA	ESE/ Wharton	Senior	Funded and supervised for summer research, 2017		2019
Max Li	BS/MS	ESE	Senior and MS submatriculate	Funded and supervised as research assistant, 2014-2018	2018	

Students Supervised as Committee Member or Teaching Assistant

<i>Student</i>	<i>Degree Goal</i>	<i>Department</i>	<i>University</i>	<i>Status</i>	<i>Notes</i>	<i>Graduation Date</i>	
						<i>Realized</i>	<i>Expected</i>
Xiaoxia Dong	PhD	CPLN	Penn	Received MCP, Continuing for PhD	PhD Committee Member and Teaching Advisor	2014 (MCP)	2020 (PhD)
Theo Lim	PhD	CPLN	Penn	Graduated	Served as Teaching Advisor for 3 TA-ships	2017	
Taekwan Yoon	PhD	CEE	UTK	Graduated	PhD Committee Member	2014	
Hongtai Yang	PhD	CEE	UTK	Graduated	PhD Committee Member	2014	

Service

Department

2017- Present Faculty Search Committee, Department of City and Regional Planning and Department of Electrical and Systems Engineering

2015-2016 Faculty Search Committee, Department of City and Regional Planning
Search resulted in three new faculty members across two concentrations

School

2015-Present **Chair** of the PennDesign Research Committee (2017-Present), Member 2015-2017

University

2017-Present Penn Women's Faculty Forum, Committee Representing the Interest of Women Faculty Across the University of Pennsylvania, Representative for the School of Design

2017 Penn School of Medicine Public Health Subcommittee to Identify Public Health Outreach Priorities for the Dean of the School of Medicine. Pitched the idea of Safe Mobility, which was chosen as one of the three ideas to be elevated to the Dean of the School of Medicine. Pitch is here: <https://upenn.box.com/s/b19catgvqmt0ptj4pkqw4242yjx0b01f>

Field

Board Appointments and Committees

2018-Present Los Angeles Metro Office of Extraordinary Innovation

2016-Present Pennsylvania Department of Transportation Aviation Advisory Committee (Appointed by the Governor of Pennsylvania)

2015-Present Pennsylvania Department of Transportation State Transportation Innovation Council
Eno Center for Transportation Board of Advisors

2015-2018 Airport Cooperative Research Program Oversight Committee (Appointed by the U.S. Secretary of Transportation)

2013-Present Women's Transportation Seminar Philadelphia Chapter, Transportation YOU Board Member

2011-Present Program Committee, International Conference on Research in Air Transportation

2009-Present Member, Environmental Impacts of Aviation Committee, Transportation Research Board

2007-Present Member, Airfield and Airspace Capacity and Delay Committee, Transportation Research Board (Committee Secretary, 2008-2010)

2015 INFORMS Aviation Applications Section Dissertation Prize Selection Committee

2014-2016 Airport Cooperative Research Board Graduate Award Selection Committee and Panelist

2014 INFORMS Transportation Science and Logistics Dissertation Prize Selection Committee

- 2013–2014 Panel Member, Outcomes of Green Initiatives at Airports, Airport Cooperative Research Program, 11-03/Topic S02-10
- 2011–2015 Founding Member and Young Member in Charge, National Academies Transportation Research Board Aviation Young Member Committee
- 2010–2014 Expert Panel Member, Federal Highway Administration Travel Analysis Framework Study

Journal Editorships

- 2018–Present Associate Editor, Transportation Research Part D: Transport and the Environment
- 2017–Present Member of the Editorial Board of Transportation Research Part D: Transport and the Environment
- 2012-2014 Associate Editor, IEEE Systems Journal

Journal Review Assignments

- 2018 Journal of the American Planning Association; Transportation Research Part C: Emerging Technologies; Transportation; Transportation Science
- 2017 Transportation Research Part D: Environment; Journal of Advanced Transportation; IEEE Transactions on Intelligent Transportation Systems; Journal of Air Transport Management; Transportation Science; Transportation Research Part A: Policy and Planning; Journal of the American Planning Association
- 2016 Transportation Letters; Journal of the American Planning Association; Transportation Research Part A: Policy and Planning; Transportation Research Part D: Environment; Chinese Journal of Aeronautics
- 2015 Transportation Research Part D: Environment; Transportation Research Part C: Emerging Technologies; Transportation Research Part A: Policy and Practice; Transportation Research Record
- 2014 Transportation Letters; Transportation Research Part D: Environment; Transportation Research Part A: Policy and Practice
- 2013 Transportation Research Record
- 2012 Transportation Research Record
- 2011 Transportation Research Part C: Emerging Technologies
- 2010 Transportation Research Part A: Policy and Practice; Transportation Research Record
- 2009 Transport Policy; Transportation Research Record
- 2008 Reviewer for the Brookings Institution Hamilton Project Policy Paper titled *Air Support: Creating a Safer and More Reliable Air Traffic Control System* by Dorothy Robyn

Proposal Reviews

- 2017 UC Connect Faculty Research Grant (1 proposal)
- 2016 University Transportation Center of the University of California UC Connect Faculty Research Grant (1 proposal); UC Connect Graduate Student Fellowship (3 proposals); University Transportation Center of the Mid-Atlantic Region (MATS) Faculty Research Grant (4 proposals)
- 2015 UC Connect Faculty Research Grant (2 proposals); UC Connect Graduate Student Fellowship (3 proposals); University Transportation Center of the Mid-Atlantic Region (MATS) Faculty Research Grant (4 proposals)

Talks and Presentations

Public Seminars

- 2017 TEDxPenn Talk, [Available at TEDxPenn YouTube Station](#) (April 1, 2017)
Seminar at Philadelphia Science Festival (April 27, 2017)

Session Chair

- 2017 17th National Conference on Planning History, Society for American City & Regional Planning History

Invited Lectures

- 2018 Stanford University, Department of Aeronautics and Astronautics Seminar Series
University of California, Berkeley Institute of Transportation Studies Seminar Series
Transportation Research Board, Panel on Intercity Transportation
Association of Collegiate Schools of Planning Annual Meeting
- 2017 Transportation Research Board, Panel on History in Air Transportation Studies
Conference on Air Transport, Regional Development & Policy sponsored by the European Union and EUROCONTROL
The Ohio State University, Department of Aviation and Department of City and Regional Planning
Wharton Global Forum, Hong Kong
Airbus China Planning Meeting, Sponsored by Airbus
- 2016 University of Massachusetts, Amherst, Department of Civil and Environmental Engineering
University of Maryland, National Center of Excellence in Aviation Operations Research
Symposium sponsored by the Federal Aviation Administration
Tsinghua University, Department of Civil and Environmental Engineering
- 2015 Mid-Atlantic Transportation Sustainability Center (University of Virginia)
University of California, Berkeley, Department of Civil and Environmental Engineering
Global Challenges to Improve Air Navigation Performance Conference (Federal Aviation Administration workshop)
Biennial Conference on Transportation and Energy (University of California, Davis)
International Workshop on High-Speed Rail Planning and Operations: Toward Economic Development and Sustainability (Arizona State University and The University of Maryland)
- 2014 6th International Conference on Research in Air Transportation Invited Tutorial Session
Penn State University, Department of Civil and Environmental Engineering
Northwestern University, Department of Civil and Environmental Engineering
University of Maryland, Department of Civil and Environmental Engineering
- 2011 Tennessee Tech University, Department of Civil and Environmental Engineering
1st Annual INFORMS Transportation Science and Logistics Society Workshop
- 2010 University of Maryland, Department of Civil and Environmental Engineering

Conference Presentations (Since 2010)

- 2016 Transportation Research Board Annual Meeting
World Conference of the Transportation Research Society
International Conference on Research in Air Transportation
- 2016 Transportation Research Board Annual Meeting
World Conference of the Transportation Research Society
International Conference on Research in Air Transportation
- 2015 Transportation Research Board Annual Meeting (2 presentations)
USA/Europe Air Traffic Management R&D Seminar
American Collegiate Schools of Planning Annual Meeting
INFORMS Annual Meeting
- 2014 Transportation Research Board Annual Meeting (2 presentations)
International Conference on Research in Air Transportation
American Collegiate Schools of Planning Annual Meeting
- 2013 Transportation Research Board Annual Meeting (3 presentations)
Association of American Geographers Annual Meeting; INFORMS Annual Meeting
- 2012 International Conference on Research in Air Transportation
Transportation Research Board Annual Meeting
- 2011 INFORMS Annual Meeting; USA/Europe Air Traffic Management R&D Seminar
INFORMS Transportation Science and Logistics Society Workshop

Press & Media

- 2018 The Daily Pennsylvanian, [PennDesign appoints Megan Ryerson to be new associate dean for research](#) (September 29, 2018)
Plan Philly, [A Philly-Pittsburgh Hyperloop? State House resolution calls for feasibility study](#) (September 26, 2018)
PennToday, [Bike lanes experiment measures cyclist response to infrastructure design](#) (May 21, 2018)
Knowledge@Wharton Business Radio, Urban Bicycle Safety (May 4, 2018)
Knowledge@Wharton Business Radio, The Future of the Hyperloop (February 2018)
- 2017 Wired, [Fixing America's Holiday Travel Mess Might Just Ruin America](#). (December 23, 2017)
Philadelphia Inquirer, [Penn team seeks to make streets safer by keeping an eye on cyclists' eyes](#). (December 7, 2017 (online) and December 10, 2017 (in print))
CNN, [Atlanta airport mess: How does this happen?](#) (December 18, 2017)
NextCity, [St. Louis Could Be New Testing Ground for Airport Privatization](#). (October 09, 2017)
LA Times, [Book the next rocket to New York? What it'll take to realize Elon Musk's bizarre travel plan](#). (October 2, 2017)
KJZZ 91.5 Radio Phoenix, [Sky Harbor Adding Restaurants And Stores, Modernizing Terminal 3](#). (June 30, 2017)

- FastForward of the Federal Highway Administration. Soar to Success: What can you achieve in an Aviation Career? Video and Text of my Interview. (May 17, 2017)
- Buzzfeed, Airline Tech Keeps Melting Down But Nobody Knows Why (April 12, 2017)
- Knowledge@Wharton Business Radio, Megan Ryerson on Generating Momentum for Air Transportation (March 17, 2017)
- NextCity, What's Behind Your Airport's New Nonstop Route (February 9, 2017)
- Penn News Today, Penn IUR Fellow, Design Professor Wins International Best Paper Award (January 27, 2017)
- The Daily Pennsylvanian, Penn researchers received a grant to study self-driving cars (January 24, 2017)
- Penn Current, A \$14 million grant to improve mobility and safety in transportation (January 19, 2017)
- 2016 Philly.com, How a Philly guy, fed up with crashes, built his own bike lane (December 15, 2016)
- Fox29 Philadelphia, More than 100 community members attend bike lane meeting (December 13, 2016)
- 2015 Penn News Today, PennDesign Faculty Member Megan Ryerson Is WTS Philadelphia 2015 Woman of the Year (December 22, 2015)
- Eno Transportation Weekly, In the Spotlight: Dr. Megan Ryerson (November 20, 2015)
- Chicago Sun-Times, Tension on the tarmac: O'Hare's jet taxi times worst among Big 5 airports (September 6, 2015)
- Popular Science, Hyped Up: Startups Race To Bring The Hyperloop To Life (July 7, 2015)
- MSNBC The Last Word with Lawrence O'Donnell, Guest on Segment About the Department of Justice Investigation on Airline Collusion (July 3, 2015)
- Knowledge@Wharton Business Radio, Guest on Segment About Air Traffic Control Reform (May 22, 2015)
- 2014 Penn Current and Penn News Today, Penn researcher studies how regional airport planners can help airports grow sustainably
- 2013 The Daily Pennsylvanian, Profs, experts suggest reforms to 38th, Spruce streets
- 2011 Talk of the Bay, California Central Coast Public Radio, National Public Radio affiliate. Timothy Lipman and Megan Smirti Ryerson from UC Berkeley's Institute of Transportation Studies.
- 2011 Life in the Fast Lane, California Central Coast Public Radio, National Public Radio affiliate. Comparing Fuel Economies Between Jet and Turbo Prop Engines.
- 2011 Berkeley Transportation Letter, A New (Old) Transportation Option for California: The Turboprop Solution.
- 2010 Mother Jones, Do Cheap Airfare Specials Hurt the Environment—or Help It?