ROWLAND AWADAGIN HERBERT-FAULKNER, PH.D.

https://daginfaulkner.com

EDUCATION

University of California, Berkeley — **Berkeley, CA**

Doctor of Philosophy, Dept. of City and Regional Planning — 2025
Concentrations: Transportation Infrastructure/Planning; Urban Governance; Cybersecurity
Committee Chair: Professor Karen Trapenberg Frick

Master of City Planning — 2018
Thesis: "Technology-driven Urban Management: Evolving Governance Structures in Smart Cities"
Advisor: Professor Karen Trapenberg Frick

Master of Science, Transportation Engineering — 2017

Massachusetts Institute of Technology — **Cambridge, MA**

Bachelor of Science, Civil Engineering; concentration in Urban Studies and Planning — 2016
Advisor: Professor Joseph Sussman

SELECTED RESEARCH AND PRACTITIONER EXPERIENCE

University of California, Berkeley — **Berkeley, CA**

Department of City and Regional Planning — 2018-2025
Graduate Researcher, Lecturer, and Teaching Assistant
Focus: Transportation Infrastructure/Planning; Urban Governance; Smart Cities

Center for Long-Term Cybersecurity — 2022-2024
Graduate Research Affiliate
Focus: Municipal Cybersecurity Governance

Institute for Transportation Studies — 2023-2025
Graduate Researcher
Focus: Transportation Equity Evaluation at Local and Regional scales

Researcher

-Led multidisciplinary research on urban AI applications, digital twins, smart-city technology adoption, and data governance through 50+ interviews with government and industry stakeholders across multiple cities

- Examined Toronto's Quayside smart city initiative as a case study in public-private technology governance, analyzing how institutional arrangements, stakeholder interests, and public-sector objectives shaped the proposed deployment of urban technologies

-Conducted a case study for the City of San José examining how local transportation agencies can close gaps between network-management responsibilities and analytical capacity; translated findings into a policy brief and research report and presented them to San Jose DOT staff

-Identified the transaction costs that derail municipal cyber risk management — procurement friction, contracting complexity, insurance negotiation, and compliance burden — in a white paper published by the UC Berkeley Center for Long-Term Cybersecurity.

-Domains: Urban AI, Municipal Cybersecurity Governance, Digital Infrastructure, Transportation Infrastructure/Planning, Smart Cities Technology Adoption, Governance, Risk, and Compliance

DB E.C.O. North America, Inc. **San Francisco, CA**
Analyst, Technical Consulting 2025-2026

Client: San Diego Association of Governments (SANDAG)
Modeled the San Diego Trolley network and simulated and analyzed service and operations alternatives to inform the San Diego Metropolitan Transit System's medium and long-term capital investments for fleet requirements, infrastructure needs, and viable service frequencies

Client: Caltrans
-Prepared infrastructure and service delivery draft agreements between Union Pacific, Transportation Agency for Monterey County, Caltrain, Caltrans, and Capitol Corridor Joint Powers Authority to define stakeholder responsibilities for Capitol Corridor service expansion to Salinas
-Co-prepared a Playbook that will guide Caltrans in forthcoming stakeholder coordination and infrastructure planning necessary for the implementation of proposed expansion of Central Coast passenger rail service in the near, medium, and long-term
-Contributed to the development of the California Rail Infrastructure System (CRIS) database, the novel and single comprehensive repository of all proposed, planned, and in-progress rail projects across the state. Performed extensive project research and verification/reconciliation of costs, funding, scopes, and timelines. Engaged in weekly meetings with Caltrans staff to solicit and verify project information. Coordinated with Caltrans staff to develop and calibrate agency-specific CRIS dashboards for regional agencies throughout the state to ensure regional agencies' alignment with Caltrans' statewide service planning objectives. CRIS enables Caltrans to view the existing and future states of the rail network according to specified service goals in the state rail plan.

Just Cities Institute **Berkeley, CA**
Post-Grad Fellow, Project Manager 2025

-Led a 30-interview research study with CA state agency staff, academics, and advocacy groups to evaluate the CA Air Resources Board (CARB) Research Division's programs; commissioned and funded by CARB
-Directed a community-based research partnership examining the effects of climate change on unhoused populations; funded by the CA Governor's Office of Land Use and Climate Innovation
-Developed and executed the scope of work for a comparative study of freeway relocation projects focused on social and physical restoration in West Oakland

San Francisco Municipal Transportation Agency (SFMTA) **San Francisco, CA**
Intern, Transit Policy and Analysis Group 2017

Ridership analysis; Manual and digital monitoring of light rail schedule performance

Economic Development Research Group (now EBP US) **Boston, MA**
Analyst Intern 2015-2016

Supported transportation economic impact analyses efforts across all transport modes; Prepared literature reviews on the status of ex-post evaluations of transport projects globally

Massachusetts Institute of Technology **Cambridge, MA**
Research Assistant, Regional Transportation Planning and High-Speed Rail Group headed by Prof. J. Sussman 2014-2016

-Examined the effect of railway company competition on track capacity allocation in Europe
-Performed qualitative analysis of the potential effects of high-speed rail in California
-Characterized institutional actors in Tohoku Shinkansen development case study for the East Japan Railway Company (JR East)
-Acquired and processed extensive descriptive data capturing the economic qualities and urban form characteristics for chosen case communities; used data to complete an analytical assessment of agglomerative potential

CLASSES TAUGHT (UC Berkeley College of Environmental Design)

Instructor

Introduction to Urban and Regional Transportation (CYPLAN 114), Summer 2022. Co-instructed with Madeleine Parker, PhD.

[IN]CITY Summer Institute 2019. Lead Instructor under supervision of Program Lead Jason Luger, PhD.

Teaching Assistant

Planning Histories and Practice: Framework, Opportunities, and Dilemmas (CYPLAN 200), Fall 2019, Fall 2020, Fall 2021, Fall 2022. Course Instructor: Karen Trapenberg Frick, PhD.

The Urban Community (CYPLAN 118AC), Spring 2020. Course Instructor: Jason Luger, PhD.

The City: Theories and Methods in Urban Studies (ENVDES 100), Spring 2022. Course Instructor: Michael Larice, PhD.

PAPERS/PUBLICATIONS

Dissertation: "The Response of Local-Level Public Authority to the Digital Transformation in Three Contexts", UC Berkeley. 2025.

Research Report: "Transformative Community Planning as a Tool for Advancing Mobility Justice: Two Case Studies Using Community-Based Participatory Action Research and Racial Equity Impact Assessment", UC Berkeley Institute of Transportation Studies, co-authored with Charisma Acey, PhD., Alex Pinigis, Margaretta Lin, and Dan Lindheim, PhD. November 2025. https://doi.org/10.7922/G2MS3R4V

Policy Brief: "Mobiliti—A New Tool to Guide Safer, More Equitable Traffic Management Strategies", UC Berkeley Institute of Transportation Studies, co-authored with Jane Macfarlane, PhD., Karen Trapenberg Frick, PhD., and Joan L. Walker, PhD. September 2025. https://bit.ly/4bWm8pb

Research Report: "Matching Technique with Authority: A Study of How Local DOTs Can Narrow the Gap between their Network Management Authority and their Analytical Capacity", UC Berkeley Institute of Transportation Studies, co-authored with Jane Macfarlane, PhD., Karen Trapenberg Frick, PhD., and Joan L. Walker, PhD. September 2025. http://bit.ly/4swAHGQ

White Paper: "The Transaction Costs of Municipal Cyber Risk Management", UC Berkeley Center for Long-Term Cybersecurity, published April 2024. https://cltc.berkeley.edu/publication/the-transaction-costs-of-municipal-cyber-risk-management/

2018 Master of City Planning Thesis: "Technology-driven Urban Management: Evolving Governance Structures in Smart Cities", UC Berkeley

2016 TRB Annual Meeting (presented and published): "Challenges and Opportunities in Implementation of the Future California Rail Network", co-authored with Samuel Levy and Prof. J. Sussman. https://doi.org/10.3141/2546-0

Author contributor with EDR Group to TRB TCRP Report 186: Economic Impact Case Study Tool for Transit, published 2016. https://doi.org/10.17226/23525

FELLOWSHIPS AND AWARDS

2024 Eno Center for Transportation Leadership Development Conference Fellow

2023 Outstanding Graduate Student Instructor, UC Berkeley

2023 RSA Conference Scholar

2023 FHWA Eisenhower Fellow ($5,000 award)

2022 UC Berkeley Center for Long-Term Cybersecurity Grant recipient ($6,000); Project title: Transaction Costs of Cybersecurity Governance in Smart Cities Initiatives

2016 FHWA Eisenhower Fellow ($5,000 award)

PRESENTATIONS AND GUEST LECTURES

2024 ITS California Annual Meeting: "Data-Driven Perspectives: An Exploration of the Impact of Local Transportation Management Strategies on Regional Traffic Dynamics" (August 26, 2024). San Francisco, California.

2023 University of Michigan Taubman College of Architecture and Urban Planning Seminar Lecture: "Municipal Cybersecurity Governance: The Costs of Concern and Response" (October 11, 2023).

2023 Master of Information and Cybersecurity Immersion Lightning Talk, UC Berkeley (March 30, 2023).

2022 American Collegiate Schools in Planning (ACSP) Annual Conference Smart Cities Paper Session: "Municipal Cybersecurity Governance: The Costs of Concern and Response" (November 4, 2022). Toronto, Ontario, Canada.

2019 Ohio State University City and Regional Planning 60th Anniversary Symposium Paper Session: "Evolving Governance Structures in Smart Cities: A Case Study of Quayside" (March 28, 2019). Columbus, Ohio.

MEDIA COVERAGE

"As Smart Cities Expand, So Do the Threats", by Robert Lemos for Dark Reading, February 6, 2024.
https://www.darkreading.com/ics-ot-security/smart-city-ecosystems-face-cybersecurity-shortfall-as-urban-populations-grow

OTHER WORK EXPERIENCE

Compass Education Group — **Larkspur, CA**
SAT/ACT Tutor, Proctor, Admin support — 2022-Present

Independently administers testing and tutoring operations, coordinating with students, parents, and testing-site staff while resolving on-site issues within agency requirements