Jordan Abbott

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Summary

Education data scientist focused on how school district boundaries shape funding inequity, segregation, and student achievement. My work combines geospatial analysis, causal inference, and algorithmic modeling to evaluate policies at national and local scales.

Research Interests

Educational Equity · School Segregation · Housing Policy & Property Taxation · Social Stratification & Wealth Inequality · Social Demography · Causal Inference · Spatial Econometrics · Non-parametric Statistics · Redistricting Methodology · Algorithmic Fairness

Education

Johns Hopkins University **2023 - 2024**
M.S., Data Science and Policy (GPA: 4.0)
Concentration: Statistical Analysis

Centro de Investigación y Docencia Económicas (CIDE) **2019 - 2020**
Student Fellow, División de Economía y Estudios Políticos *Mexico City, MX*

University of Pittsburgh **2016 - 2019**
B.S., Economics, Statistics & B.A., Political Science
Minor: Hispanic Languages and Literature

Research & Professional Experience

Senior Data Scientist ***New America*** **Aug 2023 - Present**
Education Funding Equity Initiative

Promoted from Data Manager (Dec 2024)

- Leads quantitative and geospatial analysis for the Education Policy program, investigating drivers of school segregation and resource inequity.
- Engineered the first national-scale computational framework to simulate school district boundary optimization, using spatial clustering and MCMC methods.
- Published findings demonstrating that optimized boundaries could reduce property tax base disparity by 66.6%, while decreasing racial and economic segregation by 47.6% and 65.0%, respectively.
- Engineered PostgreSQL/PostGIS databases and cloud-based infrastructure to manage and analyze longitudinal data for over 13,000 school districts.
- Developed public-facing data visualization tools using JavaScript (React, Mapbox GL JS) to communicate research findings to policymakers and the public.

Research Assistant ***Inter-American Development Bank*** **Mar 2020 - July 2023**
Board of Executive Directors

- Lead authored internal reports on quantitative analysis of macroeconomic shocks, including the impacts of COVID-19 and the conflict in Ukraine on Latin America.
- Served as liaison between the Board of Executive Directors and the Office of the Chief

Economist, guiding internal research priorities.

- Analyzed country proposals for financing in social protection, public health, and education infrastructure, advocating for equitable development policy.

Research Assistant ***University of Pittsburgh*** **Jan 2017 - Apr 2019**
Department of Environmental Science

- Designed and implemented a predictive algorithm in Python to model monsoon periodicity in Southeast Asia.
- Administered statistical analysis and supported field work for climate change research, including sample collection in India and Peru.

Publications

Peer-Reviewed Conference Proceedings

Abbott, J. (2025). Optimizing Opportunity: An Algorithmic Approach to Redistricting for Fairer School Funding. In *Proceedings of the 2025 NCME Conference on Artificial Intelligence in Measurement and Education (AIME-CON)*. ACL Anthology.

Policy Reports

Stadler, Z. & **Abbott, J.** (2025). *Redrawing the Lines: How Purposeful School System Redistricting Can Increase Funding Fairness and Decrease Segregation*. New America.

Stadler, Z. & **Abbott, J.** (2024). *Crossing the Line: Segregation and Resource Inequality between America's School Districts*. New America.

Selected Public Scholarship

Abbott, J. (2024). When Students Get Lost in the Algorithm: The Problems with Nevada's AI School Funding Experiment. *New America*. (Quoted by *The New York Times*; Cited by Report of the U.N. Special Rapporteur on the right to education: AI in Education).

Stadler, Z. & **Abbott, J.** (2025). A District-by-District Accounting of the $6.2 Billion the U.S. Department of Education Has Held Back from Schools. *New America*. (New America's most viewed publication of 2025).

Abbott, J. (2025). Inefficiency Multiplied: What Happens When Research and Data are Halted at U.S. Dept. of Ed. *New America*. (Quoted by *The Review of Democracy*).

Interdisciplinary Projects & Exhibitions

Sed Valorem **2020-2021**
Data analysis and visualization in collaboration with artist, Harrison Smith

- Authored independent research paper, *City of Pittsburgh Property Tax Regressivity and Racial Inequality: 2012-2020*, analyzing racial bias in property tax assessments.
- Visualizations and findings were featured in the contemporary art exhibition *Sed Valorem* at the Mattress Factory museum in Pittsburgh, PA.
- Project covered by NPR, Bloomberg CityLab, and Public Source.

Presentations

Conferences

Optimizing Opportunity: An Algorithmic Approach to Redistricting for Fairer School Funding Paper presented at NCME Conference on Artificial Intelligence in Measurement and Education (AIME-CON), Pittsburgh, PA. *Oct 2025*

Crossing the Line: Segregation and Resource Inequality. Interactive Mapping Tool presented at the ESRI User Conference, San Diego, CA. *July 2025*

Spatial Educational Disparities: Exploring the Extent of Place-Based Inequity. Paper presented at the Urban Affairs Association (UAA) National Conference, New York, NY. *Apr 2024*

Poster Presentations

Optimizing Opportunity: An Algorithmic Approach to Redistricting for Fairer School Funding. Poster presented at the ACM Conference on Equity and Access in Algorithms, Mechanisms, and Organizations (EAAMO), Pittsburgh, PA. *Nov 2025*

Invited Talks & Panels

Brown v. Board at 70: Fulfilling the True Promise of School Integration. Invited Presenter, Bridges Collaborative National Convening, The Century Foundation, Washington, DC. *May 2024*

From Art to Enforcement: Amplifying your Fair Housing Message. Invited Panelist, National Fair Housing Alliance National Conference, Washington, DC. *July 2022*

Honors & Fellowships

Research Fellow, Inaugural School Finance Research Cohort 2025
EdFund

Invited Participant, APPAM Innovation Day for Public Policy Research 2025
Association for Public Policy Analysis and Management (APPAM)

Skills

Programming	R, Python (Pandas, GeoPandas, Scikit-learn, NetworkX, Mesa), Stata, SQL, JavaScript (React, D3), TypeScript, LaTeX
Spatial Analysis	GIS (PostGIS, ArcGIS, QGIS), Spatial Statistics, Geovisualization (Mapbox GL JS, Leaflet)
Data Science	Machine Learning, Econometrics, Causal Inference, Agent-Based Modeling, Network Analysis, NLP
Languages	English (Native), Spanish (Fluent, C1), French (Intermediate, B1)