

EDUCATION

PRINCETON UNIVERSITY

Princeton, NJ, USA

PH.D. IN POLITICS

State and Federal Politics

M.A. IN POLITICS

Political Economy

Quantitative Methods

Game Theory

CALIFORNIA INSTITUTE OF TECHNOLOGY

Pasadena, CA, USA

B.S. IN APPLIED PHYSICS AND

POLITICAL SCIENCE

Minor in Aerospace

CITIZENSHIP

USA

KEY COURSEWORK

TEACHING

Health Politics and Federalism

Statistics and Machine Learning

Game Theory

Molecular Biology

GRADUATE

Quantitative Methods

Industrial Organization

Political Economy

Game Theory

UNDERGRADUATE

Aerospace Engineering

Experimental Methods

Econometrics

Statistical Programming

Differential Equations

Real and Complex Analysis

Fluid Mechanics

Statistical Mechanics

Biophysics and Optics

Scientific Communication

SELECT SKILLS

PROGRAMMING

Matlab • R • Stata • C++

Git • Mathematica • Python

SQL • \LaTeX • QGIS • ImageJ

LINKS

Website: <https://DarlLewis.com>

ABOUT ME

My work uses formal and quantitative methods to analyze collective decision-making in complex political environments, including courts, federations, and science policy. My background in biophysics and engineering gives me a unique perspective to analyze these environments, drawing on the tool sets of both the natural sciences and social sciences to understand our world.

ACADEMIC APPOINTMENTS

WASHINGTON UNIVERSITY IN ST. LOUIS

POSTDOCTORAL RESEARCH FELLOW

Department of Political Science

University City, MO, USA

2018 - Present

PUBLICATION

TO ELECT OR APPOINT? BIAS, INFORMATION, AND RESPONSIVENESS OF BUREAUCRATS AND POLITICIANS

with Matias Iaryczower and Matt Shum. *Journal of Public Economics*. Vol. 97 (2013) pp. 230-244.

DISSERTATION

ESSAYS IN STATE AND FEDERAL POLITICS

Committee: John Londregan (Chair), Nolan McCarty, John Kestellec, Kris Ramsay.

CURRENT RESEARCH

POLITICAL ECONOMY WUSTL, Princeton, and Caltech | 2009 - Present

Using game theory and quantitative methods, including structural modeling, I study a wide variety of topics in political economy, emphasizing decision-making in committee settings and complex political environments such as courts, federations, and scientific debates. Below I summarize some of my current projects, along with working papers:

FEDERAL DEVELOPMENT

I continue to develop portions of my dissertation into a book focusing on transportation networks' impact on popular support for political centralization.

- National Commerce, Local Interest, and the Judiciary Act of 1875
- Policy Bias with Outside Options

On a separate track, I analyze how local and national jurisdictions compete to influence consensus on emerging policies, especially as they relate to new science. I focus on actions that local jurisdictions take to either prevent or induce federal action.

- Preempting Preemption in Federal Systems

COMMITTEE DECISION-MAKING

With Ben Johnson, I am working on a project using formal and empirical methods to analyze strategic decision-making in committees with a particular emphasis on understanding why pivotal members sometimes support suboptimal agendas.

- Dynamic Committee Decision-Making

A second project of my own focuses on the impact of influential members of the committee, using a structural model to identify and estimate the impact of key players in the US Congress

- Hierarchical Ideal Point Estimation with Influential Peers

CURRENT RESEARCH CONTINUED

OTHER PROJECTS

A third line on federalism analyzes how jurisdictional congruence impacts voting outcomes in federated systems. In particular, I examine with how city-county relations are impacted by the incomplete overlap of city and county services. Similarly, I consider how media market congruence with voting districts impacts electoral outcomes via the relative weighting of local and national politics.

- Media Markets, Wave Elections, and the Incumbency Advantage
- Incomplete Federalism: Local Public Good Provision and City-County Relations

My other projects relate to a variety of questions branching off from the primary lines above. I am exploring the impact of local politics and funding sources in the quality and quantity of higher education in federated systems with a special eye to the impact of the elective nature of higher education. I am also have work examining the increasingly complex interpretation of statistical results, particularly those generated by the analysis of low-quality data. I am especially concerned with how researchers can minimize information loss over the course of analysis.

PREVIOUS RESEARCH:

BIOPHYSICS AND AEROSPACE Caltech | 2010 - 2011

In the Phillips Group, I drew on biochemistry, optics, and computational programming to analyze viral DNA packing with an eye to treating infection and potential bioengineering applications in a series of experiments.

In the Dabiri Group, I used a combination of experimental and computational approaches to study the fluid dynamics of vortices and ocean circulation. Analytical techniques included digital particle image velocimetry, dyes, and complex mathematical modeling.

COURSES TAUGHT

WUSTL	Health Politics	Undergraduate	S'19
	The Politics of Federalism	Graduate	-
Princeton	Introduction to Data Science	Undergraduate	S'18, F'17, S'17
	Quantitative Principles in Cell and Molecular Biology	Undergraduate	F'16
	Statistics for Social Science	Undergraduate	S'16
	Modern Genetics and Public Policy	Undergraduate	F'15
	Advanced Tools for \LaTeX	Mixed	S'15
	Quantitative Analysis I	Graduate	F'14
	Formal Political Analysis I	Graduate	S'14
Caltech	Campaigns and Elections	Undergraduate	F'10

PRIMARY TEACHING INTERESTS:

Both Graduate and Undergraduate

My diverse teaching interests reflect my own background. I equally enjoy the challenge of teaching large lectures with more than 100 students and small seminars with fewer than 10 students.

METHODOLOGICALLY-ORIENTED COURSES

Political Economy • Formal Methods • Quantitative Methods • Statistical Programming • Scientific Communication

SUBSTANTIVE COURSES

American Political Institutions • Federalism and State Politics • American Political Development • Judicial Politics • Science and Health Policy • Environmental Politics

FELLOWSHIPS AND AWARDS

2011-2018	Centennial Fellowship, Princeton
2010	Semifinalist, Peripall Speaking Competition, Caltech
2009-2010	Summer Undergraduate Research Fellowship, Caltech
2008	Beckman Political Internship, Caltech
2006	Rensselaer Medal
2006	3rd Place in Engineering, Intel International Science and Engineering Fair, Indianapolis

OTHER EXPERIENCE

PRINCETON UNIVERSITY

2011 – 2018 | Princeton, NJ, USA

ASSISTANT IN INSTRUCTION AND RESEARCH ASSISTANT

- Teaching, research, and mentoring in statistics, machine learning, game theory, health policy, and molecular biology.
- Research Assistant to Alex Hirsch, Kris Ramsay, and Adam Meirowitz

CALIFORNIA INSTITUTE OF TECHNOLOGY

2007 – 2011 | Pasadena, CA, USA

ASSISTANT IN INSTRUCTION AND UNDERGRADUATE RESEARCH FELLOW

- Teaching, research, and mentoring in strategic decision-making and statistical programming.
- Funded by competitive grants.

OFFICE OF UNITED STATES SENATOR, PETE DOMENICI

2008 | Washington, DC, USA

INTERNSHIP

- Policy analysis and development across a variety of topics, including defense, healthcare, and veterans affairs.
- Special focus on developing energy infrastructure through the Committee on Energy and Natural Resources.

OFFICE OF UNITED STATES CONGRESSWOMAN, HEATHER WILSON

2007 | Albuquerque, NM, USA

INTERNSHIP

- Constituent service, including policy concerns and facilitating work with other government agencies.
- Lead project facilitating international travel for thousands of constituents affected by changes to immigration policy.

PROFESSIONAL SERVICE

2016 -	Referee, American Political Science Review
2011 - 2017	Graduate Committee, Department of Politics, Princeton
2010 - 2011	Curriculum Committee, Caltech
	Academics and Research Committee, Caltech
	Political Science Student-Faculty Committee (Chair)
	Applied Physics Student-Faculty Committee (Interim Chair)

MEMBERSHIPS

Caltech Alumni Association • Princeton Alumni Association • American Political Science Association • Southern Political Science Association • Midwest Political Science Association • The International Society of Public Law • St. Louis Mineral and Gem Society

HOBBIES

Outside of the office, I am an avid rock collector, and I enjoy excursions to seek out new specimens, especially meteorites and fluorescent minerals. I also enjoy spending time in the back-country exploring hidden forest waterfalls and bright mountain peaks. When it is raining, I enjoy a good modern history book and occasionally peruse the Congressional Record. There are some wild surprises in there!

I have also performed in and served as a technical advisor in a number of plays over the years. Video footage may exist from one or two of those productions.

REFERENCES

Further references are available upon request, particularly in regards to biology and engineering.

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DR. DAISY HUANG

Statistics and Machine Learning
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