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OLIVIA ZHAO

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Education

Harvard Business School, Harvard Graduate School of Arts and Sciences Boston, MA PhD Health Policy (Management)

Dissertation title: "Prescription Drugs: Innovation, Payment, and Prescribing"

2026 (expected)

Cambridge, MA

University of Oxford Oxford, United Kingdom

MPhil Economics, Marshall Scholarship (2018) 2020

Thesis title: "Contracting Pay-for-Performance in the NHS"

Massachusetts Institute of Technology

BS Economics 2018

References

Leemore Dafny (Chair) Amitabh Chandra ldafny@hbs.edu achandra@hbs.edu

Leila Agha Mark Shepard

agha@hcp.med.harvard.edu mark shepard@hks.harvard.edu

Research interests

Fields: Health economics, health policy, innovation economics, *Topics:* Pharmaceutical industry, antitrust and competition policy

"Policy Incentives and Pharmaceutical Innovation," with Edward Kong Job Market Paper

Abstract: This project explores how policy-driven market expectations influence drug innovation. First, we estimate the causal effects of extending market exclusivity for antibiotics, a critical drug class where the social value of new antibiotics likely exceeds private returns. Our identification approach leverages the enactment of the Generating Antibiotic Incentives Now (GAIN) Act passed in 2012, which granted five additional years of market exclusivity for antibiotics but not other infectious disease products like antivirals or vaccines. We use a difference-in-differences approach comparing antibiotic products (treatment) to antiviral and vaccine products (control) to estimate the effect of the GAIN Act on innovation. We find positive effects at multiple stages of drug development, including: patenting, pre-clinical activity, and progression to phase 3 clinical trials. Next, we develop a model of drug development that allows us to generalize our findings beyond anti-infective therapeutic classes and compare counterfactual policies to stimulate drug innovation, like extending market exclusivity and price subsidies.

Publications

- San Soucie, C, ND Beaulieu, JD Buxbaum, D Cutler, JK Leyenaar, SC McBride, O Zhao, and AT Chien. A National Analysis of General Pediatric Inpatient Unit Closures and Openings, 2011–2018. Hospital Pediatrics 14, no. 11 (November 2024): 899–908. doi: 10.1542/hpeds.2024-007754
- **Zhao O** and AD Sinaiko. Effects of a Real-Time Information-Based Intervention on Physician Prescribing Behavior. Academy of Management Proceedings. 2024.
- Sinaiko AD, CE Sloan, MJ Soto, O Zhao, C Lin, FR Goss. Clinician Response to Patient Medication Prices Displayed in the Electronic Health Record. JAMA Internal Medicine. 2023;183(10):1172-75. doi:10.1001/jamainternmed.2023.3307
- Vogel M, O Zhao, WB Feldman, A Chandra, AS Kesselheim, BN Rome. Cost of Exempting Sole Orphan Drugs From Medicare Negotiation. JAMA Internal Medicine. 2024;184(1):63-69. doi:10.1001/jamainternmed.2023.6293

Working papers

Kong E and **O Zhao**. Market Incentives and the Drug Development Pipeline: Evidence from Antibiotics. SSRN Working Paper. 2023. doi:10.2139/ssrn.4676384

Presentations

Southeastern Health Economics Study Group Conference	2025
American Society of Health Economists (ASHE) Annual Conference	2025, 2024, 2023
Boston University Technology & Policy Research Initiative IP Day	2024
Academy of Management Annual Meeting Health Care Management Division Best Paper Award: "Effects of a Real-Time Information-Based Intervention on Physician Prescribing Behavior"	2024
Pediatric Academic Societies Annual Meeting	2024
NBER Productivity Seminar	2023
Informs Healthcare Conference	2023
AcademyHealth Annual Research Meeting	2023
Teaching	
Transforming Health Care Delivery MBA, Harvard Business School, Ariel Stern (no rating available)	2024
U.S. Healthcare Industry and Regulatory Policy Masters, Harvard Kennedy School, Leemore Dafny (average rating 4.7/5.0, Distinction in Student Teaching)	2023, 2022
Research in Global Health and Health Policy Undergraduate, Harvard College, David Cutler (average rating 4.8/5.0)	2023
Essentials of the Profession (Health Policy module – section co-leader) MD, Harvard Medical School (no rating available)	2023, 2025
Analytic Frameworks for Public Policy Masters, Harvard Kennedy School, Richard Zeckhauser (average rating 4.8/5.0)	2022, 2021

Other research experience

Harvard Business SchoolBoston, MAResearch Assistant to Leemore DafnySep 2020 – Dec 2022

Harvard Kennedy SchoolCambridge, MAResearch Assistant to Mark ShepardMay 2021 – Dec 2022

Institute for Fiscal StudiesLondon, UKSummer Fellow/Visiting ResearcherMay 2019 – Aug 2020

Other activities

MIT Presidential Committee on Distinguished Fellowships	2021-present
HBS Wyss Awards for Excellence in Mentoring Selection Committee	2022-2025
Health Policy & Management Student Seminar Organizer	2022-2023
HBS Program for Research in Markets & Organizations Research Advisor	2023
Health Policy PhD Peer Mentor	2021-2022

Last updated Aug 2025