

MICHAEL DENVER FRAKES
Duke Law School
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PRIMARY APPOINTMENT

DUKE LAW SCHOOL, Durham, NC
A. Kenneth Pye Distinguished Professor of Law and Professor of Economics 2020-present
Professor of Law and Economics 2016-2020

OTHER CURRENT APPOINTMENTS AND PROFESSIONAL AFFILIATIONS

NATIONAL BUREAU OF ECONOMIC RESEARCH
Research Associate, Health Care Group 2017-
Faculty Research Fellow, Health Care Group 2014-2017

AMERICAN LAW AND ECONOMICS REVIEW
Co-Editor In Chief 2023-

JOURNAL OF EMPIRICAL LEGAL STUDIES
Associate Editor 2016-

AMERICAN LAW AND ECONOMICS ASSOCIATION
Board Member 2022-

VISITING APPOINTMENTS

NEW YORK UNIVERSITY SCHOOL OF LAW, NEW YORK, NY
Visiting Professor of Law Spring 2024

HARVARD LAW SCHOOL, CAMBRIDGE, MA
Visiting Professor of Law Spring 2018

PREVIOUS APPOINTMENTS AND LAW-FIRM PRACTICE EXPERIENCE

NORTHWESTERN UNIVERSITY SCHOOL OF LAW, Chicago, IL
Associate Professor of Law 2014-2016
Faculty Fellow, Institute for Policy Research

CORNELL LAW SCHOOL, Ithaca, NY 2011-2014
Assistant Professor of Law
Jia Jonathan Zhu and Ruyin Ruby Ye Sesquicentennial Faculty Fellow
Director, Law and Economics Program
Member, Graduate Field of Economics

HARVARD LAW SCHOOL, THE PETRIE-FLOM CENTER FOR HEALTH LAW POLICY,
BIOTECHNOLOGY AND BIOETHICS, Cambridge, MA 2009-2011
Academic Fellow & Lecturer on Law

TEACHING

Recent courses: Torts (overall teacher effectiveness evaluation: 4.82/5.0 in 2023; 4.86/5.0 in 2022; and 4.74/5.0 in 2021); Health Care Law and Policy; Law and Economics Colloquium; Analytical Methods; Medical Malpractice Seminar; Reading Group on Racial Health Disparities and the Law.

UNIVERSITY SERVICE

Recent Committees at Duke Law School: Entry-Level Hiring Committee (Chair, 2022-2023; Member, 2021-2022); Curriculum Committee (Member, 2021-2022, 2020-2021); Library and Technology Committee (Member, 2021-2022, 2020-2021, 2019-2020); Lateral Hiring Committee (Member, 2018-2019)

EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Ph.D., Economics, 2009

Thesis: *Essays on Malpractice Law and Physician Behavior*

Committee: Professors Jonathan Gruber, Amy Finkelstein, and Joseph Doyle

General Exams: Public Finance and Econometrics

HARVARD LAW SCHOOL, J.D., *cum laude*, 2005

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, B.S., Economics, 2001

GPA: 5.0 (out of max 5.0)

AWARDS, HONORS, AND FELLOWSHIPS

Phi Beta Kappa	2001
Sigma Xi	2001
National Science Foundation Graduate Research Fellowship	2001-2005
Best Brief Award (1L), Harvard Law School	2002
MIT Presidential Fellowship (awarded annually to top 110 incoming graduate students, university wide)	2002-2003
John M. Olin Fellow	2002-2005
John M. Olin Prize for Outstanding Paper in Law and Economics	2005
NBER Aging and Health Economics Pre-Doctoral Fellowship	2007-2009
NIHCM Foundation Annual Health Care Research Award Finalist	2020
Duke Law Faculty Award for Excellence in Scholarly Research (awarded annually beginning in 2023 to faculty member who has made an extraordinary contribution to legal scholarship)	2024

GRANTS

The Impacts of Enhanced Drug-Patent Examination, National Institutes of Health, National Institute on Aging, **R01**, 1R01AG076586-01A1, Co-Principal Investigator, 2023-2027 (\$1,266,480).

The Impact of Exempting Medical Providers from Malpractice Liability, National Institutes of Health, National Institute on Aging, **R01**, 2R01AG049898-05A1, Principal Investigator, 2021-2025 (\$1,293,136).

The Impact of Exempting Medical Providers from Malpractice Liability, National Institutes of Health, National Institute on Aging, **R01**, R01AG049898, Principal Investigator, 2015-2019 (\$1,264,172).

Statutory Rape Laws and the Incidence of Teenage Pregnancy and Sexually Transmitted Diseases, Robert Wood Johnson Foundation, Public Health Law Research Program, Project Director / Co-Principal Investigator, 2010-2011 (\$112,959).

Does the U.S Patent & Trademark Office Grant Too Many Patents?: Evidence from a Quasi-Experiment, Cornell University Institute for the Social Sciences Small Grant Program, Co-Principal Investigator, 2013-2014 (\$7,750).

PUBLICATIONS

Peer-Reviewed Economics and Law & Economics Publications

Public and Private Options in Practice: The Military Health System (with Jonathan Gruber and Timothy Simmons Justicz), 15 **AMERICAN ECONOMIC JOURNAL: ECONOMIC POLICY** 4 (2023): 37-74.

Investing in Ex Ante Regulation: Evidence from Pharmaceutical Patent Examination (with Melissa Wasserman), 15 **AMERICAN ECONOMIC JOURNAL: ECONOMIC POLICY** (2023): 151-83.

Knowledge Spillovers, Peer Effects and Telecommuting: Evidence from the U.S Patent Office (with Melissa Wasserman), 198 **JOURNAL OF PUBLIC ECONOMICS** (2021).

Is Great Information Good Enough? Evidence from Physicians as Patients (with Jonathan Gruber and Anupam Bapu Jena), 75 **JOURNAL OF HEALTH ECONOMICS** (2021): 1-20.

The Effect of Malpractice Law on Physician Supply: Evidence from Negligence-Standard Reforms (with Matthew Frank and Seth Seabury), 70 **JOURNAL OF HEALTH ECONOMICS** (2020): 1-16.

Procrastination at the Patent Office? (with Melissa Wasserman), 183 **JOURNAL OF PUBLIC ECONOMICS** (2020): 1-12.

Defensive Medicine and Obstetric Practices: Evidence from the Military Health System (with Jonathan Gruber), 17 **JOURNAL OF EMPIRICAL LEGAL STUDIES** 1 (2020).

Defensive Medicine: Evidence from Military Immunity (with Jonathan Gruber), 11 **AMERICAN ECONOMIC JOURNAL: ECONOMIC POLICY** 3 (2019): 197-231.

Is the Time Allocated to Review Patent Applications Inducing Examiners to Grant Invalid Patents?: Evidence from Micro-Level Application Data (with Melissa Wasserman), 99 **REVIEW OF ECONOMICS AND STATISTICS** 3 (2017): 550-563.

Does Medical Malpractice Law Improve Health Care Quality? (with Anupam B. Jena), 143 **JOURNAL OF PUBLIC ECONOMICS** (2016): 142-158.

The Effect of Statutory Rape Laws on Teen Birth Rates (with Matthew Harding), 17 **AMERICAN LAW AND ECONOMICS REVIEW** 2 (2015): 409-461.

Do Physicians Respond to Liability Standards? (with Matthew Frank and Seth Seabury), 171 **JOURNAL OF INSTITUTIONAL AND THEORETICAL ECONOMICS** 1 (2015): 58-77 (*law and economics conference issue*).

The Failed Promise of User Fees: Empirical Evidence from the U.S. Patent and Trademark Office (with Melissa Wasserman), 11 **JOURNAL OF EMPIRICAL LEGAL STUDIES** 4 (2014): 602-636.

The Impact of Medical Liability Standards on Regional Variations in Physician Behavior: Evidence from the Adoption of National-Standard Rules, 103 **AMERICAN ECONOMIC REVIEW** 1 (2013): 257-276.

Defensive Medicine and Obstetric Practices, 9 **JOURNAL OF EMPIRICAL LEGAL STUDIES** 457 (2012): 457-481.

The Deterrent Effect of Death Penalty Eligibility: Evidence from the Adoption of Child Murder Eligibility Factors (with Matthew Harding), 11 **AMERICAN LAW AND ECONOMICS REVIEW** 451 (2009): 451-497.

Does Falling Smoking Lead to Rising Obesity? (with Jonathan Gruber), 25 **JOURNAL OF HEALTH ECONOMICS** 183 (2006):183-197.

Law Review Publications

Are Constitutional Rights Enough? An Empirical Assessment of Racial Bias in Police Stops (with Rohit Asirvatham), **NORTHWESTERN UNIVERSITY LAW REVIEW** (forthcoming).

Are There as Many Trademark Offices as Trademark Examiners? (with Melissa Wasserman), 69 **DUKE LAW JOURNAL** 1807 (2020): 1807-1853 (*administrative law symposium issue*).

Irrational Ignorance at the Patent Office (with Melissa Wasserman), 72 **VANDERBILT LAW REVIEW** 975 (2019): 975-1030.

PTAB's Consistency Enhancing Function (with Melissa Wasserman), 104 **IOWA LAW REVIEW** 2417 (2019): 2417-2446 (*invited contribution to the Adminstrating Patent Law Symposium*).

Patent Office Cohorts (with Melissa Wasserman), 65 **DUKE LAW JOURNAL** 1601 (2016): 1601-1655 (administrative law symposium issue).

Does the U.S. Patent and Trademark Office Grant Too Many Bad Patents?: Evidence from a Quasi-Experiment (with Melissa Wasserman), 67 **STANFORD LAW REVIEW** 613 (2015): 613-676.

The Surprising Relevance of Medical Malpractice Law, 82 **UNIVERSITY OF CHICAGO LAW REVIEW** 317 (2015): 317-391.

Does Agency Funding Affect Decisionmaking?: An Empirical Assessment of the PTO's Granting Patterns (with Melissa Wasserman), 66 **VANDERBILT LAW REVIEW** 67 (2013): 67-125.

Classified Boards and Firm Value, 32 **DELAWARE JOURNAL OF CORPORATE LAW** 113 (2007): 113-157.

Peer-Reviewed Medical and Health Policy Publications

Malpractice Liability and Health Care Quality, 323 **JAMA** 4 (2020) (with Michelle Mello, Erik Blumenkranz and David Studdert): 352-366.

Review of Neurosurgery Medical Professional Liability Claims in the United States, 83 **NEUROSURGERY** 5 (2018) (with Aladine Elsamadicy, Amanda R Sergesketter, and Shivanand P Lad): 997-1006.

Challenges To Reducing Discrimination And Health Inequity Through Existing Civil Rights Laws, 36 **HEALTH AFFAIRS** 6 (2017) (with Amitabh Chandra and Anup Malani): 1041-1047.

Book Chapters

Do Patent Law Suits Target Invalid Patents?, in **SELECTION AND DECISION IN JUDICIAL PROCESS AROUND THE WORLD: EMPIRICAL INQUIRIES**, ed. Yun-chien Chang, Cambridge University Press (2019) (with Melissa Wasserman).

Empirical Scholarship on the Prosecution Process at the U.S. Patent Office, in **RESEARCH HANDBOOK ON THE ECONOMICS OF INTELLECTUAL PROPERTY LAW (VOL. II—ANALYTICAL METHODS)**, eds. Peter S. Menell and David L. Schwartz (2019) (with Melissa Wasserman).

The Economics of Health Care Rationing, in **OXFORD HANDBOOK OF AMERICAN HEALTH LAW**, eds I. Glenn Cohen, Allison Hoffman, and William Sage (2017) (with Matthew Frank and Kyle Rozema).

Policy Papers

Decreasing the Patent Office's Incentive to Grant Invalid Patents, **THE HAMILTON PROJECT** (2017) (with Melissa Wasserman).

WORKING PAPERS

The Effect of Provider Diversity on Racial Health Disparities: Evidence from the Military (with Jonathan Gruber), under review.

Deadlines Versus Continuous Incentives: Evidence from the Patent Office (with Melissa Wasserman), revise and resubmit, **REVIEW OF ECONOMICS AND STATISTICS**.

WORKS IN PROGRESS

Strategic Patenting, Evidence from the Biopharmaceutical Industry (with Melissa Wasserman)

Racial Disparities in Health Care: Geographic Causes and the Impact of Geographic Standardization in Malpractice Standard of Care Rules.

COMMENTARY & SHORTER WORKS

Do as the doctor says, not as he or she does, **STAT** (July 2019), <https://www.statnews.com/2019/07/22/doctors-information-personal-health-decisions/> (with Jonathan Gruber and Anupam Jena).

Reducing Patent Application Backlog to Improve Patent Quality, **BERKELEY TECHNOLOGY LAW JOURNAL, COMMENTARIES** (March 2016), <http://btlj.org/2016/03/reducing-patent-application-backlog-improvepatent-quality> (with Melissa Wasserman).

Revising Patent Examiner's Time Allocations, **BERKELEY TECHNOLOGY LAW JOURNAL, COMMENTARIES** (March 2016), <http://btlj.org/2016/03/revising-patent-examiners-time-allocations> (with Melissa Wasserman)

Improving Patent Quality by Reducing the Patent Office's Backlog of Applications, Penn Program on Regulation, **REGBLOG** (April 2015), <http://www.regblog.org/2015/04/13/frakes-wasserman-patent-backlog> (with Melissa Wasserman).

Evaluating the PTO's Proposed Fee Structure, Penn Program on Regulation, **REGBLOG** (September 2012), <https://www.law.upenn.edu/blogs/regblog/2012/09/10-wasserman-frakes.html> (with Melissa Wasserman).

Can New Fees Fix the Patent System?: Don't Rely so Heavily on 'Post-allowance' Fees to Fund USPTO Operations, **WIRED** (September 2012), <http://www.wired.com/opinion/2012/09/can-new-fees-fix-the-patent-system> (with Melissa Wasserman).

SELECTED PRESENTATIONS (RECENT)

NYU Law Faculty Workshop; NYU Law and Economics Workshop; American Law and Economics Association Annual Meeting; NYU Conference on Labor and Employment Law; NYU Conference on Rethinking Patent Prosecution, Review and Litigation; Berkeley Law and Economics Colloquium; NYU Engelberg Center Hatch-Waxman Act Conference; Duke Margolis Panel on Implications of Loper Bright. 2024

University of Michigan Law and Economics Seminar; Montana State University Department of Agricultural Economics and Department of Economics Research 2023

Seminar; CEPRA/NBER Workshop on Aging and Health; Cornell Law School Faculty Workshop (upcoming); American Law and Economics Association Annual Meeting; University of Chicago Law and Economics Workshop; Conference on Empirical Legal Studies; Wharton Health Care Management Health Economics Seminar; Uniformed Services University Workshop (upcoming).

NBER Summer Institute, Health Care Meeting; Berkeley Law and Economics Seminar; Boston University Law and Economics Seminar; Conference on Empirical Legal Studies (Toronto and UVA); University of Alabama School of Law Faculty Workshop; Empirical Intellectual Property Law Conference at UT Austin; IP Day Conference at Boston University. 2022

Uniformed Services University Workshop; ASLME Annual Health Law Professors Conference; ASHEcon Conference; Duke Law School Summer Faculty Workshop; Intellectual Property Scholars Conference; University of Texas Law and Economics Seminar; George Mason Law and Economics Seminar; Georgetown Law and Economics Seminar; American Law and Economics Association Annual Meeting; Washington University Faculty Colloquium. 2021

Erasmus University Rotterdam Workshop on the Crossroads of Law and Economics; Max Planck Institute for Innovation and Competition Workshop; Duke Center for Science and Justice Workshop; UVA Law and Economics Colloquium; Tulane Economics Seminar; Florida, UVA and Michigan Virtual Law and Economics Workshop; University of Toronto Health Sector Strategy Workshop (postponed); University of Pennsylvania LDI Workshop (postponed); USC Schaeffer Center Workshop; Indiana University O'Neill Public Affairs and Public Finance Speaker Series. 2020

NYU Law and Economics Workshop; Vanderbilt Law and Economics / Applied-Microeconomics Workshop; Duke Law and Economics Colloquium; NBER Productivity Seminar; Intellectual Property Scholars Conference; EPIP Conference at ETH Zurich; IP Day at Boston University School of Law; Conference on Empirical Legal Studies; Florida State University College of Law Faculty Speaker Series; Empirical Patent Conference at Georgetown University; NPE Litigation Symposium at Stanford Law School; PatCon Conference. 2019

GRADUATE STUDENTS SUPERVISED

Kyle Rozema (Cornell Economics 2015, co-chair), now Professor of Law at Northwestern University School of Law

Erik Hovenkamp (Northwestern Economics, 2017), now Associate Professor of Law at Cornell Law School

Riley League (Duke Economics, 2023), now Assistant Professor of Finance at University of Illinois Urbana-Champaign Gies College of Business

OTHER

Admitted to the Delaware Bar	December 2005
Board Member, Society for Empirical Legal Studies	2014-2023
Co-Editor, Journal of Empirical Legal Studies	2013-2014
Fellow, Society for Empirical Legal Studies	August 2015-present
Annual Co-Organizer (with Kathy Zeiler and Jetson Leder-Luis), Empirical Health Law Conference	2011-Present
Co-Founder and Annual Co-Organizer (with Melissa Wasserman), Empirical Intellectual Property Law Conference (previously known as the Empirical Patent Law Conference)	2012-2022
Distinguished Fellow, Searle Center on Law, Regulation and Economic Growth, Northwestern University	2016-present
Faculty Associate, Duke Initiative for Science & Society	October 2017-present
<p>Referee for American Economic Journal: Economic Policy; American Economic Review; American Journal of Health Economics; American Law and Economics Review; Annals of Internal Medicine; BMJ; Economics and Human Biology; Economic Inquiry; Economics & Philosophy; Health Affairs; Health Services Research; International Journal of Industrial Organization; International Review of Law and Economics; JAMA Internal Medicine; Journal of Empirical Legal Studies; Journal of Health Economics; Journal of Health Politics, Policy and Law; Journal of Law and the Biosciences; Journal of Law and Economics; Journal of Law, Economics, and Organization; Journal of Legal Studies; Journal of Policy Analysis and Management; Journal of Political Economy; Journal of Public Economics; Journal of Risk and Insurance; Management Science; Milbank Quarterly; New England Journal of Medicine; Oxford University Press; Quarterly Journal of Economics; RAND Journal of Economics; Review of Economics and Statistics; Review of Economic Studies; Science; Social Science & Medicine; American Law and Economics Association Annual Meeting; Conference on Empirical Legal Studies.</p>	