ALEX CHAN

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STANFORD UNIVERSITY

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Education:

Stanford University, 2018 to present Ph.D. Candidate in Health Economics

Thesis Title: "Who Gets What in Healthcare – and Why"

Expected Completion Date: May 2023

References: (all Stanford University)

Professor Laurence C. Baker Professor Alvin E. Roth Department of Health Policy Department of Economics 118 Encina Commons 344 Landau Economics

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Professor Michelle Mello Professor Muriel Niederle Stanford Law School Department of Economics 324 Neukom 334 Landau Economics

650-723-7359, niederle@stanford.edu 650-725-3894, mmello@law.stanford.edu

M.P.H. in Health Policy, Harvard University, 2018

Teaching and Research Fields:

Primary fields: Health Economics, Experimental and Behavioral Economics, Market Design

Secondary fields: Discrimination and Diversity, Labor Economics, Machine Learning

Teaching Experience:

| Fall, 2021 | BIOS 203 Field Experiments and Market Design for Health Policy and Medicine, |
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| | Stanford University, Primary Instructor |
| Fall, 2017 | HPM 206 Economic Analysis, Harvard University, Head Teaching Assistant for |
| | Professor David Hemenway |
| Fall, 2016 | HPM 206 Economic Analysis, Harvard University, Teaching Assistant for |
| | Professor David Hemenway |

Research Experience and Other Employment:

| 2018 | UnitedHealth Group, Senior Vice President of Market Strategy, Optum Analytics |
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| 2015-2018 | UnitedHealth Group, Vice President of Market Strategy, Optum Analytics |

| 2017-2018 | Harvard University, Research Associate, Dana Farber Cancer Institute |
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| 2014-2015 | Origyn Inc., Co-Founder and CEO |
| 2014-2015 | Liberty Mutual Insurance, Head of Strategy and Planning |
| 2013-2014 | Liberty Mutual Insurance, Director of Strategy and Planning |
| 2013 | The Economist Group, Senior Analyst, Economist Intelligence Unit |
| 2011-2013 | McKinsey and Company, Associate/Senior Associate |

Honors, Scholarships, and Fellowships:

| 2021 | All-California Labor Economics Conference Outstanding Poster Award |
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| 2021 | Stanford Office of Graduate Education Travel Grant |
| 2021-2022 | Agency for Healthcare Research & Quality T32 Grant |
| 2018-present | Gerhard Casper Stanford Graduate Fellowship for Science and Engineering |
| 2019 | Palliative Medicine Editor's Choice Paper |

Publications:

Chan, A. (2021). "<u>Hypothermic Machine Perfusion in Liver Transplantation</u>". *New England Journal of Medicine* 385, 766-768.

Chan, A. (2020). "U.S. Organ Policy". JAMA 323(3):278-279.

Chan, A. and K. Schulman (2020). "<u>Examining Pharmaceutical Benefits in the United States—A</u> <u>Framework</u>". *JAMA Health Forum* e200291-e200291.

Chan A., I. Chien, E. Moseley, S. Salman, S. Kaminer Bourland, D. Lamas, A. M. Walling, J. A. Tulsky, C. Lindvall (2019) "<u>Deep Learning Algorithms to Identify Documentation of Serious Illness Conversations During Intensive Care Unit Admissions</u>". *Palliative Medicine* 33.2 (2019): 187-196.

Research Papers:

"Discrimination and Quality Signals: A Field Experiment with Healthcare Shoppers" (Job Market Paper) This paper provides evidence that customer discrimination in the market for doctors can be largely accounted for by statistical discrimination. I evaluate customer preferences in the field with an online platform where cash-paying consumers can shop and book a provider for medical procedures based on a novel experimental paradigm called validated incentivized conjoint analysis (VIC). Actual paying customers evaluate doctor options they know to be hypothetical to be matched with a customized menu of real doctors, preserving incentives. Racial discrimination reduces patient willingness-to-pay for black and Asian providers by 12.7% and 8.7% of the average colonoscopy price respectively; customers are willing to travel 100–250 miles to see a white doctor instead of a black doctor, and somewhere between 50–100 to 100–250 miles to see a white doctor instead of an Asian doctor. Further, providing signals of provider quality reduces this willingness-to-pay racial gap by about 90%, which suggests that statistical discrimination is an important cause of the gap. Actual booking behavior allows cross-validation of incentive compatibility of stated preference elicitation via VIC.

[&]quot;Optimal Liver Exchange with Equipoise"

The practical and ethical needs of liver exchange is different from kidney exchange, a new mechanism is proposed. Instead of just maximizing the number of exchanges, clinicians prioritize liver transplant candidates with the highest medical urgency as measured by MELD score first. Donation of the right liver lobe is five-fold riskier than the left lobe for the donor. An exchange that involves donors giving different lobes is deemed unfair. Existing mechanisms are not suited to identify optimal matchings for the organ exchange problem that needs to flexibly meet a finite exchange cycle-length constraint, accommodate indifferences in preferences, maximize transplants for highest priority patients and keep risk balanced for donors. The proposed mechanism yields optimal allocations, respects balanced donor risk, maximizes priority and is incentive compatible.

- Non-academic piece on implementation of liver exchange: Salman S. et al. (2021). "<u>Liver Exchange</u>: A Pathway to Increase Access to Transplantation" *Harvard Health Policy Review*.

Research Paper(s) in Progress:

Chan, A. and A. E. Roth. "Regulation of Organ Transplantation and Procurement: A Market Design Lab Experiment"

Chan, A. and K. Sweat. "Why Can You Buy a Body but Not a Kidney? An Experiment on Repugnance Conveyance"

Chan, A.. "Cherry Picking and Lemon Dropping to Meet Quality Standards: The Case of Abdominal Transplant Surgeons"

Seminar, Conference Presentations and Invited Talks:

| 2021 | Economic Science Association North America Conference |
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| 2021 | All-California Labor Economics Conference – Poster Session |
| 2021 | Stanford Institute for Theoretical Economics (SITE) Conference |
| 2021 | University of Chicago |
| 2021 | Universidad de San Andrés |
| 2021 | International Health Economics Association Congress |
| 2021 | Annual Conference of the American Society of Health Economists (ASHEcon) |
| 2021 | Annual Agency for Healthcare Research and Quality (AHRQ) NRSA Conference |

Professional Activities:

Referee for Journal of Public Economics, Journal of Political Economy

Creator and Organizer, Stanford Economics of Transplantation Workshop (weekly seminar with attendees from Stanford, Johns Hopkins, USC, Northwestern)

Co-Organizer, Stanford Economics Department Market Design Seminar