Allyson Barnett Root

Curriculum Vita

EDUCATION:

University of California Berkeley, Ph.D. Agriculture and Resource Economics (Expected 2019)
University of California Berkeley, M.S. Agriculture and Resource Economics (2016)
University of Pittsburgh, B.Phil. Mathematics-Economics and International Area Studies (2011)

PROFESSIONAL RESEARCH EXPERIENCE:

University of California Berkeley: Graduate Student Researcher (1/2015-present)
- Provide research support to Ben Handel and Jonathan Kolstad on projects related to technology and physician incentives in domestic healthcare, and the role of commitment contracts in encouraging preventative health
- Perform data analysis using Stata and structural estimation using Matlab and R

Amazon Web Services: Economics Intern (5/2018-8/2018)
- Use econometric techniques to analyze data and produce business impact reports

Office of Evaluation Sciences, General Services Administration: Associate Fellow (10/2016-08/2017)
- OES translates insights from the social and behavioral sciences into concrete recommendations and works with Federal agency partners to design, pilot and empirically measure resulting policy changes
- Responsible for design, implementation and data analysis of health economics and policy research projects

White House Social and Behavioral Sciences Team: Associate Fellow (10/2016-1/2017)
- SBST (https://sbst.gov/) was created by executive order in 2015 to facilitate collaboration between leading behavioral scientists and Federal government agencies and to incorporate insights into government programs

Innovations for Poverty Action: Consultant (1/2016)
- Coordinated deployment of a field experiment on political perceptions in Sierra Leone for Katherine Casey

National Bureau of Economic Research: Research Assistant (1/2013-7/2014)
- Provided research support to Amy Finkelstein (MIT) on the Oregon Health Study, as well as projects related to the financial impacts of adverse health events and beneficiary response to Medicare Part D contract features

Innovations for Poverty Action: Project Associate (6/2011-12/2012)
- Field research assistant for Rachel Glennerster (JPAL) and Katherine Casey (Stanford) on a randomized evaluation of the impact of information on voter behavior in Sierra Leone; responsibilities included budgeting and fundraising, project design, coordinating with local partners, survey design, field management, and data cleaning

TEACHING EXPERIENCE

University of California Berkeley Haas School of Business: Graduate Student Instructor (1/2018-5/2018)
- MBA 217: Big Data and Better Decisions, taught by Paul Gertler and Jonathan Kolstad
- Held weekly office hours and mandatory lab sessions, designed course content for labs and review session focusing on causal inference and machine learning

Prison University Project at San Quentin State Prison: Math Instructor (9/2015-5/2016)
- Volunteer Co-Instructor for Math 50B, College Preparatory Mathematics

HONORS/AWARDS
- JPAL North America HCDI Travel and Proposal Development Grant (2017) and Pilot Grant (2018)
- National Science Foundation Graduate Research Fellowship (2014-2019)
- Department of Economics McKay Award (2011) and Outstanding Senior Award (2011)

GRADUATE COURSES

Mathematical Tools for Economics (ECON 204); Production, Industrial Organization, and Regulation in Agriculture (ARESEC 201 & 202); Probability and Statistics (ARESEC 2010); Econometrics: Statistical Foundations and Single Equations (ARESEC 211); Econometrics: Multiple Equation Estimation (ARESEC 212) Economic Theory (ECON 201A & 201B); Applied Econometrics (ARESEC 213 & ECON 244); Development Economics (ARESEC C251 & ECON 270B & ECON 270C); Public Economics (ECON 230A & 230B); Industrial Organization (ECON 220A)

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BENJAMIN R. HANDEL
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September 25, 2018

Dear Colleague:

I am writing to recommend **Allyson Barnet** to participate in the NBER Health Economics Boot Camp. Allyson is an exceptional student and should be included if funding permits.

Please don't hesitate to contact me with any additional questions about Allyson.

Best regards,



Benjamin Handel
Associate Professor of Economics
University of California at Berkeley

Allyson Barnett Root

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I am a Ph.D. candidate in Agriculture and Resource Economics, currently in my 5th year of graduate school at UC Berkeley. My research is focused on topics in health economics, specifically on the microeconomics and behavioral economics of patient and physician decision making. My recent projects have studied the role of patient generated health data in management of chronic conditions, and alleviating barriers to advance care planning among healthy elderly adults. I have also researched the role of provider incentive design and adoption of information technology in preventative care provision. I have partnered with large health systems to study questions in these areas, and hope to continue and extend this work in the coming years. I am interested in attending the Health Economics Research Bootcamp as an opportunity for a deep dive into recent research on health economics topics, which would provide context and motivation for my current and future work. I would also look forward to meeting other students interested in research in health economics and engaging in discussion about potential project ideas and research in progress.

While working as an Associate Fellow with the Office of Evaluation Sciences at GSA, I partnered with the Office of the National Coordinator for Health IT and a large local health system to study the integration of blood glucose tracking into electronic health records. There is substantial evidence that improved blood sugar control is associated with lower chance of complications and lower medical spending among patients with diabetes. Self-monitoring of blood glucose has been shown to increase control. However, the implications of widescale integration of this tracking into online medical records are largely unknown. The fact that medical providers can view this information in real time may affect health by allowing for further customization of treatment plans, or by impacting patient compliance. I explore these questions via a randomized controlled trial which varies patient access to flowsheets at the clinic level, and behaviorally targeted reminder messages received by patients (no reminder, generic reminder, accountability-focused, incentive-focused). This project has been implemented and we are currently collecting final outcome data.

I am also conducting a pilot (with Ben Handel) for a randomized evaluation of strategies to facilitate advance directive completion in the 65+ patient population of a large healthcare system in the Pacific Northwest. Despite the significant economic and personal implications of end-of-life health care decisions, many people fail to document their

wishes or to select a representative who can make medical decisions on their behalf. Descriptive evidence suggests that this results in sub-optimal outcomes including dissatisfaction and potentially unnecessary medical spending. However, it is not well understood why patients fail to engage in this apparently high-value planning. We have completed a pilot with roughly 5,000 patients, and are currently analyzing data and adapting the interventions with intention to scale the evaluation to include over 70,000 patients across 64 clinics. The pilot tested (i) an in-person drive to facilitate advance directive completion and (ii) an informational video on advance directives that was electronically distributed to a random selection of patients. Key outcomes include AD completion rates and documented care decisions. We will also leverage surveys and granular data on patient health to better understand barriers to advance care planning and relate these findings to underlying economic theory that explains behavior. Additionally, we hope to use the results of the full study to predict the implications of increasing advance directive completion rates on long-term healthcare use.

Finally, I am studying (with Ben Handel, Jon Kolstad and Mike Whinston) the role of physician incentives and information technology in physician productivity and provision of preventative care for patients with diabetes. We use a rich dataset of patient health indicators, physician IT usage, and medical and drug claims from the largest insurer in Hawaii. Over the study period, the insurer made significant changes in its pay-for-performance program, and implemented a system-wide IT program that substantially increased physicians' information on their patients' health conditions. Physicians were initially were paid incentives to regularly perform HbA1c screenings on patients with diabetes, and later, this was shifted to only reward physicians for high quality HbA1c medical outcomes. We study the average and heterogeneous impact of these changes on screening rates, screening outcomes, and treatment of patients with diabetes (e.g. prescription of oral medications and insulin) in a series of reduced form analyses.

In the future, I plan to continue working on these projects, and hope to explore other behavioral health economics questions, particularly in the areas of end-of-life medical care and information technology. Attending the Health Economics Research Bootcamp would be a fantastic opportunity to solidify my foundation in the health economics literature, and engage with work on the frontier of research. It would also help me to improve my understanding of important open questions, and how my current and future research could potentially fill these gaps. I have followed and cited the work of several of the researchers who will present at the bootcamp and would look forward learning from them. Finally, the bootcamp would be a great environment to meet and engage with other students excited to conduct research in health economics. I would be enthusiastic about discussing other students' research ideas, and seeking additional perspective on my own works-in-progress.