CATHERINE (KATIE) WRIGHT

317 Giannini Hall, UC Berkeley, 94720 | Mobile: (619) 884-0477 | Email: cwright@berkeley.edu

EDUCATION

University of California, Berkeley
Ph.D., Agricultural and Resource Economics 2016 – Present
M.Sc., Agricultural and Resource Economics 2016 – 2018
- Fields: Environmental and Resource Economics, Public Finance
- Dissertation Advisor: Meredith Fowlie

University of California, Berkeley
B.A., Economics; B.Sc., Business Administration (with honors) 2007 – 2011

COMPLETED Ph.D. COURSEWORK

- Microeconomic Theory I and II (ECON 201A/201B)
- Macroeconomic Theory I (ECON 202A)
- Probability & Statistics (ARE 210)
- Econometrics I and II (ARE 212/213)
- Applied Industrial Organization (ARE 202)
- Enviro. & Resource Econ. I and II (ARE 261/264)
- Public Economics I and II (ECON 230A/230B)
- Quant. Methods for Empirical Research (Stanford)

SELECTED RESEARCH IN PROGRESS

- "Income and Medicaid Effects in the Health Response to Extreme Climate" (ARE Second Year Paper)
- "How Do Households Trade-off Financial and Health Risk? Quasi-experimental Evidence from the Shale Boom"

RELEVANT EXPERIENCE

UC Energy Institute, Haas School of Business, UC Berkeley
Graduate Student Researcher for Meredith Fowlie 2016 – 2017, 2018 – Present
- Project analyzing potential bias arising from economists' use of predicted pollution datasets (developed by atmospheric scientists using satellite imagery, etc.) as true data in economic analyses of air quality on health and other outcomes.

Graduate Student Researcher for Jim Sallee 2018
- Project analyzing the practical feasibility of making Pareto improvements in the context of a small tax on gasoline.

Departments of Economics, UC Berkeley
Graduate Student Researcher for Edward Miguel and Catherine Wolfram 2016 – 2017
- Analyzed multiple rounds of survey data from a randomized experiment that expanded electrification in rural Kenya.
- Spent summer in Kenya liaising with Ministry of Energy officials, developing survey instrument, and training field team.

Stanford Graduate School of Business, Stanford University
Research Fellow (RA for Rebecca Diamond, Josh Rauh, Kate Casey and others) 2014 – 2016
- Project analyzing the demand- and supply-side determinants of the nutrition-income gradient in the United States.
- Project quantifying federal spending on means-tested social services over time to propose alternative price indices.
- Analyzed 10 years of CA tax returns to compute elasticities of taxable income using standard bunching/kink analysis.

Analysis Group, Inc., Los Angeles, CA
Analyst 2012 – 2014
- Provided analytics and research support for litigation matters primarily involving healthcare/insurance data and issues.
- Worked extensively with hospital discharge records provided by state-funded health agencies and/or individual providers, as well as survey data from the U.S. Census Bureau such as the SIPP, ACS and CPS.

SKILLS

- **Programming and related:** R, Stata, SAS, SQL, Tex, GIS, familiar with standard machine learning techniques.
- **Foreign languages:** Spanish (conversational).

UNIVERSITY OF CALIFORNIA, BERKELEY

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Meredith Fowlie
Department of Agricultural and Resource Economics
327 Giannini Hall
Berkeley, CA 94720-3310
http://nature.berkeley.edu/~fowlie

fowlie@berkeley.edu
office: (510) 642-4820
fax: (510) 643-8911

September 23, 2018

Dear Professors Handel, Ho, and Kolstad:

I am writing to offer my highest recommendation for **Katie Wright** who is applying to attend the 2018 NBER Health Economics Research Bootcamp for graduate students. Katie is among the most promising graduate students I have had the pleasure of working with in my (almost) ten years at Berkeley.

I first met Katie when she entered our Ph.D. program in the fall of 2016. She took my PhD field course on energy and environmental economics last year and finished at the top of her class. She is currently working for me as a research assistant – and she is outstanding. As her primary dissertation advisor, we meet weekly to discuss research ideas. These meetings are always engaging. She has sharp intuition and great instincts when it comes to honing research ideas.

Katie is uniquely positioned to work at the intersection of health and environmental economics. On the health front, she has worked extensively on health-related projects, first at the Analysis Group, and then as a research assistant to Rebecca Diamond at Stanford. I have been learning a great deal from Katie in our discussions about the institutional details of the U.S. healthcare system and frontier questions in health economics.

I am very happy to see Katie developing a keen interest in energy and environmental economics. She was selected (from a very competitive pool of applicants) to be a graduate research assistant at the Energy Institute (EI) here at Berkeley. Working at EI provides great exposure to not only frontier academic research, but also daily lunch table/hallway discussions about energy markets and environmental policy details. Katie has been soaking all of this in. She's been reading papers, diving into institutional details, and asking all the right questions. It is exciting to see her chart an independent research agenda that stitches together her background in health and her interests in environmental economics.

Katie is particulalry interested in understanding how consumers evaluate and manage environmental health risks. She has been exploring alternative empirical approaches to

investigating how consumers respond to changes in environmental risks, particularly risks associated with pollution exposures. She has identified some promising sources of health data and plausibly exogenous variation in pollution-related health risks. She has also been thinking about how inertia, inattention, and adverse selection could impact the relationship between consumers' health care choices and improvements in environmental quality. I find these questions to be important, empirically interesting, and rich in economic content.

One concern I have on Katie's behalf is that our department, while very strong on the energy and environmental economics front, is not as strong in health. Katie was accepted into Harvard's PhD program in Health Policy, and we had to work very hard to convince her that Berkeley ARE was the place for her. In my admittedly biased opinion, I continue to think that she made the right decision. But as her advisor, I would like to find ways to support her health-related research interests. Your research bootcamp would provide an invaluable opportunity for her to advance her understanding and cultivate her research interests in this area.

In sum, Katie has the skills and abilities she'll need to conduct first rate empirical research at the intersection of health and environmental economics. I think very highly of her and I recommend her without hesitation.

Please feel free to contact me with any questions or concerns.

Sincerely,



Meredith Fowlie, Associate Professor

September 20, 2018

Dear Professors Handel, Ho and Kolstad,

I am very excited about the opportunity to attend the 2018 NBER Health Economics Research Bootcamp for graduate students. Enclosed you will find my CV and my application essay. Although I am currently working on a Ph.D. in an ARE department, I have significant prior research experience in healthcare economics and with healthcare/insurance data (as well as formal training in public economics as my secondary Ph.D. field) and I plan to conduct my research at the intersection of these areas with environmental economics. I strongly believe I would bring a unique and valuable perspective to the conference, as well as significantly benefit from the additional training in health economics that the conference would provide. I am also very excited about the potential to meet other like-minded graduate students who could become future research collaborators. Thank you so much for considering my application for this opportunity.

Best regards,
Katie Wright

Applicant information:
Catherine (Katie) Wright
Department of Agricultural and Resource Economics (3rd Year), UC Berkeley
cwright@berkeley.edu
(619) 884-0477

Recommendation letter writer:
Meredith Fowlie
Associate Professor, Department of Agricultural and Resource Economics, UC Berkeley
fowlie@berkeley.edu
(510) 642-4820

Application for NBER 2018 Health Economics Research Bootcamp
Applicant: Catherine (Katie) Wright, UC Berkeley ARE

In the spring of 2016 when considering my options for graduate programs, I nearly enrolled in a Health Policy Ph.D. program before ultimately returning to UC Berkeley, where I had spent my college years, for a Ph.D. in Agricultural and Resource Economics. At the time, I was still committed to pursuing a research agenda primarily rooted in development economics (to which I had first been introduced in Ted Miguel's undergrad course at Berkeley in 2010) and went with the program which I perceived would provide a more standard economics-based curriculum, but it was nonetheless a tough choice. And, over the years since making that choice and despite being happy at ARE, I find myself continually drawn to the economics of healthcare and health insurance. I have since switched my primary ARE field of study from development to environmental economics (with a secondary field in public finance) and plan to conduct my research at the intersection of environment and health, applying tools and methods from the former to say something about how individuals trade off investments in health with other consumption in the face of uncertain health risks. Notably, to my knowledge, no other current Berkeley ARE students are planning to work on questions involving both environment and healthcare, but I see it as a vitally important intersection deserving and in need of more rigorous academic research founded in economic theory.[1] I would be absolutely thrilled with the opportunity to participate in NBER's 2018 Health Economics Research Boot Camp, which would immensely strengthen my foundation in health economics and provide a clear path forward for my research agenda as I embark on the next few years of graduate school and beyond.

I was first exposed to health data and health economics while working as an analyst at the economic consulting firm Analysis Group from 2012-2014. Despite the general sentiment held by my consultant peers that healthcare projects were among the least desirable – I assume on account of the long hours and vast amount of institutional knowledge required – I found myself fascinated learning about the various players in the healthcare space and the complicated layers of interactions that might characterize a single healthcare encounter. For my primary project, I was tasked with building a model of inpatient admission to be tested on the universe of medical claims from a large network of medical providers in Southern California. Through this process, I became intimately familiar with ins-and-outs of healthcare data, including the various diagnostic coding systems as well as government reimbursement practices for publicly-insured patients. After two years in consulting, I was eager to return to academia but still lacked the mathematical foundation for a top Ph.D. program, so I enrolled with the inaugural cohort of the pre-doctoral Research Fellows Program at Stanford GSB, where I could load up on quantitative coursework and obtain more rigorous research experience in an academic setting. While at GSB from 2014-2016, I worked primarily with Professor Rebecca Diamond on a number of health-related projects. Most notably, I assisted with her project (joint with Hunt Allcott and Jean-Pierre Dubé) investigating the determinants of the so-called "nutrition-income gradient" in the U.S., whereby poor households are generally found to eat less healthfully than richer households. My familiarity with the U.S. healthcare system and related databases also proved immensely useful while working on another of Rebecca's projects (joint with Ariel Pakes) documenting how the monetized value of the minimum level of goods and services guaranteed by the U.S. government – e.g., Medicare, Medicaid, food stamps, subsidized housing, etc. – has evolved over time.

[1] I am aware of at least a few already-established researchers with current or past work in this area, including Joe Shapiro, Reed Walker, Nicolai Kuminoff, Tatyana Deryugina and others.

I returned to Berkeley for graduate school in the fall of 2016, and completed the first-year core economics sequence in the Economics Department, as required by ARE. The following summer, I gave my development aspirations one final chance and worked as an RA for Ted Miguel in Kenya, where we hoped to leverage random variation in electric grid reliability over time/space to investigate the socioeconomic impacts of electrification for rural households. While the summer in Kenya was both exciting and productive, the experience helped clarify my research interests and I made a permanent switch from development to environment/health upon returning to Berkeley in the fall. I also joined the UC Energy Institute as a Graduate Student Researcher (a prestigious position coveted by energy/environment-focused grad students due to strong faculty mentorship and unparalleled access to researchers working in related fields), and I wrote a second year paper investigating the healthcare utilization impact of climate shocks across the income distribution. Interestingly, I found that (at least for the universe of Texan patients over a recent 10-year period) the effects of Medicaid recipiency and poverty work in opposite directions on the likelihood of seeking medical care at the ED during periods of extreme ambient temperature. Specifically, adults insured by Medicaid are less likely to seek care in response to extreme high temperatures, while adults living in lower-income areas are more likely to seek care in response to the same events (with the opposite result holding for children). This puzzling result warrants further investigation (which I plan to address in future work, hopefully after obtaining new income data with finer geographic resolution), and highlights one of many unknowns about how the health of the U.S. population (as well as the government healthcare budgets) will respond to climate change in the coming decades. More broadly, this exercise illuminated to me the possibility of using plausibly exogenous environmental events to investigate how populations with varying levels of exposure to financial risk (on account of differences in insurance coverage) respond to similar health shocks.

Now in the third year of my Ph.D., I am pushing forward with my environment/health research agenda, working with my primary advisor Meredith Fowlie, as well as seeking guidance outside of ARE for more healthcare-specific issues. For my next research project, I hope to eventually obtain data on insurance coverage decisions at the individual-level (perhaps from a self-insured employer or from Medicare Part D prescription drug plan choices) to explore how financial risk tolerance co-varies with exogenous changes in health risk (e.g., due to the opening or closing of a nearby power plant). Recent work has documented that households indeed make defensive health investments in response to environmental shocks,[2] but to my knowledge no economic study has yet modeled this household optimization problem explicitly, and this is one area where I hope to make progress. I am also interested in how classic impediments to properly functioning health insurance markets, such as inertia and adverse selection, might interact with changes in individuals' real or perceived health risk due to changes in local environmental quality.

In summary, while I have been successful at ARE thus far, my research interests have crystallized over the past few years and I find myself increasingly interested in healthcare economics, which is not a typical strength of an ARE department. Participating in this NBER health economics conference would fill critical gaps in my education and undoubtedly illuminate many more potential areas for novel research at the intersection of environmental and health economics. I would not take for granted the valuable opportunity to learn from top researchers in the field, as well as interact with fellow healthcare-focused graduate students that could become future research collaborators. Thank you very much for considering my application.

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[2] Deschênes, O., M. Greenstone, and J. Shapiro. 2017. "Defensive Investments and the Demand for Air Quality: Evidence from the NOx Budget Program." *American Economic Review*, 107 (10): 2958-89.