Jonathan Holmes jholmes@berkeley.edu

Education

University of California, Berkeley: Ph.D., Economics 2014-Present
- Courses: Labor sequence, IO sequence, public sequence, and all first-year courses

Queen's University: M.A., Economics 2011-2012
- Courses: Microeconomic Theory, Macroeconomic Theory, Quantitative Methods, Applied Econometrics I and II, Public Economics

The University of Ottawa: B. Soc. Sci. (Hon) 2007-2011
- Summa Cum Laude, With Specialization in Economics

Academic Employment

Graduate Student Researcher May 2015-Present
PIs: Ben Handel and Jonathan Kolstad (2016-Present); Alex Gelber (2015-2016)

Graduate Student Instructor Fall 2016
Econ 131 (Public Economics)

Research Fellow September 2012 to June 2014
John F. Kennedy School of Government, Harvard University
PIs: Amitabh Chandra (2012-2014) and Rema Hanna (2012-2013)

Publications

[1] Chandra, Amitabh, **Jonathan Holmes**, and Jonathan Skinner. 2013. "Is This Time Different? The Slowdown in Health Spending." *Brookings Papers on Economic Activity* 47(2): 261-323.

[2] Chandra, Amitabh, Maurice Dalton, and **Jonathan Holmes**. 2013. "Large increases in spending on postacute care in Medicare point to the potential for cost savings in these settings." *Health Affairs* 32(5): 864-72.

Working Papers

[1] Handel, Ben, **Jonathan Holmes**, Jonathan Kolstad, and Kurt Lavetti. Insurer Innovation and Health Care Efficiency: Evidence From Utah

Media

[1] **Holmes, Jonathan**. "Those Proton Beams Don't Come Cheap." *Slate*. October 11, 2013.

Awards

NBER Pre-doctoral Fellowship on the Economics of an Aging Workforce (2017-2019)

Edward Hildebrand Graduate Fellowship (2016)

The Social Sciences and Humanities Research Council of Canada's Doctoral Award (2014-2018)

The Social Sciences and Humanities Research Council of Canada's Joseph-Armand Bombardier CGS Master's Scholarship (2011-2012)

The Loran Award, the Canadian Merit Scholarship Foundation's National Award (2007-2011)

The Governor General's Bronze Academic Medal (2007)

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BENJAMIN R. HANDEL
ASSISTANT PROFESSOR OF ECONOMICS
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September 25, 2018

Dear Colleague:

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

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

Best regards,



Benjamin Handel
Associate Professor of Economics
University of California at Berkeley

Jonathan Holmes
Department of Economics
University of California, Berkeley
jholmes@berkeley.edu
617-803-8702

To Whom It May Concern:

I am writing to apply for the Health Economics Research Boot Camp for Graduate Students, December 4-6 2018 in Cambridge MA.

I am an advanced graduate student with an established research agenda in the field of health economics. I have a strong interest in attending this boot camp to gain a deeper knowledge of the literature as well as hearing perspectives from leading researchers outside Berkeley.

My recommendation letter writer is Ben Handel. Thank you very much for your consideration.

Sincerely,

Jonathan Holmes

Rationale for attending the Health Economics Boot Camp for Graduate Students

Jonathan Holmes
jholmes@berkeley.edu

I am applying to the Health Economics Boot Camp for Graduate Students in order gain additional perspective on an area that forms the core of my research agenda. As an advanced graduate student, I have well established research interests in health economics, and I describe below three related projects I am pursuing. While I am more advanced than the core target audience for this conference, I would benefit greatly from attending for three reasons. First, this conference will be the first intensive course I have taken in health economics (despite the resources at Berkeley, I have not had the opportunity to take a focused course in health). Second, this conference would give me a chance to hear the perspective of a diverse group of researchers from outside Berkeley. Third, I look forward to the chance to meet other students in this field.

My developing research agenda uses empirical methods from both labor and industrial organization in order to answer a variety of questions related to health insurance choice and physician quality. I use the latest empirical methods from labor economics and industrial organization to answer causal questions which are relevant for current policy. In this essay, I describe two established co-authored projects with faculty as well as a developing solo-authored project.

In joint work with Amitabh Chandra, we aim to estimate physician practice style and relate it to physician characteristics like age and training. In preliminary results, we show that even within hospital, cardiologists differ substantially in how they diagnose and treat heart attack patients, with the physicians at the 90th percentile spending 57% more than a physician at the 10th percentile of the cost distribution. It seems like physician training, which we proxy for using the fellowship program they attended, explains only a small portion of this difference (3.2\% of the variation in log costs), but there is still a meaningful difference between the most and least intensive training programs. Moreover, this ``training effect'' seems correlated only to spending but not mortality, which suggests that curriculum standardization may be able to yield cost savings. Finally, physicians trained more recently tend to be more intensive on average than those trained in in earlier years, and for policy purposes the difference between doctors of trained in different eras may actually be more relevant than the difference between doctors trained at different institutions in the same year.

In a separate project (which is joint with Ben Handel, Jon Kolstad, and Kurt Lavetti), we assess the effect of health insurer identity on spending and outcomes among individuals with employer-sponsored health insurance. Using a unique all-payer claims dataset from Utah, we analyze the effect of employees being forced to switch insurance plans because their employer switched their insurance policy. We document large differences in utilization across insurance companies in total spending and utilization across a large range of care types. We then estimate the degree of this difference which is due to consumer responses to cost-sharing, network size, and other plan features. We find that while cost-sharing does matter, there remains large differences in utilization even after controlling for cost-sharing and network size. These results suggest that other plan features play a large role in spending differences.

A third work-in progress (this time solo-authored) looks at the role of policy on the cost of buying health insurance among small firms. Since the passage of the Affordable Care Act (ACA), there are many ways that small businesses in the private sector can purchase health insurance for their employees. They may purchase ACA compliant plans, they may opt to self-insure, or some firms also have access to

grandfathered or grandmothered plans. Moreover, some firms have elected to avoid insuring their workers directly, and instead subsidize employees to buy insurance on the individual market. It turns out that, holding worker illness and wage level constant, the cost to buy insurance varies a lot across these options. In particular, adverse selection into the ACA small-business risk pool makes these plans at least 10% more expensive than equivalent plans in the grandfathered or self-insured markets. Moreover, the marginal cost of hiring a sick employee varies dramatically across these plan types. In this project, I intend to test whether employers are less likely to hire workers who are more expensive to insure. I also plan to model how alternative policies would affect insurance provision and the cost of health insurance for small businesses.