Hui Ding

Department of Economics, Stanford University
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khding@stanford.edu, (650) 283-5403

Education

Ph.D., Economics, Stanford University, 2016-present

Completed Courses: Microeconomics I-III, Macroeconomics I-III, Econometrics I-III, Public Economics I-III, Labor Economics I-II, Quantitative Methods for Empirical Research, Topics in Economic History, Topics in Health Economics

Current Courses: Industrial Organization I

B.A., Economics, Peking University, 2012-2016

Research Experience

Research Assistant for Professor Mark Duggan, Stanford University, 2017-present

Research Assistant for Professor Wanchuan Lin, Peking University, 2014-2016

Research in Progress

"The Effects of Primary Care Chronic Disease Management in Rural China" (with Yiwei Chen, Min Yu, Jieming Zhong, Ruying Hu, Xiangyu Chen, Chunmei Wang, Kaixu Xie, Karen Eggleston)

"The Impact of Competitive Bidding in the Medicare Program" (with Mark Duggan and Amanda Starc)

"Technology Adoption When Medicare Pays More"

Conference

2018 Conference of the American Society of Health Economist, poster session (Atlanta, GA)

Skills

Language: English (fluent), Mandarin (native)

Computer: STATA, SAS, Matlab

Stanford | Institute for Economic Policy Research (SIEPR)

Mark G. Duggan
The Trione Director of SIEPR and
The Wayne and Jodi Cooperman
Professor of Economics

September 23, 2018

Dear Selection Committee,

I am delighted to write to you on behalf of Hui Ding, a third-year Ph.D. student in the Department of Economics at Stanford University, who is applying for participation in the NBER Health Economics Research Boot Camp. I have gotten to know Hui well during the past year, when she worked as my research assistant. She has primarily been assisting me on a project (jointly authored by Hui, Amanda Starc, and me) investigating the effects of a competitive bidding reform in the Medicare program and also on a project (with Katherine Meckel and Josh Witter) examining the effects of Hepatitis C treatments. I have also enjoyed providing feedback to her on her project investigating the effects of Medicare's New Technology Add-On Payment (NTAP) Program.

For our competitive bidding project, Hui, Amanda, and I are exploring the effect of a change implemented several years ago that substantially changed pricing for durable medical equipment and diabetes testing supplies. This reform essentially required suppliers to submit a price at which they would be willing to sell each product. The federal government then selected the winners so that their total capacity would be sufficient to meet market demand. Somewhat surprisingly, the government selected the median price of the winning bids, and as a result some of the winning producers elected not to produce at the new prices. Hui has been very helpful in our submission of an FOIA request to obtain all of the submitted bids.

In the meantime, we have been exploring the effects of this payment reform on prices and on the utilization of the treatments and how this varied by market area (there was not simply one national market but many smaller geographic markets so a firm could win in some geographic areas but not others). We are using Medicare fee-for-service claims data and Hui has very quickly mastered this data and has been exploring the magnitude of the price changes (in some cases more than a 70 percent reduction) and whether access to care appears to have declined. This has taken an enormous amount of work to determine which procedure codes apply to each product and figuring out the market areas and how these have changed over time with multiple rounds of bidding. In our periodic conference calls, Hui has been updating us on her progress and her suggestions for next steps. I am honestly quite surprised by how much progress she made on this and on other projects since she was taking 3-4 graduate courses throughout the year as well.

Hui did similarly excellent work for an early-stage project on Hepatitis-C treatments, and for this Hui, Katherine, Josh, and I are using data from a private carrier with information from many different health insurers. These treatments are extremely expensive and we are exploring why their diffusion rates varied geographically and by payer. Hui has done a terrific job of "backing out" the co-pays for the different treatments from the claims data and using this imputed price as an instrument for their utilization. Our preliminary results suggest that the new treatments do not come close to "paying for themselves and that the co-pays are an important determinant of treatment take-up decisions.

In her sole-authored project, Hui is exploring the effects of Medicare's New Technology Add-On Payment Program. Over the last decade, Medicare has provided for up to 3 years enhanced reimbursement for some new technologies. Hui finds that these payments do appear to have a substantial effect on hospital adoption decisions with the effects varying by size and hospital ownership type. Hui was initially drawn to this question to examine whether there was a spillover effect from Medicare reimbursement to those with other types of

insurance or the uninsured. While the project is admittedly early stage, Hui has made really impressive progress on it in a very short amount of time.

Hui also has a very interesting project exploring the effects of a disease management program in the health care system in certain parts of rural China. However, I am admittedly not that knowledgeable about this project or their progress-to-date so don't discuss it in detail here.

I am very impressed by the progress that Hui has made across 3-4 projects during her second year while taking a heavy course load here at Stanford. She is very smart and hard-working with a clear passion for the field of health economics. Up to now her projects have been largely reduced-form in their approach. I think she would benefit tremendously from learning from the broad and diverse set of interests and expertise represented by the outstanding faculty at this boot camp. It has been a pleasure to work with her and I know she would work very hard to make the most of this opportunity.

To sum up, I think that Hui Ding is an outstanding candidate for the NBER Health Economics Research Boot Camp and am therefore pleased to endorse her application in the absolute strongest possible terms. Please feel free to contact me if you need additional information and good luck in reaching your decisions about which students to select.

Sincerely,



Mark G. Duggan

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RL writer: Mark Duggan

September 23, 2018

To whom it may concern:

My name is Hui Ding, and I am currently a third year Ph.D. student in Department of Economics, Stanford University. I am writing to apply for the National Bureau of Economic Research (NBER) Health Economics Research Boot Camp.

As a graduate student, I've developed strong interest in Health Economics. I am always excited to see research papers that dismantle the complicated healthcare system and provide guidance to a more efficient way in saving lives and resources. My research interest focuses on the supply side of health care and insurance as an important player in health market. I believe this boot camp will help me a lot in developing exiting ideas, while taking a much broader view and deeper insight of this field to generate more.

Thank you for holding the event and taking time to consider my application! I look forward to joining the camp in December!

Sincerely,

Hui Ding

As healthcare spending is taking up an increasing share of the economy, the effectiveness of distributing medical resources has become one of the focuses of government policy and public debate. However, special features of the healthcare market, such as asymmetric information, brings more complexity that can hardly have a one-line solution. Both the importance and difficulty of healthcare issues are calling for the intellectual contribution of health economists. With these thoughts, I entered Stanford University and keep pursuing in Health Economics as a Ph.D. student. My current research focuses on suppliers' response to incentives and insurance as an important player in health market.

One of my ongoing projects looks at the New Technology Add-On Payment Program (NTAP) under Medicare Prospective Payment System. This add-on amount is paid to hospitals at a fee-for-service basis to supplement existing DRG payment which cannot reflect the cost of new technologies. Using 20% Medicare inpatient claims data, I show that when Medicare pays extra for selected new technologies, hospitals are more likely to apply them to eligible Medicare patients. Such response is mostly picked up by large hospitals and hospitals affiliated to medical schools. After confirming that hospitals do respond to this financial incentive, I am now testing whether there are any spillover effects among patients seeking care from the same provider. One hypothesis is that the extra payment from Medicare promotes investment in new equipment which may or may not be applied to non-Medicare patients. Or in the other direction, providers are mostly induced to adopt new technologies by non-Medicare payers, but are only willing to apply it to Medicare patients during the add-on payment period.

In another project with Professor Mark Duggan and Professor Amanda Starc, we look at Medicare's Durable Medical Equipment Competitive Bidding Program. Implemented since 2011, this program is a new attempt to reduce Medicare spending, but is often criticized due to its median pricing and nonbinding auction mechanism. Despite its problematic design, we find that price drops substantially when product and area is included in the program. Such price reduction is larger in local markets with more providers before auction. In the meantime, the number of items or services delivered also dropped, which is calling for further investigation estimating both supply and demand side responses.

As an economic student from China, I am also focusing on Chinese healthcare sector. Given its large aging population and rapidly developing healthcare system, China provides a great context for health economic research that can be informative not only to its own reform but also to other

emerging markets. In a joint work with Stanford colleagues and researchers from China CDC, we examine a program that gives primary care physicians financial and reputational incentives to expand chronic disease patient caseloads and deliver basic services. We assemble a unique dataset linking administrative and insurance claim data from a county in eastern coastal China. Using variations in management intensity generated by administrative and geographic boundaries, we find that patients residing in a town with more intensive chronic disease management had more primary care visits, better drug adherence, and fewer hospital admissions. A back-of-the-envelope estimate suggests that the resource savings from avoided inpatient admissions substantially outweigh the public subsidy costs of the program, even if we ignore the value of any associated improvements in quality of life and survival.

In the future, I plan to continue pursuing in the field of Health Economics, keeping interested in both U.S. and Chinese healthcare system. In the U.S. market, I would like to look more into physicians' behavior in different hospitals or groups of providers, which will have a reflection of peer effects and the principle-agent relationship between hospitals and physicians. As for the Chinese market, I am interested in the effect of individual medical savings account under social health insurance, in particular how it would affect patients' outpatient visit and prescription behavior, comparing to the current policy transition towards reimbursing outpatient services through social pooling account.

As a beginner in this field, I have been learning a lot through reading papers from established scholars. I am always excited to see researches that can dismantle the complicated healthcare system, look into the crux of the issue, and provide policy guidance. Talking to active researchers is even more helpful in understanding their structure of thinking, how they generate interesting questions, and how they turn them into solid research papers. Therefore, I am really eager to participate in the NBER Health Research Boot Camp. I believe it will be a great opportunity for me to pick up front-tier knowledge in Health Economics, and equip myself with essential qualities to become a health economist. I am also really looking forward to meeting excellent peers in this field, exchanging thoughts and generating more.

Thanks again for holding the event and considering my application! Hope to see you in December!