Yaming Cao
578 Harley Dr. Columbus, OH
☎ *608-334-0778*
✉ *cao.851@osu.edu*

Dear Professor Handel, Professor Ho, Professor Kolstad,

I am writing to apply for Health Economics Research Boot Camp for Graduate students in Cambridge this December. Having completed my first and second year in my Ph.D. program, I just began to do research in health economics as a third year Ph.D. student in Economics at the Ohio State University. My advisor Professor Kurt Lavetti, who would also write the recommendation letter for me, introduced this wonderful opportunity to me.

My research interest is Health Economics, especially in topics related to health insurance. Using Utah all payer claims database, my current project evaluates a new health insurance program with very limited health insurance coverage: Primary Care Network (PCN). This project aims to figure out the long-term impact of PCN on adults' health outcomes and the mechanisms behind the impact.

The boot camp is particularly well suited for me because I am still at the early stage of research in health economics. Moreover, my knowledge from reading the literature and my experience from health economics projects can increase how much the program can benefit me.

I would appreciate the opportunity and actively prepare for the boot camp. If you have any questions about my background, please do not hesitate to reach out to me at cao.851@osu.edu or (608)334-0778. Thank you for your consideration; I look forward to hearing from you!

Sincerely,

Yaming Cao

Yaming Cao

Columbus,OH
cao.851@osu.edu 608-334-0778

EDUCATION

Ohio State University-Columbus **Columbus,OH**
Ph.D. student in Economics *August,2017-Present*

University of Wisconsin-Madison **Madison,WI**
M.S. in Economics *June 2017*

Xi'an Jiaotong Liverpool University **Suzhou,China**
B.S. in Financial Mathematics *July 2015*

Relevant Ph.D. Courses: *Micro Theory(1A,1B,2A,2B), Macro Theory(1A,1B,2A,2B), Econometrics (1,2),Labor Economics (1,2), Health Economics, Industrial Organization, Advanced Metrics.*

Research Interest

- Health Economics, Labor Economics

Working Papers

- "The Dynamic Efficiency of Changes in Medicaid Generosity" with Kurt Lavetti and Nicolas Ziebarth
- "The impact of low-skilled immigrants on Teen fertility."

PROFESSIONAL EXPERIENCE

Graduate Research Assistant **Columbus,OH**
For Professor Bruce Weinberg *May,2019-August,2019*

TEACHING EXPERIENCE

Teaching Assistant **Columbus,OH**
Principles of Macroeconomics *August 2018 - December 2018*

Teaching Assistant **Columbus,OH**
Principles of Macroeconomics *January 2019 - May 2019*

Teaching Assistant **Columbus,OH**
Principles of Macroeconomics *August 2019 - Present*

AWARDS

- Department Fellowship, The Ohio State University (2017-2018)
- Tom Kniesner and Debbie Freund Award, The Ohio State University (September 2019)

REFERENCES

- **Dr. Kurt Lavetti**
  Professor, Department of Economics
  The Ohio State University , Columbus, OH.
  lavetti.1@osu.edu
  Cell: (301) 752-0895

Application to Health Economics Research Boot Camp

Yaming Cao

I am writing to request consideration for participating the Health Economics Research Boot Camp in Cambridge, MA this Winter. After taking a course in health economics in my second year in the Ohio State University, I developed an interest in doing research in health care in U.S. I treasure the importance of health economics to policy making. Its overlap with other fields such as labor economics, industrial organization and public economics also attracts me.

My current project "The Dynamic Efficiency of Changes in Medicaid Generosity", which is a joint work with Kurt Lavetti and Nicolas Ziebarth, focuses on the long-term impact of health insurance on health outcomes. Using regression discontinuity, we evaluate a new health insurance program-Primary Care Network (PCN)-in Utah. Implemented in July 2002, PCN, which is a very limited form of health insurance that covers only primary care services, expanded public health insurance coverage for low-income uninsured residents in the state (KFF, 2004). The literature shows that Medicaid expansion can have huge long run impact (Wherry et al.,2015; Almond et al.,2009). Exploiting the unique features of Utah's All Payer Claims Data, we contribute to the literature by being the first paper in evaluating PCN and figuring out the mechanisms behind the changes in health outcomes.

In my second project, I would continue to use regression discontinuity design but shift to investigating how having more years of Medicaid eligibility in childhood impact the health outcomes in adulthood. Utah's All Payer Claims Data has a long panel for us to track children until their adulthood. Thus, this paper can be great addition to the literature by finding out the mechanisms behind the impact.

In the future, one topic I may pursue is how insurance coverage in mental health

care influences teenagers' health outcomes. Moreover, I want to examine the impact on the crime rate in the neighborhoods to find if a more generous mental health coverage can benefit the society by reducing the crime rate in a neighborhood.

I am also interested in how government subsidy to hospitals and nursing homes impact the equilibrium market. I believe an appropriate amount of subsidy to hospitals can reduce the barrier to entry. I hope to design an optimal subsidy policy that would raise welfare.

Furthermore, I also want to devote efforts to employer-based health insurance literature. I am especially interested in the differences between small and large firms in producing health insurance and the corresponding impact on employees and firms.

I am confident that I am suitable for attending the boot camp. First, my experience in health economics research and my readings in related literature increases the benefit of the boot camp. Second, I am still at an early stage of health economics research. The boot camp is extremely valuable to me because it can expand my limited experience and knowledge in health economics. The presentations by active and experienced health economists can provide an introduction of topics and literature I am not yet familiar with, which can help me improve my current research and inspire me to think of new ideas for my future research. I will prepare for the program carefully and participate actively when needed. Moreover, I am excited to meet other PhD students who are interested in health economics. I believe how we help and learn from each other would be a treasure to our future research.

Overall, my fascination with health economics research, my extensive coursework and field preparation will provide me with the incentives and skills to learn efficiently in the program. I really appreciate the opportunity and will be well-prepared for the program if given this valuable chance.

THE OHIO STATE UNIVERSITY

College of Arts and Sciences

Department of Economics

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Columbus, OH 43210-1172

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Economics.osu.edu

Dear Ben, Kate, and Jon, October 5, 2019

I write to enthusiastically recommend Yaming Cao for the Health Economics Research Boot Camp for Graduate Students. Yaming is a third-year PhD student in economics at Ohio State. I met Yaming last year when she took my graduate course in health economics. Since then we have met weekly to discuss her ongoing research, and I am currently the chair of her dissertation committee. Yaming is ambitious, talented, and dedicated to pursuing a career in health economics. I believe she is an ideal candidate for the boot camp program---she is knowledgeable about the field and literature, and has thought carefully about her future research agenda, but still has much to gain from additional training on how to execute research. Moreover, given the limited number of students interested in health economics at OSU, I believe should would benefit greatly from the opportunity to interact with other graduate students interested in health.

In her second year, Yaming completed a field paper in labor economics (OSU does not offer a health economics field, so most students interested in health complete the labor field.) The consensus among faculty evaluating the labor field papers was that Yaming's project was the best labor field paper they had seen in many years, perhaps ever. In recognition of her excellent paper, she received the Tom Kniesner and Debbie Freund Award, a $5000 fellowship for research excellence in health or econometrics that is open to graduate students in all cohorts.

In her paper, she studied the effects of low-skilled immigration on the fertility decisions of native teenagers in the US. Using an instrumental variables model that leverages variation in low-skilled immigration rates across metropolitan areas and over time, she documents three new empirical findings. First, a one standard deviation increase in the stock of low-skilled immigrants reduces fertility rates by 27% among native teenagers enrolled in high school. Second, this fertility effect appears to operate by affecting the relative labor market returns to education, rather than through social or peer effects. For example, the fertility reduction is more than three times larger for girls with uneducated mothers, who are more likely to compete for similar jobs with low-skilled immigrants. Finally, among young native women in the labor force, who are no longer in school and therefore have fewer opportunities to respond to the increase in labor supply by investing in human capital, fertility rates significantly *increase*. This pattern is consistent with a reduction in the relative opportunity cost of becoming a young mother. The paper may not have advanced the literature methodologically, but her analyses addressed an interesting unanswered question in the literature, and her attention to detail and discussion of the results were exceptionally thoughtful for a second-year student.

More recently, I have been advising Yaming as she explores new research ideas in healthcare economics. We are collaborating as co-authors, along with Nicolas Ziebarth, on a project that estimates the long-run health impacts of a Medicaid program in Utah that offers beneficiaries a very limited set of coverage. The program, known as the Primary Care Network, costs the state about 80% less money per beneficiary

than traditional Medicaid, largely by limiting coverage to primary care, inpatient care, and limited prescription drug coverage. Utah was able to use this cheaper form of health insurance coverage to expand income eligibility limits. This created an income eligibility discontinuity for adults with dependent children at the 55% FPL line. Using administrative Medicaid application and enrollment records, linked to hospital discharge data, and linked to all-payer claims data, we use a regression discontinuity model to estimate the effect of applying for PCN relative to traditional Medicaid on medium to long-run health outcomes, including risk scores, utilization patterns, and spending. This project is still preliminary, but Yaming has gained valuable experience working with a complex set of claims databases from Utah.

One other very preliminary idea that Yaming is exploring is the optimal design of public high-risk pools, both theoretically and empirically, and estimating the rate of return on public funds that support high-risk pools to reduce deadweight loss from selection in private insurance markets.

I have no doubt that Yaming will benefit greatly from this boot camp. I recommend her enthusiastically.

Sincerely,



Kurt Lavetti
Associate Professor
Department of Economics
Ohio State University

PS: This boot camp is a great idea! Regardless of whether there is enough room for Yaming to participate, thank you for organizing it!