Dear Ms. Brett Maranjian,

I would like to apply to attend the 2019 NBER Health Economics Research Boot Camp. My contact and recommendation information is as follows:

(1) First name: Yin Wei
(2) Last name: Soon
(3) Program status: Third year in Business Economics at Harvard University
(4) Email: ywsoon@g.harvard.edu
(5) Address: 50 HBS Mail Center, 700 Soldiers Field Road, Boston, MA 02163
(6) Recommendation from Professor Leemore Dafny (ldafny@hbs.edu).

Along with this letter, I am submitting my CV, latest unofficial transcript (containing the list of current and completed courses), and personal statement.

Please get in touch should you need further information from me. Thank you for your consideration.

Sincerely,
Yin Wei Soon

# Yin Wei Soon

50 HBS Mail Center, 700 Soldiers Field Road, Boston, MA 02163 • ywsoon@g.harvard.edu

## EDUCATION

**Harvard Business School and Department of Economics** August 2017 – Present
Ph.D. student in Business Economics. Fields: industrial organization, health, and labor economics.

**University of Chicago Graham School** September 2015 – May 2017
*Graduate Student-at-Large*. Coursework in real analysis, computational linguistics, and graduate econometrics.

**Harvard University** September 2009 – May 2013
Bachelor of Arts, *magna cum laude* in Applied Mathematics and Economics. Secondary field in Statistics.

## RESEARCH & WORK EXPERIENCE

**Harvard University and Princeton University** Summer 2019 – Present
*Research Assistant*. Assisting Professors Kate Ho, Ariel Pakes, and Mark Shepard in a research project studying the effects of health provider consolidation and related changes in physician incentives on costs, quality, and patient outcomes.

**Harvard Business School** Summer 2018
*Research Assistant*. Assisted Professor Leemore Dafny in a research project on physician labor markets.

**University of Chicago Booth School of Business and Department of Economics** July 2015 – May 2017
*Research Professional*. Assisted Professors Neale Mahoney and Alessandra Voena in applied microeconomics projects. Research areas include economics of health, education, labor, and consumer finance.

**Cornerstone Research (CR)**, Boston, MA Summer 2012 and July 2013 – June 2015
*Analyst*. Performed quantitative research and analyses to support academic and industry experts in business and financial litigation. Conducted statistical analyses to examine allegations, develop arguments, and estimate economic damages.

**CR Partnership with Abdul Latif Jameel Poverty Action Lab (J-PAL)**, Boston, MA July 2013 – June 2015
*Analyst*. Assisted J-PAL researchers in checking their cost-effectiveness analyses of different randomized control trials. Provided feedback on consistency of methodology, accuracy of calculations, and data organization.

## TEACHING EXPERIENCE

**Harvard University Department of Statistics** Spring 2012
*Teaching Fellow*. Facilitated the teaching of an introductory course of 500+ students. Taught a weekly section of 19 students, held office hours, supervised final projects, prepared supplementary course materials, and graded assignments and exams.

**Harvard University Department of Economics** Fall 2011 – Fall 2012
*Course Assistant*. Graded weekly problem sets for an advanced undergraduate course (*Capital Markets*). Administered unit tests for an introductory course (*Principles of Economics*), evaluated students' performance, and provided in-person feedback.

## SKILLS

**Technical** Stata, MATLAB, Python, R, SAS, MySQL, LaTeX, Git, Excel, VBA, PowerShell, C, PHP, and HTML.
**Languages** Mandarin (native); Malay (fluent); Cantonese, Taishan, and Hokkien dialects (conversational).

# Harvard University

Cambridge, Massachusetts 02138

**Graduate School of Arts and Sciences**

**Soon, Yin Wei**

Good Academic Standing

**Beginning of Graduate Arts & Sciences Record**

**2017 Fall**

Program: Doctor of Philosophy
Subject: Business Economics

| Course | Description | Earned | Grade |
|---|---|---|---|
| ECON 2010A | Economic Theory | 4.000 | B+ |
| ECON 2010C | Economic Theory | 4.000 | A- |
| ECON 2120 | Principles of Econometrics | 4.000 | A- |
| TIME-C 1 | TIME: Course Related Work | 4.000 | |

**2018 Spring**

Program: Doctor of Philosophy
Subject: Business Economics

| Course | Description | Earned | Grade |
|---|---|---|---|
| ECON 2010B | Economic Theory | 4.000 | A |
| ECON 2010D | Economic Theory | 4.000 | A |
| ECON 2140 | Econometric Methods | 4.000 | A- |
| ECON 2150 | The Econometrics of Machine Learning (and other 'Big Data' Techniques) | 4.000 | A |

**2018 Fall**

Program: Doctor of Philosophy
Subject: Business Economics

| Course | Description | Earned | Grade |
|---|---|---|---|
| ECON 2450A | Public Economics and Fiscal Policy I | 4.000 | A |
| ECON 2610 | Industrial Organization I | 4.000 | A |
| ECON 2810A | Labor Market Analysis | 4.000 | A |
| ECON 3000 | TIME | 4.000 | |

**2019 Spring**

Program: Doctor of Philosophy
Subject: Business Economics

| Course | Description | Earned | Grade |
|---|---|---|---|
| ECON 2330 | History and Human Capital | 0.000 | INC |
| ECON 2465 | Health Economics | 4.000 | A |
| ECON 2611 | Industrial Organization II | 4.000 | A |
| ECON 3000 | TIME | 4.000 | |

**2019 Fall**

Program: Doctor of Philosophy
Subject: Business Economics

| Course | Description | Earned | Grade |
|---|---|---|---|
| ECON 2000 | Research Paper | | |
| ECON 2909 | Early Stage Research and Discussions on Industrial Organizations | | |
| ECON 2912 | Early-Stage Research and Discussions on Labor Economics | | |
| ECON 3009 | Graduate Student Workshop in Industrial Organization | | |
| ECON 3012 | Graduate Student Workshop in Labor Economics | | |
| HBSMBA 2157 | U.S. Healthcare Strategy | | |

**End of Graduate School of Arts and Sciences Record**

Date Issued: Oct 7, 2019



Michael P. Burke, Registrar

Not official unless signed and sealed

I hope to attend the Health Economics Boot Camp to learn about the research frontier in this highly interdisciplinary field and how leading researchers integrate models and methods from related fields. I will greatly value getting first-hand accounts and inspirations from the speakers about how they motivate research questions, overcome data challenges, and present their findings. I am drawn to health economics because of both the practical importance of the health sector (around 20% of U.S. GDP) and the normative importance since access to health services is often considered a basic right. This field is also interesting to me because it has a lot of – for the lack of a better word – "economics"; I note that health settings involve information asymmetry (leading to concerns about adverse selection and moral hazard), health providers often have significant market power, individuals' health decisions can create externalities, and people suffer from behavioral issues when making complex choices. Hence, I believe there are still many exciting opportunities for research in this area.

I have worked on health-related research projects. While working as a research assistant to Professor Neale Mahoney, I was significantly involved in the empirical analyses for Einav, Finkelstein and Mahoney (2018) and Cabral, Geruso and Mahoney (2018). I have continued growing my interest in health economics in graduate school. After my first year, I assisted Professor Leemore Dafny in a research project on physician labor markets. Currently, I am assisting Professors Kate Ho, Ariel Pakes, and Mark Shepard in a project studying the effects of health provider consolidation and related changes in physician incentives on costs, quality, and patient outcomes. Last year, I completed my field exams in industrial organization and labor economics, but I have also taken classes in health and public economics. I am working on some ideas related to health economics and I outline two early-stage projects below.

My first project aims to investigate the existence of the job lock phenomenon due to employer-sponsored health insurance (ESHI), and whether the Patient Protection and Affordable Care Act (ACA) of 2010 had any effects on improving job mobility possibly hindered by this phenomenon. According to data from the American Community Survey, ESHI is the predominant source of insurance for those under 65 years old with private insurance, accounting for over 85% of coverage between 2008 and 2017. Given its significance, economists and policy-makers have been concerned about the potential of job-lock, in which insurance provision by employers distorts job mobility of the employees. Moreover, these effects could matter for health access inequality because poorer households are less likely to secure jobs with ESHI, and big employers that offer ESHI are often self-insured, which creates segmentation of risk pools that can in turn limit cross-subsidizations for enrollees of different income levels. Prior to the ACA, shopping for insurance in the individual market (for those not offered ESHI) was notoriously cumbersome, as it was very difficult to compare plans and many people were turned down due to pre-existing conditions. I therefore plan to conduct two complementary analyses to assess whether the ACA affected job mobility since its various reforms should reduce the costs of switching jobs.

In my first analysis, I will leverage the adjusted community rating provision of the ACA, which stipulates that individuals with the same characteristics on certain dimensions and buying the same health plan be charged the same premium. This applies to the whole country, but prior to the ACA, there were some states that had implemented some form of community rating. These cross-sectional and pre-/post-ACA variations lend themselves to a natural difference-in-differences specification that allows me to examine the effect of adjusted community rating on job mobility. My second analysis will use a structural model to estimate the

possible job-lock before and after the ACA. This structural model combines features of single agent dynamics (Rust, 1987) with optimal insurance and medical care usage (Einav et al., 2013). Conceptually, I want to capture how a worker trades off her valuation of different characteristics (including ESHI) of her current job, health and financial risks, the costs of searching for new jobs, and the continuation values of staying in her old job versus moving to a new one. Though this requires more refinement and rigor on my part, my current thinking is to interpret a positive and significant correlation of the value she places on ESHI and job search costs as evidence of job-lock, and I will be interested to see if this correlation changes after the ACA.

In addition, I am collaborating with a classmate, Erica Moszkowski, on a project to study the effects of rural hospital closures in the U.S. on the local market structures of health facilities. We also want to estimate the overall welfare effects of these closures, taking into account their potential impacts on availability, types, prices, and quality of health services. While these closures undoubtedly affect the lives of residents in rural areas, the extent of such effects crucially depends on what other choices the residents have, what new alternatives enter the market, and the characteristics of these facilities as well as the services they provide. For example, urgent care centers might step in to fill some of the void, which can help mitigate the adverse impacts of losing a local hospital. Moreover, some specialty centers with perhaps higher quality might provide a favorable substitute to a subset of patient with certain health conditions. Therefore, our first aim of this project is to document the types of facilities and services that remain in or enter the rural markets in the years following hospital closures to understand how the markets adjust.

In a recent study, Carroll (2019) finds that rural hospital closures resulted in lower in Medicare spending but higher mortality among patients with health emergencies. We hope to contribute to this line of research by studying whether the impacts are heterogeneous by health conditions. For instance, patients with certain chronic conditions but not emergencies might find primary care offices to be adequate substitutes to hospitals. Therefore, we hope to build and estimate a structural model that will allow us to estimate overall welfare effects after incorporating local market adjustments and their impacts on different groups of patients. Through the lens of this model, we are also interested in conducting counterfactual exercises to compare different policies. In the same study, Carroll (2019) concludes that Medicare's Critical Access Hospital program helped reduce rural hospital closures but it was not very cost-effective. A reasonable question to ask is, given the same amount of expenditure, would other policies result in higher consumer welfare? Some options whose efficacies we want to examine are subsidizing transportation costs, incentivizing alternative non-hospital facilities to enter the market, and investing in telemedicine.

Many interesting questions in health economics cross field boundaries, and my own projects are intimately related to industrial organization, labor, and public economics. That is a strong reason why I hope to participate in this boot camp, so that I can learn how researchers synthesize knowledge across fields. In addition, graduate school so far has shown me the importance of peer networks and collaborative efforts in research, thus I am eager to meet with other graduate students also interested in health economics but perhaps with different background, which could spark fruitful conversations and collaborations. I look forward to broadening my horizons at this boot camp and being inspired by established researchers and fellow students alike.

## References

**Cabral, Marika, Michael Geruso, and Neale Mahoney**, "Do Larger Health Insurance Subsidies Benefit Patients or Producers? Evidence from Medicare Advantage," *American Economic Review*, August 2018, *108* (8), 2048–87.

**Carroll, Caitlin**, "Impeding Access or Promoting Efficiency? Effects of Rural Hospital Closure on the Cost and Quality of Care," *Working Paper*, 2019.

**Einav, Liran, Amy Finkelstein, and Neale Mahoney**, "Provider Incentives and Healthcare Costs: Evidence From Long-Term Care Hospitals," *Econometrica*, 2018, *86* (6), 2161–2219.

**_ , _ , Stephen P. Ryan, Paul Schrimpf, and Mark R. Cullen**, "Selection on Moral Hazard in Health Insurance," *American Economic Review*, February 2013, *103* (1), 178–219.

**Rust, John**, "Optimal Replacement of GMC Bus Engines: An Empirical Model of Harold Zurcher," *Econometrica*, September 1987, *55* (5), 999–1033.

Re: Yin Wei Soon

It is with pleasure and great enthusiasm that I write in support of the application of **Yin Wei Soon** to participate in the Health Economics Boot Camp. I have interacted often with Yin Wei over the past 2.5 years in my role as co-director of the PhD Program in Business Economics. He is eager to focus on health and IO for his dissertation, and I believe this is the right time for him to take the course.

Yin Wei has an outstanding background – Harvard undergrad (concentrating in Applied Math and Economics); Neale Mahoney RA for 2 years; Cornerstone Research Analyst for 2 years. He is in his third year of the Business Economics PhD Program.

I hired Yin Wei as my research assistant for Summer 2018, and he did an excellent job working with a new dataset on physician wages, which I hope will form the basis both of joint and independent work. This fall, he is enrolled in my MBA course entitled, "U.S. Healthcare Strategy," and he has asked me to serve on his committee.

I believe attending the boot camp and interacting with others with similar interests will help Yin Wei to jump start his independent work. I know he will be a great contributor during the sessions and hope there is room to accommodate him.

Sincerely,

Leemore Dafny

Harvard Business School and Kennedy School of Government