



政策研究大学院大学

NATIONAL GRADUATE INSTITUTE
FOR POLICY STUDIES

Final report

on

WORKSHOPS SERIES ON MACROECONOMICS AND POLICY

April 2020- Dec 2021

Activities Report

LONG-TERM WORKSHOP OF MACROECONOMICS AND POLICY

Part A: Summary of Long-term Workshop Series

Part B: Evaluation and Achievement

Appendix: Presentation material

Part A. Overview of Workshops

1. Occupational Retirement and Social Security Reform: the Roles of Physical and Cognitive Health

Date: July 9 (Thursday)

Time: 10:25-12:10

Place: Online (Zoom)

Language: English

Speaker: Jiayi Wen (Xiamen University)

Attendants: 27 (Students: 6, GRIPS faculty: 3, Guests: 18)

GRIPS faculty: Ponpoje, Minchung, Fujimoto

Organizer: -

Contents and Achievements:

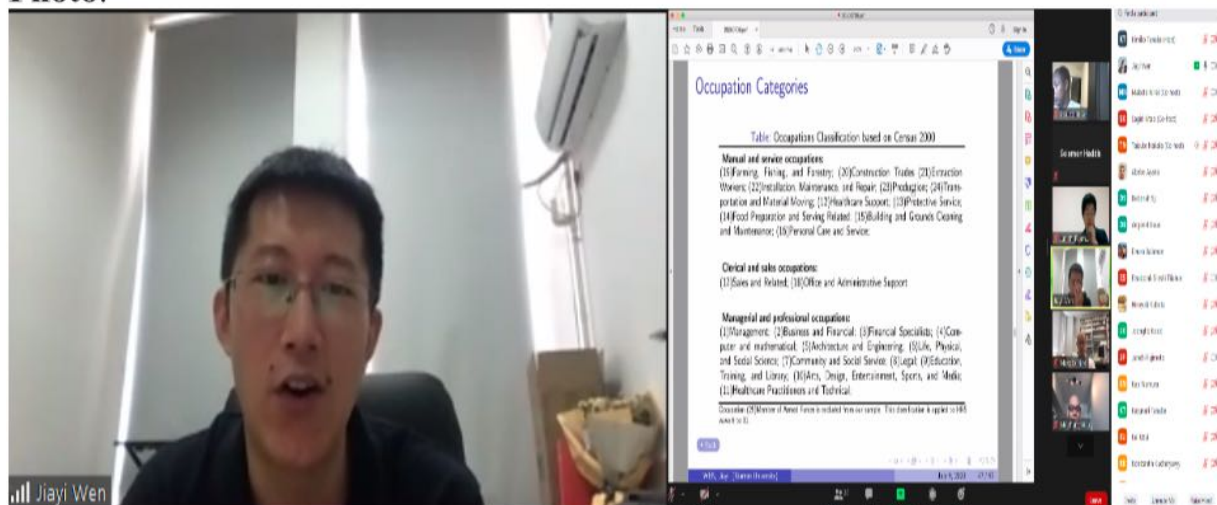
Skill-biased technical change leads jobs to be less physically demanding whereas require more cognitive abilities, but existing research on retirement pays little attention on the cognitive dimension of health. This paper first explores occupational facts in ability requirements, multiple dimensions of health, and their interactive relationship in retirement.

Based on these facts, this paper proposes and estimates a dynamic structural model of individual retirement and saving decisions, incorporating both physical and cognitive dimensions of health and allowing their retirement effects to differ across occupations via four channels respectively: leisure, wage, medical expenditure and life expectancy. I use indirect inference for estimation, using variants of auxiliary models to exploit either pooled

variations or only within-individual variations to identify the model. The counterfactual results suggest cognitive health has little retirement effect for manual workers, whereas for

clerical workers it is as vital as physical health. Leisure and life expectancy are more important channels. When retirement age increases, manual workers would actually delay retirement more than professionals. This is not due to their health capacity but instead to their financial rigidity in deciding when to retire.

Photo:



2. Unemployment Insurance during a Pandemic

Date: Friday, Nov 20, 2020

Time: 10:00-11:30AM

Place: Online (Zoom)

Speaker: Zoe Xie (Federal Reserve Bank of Atlanta)

Language: English

Attendants: 14 (Students: 10, GRIPS faculty: 4)

GRIPS faculty: Ponpoje, Minchung, Fujimoto, Matsumoto.

The image shows a Zoom meeting interface. The main window displays a presentation slide titled "Model environment: Agents" with the following bullet points:

- Two sectors: Contact and Non-contact
 - Non-contact can work at home, Contact cannot
- Demographics (no transition between types):
 - Workers (Young): Contact or Non-contact sector
 - Non-workers: Old and Young OLF (YOLF) — do not make decisions
- Workers
 - Permanent efficiency unit a , from sector-specific distribution $F_j(a)$
 - Search for work if unemployed; no quitting
- No saving or borrowing

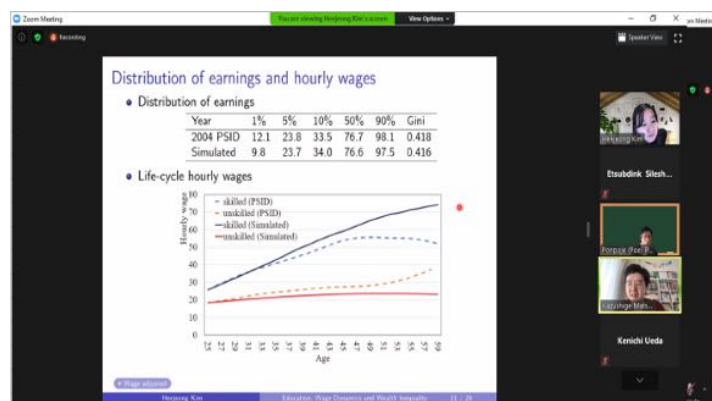
Below the slide is a "Participants (15)" list with names and status icons. A smaller window shows a slide titled "CARES UI lowers infection and deaths" with a figure showing population share of health types (Susceptible, Mild, Infected Severe, Recovered, Dead) over time for three scenarios: no shutdown, no CARES UI; shutdown only; and shutdown + CARES UI. The legend indicates that shutdown + CARES UI results in lower total infection and deaths, and that policies together reduce death by 9%.

- The zoom seminar started at 10:00AM with Prof. Poe's introduction of the presenter.
- Zoe Xie gave a presentation of her paper (jointly authored) titled "Unemployment Insurance (UI) during a Pandemic". Her research paper is very relevant to our time and uses search-matching model with the SIR-type infection dynamics. The main goal of her research is to understand the effects of CARES Act UI on unemployment. Infection during the COVID-19 pandemic, effects of infection, the shutdown policy, and the UI policy are examined. In her study, she also discusses some public policy interventions, such as pandemic tax.
- During the seminar, participants asked questions and had useful discussions. She finished her presentation at 11:30.
- Participants who wanted to hangout and have more discussion continued while some left the zoom meeting at 11:30 AM.

3. Education, Wage Dynamics and Wealth Inequality

Date: Friday, Dec 17,2020
 Time: 10:25-12:10AM
 Place: Online (Zoom)
 Speaker:Heejeong Kim (Concordia University)
 Language: English
 Attendants:22 (GRIPS Students ,GRIPS faculty, and guests)
 GRIPS faculty: Ponpoje, Minchung.

- This is a joint seminar with University of Tokyo.
- The zoom seminar started at 10:25AM with Prof. Sagiri Kitao’s(from University of Tokyo) introduction of the presenter.
- Heejeong Kim gave a presentation of her paper titled “Education, Wage Dynamics and Wealth Inequality” .Her research paper focuses on identifying the effects of heterogeneity in education on wealth inequality and life-cycle savings. She estimates skill-specific wage processes for college- and non-college educated workers using the PSID data. With this, she is able to examine the implications of estimated wage processes in an incomplete-markets overlapping-generations general equilibrium model with college education choices and elastic labor supply.
- Her findings indicate that understanding the sources of wage differentials across households with different education levels is critical to explain both aggregate wealth inequality and their life-cycle savings.Using 2004 as a benchmark,skilled households received a college wage premium and faced steeper age-wage profiles than unskilled households. Moreover, skilled workers faced more volatile persistent wage shocks, compared to unskilled workers.
- The results more generally suggest the importance of different earnings processes for different groups of households to understand households saving behavior and wealth inequality.
- Prof.Sagiri Kitao closed the Seminar at 12:04 PM.Some participants continued to hangout with the presenter.



Empirical analysis

1968 -2011 PSID data

- SRC sample
- male head of households who are between 25 and 59 years old
- not self-employed
- hourly wage = $\frac{\text{gross annual earnings}}{\text{total annual hours worked}}$
- Gross earnings = pre-tax income from wages and salaries + bonuses, commissions, overtime, professional practice + labor part of the farm and business income
- the college-educated is defined as hhs with a college degree or more

The slide also shows a list of participants on the right side of the Zoom window, including Etsubink Slich..., Sagiri Kitao, Heejeong Kim, and Kenichi Ueda.

Part B. Evaluation and Achievement

A few workshops on Macroeconomic Policies were organized by the GRIPS. Due to Covid-19, the number of workshops was limited. And all went online (via zoom). In total, three workshops were organized and three speakers presented their papers. The number of participants was relatively high. These workshops benefited from active participation via discussions, questions and comments. The papers were attractive and timely (for example, one of the presentations was on *Unemployment Insurance during a Pandemic, as mentioned above*). The average attendance for the workshops was approximately 21 persons. The attendees mainly include GRIPS faculty, faculty from Tokyo University, GRIPS PhD students. Many of these participants were active researchers in the related areas. Examples of individuals from outside GRIPS that participated in the Macroeconomic and policies seminars:



- Assist Prof. Jiayi Wen (Xiamen University)
- Dr. Zoe Xie (FED Atlanta)
- Assist Prof. Heejeong Kim (Concordia U)
- Prof. Sagiri Kitao's (from University of Tokyo)

The interactions during seminars are of a paramount importance. Speakers benefit from invaluable comments by participants. Students who participate learn how to approach their paper and gain presentation skills. In the discussions before and after the presentation, invited speakers, faculty, and other participants share ideas and use it as a networking opportunity.

In general, the workshops have significantly raised both domestic and international recognition of GRIPS's research activities in both the academic and non-academic circles. We have used various channels to outreach participants from both inside and outside GRIPS. This year, the number of participants is lower than the earlier ones due to covid-19 (it took some time to go virtual). In addition to the weekly advanced email announcement about the coming workshop to GRIPS' faculty and students, we have been providing information about the coming workshop through publicly accessible websites:

- <http://www.grips.ac.jp/en/seminars/>.

Screen shot from GRIPS Seminars webpage

Nov 20 (Fri) 10:00 – 11:30 Zoom	Zoe Xie (Fed Atlanta)	Unemployment Insurance during a Pandemic download paper	Macroeconomics and Policies seminar Zoom Link Meeting ID: 876 2778 6748 Passcode: GRIPSmacro 
Nov 25 (Wed) 16:40 – 18:10 Zoom	Jesus Felipe (Asian Development Bank)	The illusions of calculating total factor productivity and testing growth models: from Cobb-Douglas to Solow and Romer download paper	Graduate seminar
Dec 2 (Wed) 11:00 – 12:30 Zoom	Kelsey Jack (UCSB)	Harvesting the rain: The adoption of environmental technologies in the Sahel	Development Economics Workshop/Graduate Seminar
Dec 9 (Wed) 16:40 – 18:10 Zoom			
Dec 16 (Wed) 16:40 – 18:10 TBA			
Dec 17 (Th) 10.25 – 12:10 Zoom	Heejeong Kim (Concordia U)	Education, Wage Dynamics and Wealth Inequality download paper	Macroeconomics and Policies seminar (Joint with UTokyo) Registration for Zoom ID and password 
Dec 23 (Wed) 16:40 – 18:10 TBA			

Appendix

Material for each seminar

Occupational Retirement and Social Security Reform: the Roles of Physical and Cognitive Health

Jiayi Wen ^{*}

The Wang Yanan Institute for Studies in Economics (WISE)
and The School of Economics, Xiamen University

This version: September 18, 2018
Please visit [here](#) for the latest version

Abstract

Under skill-biased technical change, jobs are becoming less physically demanding whereas require increasing cognitive abilities. However, existing research pays insufficient attention on the role of cognitive health in retirement, nor on the heterogeneous retirement effects of physical and cognitive health across occupations. Upon motivating facts, this paper proposes and estimates a dynamic structural model of individual retirement and saving decisions. It incorporates both physical and cognitive health and allows their retirement effects to differ across occupations via four channels respectively: disutility of working, wage, medical expenditure and life expectancy. The model is estimated with the U.S. Health and Retirement Study data by Indirect Inference. We find cognitive health has little retirement effect for manual workers. However, for clerical workers the effect is as large as physical health. We also reveal the different underlying mechanisms through which physical and cognitive health lead to retirement. Our counterfactual experiments find, contrary to common concern, manual workers would have larger delay in retirement if retirement age increased. Nevertheless, they would suffer larger welfare loss than professionals due to the rigidity of deciding when to retire, especially by interacting with their poorer physical health.

Key Words: Cognitive Health; Cognition; Physical Health; Occupation; Retirement; Social Security; Public Pension

Unemployment Insurance during a Pandemic*

Lei Fang[†]

Jun Nie[‡]

Zoe Xie[§]

October 26, 2020

Abstract

We combine a labor market search-matching model with the SIR-type infection dynamics to study the effects of CARES Act UI on unemployment and infection during the COVID-19 pandemic. More generous UI policies lead to higher unemployment, but save lives by reducing infections at workplace. Shutdown policies and infection risk further amplify the UI effects. Quantitatively, CARES UI policies raise average unemployment by 3.8 percentage points out of a total increase of 11 percentage points over April to December 2020 and reduce cumulative deaths by 4.9%. Eligibility expansion and the extra \$600 increase in benefit level are both quantitatively important.

Keywords: COVID-19; CARES Act; Unemployment Insurance; Search and Matching

*First draft: July 30, 2020. We thank seminar participants at the Fed Brown Bag, University of Nebraska Omaha, Texas A&M University, New Hampshire University, Virtual East Asia Macroeconomics Seminar Series, Clemson University, and Indiana University for comments. We are especially grateful to Toni Braun, Andy Glover, Federico Mandelmann, and Juan Rubio-Ramirez for suggestions. We thank Oske Yang for excellent assistance on the CPS data. Views expressed are those of the authors and not necessarily those of the Federal Reserve Bank of Atlanta, Federal Reserve Bank of Kansas City or the Federal Reserve System.

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Education, Wage Dynamics and Wealth Inequality

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Concordia University

June 2020

Abstract

To what extent does heterogeneity in education contribute to wealth inequality and life-cycle savings, and through which pathways? Using the PSID data, I estimate skill-specific wage processes, allowing for both *deterministic* between-group wage dispersion and *stochastic* within-group wage dispersion. I evaluate the quantitative implications of these wage processes using an incomplete-markets overlapping-generations general equilibrium model in which households choose their education and labor supply. I find that allowing wage processes to vary by skills is crucial for understanding the wealth inequality and life-cycle savings of skilled and unskilled households. Importantly, the *deterministic* between-group wage difference is vital for college attainment choice, while a relatively more volatile persistent component of wage shocks for the skilled plays a key role in explaining the top percentile distribution of wealth and the large differences in the life-cycle savings between

Keywords: Education, wage differentials, wealth inequality, life-cycle savings

*Department of Economics, Concordia University, Montreal, CA. E-mail: heejeong.kim.macro@gmail.com. I am indebted to Aubhik Khan and Julia Thomas for their invaluable comments. I also thank editor and anonymous referees for their helpful comments. I am grateful to Christian Belzil, Jorgen Hansen, Hiroki Watanabe, Xintong Han, and Prosper Dovonon for their comments and help with the revision. I also thank Mark Huggett, Toshihiko Mukoyama, Dean Corbae, Fabrizio Perri and Ben Lester. I thank session participants at the 2016 Midwest Macro meetings and 2016 North American Econometric Society summer meetings as well as workshop participants at The Ohio State University for comments and suggestions that have improved this paper.