PPHA 34241 – Household Finance: Theory and Applications

Class Meetings: M/W 9:00AM – 10:20 AM, The Keller Center 0010

Instructor Office Hours: Via Zoom. See Canvas.

Teaching Assistants:
Teaching TAs:
Annelise Escher (aescher@uchicago.edu)
James Karner (jameskarner@uchicago.edu)
Kenneth Zalke (kennethzalke@uchicago.edu)
The TA’s will hold an optional weekly office coding hour (focusing on Stata) and review session Fridays 9AM-10AM via Zoom.

Course Description: This course will examine the choices households make about important financial decisions and how these individual choices can impact the aggregate economy. We will address various household decisions as follows: we will introduce basic theory and derive theoretical predictions; these predictions will then be compared with empirical findings. Key topics will include: market participation and household portfolio choice; human capital and student loans; housing and mortgages; and retirement planning. Focus will be placed on the economic rationale for government policies affecting these topics, including so-called household financial engineering, the creation of Government Sponsored Enterprises (GSEs) like "Fannie" and "Freddie," and regulatory agencies like the Consumer Financial Protection Bureau (CFPB). The course will also provide an introduction to structural modeling for conducting policy counterfactuals. Assignments will require students to work in R, Matlab, Stata or other statistical package of the student's choice (with permission of instructor).

Prerequisites: This course is restricted to MPP and master’s students. Prerequisite(s): PPHA 32400 (Microeconomics II) and PPHA 31102 (Statistics for Data Analysis II: Regressions), or equivalent.

Required Textbook/ Software:
*House of Debt*, by Atif Mian and Amir Sufi (Available as an ebook or in print edition at major book sellers)

Otherwise, there is no required textbook for the course. Please see syllabus below for papers I would like you to read in advance of our weekly synchronous lecture.
Course assignments will require you to use a software program that can run multiple regression, such as Stata, Matlab, R or Python. Note: While I will make some R replication files available, many replication files for seminal papers we will discuss are only available in Stata. Stata can be accessed for free via vLab: [http://vlab.uchicago.edu](http://vlab.uchicago.edu) But I would suggest buying your own copy for the quarter. A 6-month Stata Basic Edition license is available for $48 [https://www.stata.com/order/new/edu/profplus/student-pricing/](https://www.stata.com/order/new/edu/profplus/student-pricing/)

**Exams and Grading:**
There are no exams. Grading is based on:
Class attendance and participation (10%)
5 Policy Memos (10% each).
Empirical replication exercise and “in-class” presentation (40%)

*Policy Memos*
Prompts for policy memos will be given in weeks 2-7. These will require you to work with data discussed in class to reach your own data-driven conclusions. There may not be a clear right or wrong answer, you will need to argue based on what you perceive to be the strength of the evidence.
Policy memos should be uploaded to Canvas by the due date. You should complete your own policy memo and it should be based on your own work. But you may consult with each other.

*Empirical exercise*
The final assignment will be a replication exercise and extension of a published empirical economics paper. Students may select an empirical paper we discussed in class or another paper of their choice, with my approval. This paper should have data publicly available, or posted on the authors’/journal website, or posted by me on the course website. Students will attempt to replicate a key empirical specification in the paper, and expand upon the original paper in one or more of the following ways: adding an additional control variable; changing the functional form of the specification to include higher order terms or interaction terms; examining another dependent variable of interest; adding in additional years for the analysis; or extending the analysis to include a different region or country. Students should motivate their extension as economically interesting in some way, e.g. the new control variable addresses a potential omitted variable, or a reform has happened since the paper was originally published that merits adding more time periods. Null results are fine as long as they are properly motivated.
**All students must meet with me 1:1 to discuss their project and receive feedback.**
You will prepare a short research paper and present the replication to the class in the final week. The assignment grade will largely depend on the economic motivation of the extension as made in the presentation.
Course Topics

The following is a list of planned topics we will discuss along with accompanying readings. Please read any assigned readings before the lecture and come prepared to discuss in our synchronous lecture. Additional seminal empirical papers will be discussed in class. With a few exceptions, I have tried to highlight selected readings below that have data available or make use of publicly available data so that you may draw on these for the empirical exercise assignment.

Week 1 - Introduction

We will review important mathematical and economic concepts to get the most out of the course: The time-value of money; utility functions and utility maximization, etc.

Week 1: Course overview and some fascinating facts
Main readings:
https://doi.org/10.1111/j.1540-6261.2006.00883.x


https://democracyjournal.org/magazine/5/unsafe-at-any-rate/

Please read the shorter policy summary:
https://voxeu.org/article/rate-return-everything
If you are interested, the full paper is here:
https://doi.org/10.1093/qje/qjz012
Data and Replication Files:
https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/GGDQGJ

Topic #1 – Consumption and Saving
Week 2

Theoretical Overview of Consumption and Saving
a) Optimal consumption and saving, in a “perfect world”
b) Dealing with uncertainty

Empirical Evidence on Household Consumption, Income and Saving, Part 1

Data and programs: https://www.aeaweb.org/aer/data/oct2013/20110021_data.zip

Video - Bone “Thugs n’ Harmony - First of tha month” [Warning: Song contains explicit contents and refers to activities that are not endorsed by your professor] https://www.youtube.com/watch?v=Fwl-a1LjpiA

Data and programs: http://www.umich.edu/~mstep/third_data.zip http://www.umich.edu/~mstep/third_programs.zip


Replication files are available here: https://eml.berkeley.edu/cgi-bin/HarnessingDataScience2014.cgi
(Warning: “Big” Data, you will need ~400MB of space)

Please read the shorter VOX piece: https://voxeu.org/article/consumption-inequality-and-frequency-purchases
If you are interested, the full paper is here:  
I will make the CEX replication files available on Box.

**Week 3**

*Empirical Evidence on Household Consumption, Income and Saving, Part 2*

*Consumption with Incomplete/ Imperfect markets, Theoretical Extensions*

https://doi.org/10.1017/S0022050700020568  
I will make her final processed *.dta file available on Canvas.  
You may also be interested in the original raw data are available from ICPSR: Cost of Living in the United States, 1917-1919 (ICPSR 8299)  
https://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/8299  
Saving and Dissaving By 12,817 American Households, 1917-1919 (ICPSR 6276)  
https://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/6276


https://sites.google.com/site/briankbaugh/

While I can’t make the microdata available, some data on the gig economy geographically can be found in the Appendix of my paper:  

Optional readings that may be of interest:


---

**Topic #2 – Asset Markets and The Distribution of Wealth**

**Week 4**

*Risky assets, risk tolerance, portfolio choice and asset pricing, a gentle theoretical overview*

*Real-world evidence*

- *a) facts on stock-market participation;*
- *b) the “equity-premium” puzzle;*
- *c) implications for inequality*

*Video – Professor Thomas Sargent’s views on interest rate uncertainty:*

[https://www.youtube.com/watch?v=Khn1ZqysON0&feature=youtu.be](https://www.youtube.com/watch?v=Khn1ZqysON0&feature=youtu.be)


Please read the shorter policy summary: [https://voxeu.org/article/asset-prices-and-wealth-inequality](https://voxeu.org/article/asset-prices-and-wealth-inequality)

If you are interested, the full paper is here: [https://www.dropbox.com/s/4dbkgqgaxp97ddk2/Wealthinequality_June2018.pdf?dl=0](https://www.dropbox.com/s/4dbkgqgaxp97ddk2/Wealthinequality_June2018.pdf?dl=0)

I have cleaned many of these underlying historical SCF data files and will be making them available on Canvas.


Access it here for data: [https://eml.berkeley.edu/~saez/](https://eml.berkeley.edu/~saez/)

More data here: [https://wid.world](https://wid.world)


Please read the shorter summary:
https://voxeu.org/article/exploding-wealth-inequality-united-states
If you are interested, the full paper is here:
https://academic.oup.com/qje/article/131/2/519/2607097

---

**Topic #3 – Investing in your human capital and the student loan market**

**Week 5**

*Investing in Yourself (Via Human Capital Accumulation)*

- b) credits constraints and a simple model of asymmetric information motivating government intervention in the student loan market;
- c) student-loan refinancing and its effects on the risk pool (adverse selection)

*Evidence on the returns to college; the student loan market, structure and some facts*

Greenstone, Michael and Adam Looney. 2011. “Where is the Best Place to Invest $102,000 — In Stocks, Bonds, or a College Degree?” *The Brookings Institution.*

https://www.brookings.edu/research/where-is-the-best-place-to-invest-102000-in-stocks-bonds-or-a-college-degree/

Desjardins, Jeff. 2018. “Which College Degrees Get the Highest Salaries?”

https://www.visualcapitalist.com/visualizing-salaries-college-degrees/


https://doi.org/10.1086/701046


A partial replication dataset is available here:


“Mobility Report Cards: The Role of Colleges in Intergenerational Mobility”


Data for this (and other related cool projects) here:

http://www.equality-of-opportunity.org/data/
Topic #4 – Housing investment, the mortgage market, and the 2007-9 Financial Crisis

Week 6

Modeling Housing Investment

Empirical Evidence on Housing Markets

b) the government policy landscape in the U.S.

c) the role of housing in the 2007-9 financial crisis

This is incredibly prophetic (look at the date):


[https://doi.org/10.2202/1553-3832.1145](https://doi.org/10.2202/1553-3832.1145)

See Shiller’s website for cool data on housing and long-run stock returns:


See here for the replication kit:

[https://faculty.chicagobooth.edu/amir.sufi/chronology.html](https://faculty.chicagobooth.edu/amir.sufi/chronology.html)

Video – CNBC's Rick Santelli's Chicago Tea Party

[https://www.youtube.com/watch?v=zp-Jw-5Kx8k](https://www.youtube.com/watch?v=zp-Jw-5Kx8k)


For replication files for the segregation measure, see here:

[https://jmparman.people.wm.edu/dataandcode.html](https:// jmparman.people.wm.edu/dataandcode.html)

You will also need the full-count 1880 census:

[https://usa.ipums.org/usa/complete_count.shtml](https://usa.ipums.org/usa/complete_count.shtml)

Also see:

“How Redlining Segregated Chicago, and America”


MAPPING INEQUALITY: Redlining in New Deal America

[https://dsl.richmond.edu/panorama/redlining/#loc=4/36.71/-96.93&opacity=0.8](https://dsl.richmond.edu/panorama/redlining/#loc=4/36.71/-96.93&opacity=0.8)
Topic #5 – Retirement saving

Week 7

Modeling Retirement Saving
   a) The neo-classical model of retirement savings
   b) insights from behavioral economics

Empirical evidence on Retirement Saving


CBO's 2016 Long-Term Projections for Social Security: Additional Information
https://www.cbo.gov/publication/52298

http://science.sciencemag.org.proxy.uchicago.edu/content/sci/339/6124/1152.full.pdf

https://www.politico.com/agenda/story/2018/06/07/can-millennials-save-retirement-000665

Week 8

No formal lectures planned. We will have paper/ coding workshops. We may reserve for guest lectures /spillovers from previous weeks if we have guest lectures earlier. The main assignment this week is to work on your papers/presentation. I will meet 1:1 with each of you this week to discuss your papers.

Week 9

“In-Class” Presentations of Replication Exercises