

Harris School of Public Policy
Spring 2019

Professor Dmitri Koustas
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PPHA 34241 - Household Finance: Theory and Applications

Class Meetings: MW 11:00am - 12:20pm, Keller #0023

Office Hours: M 3:30-5:00PM, Keller #3055 (my office)

Teaching Assistant: Edward Chiu (eyc@uchicago.edu) will work as your TA for this course. The TA is here to help you with any difficulties you face in the problem sets and understanding grades. Questions regarding grades should be directed to the TA. All regrade requests must be submitted in writing with a full explanation of why you think the work was incorrectly graded.

Course Description: This course will examine the choices households make about important financial decisions and how these individual choices can impact the aggregate economy. Each week, basic predictions from economic theory will be discussed and compared with empirical findings. Topics will include: asset market participation and household portfolio choice; human capital and student loans; housing and mortgages; retirement planning; and participation in the gig/sharing economy. Focus will also be placed on 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 20000 or ECON 20000 required; PPHA 22200 preferred.

Exams and Grading:

Class attendance and participation (10%)

2 Problem sets (15% each)

Midterm (30%)

Empirical replication exercise, presented in class (30%)

Mid-term Exam Policy. One handwritten index card per person is allowed during exam. You have to attach the index card when you submit the exam. Calculators are allowed. No cell phones will be allowed.

- Mid-term exam: Wednesday, May 1



Any requests for rescheduling of assignments should go through Harris Student Affairs who will determine if the request is for an acceptable reason. If the Student Affairs determines that the request is for an acceptable reason then I will work out an alternative.

Empirical exercise – The final assignment will be a replication exercise 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. Students will present their 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/Weeks

The following is a list of planned topics we will discuss along with accompanying readings. 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

4/1 – Course overview and some fascinating facts

Campbell, John. 2006. "Household Finance." *The Journal of Finance*, 61(4): 1553-1604.

<https://doi.org/10.1111/j.1540-6261.2006.00883.x>

Warren, Elizabeth. 2007. "Unsafe at Any Rate." *Democracy*, No. 5.

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

Jorda, Oscar, Katharina Knoll, Dmitry Kuvshinov, Moritz Schularick, Alan Taylor, "The Rate of Return on Everything" *Quarterly Journal of Economics*. Forthcoming.

Please read the shorter policy summary:

<https://voxeu.org/article/rate-return-everything>

If you are interested, the full paper is here:

<https://www.frbsf.org/economic-research/files/wp2017-25.pdf>

Data and Replication Files:

<https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/GGDQJ>

4/3 – 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 2 – Consumption/Saving, Basic Theory

4/8 – Consumption and saving, in a perfect world

4/10 – Dealing with uncertainty



Week 3 – Consumption: Evidence and Theoretical Extensions

Problem Set #1 Distributed 4/15

4/15 – Empirical evidence on consumption, income and savings

Parker, Jonathan, Nicholas Souleles, David Johnson, and Robert McClelland. "Consumer Spending and the Economic Stimulus Payments of 2008." 2013. <https://www.aeaweb.org/articles?id=10.1257/aer.103.6.2530>

Data and programs:

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

Stephens, Mel. 2003. "3rd of the Month": Do Social Security Recipients Smooth Consumption Between Checks? *The American Economic Review*. 93(1): 253-269.

<https://www.aeaweb.org/articles?id=10.1257/000282803321455386>

Data and programs:

http://www.umich.edu/~mstep/third_data.zip

http://www.umich.edu/~mstep/third_programs.zip

Farrell, Diana and Fiona Greig. 2015. "Weathering Volatility: Big Data on the Financial Ups and Downs of U.S. Individuals." *JPMC Institute Report*.

<https://www.jpmorganchase.com/corporate/institute/document/54918-jpmc-institute-report-2015-aw5.pdf>

Gelman, Michael, Shachar Kariv, Matthew Shapiro, Dan Silverman, and Steven Tadelis. 2014. Harnessing naturally occurring data to measure the response of spending to income. *Science* 345 (6193): 212-215.

<http://science.sciencemag.org/content/345/6193/212.full>

Replication files are available here:

<https://eml.berkeley.edu/cgi-bin/HarnessingDataScience2014.cgi>

(Warning: "Big" Data, you will need ~400MB of space)

Coibion, Olivier, Yuriy Gorodnichenko and Dmitri Koustas. "Consumption Inequality and the Frequency of Purchases." 2019 Working Paper.

http://dmitrikoustas.com/CGK_inequality.pdf

I will make the CEX replication files available on Canvas.

4/17 – Consumption with incomplete/ imperfect markets

Olney, Martha. 2009. When Your Word Is Not Enough: Race, Collateral, and Household Credit. *The Journal of Economic History*. 58(2): 408-431.

<https://doi.org/10.1017/S0022050700020568>

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>

Morse, Adair. 2011. "Payday lenders: Heroes or villains?" *Journal of Financial Economics*. Vol 102(1): 28-44.

<https://www.sciencedirect.com/science/article/pii/S0304405X11000870>

Baugh, Brian. 2016. "Payday Borrowing and Household Outcomes: Evidence from a Natural Experiment." Working Paper.

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

Koustas, Dmitri. 2019. "What Can Big Data Tell Us About the Participation Decision for Gig Economy Jobs." *ASSA Papers and Proceedings*. Vol 109.

<https://www.aeaweb.org/conference/2019/preliminary/paper/25kyS7a8>

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

"Is Gig Work Replacing Traditional Employment? Evidence from Two Decades of Tax Returns" (with Brett Collins, Andrew Garin, Emilie Jackson, and Mark Payne). *SOI Working Paper* 2019.

<https://www.irs.gov/pub/irs-soi/19rpgiqworkreplacingtraditionalemployment.pdf>

Week 4 – Asset Markets and The Distribution of Wealth

Problem Set #1 Due 4/22

4/22 – Risky assets, risk tolerance, portfolio choice and asset pricing, a gentle theoretical overview

4/24 – Some real-world evidence: a) facts on stock-market participation; b) the "equity-premium" puzzle; c) implications for inequality

Kuhn, Moritz, Moritz Schularick and Ulrike Steins. Income and Wealth Inequality in America, 1949-2016. Working Paper.

https://www.dropbox.com/s/4dbkqgaxp97ddk2/Wealthinequality_June2018.pdf?dl=0

[Just have a look at the figures]

I have cleaned many of these underlying historical SCF data files and will be making them available on Canvas. See here for how to read the "modern" (since 1988) Survey of Consumer Finances using R:

<http://asdfree.com/survey-of-consumer-finances-scf.html>



Piketty, Thomas and Emmanuel Saez. 2003. "Income Inequality in the United States, 1913-1998." *Quarterly Journal of Economics*. 118(1): 1-39.
Access it here for data: <https://eml.berkeley.edu/~saez/>
More data here: <https://wid.world>

Week 5 – Review and Midterm

4/29 – Review

5/1 – Midterm

Week 6 – Investing in your human capital and the student loan market

5/6 – a) Modeling schooling investments; b) credit 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)

5/8 – a) Evidence on the returns to college; b) 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/>

Looney, Adam and Constantine Yannelis. 2015. "A crisis in student loans? How changes in the characteristics of borrowers and in the institutions they attended contributed to rising loan defaults." *Brookings Papers on Economic Activity*.
<https://www.brookings.edu/wp-content/uploads/2015/09/LooneyTextFall15BPEA.pdf>

A partial replication dataset is available here:

<https://www.brookings.edu/wp-content/uploads/2015/09/Looney-Yannelis-Data-Appendix-5-31-16.zip>

"Mobility Report Cards: The Role of Colleges in Intergenerational Mobility"
http://www.equality-of-opportunity.org/assets/documents/coll_mrc_paper.pdf

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

<http://www.equality-of-opportunity.org/data/>



Week 7 – Housing investment, the mortgage market, and the 2007-9 Financial Crisis

Problem Set #2 Distributed 5/13

5/13 – a) overview of mortgages

5/15 – a) Facts on homeownership in the U.S. b) the government policy landscape
c) the role of housing in the 2007-9 financial crisis

This is incredibly prophetic (look at the date):

Shiller, Robert J. 2006. "Long-Term Perspectives on the Current Boom in Home Prices." *The Economists' Voice*. 3 (4).

DOI:10.7312/columbia/9780231143653.003.0033

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

<http://www.econ.yale.edu/~shiller/data.htm>

Mian, Atif and Amir Sufi. 2014. "What Explains the 2007-2009 Drop in Employment" *Econometrica*, 82: 2197-2223.

See here for the replication kit:

<https://faculty.chicagobooth.edu/amir.sufi/chronology.html>

Parman, John and Trevon Logan. 2017. "Segregation and Homeownership in the Early Twentieth Century." *American Economic Review Papers and Proceedings*. 107 (5): 410-414.

<https://www.aeaweb.org/articles?id=10.1257/aer.p20171081>

For replication files for the segregation measure, see here:

<https://jmparman.people.wm.edu/dataandcode.html>

You will also need the full-count 1880 census:

https://usa.ipums.org/usa/complete_count.shtml

Also see:

"How Redlining Segregated Chicago, and America"

<https://www.chicagomag.com/city-life/August-2017/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>



5/20 – a) The neo-classical model of retirement savings; b) insights from behavioral economics

Problem Set #2 Due 5/22

5/22 – Empirical evidence

“Report on the Economic Well-Being of U.S. Households in 2017 - May 2018”
<https://www.federalreserve.gov/publications/2018-economic-well-being-of-us-households-in-2017-retirement.htm>

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

Benartzi, Shlomo and Richard H. Thaler. 2013. “Behavioral Economics and the Retirement Savings Crisis.” *Science* 333.
<http://science.sciencemag.org.proxy.uchicago.edu/content/sci/339/6124/1152.full.pdf>

“Can you really ‘nudge’ savings?”
<https://www.politico.com/agenda/story/2018/06/07/can-millennials-save-retirement-000665>

Week 9 – A Brief Introduction to Computational Methods

5/27 – Memorial Day, No Class

5/29 – Gentle overview of Computational Methods and Toolkits
<https://econ-ark.org/notebooks/>

Week 10 - In-Class Presentations of Replication Exercises

6/3 – No class, please work on your presentations

6/5 – **Presentations, 5-8:30PM, Room TBA**