October 17, 2022

Sean McCrary

www.seanmccrary.com
smccrary@sas.upenn.edu

UNIVERSITY OF PENNSYLVANIA

Placement Director: Iourii Manovskii MANOVSKI@ECON.UPENN.EDU 215-898-6880
Placement Director: Holger Sieg HOLGERS@ECON.UPENN.EDU 215-898-7194
Graduate Student Coordinator: Gina Conway GNC@SAS.UPENN.EDU 215-898-5691

Office Contact Information
Department of Economics
University of Pennsylvania
133 South 36th Street, office 635
Philadelphia, PA, 19104

Citizenship
United States

Undergraduate Studies
B.S. Economics, University of Missouri, 2013

Masters Level Work
M.A. Statistics, University of Missouri, 2015
M.A. Economics, University of Missouri, 2015

Graduate Studies
University of Pennsylvania, 2017 to present
Thesis Title: *"Essays in Labor and Macroeconomics"*
Expected Completion Date: May 2023

Thesis Committee and References

José-Víctor Ríos-Rull (advisor)
Department of Economics
University of Pennsylvania
133 South 36th Street, office 516
Philadelphia, PA 19104
vr0j@econ.upenn.edu
+1 (215) 898-7701

Iourii Manovskii
Departments of Economics
University of Pennsylvania
133 South 36th Street, office 518
Philadelphia, PA 19104
manovski@econ.upenn.edu
+1 (215) 898-6680

Benjamin Lester
Research Department
Federal Reserve Bank of Philadelphia
10 Independence Mall
Philadelphia, PA 19106
benjamin.lester@phil.frb.org
+1 (215) 574-6272

Research Fields

Macro, labor, and computational economics

Teaching Experience

Fall 2018, Spring 2019, Fall 2021	Introduction to Microeconomics, TA for Dr. Anne Duchene
Fall 2019, Spring 2020, Fall 2020	Statistics for Economists, TA for Dr. Karun Adusumilli
Fall 2020	Labor Economics, TA for Professor Andrew Shephard
Spring 2021, Spring 2022	Statistics for Economists, TA for Dr. Wayne Gao

Relevant Experience

Summer 2019	Research Intern, Federal Reserve Bank of Philadelphia
2015-2017	Research Associate, Federal Reserve Bank of Richmond

Professional Activities

Referee Experience

International Economic Review (3x)

Conferences and Seminars

NBER Summer Institute (Dynamic Equilibrium Models) (2022), Computational Economics and Finance (2022), UC Boulder Macro Brown Bag (2022, scheduled), UPenn Macro Lunch (2022, 2020)

Honors, Scholarships, and Fellowships

Society for Computational Economics 2022 Graduate Student Prize for the paper "*Finite State Markov Chain Approximations: A Hidden Markov Approach"*

2017 University Fellowship, University of Pennsylvania

Working Papers

"A Job Ladder Model of Firm, Worker, and Earnings Dynamics (Job Market Paper)

This paper proposes a multiworker firm model with on-the-job search and decreasing returns-to-scale production. A coalition wage bargaining solution between a firm and its incumbent workers yields tractability, results in privately efficient recruiting decisions, and delivers an explicit expression for the wage function. I show how a calibrated version of the model can replicate untargeted empirical facts on the cross-sectional dispersion in firm growth and on measured elasticities of separation rates, quitting rates and vacancy duration with respect to wages. The model delivers net poaching rates by firm size and firm wage and can rationalize the absence of a firm size ladder and the presence of a wage ladder. In terms of business cycles, the model can replicate the cyclical properties of job flows and workers flows, and the elasticity of the wages of new hires relative to existing workers with respect to unemployment.

"Finite-State Markov-Chain Approximations: A Hidden Markov Approach", with Eva F. Janssens.

This paper proposes a novel finite-state Markov chain approximation method for Markov processes with continuous support. The method can be used for both uni- and multivariate

processes, as well as non-stationary processes such as those with a life-cycle component. The method is based on minimizing the information loss between a misspecified approximating model and the true data generating process. The method outperforms existing methods in several dimensions, including parsimoniousness. We compare the performance of our method to existing methods through the lens of an asset-pricing model, and a life-cycle consumption-savings model. We find the choice of the discretization method matters for the accuracy of the model solutions, the welfare costs of risk, and the amount of wealth inequality a life-cycle model can generate.

Work in Progress

"Unemployment Take-Up and Labor Search"

The quantitative implications of counter-cyclical unemployment benefit take-up are evaluated in a real business cycle model with labor market search. Combining data from the Department of Labor (DOL) and the Survey of Income and Program Participation (SIPP), I document that recipients of unemployment benefits take longer to regain employment than non-recipients. I embed a take-up decision in an otherwise standard real business cycle labor search model. The lower job-finding rate of recipients coupled with the share of recipients rising during recessions provides a significant amplification channel for movements in labor productivity. The model can also rationalize a take-up rate below one without assuming a stigma cost associated with receiving benefits.

"**Monetary Policy in Incomplete Market Models: Theory and Evidence**", with Marcus Hagedorn, Iourii Manovskii and Kurt Mitman

"**The Generalized Euler Equation and the Bankruptcy-Sovereign Default Problem**", with Xavier Mateos-Planas, José-Víctor Ríos-Rull and Adrien Wicht

Computer Skills

MATLAB, Stata, R, Julia