

Sun Kyoung Lee

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Academic Employment

Yale University, Postdoctoral Associate, Economic Growth Center, 2019 - Present
Opportunity & Inclusive Growth Institute, Federal Reserve Bank of Minneapolis, Visiting Scholar (Scheduled)

Education

Columbia University, Ph.D., Economics, 2012 - 2019
Columbia University, M.Phil., Economics, 2015
Columbia University, M.A., Economics, 2014
Yonsei University, B.A., Economics, 2011, Summa Cum Laude equivalent

Fields of Specialization

Urban Economics, Economic History, Transportation Economics

Working Papers

"Crabgrass Frontier Revisited in New York: Through the Lens of 21st century Data"

Abstract

Jackson's famous Crabgrass Frontier: The Suburbanization of the United States (1985) argues that when American cities suburbanized in the early nineteenth century, the richest households moved from the core to the periphery, the poorest stayed in the core, and the households that moved to the periphery were richer than those who were there before them. I study the gradual process of prewar suburbanization in America's biggest city, New York City, between 1870 and 1940. During this time there were huge transportation infrastructure improvements at both intra- and inter-city level, and there was gradual suburbanization. I construct a historical longitudinal database that follows individuals to analyze how the migration patterns differ across workers with different income (skills). Rich people on average did not leave the core and poor people on average did not stay. New suburbanites to the city periphery were not richer than the people who already lived at the periphery. Jackson's fundamental claim about the growth of high income at the edge relative to the center still holds true for my study period. However, I show the mechanism behind this change and show that this relative change in income growth at the edge did not result from a simple shuffling of rich and poor.

"European Immigrants and the United States' Rise to the Technological Frontier" with Costas Arkolakis, Michael Peters

Abstract

We study the role of European Immigration on local and aggregate economic growth in the United States between 1880 and 1920. We employ a big data approach and link, at the individual-level, information from the Population Census, the universe of patents, and millions of historical immigration records. We find that immigrants were more prolific innovators than natives, and document large differences in innovation potential across nationalities and regions in the United States. To measure the importance

of immigrants for the creation of new ideas and economic growth, we develop a new spatial model of growth through the dissemination of knowledge and workers' mobility. The model allows us to use our micro and regional empirical findings to measure immigrants' innovation human capital and the degree of knowledge diffusion which regulates scale effects. We quantitatively analyze the effects of imposing major immigration restrictions on American economic growth in the 19th and early 20th centuries. We find large, accumulating losses from these restrictions. Both the scale effects and the exclusion of high-human capital immigrants contribute significantly to these losses.

"American Intergenerational Mobility in History and Space"

with Rodrigo Adao, Costas Arkolakis, Jack Liang

Abstract

We exploit advances in data digitization and machine learning to study intergenerational mobility in the United States before World War II. Using machine learning techniques, we construct a massive database for multiple generations of fathers and sons. This allows us to identify "land of opportunities" — locations and times in American history where kids had chances to move up in the income ladder. Our massive sample allows us to extrapolate income variation from occupations and demographic and geographic characteristics. We find that intergenerational mobility elasticity relatively stable during 1880-1940; there are regional disparities in terms of giving kids opportunities to move up, and the geographic disparities of intergenerational mobility have evolved over time. Our findings and descriptive analyses so far do *not* identify the causal mechanisms of intergenerational mobility, but we are working on evaluating the impact of policies in explaining these patterns.

Work in Progress

"Social Agglomeration Forces and the City"

with Peter Luff

Abstract

The presence of "agglomeration forces" in production markets is widely accepted and has been recently quantified in the economics literature. Social scientists have done little theoretical work, however, and even less quantitative work, on how the logic of agglomeration might also apply to social groups and the gains that people derive from their social interactions. This paper attempts to bridge this gap by modeling and measuring the benefits in terms of social prestige that arose from the spatial concentration of socialites in Manhattan in the 1920s. We formulate a model of location-based social status determination that illustrates why these benefits might make spatial concentration desirable for members of the social elite. To test the model, we draw on the 1920 and 1924 volumes of the New York Social Register, federal income tax data for New York City residents in the 1920s, and United States Federal Census records to compile a novel dataset containing demographic information, club affiliations, occupations, incomes and addresses of over 700 socially prominent men living in Manhattan in the early 1920s. Treating club memberships as a proxy for social prominence, we exploit an instrumental variable approach, using expected changes in family size as an instrument for neighborhood choice, to measure the relationship between an individual's residence relative to others in the group and his social status. Our results suggest that there are strong, statistically significant benefits in terms of social status that come with living in closer proximity to others in one's social group.

"The Impact of Rent Regulations in the 1920s New York City: External Effects and Property Prices"

with Maximilian Guennewig-Moenert, Ronan Lyons

Abstract

In April 1920 New York City introduced the first rent control laws in the United States. The policy provides a new type of rent control which has not been studied previously. While rent increases of more than 25 percent per year were banned, the main effect of the controls was to give judges, who were elected by municipal district, the ability to evaluate on a case-by-case basis whether a rent increase was "reasonable". A judge could reinstate the previous rent or grant tenants stays of up to one year under

the old rent. This gave the judges *de facto* discretionary authority over rents, since “reasonableness” was in practice *not* bound to the 25 percent rule, meaning the intensity of the policy could vary by judge. We digitize data on conveyances and recorded leases from archives and listed rents from newspaper ads, to build a novel database of housing market outcomes for New York City from 1918 to 1935. We also assemble a judge-level dataset, including political affiliation from the NYC Official City Directory, newspaper articles and information contained in the federal US census, including personal background, exploiting their parents’ birthplace as an instrument for political affiliation. We then implement different approaches to assess the impact of rent control policy on housing market outcomes: a standard difference in differences approach; a spatial regression discontinuity design; and an instrumental variable strategy.

Grants

National Science Foundation “RIDIR: A Big Data Approach to Understanding American Growth” (\$1,004,899), co-Principal Investigator, joint with Costas Arkolakis and Michael Peters, Proposal No: 1831524, 2018-2022

Kauffman Foundation National Bureau of Economic Research Entrepreneurship Grant (\$20,000), co-Principal Investigator, joint with Costas Arkolakis and Michael Peters, July 2017 - June 30, 2018

National Science Foundation Doctoral Dissertation Research in Economics: Urban Transit Infrastructure and the Growth of Cities (\$18,240), Proposal No: 1658827, 2016-2018, co-Principal Investigator, Doctoral Advisor: Donald R. Davis

the American Real Estate and Urban Economics Association, Graduate Study Award, 2017

Program for Economic Research Data Grant (\$5,000), Columbia University, 2016

International Seminar Data Grant, Columbia University, 2016

Travel Data Grant, Columbia University, 2016

Honors, Awards, and Affiliation

2019 IPUMS Research Award (The IPUMS USA): “Crabgrass Frontier Revisited in New York: Through the Lens of 21st-century Data”

the Alice Hanson Jones Fellowship for Economics and History, 2017-2018

C. Lowell Harriss Dissertation Fellowship Program, Lincoln Institute of Land Policy, 2017

Economic History Association Graduate Fellowship, 2017

Doctoral Dissertation Fellowship, Columbia University, 2017-2018

Doctoral Research Fellow, Furman Center for Real Estate and Urban Policy at New York University, 2014- 2015

Pre-Doctoral Fellowship, Furman Center for Real Estate and Urban Policy at New York University, Fall 2015

Kwanjeong Educational Foundation Fellowship, 2012-2016

Fulbright Graduate Study Award, 2011 (declined)

United States Department of State Fellowship, 2009

University of Chicago, Study of the United States Institute for Korean Undergraduate Leaders Program, Sponsored by the Bureau of Educational and Cultural Affairs U.S. Department of State, Jan 2009-Feb 2009

Korea Foundation for Advanced Studies Special Scholarship for Undergraduate Students, 2009-2011

Yonsei University, Department of Economics: Highest Honors Student Award (Fall 2008), High Honors Student Award (Spring 2007, Fall 2007), Honors Student Award (Spring 2009, Fall 2009)

Yonsei University "Freedom Scholarship" Department of Economics, 2007-2011

Brain Korea 21 Scholarship, Sep 2011-May 2012

Bank Of Korea Scholarship, Mar 2009-Aug 2009

Teaching Experience:

Yale University, Department of Economics

Undergraduate Economics of Cities, Econ 428, Spring 2021, Spring 2022 (scheduled)

Columbia University, Department of Economics

Undergraduate Corporate Finance, Professor Tri Vi Dang, Fall 2017

Undergraduate Urban Economics, Professor Brendan O'Flaherty, Fall 2016

Master International Economics, Professor Donald R. Davis, Summer 2016

Undergraduate Economics of New York City, Professor Donald R. Davis, Spring 2016, Fall 2014

Undergraduate Public Finance, Professor Francois Gerard, Spring 2015

Undergraduate Intermediate Microeconomics, Professor Jonathan Vogel, Spring 2014

Undergraduate Intermediate Microeconomics, Professor Steven Olley, Fall 2013

Yonsei University, Department of Economics

Graduate Microeconomics 1, Professor Sunku Hahn, Fall 2010, Spring 2011

Undergraduate Law and Economics, Professor Sunku Hahn, Fall 2010, Spring 2011

Undergraduate Game theory, Professor Sunku Hahn Fall 2011, Spring 2012

MBA Game Theory and its Economic Applications, Professor Sunku Hahn, Fall 2011, Spring 2012

Seminar and Conference Presentations:

2021 Oxford, Yale SOM Finance, SAET (scheduled)

2020 Bank of Mexico, RIDGE Virtual Forum Economic History workshop

2019 Society for Economic Dynamics, Social Science History Association, Yale University, Yonsei University, The Korean Economic History Society, Seoul National University, Chung-Ang University, Korea University, Korea Development Institute

2018 WEHC, Rutgers University

2017 AREUEA-ASSA Chicago, NYU Interdisciplinary Perspectives on Urban Infrastructure Conference, SAET, NBER Summer Institute Development of American Economy

Professional Activities

2020-2021 Co-organizer of Economic History Lunch, Yale

Research Experience

Columbia University, Department of Economics Jan 2014 - Sep 2015

Research Assistant for Professor Donald R. Davis

Yonsei University, Department of Economics May 2010-August 2012

Research Assistant for Professor Changyoung Jeong, former President of Yonsei University
Research Assistant for Professor Sunku Hahn

Computer Skills

STATA, R, SQL, ArcGIS, QGIS, Python, CartoDB, Tableau

References

Donald R. Davis (Primary)
Ragnar Nurkse Professor of Economics
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