SHMUEL SAN

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The Hebrew University of Jerusalem, Jerusalem 91905, Israel

ACADEMIC APPOINTMENT

The Hebrew University of Jerusalem 2021 -
Assistant Professor

EDUCATION

New York University 2021
PhD in Economics

The Hebrew University of Jerusalem 2014
MA in Economics

Bar Ilan University 2005
BS in Mathematics

PROFESSIONAL ACTIVITIES

Presentations (+ means scheduled)

2022: UCL$^+$

2021: TAU (econ), Oslo, IIES, ZEW (social mobility workshop), EHS, RES, EBRD King's College London (migration workshop), Migration and Organizations Conference, IZA Migration Meeting, SOLE, IZA Labor Market Institutions Workshop$^+$, EALE$^+$, EHA$^+$, Helsinki GSE$^+$

2020: NBER SI (DAE poster session), BIU (business), TAU (public policy), EGSC, NEUDC, Hebrew U (agriculture), EPFL, PhDEVS, Hebrew U (public policy), Hebrew U (econ), FSU, BGU, Haifa, TAU (business), EHA Israel, Econometric Society European Winter Meeting, Collegio Carlo Alberto (PhD workshop), IDC, BIU (econ), Hebrew U (business)

2019: SOLE

2018: AASLE (Seoul), EMCON (Northwestern), Warwick (PhD workshop)

2017: EHA (poster session), YES (Yale)

Referee

The Review of Economic Studies, *The Review of Economics and Statistics*, *Journal of Economic Geography*

HONORS, SCHOLARSHIPS, AND FELLOWSHIPS

NYU Dean's Dissertation Fellowship	2020-2021
Economic History Association Graduate Fellowship	2019
The Institute for Humane Studies Fellowship	2019-2021
Best Third-Year Paper Award, NYU	2018
Provost's Global Research Initiatives Fellowship, NYU Tel-Aviv	2018-2021
Exploratory Travel and Data Grant, Economic History Association	2018
MacCracken Fellowship, NYU	2015-2020
Rector's Award for Outstanding Students, The Hebrew University	2011-2012

Dean's Award for Outstanding Students, The Hebrew University 2011-2012

Merit Scholarship for MA Research Students, The Hebrew University 2011-2013

WORKING PAPERS

"Who Works Where and Why? Parental Networks and the Labor Market"

Social connections are valuable for workers entering the labor market, both because they may increase the likelihood of knowing about a job opening at a specific firm and because they may increase the likelihood of being hired, conditional on knowing about an opening. Using data from Israel and relying on identifying variation from the timing of job movements of parents' coworkers, I find that workers are three to four times more likely to find employment in firms where their parents have professional connections than in otherwise similar firms. I use the same variation to structurally estimate a matching model of the labor market with search frictions, and find that connections double the probability of meeting and increase by 35% the likelihood of being hired after meeting. The estimated value of one additional meeting with a connected firm is 3.7% of the average wage, with around 2/5 of the increase coming from the direct value of a connection. Connections matter for inequality; I find that the wage gap between Arabs and Jews decreases by 12% when equalizing the groups' connections, but increases by 56% when prohibiting the hiring of connected workers. These seemingly opposing results are explained by the fact that Arabs have connections to lower-paying firms but use their connections more extensively.

"Labor Supply and Directed Technical Change: Evidence from the Abrogation of the Bracero Program in 1964". Revised and resubmitted to *AEJ: Applied Economics*.

This paper studies the impact of labor supply on the creation of new technology, exploiting a large exogenous shock to the US agricultural labor supply caused by the termination of the Bracero agreements between the US and Mexico at the end of 1964. Using a text-search algorithm allocating patents to crops, I show a negative labor-supply shock induced a sharp increase in innovation in technologies related to more affected crops. The effect is stronger for technology related to labor-intensive production tasks. Farm-value dynamics indicate that, despite the positive technology reaction, the policy change was undesirable for farm owners.

"Immigration, Science, and Invention: Evidence from the Quota Acts" (with Petra Moser). Revision requested at *Econometrica*. .

Immigration quotas in the 1920s targeted "undesirable" nationalities to stem the inflow of low-skilled Eastern and Southern Europeans (ESE). Detailed biographical data for 91,638 American scientists reveal a dramatic decline in the arrival of ESE-born scientists after the quotas. Under the quotas, an estimated 1,165 ESE-born scientists were lost to US science. To identify effects on invention, we use k-means clustering to assign scientists to unique fields and then compare changes in patenting by US scientists in the pre-quota fields of ESE-born scientists with changes in other fields where US scientists were active inventors. Baseline estimates imply a 68% decline in invention. Decomposing this effect, we find the quotas reduced both the number of US scientists working in ESE fields and the number of patents per scientist. Firms that employed ESE-born scientists experienced a 53% decline in invention. The quotas' effects on invention persisted into the 1960s.

"The Role of Firms in the Assimilation of Immigrants" (with Jaime Arellano-Bover)

This paper studies the role of firms in immigrants' labor market assimilation. We do so in the context of a large and sudden international migration shock: the arrival of nearly 1 million former Soviet Union (FSU) Jews to Israel in the 1990s. We use newly available Israeli population employer-employee data with information on workers' place of birth and migration year. Over the course of 25 years since arrival to Israel, immigrants gradually entered higher-paying, larger, older, and less segregated firms. Gradual access to higher-paying firms explains a significant fraction of immigrants' labor market assimilation. Firm-specific pay premiums account for (i) 20%-32% of the immigrant-native salary differential in the first 20 years since arrival and (ii) 28% of the gap between immigrants' own salary 1 and 25 years since

arrival. FSU immigrants, who were highly educated, surpass natives after 20 years in Israel in terms of their employers' pay premiums, size, and age. An implication of our findings is that a significant fraction of the immigrant-native wage gap, especially shortly after arrival, is due to labor market rents as opposed to workers' underlying productivity differences.

WORK IN PROGRESS

"Discrimination and the Gender Gap in Wages" (with Eric Gould and Maor Milgrom)

"Social Networks and the Flow of Ideas: Evidence from Israeli Startups"

MISCELLANEOUS

Software: C++, Python, R, Matlab, Stata

Languages: English (Fluent), Hebrew (Native)

Birth Year: 1986

Citizenships: Israel, Austria