



Federal Housing Finance Agency

Remarks on: “the great reshuffle: Residential sorting during the covid-19 PanDemic and its welfare Implications”

MATTHEW SUANDI

FHFA, DIVISION OF RESEARCH AND STATISTICS

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Paper Summary

- This paper studies the welfare implications of pandemic-related migration
- Using an instrumental variables approach to test the predictions of a model of spatial equilibrium, the authors find:
 1. Spatial sorting of income driven by Work From Home (WFH) adoption
 2. Dampened inequality relative to a counterfactual of no migration

Data Sources

- Individual migration decisions: Federal Reserve Board of New York Consumer Credit Panel
- Google Mobility Index
- American Community Survey
- CoreLogic & Zillow Home Price/Rental Indices
- Quarterly Census of Employment and Wages
- Burning Glass/LightCast

WHO IS MISSING FROM THIS DATA?

- Consumer Credit Panel data will not capture individuals who have no credit history
- These individuals will tend to be lower-income and it is unclear what our priors over their migration rates should be
 - What are the implications for the authors' estimates if they are systematically overestimating low-income individuals' migration propensities?
 - Are their additional sensitivity analyses or robustness checks they can do to convince the reader this missing data is immaterial?

Model hypotheses

- High-income workers experience the largest increase to their job market access through WFH
- Movement of jobs across space implies:
 - Low-income commuters in suburbs experience a boost to job market access
 - Low-income commuters in cities experience a decline to job market access

Key EQUATIONS FOR THE MODEL

$$r_{j(l)t} = \alpha_{rt} + \psi_{j(l)} y_{j(l)t} + \eta_{j(l)t}. \quad (1)$$

$$w_{j(l)t}^k = \iota_{wt}^k + \xi_y^{wk} y_{j(l)t} + \zeta_{j(l)t}^{wk}, \quad k = H, L, \quad (2)$$

$$\ln N_{j(l)t}^k = \iota_{nt}^k + \xi_y^{nk} y_{j(l)t} + \zeta_{j(l)t}^{nk}, \quad k = H, L, \quad (3)$$

- These equations describe the relationships between:
 1. Rents r and aggregate income y
 2. Wages w and aggregate income y
 3. Number of jobs N and aggregate income y
- Where y is approximated by summing the product of the number of high-income residents with \$65,486.16 and the number of low-income residents by \$26,505.74.

Identification Assumption

- Income, Wages, and Employment are endogenous to aggregate income
- Authors create an IV: the interaction of group-specific shares of pre-pandemic telework jobs and the number of telework-compatible jobs
- The identification conditions here are that:
 - a) Spatial variation in telework-potential is **correlated** with rents, wages, and employment
 - b) Spatial variation in telework potential is **uncorrelated** with all other factors that may shift local wages and employment demand other than through out-migration

Is identification credible?

- Concern: spatial variation in telework potential may have trended differently across MSAs pre-pandemic
 - Suggestion: define “treatment” and “control” MSAs and observe how telework potential was evolving before 2019
- Concern: stringency of pandemic restrictions is correlated with income, wages, and employment *and* pre-pandemic telework potential
 - Suggestion: Restrict sample to each of low- and high-stringency states, re-estimate model, and compare results