

Optimal Spatial Policies

Geography and Sorting

AUTHORS: **CECILE GAUBERT**, University of California, Berkeley & **PABLO FAJGELBAUM**, University of California, Los Angeles

BACKGROUND

Economic activity and population density are highly unequal across different geographical locations. Governments implement a variety of transfers between these locations—through policies that are explicitly “place-based,” but also through the federal tax and benefits system that has indirect spatial effects. Dense, productive New York, for instance, pays relatively more in federal taxes than it receives in federal spending.

In this paper, Cecile Gaubert and Pablo Fajgelbaum show under what conditions the spatial distribution of economic activity can be characterized as efficient—and, what system of fiscal transfers between geographical locations can be implemented by a federal government to reach this efficient equilibrium.

In characterizing the efficient distribution of economic activity, it is important to account for the economic forces through which people affect each other when they live in

the same city. These are called spillovers:

- **Agglomeration:** Dense places are more productive because labor is divided more efficiently and ideas flow more freely
- **Congestion:** Dense places are congested, both literally and through higher housing prices
- **Spillovers** between groups of workers: The presence of college-educated workers may affect the productivity of non-college-educated workers and vice versa. Thus, the composition of the work force may be important

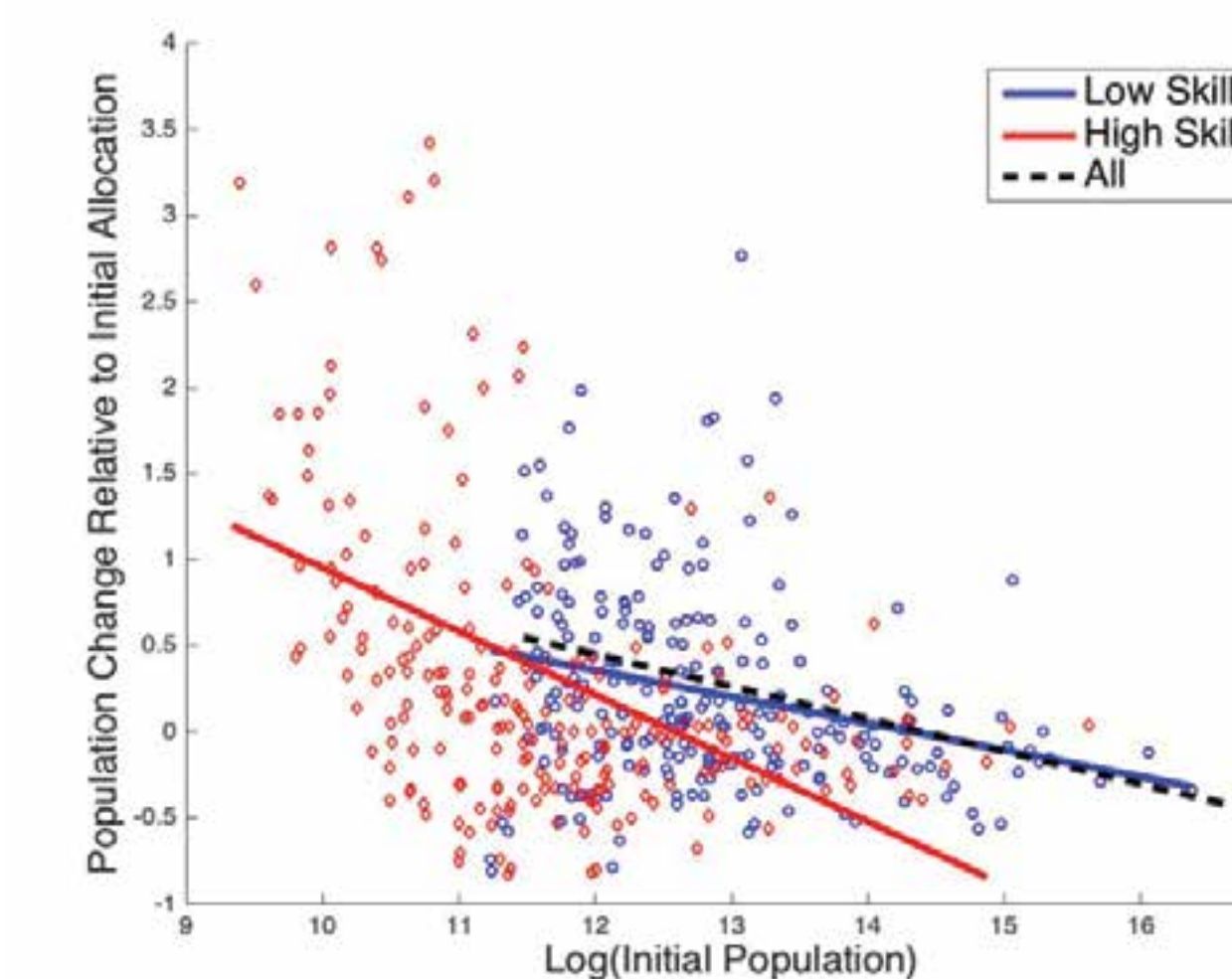
In the presence of these forces, there can be too much or not enough people from a given group of workers living in a given city. In this case, corrective taxation can give people incentives to make different location choices.

IS THE SPATIAL DISTRIBUTION OF WORKERS IN THE U.S. EFFICIENT?

The researchers took their model to rich data on labor and non-labor income of two skill groups—college and non-college educated workers—in each Metropolitan Statistical Area of the United States and city-level transfers from the Bureau of Economic Analysis. To parametrize the strength of the different spillovers, they rely on existing estimates in the literature.

They find that, compared to the optimal spatial allocation, there is too much concentration of economic activity in the U.S.: Big cities are too big. Moreover, this pattern is much stronger for high-skilled workers.

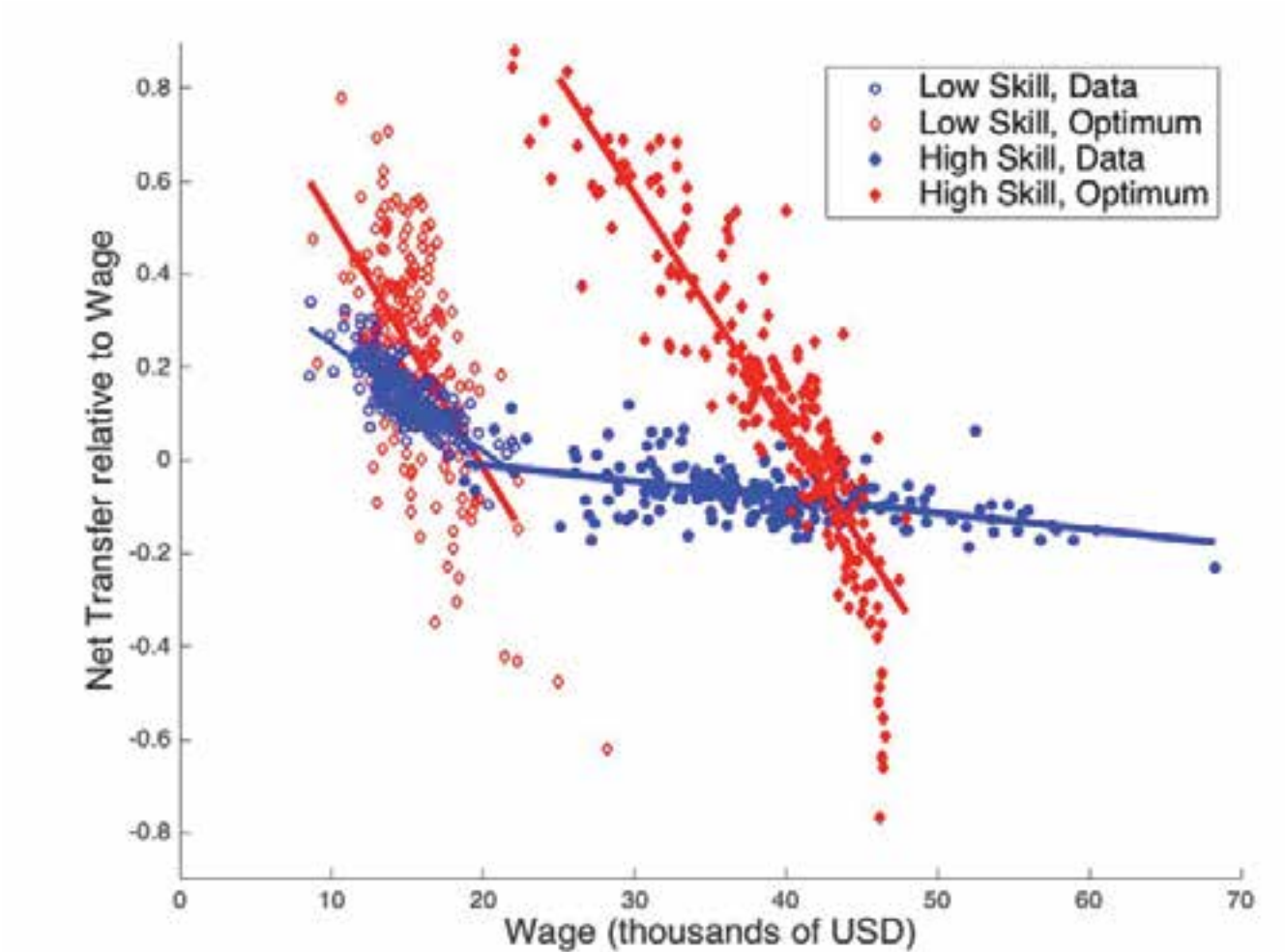
There are too many college graduates in big cities. Consequently, wage inequality in big cities is too high.



HOW COULD AN EFFICIENT ALLOCATION BE ATTAINED?

Existing transfers reallocate income from high-skilled workers and high-wage cities towards low-skilled workers and low-wage cities (shown in blue). This incentivizes particularly low-skilled workers to live in smaller, lower wage cities. This effect is less prevalent for high-skilled workers.

To alleviate the excessive concentration of college graduates in big cities, optimal transfers (shown in red) would incentivize high-skilled workers to live in smaller, lower wage cities.



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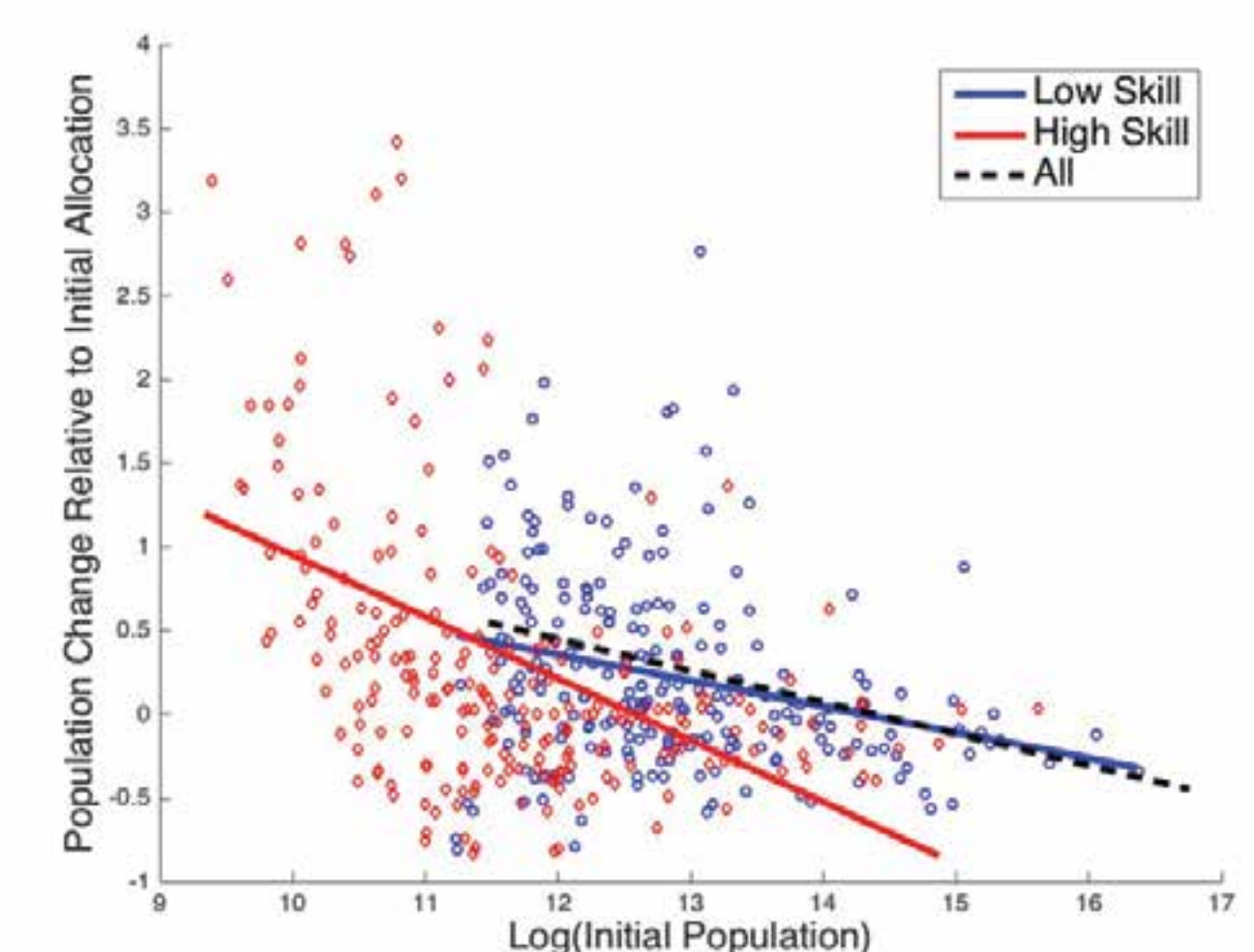
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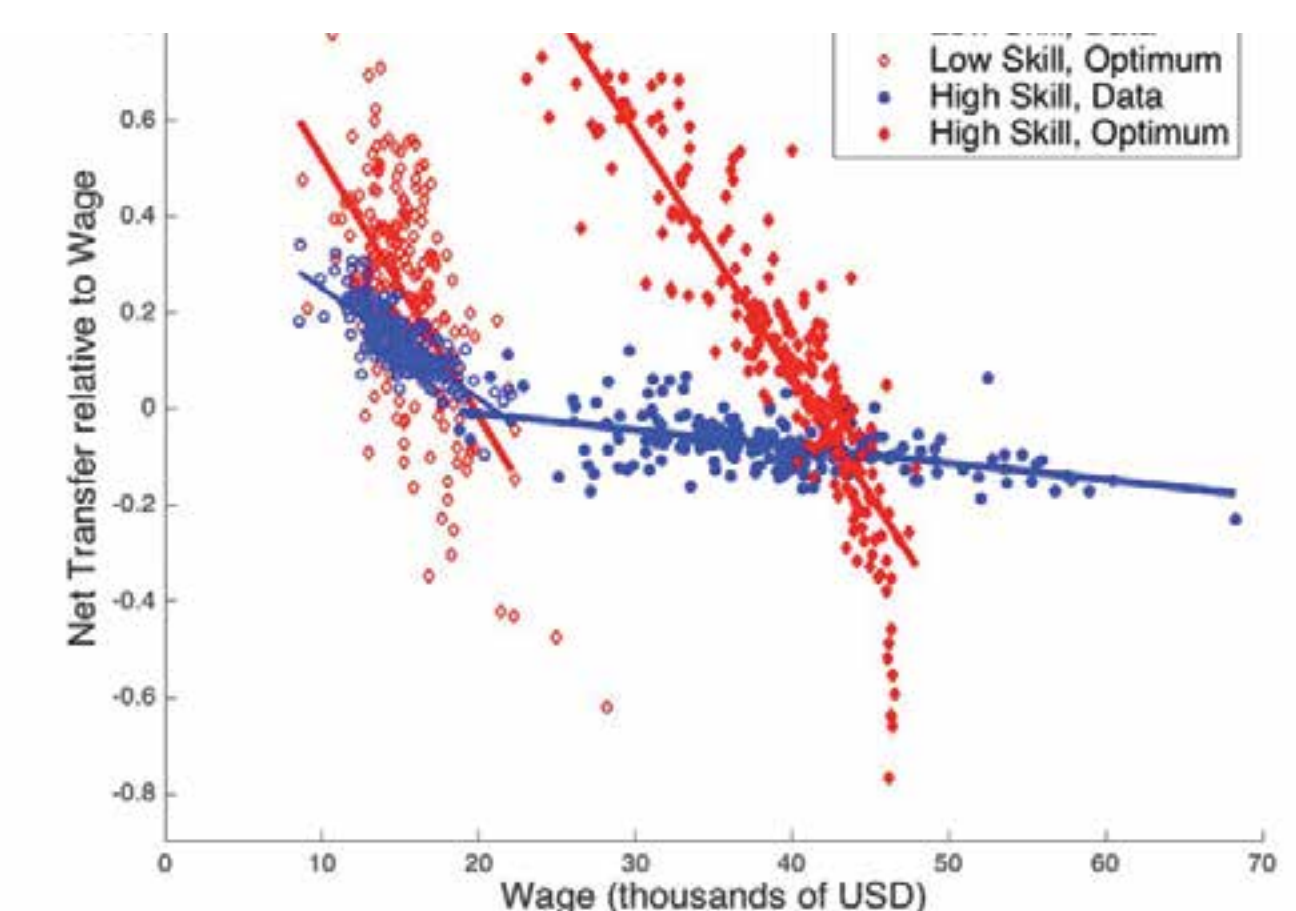
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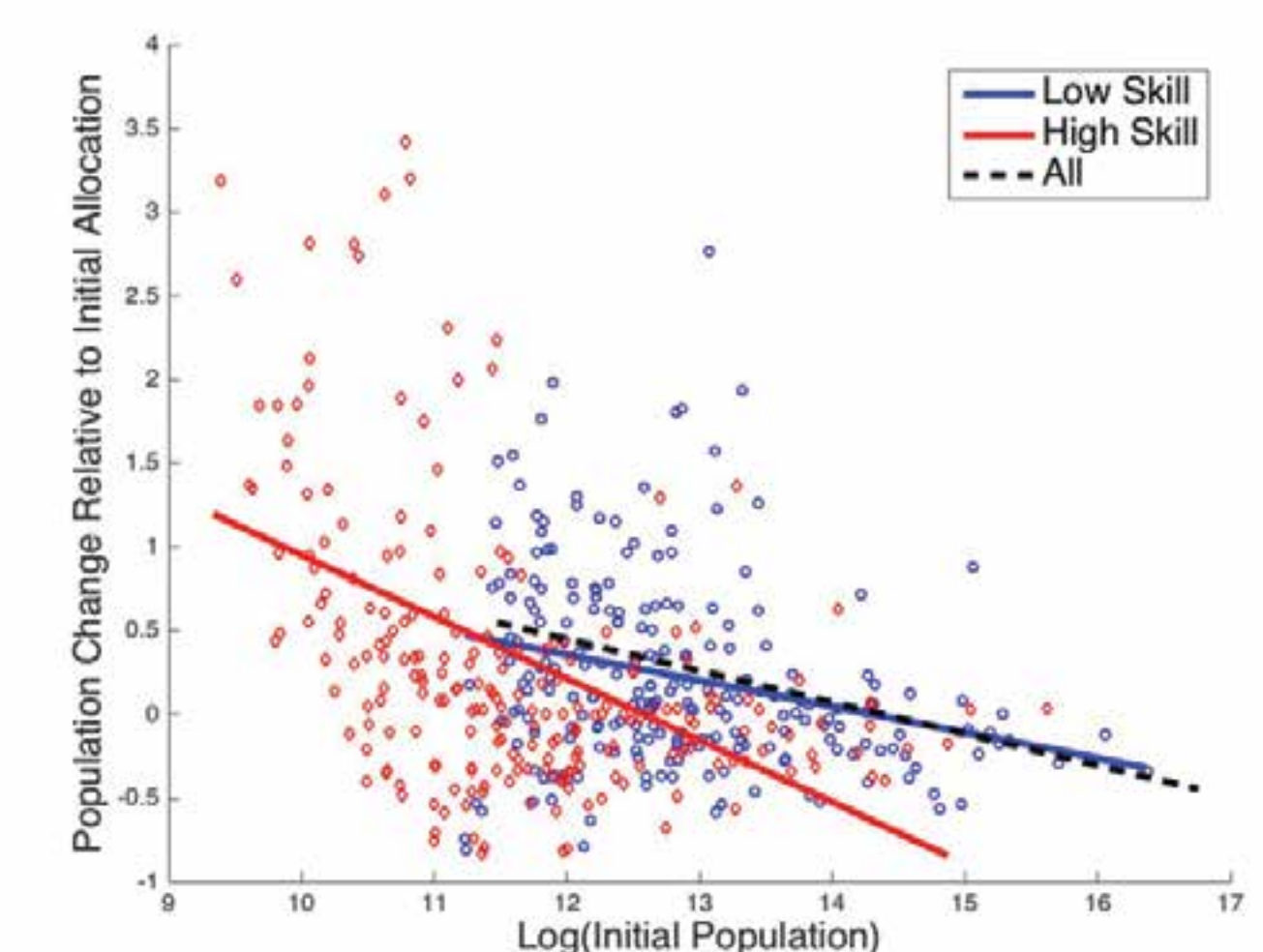
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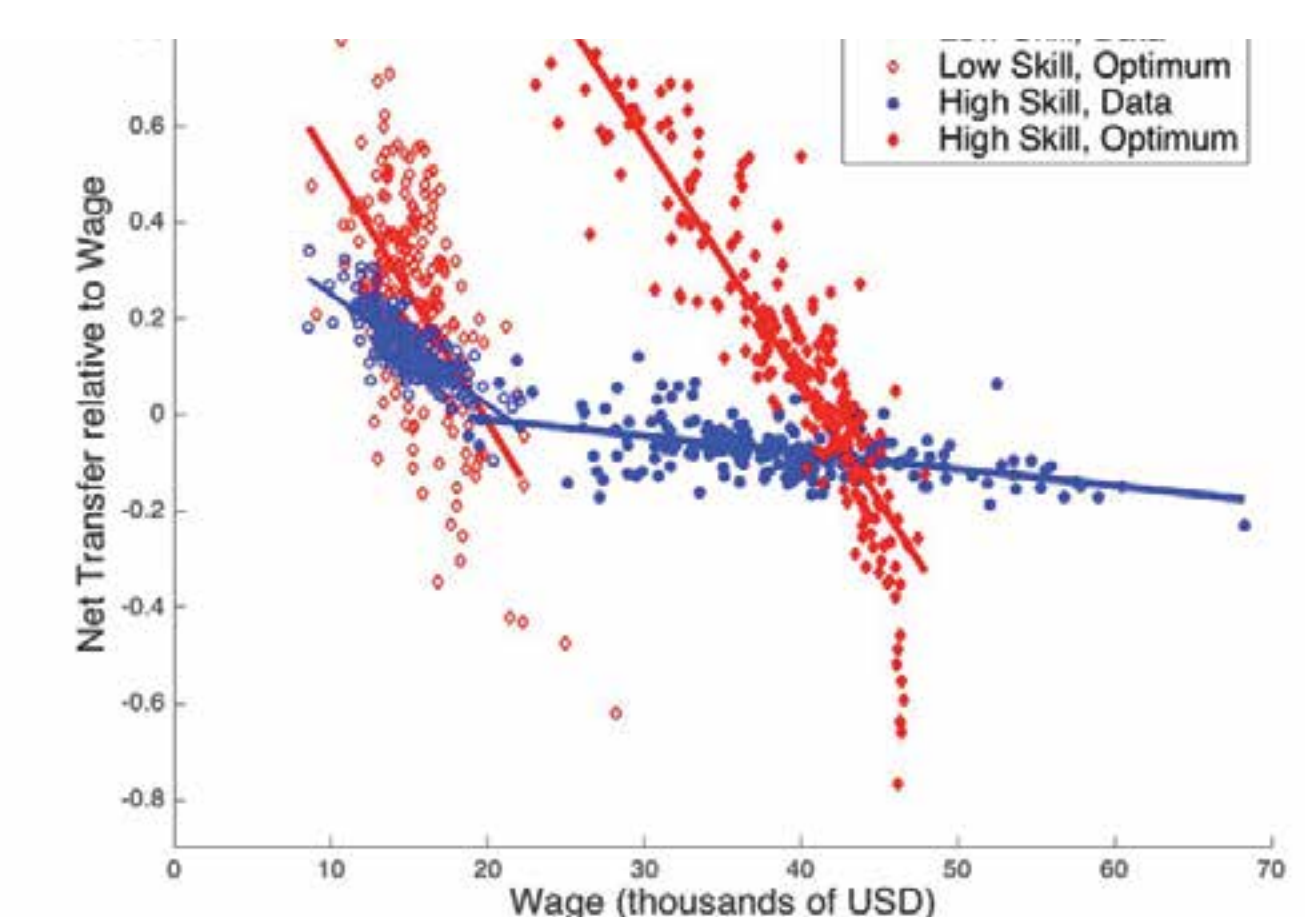
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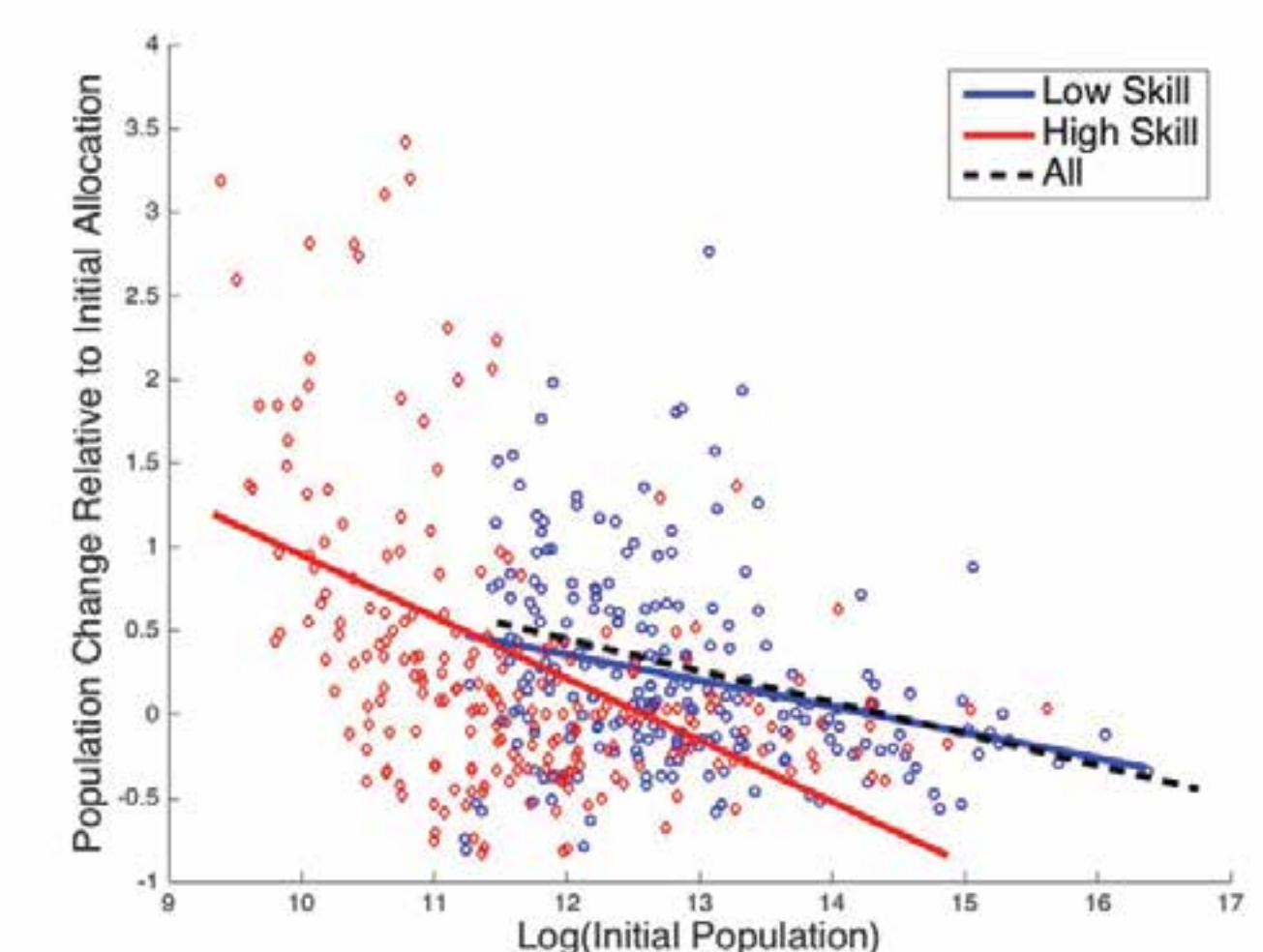
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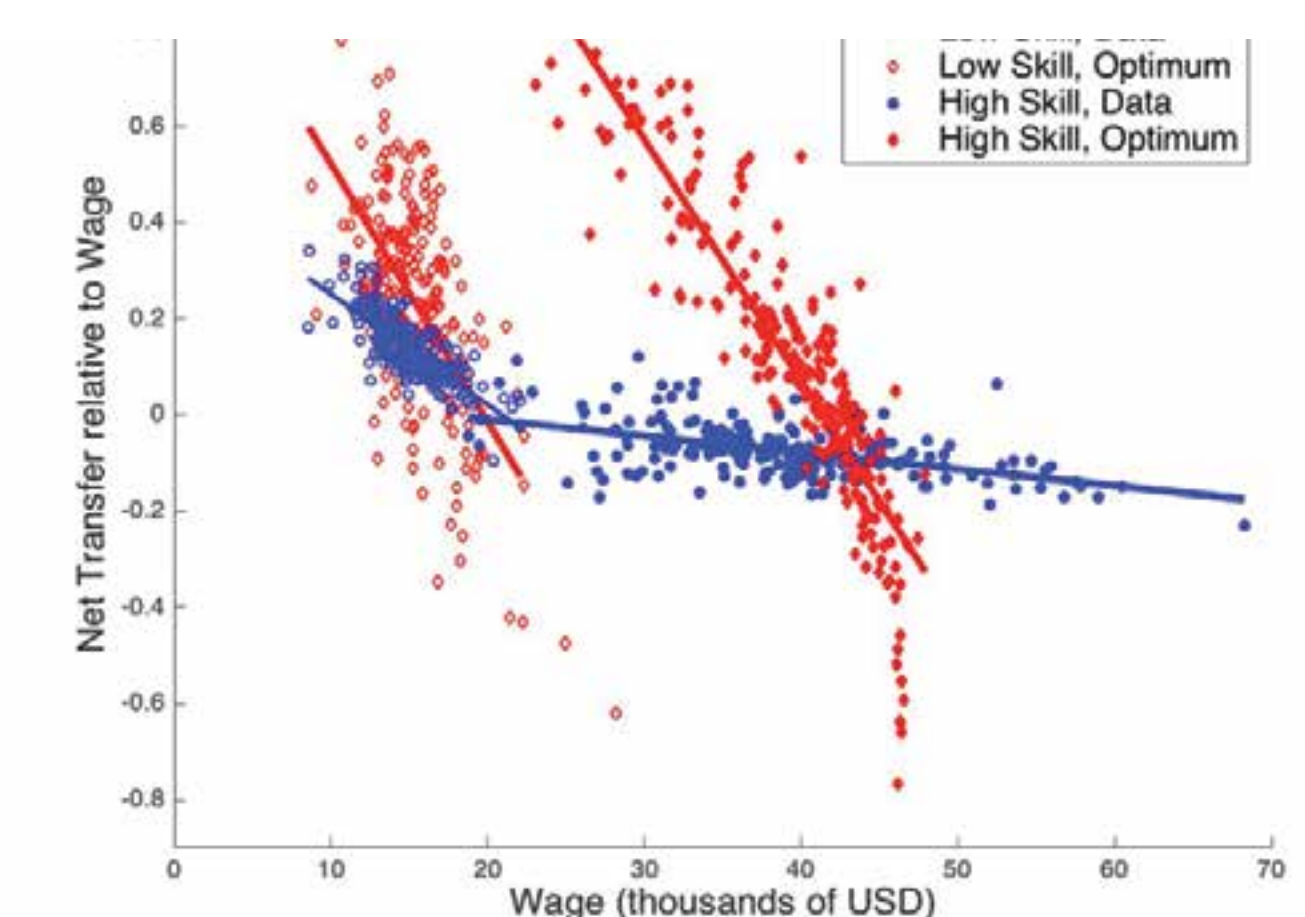
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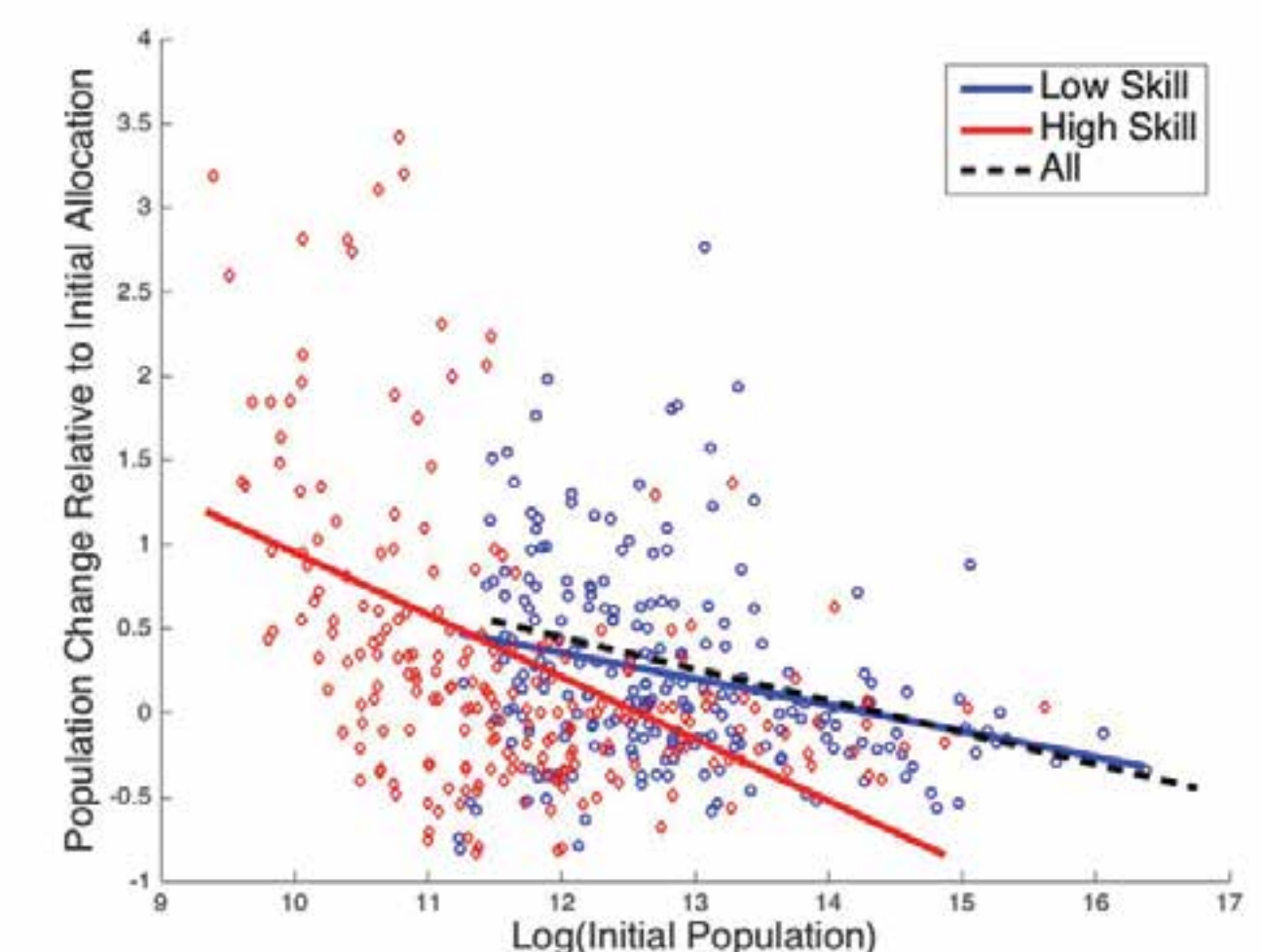
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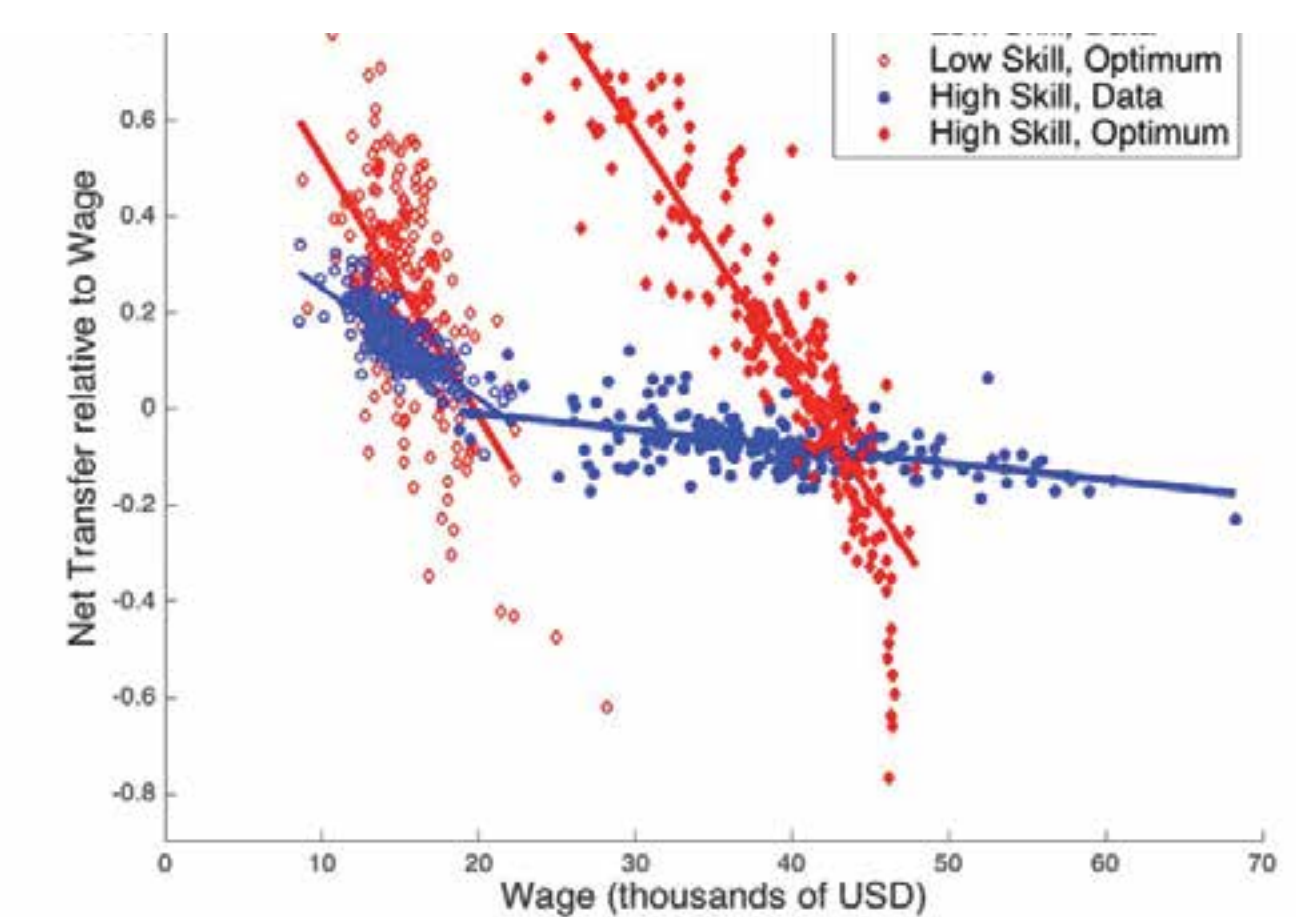
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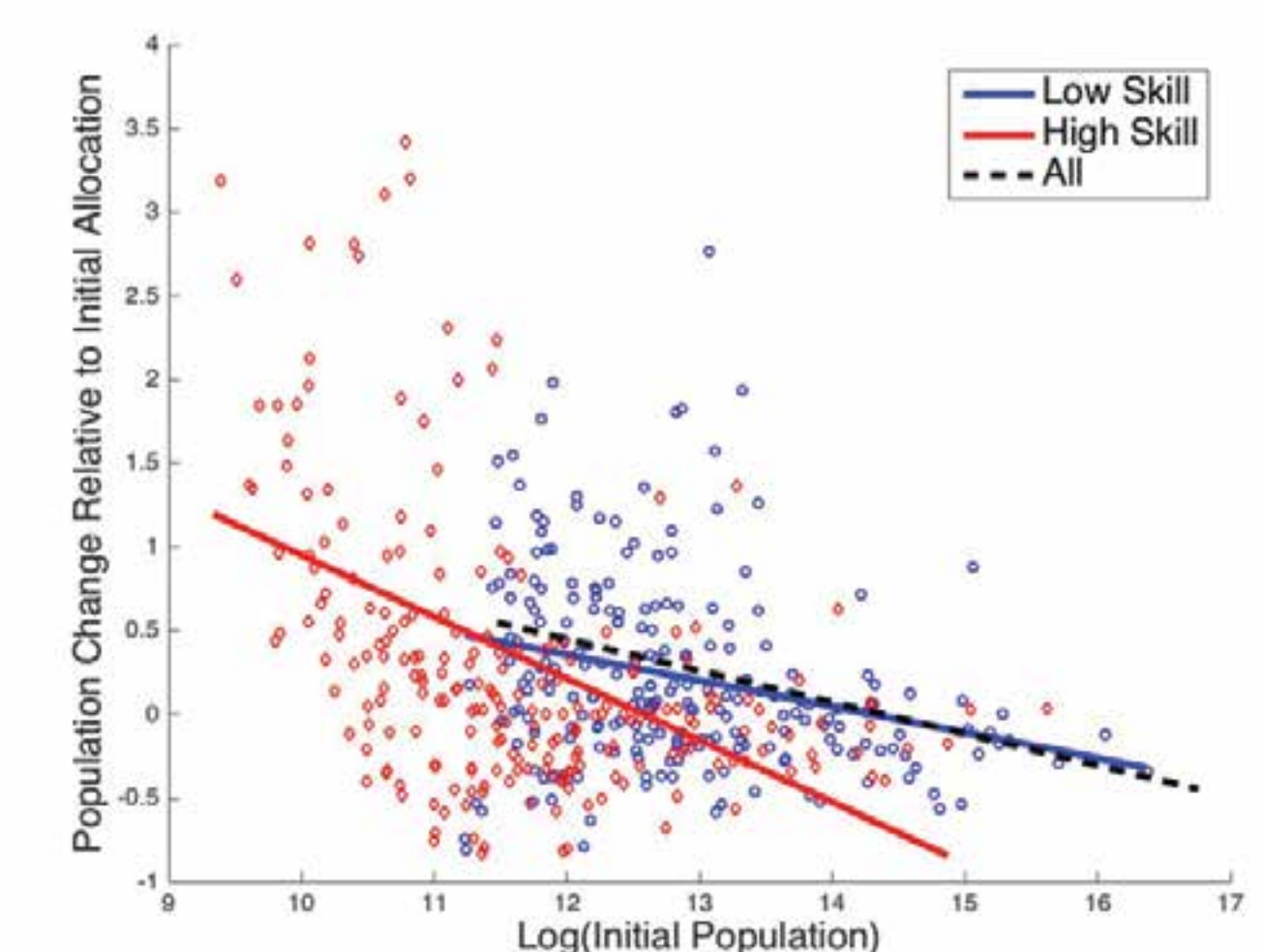
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