

Momentum Kongress Abstract

*Estimating full income distributions for US counties and
their sensitivity to Between Country Migration*

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How does internal migration affect regional income inequality? Despite growing research and interest in the field of income inequality in the US, the effect of county-to-county migration on regional income inequality remains unclear. The discussion surrounding income inequality has predominantly put emphasis on the national level and therefore focused less on disparities at the regional level (Choi and Chudik [2018](#)). Although studies (Florida and Mellander [2016](#); Firpo, Fortin, and Lemieux [2018](#)) on the determinants of regional income inequality exist, many of them did not include internal migration into their analysis. For this reason, this paper has the objective to narrow this gap and measure the effect of migration on regional income distributions. I expect that internal migration has a substantial effect on the regional income distributions, as a number of studies stresses the fact that migration is not random and often self-selected on certain characteristics (Liebig and Alfonso [2015](#); Borjas [1987](#); Kanbur and Rapoport [2015](#)). Therefore, there is no need to assume that migrants are a representative cross-section of the population and migration can change the composition of the origin or destination population (Kanbur and Rapoport [2015](#)). In addition, spatial, socioeconomic and cultural assimilation of migrants (Alba and Logan [1991](#); Charles [2003](#)) could have a major effect on the income distribution. Previous studies have pointed out that immigrants tend to choose their location similar to their socioeconomic and cultural groups, resulting in residential segregation (Iceland and Wilkes [2006](#); Charles [2003](#)). Segregation can be associated with serious drawbacks, such as poor economic performance (Cutler and Glaeser [1997](#)), concentration of poverty (Massey and Denton [1987](#)) and low academic achievement (Charles and Massey [2004](#)).

As a consequence, internal migration may lead to a considerable effect on different parts of the income distribution, which will be examined in this paper. In contrast to previous research, the focus will not be the overall effect, as migration might only influence certain parts of the distribution. Therefore, the regional income distributions will be examined at multiple percentiles, providing a more detailed insight into which aspects of the distribu-

tion are affected. I do so by recovering full income distributions from grouped income data available for US counties using state-of-the art *Generalized Pareto Interpolation* techniques (Blanchet, Fournier, and Piketty 2017). As a second step, OLS regression analysis is carried out to identify the sensitivity of internal migration on different parts of the regional income distribution. Finally, as there might be spatial dependence driving certain patterns, this relationship at different points in space will be explored by applying Geographically Weighted Regression.

I come to the conclusion that Generalized Pareto Interpolation brings relatively accurate results. The regression results indicate that the tail of the distribution is the most sensitive to migration. When separating the effect of net migration, it can be seen that the estimated coefficients of inflow is by far higher than outflow. This leads to the conclusion that inflow is the driver of the positive effect of net migration on the different percentiles of the income distribution, indicating that internal migration decreases regional income inequality within counties. However, these estimation results do not take into account any potential spatial dependence. Therefore, we additionally carry out Geographically Weighted Regression, which provides evidence that the strength and the direction of the relationship between the tail of the income distribution and net migration differs over space. The p-values as well as the coefficient estimates take on varying values at different points in space. Although the global coefficient of net migration is positive, depending on the locality positive and negative effects can be observed. Summing up, I find evidence for spatial variability regarding the relationship of net migration on the tail of the income distribution, indicating spatial dependence among counties.

References

- Alba, Richard D. and John Logan (1991). “Variations on Two Themes: Racial and Ethnic Patterns in the Attainment of Suburban Residence”. In: *Demography* 28, 431—453.
- Blanchet, Thomas, Juliette Fournier, and Thomas Piketty (2017). “Generalized Pareto curves: theory and applications”. In:
- Borjas, George (1987). “Self-Selection and the Earnings of Immigrants”. In: *American Economic Review* 77.4, 531—553.
- Charles, Camille Z. (2003). “Dynamics of Racial Residential Segregation”. In: *Annual Review of Sociology* 29, 167—207.
- Charles Camille Z., Gniesha Y. Dinwiddie and Douglas S. Massey (2004). “The Continuing Consequences of Segregation: Family Stress and College Academic Performance”. In: *Social Science Quarterly* 85, 1353—1373.
- Choi, Chi-Young and Alexander Chudik (2018). “Regional Inequality in the U.S.: Evidence from City-level Purchasing Power”. In: *American Economic Association*.
- Cutler, David M. and Edward L. Glaeser (1997). “Are Ghettos Good or Bad?” In: *The Quarterly Journal of Economics* 112.3, pp. 827–872.
- Firpo, Sergio, Nicole Fortin, and Thomas Lemieux (2018). “Decomposing Wage Distributions Using Recentered Influence Function Regressions”. In: *Econometrics* 6.28, pp. 1–40.
- Florida, Richard and Charlotta Mellander (2016). “The Geography of Inequality: Difference and Determinants of Wage and Income Inequality across US Metros”. In: *Regional Studies* 50.1, 79—92.
- Iceland, John and Rima Wilkes (2006). “Does Socioeconomic Status Matter? Race, Class, and Residential Segregation”. In: *Social Problems* 53.2, pp. 248–273.
- Kanbur, Ravi and Hillel Rapoport (2015). “Migration selectivity and the evolution of spatial inequality”. In: *Journal of Economic Geography* 5, pp. 43–57.
- Liebig, Thomas and Sousa-Poza Alfonso (2015). “Migration, Self-Selection and Income Inequality: An International Analysis”. In: *KYKLOS* 1, 125—146.

Massey Douglas S., Condran Gretchen A. and Nancy A. Denton (1987). “The Effect of Residential Segregation on Black Social and Economic Well-Being”. In: *Social Forces* 66.1, 29—56.