

Group Differences in Income Distributions, Poverty Gaps, and Poverty Buffers: Inequalities between the Children of Swedish-Born and Migrant Parents

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Abstract

Conventional approaches define income poverty as a binary status, implying that being poor or nonpoor is equivalent across groups. The authors propose a novel visualization that moves beyond head count rates to display group-specific income distributions relative to the poverty threshold, simultaneously illustrating poverty prevalence, poverty gaps, and what the authors term poverty buffers: the distance above the threshold capturing income security. The authors apply this approach to all children aged 0 to 18 years in Sweden in 2022, by mother's country of birth. The visualization reveals three patterns obscured by standard indicators. First, head count poverty rates vary dramatically, from 8 percent to 77 percent across groups. Second, average poverty gaps are surprisingly similar despite vast differences in prevalence, reflecting stark stratification by parental migration background. Third, poverty buffers reveal cumulative advantage: lower poverty rates coincide with substantially greater income security. By rendering gaps, buffers, and full distributions in a single figure, this visualization exposes dimensions of inequality that no single poverty measure captures alone.

Keywords

poverty, immigrants, income distribution, inequality, children

This article visualizes a novel conceptualization of migrant-majority group differences in income poverty in Sweden. Poverty is widely understood as a multidimensional concept, an important aspect of which is relative income poverty. This is rooted in the concept of social exclusion (Townsend 1979), which means that relative income poverty also matters for children growing up in rich societies (Cooper and Stewart 2021). Common approaches define income poverty as a binary status derived from an income distribution which naïvely implies that living poor or nonpoor is the same for all groups. This binary representation may oversimplify group differences, given that income distributions are not uniform across groups, and because living conditions likely depend on how far one's income is above ("poverty buffer") or below ("poverty gap") the poverty threshold.

A more comprehensive perspective recognizes relative poverty as an aspect of inequality. This was already explicit

in the foundational work on poverty measurement and group differences therein by Foster, Greer, and Thorbecke (1984). Their formulation expressed income shortfalls relative to a poverty threshold, to which different weights were applied to arrive at, for instance, the head count poverty rate (share of people below the poverty line) or the poverty gap (average distance below the poverty line among the poor). Building upon this conceptualization, our visualization presents group-specific income distributions relative to the

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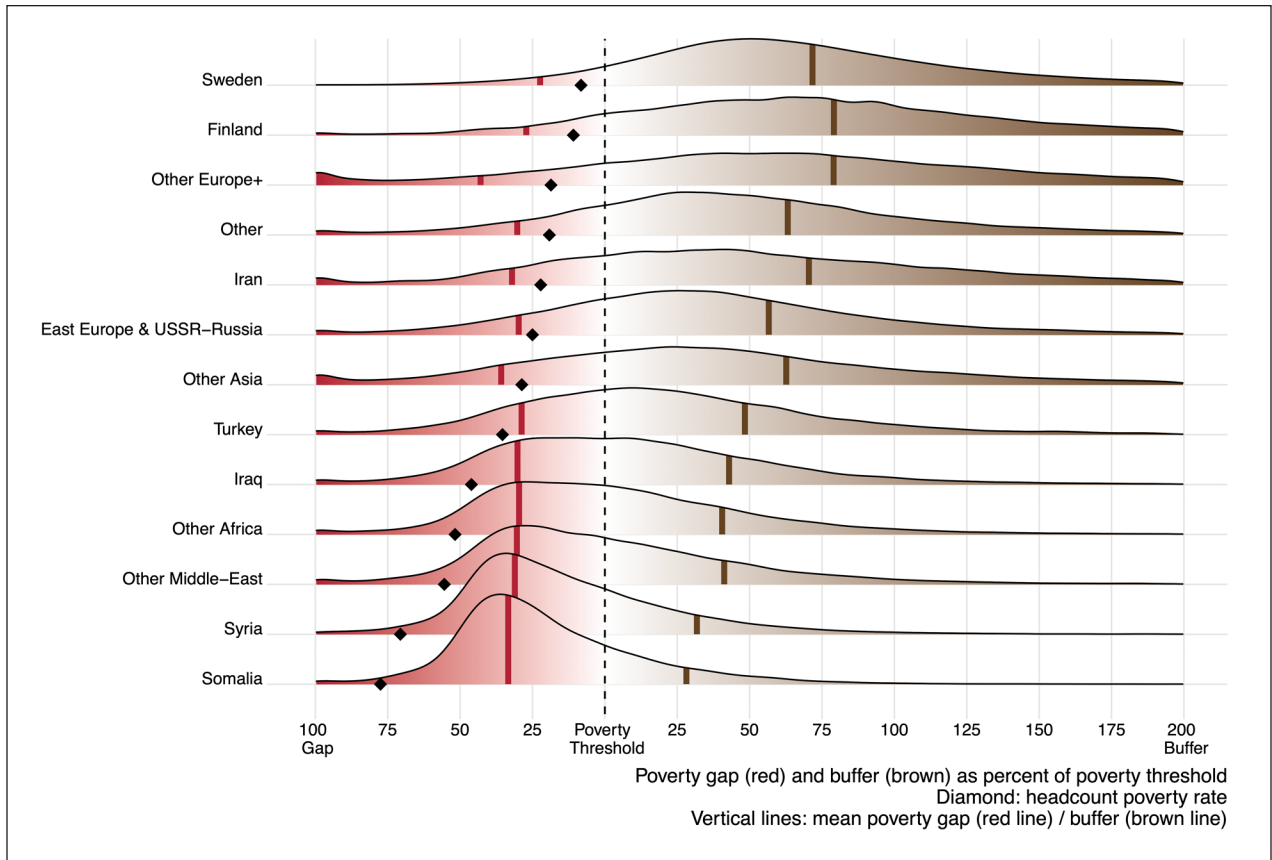


Figure 1. Group differences in income distributions relative to the poverty threshold, head count poverty (diamond), mean poverty gaps (red lines), and mean poverty buffers (brown lines), for all children aged 0 to 18 years, by mother's country of birth. Note. Distributions show household-equivalized disposable income expressed as percentage distance from the population poverty threshold (60 percent of the median). Values left of the zero represent the poverty gap; values to the right represent the poverty buffer. Color intensity reflects gap or buffer magnitude. Vertical lines correspond to the group-specific mean poverty gap (the percentage below the poverty threshold; red lines) and the mean poverty buffer (the percentage above the poverty threshold; brown lines). Diamonds indicate the head count poverty rate for each group, plotted on the same scale as the poverty gap.

population poverty threshold, highlighting poverty gaps *and* introducing poverty buffers. Although *gaps* intuitively illustrate the intensity of poverty, *buffers* focus on how some have larger degrees of income security than others, a less discussed but equally relevant metric.

Sweden is a particularly relevant context to demonstrate how childhood poverty requires such nuanced perspective. Immigrant-majority group differences in poverty are larger in Sweden compared with its Nordic neighbors, transition rates into and out of poverty differ across groups, and immigrants groups have varying degrees of labor market attachment and job quality (Grotti et al. 2026; Tegunimataka, Aradhya, and Grotti 2026). The immigrant groups chosen for this visualization reflect these distinct patterns, which may relate not only to differences in head count poverty rates but also to poverty gaps and buffers.

For all children 0 to 18 years of age residing in Sweden in 2022, Figure 1 shows the distribution of equivalized disposable household income relative to the poverty threshold, by mother's country of birth. On the horizontal axis, the poverty threshold (here, at 60 percent of the median equivalized disposable household income in the population) is shown as a vertical dotted line, and values to the left and right on this axis represent distances as percentages below (gap) or above (buffer) the poverty threshold. For instance, a poverty gap (buffer) of 30 percent means having an income 30 percent below (above) the poverty threshold. The diamonds plotted to the left of the poverty threshold reflect the group-specific head count poverty rates.

The groups are ranked by the head count poverty rate. Children with Swedish-born parents have the lowest poverty rate (8.23 percent), and children with Somali-born parents the highest (77.49 percent).

The figure shows that the distributions of income relative to the poverty threshold vastly differ between groups, and that this variation is not summarized well by any one indicator. First, the head count poverty rate shows substantial group differences in the prevalence of poverty. Second, average poverty gaps show that poverty intensity is similar across groups, although groups with higher poverty rates tend to have narrower income distributions, which reflect a high degree of stratification in living conditions of children with parents with different migration backgrounds. Third, there is large heterogeneity in poverty buffers, and the figure demonstrates a pattern of cumulative advantage: lower head count poverty rates go hand in hand with larger buffers.

We conceptualized poverty as an inherent aspect of inequality, complementing analyses of group differences in head count poverty rates with income distributions around the poverty threshold, poverty gaps, and buffers. It is worth noting that this approach is applicable to group differences of various nature. The addition of gaps and buffers makes the analysis less sensitive to minor changes in income just under or above the poverty threshold. Head count rates alone do not demonstrate the heterogeneity between immigrant groups in intensity (gaps) and income security (buffer), while the latter contributes to a more comprehensive understanding of how economic vulnerabilities around the poverty threshold are stratified between the children of immigrants and the majority population.

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Supplemental Material

Supplemental material for this article is available online.

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