Can Differences in Education Quality Explain the Variation in Intergenerational Income Mobility in the United States?

Summary of research by Jesse Rothstein

Mobility Is Not the Same Across the Country
Not all children have access to equal opportunities. Children with wealthy parents are much more likely to grow up to be wealthy than children with poor parents. There are many factors that play a part in this--education, inheritance, nutrition, access to childcare, social networks, etc--but at a general level, this transmission of income across generations is a critical measure of inequality. If it is a broadly shared goal that all children should have the same opportunity to succeed in adulthood, regardless of their background, than we can learn a great deal about our success toward that goal by measuring the extent to which one generation’s wealth is reproduced in the following.

Looking closely at this link, however, reveals that, while economic mobility is declining across the country, this inequality of opportunity varies substantially across different parts of the country. In Salt Lake City and Los Angeles, for example, there is a statistically greater chance that a child from a poor family may go on to earn a high income in adulthood than there is in, for example, Cincinnati or Memphis. In the latter cases, the income a child goes on to earn in adulthood is highly dependent on the income of their parents.

What might cause geographic variation in economic mobility? One common hypothesis is that differences in public school quality drive variation across the country. Places like Salt Lake City and Los Angeles may have better schools that deliver a high-quality education, giving children more equal opportunities to succeed. Alternatively, differences in labor markets may drive this variation. Perhaps factors like job opportunities or differences in pay contribute more to income variation than access to quality schools.

In this brief, we present research from O-Lab Director Jesse Rothstein examining these possible explanations for why there is such geographic variation in the intergenerational transmission of wealth.

Measuring the Impact of Education on Economic Mobility
In order to understand whether and how education and school quality drive differences in mobility across the country, one can first look at the association between parental incomes and children’s educational achievements. In short, if education is a key explanatory factor, than one would expect that having parents with high incomes helps children do well in school, which allows the children to earn higher incomes as adults. On the other hand, if differences in education are not the key link in intergenerational transmission, one would not expect to see a connection between educational success and future income.

To explore this link, Rothstein used data from three longitudinal surveys with a representative national sample and information about location (zipcode), parental income, and children’s achievement across different ages. The Educational Longitudinal Study (ELS) surveyed children born in 1985-1986 at 10th grade, 12th grade, two years after high school, and eight years after at about 26. Rothstein used these datasets to measure high school math and reading scores, college completion and educational attainment, non-cognitive skill measures and adult income at age 26. He also used data from the Early Childhood Longitudinal Study, Kindergarten Cohort and the High School Longitudinal Study to gather additional data on math and reading test scores.

Schools Are Not a Key Mechanism for Determining Mobility
Rothstein finds that access to high quality elementary and secondary schools is not a significant factor in explaining the geographic variation of intergenerational transmission of economic status. It is true that schools
in some areas are more successful in helping children from poor families achieve at the same levels as children from wealthy families, however the differences in educational outcomes are not linked to the differences in income transmission. In other words, areas where the achievement gap between poor and wealthy children is lower are not necessarily the same areas where the gap in incomes is lower. In fact, children’s skill accumulation accounts for only 11% of the variation in income transmission (see Figure 1).

However, there is an association between the strength of income transmission and the return to education in a given area, indicating a key role of the labor market in influencing mobility. There are also important differences in earnings for those with similar skills, reflecting the influence of labor market institutions like unions, or differences in access to good jobs. This research indicates that almost half of the differences between high and low opportunity areas come from labor market factors.

**Implications for Policy and Research**

This research indicates that policymakers wishing to advance equality of opportunity should examine structures of inequality in the labor market. Quality education is an important pathway to opportunity, but focusing on education is not enough if a quality education cannot offer a path to a high-quality job. As this research reveals, labor market institutions are key factors influencing the path to mobility. Important policy questions to consider include access to unions, discrimination in hiring and advancement, minimum wages, career structures of key institutions, and other mechanisms of earnings inequality.

![Figure 1: Decomposition of the variation in intergenerational transmission of income](image)

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