Econ 401 Project Writing

Introduction

The United States has high levels of inequality. One reason Americans may tolerate this is because of the American Dream, the idea that an individual may increase their social standing through hard work. However, social mobility and inequality are inversely linked (Wilkinson and Pickett 2009), which means that the high levels of inequality in the US also mean low levels of social mobility. Education is often seen as the key to upward social mobility, as a college degree can open doors to higher-paying jobs (Greenstone et. al 2013).

Inspired by Wilkinson and Pickett, our research examines the effect of college accessibility on social mobility. Are commuting zones with colleges more likely to have higher rates of social mobility than those that do not? Living near a college and college attendance are correlated (Currie and Moretti 2003). If there are more college graduates in an area, they increase the relative social mobility of the area. This relationship is important because it affects the opportunity costs of going to college for both the poor and wealthy students. If attending college does not change social mobility, then the poor have little incentive to go to college if their circumstances will not improve, whereas the rich also may not have to go to college to maintain their wealth.

Data

Our data come from Opportunity Insights, a project based out of Harvard University led by Raj Chetty dedicated to improving economic opportunity for Americans. We use their statistics on predicted outcomes for children based on parent income percentile by commuting zone, as well as their data on colleges from their “Mobility Report Cards.” We aggregate the college data to the commuting zone level and create several variables counting the number of colleges, four year, and public colleges in a commuting zone. These variables form our group of independent variables.

Our dependent variables are the predicted mean percentile rank in the national distribution of household income measured as earnings in 2014-15 (“kfr”) for children of all races and all genders, the kfr for black children, the kfr for white children, and the mean predicted probability of reaching the top quintile of national household income distribution (“kfr\_top20”). All estimates are dependent variables are conditional on parent income, of which we use the 1st, 25th, 50th, 75th, and 100th percentile, with 1 being the lowest and 100 being the highest.

In addition, we control for population density and median household income in 2016, two factors that would plausibly impact both the presence of colleges in an area and the level of social mobility.

The table below shows summary statistics for variables of interest. As an example, all parent percentiles are shown for kfr, or Kid Rank Given Parent Rank for all children. As the parent rank increases, the mean of the predicted child rank also increases, showing that children are likely to end up a similar income class as their parents. In addition, white children from the median parent income have a higher predicted rank (0.537) than black children from the median parent income (0.403).

Empirical Model

We use a simple Ordinary Least Squares (OLS) regression to test the relationship between number of colleges and social mobility. Our estimating equation is:

Yi = α + β1 Xi + β2 PopDensityi + β3 Med\_hhinci + εi

Where Yi = the social mobility estimate for a given parent income rank, either kfr, kfr\_black, kfr\_white, or kfr\_top20 for a commuting zone *i*. Xi is the number of colleges, four year colleges, four year private colleges, elite schools, public schools, or binary indicator for any college in a commuting zone *i*. PopDensity is the population density in 2010, and Med\_hhinc is the median household income in 2016. We control for population density and median household income in 2016, two factors that would plausibly impact both the presence of colleges in an area and the level of social mobility.

Results

kfr\_combined:

The table presents estimates of the effect of the number of colleges, four year, or public colleges on the mean predicted income rank of children with parent income percentile as defined by the column headers. Controls are population density and median household income. The results suggest that having a college nearby has a slightly negative effect for children from below the median but has less effect on children from above the median. Although statistically significant, the largest coefficient is the effect of number of public colleges on the bottom 1%, which is -0.0068, or 9.3% of a standard deviation, which is rather small. This means that with an increase of one public school, the mean percentile rank is predicted to decrease by 0.68 percentage points.

kfr\_top20:

The table presents estimates of the effect of the number of colleges, four year, or public colleges on the mean predicted probability that a child with parents from a given income percentile reaches the top income quintile. Controls are population density and median household income. The results suggest that having a college nearby has a slightly negative effect for children from below the median but has less effect on children from above the median, with number of public colleges having the greatest effect. Although statistically significant, the largest coefficient is the effect of number of public colleges on the bottom 1%, which is -0.0039, or only 7.3% of a standard deviation.

kfr\_black:

The table presents estimates of the effect of the number of colleges, four year, or public colleges on the mean predicted income rank of Black children with parent income percentile as defined by the column headers. Controls are population density and median household income. The results suggest that having any college or a public college nearby has a slightly negative effect for children from below the median but has less effect on children from above the median, and four year colleges have no significant effect at all. Although statistically significant, the largest coefficient is the effect of number of public colleges on the top 1%, which is -0.0041, or 2.7% of a standard deviation, which is rather small.

kfr\_white:

The table presents estimates of the effect of the number of colleges, four year, or public colleges on the mean predicted income rank of white children with parent income percentile as defined by the column headers. Controls are population density and median household income. The results suggest that having any college or a four year college nearby have little to no effect on income rank, and but that public colleges may have a slightly negative effect for those at the 75th percentile and below. Although statistically significant, the largest coefficient is the effect of number of public colleges on the bottom 1%, which is -0.0053, or 7.7% of a standard deviation, which is rather small.

Conclusions

Overall, the results suggest that for those coming from the bottom 50% of the income distribution, having a public college nearby has a negative, although economically insignificant, effect on social mobility, with mixed results for any college and four-year colleges. For those above the median, having a college nearby does not have an effect. There are generally statistically insignificant results for those in the top 75% and above, meaning that the social mobility of those who have wealthy parents are not impacted by college location. These children are likely to go to college no matter where they live, and their parents have the resources to help them achieve their educational goals. Conversely, for those at the bottom end of the income distribution, having a college nearby has a negative, although economically low, impact. Perhaps the presence of a college only serves to increase divides, with those from the top maintaining their middle to upper class standing and those at the bottom staying at the bottom. As Haveman and Smeeding (2006) claim, higher education is currently increasing social divides, not bridging them.

The results of this study should encourage administrators and policy makers to look into making college more accessible, and perhaps providing more outreach or scholarships for local, low-income children. However, there are likely larger, systemic problems that are the root cause of the lack of educational opportunity and social mobility for those at the bottom. Wilkinson and Pickett (2009) would suggest inequality.

References

Greenstone, Michael, Adam Looney, Jeremey Pastashnik, and Muxin Yu. “Thirteen Economic Facts about Social Mobility and the Role of Education.” The Brookings Institution. June 26, 2013.

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Haveman, Robert and Timothy Smeeding. “The Role of Higher Education in Social Mobility.” The Future of Children, Vol. 16, No. 2, Opportunity in America (Autumn, 2006), pp. 125-150.