

Neighborhood Disadvantage and high school dropout

Literature Review

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April 23, 2018

Research question: to what extent, do neighborhood disadvantages affect high school dropout.

Since the establishment of public school in the United States, obtaining a high school education has been viewed as the great equalizer to upward social mobility and opportunity. Educators and administrators in the US public school system have been dedicated to lowering high school dropout rates to ensure more equitable opportunities and outcomes for all students (Datiri, 2013). Dropping out of high school has been associated with negative psychological adjustment and negative life outcomes. Thus, studying high school dropout has become an increasingly important social psychology, sociology, and public policy question.

The reasons behind dropout may be associated with individual, social, family and ecological factors. My research will focus on the environmental determinants that may affect high school dropout, and more specifically, my research question is: to what extent, do neighborhood disadvantages affect high school dropout. Dropout can be defined as a status or an event. From the perspective of status, dropout can be described as the lack of high school credential among those not enrolled in school. However, from the perspective of an event, dropout can be described as the official withdrawal from school or the consecutive absence from school over a sustained time period, regardless of current status (Donnelly, 2017). For my project, I plan to define dropout as an event since I will consider dropout number of New York City public high schools and further compute dropout rate within the neighborhood.

Researchers in different fields have been investigated the factors affecting young people's educational attainment for a long time. More recently, the focus has shifted to the influence of external factors on educational attainment such as how the characteristics of young people's neighbors and neighborhood affect his or her schooling (Vartanian Gleason, 1999). A number

of previous articles related to this topic have focused on how living in a poverty neighborhood may affect young people’s schooling experience. They have concluded that growing up in a relatively disordered and poor neighborhood is a potential risk factor for high school dropout. Rumberger (2013) has discussed in the article “poverty and high school dropouts” that some neighborhoods, particularly those with high concentrations of African Americans, are communities of concentrated disadvantages with high levels of joblessness, family instability, poor health, substance abuse, poverty, crime, and these disadvantages neighborhoods influence child and adolescent development, which may increase the likelihood of dropping out of school. Burns (2011) raised similar ideas. She argued that poor neighborhoods are isolated and racially segregated, with few quality schools, day care, etc. that can help improve children’s development and achievement; they are also disproportionately smoggy, crime-ridden and dilapidated, and all of these factors can be linked to poor performance, often culminating in dropouts. Measurement of neighborhood characteristics is an ongoing empirical challenge and thus it is not surprising that poverty becomes the most prevalent feature for measuring neighborhood effects because data about some socio-economic characteristics can be easily obtained from Census data (Donnelly, 2017).

A more recent study conducted by Donnelly (2017) covered a more comprehensive range of neighborhood characteristics and comprised an index of neighborhood disadvantages. Donnelly did analysis on the effect of neighborhood disadvantage on high school dropout as well as a multilevel analysis on the extent to which school, neighborhood, and peer group mediate the effect of disadvantaged neighborhood. The neighborhood characteristics used in this study include unemployment rate, proportion of persons with income below poverty line, proportion of households headed by females with own children ages 18 years and younger, proportion persons age 25 and older with no high school diploma or equivalency and so on. Socio-demographic control variables were also added to the multivariate models that the study built. For the associations between neighborhood disadvantage and school dropout, the results from Donnelly’s analysis showed that youth who reside in the most disadvantaged neighborhoods are more than twice as likely to drop out as those who reside in the most affluent neighborhoods.

Prior research on how neighborhood conditions affect high school dropout has been mixed, and a variety of data sources, methods and measures have been used. Donnelly (2017) used data

from the National Longitudinal Study of Adolescent Health, and all analyses were conducted at individual-level. The outcome variable, school dropout, was treated as a dichotomous variable in the study. Vartanian and Gleason (1999) used the Panel Study of Income Dynamics merged with information on neighborhood characteristics from the U.S. Census and built a logistic regression model to measure the effects of neighborhood conditions and family background on the likelihood of high school dropout. Zaff and Malone (2016) took a different perspective and they analyzed why the rate of youth leaving high school in some neighborhoods has improved. They used the change in the rate of youth leaving school in neighborhood as their outcome variable. By integrating three different datasets: the Geolytics Inc. Neighborhood Change Database, The Business Master Files, and the Common Core of Data, they examined whether adult capacity and community environment can be implicated in the reduction in the rate of youth who leave school within neighborhoods in some metropolitan areas throughout the United States. Several social experiments have also been used to analyze neighborhood effects on high school dropout. The first such social experiment was the Gautreaux Program administered by the nonprofit Leadership Council for Metropolitan Open Communities in Chicago in 1981. As part of public assistance, some low-income black families were assigned to a neighborhood in a different city, which were mostly poor and black, or a neighborhood in suburban, which was less poor and predominately white. The longitudinal research found that by the time children became young adults, only 5 percent of the suburban movers dropped out of high school, but 20 percent of those who moved to mostly poor and black neighborhood have dropped out (Rosenbaum, 1995).

My study will mirror that of Donnelly (2017), but I will make some adjustments and my own contributions. First, my outcome variable will be the high school dropout rate in the neighborhood instead of the dichotomous variable in Donnelly's study. Second, I plan to mirror some of the neighborhood characteristics that Donnelly used to construct her neighborhood disadvantage index and her method to add socio-demographic control variables because I think by far, her research considered the most comprehensive neighborhood characteristics and possible confounding variables. I plan to do a model comparison using different statistical models such as linear regression and random forest. Finally, I hope to add a spatial analysis such as local spatial autocorrelation before doing the statistical analysis to detect possible outliers and

clusters.

Reference

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