DRAFT

From the Ghetto to the Ivory Tower: Gendered Effects of Segregation on College Achievement

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ABSTRACT:

The effects of segregation on college GPA are estimated with longitudinal data from the National Longitudinal Survey of Freshmen (NLSF). Whereas theories suggesting that males from segregated communities form “street orientations” relative to female “home orientations” imply male susceptibility to exposure to violence and social disorder, this analysis suggests that among elite college students females experience the negative effects of segregation relative to their male counterparts in ways unexplained by family SES, prior school quality, and environmental factors. The effects of family stress and family involvement in college also differ depending on race and gender interactions.

Recent research has documented both the negative consequences of segregation for minority students attending selective colleges and universities in the United States. Even though they may presently inhabit one of the most privileged and secure sectors of American society—the campus of an elite institution of higher education—African American and Latino students who grew up under segregated circumstances earn significantly lower grades than those from integrated backgrounds. One reason for this empirical outcome is that segregated schools and neighborhoods have fewer resources, leading to a lower average quality of education and lower levels of academic preparation compared with other students.

Even controlling for indicators of academic preparation, however, segregation appears to have both short- and long-term effects because of its well-documented effect in concentrating poverty (Massey 1990; Massey and Fischer 2000), which necessarily concentrates the negative correlates of poverty to produce social environments characterized by remarkably high levels of disorder and violence (Massey, Condran, and Denton 19897; Massey and Denton 1993; Massey 1996, 2001, 2004). Because the social networks of persons from segregated backgrounds typically extend back into such environments, negative events such as death, injury, criminal victimization, etc. are very likely to occur to their friends and relatives, which in the short run elevates the stress they experience, increases the they spend off campus dealing with personal and family issues, and reduces mental and physical health, all of which combine to significantly lower academic achievement (Charles, Massey, and Dinwiddie 2004).

In the longer term, those minority members coming of age in segregated schools and neighborhoods were exposed to high levels of violence and social disorder during their formative years of cognitive growth and development. Persistent exposure to disorder and violence repeatedly triggers the human stress response, thereby elevating levels of adrenaline and cortisol in the blood over time to overtax the body's physiological systems, with long-term effects on cardiovascular health, immune reaction, and cognitive functioning (Massey 2004). As a result, controlling for a variety of current conditions, students who grew up in a segregated environment earn lower grades years later in college, and when an index of exposure to violence and disorder is included in statistical models its effect is strong and highly significant and the negative effect of childhood segregation itself disappears (Massey and Fischer 2005).

Although the short- and long-term effects of segregation have been studied and documented for minority students in general, they have not been assessed with respect to gender. It may very well be that males and females respond in quite different ways to segregation and its sequella, yielding different long- and short-term effects on the academic achievement of minority men and women. In this study we draw upon prior research on neighborhood effects to argue that gender-specific effects are to be expected when considering the consequences of segregation among males and females. We then build on prior models estimated using data from the National Longitudinal Survey of Freshmen to specify new, gender-specific models to test hypotheses about the differential effect of school and neighborhood conditions on academic outcomes evinced by minority men and women.

SOCIAL CONTEXT, GENDER, AND ACHIEVEMENT

Recent empirical work connecting neighborhoods to educational and other socioeconomic outcomes suggests that males display a greater sensitivity to neighborhood conditions than females. One study in New York state found that neighborhood quality overrode the effect of family resources in predicting high school dropout rates for African American boys, but not for girls (Connell, Clifford, and Crichlow 1992). Likewise, Crane (1991) showed that having more neighbors with professional or managerial jobs lowered the dropout rate for black males, but not black females. Spencer (1992), meanwhile, showed that middle school achievement was lower among boys from violence-prone neighborhoods in Atlanta, but the effect did not appear for girls. Duncan and Laren (1990) as well as Brooks-Gun, Duncan, and Kato (1991) also report that neighborhood quality matters little for the academic achievement of girls. Massey and Shibuya (1995) found that neighborhood conditions affected the likelihood of marriage among African American women in the Panel Study of Income Dynamics, whereas they determined the odds of employment and incarceration among black males.

Despite the seeming consistency of these findings, Clark (1992) was unable to replicate the effects of neighborhood circumstances for males. A basic problem with most of the foregoing work is the inability to control for selective residential mobility and unobserved heterogeneity. The question for Tienda (1991) is whether poor people gravitate to poor places or whether poor places create poor people. In an attempt to overcome the methodological limitations a federally-subsidized housing demonstration program known as Moving to Opportunity (MTO) was set up as a quasi-experimental design. Public housing applicants applied to participate in the housing voucher program

and then were randomly assigned to use their vouchers in high-poverty versus low-poverty neighborhoods.

The MTO data reaffirm the gender-specific nature of neighborhood effects. Kling and Liebman (2004) found that adolescent females who moved out of high poverty neighborhoods were less likely to engage in risky behaviors and experienced greater improvements in education and mental health compared with their male counterparts. For most outcomes measured, boys in the experimental group experienced negative effects relative to females in the experimental group (i.e. those who "moved to opportunity") and either negative or no effects relative to boys in the control group (i.e. those still in poor neighborhoods). Kling and Liebman (2004) thus concluded that:

> Families with female children and families with male children moved to similar neighborhoods, suggesting that their outcomes differ not because of exposure to different types of neighborhoods, but because male and female youth respond to their environments in different ways.

It thus seems likely that across multiple outcomes such as crime, mental health, physical well-being, cognitive test scores, school completion rates and anti-social behaviors, males and females respond differently to their immediate environments (Sanbonmatsu et al 2004, Kling and Liebman 2004). As Kling and Liebman (2004) put it, "there remains the puzzle of why female and male results differ,"a puzzle to which this paper turns.

DATA AND METHODS

In this analysis, we use data from the National Longitudinal Survey of Freshmen (NLSF) to estimate equations that link the degree of school and neighborhood segregation experienced during childhood to grades earned in college and then assess the degree to which segregation's estimated is mediated by prolonged exposure to disorder and violence while growing up and ongoing stress within students' social networks. The

NLSF is a representative sample of the cohort of freshmen entering 28 selective colleges and universities in the Fall of 1999. These institutions include some of the most prestigious schools in the nation (e.g. Princeton and Yale) and is composed of research universities (the University of Pennsylvania, Stanford) as well as liberal arts colleges (Swarthmore, Bryn Mawr, Oberlin). The data set includes selective public institutions of higher education (such the universities of Michigan and North Carolina, Berkeley, and Penn State) as well as elite private institutions (Tufts and Northwestern) and one historically black institution (Howard University).

In the baseline survey, approximately 4,000 blacks, Latinos, Asians, and whites were interviewed in an extended, two-hour face-to-face encounter (around 1,000 in each group). Follow-up interviews were conducted during the Spring of 2000, 2001, 2002, and 2003. The response rate was 86% for the baseline survey, and respective figures for the successive follow-ups were 95%, 89%, 85%, and 80%. Detailed information about the methodology and content of the survey, including a facsimile of the questionnaire, is available from Massey et al. (2003), along with a list of the 29 institutions and their characteristics.