Springer

Racial Segregation in the Public Schools and Adult Labor Market Outcomes: The Case of Black Americans
Author(s): Gregory Fairchild
Source: *Small Business Economics*, Vol. 33, No. 4, Special Issue: Entrepreneurship among Minorities and Women (Dec., 2009), pp. 467-484
Published by: Springer
Stable URL: http://www.jstor.org/stable/40540448
Accessed: 14-11-2017 23:47 UTC

REFERENCES
Linked references are available on JSTOR for this article:
http://www.jstor.org/stable/40540448?seq=1&cid=pdf-reference#references_tab_contents
You may need to log in to JSTOR to access the linked references.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at http://about.jstor.org/terms

JSTOR

Springer is collaborating with JSTOR to digitize, preserve and extend access to *Small Business Economics*

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

Small Bus Econ (2009) 33:467–484
DOI 10.1007/s11187-009-9202-x

Racial segregation in the public schools and adult labor market outcomes: the case of black Americans

Gregory Fairchild

Accepted: 9 March 2009 / Published online: 5 May 2009
© Springer Science+Business Media, LLC. 2009

Abstract Residential segregation has played a central role in theories of minority entrepreneurship and in the diversification of the U.S. labor market. Racial diversity in public accommodations, including schools, has been an issue of continuous public policy debate at least since the U.S. Supreme Court's *Plessy versus Ferguson* decision (1896). This study applies theory from the literature on social capital to an examination of the role of racial segregation in the public schools of blacks during childhood on their adult likelihood to become self-employed and their level of occupational status. The model results indicate that, after controlling for a number of individual, household and metropolitan-area factors, lower rates of segregation during public schooling results in higher likelihood of wage-salary employment and self-employment among a cohort of black Americans that attended public schools during the 1960s.

Keywords Blacks · Education policy · Self-employment · Workforce diversity

JEL Classifications J15 · L26

G. Fairchild (✉)
Darden Graduate School of Business Administration, University of Virginia, FOB 185, P. O. Box 6550, Charlottesville, VA 22906, USA
e-mail: fairchildg@darden.virginia.edu

1 Introduction

At the federal, state and local levels, considerable governmental funds and efforts have been leveraged to foster and support the racial diversification of the workforce and the expansion of the minority-led business sectors (also known as Minority Business Enterprises or MBEs). A number of policy initiatives have been employed in service to these parallel efforts. Programs aimed at diversifying firms have employed a number of levers, including but not limited to, monitoring staffing composition through the Equal Employment Opportunity (EEO) reporting requirements and even large-scale, comprehensive location-based programs termed "enterprise" and "empowerment" zones designed to encourage firms to employ those that live within these areas. In efforts to expand the number of minority-led firms, the efforts described above have been augmented with tax incentives, grants and low-interest loans for prospective minority business owners, business development centers that provide technical assistance, grants to support technology development, minority-procurement programs and targeted private-equity funds or enterprise zones designed to provide investment funding for minority business owners. Many corporations, especially those that compete for government contracts, support both extensive workforce and supplier diversity programs. Untold millions of funds are spent by these corporations to increase diversity within the workforces, and no small amount is focused

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

on diversity and sensitivity training programs. Although smaller in magnitude, substantial and growing amounts of funds are deployed by corporations to encourage minority business ownership. According to the National Minority Supplier Development Council (NMSDC), in 2005, 3500 member corporations spent US$94.6 billion in supplier diversity procurement programs (NMSDC 2006).

For decades, scholars and policymakers have argued that progress on these two paths will lead to a greater expansion of economic opportunity for disadvantaged minorities and especially blacks, either by diversifying the workforces of existing public firms or through increasing the participation rates of minorities in private business ownership. Each path is viewed as a means to ameliorate the effects of labor market discrimination in existing firms, to aid in lowering the rates of unemployment, to decrease persistent wealth disparities between racial groups and to assist in the assimilation of blacks into American society (Butler 1991; Fairlie 1999; Huffman and Cohen 2004; Light 1979; Mouw 2002; Williams and O'Reilly 1998).

A number of government and corporate initiatives have been designed to develop the human and social capital of blacks interested in accessing positions of authority within publicly-held firms or in entrepreneurial careers. For decades, custom-designed management training programs have been developed to enhance the skills and technical expertise of minorities interested in employment in the corporate executive suite or in entering business as owners of firms. More recently, there has been a corresponding recognition of the importance of social relationships in obtaining and maintaining employment in corporations and building growing firms. A number of networking or mentoring programs have been designed to facilitate social relationships between entry-level minority executives and senior executives, between minority business owners and corporate procurement officers and between minority business owners and capital providers. These substantial efforts to move the U.S. labor market forward in terms of racial diversity has returned mixed results (Huffman and Cohen 2004; Mouw 2002; Williams and O'Reilly 1998).

These initiatives share the recognition that human and social capital barriers have prevented some minorities from fully accessing the labor market; this is especially true for black Americans, who tend to have higher unemployment rates and lower rates of business ownership than other primary racial groups. Differences in human and social capital are clearly recognized as a challenge for urban blacks, and an increasing number of theorists have recognized that these differences may result from educational stratification that occurs early in life (Massey and Fischer 2006; Stevenson et al. 2005).

Drawing from extant theory on labor markets and in entrepreneurship, I suggest here that the development of human and social capital during childhood exerts considerable influence on contemporary efforts to foster a more inclusive workforce and to diversify the ranks of business ownership among adults. This paper aims the research lens at the role of an often-discussed issue in childhood and educational development research that has found precious little interest in business management: the role of racial segregation in the public schools on adult occupational stratification and the tendency to be a self-employed worker.

This paper is organized as follows. The first section provides a brief review of central themes in the literature on social capital and minority employment, reviews theories of social capital influences on entrepreneurship and links them to theories suggesting that educational institutions are factories of social reproduction. The next section draws from extant theory in entrepreneurship and labor markets to summarize individual-level, household-level and metropolitan area-level factors that past research has shown influence the likelihood of being self-employed. The third section describes a model designed to test the influence of racial segregation during childhood schooling on the likelihood of a black adult being self-employed rather than a wage or salary worker. In an effort to focus on the unique effect of racial segregation during childhood schooling, the model includes an extensive set of controls, including contemporary rates of segregation in the metropolitan areas in which respondents lived. The fourth section reports the results of an analysis utilizing indices of metropolitan-area public school segregation during 1967 with controls and dependent measures drawn from the 2000 U.S. Census Public-Use Micro Sample (PUMS) (Ruggles et al. 2004). The final section discusses scholarly and managerial implications of the findings.

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

2 Theory development

2.1 Racial residential segregation and labor market access

A number of scholars have examined the role of racial residential segregation on labor market outcomes, and these studies can be roughly collapsed into two groups based on the underlying theoretical frame: spatial mismatch and racial discrimination. Spatial mismatch explanations (Holzer 1991; Kain 1968, 1992) tend to emphasize the increasingly disparate geographic location of minorities and jobs within the metropolis. What has been termed the "spatial mismatch hypothesis" has spawned a large body of research, and all of these studies are based on the explicitly spatial insight that in recent decades, U.S. cities display increasing trends toward the suburbanization of low-skill jobs and the concentration of low-skill, black workers in central cities. The resulting "mismatch" between the location jobs and potential employees is heightened in metropolitan areas characterized by high levels of black–white segregation.

The second broad category of research has theorized that segregation both is representative of, and has exacerbated, existing negative stereotypes about blacks and that these discourage a largely non-black base of employers from hiring black labor. These studies build on socio-psychological theorization (e.g. the contact hypothesis) that argues that cross-group stereotyping is enhanced in metropolitan areas where there is separation between racial or ethnic groups and that the continuing persistence of segregation in these areas augments employers' lack of personal familiarity with black workers to lead to even higher levels of negative stereotyping about blacks and a concomitant distaste for black labor (Bobo and Zubrinsky 1996; Charles 2003; Farley et al. 1994; Fairchild and Robinson 2008; Oliver and Wong 2003).

2.2 Racial residential segregation and entrepreneurship likelihood

Following Shane and Venkataraman (2000), I define entrepreneurs as individuals who hire their own services in the pursuit of an entrepreneurial opportunity (e.g. self-employed persons). Generally speaking, self-employed individuals have determined that the market wages that could be earned in wage and salary employment are less than the expected net income from working for themselves (Borjas 1995; Lee and Venkataraman 2006). There are a number of theoretical frames that attempt to explain reasons that individuals in a society may differ in their propensity to be self-employed, including informational asymmetry (Kirzner 1973) and access to specialized information and technology (Becker and Murphy 1992; Venkataraman 1997). The literature has documented considerable variance in the self-employment rates of various racial and ethnic groups, with black Americans showing a relatively lower likelihood of being self-employed than other groups over the bulk of the twentieth century (Fairlie 1999). Although each of these provides insight into the traditionally low rates of black self-employment, none is sufficient as a stand-alone explanation.

In terms of research on minority entrepreneurship, the hypothesized influence of segregation is not straightforward. In fact, a substantial body of scholarship has argued that segregation tends to enhance the likelihood of minority self-employment (e.g. Boyd 1991, 1998; Brimmer 1968), and another body has argued that segregation decreases self-employment (Fairchild 2008a, b; Fischer and Massey 2000). These arguments have tended to fall into three areas: protected markets theories (in which segregation is positively associated with self-employment) and wealth difference or market discrimination theories (in which segregation is negatively associated with self-employment) [see Fairchild (2008a) for a review of theories proposing each view]. One limitation of these theories is that they have tended to focus on racial segregation's contemporary influence rather than examining the potential lasting influence of separation during formative years. This paper attempts to respond to this gap with the present analysis.

Educational attainment and social capital Educational attainment and access to social relationships have also been cited as potential sources of differences in labor market outcomes across racial and ethnic groups. Human capital explanations for these differences have been influential in the literature (Becker 1972; Thurow 1975) and that there are substantial differences in the mean educational attainment levels of various racial groups is well

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

documented in the public discourse (National Center for Education Statistics 2005). It has been argued that these differences influence the technical knowledge and skills entrepreneurs may apply to secure attractive positions in the labor market and to recognize and leverage entrepreneurial opportunities. While these human capital explanations have been popular, especially in the field of economics, a growing body of organizational scholarship has argued that economic activity is embedded within a web of social relationships, extending to customers, employees, capital and technical suppliers and sources of information and emotional support (Coleman 1988; Granovetter 1985; Zimmer and Aldrich 1987). These notions have even begun to take hold among leading economists with research interests centered on understanding racial inequality, including Glenn Loury (1998) Darity (1982; Darity and Mason 1998) and Roland Fryer (Echenique and Fryer 2007). Scholarship in ethnic entrepreneurship and workforce diversity has pointed to the importance of both horizontal network ties (extending from business owners to customers, employees, and competitors) and vertical network ties (extending to relations with business relations at different levels in the supply chain) in explaining variance in the career outcomes and entrepreneurial likelihood of various ethnic groups (Bonacich 1973; Ibarra 1993, 1995; Light 1979, Wilson and Martin 1982).

It is reasonable to assume that a broad body of frameworks may be brought to bear in explaining differences in labor market outcomes between racial groups and the lagging rates of blacks specifically. In this exploratory study, I propose that a factor that has received less attention in the literature on minority self-employment and workforce diversity bears examination: differences in social and cultural capital attainments acquired through attendance at educational institutions during an individual's formative years. In the next section, we review theorization on educational institutions as factories of social reproduction and labor market advantage.

2.3 Educational institutions and the development of human and social capital

Generally speaking, the social science literature has viewed educational institutions as providing (1) technical–functional training, from which skills are developed which can be applied on the job (Collins 1971; Darity 1982), and (2) social and cultural capital, which assists in the reproduction of social relations within the economic and class structure of a society (Coleman 1988; Meyer 1977). Differences in the quality of public school education might influence the aspirations, knowledge and skills that can be employed in exploiting entrepreneurial opportunities, leading to differences in the self-employment likelihood within and across racial groups. I first discuss differences in human capital development and then differences in social capital development.

Education and human capital development Public educational institutions have been the primary conduit through which young people are provided their basic development of the functional skills necessary to live productively in the USA. In 2003, an estimated 96% of all black kindergarten through 12th-grade students in the USA attended public schools, compared with 88% of all students (National Center for Education Statistics 2005). Although public schools provide well-recognized indicators of human capital quality in the form of discrete years of educational attainment and diplomas, there is considerable variance in the quality of public school education within and across school systems. Public school funding and curriculum are generally locally determined and, as a result, high school diploma-holders within and across school systems may have dramatically different skills and knowledge. A review of the literature documenting and examining potential causes of differences in the quality of education is outside of this article's scope. However, let it suffice to say that a longstanding finding is that schools with predominantly minority populations tend to have lower accessed quality, even after adjusting for other influential factors, such as student–teacher ratios and per-pupil funding levels (e.g. Rivkin 1995; Smith 1984). Studies indicate that there are differences in the returns to high school education, with graduates of urban or predominantly minority schools receiving less economic gains for their degrees than other graduates (Card and Kruegar 1992; Grogger 1996).

Education and social capital development Bourdieu (1973) and Bourdieu and Passeron (1977) were among the first scholars to propose that in addition to providing basic skills training, educational institutions reproduce and reinforce a society's status hierarchies.

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

These notions have been influential in the field of educational sociology, proposing that schools differ in the economic utility of the social relationships that they provide to matriculants. For example, Useem and Karabel (1986) found that even after controlling for educational attainment, attainment of a position as a member of the top management team in an American corporation was associated with attendance at elite professional schools, undergraduate institutions and even preparatory high schools. They conclude that, in addition to training, those who attended such institutions enjoy greater access to social relationships that connect to those operating within the elite managerial class of American corporations. At the secondary school level, Persell and Cookson (1985), using qualitative interviews and participant observation at 42 elite high schools, find that institutional networks between school administrators and elite colleges facilitated the greater likelihood of achieving placement in elite colleges and led to higher-status professional careers.

These studies have suggested that attendance at some institutions facilitates entry into the upper echelons of organizational life through access to relationships that provide interface with the elite social class. Another set of studies have focused on the other end of the social status spectrum, examining how attendance at lower-status institutions is often associated with relatively disadvantaged career outcomes later in life. Controlling for other relevant factors, these studies have generally concluded that attendance at lower-status schools is associated with two disadvantages in terms of labor market competition: (1) isolation from relationships, attitudes and values of the dominant social class, and (2) greater levels of exposure to the social and cultural capital of those that have the least likelihood of assisting with labor market mobility (Borjas 1995). Massey and Fischer (2006) find that among blacks and Latinos, living in a racially segregated neighborhood during childhood and attending a segregated school were associated with lower academic performance and greater stress in the collegiate environment, even after adjusting for pre-matriculation educational skills (i.e. SAT scores). These studies, and others, encourage researchers to play closer attention to the strong likelihood that differences in social outcomes evidenced as adults (i.e. during college) may reflect inequalities generated earlier in life. Employing "perpetuation theory" Wells and Crain review 21 studies that indicate labor-market advantages for blacks attending schools that were racially mixed relative to blacks that attended segregated schools (Wells and Crain 1994). They argue that desegregation allows non-white students access to the institutions and social networks that are advantageous in the economic sphere and that segregation excludes blacks from these networks. It is likely that differences in the exposure of minorities to the social networks and cultural values, attitudes and preferences of the majority during childhood education (i.e. grades kindergarten through 12) may influence the potential to become entrepreneurs later in life.

Education and entrepreneurship: social factors

Shane and Venkataraman (2000) argue that entrepreneurial action results in the interaction between two factors: (1) opportunities that can be exploited in the environment and (2) individuals with the aspirations, knowledge and skills to exploit them. Assuming that exploitable opportunities are normally distributed evenly across a society (Baumol 1996), differences in the likelihood to enter self-employment within and across racial groups are likely to stem from differences in access to information and resource support that can be applied to entrepreneurial pursuits. We follow social network theorists, such as Granovetter (1985) and Zimmer and Aldrich (1987), in arguing that social networks play an important role in (1) locating employment, especially for low-skill laborers and (2) the resource mobilization leading to self-employment. We extend these arguments by integrating the arguments of scholars that note that one of the primary conduits to establish social relationships in a society is through the educational system and that minorities that attend highly segregated schools during formative years are less likely to access information vital to locating jobs and resources helpful in founding and managing their own firms. Thus,

Hypothesis 1 There will be a negative relationship between the degree of racial educational segregation during childhood and the likelihood of being a wage and salary employee as adults.

Hypothesis 2 There will be a negative relationship between the degree of racial educational segregation during childhood and self-employment likelihood for racial minorities as adults.

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

3 Data, operationalizations and methods

The variables used in this analysis were computed directly or drawn from two data sources: (1) individual black respondents to the 1% sample of the 2000 Integrated Public Use Microdata Series (IPUMS) (Ruggles et al. 2004) and (2) indices of public school segregation drawn from the public school data project (Logan and Oakley 2004). The analytical strategy was to examine the labor market outcomes of individual black working-age adults as a function of the rates of racial segregation in the public schools attended during childhood. Following the method used by Cutler and Glaeser (1997), the analysis was limited to those living as adults in the states in which they were born. The analyses focus on the contemporary (i.e. year 2000) likelihood of being either a wage and salary worker or being self-employed for age-appropriate cohorts of blacks and whites that attended each school system during the key analysis period (i.e. 1967[1]). To examine the influence of the level of public school segregation for students in a public school system in 1967, I model the 2000 likelihood of labor market participation of only those adult blacks and whites that are between the ages of 39 and 51 still living in the state of their birth (i.e. these 102,334 individuals would have been ages 6 through 18 years in 1967). Following the precedent in past research, the multinomial dependent variables were the log odds of having primary employment as either a wage or salary employee, or a self-employed business owner (dichotomous variables, wage or salary employee = 1, unemployed or idle = 0; and self-employed = 1, unemployed or idle = 0) (Boyd 1991; Fairchild 2008a, b; Fairlie 1999). There were two multinomial probit models, and each tested these adult employment likelihoods as a function of a substantial set of independent individual, household, metropolitan area, and industry predictors discussed above. An interaction term was included to determine the influence of segregation on black labor market outcomes relative to those of white respondents. These analyses were followed by a robustness check inclusive of respondents no longer living in the states of their birth.

[1] This period was utilized in this analysis because data prior to that date were unavailable and because there was a desire to include a period that allowed the data to reflect a broad range of adult career choices.

3.1 Variables

The entrepreneurship literature has documented the influence of a sizable body of factors that contribute to differences in the likelihood of being self-employed (e.g. Fairlie 1999, 2004; Fairlie and Meyer 1996). Following the approach used in past research examining residential segregation and self-employment likelihood (e.g. Boyd 1991, 1998; Fairchild 2008a, b; Fischer and Massey 2000), the multinomial probit models developed below account for individual-level, household-level, and MSA-level factors that prior research has shown to affect labor market status, and then adds public school segregation predictors. The statistical approach is to analyze the unique influence of racial segregation during public school education on the labor market status of black adults by controlling for other factors shown to influence the likelihood of being either self-employed or a wage and salary employee. Although many of these control factors are derived from the studies described above, they are organized by level of analysis (i.e. individual-level, household-level, metropolitan area-level) rather than the category of theory from which they are drawn. The remainder of this section describes the model and the measures utilized in the statistical models employed here.

3.2 Individual and household factors

A number of individual- and household-level factors have been shown to influence labor market status (Boyd 1991; Fairlie 2004; Fairlie and Meyer 1996; Fischer and Massey 2000), and these are reviewed here.

Gender Men have higher rates of labor force participation than women, and this pattern is also represented among the self-employed (Fairlie 2004; Fairlie and Meyer 1996).

Age Age and salary employment as well as self-employment likelihood vary with age and have generally shown an inverted-U shape relationship. The adult likelihood of labor-market participation typically rises from low levels during the early teenage years, increasing until the mid-forties and declining thereafter (Bates 1989; Boyd 1991).

Educational attainment Research has shown that both wage and salary employment and self-employment

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

likelihood are positively associated with higher levels of education, with holders of bachelor's degrees exhibiting a higher likelihood than high-school graduates (Bates 1989; Boyd 1991; Bull and Winter 1991; Coleman 2004; Fairlie 2004; Rasheed 2004). Since this study proposes that differences in rates of racial segregation across school systems contribute to differences in adult labor-market status, it is important to control for the level of adult educational attainment.

Marital status Studies have indicated that married individuals are more likely to be either wage or salary workers or self-employed than singles, in part because of the availability of unpaid labor, and access to financial and emotional support (Bates 1989; Fairlie 2004; Siqueira 2007). *Children.* The time and energy associated with raising young children is perceived to be a net drain on resources that can be applied to the pursuit of entrepreneurial opportunity, and studies indicate a negative relationship between self-employment likelihood and the presence of children. The interaction of these two factors as *single-parents* are the form of household structure least associated with being either self-employed or wage or salary laborers (Boyd 1991; Fairlie and Meyer 1996). *Adults in household.* Additional working-age adults in a household can be an avenue to obtain financial, labor and educational resources that can be employed in support of a business (Bates 1989; Rhodes and Butler 2004). *Mean household education.* Likewise, the mean educational attainment of adults in a household represents a source of technical expertise that can be applied to entrepreneurship.

Household asset wealth Asset wealth provides access to financial resources directly or through collateral for debt capital (Fairlie and Meyer 1996; Oliver and Shapiro 1990). Public Use Microsample data sets do not allow for direct measurement of wealth holdings. However, these data do measure the household income generated by non-business activity, which can be a proxy for asset wealth (e.g. interest income, rental proceeds, dividends).

3.3 Metropolitan area-level factors

Anecdotal evidence indicates that some cities and regions have a greater stock of self-employed and lower black unemployment rates than others due to a host of factors (e.g. tax policy, technology development, infrastructure). The literature has documented a number of metropolitan-area factors that influence labor market outcomes for blacks, and these are reviewed below.

Labor market disadvantage As noted above, disadvantage and "blocked mobility" theories of entrepreneurship propose that barriers to employment in the wage and salary sector push members of disadvantaged groups into self-employment as a form of job replacement (e.g. Light 1979; Waldinger et al. 1990; Wilson and Martin 1982). Due to employer preferences for homophily (Kmec 2006), minority group members might face greater disadvantage in the labor market if members of their group tended to be represented at the lower end of the occupational hierarchy (i.e. less represented among those making hiring decisions). Using Duncan's index of occupational status (Duncan 1961), Boyd (1991) created a metropolitan-area racial occupational status index composed of the ratio between the focal group's mean occupational status in a metropolitan area divided by the mean status of the metropolitan area overall (e.g. mean occupational status of blacks in Minneapolis divided by the mean occupational status of all workers in Minneapolis).

Metropolitan area size and minority proportion Based on the notion that minority-owned businesses benefit from larger co-ethnic markets, studies have also found that minorities living in larger metropolitan areas or areas with larger proportions of their racial group are more likely to be self-employed (Boyd 1991; Fairlie and Meyer 1996). One theory has been that larger cities tend to have larger co-ethnic markets and that their residents are more likely to be acclimated to supporting businesses owned by a broad range of racial groups (Fairlie and Meyer 1996).

Group poverty and social dislocation The relative socioeconomic status of a group in a metropolitan area may also influence labor market outcomes. If substantial portions of an individual's racial group live below the poverty level, the high level of attendant social dislocation represents a net drain on the available resources that may be accessed through co-ethnic relationships (Boyd 1991, 1998; Fairlie and Meyer 1996; Fischer and Massey 2000). *Region.*

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

Even after controlling for the factors above, research has shown that the Western and Southern regions of the USA have higher rates of wage or salary employment and self-employment than other areas of the country (Fairlie 2004). *Industry sector.* Since one component of the analysis explicitly involves the likelihood of being self-employed as opposed to a wage and salary worker, the distribution of workers across industry sectors within a metropolitan area should affect the relative degree of attractiveness of self-employment (Fairlie and Meyer 1996).

Public school segregation This paper tests the hypothesis that the segregation of minority group members (i.e. blacks) from the majority (i.e. whites) during childhood education is negatively associated with two labor market outcomes as an adult: either being a wage and salary worker or being a self-employed worker. To test the influence of school segregation, this analysis used a modified version of the well-known *index of exposure* (Massey and Denton 1993). In this case, the index of exposure is a quantitative expression of the percentage of the white majority group that matriculate in the average school attended by blacks in a public school system. The index ranges from 0.0 indicating full segregation to 0.99 indicating nearly complete integration.[2] For example, a black–white index of public school exposure of 0.18 for a metropolitan area would indicate that the average black student attends a school that is 18% white. To test for the relative effect of public school segregation and improve model goodness-of-fit, both residential and school exposure indices were ranked in a Blom normalized rank distribution (Looney and Gulledge 1985); these were used as predictors in the model and then interacted with black respondents to determine the relative effect for blacks.

This section reviewed a set of factors shown to influence self-employment likelihood, and these are included as control predictors in the analysis below. The next section describes the data used to test the hypothesis that blacks attending public schools with higher levels of segregation during childhood will be less likely to be self-employed adults or wage-salary workers.

3.4 Descriptive statistics and model

This section provides descriptive analyses of the segregation indices used, and these are followed with descriptive statistics on the control predictors used in the statistical models employed to test the study's hypothesis.

Table 1 includes descriptive statistics of the 1967, 1989 and 1999 indices of black students' exposure to whites in the school systems of the 327 largest Metropolitan Statistical Areas (MSAs) in the USA. The primary focus of the present analysis involved whether segregation of blacks from whites in the public school system of a metropolitan area was associated with higher levels of black self-employment during adulthood. In sum, the data presented in Table 1 indicate that: (1) the level of public school segregation has declined considerably since 1968; (2) after declining in the period between 1968 and 1989, public schools resegregated between 1989 and 1999; (3) even today. black students remain considerably segregated from white students in the American education system. The overall black–white index of

Table 1 School segregation descriptive statistics (from Logan and Oakley 2004)

Index of public school black–white exposure	Mean
1967 Black–white school public school exposure	
Mean index of black–white school exposure (weighted-average)	15.6
Minimum black–white school exposure	0.0
Maximum black–white exposure	88.2
Standard deviation	10.4
1989 Black–white school public school exposure	
Mean index of black–white school exposure (weighted-average)	28.7
Minimum black–white school exposure	8.9
Maximum black–white exposure	91.5
Standard deviation	15.8
1999 Black–white school public school exposure	
Mean index of black–white school exposure (weighted-average)	23.1
Minimum black–white school exposure	6.2
Maximum black–white exposure	85.2
Standard deviation	12.6

[2] Hypothetically, an index of exposure rating of 1.00 would mean that the average black student in a Metropolitan Statistical Area attended schools that were 100% white; thus, not including any blacks.

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

exposure has increased 53.2% from 15.6% in 1967 to 23.9% in 1999. However, the 1999 percentage is a decline from an average rate of 28.9% in 1989. These data show that although whites compose 61.3% of the national public school population in the period with the most recently available data, the average black student in a public school attended classes with less than 24% white students, and the average white student attended a school that was 82% white (Orfield and Yun 2001). Another index of school segregation, the index of dissimilarity shows that nearly one-half (i.e. 48.6%) of blacks would have to change their enrollment to a school where they were previously underrepresented to achieve a racial balance in their systems (Logan and Oakley 2004). The recent resegregation of public schools appears to be driven by resegregation in Southern schools and cities with large black populations (Logan and Oakley 2004; Orfield and Yun 2001).

Table 2 provides the means and standard deviations for all of the predictor variables in the model. Following the method advised by Neeleman (1973) to guard against collinearity bias in the predictor variables, a bivariate correlation matrix was computed, and individual terms with high bivariate correlations were added and subtracted from the model. These resulted in no substantial change in the direction, magnitude or significance of the beta coefficients or in the Variance Inflation Factors (VIF). After this procedure, it was not necessary to drop any term from the analysis.

4 Model results

To analyze the effects of the hypothesized individual, household and metropolitan area factors, along with the effects of public school segregation, two multinomial probit models predicted the log odds of being a wage or salary worker (rather than unemployed or self-employed) and self-employed (rather than a wage or salary worker or unemployed). Each model included an extensive set of control factors and included a public school segregation predictor (i.e. black–white public school exposure). In service to the text's primary interest, an interaction term between rate of public school segregation and black respondents was included to determine the relative effect of public school segregation on blacks specifically. Tables 3 and 4 report the results of these statistical models. These analyses were followed by a robustness check that included all black and white respondents, including those no longer living in the state of their birth.

The direction and significance of the individual-level, household-level and metropolitan area-level control predictors was consistent with past research, and a number of these remained statistically significant in the models that reflected the full complement of controls. However, since the influence of these individual predictors is not central to the hypothesis in the present paper, it is not reviewed here (for a more thorough review of the influence of these factors, please see Fairchild 2008a, b; Fairchild and Robinson 2008; Fairlie 1999, 2004; Fairlie and Meyer 1996).

The primary hypotheses driving the present analysis was that there would be a positive relationship between the exposure of blacks to whites in public schooling during childhood and the likelihood to be employed, either as wage or salary worker or in their own firms as adult workers. In both models, the analyses indicate a positive relationship between blacks' exposure to whites during childhood education and likelihood of being an adult wage or salary employer (coefficient of 0.1716, Z score = 10.33). Critical to the present inquiry, the interaction term between blacks and public school segregation was negative (−0.6599) and statistically significant (Z score = −22.18). These results indicate that *ceteris paribus* among the cohort of blacks that completed their schooling in 1967, those that lived in metropolitan areas with higher levels of segregation were less likely to be wage and salary employed as adults relative to whites that attended the same school systems. Thus, Hypothesis 1 was supported.

In the second model, the results show a similar positive and statistically significant relationship between self-employment and public school segregation (coefficient of 0.0893, Z score = 4.19). Likewise, the interaction term between blacks and public school segregation was negative and statistically significant (coefficient of −0.4825, Z score = −9.51). Thus, Hypothesis 2 was similarly supported, based on these results.

The results of the initial analysis were limited to working-age adults still residing within their state of birth (n = 102,334). To determine whether these

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

Table 2 Descriptive statistics of variables in analysis [$n = 11{,}569$ (blacks only)]

Factors/variables	Mean	Standard deviation
Individual factors		
Gender (male)	0.561	
Age (years)	44.4	3.66
High school graduates	0.652	
College graduates	0.149	
Veteran	0.151	
Household factors		
Married with children	0.276	
Married, no children	0.089	
Single with child	0.391	
Single (no child, no spouse)	0.243	
Adults in household (HH)	3.48	1.68
Mean HH college education	0.146	0.244
Mean HH high school education	0.812	0.252
Nonbusiness income (log)	10.825	0.968
Metro area characteristics		
Relative Duncan SEI index for blacks	0.792	0.059
Total population (log)	14.762	0.883
Black population (log)	13.095	1.017
Southern region	0.487	
Western region	0.096	
Northeastern region	0.175	
Midwest region	0.245	
Industry sector distributions in metro area		
Agriculture (%)	0.007	0.006
Mining (%)	0.002	0.005
Construction (%)	0.026	0.005
Manufacturing (%)	0.115	0.040
Transportation (%)	0.053	0.008
Wholesale (%)	0.046	0.005
Retail (%)	0.123	0.011
Finance, insurance, real estate (%)	0.039	0.008
Business services (%)	0.059	0.012
Personal services (%)	0.060	0.006
Entertainment (%)	0.010	0.003
Professional services (%)	0.179	0.015
Public Administration (%)	0.032	0.013
Military (%)	0.020	0.015
Public school black–white exposure (1967)	0.231	0.310

results are an artifact of those who remained in their home state, a robustness check was performed which expanded the analysis to all white and black working-age adults ($n = 203{,}519$). An internal analysis of these data indicated that 49.8% of all respondents lived in the state of their birth. Blacks were less likely than whites to have moved, with 54.7% still residing in the state of their birth in 2000. The results of these analyses can be found in Tables 5 and 6. The pattern of results was identical, even when these "movers"

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

Table 3 Multinomial probit analysis predicting black wage or salary employment (n = 102,334)

Factors/variables	Coefficient	Z score
Individual factors		
Gender (female)	−1.1180	(−66.45)
Age (years)	−0.0669	(−29.50)
High school graduates	−0.7478	(−23.61)
College graduates	0.7298	(24.46)
Veteran	−1.0388	(−38.54)
Black respondent	0.1576	(4.50)
Household factors		
Married with children	0.6436	(26.30)
Married, no children	−0.6854	(−26.15)
Single with child	0.6407	(18.20)
Single (no child, no spouse—reference category)		
Adults in household (HH)	−0.1735	(−26.74)
Mean HH college education	−0.8080	(−18.65)
Mean HH high school education	1.2388	(28.46)
Nonbusiness income (log)	1.0205	(76.84)
Metro area characteristics		
Relative Duncan socioeconomic index for blacks	−1.3227	(−15.53)
Total population (log)	0.0732	(1.01)
Black population (log)	−0.0838	(−1.62)
Southern region	−0.0952	(−2.12)
Western region	−0.0113	(−0.17)
Northeastern region	0.0323	(0.56)
Midwest region (reference category)		
Industry sector distributions in metro area		
Agriculture (%)	−2.6074	(−2.27)
Mining (%)	17.8667	(5.78)
Construction (%)	8.6944	(3.20)
Manufacturing (%)	−2.3278	(−2.86)
Transportation (%)	−18.3818	(−5.51)
Wholesale (%)	14.2829	(2.88)
Retail (%)	7.1679	(3.47)
Finance, insurance, real estate (%)	−21.6167	(−5.81)
Business services (%)	7.6734	(4.89)
Personal services (%)	−12.2544	(−3.25)
Entertainment (%)	56.775	(9.46)
Professional services (%)	4.4924	(2.70)
Public administration (%)	2.4609	(1.16)
Military (%) (reference category)		
Public school black–white exposure (1967)	0.1716	(10.33)
Interaction: black and public school exposure	−0.6599	(−22.18)
Constant	−4.9011	(−6.99)

were included in the analysis. Public school exposure between blacks and whites within a school system in 1967 increased the likelihood of both self employment and wage-salary employment of working-age adults residing in those cities in 2000. Additionally, the interaction terms between blacks

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

Table 4 Multinomial probit analysis predicting likelihood of black self-employment (n = 102,334)

Factors/variables	Coefficient	Z score
Individual factors		
Gender (female)	−1.3328	(−52.99)
Age (years)	−0.0328	(−9.96)
High school graduates	−0.3639	(−6.63)
College graduates	0.7903	(20.22)
Veteran	−0.9049	(−23.18)
Black respondent	−0.3949	(−6.99)
Household factors		
Married with children	0.8281	(24.89)
Married, no children	−0.0671	(−1.79)
Single with child	0.5618	(10.91)
Single (no child, no spouse—reference category)		
Adults in household	−0.0388	(−3.69)
Mean HH college education	−0.1099	(−1.82)
Mean HH high school education	1.1184	(16.19)
Nonbusiness income (log)	0.2332	(14.61)
Metro area characteristics		
Relative Duncan SEI index for blacks	−0.2695	(−2.10)
Total population (log)	−0.1431	(−1.06)
Black population (log)	0.0831	(0.92)
Southern region	−0.0181	(0.30)
Western region	0.3203	(3.70)
Northeastern region	0.0938	(1.23)
Midwest region (reference category)		
Industry sector distributions in metro area		
Agriculture (%)	12.5682	(8.05)
Mining (%)	−41.8062	(−9.83)
Construction (%)	−17.2260	(−4.71)
Manufacturing (%)	8.9451	(8.07)
Transportation (%)	18.6398	(4.18)
Wholesale (%)	23.8651	(3.68)
Retail (%)	−1.4269	(−0.52)
Finance, insurance, real estate (%)	28.5542	(5.68)
Business services (%)	−2.8976	(−1.41)
Personal services (%)	−5.4337	(−1.88)
Entertainment (%)	−3.5682	(−0.77)
Professional services (%)	0.0600	(0.05)
Public administration (%)	1.1556	(0.71)
Military (%) (reference category)		
Public school black–white exposure (1967)	0.0893	(4.19)
Interaction: black and public school exposure	−0.4825	(9.51)
Constant	−4.6378	(−5.00)

and public-school segregation indicated that blacks currently living in cities with segregated school systems in 1967 were less likely to be working in their own or others' firms than their white peers, whether they resided within their states of birth, or had moved since birth.

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

Table 5 Multinomial probit analysis predicting the likelihood of black wage or salary employment (n = 203,519)

Factors/variables	Coefficient	Z-score
Individual factors		
Gender (female)	−1.0135	(−88.99)
Age (years)	−0.0539	(−35.25)
High school graduates	−0.4514	(−20.41)
College graduates	1.4212	(80.50)
Veteran	−0.6588	(−37.22)
Black respondent	0.2358	(11.53)
Household factors		
Married with children	0.5845	(34.79)
Married, no children	−0.7102	(−39.84)
Single with child	0.5548	(22.17)
Single (no child, no spouse—reference category)		
Adults in household (HH)	−0.0235	(−5.60)
Mean HH college education	−1.3679	(−46.87)
Mean HH high school education	1.6175	(54.15)
Nonbusiness income (log)	0.4611	(60.24)
Metro area characteristics		
Relative Duncan SEI index for blacks	−0.2311	(−4.89)
Total population (log)	0.0518	(1.18)
Black population (log)	−0.1028	(−3.24)
Southern region	−0.0464	(−1.51)
Western region	−0.1329	(−2.87)
Northeastern region	0.0264	(0.65)
Midwest region (ref. category)		
Industry sector distributions in metro area		
Agriculture (%)	−4.0369	(4.93)
Mining (%)	15.0199	(7.30)
Construction (%)	8.6074	(4.24)
Manufacturing (%)	−1.6329	(−3.04)
Transportation (%)	−12.8813	(−5.83)
Wholesale (%)	24.9360	(7.35)
Retail (%)	3.6449	(2.41)
Finance, insurance, real estate (%)	−19.0559	(−7.73)
Business services (%)	8.1600	(7.53)
Personal services (%)	−3.3189	(−1.74)
Entertainment (%)	−1.8862	(−0.66)
Professional services (%)	1.5717	(1.82)
Public administration (%)	0.9636	(0.89)
Military (%) (reference category)		
Public school black–white exposure (1967)	0.1136	(9.29)
Interaction: black and PS exposure	−0.3582	(−17.52)
Constant	−2.0648	(−4.48)

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

Table 6 Multinomial probit analysis predicting likelihood of black self-employment (n = 203,519)

Factors/variables	Coefficient	Z-score
Individual factors		
Gender (female)	−1.9088	(−125.48)
Age (years)	0.0295	(14.21)
High school graduates	0.7114	(21.33)
College graduates	1.1738	(51.79)
Veteran	−1.5881	(−64.97)
Black respondent	−0.4813	(16.24)
Household factors		
Married with children	0.5705	(24.99)
Married, no children	−0.0668	(−2.74)
Single with child	0.6408	(17.80)
Single (no child, no spouse—reference category)		
Adults in household	0.1522	(27.71)
Mean HH college education	0.5105	(13.40)
Mean HH high school education	−0.0771	(1.90)
Nonbusiness income (log)	0.1904	(20.17)
Metro area characteristics		
Relative Duncan SEI index for blacks	0.1544	(2.34)
Total population (log)	0.1677	(2.90)
Black population (log)	−0.2264	(−5.41)
Southern region	0.1036	(2.53)
Western region	0.0122	(0.20)
Northeastern region	−0.8707	(−1.57)
Midwest region (reference category)		
Industry sector distributions in metro area		
Agriculture (%)	−0.8245	(−0.75)
Mining (%)	−9.9843	(−3.65)
Construction (%)	−1.6802	(−0.61)
Manufacturing (%)	−2.3007	(−3.22)
Transportation (%)	−5.3769	(1.84)
Wholesale (%)	15.6406	(3.39)
Retail (%)	2.9873	(1.47)
Finance, insurance, real estate (%)	−8.6340	(−2.62)
Business services (%)	3.8108	(2.67)
Personal services (%)	−9.8248	(−3.88)
Entertainment (%)	18.2762	(4.89)
Professional services (%)	−0.1957	(−0.17)
Public administration (%)	−4.4457	(3.10)
Military (%) (reference category)		
Public school black–white exposure (1967)	0.1615	(9.92)
Interaction: black and PS exposure	−0.8389	(−28.59)
Constant	−4.5708	(−7.44)

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

5 General discussion

This study finds that blacks and whites who grew up in cities where they attended schools with greater percentages of white students were more likely to locate employment as adults as wage or salary workers or to be self-employed than their counterparts who attended schools that provided less cross-race exposure. Further, these results indicate that blacks attending school systems with higher rates of segregation were less likely than their white counterparts to find either form of employment. This finding is robust, given that the models employed controlled for a substantial body of variables, including adult educational attainment and non-business household income. Even with these controls, the model reports a statistically significant effect of the racial composition of public school education over 35 years later. This finding suggests what educational sociologists have long believed: inequalities created by differences in social capital are developed during earlier periods of life and are reinforced by educational stratification. Organizational scholars should adjust our models of social capital development, especially in regard to underrepresented minorities, to accommodate socialization that occurs well before individuals enter the organizations we study.

In a recent publication in the *Academy of Management* journal, Brief et al. (2005) called on researchers to attend to a greater degree to extraorganizational factors in the communities in which we live that can influence the efforts of managers to enact organizational change. Specifically, they examined how the diversity experiences of whites in their communities moderated their reactions to diversity programs in their workplaces. This paper attempts to respond to their call through an examination of how segregation during childhood education influences the tendency of adult blacks to become self-employed or to enter into wage or salary labor. One benefit of this approach is that it not only supports the notion that community-based conflicts influence organizational outcomes, but it encourages us to recognize that intergroup relations in communities have longstanding effects. By solely focusing on the contemporaneous rates of segregation or an individual's social network, we may fail to recognize that the formation of social relationships occurs over many years and is reinforced by the institutions that educate, train and employ us.

5.1 Practical implications

The role of federal, state and local governments in fostering racial integration in the public school system has been a central public policy debate in the USA and other nations with legacies of institutional discrimination against minority groups (e.g. South Africa, Brazil). In 1896, the U.S. Supreme Court ratified the practice of "separate but equal" government-sponsored facilities in the *Plessy versus Ferguson* case, leading to the creation of *de jure* educational segregation by race throughout much of the USA. In the 1950s, civil rights activism focused on the repeal of these statutes, leading to the Supreme Court's reversal and repeal of *de jure* segregation in *Brown v. Board of Education, 347 U.S. 483* (1954). Since then, policy efforts have led to considerable declines in rates of segregation by race in some public school systems, as noted above (Logan and Oakley 2004). In late 2006, the U.S. Supreme Court heard arguments about whether school systems might explicitly consider racial distribution in assigning students to schools within a system as a desegregation policy. In June 2007, in *Parents Involved in Community Schools v. Seattle Schools District No. 1*, the court ruled that explicit management of the assignment of students in public schools solely on the basis of race was unconstitutional (i.e. a violation of the Fourteenth Amendment's equal protection clause). However, pursuit of racial evenness to ensure equal educational quality is still supported under the constitution. A central theme in each of these federal cases (and many others at the state and local level) has been whether segregation by race excludes disadvantaged minority students from the educational, social and cultural resources necessary for equal economic opportunity in a society.

Educational policy and small business policy are frequently discussed topics in national, state and local political campaigns. It is common for political rhetoric to encourage the support of "better schools" or "the small business person". Likewise, a number of corporations support business–education partnerships in local public schools and minority supplier diversity programs. Unfortunately, these policy areas are not always linked together, and they are even less frequently tied to the more contentious issue of desegregation of public schools. The legacy of segregation in our schools may have longstanding and unforeseen effects.

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

5.2 Limitations

This analysis has some limitations, and in most cases, these represent opportunities for future research. First, the study focused on a national sample and measured segregation at the MSA level. Although this approach avoids capturing spurious correlations that are representative of blacks' housing choices, the analysis does not measure the childhood and adult social networks of respondents. To perform such an analysis would require an extensive longitudinal sample that includes measures of social network demography, which this data set did not provide. However, a recent study by Fischer and Massey (2006) of black and Hispanic college students indicate that the demography of the social networks formed during primary schooling has a strong influence on those formed during college.

Second, our analysis measures segregation at the school system level. In recent years, even as the overall rate of segregation has declined across systems, students are often tracked into classes that contribute to racial segregation within schools. Put differently, some students may attend schools in systems that have high relative rates of integration, while not actually attending classes with students of another race. Unfortunately, data sets providing these data are not presently available. Future research should use other methods, like qualitative interviews, to determine how social capital is being created within institutions that are segregated across classrooms.

Third, this analysis focused only on black Americans still living within the state of their birth, which was a necessary constraint to control for both the contemporaneous and childhood influence of segregation. However, future analyses might focus on the influence of childhood segregation on a sample of blacks that moved during their adulthood. Such an analysis would require a database that had rich detail on the multiple locations that individuals lived throughout their lifetimes.

Fourth, since the school segregation of blacks is far greater than that of other racial groups of students (Logan and Oakley 2004). Future analyses might examine the influence of these patterns on other groups. However, such analyses should examine the influence of segregation on individual ethnic groups in the USA (e.g. Indians, Pakistanis, Chinese) rather than racial categories (e.g. Asians), since the segregation of these various ethnic groups differs considerably. Moreover, this analysis focused on a highly segregated minority group in the USA. In urban centers around the world, immigrant minority groups also experience high segregation from the majority. Is the relationship between self-employment and public school segregation evidenced outside of the USA? For example, in the UK, South Asians (e.g. Pakistanis, Indians) are considerably segregated from the white majority and at levels that are greater than those experienced by other racial groups, such as West Indian blacks (Phillips 1998). Utilizing similar public-use census data sets, like the U.K. Survey of Anonymised Records (SARS), analysts can examine these influences outside the USA and may even be able to perform across-nation, within-group comparative analyses (e.g. influence of childhood segregation on the self-employment likelihood Indians in the UK and USA).

6 Conclusions

More than 50 years ago, the U.S. Supreme Court declared that segregation within American public schools was unconstitutional. Since then segregation rates have declined, yet American black students remain considerably segregated from whites. This analysis suggests that entrepreneurship scholars and those attempting to foster minority business development should recognize that the social structure of educational institutions in which youth spend their time may have persistent influences on their ability to participate in the labor market and in our firms as adults.

Acknowledgments The author would like to acknowledge the helpful comments of Timothy Bates and Robert Fairlie, and Rachna Maheshwari for statistical assistance on this manuscript.

References

Bates, T. (1989). The changing nature of minority business: An analysis of Asian, nonminority and Black-owned businesses. *Review of Black Political Economy, 18*, 25–42.

Baumol, W. (1996). *Entrepreneurship, management, and the structure of payoffs*. Cambridge, MA: MIT Press.

Becker, G. S. (1972). Schooling and inequality from generation to generation: Comment. *The Journal of Political Economy, 80*, S252–S255.

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

Becker, G. S., & Murphy, K. M. (1992). The division of labor, coordination costs, and knowledge. *Quarterly Journal of Economics, 107*, 1137–1160.

Bobo, L., & Zubrinsky, C. (1996). Attitudes on residential integration: Perceived status differences, mere in-group preference, or racial prejudice? *Social Forces, 74*, 883–909.

Bonacich, E. (1973). A theory of middleman minorities. *American Sociological Review, 38*, 583–594.

Borjas, G. (1995). Ethnicity, neighborhoods, and human capital externalities. *American Economic Review, 85*, 365–390.

Bourdieu, P. (1973). Cultural reproduction and social reproduction. In R. Brown (Ed.), *Knowledge, education and cultural change* (pp. 71–112). London, UK: Tavistock.

Bourdieu, P., & Passeron, J. C. (1977). *Reproduction in education, society and culture*. London, UK: Sage Publications.

Boyd, R. (1991). A contextual analysis of black self-employment in large metropolitan areas, 1970–1980. *Social Forces, 70*, 409–429.

Boyd, R. (1998). Residential segregation by race and the black merchants of northern cities during the early twentieth century. *Sociological Forum, 13*, 595–609.

Brief, A. P., Umphress, E. E., Dietz, J., Burrows, J., Butz, R., & Scholten, L. (2005). Community matters: Realistic group conflict theory and the impact of diversity. *Academy of Management Journal, 48*, 830–844.

Brimmer, A. (1968). Desegregation and Negro leadership. In E. Ginsberg (Ed.), *Business leadership and the Negro crisis* (pp. 34–52). New York: McGraw-Hill.

Bull, I., & Winter, F. (1991). Community differences in business births and business growths. *Journal of Business Venturing, 6*, 29–43.

Butler, J. S. (1991). *Entrepreneurship and self-help among Black Americans: Reconstruction of race and economics*. Albany: SUNY Press.

Card, D., & Kruegar, A. B. (1992). Does school quality matter? Returns to education and the characteristics of public schools in the United States. *The Journal of Political Economy, 100*, 1–40.

Charles, C. (2003). The dynamics of racial residential segregation. *Annual Review of Sociology, 29*, 167–207.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94*, S95–S120.

Coleman, S. (2004). Access to debt capital for women- and minority-owned small firms: Does educational attainment have an impact? *Journal of Developmental Entrepreneurship, 9*, 127–143.

Collins, R. (1971). Functional and conflict theories of educational stratification. *American Sociological Review, 36*, 1002–1019.

Cutler, D. M., & Glaeser, E. L. (1997). Are ghettos good or bad? *The Quarterly Journal of Economics, 112*, 827–872.

Darity, W. A. (1982). The human capital approach to black-white earnings inequality: Some unsettled questions. *Journal of Human Resources, 17*, 72–93.

Darity, W. A., & Mason, P. L. (1998). Evidence on discrimination in employment: Codes of color, codes of gender. *The Journal of Economic Perspectives, 12*, 63–90.

Duncan, O. D. (1961). In: A socioeconomic index for all occupations. Reiss, A., Jr., Ed. (pp. 109–138). *Occupations and Social Status*. New York: Free Press.

Echenique, F., & Fryer, R. G. (2007). A measure of segregation based on social interactions. *The Quarterly Journal of Economics, 122*, 441–485.

Fairchild, G. (2008a). Residential segregation influences on the likelihood of Black and White self employment. *Journal of Business Venturing, 23*, 46–74.

Fairchild, G. (2008b). The Influence of residential segregation and its correlates on ethnic enterprise in urban areas. *Journal of Business Venturing, 23*, 513–527.

Fairchild, G., & Robinson, J. (2008) Unlearned lessons from letter from Birmingham jail: The work begun, the progress made, and the task ahead. *Business and Society, 47*(4), 484–522.

Fairlie, R. W. (1999). The absence of the African-American owned business: An analysis of the dynamics of self-employment. *Journal of Labor Economics, 17*, 80–188.

Fairlie, R. (2004). Recent trends in ethnic and racial business ownership. *Small Business Economics, 23*(3), 203–218.

Fairlie, R. W., & Meyer, B. D. (1996). Ethnic and racial self-employment differences and possible explanations. *The Journal of Human Resources, 31*, 757–793.

Farley, R., Steeh, C., Krysan, M., Jackson, T., & Reeves, K. (1994). Stereotypes and segregation: Neighborhoods in the Detroit area. *The American Journal of Sociology, 100*, 750–780.

Fischer, M., & Massey, D. (2000). Residential segregation and ethnic enterprise in U.S. metropolitan areas. *Social Problems, 47*, 408–424.

Fischer, M., & Massey, D. S. (2006). The effect of childhood segregation of minority academic performance at selective colleges. *Ethnic and Racial Studies 29*,1–26

Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *The American Journal of Sociology, 91*, 481–510.

Grogger, J. (1996). Does school quality explain the recent black/white wage trend? *Journal of Labor Economics, 14*, 231–253.

Holzer, H. (1991). The spatial mismatch hypothesis: What has the evidence shown?. *Urban Studies, 28*, 105–122.

Huffman, M. L., & Cohen, P. N. (2004). Racial wage inequality: Job segregation and devaluation across U.S. labor markets. *American Journal of Sociology, 109*, 902–936.

Ibarra, H. (1993). Personal networks of women and minorities in management: A conceptual framework. *Academy of Management Review, 18*, 56–87.

Ibarra, H. (1995). Race, opportunity, and diversity of social circles in managerial networks. *Academy of Management Journal, 38*, 673–703.

Kain, J. F. (1968). Housing segregation, Negro unemployment, and metropolitan decentralization. *Quarterly Journal of Economics, 82*, 175–197.

Kain, J. F. (1992). The spatial mismatch hypothesis: Three decades later. *Housing Policy Debate, 3*(2), 371–392.

Kirzner, I. (1973). *Competition and entrepreneurship*. Chicago: University of Chicago Press.

Kmec, J. (2006). White hiring agents' organizational practices and out-group hiring. *Social Science Research, 35*, 688–701.

Lee, J., & Venkataraman, S. (2006). Aspirations, market offerings, and the pursuit of entrepreneurial opportunities. *Journal of Business Venturing, 21*, 107–123.

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms

Light, I. H. (1979). Disadvantaged minorities in self employment. *International Journal of Comparative Sociology, 20*, 31–45.

Logan, J. R., & Oakley, D. (2004). *The continuing legacy of the brown decision: Court action and school segregation, 1960–2000*. Providence, RI: Lewis Mumford Center for Comparative Urban and Regional Research. http://mumford.cas.albany.edu/schoolsegregation/reports/Brown_report_1_28.pdf.

Looney, S. W., & Gulledge, T. R. (1985). Probability plotting positions and goodness of fit for the normal distribution. *The Statistician, 34*, 297–303.

Loury, G. C. (1998). Discrimination in the post-civil rights era: Beyond market interactions. *Journal of Economic Perspectives, 12*(2), 117–126.

Massey, D. S., & Denton, N. A. (1993). *American apartheid: Segregation and the making of the underclass*. Cambridge, MA: Harvard University Press.

Massey, D. S., & Fischer, M. J. (2006). The effect of childhood segregation on minority academic performance at selective colleges. *Ethnic and Racial Studies, 29*, 1–26.

Meyer, J. W. (1977). The effects of education as an institution. *American Journal of Sociology, 83*, 55–77.

Mouw, T. (2002). Are Black workers missing the connection? The effect of spatial distance and employee referrals on interfirm racial segregation. *Demography, 39*, 507–528.

NCES. (2005). *Table 5-1. Percentage distribution of the race/ethnicity of public school students enrolled in kindergarten through 12th grade: Fall 1972–2005*. Washington D.C.: National Center for Education Statistics.

Neeleman, D. (1973). *Multicollinearity in linear economic models*. Tilburg, The Netherlands: Tilburg University Press.

NMSDC. (2006). *Who we are: Procurement activity*. New York, NY: National Minority Supplier Development Council. Accessed from: http://www.nmsdcus.org/who_we_are/procurement.html.

Oliver, M. L., & Shapiro, T. M. (1990). Wealth of a nation: A reassessment of asset inequality in America shows at least one-third of households are asset-poor. *American Journal of Economics and Sociology, 49*, 129–151.

Oliver, J. E., & Wong, J. (2003). Intergroup prejudice in multiethnic settings. *American Journal of Political Science, 47*, 567–582.

Orfield, G., & Yun, J. (2001). *Resegregation in American schools*. Cambridge, MA: Civil Rights Project Harvard University.

Persell, C. H., & Cookson, P. W. (1985). Chartering and bartering: Elite education and social reproduction. *Social Problems, 33*, 114–129.

Phillips, D. (1998). Black minority ethnic concentration, segregation and dispersal in Britain. *Urban Studies, 35*, 1681–1702.

Rasheed, H. S. (2004). Capital access barriers to government procurement performance: Moderating effects of ethnicity, gender and education. *Journal of Developmental Entrepreneurship, 9*, 109–126.

Rhodes, C., & Butler, J. S. (2004). Understanding self-perceptions of business performance: An examination of Black American entrepreneurs. *Journal of Developmental Entrepreneurship, 9*, 55–71.

Rivkin, S. G. (1995). Black/White differences in schooling and employment. *The Journal of Human Resources, 30*, 826–852.

Ruggles, S., Sobek, M., Alexander, T., Fitch, C. A., Goeken, R., Hall, P. K., et al. (2004). *Integrated public use microdata series: Version 3.0 [machine-readable database]*. Minneapolis, MN: Minnesota Population Center (producer and distributor).

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review, 26*, 217–226.

Siqueira, A. C. O. (2007). Entrepreneurship and ethnicity: The role of human capital and family social capital. *Journal of Developmental Entrepreneurship, 12*, 31–46.

Smith, J. P. (1984). Race and human capital. *American Economic Review, 74*, 685–698.

Stevenson, H. C., McNeil, J. D., Herrero-Taylor, T., & Davis, G. Y. (2005). Influence of perceived neighborhood diversity and racism experience on the racial socialization of Black youth. *Journal of Black Psychology, 31*, 273–290.

Thurow, L. (1975). *Generating inequality*. New York: Basic Books.

Useem, M., & Karabel, J. (1986). Pathways to top corporate management. *American Sociological Review, 51*, 184–200.

Venkataraman, S. (1997). The distinctive domain of entrepreneurship research: An editor's perspective. In J. A. Katz & R. H. Brockhaus (Eds.), *Advances in entrepreneurship, firm emergence and growth*. Greenwich, CT: JAI Press.

Waldinger, R., Aldrich, H., & Ward, R. (1990). *Ethnic entrepreneurs: Immigrant business in industrial society*. Newbury Park, CA: Sage.

Wells, A. S., & Crain, R. L. (1994). Perpetuation theory and the long-term effects of school desegregation. *Review of Educational Research, 64*, 531–555.

Williams, K. Y., & O'Reilly, C. A. (1998). Demography and diversity in organizations: A review of 40 years of research. *Research in Organizational Behavior, 20*, 77–140.

Wilson, K., & Martin, W. A. (1982). Ethnic enclaves: A comparison of the Cuban and Black economies in Miami. *American Journal of Sociology, 88*, 135–160.

Zimmer, C., & Aldrich, H. (1987). Resource mobilization through ethnic networks: Kinship and friendship ties of shopkeepers in England. *Sociological Perspectives, 30*, 422–445.

This content downloaded from 129.98.211.27 on Tue, 14 Nov 2017 23:47:06 UTC
All use subject to http://about.jstor.org/terms