Educational Inequality by Race in Brazil, 1982–2007: Structural Changes and Shifts in Racial Classification

Leticia J. Marteleto

Published online: 19 January 2012

© Population Association of America 2012

Abstract Despite overwhelming improvements in educational levels and opportunity during the past three decades, educational disadvantages associated with race still persist in Brazil. Using the nationally representative Pesquisa Nacional de Amostra por Domicílio (PNAD) data from 1982 and 1987 to 2007, this study investigates educational inequalities between white, *pardo* (mixed-race), and black Brazilians over the 25-year period. Although the educational advantage of whites persisted during this period, I find that the significance of race as it relates to education changed. By 2007, those identified as blacks and *pardos* became more similar in their schooling levels, whereas in the past, blacks had greater disadvantages. I test two possible explanations for this shift: structural changes and shifts in racial classification. I find evidence for both. I discuss the findings in light of the recent race-based affirmative action policies being implemented in Brazilian universities.

Keywords Education · Inequality · Race · Brazil

Introduction

Social scientists have long been interested in race and its relation to social disadvantages in Brazil, one of the largest multiracial societies in the world (for recent work, see Bailey 2009; Daniel 2006; Telles 2004). Brazil offers an attenuated race categorization in which black and white are two extremes of a continuum based on skin color, while *pardos* ¹—considered those of mixed race—constitute the middle category. ² Despite such a

Department of Sociology and Population Research Center, University of Texas at Austin, 1 University Station G1800, Austin, TX 78712, USA e-mail: marteleto@prc.utexas.edu



¹Pardo is the official category used by the Brazilian Institute of Geography and Statistics (IBGE) to identify those who are a mixture of white, black, and native Indian. *Pardos* have been identified as *mulatto* or *moreno* (Degler 1971/1986; Telles and Lim 1998). The other classifications are *branco* (white), *preto* (black), *amarelo* (yellow, meaning Asians), and *indígena* (indigenous, meaning native Indians).

²Because of the subjective nature of race and racial identity in Brazil, which is explained in detail later, whenever I use the terms *whites*, *pardos*, or *blacks*, I refer to "those identified or labeled" as whites, pardos, or blacks.

L. J. Marteleto (⊠)

continuum, it has been well documented that whites have significant advantages over both pardos and blacks, particularly in educational and labor market outcomes. The social location of pardos and blacks—although lower than whites—has been subject to a long-standing debate centering on whether pardos and blacks should be considered in a collective negro category, thereby establishing a dichotomous racial categorization in Brazil. Those favoring such a dichotomy argue that the social disadvantages of pardos and blacks vis-à-vis whites are similar enough to justify examining them together (Silva 1980, 1985; Silva and Hasenbalg 1999). The Brazilian black movement has long pushed for this dichotomy, arguing that it yields a negro category, a term of ethnic pride and affirmation that would potentially diminish racial ambiguity and destignatize blackness (Telles 2004). The policies of racial quotas in Brazilian universities also use a dichotomous understanding of race based on white versus nonwhite. Those arguing against dichotomization contend that blacks and pardos are sufficiently different to warrant separate categories. For those scholars, pardos and blacks are different because of their dissimilar historical backgrounds (Daniel 2006) and because pardos do not identify themselves in a collective negro category (Bailey 2009). The question of whether social disadvantages associated with race resemble a dichotomy has recently regained importance because the recent affirmative action policies implemented in Brazil are based on such a dichotomy.

The recent debates about race, social stratification, and education in Brazil have revolved around policies of affirmative action in universities that have engaged the population at the national level (for reviews, see Bailey 2009; Telles 2004). Several Brazilian public universities have adopted race-targeted policies, and legislation is currently before the national congress to mandate that all federal universities implement racial quotas.³ Such debate has placed racial inequality at the forefront of social life in Brazil, a new development in a context in which racial democracy has been an enduring myth for decades. The debate has become so widespread that Brazil has been said to be "in the midst of an affirmative action boom" (Bailey 2009:11).

A little-researched issue germane to the debate on affirmative action policies and racial dichotomization in Brazil is evidence on whether educational disadvantages associated with race have persisted over time and whether they resemble a continuum or a dichotomy. Although policies aimed at promoting minority education have increased access to formal schooling in the last decade, it is not clear whether a gap in educational achievement and attainment remains between *pardos* and blacks or whether the extent and nature of this gap has changed. This article builds on this important debate by examining whether racial categorization based on a dichotomy is justifiable for education during the period 1982–2007.

In this study, I use nationally representative data from the Pesquisa Nacional de Amostra por Domicílio (PNAD) to examine how the educational disadvantages associated with each nonwhite group—that is, blacks and *pardos*—versus whites narrowed, stayed the same, or widened from 1982 to 2007. Has the gap in education associated with race decreased during the 25-year period? Are *pardo* and black Brazilians similar in their educational attainment, and has the gap between whites and each of the other groups changed? My findings indicate that the educational advantages of whites compared with *pardos* and blacks have decreased throughout the

³ The project "Statute of Racial Equality" was proposed in May 2003 and approved in November 2005.



25-year period I examine. My findings also show that older cohorts of black adolescents had higher educational disadvantages than their *pardo* peers. However, younger cohorts of black adolescents—although still educationally disadvantaged compared with whites—have similar or higher levels of schooling than their *pardo* counterparts. That blacks and *pardos* have become more similar in their disadvantages provides empirical support for a dichotomous categorization of race—at least for education—and corroborates the government's policies targeting both blacks and *pardos*.

At least two potential explanations exist for my findings of gains in education by black and pardo adolescents and of blacks surpassing pardo adolescents. First, the families of black adolescents—although possessing smaller endowments of factors that relate to higher levels of schooling in 1982 than in 2007—narrowed this disadvantage over the 25-year period. Cross-sectional comparisons suggest that the gap has closed in part because of the large gains in family background resources among black adolescents. Because black Brazilians have been disproportionately located at the bottom of the socioeconomic distribution, they also show disproportionate gains as a result of these recent educational improvements. Second, the larger schooling gains of those identifying as black over those identifying as pardos could be a phenomenon of "darkening with education." That is, recent cohorts of highly educated Brazilians may have a disproportionately higher likelihood of labeling their children as black rather than either white or pardo, a process that mirrors the "whitening" with money that has taken place in Brazilian society for generations (Hasenbalg 2005; Ianni 1987; Schwartzman 2007). Such ambiguity is possible in Brazil because of the country's blurred lines among racial categories. My results show some evidence of "darkening" with education, suggesting that labeling accounts for at least part of the educational gains blacks have incurred and for their current proximity with pardos. This interpretation is consistent with recent findings on racial labeling in Brazil that show that the mention of quotas for blacks in a split-ballot experiment nearly doubles the proportion choosing that racial category (Bailey 2009). I end this article by arguing that the recent social climate and socioeconomic gains in Brazilian society likely have produced real changes in the social position of blacks, one that currently yields a dichotomy in how race is associated with educational disadvantages.

There are several reasons why it is important to better understand racial inequalities and its interface with education in Brazil. First, Brazil has had notoriously high levels of social and economic inequality, which has shaped its social structure and resulted in a very inequitable distribution of access to education and its benefits. How much these inequalities are associated with race—and not only class—is a question that is at the core of the discipline of social demography. In addition, the current debate over racial quotas in public universities has engaged the Brazilian population at a national level and can offer valuable insights to the literatures of educational opportunity and race everywhere. Finally, Brazil offers unusually high-quality nationally representative data that allow for examining educational trends over time.

Education and Race in Brazil

Brazil is one of the most unequal countries in the world in terms of income, with the top 10% of the socioeconomic distribution holding 46.9% of the total income (World Bank



2007). Education is often cited as the main vehicle for alleviating such pervasive inequality. However, for most of the last century, the Brazilian educational system has produced persistently low levels of schooling, low educational coverage, high grade repetition, and problems with school access (Birdsall and Sabot 1996). Even with recent improvements in education, Brazil still has relatively low educational levels, particularly in comparison with other Latin American countries (Unesco 2007).

Past research has extensively investigated how these low levels of educational attainment were generated and reproduced across generations, often pointing to high fertility levels, structural problems, and lack of access to schools (Barros and Lam 1996; Birdsall and Sabot 1996; Lam and Levison 1991). By the mid-2000s, primary school enrollment was nearly universal for children ages 7 to 14 of all racial categories. Favorable demographic conditions resulting from the smaller cohorts of school-age children (Lam and Marteleto 2008) and the educational policies implemented since the mid-1990s have contributed to improvements in the levels of schooling during the past 15 years (Veloso 2009). Despite this compression of the schooling distribution at the primary level, a large proportion of Brazilian adolescents are truncating their educational careers (Néri 2009). It is safe to say that during the past 15 years, the Brazilian schooling distribution has clearly expanded and impacted all the socioeconomic groups in the country, but important inequalities persist.

Despite this recent universal enrollment in primary schooling, black and *pardo* children have historically had educational disadvantages, and some of these disadvantages persist, as I will show. Educational stratification by race extends from the quantity of education completed to the quality of the education received inside schools. Recent research has documented lower academic performance among nonwhites (Soares et al. 2005) and a racially insensitive curriculum that excludes African history and black history (Silva 2008).

The racial context of Brazil is complex and resembles a continuum of interactions based on skin color, which differs from dichotomous forms of racial stratification, such as the "one-drop rule" in the United States that generated a black-white split based on any trace of African ancestry (Bailey 2008; Telles 2004). This emphasis on skin color over racial identity is partly due to the multifaceted racial ancestry of most Brazilians. For much of the colonial period, white men outnumbered white women, yielding high levels of miscegenation between white men and nonwhite females (Telles 1994). A consequence of this emphasis on skin color is that members of the same family may be classified in two or more races or skin colors (Telles 2004; Telles and Lim 1998). The boundaries of race and racial categorization in Brazil are quite tenuous, generating high levels of racial group subjectivity.

Despite such a flexible racial system, a long line of research has provided empirical support for the notion that the primary racial cleavage in Brazil is between whites and *negros* (*pardos* and blacks), on the grounds that they share comparable disadvantages relative to whites (e.g., Hasenbalg 2005; Silva 1985; Silva and Hasenbalg 1999). Blacks and *pardos* are disproportionately represented among the lower social classes: compared with whites, nonwhites experience less social mobility

⁴ During the period examined, primary education was divided into a lower and an upper level, each of four years' duration. In 2009, primary education was extended to nine years: lower primary includes grades 1–5, and upper primary includes grades 6–9. Secondary education comprises a level of three years, from grades 9–11 until 2009 and grades 10–12 after 2009.



(Hasenbalg 1979), experience higher levels of racial segregation (Telles 1992, 2004), and have lower levels of education (Silva 1985; Silva and Hasenbalg 1999). Contrary to this evidence, further work has provided empirical and theoretical support for the idea that there are significant differences between *pardos* and blacks along several dimensions of social life: different family strategies of *pardo* and black women (Goldani 1999), larger income gaps between blacks and whites than between whites and *pardos* (Lovell and Dwyer 1988; Telles 2004), and the existence of a color continuum in residential segregation (Telles 1992).

On theoretical grounds, scholars have argued that the social location of black and *pardo* Brazilians is not exactly the same (Daniel 2006; Marx 1998) and that *pardos* do not readily see themselves as belonging to a collective *negro* category (Bailey 2008). Historically, *pardos* had certain privileges over blacks and would have internalized the ideology of whitening, thus not acknowledging their African ancestry (Daniel 2006). Others have highlighted the social differences between *pardos* and blacks, noting that discrimination in Brazil is much harsher against blacks than against *pardos* (Wade 1997), and that *pardos* hold an intermediary social position between whites and blacks (Degler 1971/Degler 1986).

A better understanding of how educational disadvantages associated with race have unfolded over time in Brazil, and whether they have assumed—or continue to have—a dichotomous nature will also inform research in other contexts. In the United States, for example, the growth in racial and ethnic diversity has led researchers to speculate that the black-white dichotomy is losing its salience for social and economic inequalities and that the country will soon resemble Brazil as a result of racial mixing (Bonilla-Silva 2004; Daniel 2006; Lee and Bean 2004). Interestingly, Brazil seems to be headed in the opposite direction by implementing a quota system for university entrance based on a dichotomous categorization of race (Bailey 2008; Daniel 2006). Some have even argued that the systems of race and racial relations in Brazil and in the United States are converging in that the United States is adopting a mixed-race framework, while Brazil seems to be headed toward single-race identification (Daniel 2006).

Data and Methods

I use data from the 1982 and 1987–2007 Pesquisa Nacional por Amostra de Domicílio (PNAD), a nationally representative household survey collected annually by the Brazilian Census Bureau (Instituto Brasileiro de Geografia e Estatística, IBGE). The PNAD is a probability-based, stratified, multistage survey of Brazilian households. The sampling design follows a three-step probabilistic procedure based first on counties, then census tracts within counties, and finally households within sectors. The results reported throughout this article use the sample weights provided by IBGE to produce a representative sample of individuals, although samples sizes reported refer to the unweighted number of observations.⁵

⁵ The IBGE has not released the probability of unit selection for the 1982 PNAD, but it has released this information for 2007. I find that the results applying individual weights are consistent with the results adjusting the standard errors for the within-cluster correlation applying complex survey analysis. To ensure comparability between 1982 and 2007, I use individual weights.



With the exception of its inclusion in 1982, the question on race has been asked in the PNAD only since 1987, which explains the selection of years used in this analysis. The PNAD questionnaires include five categories of race: white, black, *pardo*, Asian, and native Indian. Because of the nature of this article's research questions, the analysis includes only individuals designated as white, black, or *pardos* in the survey.

I first use an analytic sample of 17- and 18-year-old adolescents to provide an overview of trends in race and educational attainment during the 1980s, 1990s and 2000s, and to address the question of whether educational disadvantages associated with race have narrowed or increased, particularly those disadvantages associated with being pardo or black versus white. The choice of analysis of 17- to 18-year-olds is both theoretical and practical. Theoretically, these adolescents are at an age when they should have completed primary and secondary education, making the analysis of these transitions relevant. In practical terms, because the PNAD is a household survey, the data do not have information on parents' education for those who do not live with their parents. Because parents' education is one of the most important determinants of children's schooling, and most 17- and 18-year-olds live with at least one parent in Brazil (80.90% in 1982 and 79.19% in 2007), the use of this adolescent sample permits analyses of schooling accounting for parental education. To accurately include father's and mother's education in the models, I therefore restrict the analytical samples to children of the head of the family⁸ in two-parent families. I tested for differences in the samples of children who do and children who do not belong to the head of the family, and did not find significant differences between the two groups. Nonetheless, I consider the limitations of this approach in the Discussion section.

I examine the relationship between race and completed schooling for 1982 and 2007 using binary probit models predicting completion of primary schooling and continuation beyond primary school. These models are widely used to examine educational attainment and trends in inequality of educational opportunity, offering a flexible and less parametric way to capture educational attainment. Because many adolescents have not completed their schooling by the ages of 17 and 18, I use completion of primary school and continuation into secondary school as the measures of educational attainment. I control for adolescent's sex, log of family income (adjusted to 2007 levels), region of residence, and level of urbanization. Race is coded as a set of dummy variables, with black as the omitted category. Mother's and father's education are coded as completed years of schooling. I report robust standard errors that correct for clustering of multiple adolescents in the same family. Because I expect that the educational disadvantages associated with race have changed over time, I estimate the models separately by year and use differences in coefficients. I first determine the educational disadvantage of each racial group relative to whites in 1982 and in 2007, and then test for whether the difference in coefficients is statistically significant in the pooled model, in which I interact all variables with year.

⁷ Exceptions are the 1982 and 1996 PNADs, where a special module on social mobility was implemented. ⁸ Several researchers using the PNAD have employed this approach to examine a variety of children and adolescent outcomes (e.g., Barros and Lam 1996; Duryea and Arends-Kuenning 2003).



⁶ For a discussion on the categories of race used by the IBGE in Brazil, see Harris et al. (1993) and Telles (1995).

After I establish the extent of the educational gap associated with race over time, I examine two potential reasons for my findings that show a closing gap in education between *pardo* and black adolescents. The first broad explanation for this closing gap is that the families of black adolescents, although possessing smaller endowments of family factors that relate to higher levels of schooling than their *pardo* peers, narrowed this disadvantage between 1982 and 2007. This explanation follows the idea that educational expansion has lessened inequalities in educational opportunities associated with social origin simply by compressing the educational distribution. To explore this hypothesis of structural change, I compare the means of family background variables for white, black, and *pardo* adolescents in 1982 and in 2007. I determine whether the difference in means of family variables is statistically significant by using two-tailed *t* tests.

A second potential explanation for the closing educational gap between pardo and black Brazilians is that these groups are becoming more similar in their educational outcomes because higher-educated black parents are disproportionately labeling themselves and their children as black in recent cohorts. That is, recent cohorts of highly educated Brazilians may have a disproportionately higher likelihood of labeling their children as black rather than either white or pardo. This hypothesis is plausible because racial identification and labeling in Brazil is a fluid process. As Telles wrote, "persons identifying as white or black often are not 'racially pure' but are 'relatively white' or 'relatively black', and there is a tendency for persons on the border of a color category to 'pass' into the lighter category" (Telles 1992:187). The recent changes in the social construction of race in Brazil also strengthen a hypothesis of "darkening with education." The intensity of black consciousness movements has changed the landscape of racial politics (Bailey 2008) through increasing acceptance and promotion of black culture as well as an increasing number of blacks in politics and other positions of power (Risério 2007); the widespread recognition of racism and racial inequality by Brazilian society and government, and the search for ways to deal with it, particularly race-targeted policies (Telles 2004); and the consolidation of a well-funded black-movement organization (Daniel 2006; Telles 2004). These changes have promoted and changed the meaning of blackness, particularly for the well educated. To investigate this hypothesis of "darkening with education," I run a series of probit models for a sample of school-age children and adolescents ages 7 to 18 in 1982 and in 2007. Because my interest here is on whether parents are crossing the boundary between black versus pardo or white, the dependent variable in these models is whether the child is labeled black versus nonblack, as opposed to nonwhite versus white. I also run these models separately by year because I want to establish whether the probability of labeling a child as black has changed for highly educated parents. The key variable of interest in these models is mother's and father's education.

To have a reasonable chance of being labeled as black, a child must have either a father or a mother classified as black, but the other parent may be classified in any other racial category.¹⁰ First, I predict the odds that a child is classified as black for

¹⁰ In most cases, the household head or the spouse of the head is the respondent (Telles 2004). Because the analytical sample in this study is composed of children of the head of the family, in most cases, one of the parents of the children examined identifies the child's race.



⁹ The creation of institutional mechanisms to promote racial equality—such as the Special Secretariat for Policies Promoting Racial Equality in 2003—is an example of such recognition.

black fathers, and then for black mothers. Mothers and fathers are considered separately because I expect to find differences in the effects of education for the likelihood of labeling a child black depending on whether the mother or the father is black. I control for the race of the spouse because of the tendency for racial homogamy, although this has been changing (Telles 2004). Because I am implementing the analysis separately by whether the father or the mother is classified as black, by including the race of the spouse in the models, I am therefore controlling for the race dyads of the parents. I also control for parent's age, region of residence, and level of urbanization. I show the results from models including dummy variables based on five categories of father's and mother's education to best capture the specificities of each educational level.

Results

Educational Stratification Over Time

Table 1 reports the composition of the analytical sample of adolescents ages 17 and 18 by individual and family characteristics. By 2007, Brazil became overwhelmingly urban, with 81.91% of its population ages 17 and 18 living in urban areas, and more than two-fifths (40.89%) living in the Southeast, which is the most industrialized region with the highest per capita income. Table 1 also shows important trends in the racial composition of 17- and 18-year-olds. Previous analysis of racial classifications in Brazil has examined the total population in each racial category, using population projections of census data to determine the extent of racial reclassification (Carvalho et al. 2004). Key to this analysis, the proportion of black adolescents has remained relatively stable during the period examined—6.18% in 1982 versus 6.47% in 2007. Although the overall proportion of 17- and 18-year-olds identified as black has not changed significantly during the 25-year period, the proportion of adolescents identified as black among educated parents has increased substantially—from 1.92% to 9.01% among fathers with secondary schooling or higher, and from 1.83% to 7.72% among mothers with secondary schooling or higher (not shown on Table 1).

Figure 1 shows the completed years of schooling by race from 1982 to 2007. Although 17- and 18-year-old adolescents classified as *pardo* had a statistically significant educational advantage of about one-half year of schooling over those classified as black in 1982, black adolescents had an educational advantage of 0.22 year of schooling over *pardos* by 2007. Another important finding from this figure is that the schooling advantage of white over black and *pardo* adolescents declined considerably, although it remains statistically significant at nearly one year of education. My supplementary analysis of the educational attainment of adults aged 25–50 shows a similar pattern to that for adolescents, although the gaps are wider: larger gaps between *pardo* versus black adults and between *pardo* versus white adults in 1982 than in 2007 (not shown).

The left side of Fig. 2 reports the proportion of adolescents ages 17 and 18 that finished primary schooling by ages 17 and 18; comparatively, the right side of Fig. 2 shows the proportion of adolescents that transitioned to secondary schooling by ages 17 and 18. In 1982, only 13.2% of the adolescents identified as black had finished



 Table 1
 Sample means, proportions and standard deviations: 17- and 18-year-old Brazilians, 1982 and 2007

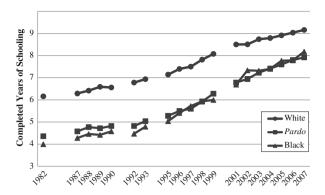
Variable	1982	2007
Race		
White	52.06	47.40
Pardo	41.76	45.44
Black	6.18	6.47
Female	46.55	44.09
Region		
North	4.69	6.92
Northeast	29.68	28.87
Southeast	42.04	40.89
South	17.60	15.17
Center-west	5.99	8.15
Urban	71.36	81.91
Mother's Educational Level		
No formal education	31.35	5.82
Primary (some or complete)	62.09	57.11
Secondary	4.51	25.33
College or higher	2.04	11.74
Mother's Education (years)	3.11	7.30
	(3.26)	(4.31)
Father's Educational Level		
No formal education	32.67	7.39
Primary (some or complete)	59.02	58.75
Secondary	4.54	23.62
College or higher	3.77	10.24
Father's Education (years)	3.32	8.56
	(3.69)	(4.43)
Family Income	1,978.98	1,806.72
	(2,421.56)	(2,613.07
Mother's Race		
White	57.94	49.77
Pardo	35.08	42.44
Black	6.92	7.52
Other	0.06	0.26
Father's Race		
White	57.05	46.70
Pardo	35.03	44.63
Black	7.84	8.49
Other	0.08	0.18
N	14,347	7,269

Source: PNADs 1982 and 2007.



^aChildren of the head of the family.

Fig. 1 Completed years of schooling, by race: 17- and 18-year-old Brazilians, 1982–2007



primary schooling by ages 17 and 18, but 21.5% of their *pardo* peers had finished primary schooling by that age. This difference is statistically significant at the .01 level. In 2007, the gap for primary school completion between *pardo* and black adolescents had disappeared (77.40% for black adolescents versus 73.20% for *pardo* adolescents). The figures for transitioning to secondary schooling, conditional on having completed primary education, offers a similar story. The gap in transitioning to secondary schooling between *pardo* and black adolescents was large and statistically significant in 1982 (49.2% for black adolescents versus 57.4% for *pardo* adolescents) but disappeared by 2007 (77.8% for black adolescents versus 76.9% for *pardo* adolescents). Another important finding from Fig. 2 is that the advantage of white over black and *pardo* adolescents in transitioning to secondary education persisted in 2007, although it was much smaller in 2007 than it was in 1982. Next, I report results from multivariate analyses that confirm that the nature of the associations reflecting the educational disadvantages of being black versus *pardo* changed over time, when other individual and family background variables are controlled for.

Table 2 reports results from multivariate models that examine the association between race and completed education, controlling for other individual and family characteristics. The models are restricted to 17- and 18-year-old adolescents so that only those who are old enough to have made these transitions are considered. All models control for mother's and father's education, adolescent's sex, log of family income, region of residence, and level of urbanization. Adolescent's race is included as two dummy variables—*pardo* and white—where black is the omitted category. Models 2.1 and 2.2, shown in the first two columns, give estimates for completion of

Fig. 2 Primary school completion and transition to secondary education, by race: 17- and 18-year-old Brazilians, 1982 and 2007

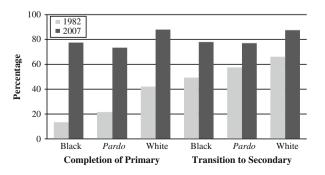




Table 2 Binary probit models predicting primary school completion and continuation beyond primary school: 17- and 18-year-old^a Brazilians, 1982 and 2007

	Completed Prin	mary	Transitioned to	Secondary
Variable	1982 Model 2.1	2007 Model 2.2	1982 Model 2.3	2007 Model 2.4
Sex (omitted: female)	0.305***	0.534***	0.337***	0.569***
	(0.029)	(0.042)	(0.032)	(0.037)
Race (omitted: black)				
White	0.570**	0.163*	0.527**	0.228**
	(0.071)	(0.076)	(0.083)	(0.081)
Pardo	0.220**	-0.049	0.152^{\dagger}	-0.007
	(0.074)	(0.077)	(0.087)	(0.072)
Mother's Education	0.489**	0.343**	0.380**	0.350**
	(0.034)	(0.037)	(0.035)	(0.034)
Father's Education	0.426**	0.304**	0.440**	0.285**
	(0.030)	(0.037)	(0.031)	(0.033)
Urban	0.586**	0.170**	0.505**	0.120*
	(0.042)	(0.051)	(0.052)	(0.048)
Log of Family Income	0.378**	0.186**	0.399**	0.252**
	(0.022)	(0.029)	(0.025)	(0.028)
Constant	-9.559**	-5.725**	-11.12**	-7.728**
	(0.535)	(0.732)	(0.605)	(0.665)
Pseudo-R ²	.2712	.1802	.2685	.1863
N	14,347	7,269	14,347	7,269

Notes: Robust standard errors are in parentheses. All models control for child's age and region of residence (coefficients not shown).

Source: PNADs 1982 and 2007.

primary schooling. In both years, females, residents of urban areas and those with parents with at least secondary education had higher chances of primary schooling completion than their counterparts. For this educational outcome, the association between being black (as opposed to white) and schooling is negative and statistically significant. Although I present the coefficients of the models on Table 2, I discuss the results as predicted probabilities because their interpretation is more intuitive. With covariates held at the sample mean in 1982, being white vis-à-vis black is associated with a .167 increase in the probability of finishing primary schooling; at the same time, being *pardo* vis-à-vis black is associated with a .068 increase in the probability of finishing primary schooling. Model 2.2 replicates these findings for 2007. Although black adolescents continued to have a significantly lower likelihood of finishing primary schooling compared with their white peers, this difference decreased significantly. At the same time, the difference between the coefficients representing *pardos* versus blacks disappeared and lost statistical significance. Although I present the results separately



^aChildren of the head of the family.

 $^{^{\}dagger}p < .10; *p < .05; **p < .01; ***p < .001$

by year for simplicity of interpretation, I run a model with the pooled data to test for the difference in coefficients of race across the two cross sections (not shown). The period difference in both the coefficients representing white versus black and *pardo* versus black is statistically significant at the .01 level.

The results on entering secondary school are similar to the results for finishing primary schooling, although with the exception of those for mother's education, the effects of both race and family background variables are smaller for secondary schooling (Models 2.3 and 2.4). With covariates held at the sample mean, being *pardo* as opposed to black increased the probability of entering secondary school by about .030 by 1982; but by 2007, there was no significant difference in the black-*pardo* probability of entering secondary school. Being identified as white as opposed to black increased the probability of entering secondary school by about .10 by 1982 and by .17 by 2007, showing that white adolescents continued to have an educational advantage over their black peers. 12

The results from Table 2 demonstrate the remarkable changes in how race relates to educational opportunities in Brazil, but these results also provide some evidence of a changing dynamics on how social origins relate to educational opportunities in Brazil, at least for the completion of primary education. First, the association between both mother's education and father's education and completing primary schooling has declined considerably, suggesting that educational expansion has led to a weakening of the disadvantages associated with social origins (Models 2.1 and 2.2). However, the association between mother's education and transitioning to secondary schooling has been stable (Models 2.3 and 2.4). This decline in inequality in only the lower educational transitions is consistent with research on educational stratification in Brazil (Torche 2010). Another finding from Table 2 that demonstrates the significant changes unfolding in Brazil over the period examined is the declining educational disadvantages of adolescents living in rural areas. Although these adolescents continue to have a significantly lower likelihood of finishing primary education and transitioning to secondary school compared with their peers in urban areas, these differences have decreased significantly.

Taken together, results from Table 2 show a change in how racial categories are associated with educational attainment. First, white Brazilians continue to have significant educational advantages compared with black and *pardo* Brazilians, although such educational advantage decreased significantly over time. *Pardo* Brazilians had an intermediary position on educational attainment in the 1980s, lower than whites and higher than blacks, but such educational differences between *pardo* and black adolescents disappeared by 2007, suggesting that *pardos* and blacks are becoming more similar in their educational outcomes. Although the explanations for the educational gains during the past two decades are multifaceted, my results so far have shown that the educational disadvantages associated with race have changed and currently resemble a dichotomy. I next examine two potential explanations for the disproportionate gains in education of black over *pardo* adolescents.

¹² Table 2 models implemented separately for the Southeast are similar to the national trend but vary for the Northeast in 1982 (not shown).



¹¹ Table 2 models are not conditioned on completing primary schooling. Results do not change qualitatively if the sample is restricted to those who have finished primary schooling.

Structural Change or Shift in Racial Labeling? Or Both?

The first possible interpretation for the recent gains in education among black adolescents is that their families narrowed the disadvantage associated with family background variables that matter for children's schooling from 1982 to 2007. The social changes that unfolded between 1992 and 2007 and brought up the bottom of the schooling distribution are the basis of this interpretation. To partly explore this hypothesis of structural change, Panel B of Table 3 compares means of family background variables of white, black, and pardo adolescents in 1982 and 2007. As with schooling, there were large and statistically significant gaps between the family background characteristics of black and pardo adolescents in 1982, but the disadvantages of black adolescents disappeared by 2007. In 1982, the nominal difference in the family incomes of pardo and black adolescents was statistically significant at the .05 level, favoring pardos; by 2007, this difference had disappeared. In 1982, the difference in mother's education of pardo versus black adolescents was significant and favored pardos. In 2007, this difference was still statistically significant but favored black adolescents. The results for father's schooling are similar: the gap favored pardo adolescents in 1982 and black adolescents in 2007. These findings suggest that the family socioeconomic background of those identified as black and pardos became similar over time, even slightly favoring black adolescents.

Another potential explanation is that Brazilians have changed in how they self-identify in terms of race. In this case, it might be that higher-educated parents are more likely now than before to label themselves and their children as black rather than *pardo*. Because children of highly educated parents also tend to have higher levels of education than children of lesser-educated parents, it could be that this recent advantage of blacks over *pardos* is an artifact of change in racial labeling rather than a shift in how race interacts with the social process of acquiring education. I now turn to the examination of this hypothesis of "darkening with education." To investigate this hypothesis of parental changing labeling, I ran a series of probit models for a sample of school-age children and adolescents ages 7 to 18 in 1982 and 2007.

The focus of this analysis is on children and adolescents and how they are labeled, but it is certainly possible that parents are labeling themselves differently. Past research has estimated the extent of racial reclassification in Brazil by comparing the population in each race category in a given census against the projected population in each race category based on intercensal survival ratios applied to the previous census (Carvalho et al. 2004). Cohort changes in racial composition are a consequence of differential demographic behaviors among racial groups and reclassification changes. Before turning to the analysis of children's labeling, I examine the racial distribution of the cohort of parents in my sample: females ages 35-44 in 1982 and 60-69 in 2007, and the cohort of males ages 40-49 in 1982 and 65-74 in 2007. The proportion of females identified as black remained relatively stable, from 7.61% for those ages 35–44 in 1982 to 7.87% for those ages 60–69 in 2007; the proportion of males identifying as black increased slightly, from 7.69% in 1982 to 8.25% in 2007. However, the proportion of females identified as black among those with secondary education or higher has doubled, from 1.42% in 1982 to 3.42% in 2007. The proportion of males identified as black among those with secondary education or higher has nearly tripled, going from 1.08% in 1982 to 2.98% in 2007 (data not



Table 3 Differences in variable means by race and year: 17- and 18-year-old Brazilian children, a 1982 and 2007

	1982						2007					
	Pardo	Black	Pardo Black White	, ,	White-Pardo White-Black Pardo-Black Difference Difference		Pardo	Black	Pardo Black White		White-Pardo White-Black Pardo-Black Oifference Difference	Pardo-Black Difference
Panel A: Educational Outcomes												
Completed primary schooling	0.215	0.132	0.422	0.207**	0.290**	0.083**	0.732	0.774	0.878	0.146**	0.104**	-0.014
Transitioned to secondary schooling	0.574	0.492	0.661	0.087**	0.169**	0.082*	0.769	0.778	0.873	0.104*	0.095*	-0.015
Child's education (years)	4.520	4.150	6.195	1.675**	2.045**	0.360*	7.963	8.126	9.160	1.197**	1.034**	-0.164^{\dagger}
Panel B: Family Covariates												
Mother's education	1.981	1.540	3.401	1.420**	1.861**	0.441*	5.948	6.284	8.242	2.294**	1.958**	-0.336**
Father's education	2.021	1.720	3.698	1.677**	1.978**	0.301**	5.582	6.176	7.815	2.233	1.639	-0.594**
Family income	1,468	1,268	2,406	938**	1,138**	200*	1,278	1,266	2,452	1,174	1,186	12
												Î

Source: PNADs 1982 and 2007.

^aChildren of the head of the family.

 $^{\dagger}p < .10; *p < .05; **p < .01$



shown but available from the author upon request). Because significant gains in education are not likely after age 35—the age at which I first examine these cohorts—this increase in the proportion of those who identified as black suggests that reclassification might be taking place. Of course, this is only suggestive evidence, but nonetheless, it hints at the possibility that more highly educated Brazilians might be identifying themselves differently over time.

Not only did the proportion of those who identified as black among the highly educated increase, but the proportion of children ages 7 to 18 identified as black among parents with higher levels of education also increased, from 2.22% to 7.39% among mothers with secondary schooling or higher, and from 2.83% to 7.32% among fathers with secondary schooling or higher. The educational distribution of parents identified as black also changed significantly during the period examined. Table 4 shows that the mean schooling of mothers who identified as black was 1.71 in 1982 and 6.39 in 2007. The mean schooling of black fathers increased from 1.86 in 1982 to 6.24 in 2007. Table 4 also shows that the proportion of black parents with no education was extremely high in 1982—48.77% of fathers and 50.27% of mothers. Although this proportion declined substantially by 2007—to 11.97% for fathers and 10.37% for mothers—it still represents a substantial proportion of the parents in my sample.

Table 4 Proportion of black parents' children^a who are aged 7–18, by parents' education: Brazil, 1982 and 2007

	Black Father	rs	Black Mothe	ers
	1982	2007	1982	2007
Mother's Educational Level				
No formal education	50.44	10.37	50.27	10.39
Primary (1 to 4)	40.64	30.52	41.18	30.57
Primary (5 to 8)	7.62	31.39	7.38	30.33
Secondary	1.04	22.54	0.91	22.74
College or higher	0.68	5.19	0.26	4.97
Mothers' Education (years)	1.69	6.51	1.71	6.39
(SD)	(2.20)	(3.87)	(4.10)	(3.93)
Father's Educational Level				
No formal education	48.77	11.97	47.89	11.05
Primary (1 to 4)	39.74	30.25	40.63	34.59
Primary (5 to 8)	9.70	30.81	9.97	30.55
Secondary	1.45	22.48	1.29	20.47
College or higher	0.33	4.49	0.23	3.34
Father's Education (years)	1.86	6.24	1.86	5.79
(SD)	(2.35)	(3.84)	(2.41)	(3.83)
N	8,299	4,792	7,197	4,128

Source: PNADs 1982 and 2007.

^aChildren of the head of the family.



Table 5 shows results from multivariate models that examine the relationship between father's and mother's education and child's race for each cross section, controlling for family characteristics and separately for when the father is black (Models 5.1 to 5.4) and when the mother is black (Models 5.5 to 5.8). These models are restricted to children at the schooling ages of 7 to 18 so that only those who live in the household and are at the ages when it is required to be enrolled in school are considered. Because of a tendency toward racial homogamy, I include a control for whether the mother is black or *pardo* for the models of black fathers, and a control for whether the father is black or *pardo* for the models of black mothers. All models control for region of residence, level of urbanization, and either father's or mother's age. ¹³ Because the effects of father's education and mother's education on labeling a child as black are likely to differ depending on whether it is the father or the mother who is black, I include father's education and mother's education separately in the models.

Models 5.1 and 5.2 examine the association of father's education and the chance of labeling a child as black when the father is black in 1982 and in 2007, respectively. The association between father's college education and the likelihood of being labeled as black is negative in 1982, but it becomes positive in 2007. With covariates at the sample means, a child of a black father with college education or higher had .234 lower chances of being labeled as black rather than as *pardo* or white. In 2007, with all else held constant at the sample means, a child of a college-educated black father had .171 higher chances of being labeled as black vis-à-vis white or *pardo*. I also run pooled models in which I interact a year dummy variable with all covariates to test for the temporal difference in the coefficients of father's and mother's education. The cross-sectional differences in the estimates for both secondary and college education are statistically significant (.05 level), indicating a temporal change in the way black father's education relates to the chances of labeling a child as black.

A similar story emerges for the relationship between mother's education and the probability of labeling a child as black when the father is black. Models 5.3 and 5.4 confirm that mother's education is also associated with a lower probability of labeling a child as black in 1982 but a greater probability of labeling a child as black in 2007. Holding all else constant at the sample means, a child of a black father and a mother with at least college education in 1982 had .277 lower chances of being labeled as black vis-à-vis white or *pardo*. A child in similar circumstances in 2007 had a .094 greater chance of being labeled as black versus *pardo* or white. As with father's education, the temporal change in the coefficients associated with secondary schooling and college or higher is statistically significant at the .01 level.

Although the findings for black fathers demonstrate a significant temporal change on how black educated fathers label their children, by 2007, fathers and mothers with primary schooling vis-à-vis secondary schooling did not differ significantly regarding how they labeled their children. Yet, the likelihood of labeling a child as black for those holding a college education or higher is strong and robust regardless of model specification, and went from negative to positive between 1982 and 2007. This suggests that the association between parents' education and the likelihood of labeling a child as black resembles an increasing monotonic function.

¹³ The results do not change qualitatively when log of family income is included



Table 5 Binary probit models predicting odds of labeling a 7- and 18-year-old childa black, for a black father and a black mother: Brazil, 1982 and 2007

Black Father Black Father Black Father Black Father Black Father Black Model 5.1 Black Model 5.2 Model 5.7 Black Model 5.7 Black Model 5.7 Black Model 5.7 Black Model 5.7 Model 5.7 <th></th> <th>Panel A</th> <th></th> <th></th> <th></th> <th>Panel B</th> <th></th> <th></th> <th></th>		Panel A				Panel B			
no education) Model 5.1 Model 5.2 Model 5.2 Model 5.5 Model 5.6 no education) 0.0174 0.223** 0.038 0.048 0.036** 0.039) (0.088) 0.060* 0.048 0.089) 0.0416 0.260** 0.048 0.089) 0.0416 0.260** 0.048 0.089) 0.059) 0.090) 0.020* 0.048 0.059) 0.090) 0.028 0.099 0.0130) 0.0923 0.048 0.095 0.0130) 0.0924* 0.148 0.095 0.057** 0.143 0.145 0.145 no education) 0.013 0.089 0.286** 0.029 0.0146 0.089 0.145 0.063 0.092 0.110* 0.110* 0.063 0.092 0.146* 0.063 0.092 0.146* 0.063 0.092 0.146* 0.063 0.092 0.146* 0.063 0.092		Black Father				Black Mothe	<u>.</u>		
no education) 0.0174	Variable	1982 Model 5.1	2007 Model 5.2	1982 Model 5.3	2007 Model 5.4	1982 Model 5.5	2007 Model 5.6	1982 Model 5.7	2007 Model 5.8
0.0174 0.223** 0.008) 0.008) 0.0089 0.0089 0.0089 0.0089 0.0089 0.0089 0.0089 0.0089 0.0089 0.0090 0									
(0.039) (0.088) (0.048) (0.089) 0.0416 0.260** -0.209** 0.446** (0.059) (0.090) 0.232* 0.091) -0.030 0.232* -0.137 0.430** (0.130) (0.092) 0.148) 0.095 -0.637* 0.434** -0.389 0.586** no education) -0.017 0.202** 0.145 no education) -0.017 0.202** 0.145 no education) -0.119 0.210* 0.145 (0.089) -0.119 0.089 0.169* (0.063) (0.063) 0.092 0.169* -0.746* 0.287* 0.093	Lower primary (0-4)	0.0174	0.223**			-0.038	0.306**		
0.0416 0.260** 0.0090)		(0.039)	(0.088)			(0.048)	(0.089)		
(0.059) (0.090) (0.091) -0.030 (0.232*	Upper primary (5–8)	0.0416	0.260**			-0.209**	0.446**		
-0.030 0.232* -0.137 0.430*** (0.130) (0.092) (0.148) (0.095) -0.637* 0.434** (0.148) (0.095) (0.269) (0.131) (0.465) (0.145) no education) -0.017 0.202** (0.089) -0.119 0.210* (0.089) -0.128* 0.169* (0.092) -0.128* 0.169* (0.092) -0.746* 0.287*		(0.059)	(0.090)			(0.068)	(0.091)		
(0.130) (0.092) (0.148) (0.095) -0.637* (0.434**) (0.465) (0.145) (0.586** (0.269) (0.131) (0.038) (0.089) (0.089) -0.119 (0.089) (0.089) -0.128* (0.089) -0.128* (0.092) (0.063) (0.092) -0.746* (0.093)	Secondary (9–11)	-0.030	0.232*			-0.137	0.430**		
$\begin{array}{llllllllllllllllllllllllllllllllllll$		(0.130)	(0.092)			(0.148)	(0.095)		
no education) $-0.017 \qquad 0.202** \qquad (0.145)$ $-0.017 \qquad 0.202** \qquad (0.089)$ $-0.119 \qquad 0.210* \qquad (0.089)$ $-0.128* \qquad 0.089)$ $-0.128* \qquad 0.092)$ $-0.746* \qquad 0.287* \qquad (0.045)$ $-0.746* \qquad 0.287* \qquad (0.045)$	College or higher (12+)	-0.637*	0.434**			-0.389	0.586**		
no education) -0.017 0.038) (0.038) (0.089) -0.119 0.146) (0.089) -0.128* (0.063) (0.062) -0.746* (0.093)		(0.269)	(0.131)			(0.465)	(0.145)		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		1)							
$ \begin{array}{cccc} (0.038) & (0.089) \\ -0.119 & 0.210* \\ (0.146) & (0.089) \\ -0.128* & 0.169^{\dagger} \\ (0.063) & (0.092) \\ -0.746* & 0.287* \\ (0.307) & (0.093) \\ \end{array} $	Lower primary (0–4)			-0.017	0.202**			-0.230*	0.191*
$ \begin{array}{cccc} -0.119 & 0.210* \\ (0.146) & (0.089) \\ -0.128* & 0.169^{\dagger} \\ (0.063) & (0.092) \\ -0.746* & 0.287* \\ (0.307) & (0.093) \end{array} $				(0.038)	(0.089)			(0.046)	(0.000)
$ \begin{array}{ccc} (0.146) & (0.089) \\ -0.128* & 0.169^{\dagger} \\ (0.063) & (0.092) \\ -0.746* & 0.287* \\ (0.307) & (0.093) \end{array} $	Upper primary (5–8)			-0.119	0.210*			-0.260**	0.264**
$ \begin{array}{cccc} -0.128* & 0.169^{\dagger} \\ (0.063) & (0.092) \\ -0.746* & 0.287* \\ (0.307) & (0.093) \end{array} $				(0.146)	(0.089)			(0.079)	(0.000)
$ \begin{array}{ccc} (0.063) & (0.092) \\ -0.746* & 0.287* \\ (0.307) & (0.093) \end{array} $	Secondary (9–11)			-0.128*	0.169^{\dagger}			-0.133	0.276**
-0.746* $0.287*$ (0.307) (0.093)				(0.063)	(0.092)			(0.207)	(0.094)
(0.093)	College or higher (12+)			-0.746*	0.287*			999.0-	0.373**
				(0.307)	(0.093)			(0.451)	(0.129)



Table 5 (continued)

	Panel A				Panel B			
	Black Father				Black Mother			
Variable	1982 Model 5.1	2007 Model 5.2	1982 Model 5.3	2007 Model 5.4	1982 Model 5.5	2007 Model 5.6	1982 Model 5.7	2007 Model 5.8
Black or <i>Pardo</i> Spouse (omitted: white spouse)	1.714**	1.175**	1.718**	1.162**	1.723**	1.053**	1.739**	1.053**
	(0.061)	(0.057)	(0.061)	(0.057)		(0.056)	(0.067)	(0.056)
Constant	-1.284**	-1.790**	-1.219**	-1.737**		-1.699**	-1.059**	-1.551**
	(0.127)	(0.154)	(0.127)	(0.153)	(0.153)	(0.165)	(0.148)	(0.165)
Pseudo-R ²	.1350	.1016	.1349	.1008	.1585	9880.	.1554	.0942
N	8,299	4,792	8,299	4,792	7,197	4,128	7,197	4,128

Notes: All models control for region of residence, father's age (for models of black fathers), and mother's age (for models of black mothers); coefficients not shown. Standard errors are in parentheses.

Source: PNADs 1982 and 2007.

^aChildren of the head of the family.

*p < .05; **p < .01



Models 5.5 to 5.8 replicate the models explained earlier for children of black mothers. These models give estimates of the associations of father's (Models 5.5 and 5.6) and mother's (Models 5.7 and 5.8) education, and the chance of labeling a child as black when the mother is black in 1982 and 2007. When the mother is black, we also see similar temporal changes in the direction—from negative to positive—of the associations between father's and mother's education and the probability of being labeled as black. Holding all variables at the sample means, a child of a black mother and a father with college versus no formal schooling had about a .106 lesser chance of being labeled as black in 1982. A child in similar circumstances in 2007 had a .224 greater chance of being labeled as black. Although the coefficient on fathers' college education is not statistically significant in 1982, the temporal difference between the estimates is statistically significant at the .05 level, suggesting that when the mother is black, father's college education was associated with a lower chance of being labeled as black in 1982 and with a greater chance of being labeled as black in 2007. Models 5.7 and 5.8 give estimates on the associations between mother's education and the probability of being labeled as black in 1982 and 2007, respectively. Holding all covariates at the sample mean, children of black mothers with primary education had a .020 lesser chance of being labeled as black. A child with the same characteristics in 2007 had about a .147 greater chance of being labeled as black. The cross-sectional differences in these estimates are statistically significant at the .01 level. Unlike the models for black fathers, the models for black mothers, parents with lower primary education differ significantly from parents with secondary education in how they classify their children: those with higher education have a greater likelihood of labeling their children as black in 2007.

Taken together, these results show that children of college-educated black fathers and mothers had a greater probability of being labeled as black in 2007; in 1982, however, these associations were negative. These results show that "darkening" with education seems to at least partly explain my findings of greater increases in the educational attainment of those identified as black versus *pardo*.

Conclusions and Discussion

Brazil has been known for flexible racial relations that have long hidden racial disparities in social and economic outcomes. This study's findings confirm that race was an important social cleavage in Brazil during the period 1982–2007, such that white adolescents have persistent educational advantages over their black and *pardo* counterparts. However, the nuances in this story are more complex. My results show that although the educational advantages of white Brazilians declined during the 25-year period I studied, they still persist. I also find that younger cohorts of black Brazilians, although educationally disadvantaged compared with whites, have similar or higher levels of schooling compared with their *pardo* counterparts. In contrast with past research that suggests that social disadvantages resembled a dichotomy based on white versus nonwhite categories (Silva 1985; Silva and Hasenbalg 1999), my analysis shows that the educational disadvantages associated with being *pardo* were significantly less in 1982 than the educational disadvantages associated with being black. The existence of a color continuum from white to *pardo* to black is thus supported in



the case of education in 1982. On the other hand, this continuum disappeared by 2007, by which time black and *pardo* adolescents shared similar educational disadvantages in relation to whites, suggesting that the social disadvantages associated with race have assumed a dichotomous nature in Brazil. This is an important finding that provides support for the nonwhite versus white classification used by the Brazilian government in race-targeted policies for university entrance in that such policies include both *pardo* and black students.

Merging blacks and *pardos* in a nonwhite category also approximates the U.S. understanding of racial grouping (Nobles 2000). However, this dichotomy based on white versus nonwhite differences has been questioned on both empirical and theoretical grounds. Empirically, it assumes an equal or very similar gap between whites and pardos and between whites and blacks in terms of institutional and social disadvantages and forms of discrimination. Theoretically, such a dichotomy suggests that pardos and blacks view themselves—and are viewed by others—as one collective nonwhite category, which is debatable given the historical differences between these two groups (Daniel 2006). Moreover, recent research shows that pardos and blacks do not view themselves in one collective *negro* category (Bailey 2008). This study's findings show that this single nonwhite category captures the similar educational disadvantages of younger cohorts of black and pardos vis-à-vis whites. At the same time, this dichotomization hides an important phenomenon for understanding race and educational inequality in Brazil: a recent shift in the black/pardo hierarchy such that black adolescents had greater educational disadvantages than their pardo peers in the past, which disappeared by 2007. This study explores two potential reasons for such a trend.

The first interpretation I address for blacks' disproportionate schooling gains over pardos is that the families of black adolescents narrowed the disadvantages associated with child's education between 1982 and 2007. This explanation is in line with the structural changes in Brazilian society in that the bottom of the socioeconomic distribution has improved substantially during the past few decades. Because black Brazilians have historically been at the bottom of the socioeconomic distribution, these recent structural improvements have likely contributed to the schooling gains of the black adolescents found in this study. I find empirical support for this hypothesis of structural change in that the gaps in family background variables that persist by 2007 are similar or slightly favor the families of black over pardo adolescents. A second interpretation for black adolescents' uneven gains in schooling is a phenomenon of "darkening with education": that is, recent cohorts of highly educated Brazilians may have a disproportionately higher likelihood of labeling their children as black rather than either white or pardo. My results provide partial empirical support for this hypothesis of changes in race classification. Younger cohorts of children of college-educated black fathers and mothers are more likely to be labeled as black than those with black fathers and mothers at every other educational level, which was not true in the past. These findings suggest that "darkening with education" can at least partly explain the increasing educational attainment of black Brazilians in the years examined in this study. This interpretation is consistent with analyses of the 2000 census that show a growing preference for the polarized classification of black and white, suggesting a change in racial classification with increasing numbers of blacks (Telles 2004).



We certainly need to be cautious about generalizing the findings from this study to the entire Brazilian population because my sample is composed of children of the head of the family. The direction of the change in this sample, however, is likely to be similar for the entire population, although the magnitude of the change may not be the same.

Taken together, the findings from this article show a shift in the educational disadvantages associated with race—reflecting schooling gains of nonwhites versus whites as well as black versus *pardo* adolescents—and that this change seems to be due to structural shifts and partially to changes in racial classification. I argue that these changes—regardless of a structural or classification nature—stem from real shifts in the social position of blacks in Brazilian society in recent years and has been fueled by several social transformations, particularly the widespread recognition of racism and racial inequality by Brazilian society and government and the search for ways to deal with it (Telles 2004). This recent shift in how Brazilians conceptualize race—from racial democracy to affirmative action—is likely to be associated with continued changes in the educational outcomes of black Brazilians, their social position, and how blackness is valued in Brazil.

Acknowledgments This article was supported by an infrastructure grant (5 R24 HD042849) awarded to the Population Research Center at the University of Texas at Austin by the Eunice Kennedy Shriver National Institute of Child Health and Human Development. The author would like to thank Robert Hummer, James Jackson, David Lam, Chandra Muller, Irineu Rigotti, Ana Paula Verona, Andres Villarreal, the participants of the Education and Transitions to Adulthood Group at the University of Texas at Austin, and the Editor and reviewers of *Demography* for their valuable comments and suggestions.

References

Bailey, S. (2008). Unmixing for race making in Brazil. American Journal of Sociology, 114, 577–614.

Bailey, S. (2009). Legacies of race: Identities, attitudes, and politics in Brazil. Stanford, CA: Stanford University Press.

Barros, R., & Lam, D. (1996). Income and educational inequality and children's schooling attainment. In N. Birdsall & R. Sabot (Eds.), *Opportunity foregone: Education in Brazil* (pp. 337–366). Washington, DC: Inter-American Development Bank.

Birdsall, N., & Sabot, R. (1996). Opportunity foregone: Education in Brazil. Washington, DC: Inter-American Development Bank.

Bonilla-Silva, E. (2004). From bi-racial to tri-racial: Towards a new system of racial stratification in the USA. *Ethnic and Racial Studies*, 27, 931–950.

Carvalho, J. A., Wood, C., & Andrade, F. (2004). Estimating the stability of census-based racial/ethnic classifications: The case of Brazil. *Population Studies*, 58, 331–343.

Daniel, R. (2006). *Race and multiraciality in Brazil and the United States*. University Park: Pennsylvania State University Press.

Degler, C. (1986). Neither black nor white: Slavery and race relations in Brazil and the United States. New York: Macmillan (Original work published 1971).

Duryea, S., & Arends-Kuenning, M. (2003). School attendance, child labor and local labor market fluctuations in urban Brazil. *World Development*, 31, 1165–1178.

Goldani, A. (1999). Racial inequality in the lives of Brazilian women. In R. Reichmann (Ed.), Race in contemporary Brazil: From indifference to inequality. University Park: Pennsylvania State University Press.

Harris, M., Consorte, J., Long, J., & Byrne, B. (1993). Who are the whites? Imposed census categories and the racial demography of Brazil. *Social Forces*, 72, 451–462.

Hasenbalg, C. (2005). Discriminação e desigualdades raciais no Brasil [Discrimination and racial inequality in Brazil]. Rio de Janeiro, Brazil: Graal.



Ianni, O. (1987). Raça e classes sociais no Brasil [Race and social class in Brazil]. São Paulo, Brazil: Editora Brasiliense.

- Lam, D., & Levison, D. (1991). Declining inequality in schooling in Brazil and its effects on inequality in earnings. *Journal of Development Economics*, 37, 199–225.
- Lam, D., & Marteleto, L. (2008). Stages of the demographic transition from a child's perspective: Family size, cohort size, and children's resources. *Population and Development Review*, 34, 225–252.
- Lee, J., & Bean, F. (2004). America's changing color lines: Immigration, race/ethnicity, and multiracial identification. Annual Review of Sociology, 30, 221–242.
- Lovell, P., & Dwyer, J. (1988). The cost of being nonwhite in Brazil. Sociology and Social Research, 72, 136–142.
- Marx, A. (1998). Making race and nation: A comparison of the United States, South Africa, and Brazil. Cambridge, UK: Cambridge University Press.
- Néri, M. (2009). O paradoxo da evasão e a motivação dos sem escola [The paradox and motivations of school dropouts]. In F. Veloso, S. Pessôa, R. Henriques, & F. Giambiagi (Eds.), Educação básica no Brasil: Construindo o país do futuro. Rio de Janeiro, Brazil: Elsevier.
- Nobles, M. (2000). Shades of citizenship: Race and the census in modern politics. Stanford, CA: Stanford University Press.
- Risério, A. (2007). A utopia brasileira e os movimentos negros [Brazilian utopia and the black movements]. São Paulo, Brazil: Editora 34.
- Schwartzman, L. (2007). Does money whiten? Intergenerational changes in racial classification in Brazil. American Sociological Review, 72, 940–963.
- Silva, N. (1980). O preço da cor: Diferenciais raciais na distribuição da renda no Brasil [The price of color: Race differentials in income distribution in Brazil]. Pesquisa e Planejamento Econômico, 10, 21–44.
- Silva, N. (1985). Updating the cost of not being white in Brazil. In P. Fontaine (Ed.), Race, class and power in Brazil (pp. 42–55). Los Angeles, CA: UCLA Center Afro-American Studies.
- Silva, P. (2008). Racismo em livros didáticos: Estudo sobre negros e brancos em livros de língua Portuguesa [Racism on textbooks: A study of blacks and whites in Portuguese-language textbooks]. Belo Horizonte, Brazil: Editora Autêntica.
- Silva, N., & Hasenbalg, C. (1999). Race and educational opportunity in Brazil. In R. Reichmann (Ed.), Race in contemporary Brazil: From indifference to inequality (pp. 53–65). University Park: Pennsylvania State University Press.
- Soares, S., Beltrão, K., Barbosa, M. L., & Ferrão, M. E. (2005). Os mecanismos de discriminação racial nas escolas Brasileiras [The mechanisms of racial discrimination in Brazilian schools]. Rio de Janeiro, Brazil: IPEA.
- Telles, E. (1992). Residential segregation by skin color in Brazil. American Sociological Review, 57, 186–197.
- Telles, E. (1994). Industrialization and racial inequality in employment: The Brazilian example. *American Sociological Review*, 59, 46–63.
- Telles, E. (1995). Who are the morenas? Social Forces, 73, 1609-1612.
- Telles, E. (2004). Race in another America: The significance of skin color in Brazil. Princeton, NJ: Princeton University Press.
- Telles, E., & Lim, N. (1998). Does it matter who answers the race question? Racial classification and income inequality in Brazil. *Demography*, 35, 465–474.
- Torche, F. (2010). Economic crisis and inequality of educational opportunity in Latin America. Sociology of Education, 83, 85–110.
- Unesco. (2007). The state of education in Latin America and the Caribbean: Guaranteeing quality for all. Santiago: Regional Bureau of Education for Latin America and the Caribbean for Unesco.
- Veloso, F. (2009). 15 anos de avanços na educação no Brasil: Onde estamos? [15 years of improving Brazilian education: Where are we?]. In F. Veloso, S. Pessôa, R. Henriques, & F. Giambiagi (Eds.), Educação básica no Brasil: Construindo o país do futuro. Rio de Janeiro, Brazil: Elsevier.
- Wade, P. (1997). Race and ethnicity in Latin America. London, UK: Pluto Press.
- World Bank. (2007). World development report: Development and the next generation. Washington, DC: World Bank.

