

Educational stratification after a decade of reforms on higher education access in Brazil



Letícia Marteleto^{a,*}, Murillo Marschner^b, Flávio Carvalhaes^c

^a University of Texas at Austin, UT Austin, United States

^b Pontifical Catholic University of Rio de Janeiro, Puc-Rio, Brazil

^c Federal University of Rio de Janeiro, UFRJ, Brazil

ARTICLE INFO

Article history:

Received 9 February 2016

Received in revised form 29 July 2016

Accepted 7 August 2016

Available online 20 August 2016

Keywords:

Educational stratification

Race

Social origin

Brazil

Latin America

Affirmative action policies

ABSTRACT

The policies Brazil has implemented in the last decade to increase social inclusion—based on both socio-economic status and race—might have reduced the educational disadvantages associated with being non-white and poor. Recent research on Latin America has found a strengthening of the association between social origin and educational attainment—at least for *early* educational transitions—among cohorts who grew up in the 1980s, and a weakening of the association for cohorts growing up in the 2000s. This pattern aligns with signs of declining economic inequality in the continent. However, the decline in economic inequality coupled with an unprecedented expansion of education, including higher education, would suggest a weakening of the influence of social origin on educational opportunity for *multiple* educational transitions, not only *early* transitions. The goal of this paper is to examine recent changes in educational inequality by social origin and race in Brazil. We use a unique nationally representative data set collected by ILO in 2013 from respondents age 21–29 to answer the following two questions: As Brazil achieved universal enrollment in primary education and consistently high enrollment levels in secondary education, have the effects of social origin on secondary schooling entrance, secondary schooling completion and college access changed? Has the extent of the non-white disadvantage in education declined for younger cohorts? We provide the first assessment of inequality of opportunity in late educational transitions conducted after these key changes in Brazilian educational policy. The results show that while younger cohorts enjoy more egalitarian educational opportunities relative to older cohorts, important bottlenecks linked to persistent inequalities based on both social origin and race remain, particularly for the completion of secondary schooling.

© 2016 Published by Elsevier Ltd.

1. Introduction

Recent trends in inequality in educational opportunity in Latin America depart sharply from trends reported for the industrialized world (Alves de Brito 2014; Marteleto, Carvalhaes, & Hubert, 2012; Torche, 2010; Ribeiro, 2011). Latin American countries exhibited an unprecedented strengthening of the association between social origin and educational attainment—at least in early educational transitions—among cohorts who grew up in the 1980s (Torche, 2010), but a weakening of the association among cohorts growing up in the 2000s (Alves de Brito 2014; Marteleto, Carvalhaes et al., 2012; Torche & Ribeiro, 2012). The recent reduction in the effect of social origin on *early* educational transitions aligns with

declining economic inequality as measured by the Gini coefficient, in some Latin American countries, including Brazil (Barros, Foguel, & Ulysea, 2007; Lustig, Lopez-Calva, & Ortiz-Juarez, 2011). Because the main reason that income inequality has declined in Brazil is that labor market dynamics have favored groups in the middle and bottom of the distribution, groups that were historically disadvantaged have had significant increases in their standards of living in the last decade. This shift, coupled with an unprecedented expansion of education, particularly higher education, would suggest a weakening of the effect of social origin on educational opportunity not only for *early* educational transitions but also for *late* educational transitions such as high school entrance, high school completion and college entrance.

A crucial component of the unequal distribution of education in Brazil is the well-documented disadvantage of non-whites (Silva, 2003; Fernandes, 2004; Marteleto, 2012; Telles, 2006). Since the early 2000s, the country has launched a plethora of race- and

* Corresponding author.

E-mail address: marteleto@prc.utexas.edu (L. Marteleto).

socio-economic-status-based policies in higher education, with the main goal of increasing the access of the non-white and socio-economically disadvantaged populations to tertiary education. This recent shift in how race and race inequality is understood in Brazil (Marteleto, 2012) may have altered the path to educational opportunity for non-white Brazilians in at least two key ways. First, because policy initiatives have increased the number of available university spots based on socioeconomic and racial criteria in both public and the private sectors, we would expect these policies to have a direct effect on opportunities in tertiary education. Second, because these policies likely restructure incentives and the educational expectations of disadvantaged youths, they may affect outcomes at multiple levels of the educational system, from elementary to tertiary education. Importantly, the current cohort of Brazilian youth who began secondary and tertiary education after 2002, were the first to be exposed to an institutionalized set of educational and social policies geared toward the inclusion of minorities in education. These policies expanded the access of minorities to tertiary education and may have led to a weakening of the educational gap by race in Brazil.

The goal of this paper is to examine recent trends in socioeconomic- and race-based educational inequality in Brazil. We estimate educational transition models using unique nationally representative data collected in 2013 by the ILO (International Labor Organization) to answer two questions: First, as Brazil achieved universal enrollment in primary education, consistently high enrollment levels in secondary education and an unprecedented expansion of its tertiary system, did the strength of the association between social origin and educational outcomes—entrance in high school, high school completion and access to tertiary education—change? Second, has the extent of the educational disadvantage faced by non-white students changed for younger cohorts who were exposed to the massive affirmative action policies in Brazilian universities?

This paper contributes to the literature on educational stratification in at least two ways. First, we focus on a country that has experienced unique recent changes in its economic and social structures and policy initiatives. In the past decade, Brazil experienced a steady decline in economic inequality, which was driven mainly by an increase in the standard of living, and the subsequent consumption patterns, of low- and middle-income groups. The country has also witnessed an unprecedented spread of government-mandated race- and class-based affirmative action policies for university entrance. This study is the first to examine two cohorts of young adults who experienced both of these changes. By focusing on these cohorts, which despite their proximity, were exposed to relatively different opportunity structures, we assess the impact of recent social and economic changes on social groups' achievement of educational outcomes in Brazil. Second, the results shed light on patterns of social stratification in middle-income countries. The literature on these nations has been mainly concerned with early educational results, such as access to schools and completion of lower levels of education. Given the recent success of these countries in overcoming obstacles that were historically part of their educational landscape, an updated understanding of higher educational careers in these contexts is much needed. The majority of previous studies of this topic in countries with the same development level as Brazil focused only on children of the household head; however, our data provide the opportunity to examine *all* young adults from cohorts exposed to the recent reforms in access and expansion of tertiary education in the country. Thus, these data allow us to avoid the selection bias that arises when examining secondary education and college entrance among only children of the head of the household. This is the first analysis to use these data to examine the effects of recent contextual changes on the structure of educational opportunities.

The paper is organized the following way: First, we review the pertinent conceptual and theoretical literature, with a focus on the maximally maintained inequality hypothesis (MMI). Next, we discuss the Brazilian educational system, including the reforms that intended to expand access to higher education. We then outline the data and methods followed by the results. We end the paper with a discussion of the changes in patterns of educational stratification by social origin and race, centered on the MMI framework. The findings suggest that racial and social origin-based inequality differs across younger Brazilian cohorts, born between 1984 and 1992. In addition, the results illustrate the potential and the limitations of using economic and policy changes to address educational inequality in a fast-changing environment, and thus are an important contribution to the literature on social stratification, especially the field of educational inequality.

2. Social origin, race and educational opportunity

The maximally maintained inequality (MMI) hypothesis suggests that declines in the influence of social origin on educational outcomes occur only when transition rates for *lower* educational levels reach saturation for the upper classes (Raftery & Hout, 1993). This perspective explains the pattern of *persistent inequalities* observed in a number of countries—in these countries educational expansion did not necessarily lead to a reduction in inequality of opportunity (Shavit & Blossfeld, 1993). This finding consolidated the argument that educational expansion by itself does not reduce socioeconomic inequality in educational opportunity. Scholars have applied the maximally maintained inequality hypothesis to the analysis of educational stratification in both studies of specific cases and in international comparisons (Breen & Jonsson 2005; Buchmann & Hannum 2001).

A wave of studies has shown that the MMI hypothesis holds in some settings, particularly for early educational transitions, but not others, suggesting that the macro context, the focal cohort and the period of analysis can affect the validity of the hypothesis. There is evidence that social origin's effects on early educational transitions have decreased in more than thirty countries, although these decreases have been modest (Shavit et al., 2007). Further, there is consistent evidence of diminishing inequalities among successive cohorts of Europeans throughout the 20th century. For example, Breen and colleagues found a decreasing gap in high school entrance (but not in the transition to tertiary education) (Breen, Luijkx, Muller, & Pollak, 2009).

While this scholarship describes how inequality of opportunity is structured in various levels of education and in many countries, the question of whether changes in patterns of inequality in one educational level affect subsequent levels is less common. It is possible that the weakening of social origin effects on early educational transitions takes place parallel with persistent (and in some cases, increasing) inequality in transitions to and completion of upper educational levels (upper secondary and tertiary). Equalization in lower levels can be followed by so-called “carry-over effects” or “postponed selection” (Shavit, Yaish, Bar-Haim, 2007). The former suggests that the decline of inequality in the odds of completing low levels of education can carry over to higher levels and reduce inequality. The latter means that even with equalization in the odds of completing lower levels of education, persistent inequality can persist at higher levels of education. This can happen for two reasons: expansion rises the number of students exposed to subsequent transitions but also brings more heterogeneity to the system. Therefore, the second hypothesis focuses on selection as an important component for understanding educational expansion and its consequences for the structuring of inequality of opportunity at higher levels of the educational system.

Empirically, carry-over effects were found in Italy (Shavit & Westerbeek, 1998) and in France (Vallet, 2004). On the other hand, postponed selection seems to apply across a higher variety of cases. A recent survey analyzing inequality in educational opportunity in cohorts born between the 1950s and 1970s in 24 countries found that educational expansion increased disparities across social strata at both the secondary and the tertiary levels of education (Eyal & Shavit, 2013). In Russia, for example, inequality in college entrance increased even as inequality in secondary completion declined. Stagnation in the size of the tertiary system in this country resulted in a stable number of college entries despite larger cohorts of those eligible to apply. This is a clear illustration of how uncoupling trends in different levels of the educational system can have substantial effects on structuring opportunities in the direction of post-poned selection (Gerber & Hout, 1995; Gerber, 2000).

Rising educational inequality at the secondary and tertiary levels has also occurred in Asia. Cohorts of young women in Korea experienced an increase in the strength of the association between social origin and educational attainment for upper secondary and tertiary transitions (Chang, 2003). In China gaps in entry to and completion of secondary schooling and the rural-urban gap have widened (Wu, 2010).

Latin American countries experienced a similar persistence in inequality in higher levels of the educational system, which can be pointed to the poor macroeconomic performance of Latin American countries throughout the 1980s, which decreased incentives for individuals across the socioeconomic spectrum to continue their education. In a harsh economic context, children from poorer families often quit school to help with the household budget, producing, in the aggregate, an increase in educational disparities (Torche, 2010).

The goal of this paper is to establish a dialogue based on the educational stratification approach discussed above using recent data from Brazil. As we discuss below, the implementation of educational policies in the last 20 years as well as recent social and economic changes make Brazil an interesting case for examining the structuring of educational opportunities in a context of intense expansion of the educational system at all levels. We address whether the consequences of educational expansion and equalization of opportunities in the lower levels of education (a more equitable system at the primary schooling) were carried over to subsequent educational levels; or, alternatively, does the current pattern of inequality in education in Brazil resemble a displacement of where and when disparities emerge? While there have been a few studies on IEO patterns in Brazil (i.e., Marteleto, Gelber, & Salinas, 2012; Ribeiro, 2011; Torche, 2010), very few have considered higher educational transitions (i.e., Ribeiro, 2011; Torche, 2010), mainly due to data limitations. No study has examined secondary education completion and university entrance for *all* respondents (as opposed to only children of household heads) for the cohorts that went through their educational careers during this recent period of significant policies aimed at increasing social inclusion in higher education.

The existing literature has documented an overall pattern of declining inequalities at the basic levels and persistent or increasing inequality at higher educational levels for both older and younger cohorts (Marteleto, Carvalhaes et al., 2012; Marteleto, Gelber et al., 2012), suggesting that the persistent inequalities pattern fits IEO dynamics in Brazil; and also that the postponed selection hypothesis applies. Ribeiro (2011) reported a persistent negative association between social origin and educational transition rates at the secondary level for cohorts born before 1950. Torche (2010) found increases in inequality in higher transitions for cohorts born before the mid-1970s, highlighting the important influence of the macro-economic context on the structure of educational opportunities. In a study limited to children of household

heads and therefore subject to selection issues for late educational transitions, Rios-Neto and Guimarães (2010) found stable IEO patterns for secondary completion and tertiary entrance for cohorts born before 1983. More recently, using Census data to examine IEO patterns for cohorts born between 1935 and 1991, Alves de Brito (2014) observed a decline in overall rates of secondary completion between 1980 and 2000, combined with persistent inequality in higher education entrance level. The study, which is also limited to children of the household head, found that the expansion of the tertiary system was accompanied by greater socioeconomic inequalities in tertiary admissions between 2000 and 2010.

Regarding race-based inequality in educational transitions, barriers to educational progression were higher for non-whites than for whites among cohorts of Brazilians born before the 1960s. Racial barriers were stronger at the tertiary level than the secondary level (Fernandes, 2004), and had become less prominent over time (though still present) at the elementary and secondary educational levels (Marteleto, 2012; Alves de Brito, 2014).

Whether or not the MMI framework holds depends on the social structures within which educational opportunities are embedded (Treiman, Ganzeboom, & Rijken, 2003), a pattern that suggests that in Brazil, recent social and economic changes likely led to changes in the structure of educational opportunity. The interventions aimed at reducing the origin-outcome association in Brazil emphasized the secondary and university levels. We examine changes in the IEO patterns for secondary and tertiary schooling that have occurred in the Brazilian context of increasing enrollment and government reforms that sought to reduce inequalities at those levels. Further, we focus on younger cohorts of Brazilians in order to assess the effects of the recent unprecedented expansion of the tertiary system including significant increases in available admissions slots in the 1990s and the 2000s. By examining these questions we dialogue with the broader educational stratification literature by gauging at whether Brazil fits a pattern of carrying over equality from primary to higher levels of education or a pattern of postponed selection with the strengthening of socioeconomic and racial inequalities at higher levels of education (Bar-Haim & Shavit 2013).

3. Educational attainment in Brazil

Although social policies regarding access to education changed across the focal cohorts in this study, the institutional organization of the educational system remained similar (Klein, 2006). The structure of the educational career in Brazil is divided into three cycles (Stanek, 2013): *Ensino Fundamental*, split in two phases, one that consists of four grades for children ages 6–11 and a second that includes four grades for children ages 12–15. This is the minimum compulsory level of education in Brazil. The second phase of the educational system, *Ensino Médio*, consists of three grades in which students deepen the knowledge acquired in the previous stage and further develop academic skills in the basic curricula. The end of *Ensino Médio* represents the maximum compulsory education that the public educational system is *obliged* to offer by law, free of tuition, to all students (Creso, Fátima, Bonamino, 2007). The third part of the educational career is the higher education system, *Ensino Superior*, which includes institutions that offer both academic and vocational careers, funded by private and public sources.

The Brazilian educational system expanded during the second half of the 20th century, as a result of social policies implemented in the 1960s (Creso et al., 2007). The system was long been characterized by low performance, low coverage and a high incidence of grade repetition (Birdsall & Sabot, 1996). Among relevant factors for explaining the poor performance of the Brazilian educational system in the 1970s and 1980s, are high fertility rates, a lack of resources and a deficient supply of schools (Barros & Lam,

1996). However, smaller cohorts of school-age children (Marteleto & Souza 2013; Lam & Marteleto, 2006, 2008; Riani & Rios-Neto, 2008) and educational policies implemented since the mid-1990s have contributed to recent improvements, specially in the lower level of the educational career, *Ensino Fundamental* (Veloso, 2009). A combination of population change, which diminished the pressures on the educational system, educational policies such as the systematization of budget responsibilities (Creso et al., 2007) and social policies such as direct cash transfers for low-income families (Bichir, 2010) have further contributed to the improvement of educational opportunities for recent cohorts in the early levels of schooling.

The universalization of access to primary education in Brazil occurred during the 1990s (Torche & Ribeiro, 2012). Our analysis of the nationally representative National Household Survey (PNAD) data confirms these recent large improvements in school enrollment in primary education. For example, while only 69.6 percent of children ages 7–14 were enrolled in school in 1977, by 2013, school enrollment was nearly universal for this age group, reaching 96.0 percent. Despite this expansion, educational attainment is low relative to countries with similar levels of development, including Latin American counterparts Argentina and Chile (Fernandes, 2004). In the first decade of the 21st century, only 78% of the relevant age-group students in Brazil had access to secondary school (UNESCO, 2007); thus, access to secondary education has become an important bottleneck in the successful educational trajectories of Brazilian youth. Low retention rates at this level are associated with high rates of grade repetition and low school quality (Souza, Ponczek, & Oliva, 2012; Leon & Menezes-Filho 2002). At older ages, school enrollment, completion of secondary school and college access have failed to reach universal coverage, with important disadvantages among non-white and low-socioeconomic-status youths (Marteleto, Carvalhaes et al., 2012; Marteleto, Gelber et al., 2012; Fernandes 2004).

There was no significant policy focused on secondary schooling since the last educational legislation of 1996. Recent debates exist around the need to implement curricula change to make secondary schooling more attractive to all students and also to expand vocational training. The curriculum is highly academic and directed at college entry, and therefore does not align with the educational expectations of a large proportion of students who will go straight to the labor market (Schwartzman, 2004).

3.1. Recent reforms in higher education: expansion, affirmative action and public funding policies in Brazilian universities

While secondary school completion and college access remain far from universal in Brazil, the race- and class-based policies to improve higher education opportunities in the last fifteen years and the massive expansion of the tertiary system¹ have undoubtedly increased access to this level. However, it is unclear whether this expanded access has translated into declines in inequality. In this article we have a unique opportunity to examine two cohorts of young adults exposed to different structures of opportunities related to secondary education completion and university access. In this section, we summarize the main policy initiatives that may have altered the inequality of educational opportunities for the cohorts we examine.

The initiatives pushing for an “institutionalized treatment” of the issue of unequal access to higher education in Brazil originated in Fernando Henrique Cardoso’s government (1995–2002),

¹ Data from the Ministry of Education (MEC) shows that enrolment in higher education grew from 1.57 million students in 1991–7.8 million students in 2014, an increase of 496% in 23 years.

in response to the demands of organized sectors in Brazilian society (particularly the black movement). The initiatives were also a response to increasing pressure from international forums in which scholars and policy makers increasingly questioned the idea that Brazil was a racial democracy (Guimarães, 2003). The first affirmative action and quota initiatives² aimed at increasing access to higher education of *pardo* and black Brazilians took place in the state universities of Rio de Janeiro and Bahia in the early 2000s. Under the government of Luíz Inácio da Silva (known as Lula), federal public universities had autonomy to adopt affirmative action policies. By 2008, 79 public institutions of higher education were promoting some type of affirmative action initiative, varying from bonus systems to quotas, in their admission process (Heringer & Ferreira, 2009). Although the federal government did not officially endorse affirmative action policies, these initiatives were clearly encouraged and by 2012, culminated in a national law reserving spots in all federal public universities through a quota system based on both socioeconomic and racial inequalities.³ In 2015, fourteen years after the first university-based affirmative action program was implemented in Brazil, the country had the world’s largest affirmative action program.

In addition to the spread of race-based affirmative action policies, there was also a movement to expand federal public universities across the country and offer night courses; these policies would, by design, increase university access for minority students. In 2007, the federal government created Reuni, the Program of Support for Restructuring and Expanding Federal Universities. The initiative increased the number of seats in targeted public higher education universities with the goal of diminishing inequalities in access to public higher education. Although not explicitly defined as an affirmative action policy, the government signaled that institutions that had implemented policies with social inclusion goals would receive preferential access to resources (Heringer & Ferreira, 2009; Daflon, Feres, & Campos, 2013). As a consequence of the plethora of policies aimed at expanding university access to minorities, Brazil is poised to exhibit changes in the associations between social origin, race and *late* educational transitions, that is, to achieve more egalitarian access to tertiary education across race and class lines.

In addition to affirmative action policies and reforms aimed at expanding access to public universities, there were also key policies directed to the private sector. These policies are strategic because they target the private sector, which supplies around 75% of all available slots in tertiary education in Brazil. The initiatives focused on increasing access to higher education through public funding of private education for low-SES and minority students. The “University for All” Program (ProUni) granted scholarships to private institutions for students from a low-SES background, and offered tax benefits to universities that used a race criteria to select scholarship recipients (Lima, 2011, 2010). The FIES (Studentship Financing Fund) Program increased substantially in terms of pub-

² In 2001, Rio de Janeiro’s government reserved a minimum of 40% of available university admissions to black and *pardo* students. In 2002, Bahia State University (UNEB) enacted a similar resolution. By the end of Cardoso’s term, his administration had implemented the “Diversity at University Program” aimed at expanding the access of black, *pardo* and indigenous populations to higher education (Guimarães, 2003).

³ The allocation of spots follows three rules. First, 50 percent of the slots available in a given year are reserved for graduates of the public school system. Second, of the spaces reserved for students from public schools, half are reserved for those with a household per-capita income of less than 1 ½ times the minimum wage and half are reserved for those above this threshold. Third, within each of these income groups, slots are reserved in a way that mimics the racial composition of the state in which the university is located (according to the most recent Census). Racial categories recognized by the policy are “preto” [black], “pardo” [mixed race] and “indígena” [native Brazilian].

lic investments and number of beneficiaries during the 2000s, and also focused on expanding higher education access. Combined, these programs had a significant impact on expanding access to private universities—in 2014, 16% of those enrolled in private universities were beneficiaries of one of the two programs (Rosseto & Gonçalves, 2015).

The cohorts we examine in this study faced different educational structures due to the policies and reforms discussed above. The two cohorts reached the age of secondary schooling in the late 1990s and 2000s. The older cohort reached university age in the early 2000s, when such policies and reforms had been just implemented in Brazilian universities while the younger cohort reached university age in the early 2010s, when those policies were already widespread in Brazilian universities. We hypothesize that, relative to the older cohort, the younger cohort will exhibit weaker associations between both social origin and race and educational transitions—high school entrance and completion and university entrance.

3.2. Data and methods

We use data from the nationally representative ILO School-To-Work Transition Survey (SWTS) conducted in 2013. The data cover 3200 respondents age 15–29 and contain information on education and occupation of *all* respondents, not just children of the head of the household. This is crucial because these data provide unique information on the SES of the family of origin for all young adults in the sample, therefore yielding estimates for all youths, something that has been uncovered by previous research.

Our analytical sample includes 1950 respondents ages 21–29.⁴ We focus on this age group because by age 21 young adults would have had enough time to complete secondary education and start college. If these transitions have not occurred by age 21, this is in itself a source of inequality that merits examination because the older individuals become, the less likely they are to finish subsequent degrees.

We examine young adults separately by cohort. Those in the older cohort were born between 1984 and 1988 and would therefore be of age to enter secondary education between 1998 and 2002, when affirmative action policies and additional reforms aimed at increasing access to higher education were just beginning to gain traction in Brazil. Respondents in the younger cohort were born between 1989 and 1992 and were of age to begin secondary education between 2003 and 2006, when such policies and reforms were expanding rapidly in Brazil.

We examine progression chances through three educational transitions: (a) high school (*ensino médio*) entrance, (b) high school completion, and (c) college entrance. We examine both conditional and unconditional transitions. The main independent variables are parental education (measured by the highest educational level between mother and father) and respondent's race (white/non-white). We include several control variables: sex, region (south, southeast, etc.), rural/urban origin, age and position in the household (child, as opposed to spouse or head of the household).

4. Results

Table 1 shows means, proportions and standard deviations for the analytical sample. Table 2 shows the six dependent variables—unconditional and conditional high school entry, high

Table 1
Proportions of Young Adults by Cohort and Key Variables: Brazil.

	Younger Cohort (1989–1992)	Older Cohort (1984–1988)
Family Education		
Primary	61.0	69.2
Secondary	28.5	22.5
Tertiary	10.5	8.3
Sex		
Male	51.4	48.6
Female	48.6	51.4
Race		
Non-White	64.2	64.4
White	35.8	35.6
Position in the Household		
Head or Spouse	37.8	55.8
Son	49.8	34.9
Other	12.5	9.3

Source: ILO. School to Work Transitions Survey – Brazil, 2013.

school completion and college entry—by the two main independent variables—race and social origin—and by control variables. The results in Table 2 suggest that low-SES respondents are persistently disadvantaged in all six transitions vis-à-vis their high-SES counterparts. In addition, non-white young adults are persistently disadvantaged in all six transitions relative to their white counterparts. These educational disadvantages increase with progression through the education system, and are in general smaller for the younger than for the older cohort. That is, the disadvantages associated with low-SES and non-white race are smaller for high school entry than for high school completion and college entry, and are larger in the younger cohort than in the older cohort.

We present the main results in Figs. 1–3 using predicted probabilities of completing an educational transition; these figures contain all control variables adjusted to their means and the variables of interest—social origin and race—in values of interest. The Appendix A contains tables with the complete statistics and odds ratios from logistic regression models of high school transition (Table A1), high school completion (Table A2) and college entrance (Table A3).⁵

Fig. 1 contains the predicted probabilities of entering high school (unconditional and conditional) by social origin (Panel A) and race (Panel B) for each cohort. The results in Panel A show that respondents with parents with at least a high school education are more likely to enter high school than respondents with parents who did not complete high school. This pattern appears in both the unconditional and conditional models and for both cohorts. For example, among respondents in the older cohort, those with less educated parents had a 62% chance of entering high school unconditional on completing primary education, while respondents with more educated parents had a 92% probability of entering high school (chi², 1 dof = 58.15, *p*-value < 0.0001). Among respondents in the younger cohort, those with less educated parents had a 66% chance of entering high school unconditional on completing primary education, while respondents with more educated parents had a 94% probability of entering high school (chi², 1 dof = 52.98, *p*-value < 0.0001). The difference in the predicted probability of entering high school based on parental education is significant and almost the same magnitude across cohorts.

⁴ We derived sub-samples from the 1,950 young adults, depending on the type of educational transition (conditional or non-conditional) and level of the educational transition we analyze (high school entrance, high school conclusion and higher education entrance).

⁵ In all three tables, Columns 1 and 2 show results for unconditional transitions, while Columns 3 and 4 show results for transitions conditional on having completed the immediate previous transition. Columns 1 and 3 show results for respondents in the younger cohort while Columns 2 and 4 show results for respondents in the older cohort.

Table 2
Proportions of Young Adults who made Educational Transitions (Conditional and Unconditional) by Cohort and Key Variables: Brazil (%).

	Unconditional Transitions						Conditional Transitions					
	Entered High School		Completed High School		Entered Higher Education		Entered High School		Completed High School		Entered Higher Education	
	Younger Cohort	Older Cohort	Younger Cohort	Older Cohort	Younger Cohort	Older Cohort	Younger Cohort	Older Cohort	Younger Cohort	Older Cohort	Younger Cohort	Older Cohort
Highest Educational Level Achieved	72.9	69.3	49.5	54.9	19.0	20.4	91.2	88.8	68.0	79.2	38.4	37.1
Family Education												
Primary	61.7	59.4	35.7	44.4	6.8	8.7	86.3	83.7	58.1	74.7	19.0	19.4
Secondary	91.6	89.5	67.0	75.9	23.3	35.2	96.6	96.6	73.1	84.8	34.7	46.4
Tertiary	96.5	97.6	90.5	88.0	79.8	77.1	100.0	98.8	93.8	90.1	88.2	87.7
Sex												
Male	70.6	71.9	47.0	54.6	17.9	21.1	90.2	89.4	66.5	75.7	37.9	38.8
Female	75.3	66.9	52.3	55.2	20.4	19.6	92.4	88.2	69.3	82.7	38.9	35.6
Race												
Non-White	69.6	67.3	44.1	52.3	15.7	16.2	90.4	89.1	63.4	77.8	35.6	31.0
White	79.1	73.0	59.0	59.4	24.5	27.5	92.5	88.1	74.6	81.3	41.6	46.3
Position in the Household												
Head or Spouse	59.7	60.6	35.9	45.4	7.8	10.8	87.6	84.7	60.2	74.7	21.7	23.8
Son	83.0	83.2	61.2	70.6	27.3	35.0	93.2	93.9	73.7	84.8	44.6	49.8
Other	71.9	69.4	44.8	52.4	18.8	20.2	90.8	89.4	62.3	75.9	41.9	38.6

Source: ILO. School to Work Transitions Survey – Brazil, 2013. Younger Cohort: 1989–1992; Older Cohort: 1984–1988.

The pattern for the probability of entering high school conditional on finishing elementary school is similar to the pattern for the unconditional probability, but the magnitude of the difference in the probability of entering high school is smaller in the conditional models than. Among respondents in the older cohort, those with parents with at least a high school degree had a 97% probability of high school entrance while those whose parents had less education had an 87% probability of high school entrance. Among respondents in the younger cohort, the probabilities of high school entrance are 99% versus 88%. These results indicate a persistence of inequality measured by SES at high school entry in Brazil.

Panel B of Fig. 1 shows the probabilities of high school entrance by race. White and non-white young adults have similar probabilities of entering high school, both unconditional and conditional on elementary schooling completion. For the unconditional models, the predicted probabilities of entering high school are 73% for non-whites and 77% for whites in the older cohort (χ^2 , 1 dof = 1.38, p -value = 0.2398) and 79% for non-whites and 82% for whites in the younger cohort (χ^2 , 1 dof = 0.53, p -value = 0.46). Unsurprisingly, the magnitudes of the probabilities increase significantly for models predicting high school entry conditional on elementary school completion. The probability of starting high school is 92% (χ^2 , 1 dof = 0.12, p -value = 0.73) for both white and non-white young adults in the older cohort and 94% (χ^2 , 1 dof = 0.02, p -value = 0.89) for both whites and non-whites in the younger cohort. Overall, the results suggest that for these cohorts, high school entrance did not differ by race.

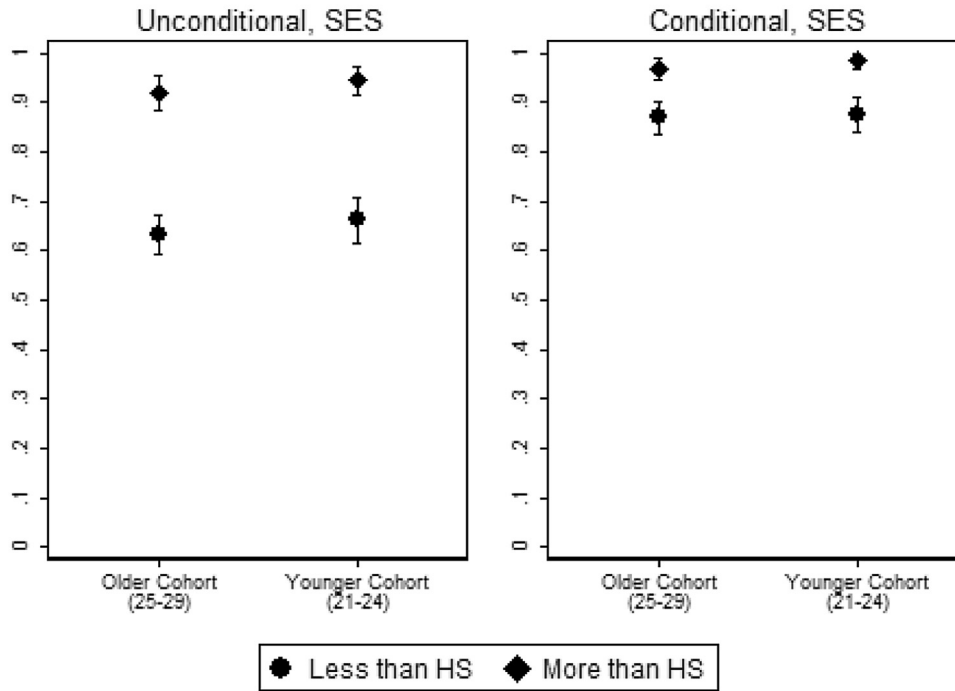
Fig. 2 shows the predicted probabilities of completing high school (unconditional and conditional) by social origin (Panel A) and race (Panel B) for each cohort. The difference in the probability of completing high school between respondents of less and more educated parents is large and statistically significant in both unconditional and conditional models, for both cohorts. In the older cohort, respondents whose parents have at least a high school education have a 78% probability of completing high school, relative to a 46% probability among respondents whose parents have less education (χ^2 , 1 dof = 64.57, p -value < 0.0001). In the younger cohort, the probability is 75% for those with highly educated parents and only 34% for those with less educated parents (χ^2 , 1 dof = 79.87, p -value < 0.0001). In the models of conditional probabilities the

parental education differences in high school completion remain significant.

Combined, these results suggest that the pattern in educational disadvantages associated with social origin persists across both focal cohorts. When we disaggregate parental education into three categories (results available upon request)—elementary school or less than high school, some high school, and at least some college—we find a strengthening of the SES advantage in the completion of high school for those with college-educated parents (both unconditional and conditional on high school entrance) across cohorts. Relative to the older cohort, the younger cohort experience a smaller, though still significant, difference in the probability of high school completion between respondents with parents with elementary school or less education and those with some high school education; in contrast, the difference in the probability of high school completion between respondents with parents with some high school education and at least some college is greater for the younger cohort than for the older cohort. Thus, students with parents in the lowest and middle education categories have become more equal over time while students with parents with at least some college have gained further advantages. This pattern holds for both unconditional and conditional probabilities.

Panel B of Fig. 2 shows the predicted probabilities of completing high school by race and cohort. The findings suggest that for the older cohort, there is no significant difference between whites and non-whites in the probability of completing high school, both unconditional and conditional on high school entry. The results for the younger cohort show a different trend. Non-white Brazilians in the younger cohort have a significantly lower probability of completing high school than their white counterparts—whites in the younger cohort have a 57% probability of completing high school (unconditional) while their non-white peers have a 48% probability of completing high school (χ^2 , 1 dof = 4.82, p -value = 0.02). For the conditional models, white respondents in younger cohorts have a 75% probability of completing high school while their non-white counterparts have a 66% probability of high school completion conditional on high school entrance (χ^2 , 1 dof = 4.01, p -value = 0.04). This striking result suggests that high school completion has become a bottleneck for non-white Brazilians.

Panel A. SES



Panel B. Race

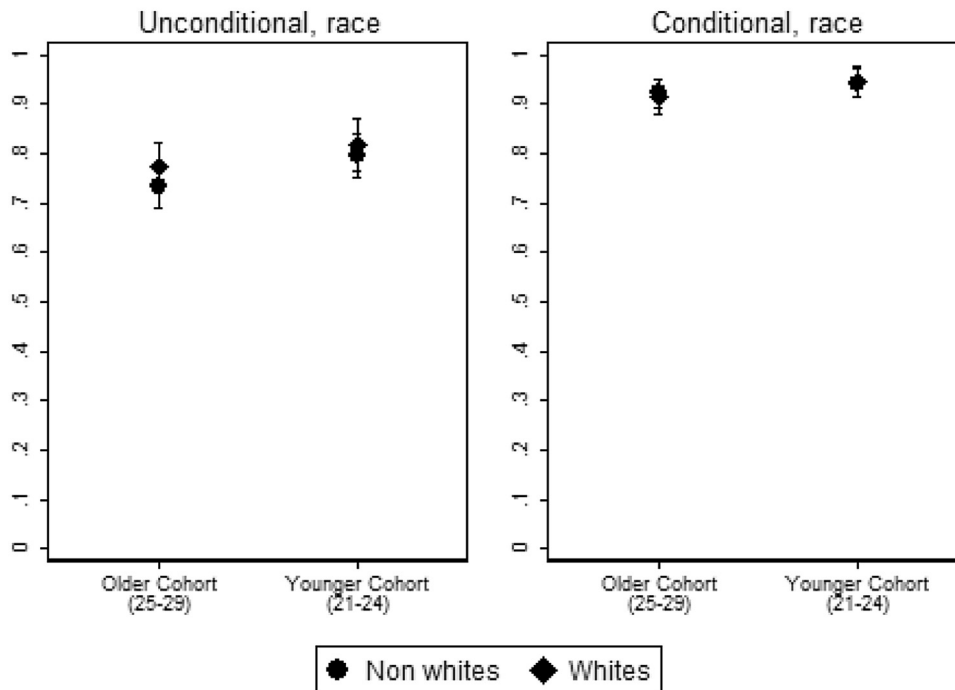
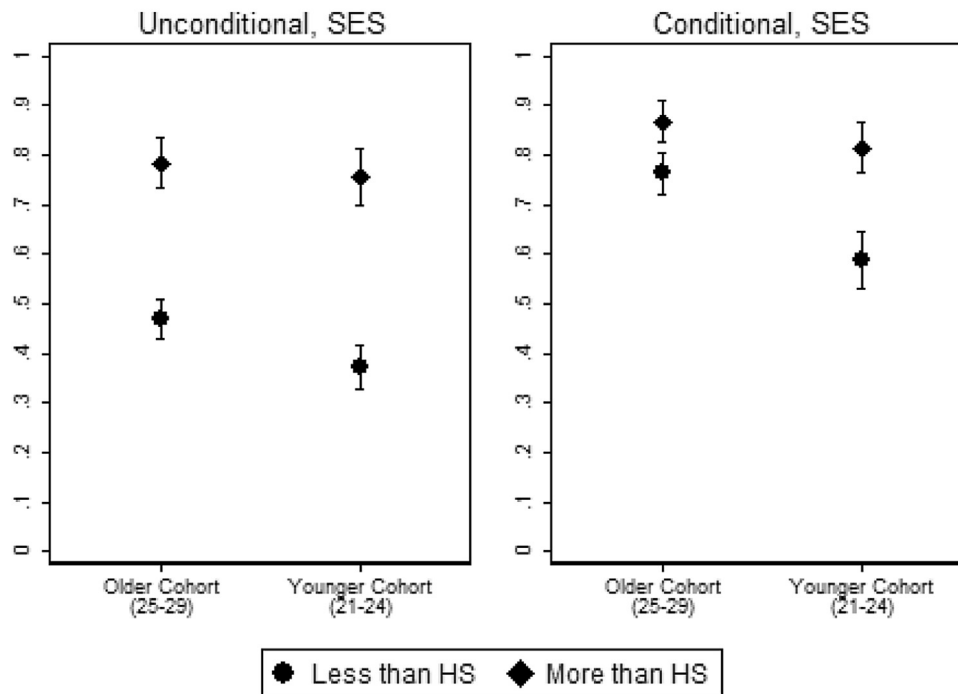


Fig. 1. High School Entrance Unconditional and Conditional on Primary Schooling Completion by Cohort, Brazil: SES and Race.

Fig. 3 follows the same logic as Figs. 1 and 2, but focuses on the probability of university entrance. Panel A shows the trend for social origin while Panel B shows the trend for race. The probabilities of college entrance are significantly higher for respondents whose parents completed at least some high school than for those whose parents have less than a high school education. In the older cohort, young adults with more highly educated parents have a 40%

probability of entering college; their peers whose parents have less than a high school education have only a 7% probability of entering college (χ^2 , dof 1, p -value < 0.00001). Although the parallel difference in the unconditional probabilities of entering college is somewhat smaller among respondents in the younger cohort—a 35% probability for those whose parents have more education and a 6% probability for those whose parents have less education—the

Panel A. SES



Panel B. Race

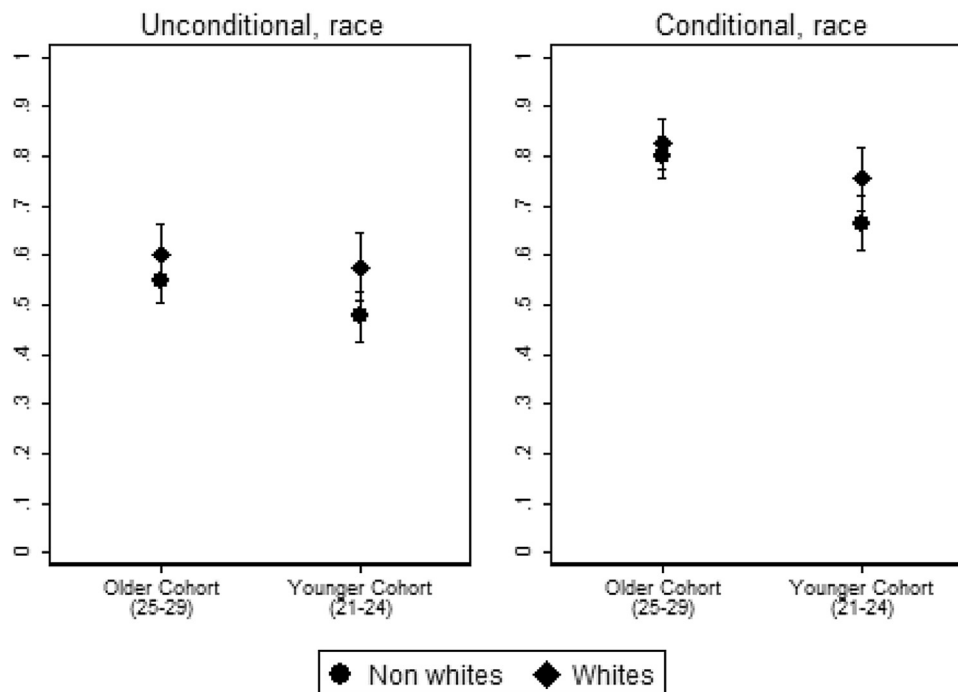


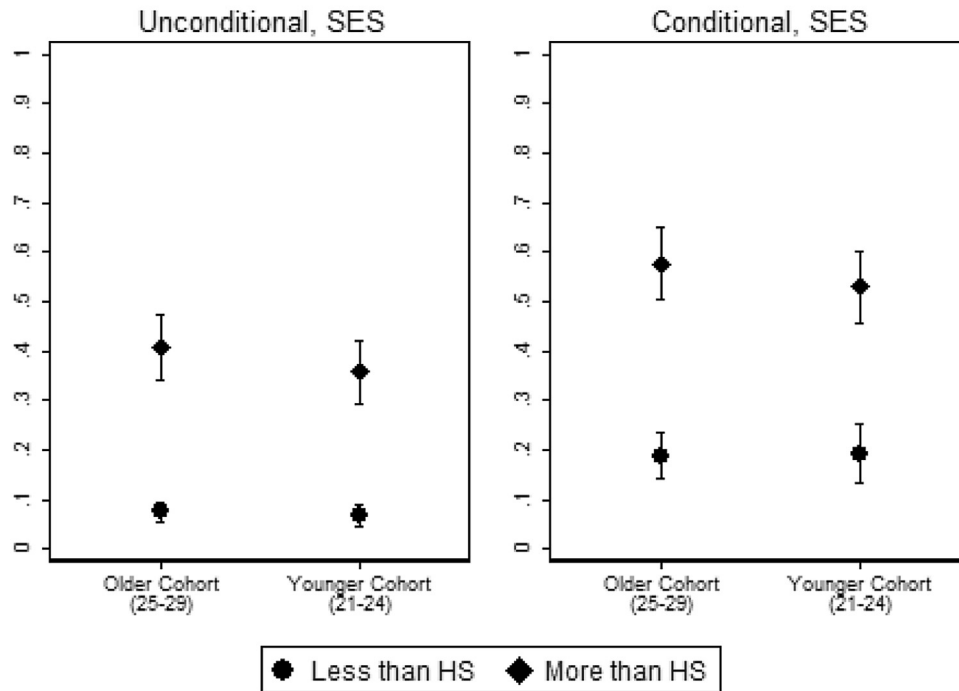
Fig. 2. High School Completion Unconditional and Conditional on High School Entrance by Cohort, Brazil: SES and Race.

difference remains large and statistically significant (χ^2 , 1 dof, p -value < 0.00001). The pattern for college entrance conditional on high school completion is similar to the pattern for the unconditional probabilities. These findings indicate a slight decline in the educational advantage of those whose parents hold at least a

secondary education vis-à-vis those whose parents have less than secondary education.

Panel B of Fig. 3 shows the cohort trends in college entrance by race. The results suggest that in the older cohort but not the younger cohort white Brazilians had an advantage over non-white Brazilians in college entrance, both unconditional and conditional

Panel A. SES



Panel B. Race

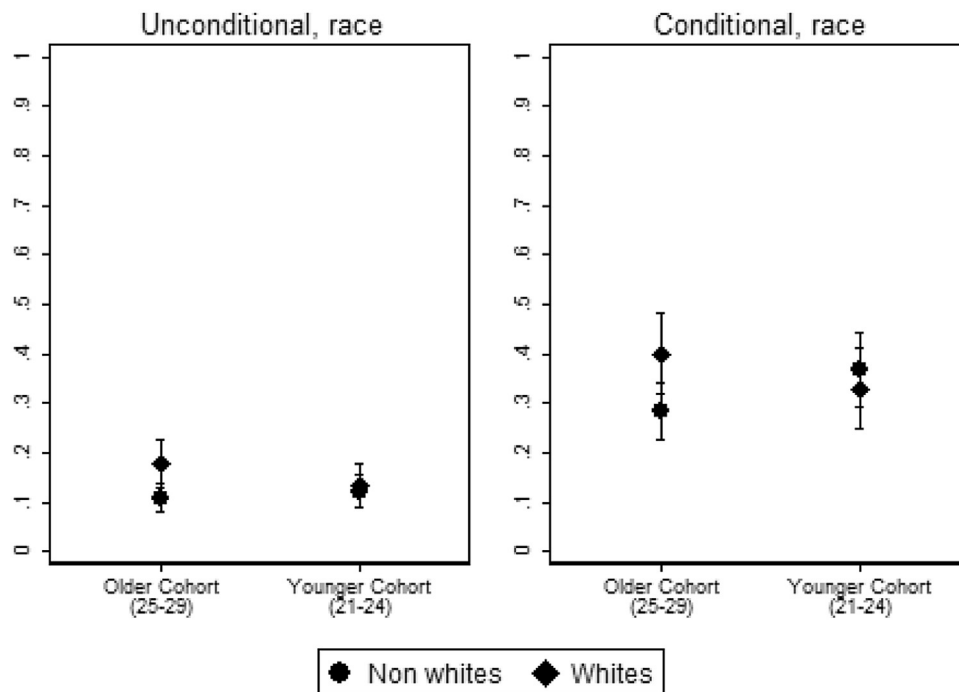


Fig. 3. College Entrance Unconditional and Conditional on Secondary Schooling Completion by Cohort, Brazil: SES and Race.

on high school completion. For the older cohort, the predicted probabilities are 17% for whites versus 10% for non-whites (χ^2 , 1 dof=7.82, p -value=0.005); for the younger cohort, the probabilities are 13% for whites and 12% for non-whites (χ^2 , 1 dof=0.23, p -value=0.62). Conditional probabilities tell the same story. In the older cohort, whites have a 40% probability of entering higher education, while the number for non-whites is only 28%

(χ^2 , 1dof=5.31, p -value=0.02). The probabilities for the younger cohort, in contrast, almost overlap: 36% for whites and 32% for non-whites. Indeed, the racial difference in the probability of college entry is not statistically significant for the younger cohort (χ^2 , 1 dof=0.44, p -value=0.50) for either unconditional or conditional models.

5. Conclusions and discussion

The goal of this paper was to examine recent changes in educational inequality due to social origin and race in Brazil. We focus on late educational transitions—high school entry, high school completion and college entrance—which have rarely been examined in studies on educational stratification in low- and mid-income countries. Importantly, we focus on recent cohorts of young adults who experienced their educational trajectories in a time of important social and economic changes and key policies. In the last fifteen years, Brazil has implemented the world's largest race-based affirmative action program in university admissions—these programs now cover more than 80% of public universities. In addition, policies aimed at expanding access to tertiary education for socio-economic disadvantaged groups were also implemented starting in the mid-2000s. These policies, combined with the recent universalization of primary schooling and rising rates of enrollment in and completion of secondary schooling in the country, have likely altered the educational disadvantages associated with social origin and race in this highly stratified country.

This paper contributes to the literature on educational stratification by assessing recent trends in socio-economic and race-based inequalities in late educational transitions, and by placing such recent trends within the broader theoretical framework of IEO. Finally, the paper moves beyond limitations of previous studies by examining higher education transitions for *all* respondents (as opposed to only children of household heads) for the cohorts that went through their educational careers during a time period of significant policies aimed at increasing access in higher education.

The results delimit two important patterns in educational inequalities related to social origin and race. First, the results show that the educational disadvantages associated with social origin persist across both older and younger cohorts for all three educational transitions, although there are important nuances within this general pattern. The disadvantages associated with social origin for those whose parents do not have a high school education (relative to those whose parents have completed high school) have either remained constant or worsened across cohorts. When we disaggregate those whose parents have not completed high school, we find that youths with parents with primary schooling or less and youths with parents with some secondary schooling have become more similar with regards to their educational transitions. At the same time, educational disadvantages in both high school completion and college entry between those with parents with and without some college have increased significantly. The overall findings on social origin suggest that youths with parents who have a high school degree or less education are becoming more similar with regard to their educational opportunities while educational differentiation between youths with parents with and without a college degree is strengthening.

These findings suggest that the recent expansion of educational opportunities in Brazil has been absorbed differently by different social groups, suggesting that the MMI framework fits the Brazilian case in a scenario that postpones selection in higher levels of the educational system. A similar increase in the association between social origin and college entrance was found among cohorts entering college in South American countries during the 1980s; in that case, researchers attributed the increase to an unfavorable economic environment and its effects on educational investments, which are crucial at the college level (Torche, 2010). The current results suggest that the increasing trend in IEO has persisted in Brazil, even during a period of declining poverty and considerable expansion of college access.

The second theme of the results focuses on the educational opportunities associated with race. We find different race-based educational disadvantages for different educational transitions.

First, the evidence suggests that there are no racial differences in the likelihood of entering high school among either the younger or the older cohort. This result suggests that educational expansion has reached saturation in terms of race in the entrance to secondary schooling. That is, the universalization of educational opportunities at the primary level that took place in Brazil in the 1990s has reached access to secondary schooling with relative success, overcoming the historic racial disparities that were intrinsic to the educational system until this decade.

The results for high school completion, in contrast, suggest an overall pattern of increasing non-white disadvantage in high school completion across cohorts. In the younger cohort, non-white youths have a significantly lower probability of finishing high school than white youths. While high school completion did not differ by race in the older cohort, non-white youths in this post-higher education policies cohort (the younger cohort we examine) still face significant disadvantages vis-à-vis their white peers. Our findings also provide evidence of a black and *pardo* disadvantage in finishing high school, a transition that has likely become a bottleneck for non-white youths, showing that selection happens not only for those of low socioeconomic status, but also for non-whites. This suggests that the focus on college-only policies may have limited effects on re-structuring educational opportunities in the highest levels of the Brazilian educational system.

Regarding college entrance, the findings suggest a decrease in the non-white disadvantage in college entrance across cohorts. While white and non-white youths in the older cohort have differing probabilities of college access, in the younger cohort these probabilities are similar. Thus, the results show that the non-white disadvantages associated with college entrance have disappeared for youths in the younger cohort, suggesting that the affirmative action policies of the last fifteen years aimed at placing non-white and SES disadvantaged youths in Brazilian universities may have benefited the historically disadvantaged group of “pretos” and “pardos” in Brazil. Importantly, however, these policies seem to benefit a specific group of non-whites—those who are able to complete high school. As we suggested above and the results illustrate, this is a highly selective group in the Brazilian educational context.

Combined, the results on race-based stratification for the three educational transitions we examined suggest that while there was a massive expansion in access to secondary education, there was an increase in the non-white disadvantage in high school completion. This key finding underscores the failure of policies aimed at guaranteeing secondary school completion, the minimum educational level guaranteed by law in Brazil. While there have been numerous policies aimed at increasing the access of non-white Brazilians to college, such policies have only reached those who are able to finish high school, a select group of youths in Brazil. In spite of the importance of these policies, other significant obstacles to educational access clearly remain. Combined, the findings resonate with a recent literature showing that a non-trivial proportion of Brazilian youths do not finish high school (Souza et al., 2012; Leon & Menezes-Filho, 2002) for many reasons such as adolescent child-bearing, particularly among girls (Marteleto & Dondero, 2013).

While this paper underscores key patterns of recent cohort change in the strength of socio-economic and racial inequality in educational transitions in Brazil, there are limitations to the analysis. First, this research does not address important aspects of educational stratification. Notably, the data do not allow us to examine measures of the quality of the education received. Recent research has underscored, for example, the increasing inequality in private school attendance (Marteleto, Gelber et al., 2012; Torche & Ribeiro, 2012). In addition, we are unable to examine socio-economic and racial stratification within universities or by field of study. A third limitation is that, while we focus on the educational transitions attained in young adulthood, some respondents

could progress through the educational system throughout the life course and attain higher levels of education at older ages (Comin & Barbosa, 2011). However, while returning to school after age 21 is possible, and more common in a context like Brazil than in high-income countries, it is unlikely that large proportions of the population attain meaningful levels of education in such advanced stages of the life course, even in the Brazilian case.

The results have several implications. First, we provide the first thorough assessment of changes in inequality of educational opportunity for key recent cohorts. Specifically, this is the first study to observe how inequality of opportunity in upper educational levels (secondary and tertiary) behaved once a certain level of equality was achieved at lower educational levels and important policies and reforms aimed at social inclusion in and expansion of higher education were implemented. Second, from a policy perspective, the results provide evidence that while younger cohorts enjoy more educational opportunities than older cohorts at the college level,

race-based inequalities have increased at the completion of high school. Finally, findings from the paper point to the need for the literature to uncover educational stratification related to the quality of the schooling provided in Brazil—and not only quantity—a still incipient area of research in that context.

This research was supported by a matching grant from the University of Texas at Austin and Fapesp (Fundação de Amparo à Pesquisa do Estado de São Paulo). This research was also supported by grant, 5 R24 HD042849, Population Research Center, 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.

Appendix A.

Table A1

Logit Model for High School Entrance, Unconditional and Conditional on Primary Schooling Completion by Cohort, Brazil.

	Unconditional				Conditional							
	21–24		25–29		21–24		25–29					
	OR	se	OR	se	OR	se	OR	se				
Race (white = 1)	1.168		1.233	0.219	1.045	0.359	0.910	0.251				
Family's schooling – secondary complete or more (rc: secondary incomplete or less)	8.716	***	2.593	6.714	***	1.677	8.641	***	4.482	4.680	***	1.806
Sex (woman = 1)	1.953	***	0.370	0.890	0.141	1.813	0.557	1.052	0.263			
Age	1.086		0.096	0.874	*	0.050	0.976	0.140	0.983	0.089		
Region CW (rc: N)	1.267		0.623	1.337	0.539	1.618	1.321	1.783	1.048			
Region NE (rc: N)	0.835		0.277	1.112	0.325	1.588	0.876	2.063	0.877			
Region S (rc: N)	1.144		0.453	0.759	0.251	1.055	0.645	0.917	0.417			
Region SE (rc: N)	1.312		0.439	1.907	*	0.553	1.160	0.603	3.248	**	1.379	
Position in the household – head (r.c.: son in the household)	2.888	***	0.601	2.378	***	0.437	1.740	0.586	2.018	*	0.594	
Position in the household – other (r.c.: son in the household)	1.455		0.415	1.060	0.287	1.207	0.586	1.361	0.625			
Constant	0.105		0.215	34.857	*	55.137	5.106	17.028	3.654	9.144		
N	707			878			571		687			

Source: ILO. School to Work Transitions Survey – Brazil, 2013.

*0,5 **0,01 ***0,001.

Table A2

Logit Model for High School Completion, Unconditional and Conditional on High School Entrance by Cohort, Brazil.

	Unconditional				Conditional							
	21–24		25–29		21–24		25–29					
	OR	se	OR	se	OR	se	OR	se				
Race (white = 1)	1.495	*	0.274	1.236	0.198	1.553	*	0.342	1.193	0.263		
Family's schooling – secondary complete or more (rc: secondary incomplete or less)	5.208	***	0.961	4.151	***	0.735	3.066	***	0.642	2.045	**	0.460
Sex (woman = 1)	1.693	**	0.285	1.232	0.180	1.343	0.263	1.690	*	0.345		
Age	1.072		0.084	0.878	*	0.046	1.052	0.098	0.934	0.069		
Region CW (rc: N)	1.581		0.670	1.009	0.386	1.678	0.803	0.685	0.378			
Region NE (rc: N)	1.371		0.427	0.930	0.264	1.673	0.593	0.738	0.322			
Region S (rc: N)	1.276		0.464	0.787	0.253	1.262	0.521	0.953	0.481			
Region SE (rc: N)	1.754		0.534	1.395	0.385	1.704	0.581	0.808	0.343			
Position in the household – head (r.c.: son in the household)	2.369	***	0.437	2.464	***	0.397	1.670	*	0.366	1.947	**	0.434
Position in the household – other (r.c.: son in the household)	1.087		0.290	1.103	0.278	0.868	0.270	1.108	0.380			
Constant	0.037		0.066	15.926	23.306	0.162	0.348	13.423	28.060			
N	707			878			521		609			

Source: ILO. School to Work Transitions Survey – Brazil, 2013.

*0,5 **0,01 ***0,001.

Table A3
Logit Model for Higher Education Entry, Unconditional and Conditional on High School Completion by Cohort, Brazil.

Table X. Odds Ratios of Entrance into Higher Education by Age Group, Conditional and Unconditional, Brazil 2013

	Unconditional				Conditional							
	21–24		25–29		21–24		25–29					
	OR	se	OR	se	OR	se	OR	se				
Race (white = 1)	1.116	0.255	1.771	**	0.362	0.844	0.215	1.680	*	0.378		
Mother's schooling – secondary complete or more (rc: secondary incomplete or less)	7.797	***	1.758	8.425	***	1.662	4.719	***	1.182	5.883	***	1.267
Sex (woman = 1)	1.684	*	0.363	1.132	0.221	1.365	0.326	0.977	0.210			
Age	1.099		0.112	0.846	0.062	1.089	0.122	0.891	0.072			
Region CW (rc: N)	4.153	**	2.190	3.206	*	1.716	5.781	**	3.627	3.790	*	2.375
Region NE (rc: N)	1.154		0.524	0.784	0.363	1.101	0.557	0.797	0.409			
Region S (rc: N)	1.669		0.846	0.838	0.432	1.723	0.981	0.917	0.525			
Region SE (rc: N)	1.871		0.802	1.437	0.629	1.587	0.762	1.258	0.610			
Position in the household – head (r.c.: son in the household)	3.369	***	0.936	4.010	***	0.840	2.820	**	0.861	3.294	***	0.758
Position in the household – other (r.c.: son in the household)	2.333	*	0.880	1.846	0.649	2.756	*	1.194	1.819	0.719		
Constant	0.002	***	0.005	2.854	5.814	0.010	0.025	2.043	4.609			
N	707			878		360		481				

Source: ILO. School to Work Transitions Survey – Brazil, 2013.

*0,5 **0,01 ***0,001.

References

- Alves de Brito, M. (2014). *A dependência na origem – Desigualdades no sistema educacional brasileiro e a estruturação social das oportunidades*. PhD dissertation. São Paulo, SP: Department of Sociology, Universidade de São Paulo.
- Barros, R. P., & Lam, D. (1996). Income and educational inequality and children's schooling attainment. In N. Birdsall, & R. R. Sabot (Eds.), *Opportunity foregone: Education in Brazil* (pp. 337–366). Washington, DC: Inter-American Development Bank.
- Barros, R. P. F., Foguel, M. N., & Ulyssa, G. (Eds.). (2007). *Desigualdade de Renda no Brasil: Uma análise da queda recente* (vol. 2). Brasília, DF: IPEA.
- Bichir, R. (2010). O Bolsa Família na berlinda? Os desafios atuais dos programas de transferência de renda. *Novos Estudos CEBRAP*, 87, 115–129.
- Birdsall, N., & Sabot, R. R. (Eds.). (1996). *Opportunity foregone: Education in Brazil*. Washington, DC: Inter-American Development Bank.
- Breen, R., & Jonsson, J. (2005). Inequality of opportunity in comparative perspective: Recent research on educational attainment and social mobility. *Annual Review of Sociology*, 31(1), 223–243.
- Breen, R., Luijckx, R., Muller, W., & Pollak, R. (2009). Nonpersistent inequality in educational attainment: Evidence from eight European countries. *American Journal of Sociology*, 114(5), 1475–1521.
- Buchmann, C., & Hannum, E. (2001). Education and stratification in developing countries: A review of theories and research. *Annual Review of Sociology*, 27(1), 77–102.
- Chang, S.-s. (2003). Patterns and changes of educational attainment in Korea. In *Paper presented at the international sociological association research committee on social stratification and mobility (RC28)*.
- Comin, A., & Barbosa, R. J. (2001). Trabalhar para estudar. Sobre a pertinência da noção de transição escola-trabalho no Brasil. *Novos Estudos CEBRAP*, 91, 75–95.
- Creso, F., Fátima, A., & Bonamino, A. (2007). Qualidade do Ensino Fundamental: Políticas, suas possibilidades, seus limites. *Educação E Sociedade*, 28(100), 989–1014.
- Daflon, V. T., Feres, J., & Campos, L. A. (2013). Ações afirmativas raciais no ensino superior Público brasileiro: Um panorama analítico. *Cadernos De Pesquisa*, 43(148), 302–327.
- Eyal, B. H., & Shavit, Y. (2013). Expansion and inequality of educational opportunity: A comparative study. *Research in Social Stratification and Mobility*, 31, 22–31.
- Fernandes, D. C. (2004). Race, socioeconomic development and the educational stratification process in Brazil. *Research in Social Stratification and Mobility*, 22, 365–422.
- Gerber, T., & Hout, M. (1995). Educational stratification in Russia during the soviet period. *American Journal of Sociology*, 101(3), 611–660.
- Gerber, T. (2000). Educational stratification in contemporary Russia: Stability and change in the face of economic and institutional crisis. *Sociology of Education*, 73(4), 219–246.
- Guimarães, A. S. (2003). Acesso de negros às universidades Públicas. *Cadernos De Pesquisa*, 118, 247–268.
- Heringer, R., & Ferreira, R. (2009). Análise das principais políticas de inclusão de estudantes negros no ensino superior no Brasil no período 2001–2008. In M. Paula, & R. Heringer (Eds.), *Caminhos convergentes: Estado e sociedade na superação das desigualdades raciais no Brasil* (pp. 137–196). Rio de Janeiro, RJ: Fundação Heinrich Boll, ActionAid.
- Klein, R. (2006). Como está a educação no Brasil? O que fazer? *Ensaio: avaliação de políticas públicas*, 14, 139–172.
- Lam, D., & Marteleto, L. (2006). A escolaridade das crianças brasileiras durante a transição demográfica: Aumento no tamanho da coorte versus diminuição no tamanho da família. *Pesquisa e Planejamento Econômico*, 36(2), 319–341.
- 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(2), 225–252.
- Leon, F. L. L., & Menezes-Filho, N. A. (2002). Reprovação, avanço e evasão escolar no Brasil. *Pesquisa e Planejamento Econômico*, 32(3), 417–452.
- Lima, M. (2010). Desigualdades raciais e políticas Públicas: Ações afirmativas no governo Lula. *Novos Estudos CEBRAP*, 87, 77–95.
- Lima, M. (2011). La expansión de la educación superior en Brasil y sus principales desafíos. In F. Beigel, & H. Sabea (Eds.), *Dependencia académica y profesionalización em el sur: perspectivas desde la periferia*. Mendoza: EDIUNC.
- Lustig, N., Lopez-Calva, L., & Ortiz-Juarez, E. (2011). *The decline in inequality in Latin America: How much, since when and why*. In *ECINEQ working paper series number 211*. Accessed 07/07/2015 from <http://www.ecineq.org/milano/WP/ECINEQ2011-211.pdf>
- Marteleto, L., & Dondero, M. (2013). Maternal age at first birth and adolescent education in Brazil. *Demographic Research*, 28, 793–820.
- Marteleto, L., & Souza, L. (2013). The implications of family size for adolescents' education and work in Brazil: Gender and birth order differences. *Social Forces*, 92(1), 275–302.
- Marteleto, L., Carvalhaes, F., & Hubert, C. (2012). Desigualdades de oportunidades educacionais dos adolescentes no Brasil e no México. *Revista Brasileira de Estudos Populacionais*, 29(2), 277–302.
- Marteleto, L., Gelber, D., Hubert, C., & Salinas, V. (2012). Educational inequalities among Latin American adolescents: Continuities and changes over the 1980, 1990 and 2000. *Research in Social Stratification and Mobility*, 30(3), 352–375.
- Marteleto, L. (2012). Educational inequality by race in Brazil, 1982–2007: structural changes and shifts in racial classification. *Demography*, 49(1), 337–358.
- Raftery, A., & Hout, M. (1993). Maximally maintained inequality: Expansion, reform, and opportunity in Irish education, 1921–75. *Sociology of Education*, 66(1), 41–62.
- Riani, J. L. R., & Rios-Neto, E. (2008). Family Background versus school profile of the municipality: Which has greater impact on the academic performance of Brazilian students? *Revista Brasileira de Estudos de População*, 25(2), 251–269.
- Ribeiro, C. C. (2011). Desigualdade de oportunidades e resultados educacionais no Brasil. *Dados – Revista de Ciências Sociais*, 54(1), 41–87.
- Rios-Neto, E., & Guimarães, R. R. M. (2010). pp. 283–306. *The demography of education in Brazil: Inequality of educational opportunities based on grade progression probability (1986–2008)* (8) Vienna Yearbook of Population Research.
- Rosseto, C. S., & Gonçalves, F. O. (2015). Equidade na educação superior no Brasil. *Dados – Revista de Ciências Sociais*, 58(3), 791–824.
- Schwartzman, S. (2004). Educação: A nova geração de reformas. In F. GIAMBIAGI, J. G. REIS, & A. URANI (Eds.), *Reformas no Brasil: Balanço e agenda* (pp. 481–504). Rio de Janeiro: Editora Nova Fronteira.
- Shavit, Y., & Blossfeld, H.-P. (1993). *Persistent inequality. changing educational attainment in thirteen countries*. Boulder, CO: Westview Press.
- Shavit, Y., & Westerbeek, K. (1998). Educational stratification in Italy: Reforms, expansion and equality of opportunity. *European Sociological Review*, 14(1), 33–47.
- Shavit, Y., Yaish, M., & Bar-Haim, E. (2007). The persistence of persistent inequality. In S. Scherer, R. Pollak, G. Otte, & M. Gangl (Eds.), *Origin to destination. trends*

- and mechanisms in social stratification research. Chicago, IL: University of Chicago Press.
- Silva, N. V. (2003). Expansão escolar e estratificação educacional no Brasil. In N. V. Silva, & C. Hasenbalg (Eds.), *Origens e destinos* (pp. 105–146). Rio de Janeiro, RJ: IUPERJ-UCAM.
- Souza, A. P., Ponczek, V. P., Oliva, B. T., & Tavares, P. A. (2012). Fatores associados ao fluxo escolar no ingresso e ao longo do ensino médio no Brasil. *Pesquisa e Planejamento Econômico*, 42(1), 5–39.
- Stanek, C. (2013). The educational system of Brazil. *IEM Spotlight*, 10(1), 1–6.
- Telles, E. (2006). *Race in another america: The significance of skin color in Brazil*. Princeton, NJ: Princeton University Press.
- Torche, F., & Ribeiro, C. C. (2012). Parental wealth and children's outcomes over the life-course in Brazil: A propensity score matching analysis. *Research in Social Stratification and Mobility*, 30(1), 79–96.
- Torche, F. (2010). Economic crisis and inequality of educational opportunity in latin america. *Sociology of Education*, 83(2), 85–110.
- Treiman, D., Ganzeboom, H., & Rijken, S. (2003). Educational expansion and educational achievement in comparative perspective. In *CCPR on-Line working papers series number 007-03*. Accessed 04/05/2013 from <http://papers.ccpr.ucla.edu/papers/PWP-CCPR-2003-007/PWP-CCPR-2003-007.pdf>
- Vallet, L.-A. (2004). The dynamics of inequality of educational opportunity in France: Change in the association between social background and education in thirteen five-Year birth cohorts (1908–1972). In *Paper presented at the international sociological association research committee on social stratification and mobility (RC28)*.
- Veloso, F. (2009). A evolução recente e propostas para a melhoria da educação no Brasil. In E. L. Bacha, & S. Schwartzman (Eds.), *Brasil: A nova agenda social* 215–253. Rio de Janeiro, RJ: LTC.
- Wu, X. (2010). Economic transition, school expansion and education inequality in China, 1990–2000. *Research in Social Stratification and Mobility*, 28, 91–108.