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The Impact of the "Quota System" in the Federal University of Bahia (2004-2012)[1]

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Abstract

Over the last decade various public federal and state universities in Brazil created different forms of affirmative action, called a "quota system", which were directed towards groups and populations underrepresented in the public universities: black, brown and indigenous students. This article examines, as a case study, the Federal University of Bahia, in the period from 2004-2012, analyzing the variables of race, color/ethnicity, school background and income of those students who enrolled in the university during the initial period of the quota system. The purpose is to evaluate the impact of the new system in a traditional institution through the use of quantitative data.

Keywords

Affirmative Action, Brazil, Federal University of Bahia, Blacks, Higher Education

1. Introduction

In 2004, the Federal University of Bahia (Universidade Federal da Bahia—UFBA) approved a quota system for applicants who had three years of high school and one year of elementary school in a public education network. The measure reserved 43.0% of student spaces in all majors, differentiated by the ethno-racial condition of the student: 85% of the spaces reserved, or 36.5% of the total, were directed to students auto-declared as black and brown and 15% (6.5% of the total) to those auto-declared as non-black (white and/or yellow)[2]. A percentage of 2% was reserved for indigenous-descendants, and two extra spaces are reserved in each major for tribal indigenous stu-

[1]We thank Luiz Chateubriand C. dos Santos for the composition of data expressed in the table and graphs, and for the close reading of the final version. Generally the term "sistema de quotas", translated here as quota system, refers to what is considered "Affirmative Action" in the United States context.

dents and students from *quilombo* communities[3].

Until the year 2004, the Federal University of Bahia did not have any type of affirmative action policy. Like the majority of public federal and state Brazilian universities, the enrollment system was based on one exam, called the "Vestibular". Those students who performed best on the exam occupied the available spaces, which were selective. The majority of students who enrolled in majors of high prestige and status, like Medicine, Architecture, Law, Odontology, Engineering and Psychology, were white students from the middle class with high incomes, who attended private schools and whose mothers or fathers had higher education. Black and brown students did not reach 10% of the offered spaces, and indigenous students did not exist in the university. In addition, the percentage of students from public schools did not reach 20% in these majors.

In this article we evaluate the quota system utilized throughout the eight-year period between 2004 and 2012 at UFBA. Our objective is to reflect on the changes throughout this period, primarily considering that the largest impact took place in majors that are considered highly prestigious and competitive. In these majors, participation from students in the public school system varied between 10% and 25%: Law, 13.7%; Electrical Engineering, 15.2%; Mechanical Engineering, 16.7%; Chemical Engineering, 21.4%; Civil Engineering, 24.3%; Medicine, 15.6%; Odontology, 11.0%; Psychology, 0.5%; Architecture, 10.1%[4].

Although our analysis focuses on those students admitted by the quota system, we adopt as a point of departure available data on other enrolled students. A question that arose throughout the period in which affirmative action was adopted throughout Brazil was whether or not the percentage of students from the public school system would rise. Due to the competition of entrance exams (the *vestibular*)[5], public school students

[2]Translator's note: In Brazil, racial terms have different categories and connotations. The term *preto* refers to the darkest shade of black skin tone in a continuum of what would be considered black in the United States. In this article, I translate *preto* as black. The term *pardo* refers to those with a lighter than black skin tone, though not considered "white". People categorized as *pardo* in Brazil would likely be considered "black" in the United States, due to the history of the one-drop rule in the U.S., which differs from the historical racial distinctions made in Brazil. For the purposes of distinction, I translate *pardo* as brown. Those labeled and/or self-declared as *pardo* often have ambiguous indigenous, African and European heritage. The term *negro* is used in quantitative research to refer to both the *preto* and *pardo* categories within the statistical analysis. I translate "negro" as "black and brown", sometimes leaving the original term for distinction. For more on racial categories comparatively between Brazil and the United States, see Telles, 2004.

[3]Translators note: In Portuguese, the term *índio aldeado* refers to somebody who lives in a native village or tribe. It denotes indigenous people who live in relatively independent communities. The term *quilombo* also refers to an independent community, which descends from runaway slave societies or is recognized by the state as a black community. Quilombos are prevalent in Brazil today and usually refer to neighborhoods and villages of African-descendants living autonomously. The term *quilombolo/quilombola* refers to somebody from a *quilombo* community.

[4]Data from the Admission and Advising Services at the Federal University of Bahia (Serviço de Seleção e Orientação-SSOA, UFBA). The data on these courses does not include night courses created to accommodate the REUNI program from the federal government. We take into consideration only the morning and afternoon courses, which is the traditional series that concentrates the greatest number of students.

[5]In Brazil, the *vestibular* is the standardized entrance exam that each student must take in order to pass into that particular course in the University. Unlike the major/minor system in U.S. universities, admitted students enroll in a particular course based on their grade on the *vestibular*. In this text I translate *vestibular* simply as "entrance exam", and use "major" to refer to the main course that students study at the university, which includes Medicine and Law at the undergraduate level.

were previously under-represented in comparison to students from the private school system. We investigate these changes in terms of the racial, gender, class and educational background of students enrolled through the quota system, and compare their performance with the non-quota students in order to evaluate the effects of the new policy. Through this analysis we can address some of the central arguments regarding Affirmative Action with concrete evidence from a particular case study at the Federal University of Bahia. This university is particularly relevant because of its prestige as the best public university in the state of Bahia, located in the city of Salvador, which has the highest number of black and brown residents of any city in Brazil, and one of the poorest public education systems at the primary and secondary levels. Historically in Brazil the public universities are the most elite, and have been occupied by students who could attend private schools at the primary and secondary levels, better preparing them to pass the entrance exam above students, mostly poor, from the public educational system.

As we observed in another work[6], by looking at the contingent of applicants based on school background for the first cohort of students in the new quota system, which reserved spaces for students from public schools, we see that it did not introduce a significant change in the profile of enrolled students at the Federal University of Bahia. In the period from 1998 to 2003, the rate of students who had completed high school in the public network varied between 39.2% and 49.8%; only in the year 2004 did the percentage of applicants from the public school system exceed the private (49.0%). For the 2005 entrance exam the percentage of enrolled students with this public school background was less than the previous year: 46.1%. The difference in relation to applicants from the private system was maintained, despite the newly reserved spaces.

Even though this is a small difference, it is worth noting that until the end of the 1990s the difference between the two groups was quite pronounced, being that 60.5% of applicants were from the private school system. The expansion of the private network of higher education in Salvador and its greater metropolitan region during this period must have provoked a decrease in such applicants competing for the UFBA entrance exam. In addition, in ten years the university did not increase the number of spaces available for students, especially in the most competitive and prestigious majors. For this reason, some private colleges and universities created some of these majors including Odontology, Law, Engineering, Psychology and Medicine.

If there was not a significant change in the percentage of enrolled students in either the public or private school systems, there was a rise in applicants declared black (*negro*) from public schools. The increase in this group was already manifest since the year 2002 (52.5%), reaching 63.2% in the 2004 entrance exam. On the other hand, the decrease in white applicants is perceptible since 2001, in relation to both brown and black applicants.

The participation of white students drops from 48.2% in 1998 to 27.3% in 2004, be-

[6]The following data can be found in Queiroz & Santos (2005 and 2006). The entrance exam with quotas: an analysis in a public federal institution. University of São Paulo Journal, n. 68, 58-75.

ing that the number of brown students exceeds white students beginning in 2001. If the initial difference between the two groups was around 4%, it reaches 17% in 2004. Regarding black students, the demand for entrance into UFBA is perceptible since 1998, representing a substantial increase, rising from 7.0% to 18.5% in 2004. Those students who identified as "yellow" (referring to Asian descent) showed no difference in the period from 1998-2004. UFBA gradually became the most demanded space for black and brown students and, consequently, of lesser demand by white students.

Beginning in 2005 the number of *negro* applicants (including both the black and brown racial categories) passed 70%. Even if we take into consideration the expansion of quota spaces in 2007 with the creation of night courses in the campuses of Salvador and rural cities, we observe that the participation of black and brown students does not present great variation. Brown students vary between 56.2% in 2005 to 53.3% in 2012 and black students show less variation between 21.1% and 21.6% respectively (Table 1).

Regarding students with indigenous, quilombo, and tribal indigenous descent, there is little variation. Only the former reach a percentage above 1.0% in the first five years (2005-2009), whereas *quilombola*[7] and tribal students did not reach 0.5% in that period. White and yellow students, classified as "other ethnicities" represent more than 23.0% of the contingent of enrolled students in the last three years of the series. This table shows the greatest participation of enrolled students among those who self-classified as "brown" and a convergence between black students and those aggregated as both white and yellow.

Thus, the 2004-2012 period showed certain stability regarding the participation of various ethno-racial segments as applicants for the entrance exam. There maintained a regular presence among enrolled students of applicants who auto-declared as black, and a slight reduction among enrolled students who applied as brown, and an insignificant increase among those lumped together under the denomination of "other ethnicities", including white and yellow students.

Table 1. Percentage distribution of entrance exam applicants by color or ethnicity, 2005-2012.

	Year							
Color or ethnicity*	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Blacks	21.1	20.4	21.5	22.1	22.5	22.1	22.2	21.6
Browns	56.2	56.4	56.0	56.2	53.5	53.2	52.8	53.3
Indigenous descendant	1.2	1.3	1.4	1.2	1.2	0.8	0.8	0.9
Quilombo	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Tribal Indians	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3
Other ethnicities	21.3	21.7	20.9	20.3	22.7	23.6	23.8	23.9
Total	100	100	100	100	100	100	100	100

Source: Admission and Advising Services at the Federal University of Bahia. *Classification adopted in the quota system at the Federal University of Bahia (UFBA).

[7]Referring to somebody who comes from a *quilombo* community. See Translator's note in footnote 6.

Is it possible to observe a proportional relationship between the color and ethnicity of students who took the entrance exam and their representativeness in the greater population? By comparing these values with the presence of such racial and ethnic segments in the greater metropolitan region of Salvador[8], we perceive that although black students had a higher participation among those registered for the exam, they continue to be under-represented in relation to the overall regional population of 29.2%, a situation that was observed since the beginning of the last decade[9]. The "brown" students, on the other hand participated proportionally to their presence in the metropolitan region of Salvador. The "other ethnicities", being the "white" and "yellow" students, compose the group most represented in the exam registrations; in the metropolitan region they are nearly 16% of the population, whereas among those registered for the exam they always represent over one-fifth (20%) of those taking the exam throughout the seven years observed.

2. Admitted Students

Table 2 presents the data referring to admitted students since the implementation of the quota policy in 2005. As expected with a policy that promotes the admission of students from the black and brown segments of the population, the first notable information in the table is the expressive admission of black and brown students. In the beginning of the period under analysis, they represented three-quarters of the admitted students. By comparing this participation with the year prior to the implementation of the quota systems, 2004, when black and brown students represented 61.1%[10], we see an increase of 14 percent for this group. Other significant evidence about the *negro*segment (encompassing both the black and brown racial groups), is the elevated presence of black students and the reduction of brown students throughout the period.

Table 2. Percentage distribution of admitted students by color and ethnicity*, 2005-2012.

	Year							
Color or ethnicity	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Black	16.8	17.9	19.8	22.3	21.5	22.3	22.3	21.7
Brown	58.4	56.8	55.1	55.1	52.2	51	51.4	50.6
Indigenous descendant	1.8	2	1.9	1.5	1.3	1.2	0.9	1.2
Quilombo	0.2	0.1	0	0.3	0.3	0.2	0.1	0.1
Tribal Indian	0.1	0.2	0.1	0.1	0.1	0.2	0.3	0.2
Other ethnicities	22.7	23	23	20.8	24.6	25.2	25	26.3
Total	100	100	100	100	100	100	100	100

Source: Admission and Advising Services. *Classification adopted in the quota system at the Federal University of Bahia (UFBA).

[8]See: Proportion of the population, by race or color-Brazil, Northeast, Bahia and Metropolitan Region of Salvador-2001 and 2011. IBGE (2001 and 2011). National research by household sample: 2001 and 2011. [http://www.sei.ba.gov.br/images/bahia_sintese/xls/pnad_2011/tabela_1.1.5.xls] Accessed on 09/10/2012.

[9]Queiroz, D. M. (2002). Racial inequalities in higher education in Brazil. In D. M. Queiroz (coord.), Blacks in the University (pp. 13-55). Salvador: Program to Color Bahia/UFBA, New Touches, N. 5.

[10]In this respect see Queiroz and Santos, 2005.

If we consider that no other objective reason explains this elevated presence of black students in relation to brown students, then we can only determine that this change is due to the racial group's self-perception. Meaning that their self-classification has a tendency to lean more to the darker pole in a gradient of skin color, probably as a consequence of the mobilization of black organizations in the last decades, as a form of black identity affirmation[11].

The participation of the contingent denominated "other ethnicities", situated predominately among students self-classified as white and yellow, also deserves attention. Throughout the period, except for the year 2008, there is a tendency, even if slow, for the participation of this segment to elevate as the participation of black and brown students decreases due to the reduction of brown students. The *negro* (black and brown) segment represented 75.2% of admitted students in 2005, falling to 72.3% in 2012, which is intriguing considering that we are discussing a policy intended to promote the participation of students from the black and brown contingent.

If we compare the participation among racial segments in majors considered prestigious or highly competitive in the period corresponding to the implementation of the quota policy with the year immediately prior to its adoption (2004), we may have a better idea of its impact. We can perceive that the white population, although a minority in the state of Bahia, participated at a rate close to that of brown students, 42.2% and 46.7%, respectively (Table 3).

The year 2005 shows a significant reduction in the white contingent, which falls to represent 25.3% of the admitted students, elevating the contingent of brown students to nearly 60%. However, as previously stated, in spite of their reduced participation, the white students are persistently over-represented in the University.

Table 3. Distribution of admitted candidates for prestigious or highly competitive majors*.

Year	Race or color					Total
	White	Brown	Black	Yellow	Indigenous	
2004	42.2	46.7	8.1	2.0	1.0	100
2005	25.3	59.0	13.0	1.1	1.7	100
2006	26.1	58.6	11.3	1.8	2.1	100
2007	30.4	52.4	12.8	2.5	2.0	100
2008	28.8	53.4	14.7	1.3	1.8	100
2009	27.0	54.3	14.0	2.6	2.1	100
2011	28.2	52.9	15.9	1.6	1.4	100
2012	30.4	53.3	13.0	1.8	1.5	100

Source: Dean's Office of Planning/Socioeconomic Questionnaire. This data includes only those students who responded to the survey at the time of registration. *There is no data referring to the year 2010.

[11]Pereira, J. B. B. (2002). "The Black in Brazilian racial identity". In G. Seyfert et al. Racism in Brazil (pp. 65-71). São Paulo: Editor Petrópolis Foundation/ABONG.

The black students experienced a rise in their participation, passing from 8.1% in 2004 to 13% in 2005. Throughout the 2005-2012 period their presence suffered oscillations, rising in 2005 (13.0%), 2007 (12.8%), 2008 (14.7%) and 2011 (15.9%), and falling in 2006 (11.3%), 2009 (14.0%) and 2012 (13.9%), when compared with the level in 2005.

3. School Background of Admitted Students

In 2004, the participation of admitted students according to type of school attended during elementary education indicated that only 33.8% came from public schools[12]. Considering majors of high prestige, after 2005 with the reservation of spaces, the percentage of students from the public school system among admitted students rose, consequently reducing the presence of students from private schools. This data shows the greatest relevance among students from highly prestigious majors (Table 4).

4. The Gender of Admitted Students

Observing gender among students enrolled in the Federal University of Bahia (UFBA) illustrates a significant change after 2008. Until the previous year, the masculine presence among those enrolled in the University was a bit larger, in the order of 2.3 percentage points. The table inverts and the difference in favor of women passes to 4.2 points, reaching, respectively, 9.2% in 2011 and 11.8% in 2012—the year with the greatest participation from the female gender in the entire recent history of the institution: 55.6%.

It is probable that this growth is due to the increase in the number of majors offered by the university and additional night courses in the campuses of Salvador and rural cities. This fact is associated with what the literature on the subject has already pointed out in recent decades: more schooling for women in elementary education through high school in the Brazilian school system. Ferraro's analysis from the 2000 census data on the articulation between gender and education indicates this tendency, demonstrating that, beginning with a situation of inferiority in terms of women's education in both the black and white populations, the female averages in the years of study slowly approached the male averages until passing them in the generation of 1960-1970, expanding to a difference in favor of women in the subsequent generations.

Table 4. Percentage distribution of admitted students for prestigious majors, based on school background, 2005-2012.

Characteristic	Years						
	2005	2006	2007	2008	2009	2011	2012
School background							
Private school	55.7	55.5	57.3	58.2	56.4	57.3	55.2
Public school	44.3	44.5	42.7	41.8	43.6	42.7	44.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Dean's Office of Planning/Socioeconomic Questionnaire.

[12]Queiroz and Santos. "Vestibular com cotas".

In sum, measuring older generations in relation to younger generations, both black and white women pass from a condition of inferiority in terms of average number of years studying to a condition of superiority[13].

On the other hand, in the highly prestigious majors, men represent more than half of those admitted in the last nine years, reaching nearly 63% in 2007. This could be explained by the fact that men traditionally occupy these careers, for example, the various types of engineering. Men's presence in such majors also demonstrates the persistence of patterns of inequality between men and women in occupying jobs of social and economic prestige (Table 5).

Observing the race or color of admitted students by gender demonstrates how the difference is greatest between brown (*pardo*) men and brown women, despite that in the year 2011 the two genders were tied. The smallest difference is between white men and white women (Table 6).

5. Parent Education and Income

Two other variables are important when considering the profile of students following the introduction of the quota system. Several studies have pointed out the inequalities in higher education, referencing how most admitted students have parents with high levels of schooling and a high monthly salary. These conditions applied to more than half of those students who enrolled in prestigious institutions[14].

Table 5. Distribution of students admitted to majors of high prestige, by sex, 2004-2009 and 2011-2012.

Year	Sex		
	Female	Male	Total
2004	40.0	60.0	100
2005	42.3	57.7	100
2006	39.0	61.0	100
2007	37.4	62.6	100
2008	41.4	58.6	100
2009	42.2	57.8	100
2011	46.4	53.6	100
2012	47.0	53.0	100

Source: Dean's Office of Planning/Socioeconomic Questionnaire.

[13]Ferraro, A. R. (2009). Gender, race and schooling in Bahia and Rio de Janeiro. Research Notebooks, v. 39, n. 138, 813-835. Rosemberg, F. et al. (1990). Women and formal education in Brazil: the state of art and bibliography. Brasília: INEP. Rosemberg, F., & Amado, T. (1972). Women in school. Research Notebooks, n. 80, 62-72. Louro, G. L. (1997). Gender, sexuality and education. Rio de Janeiro: Voices.

[14]Bourdieu, P. (1998). The conservative school: inequalities facing school and culture. In Nogueira, M. A., Catani, A (orgs). Writings on Education (pp. 39-64). Petrópolis: Voices. Bourdieu, P. (2007). The contradictions in inheritance. In Bourdieu, P. (coord.) Misery in the World (pp. 587-593). Petrópolis: Voices. Nogueira, M. A. (2000). The construction of educational excellence. A study in the trajectory made by university students from the intellectual middle strata. In Nogueira, M. A., Romanelli, G., Zago, N. (orgs). Family and School: Trajectories of schooling in middle and popular strata (pp. 125-154). Petrópolis: Voices.

Table 6. Distribution of admitted students for majors of high prestige by color and gender, 2004-2009 and 2011-2012.

Years	Race/color and sex									
	White men	White women	Brown men	Brown women	Black men	Black women	Yellow man	Yellow women	Indigenous men	Indigenous woman
2004	25.6	16.6	27.3	19.4	5.0	3.1	1.2	0.7	0.5	0.5
2005	13.1	12.1	34.7	24.2	8.2	4.8	0.6	0.6	1.0	0.7
2006	15.4	10.7	35.3	23.3	7.2	4.1	1.2	0.6	1.6	0.5
2007	18.9	11.5	31.8	20.5	9.2	3.5	1.6	0.9	1.3	0.6
2008	16.7	12.0	30.6	22.8	9.2	5.5	0.9	0.4	1.2	0.6
2009	14.2	12.8	31.3	23.0	9.5	4.4	1.2	1.4	1.3	0.8
2011	15.7	12.5	26.6	26.3	9.5	6.4	1.0	0.6	0.8	0.6
2012	15.7	14.7	28.2	25.1	7.5	5.5	0.7	1.1	1.1	0.3

Source: Dean's Office of Planning/Socioeconomic Questionnaire.

Since the beginning of the 2000s it was clear that the variable of income was the main indicator for the participation of students from the middle classes in Brazilian universities. In the year 2000, a study conducted with students in five federal public institutions of higher education showed percentages above six minimum wages represented at the Federal University of Maranhão (UFMA) 78.6%, UFBA 76.4%, Federal University of Paraná (UFPR) 83.7%, Federal University of Rio de Janeiro (UFRJ) 80.2%, University of Brasília (UNB) 88.4%[15].

Given that highly prestigious majors are the spaces with the greatest concentration of students from the middle classes and are also most impacted by the adoption of the quota system, the insertion of students from the lowest economic sectors of the population is notable. The percentage of family income below and equal to one minimum wage was 0.7% in 2004 and grew significantly, tripling in 2005 and reaching 6.1% in 2012[16]. The range of one to five minimum wages responded to 16.6% of students in 2004, but reached 40% within prestigious majors from 2008-2012. Consequently, the participation of students from the higher income segments decreased. The greatest decline appears in the group that earns between 20 and 40 minimum wages; where the percentage went from 21.5% to 9.4% in 2012. In 2004, the greatest concentration of income rage was above five minimum wages; in 2012 this range concentrated between 1 to 3 minimum wages, as demonstrated by Table 7.

Verifying the income of students' families in highly prestigious and competitive majors illustrates a significant impact. In Odontology, the participation of those who declared a family income of up to three minimum wages (MW) passed from 4.3% in 2004

[15]Queiroz, 2002.

[16]UFBA opted to adopt the minimum wage as the basis for the ranking of family income. It is worth remembering that during this period the minimum wage in Brazil rose due to a political valuation during the time. In 2004 the monthly minimum wage in Brazil was $260.00 BRL (equivalent to $89.00 USD), in 2009 it rose to $465.00 BRL (equivalent to $232 USD) and in 2011 it reached $622.00 BRL ($365 USD).

Table 7. Percentage distribution of total family income, based on classes of minimum wage from students who passed the entrance exam.

Income class	Year							
	2004	2005	2006	2007	2008	2009	2011	2012
Up to 1 minimum wage (MW)	0.7	2.1	1.5	2.5	3.2	3.9	4.6	61
From 1 to 3 MW	4.4	13.1	15.2	12.9	15.7	18.6	21.9	22.6
From 3 to 5 MW	11.5	18.6	21.1	17.1	19.5	20.0	18.0	17.5
From 5 to 10 MW	28.6	27.8	27.7	27.7	24.5	23.7	21.3	21.5
From 10 to 20 MW	27.7	21.9	21.5	22.8	22.3	18.5	20.7	17.8
From 20 - 40 MW	21.5	13.1	9.7	13.2	10.9	11.7	9.6	9.4
Over 40 MW	5.5	3.5	3.4	3.7	4.0	3.5	3.8	5.1
Total	100	100	100	100	100	100	100	100

Source: Dean's Office of Planning/Socioeconomic Questionnaire.

to 38.5% in 2012. In Medicine this income range was 3.4% in 2004 and reached 18.1% in 2012. In this major, the greatest decline is observable among those who had a family of income between 20 and 30 times the MW-20.0% in 2004 to 10.2% in 2012. In Electrical Engineering, those who declared a family income from 1 to 3 MWs were 7.4% in 2004 and quadrupled in 2012 to 28.2%. In Psychology, the index went from 7.8% in 2004 to 37.1% in 2012[17].

The change is also relevant concerning the schooling level of students' mothers: in 2004, those whose mothers had higher instruction also corresponded to around half of the contingent. In 2005, the percentage of students whose mothers had higher instruction reduced to 36.5%, in favor of students whose mothers have lower levels of instruction. For example, in 2009 these groups oscillated between 38.0% and 43.8%. The last two years resemble what was verified in 2004. Students whose mother's schooling indicated "never attended school" and with "elementary school incomplete" passed from 1.3% to around 4.0% from 2008-2012 (Table 8, Table 9).

6. Performance on the Entrance Exam

The hypothesis often presented during debates on the quota system that the spaces reserved for black students and those from public schools would diminish the quality of higher education due to the enrollment of students with a poorer school performance, was countered by the first analyses made shortly following the introduction of the quota system at the Federal University of Bahia. These studies showed a positive change in the cut-off score for the entrance exam, and generally, in both phases of the admissions process, as perceived in the following table.

[17]In the rest of highly prestigious majors, the evolution of families with income up to three minimum wages between 2004 and 2012 was the following: Architecture, from 4.9% to 33.5%; Chemical Engineering, from 8.4% to 26.9%; Law, from 1.7% to 28.1%; Civil Engineering, from 9.4% to 25.2% and Mechanical Engineering, from 2.7% to 28.8%. Source: UFBA/Socio-economic survey.

Table 8. Percentage distribution of father's schooling from students admitted to prestigious majors, 2004-2009 and 2011-2012.

Father's school level	Year							
	2004	2005	2006	2007	2008	2009	2011	2012
Never attended school	0.5	2.2	1.6	1.1	1.4	1.2	0.8	1.4
Elementary school incomplete	2,6	4.5	6.1	5.7	5.9	5.9	4.3	6.9
Elementary school complete	1.1	3.8	4.8	2.8	2.6	4.3	4.6	4.4
Middle school incomplete	3.0	5.6	5.6	4.1	4.8	4.8	4.5	5.2
Middle school complete	3.0	4.1	3.2	2.8	3.4	3.1	1.7	2.0
High school incomplete	2.9	4.6	4.9	4.4	4.0	3.6	4.7	4.2
High school complete	28.0	29.9	26.5	25.2	28.6	27.3	27.3	25.6
Higher education incomplete	8.8	9.1	8.1	10.7	8.1	8.0	8.3	8.0
Higher education complete	49.9	36.1	39.1	43.1	41.2	41.9	43.8	42.4
Total	100	100	100	100	100	100	100	100

Source: Dean's Office of Planning/Socioeconomic Questionnaire.

Table 9. Percentage distribution of mother's schooling from students admitted in prestigious majors, 2004-2009 and 2011-2012.

Mother's schooling	Years							
	2004	2005	2006	2007	2008	2009	2011	2012
Never attended school	0.5	1.1	1.3	0.6	1.3	1.0	0.5	0.3
Elementary school incomplete	0.8	2.5	3.1	2.9	2.6	3.2	3.8	3.4
Elementary school complete	1.9	3.8	3.6	2.6	2.9	2.8	2.9	2.0
Middle school incomplete	1.9	4.9	3.9	4.4	3.8	4.2	3.0	3.3
Middle school complete	2.1	2.8	2.9	2.2	2.5	2.6	1.8	1.4
High school incomplete	3.6	5.8	3.9	3.0	3.9	3.7	3.1	4.4
High school complete	30.4	35.5	33.7	30.7	32.5	31.8	28.6	28.4
Higher education incomplete	8.8	8.1	9.6	9.8	8.8	7.3	6.5	8.3
Higher education complete	50.1	35.5	38.0	43.8	41.7	43.6	49.9	48.4
Total	100	100	100	100	100	100	100	100

Source: Dean's Office of Planning/Socioeconomic Questionnaire.

Examining the average performance of students in each major demonstrates that the reserving spaces did not provoke the negative effect expected by some. The difference between averages in the years 2003, 2004 and 2005 expresses little. We decided to present the data in Table 10 and Table 11 in order to show new impact in the first three years (2003-2005) of its adoption. The examination of average scores on the entrance exam among majors considered to have the greatest social prestige and competition among students with the highest educational performance, like Medicine for

Table 10. Cut-off score for passing the UFBA entrance exam, 2003-2005.

Year	First phase	Second phase
2005	5,117.40	5,089.50
2004	5,099.80	5,056.40
2003	5,018.70	5,009.30

Source: Admission and Advising Services.

Table 11. Median average performance on the entrance exam among students in highly prestigious majors, 2003-2005 (on a grade scale of 0 - 10, 10 being the highest).

	Year		
Major	2003	2004	2005
Medicine	7.3	7.4	7.2
Odontology	6.2	5.9	5.7
Psychology	6.4	6.3	6
Law	6.8	6.8	6.6
Computer Science	6.6	6.5	6.3
Electrical Engineering	7.1	7.2	6.7
Civil Engineering	5.7	5.7	5.6
Mechanical Engineering	6	6.3	6.1
Chemical Engineering	6.2	6.2	6.2
Administration	6.2	6	5.9
Architecture	5.9	5.7	5.6

Source: Admission and Advising Services.

example, confirmed that the average difference in the observed period was barely relevant. Other majors with this profile, like Electrical Engineering, Law, Odontology, Computer Science and Administration, confirmed that the introduction of the quota system with reserved spaces had little effect on the average grade (Table 11).

This finding is not surprising. A previous work analyzed the hypothesis, which supposes that black and brown students from public schools show insufficient performance on the entrance exam for majors of high social prestige. To do so, a 2001 study aimed to verify the presence of black and brown students from public schools among those who passed the entrance exam for those majors and who were not admitted because of a "lack of space". The result showed a contingent of 576 students with these characteristics, which was attributed to a repressed demand of students that performed satisfactorily on the entrance exam, but who could not enrolled in the University due to the existing system[18].

The information regarding student performance of both "quota" and "non-quota"[19]

[18]Queiroz, D. M. (2003). Higher education in Brazil and Affirmative Action for Black students. University and Diversity, year XII, n. 29, 57-60.

[19]Translator's Note: In Brazil the term *quotista* refers to a student who entered the university in a reserved space due to the quota system. I refer to these as "quota students", and students who did not enter in a reserved space as "non-quota students".

students on the first two entrance exams during the new quota system showed that the difference between median performance among the two groups was little significant in the majority of majors considered to socially prestigious and competitive, as shown in Table 12. For example, in Medicine, considered the most competitive and prestigious major at UFBA, the difference between the two groups did not even reach one percentage point. The same occurred in Law, also among the most desired. The greatest differences were observed in Electrical Engineering (1.7 points) and Mechanical Engineering (1.4 points), both in 2006.

For a better understanding of the distances that separate the averages of quota and non-quota students, we present in Table 13 grade information from the entrance exam in 2005, comparing averages between the first and last student who passed in each group, by major. As previously observed, particular majors were more impacted by the quota system than others, though a great distance between the averages of quota and non-quota systems was not confirmed in the two positions examined, that of the student who passed in first and last place in each major. Another aspect that can be observed is that, in each major, the average grade of the first quota student was not lower than the last non-quota student to pass. There are majors in which the distance between the first non-quota student who passed to the first quota-system who passed is a few decimal points, like the Civil Engineering Major, for example. Curiously, in the Law major, which is one of the most competitive, the average grade of the first quota student to pass is higher than the grade of the first non-quota student.

Table 12. Median average performance of quota and non-quota students in highly prestigious and competitive majors, 2005-2006.

Major	Quota student average		Non-quota student average		Difference between quota/non-quota students	
	2005	2006	2005	2006	2005	2006
Medicine	6.7	6.7	7.5	7.4	0.8	0.7
Odontology	5.2	4.9	6.2	6.2	1.0	1.3
Psychology	5.7	5.6	6.3	6.5	0.6	0.9
Law	6.2	6.2	7.0	7.0	0.8	0.8
Administration	5.5	5.1	6.3	6.2	0.8	1.1
Computer Science	5.8	5.6	6.6	6.7	0.8	1.1
Electrical Engineering	6.2	5.7	7.1	7.3	0.9	1.6
Civil Engineering	5.2	4.9	5.8	6.0	0.6	1.1
Mechanical Engineering	5.5	5.4	6.5	6.8	1.0	1.4
Architecture and Urban Planning	4.9	4.8	6.1	6.1	1.2	1.3
Communications/Journalism	6.1	5.7	6.8	6.9	0.7	1.2
Communications/Cultural Production	5.4	5.4	6.2	6.2	0.8	0.8

Source: Admission and Advising Services.

Table 13. Entrance exam performance of quota and non-quota students, 2005.

Major	Ranking order			
	Highest grade		Lowest grade	
	Quota student	Non-quota student	Quota student	Non-quota student
Architecture and Urban Planning	6.8	8.1	4.4	5.6
Computer Science	7.0	7.9	4.7	6.1
Civil Engineering	7.5	7.7	4.6	5.3
Electrical Engineering	7.4	8.1	4.9	6.7
Mechanical Engineering	6.6	8.1	4.7	6.2
Medicine	7.8	8.3	4.7	7.3
Odontology	6.3	7.3	4.2	5.8
Administration	6.5	7.2	5.0	5.8
Communication - Cultural Production	6.7	7.1	5.0	5.8
Communication - Journalism	7.3	7.3	5.0	6.4
Law	8.1	7.8	4.4	6.7
Psychology	6.5	6.8	4.4	6.0

Source: Dean of Planning/Socioeconomic Questionnaire.

This table points out a small difference between the two groups in the first years following the adoption of the system. But what happened in the following years? Between the years 2007 and 2009, the greatest difference between averages continued in the Electrical Engineering major, which was the major that in four years (from 2006 to 2009) showed the same difference between quota and non-quota students −1.6. Other Engineering majors, like Civil, Mechanical and Chemical, had during this period a difference fluctuating between 1.0 and 1.5. The Medicine, Administration, Odontology, Law, Computer Science, Psychology and Architecture majors showed a difference of 0.8 and 1.2 between quota and non-quota students in the period of 2007 to 2009 (Table 14).

However, during the next three years (2010-2012) there was a fall in the average score between the two groups. All of the engineering majors fluctuated with a difference that varied between 0.7 and 1.1 points. Even the Electrical Engineering major, which had the greatest difference in the previous four years in the order of 1.6 points, oscillated between 0.9 and 1.1. Architecture is the only major of all those selected that showed in 2012 an increased distance between quota and non-quota students, comparing with the five-year period (2005-2009) when the difference was between 1.1 and 1.2 points. Medicine, Law, Odontology, and Administration showed an average gap of 0.6 to 0.8, being that Computer Science and Psychology had the smallest difference, between 0.3 and 0.5 points.

All of this data, which can be observed in Table 14, point to a fall in the average score of enrolled students, both quota and non-quota, in the last three years. If from

Table 14. Average score of quota and non-quota students by year enrolled in prestigious majors, 2007-2012.

Major	Year											
	2007		2008		2009		2010		2011		2012	
	Quota	Non-quota	Quota	Non-quota	Quota	Non-quota	Quota	Non-quota	Quota	Non-quota	Quota	Non-quota
Medicine	6.7	7.6	6.6	7.7	6.5	7.7	5.3	6.0	5.2	6.0	5.4	6.1
Odontology	5.2	6.2	5.1	6.2	5.1	6.2	3.8	4.4	3.7	4.3	3.8	4.4
Law	6.1	7.1	6.1	7.1	5.8	7.0	4.6	5.2	4.5	5.2	4.6	5.3
Administration	5.2	6.3	5.1	6.3	5.1	6.3	3.8	4.4	3.7	4.3	3.8	4.4
Psychology	5.5	6.4	5.6	6.5	5.4	6.3	4.2	4.7	4.2	4.5	4.2	4.6
Computer Science	5.7	6.5	5.3	6.3	5.3	6.1	3.3	3.6	3.1	3.4	2.9	3.4
Electrical Engineering	5.8	7.4	5.7	7.3	5.3	6.9	4.1	5.2	4.0	5.0	4.0	4.9
Civil Engineering	4.8	6.1	4.9	6.1	4.9	6.4	3.8	4.9	3.9	4.8	4.0	5.0
Mechanical Engineering	5.7	6.9	5.3	7.0	5.2	5.2	4.0	5.0	3.9	5.0	4.2	4.9
Chemical Engineering	5.7	6.9	5.6	7.1	5.9	7.1	4.3	5.2	4.2	5.1	4.2	5.2
Architecture	4.9	6.0	4.8	6.0	4.9	6.1	3.6	4.3	3.4	4.3	3.3	4.5

Source: Admissions and Advising Services.

2005-2009 non-quota students reached an average of about 7.4 in Medicine, afterwards they reached a maximum of 6.1. The same can be observed in Law, where the average fell from 7.0 (2005-2009) to 5.2 (2010-2012) or in Electrical Engineering, from 7.0 to 5.0 in the same period. And the other Engineering majors reached a maximum of 5.1. In other majors the non-quota students had an average performance of, at most, 4.5 (Odontology, Administration, Architecture), or 4.7 (Psychology), and the lowest average score among the highly prestigious majors was Computer Sciences, which fell from 6.5 (2005-2009) to 3.4 (2010-2012). A possible hypothesis is that this decline is probably related to lower student performance in specific areas like Mathematics, History and Essay, which would result in a lower score in the years observed for both groups.

The decline in average score observed among non-quota systems is also true of quota students. However, the difference between the two shows a curious fact: in all of the highly prestigious majors from 2010 and 2012, this decline was accompanied by a smaller difference between the two groups. Majors like Medicine, Law, Odontology and Administration fluctuated between 0.6 and 0.8 points. In the Engineering majors and Architecture the difference was in the interval of 0.7 and 1.2. Psychology and Computer Sciences had a smaller difference, between 0.3 and 0.5.

7. Student Performance

Besides the data on student profiles and performance on the entrance exam, we also look at enrolled student performance in the first semesters of 2005. Initially, we used a graph referring to the grade performance average (GPA) and verified that in eleven cases (or 61.1%) the quota students reached results equal to or better than those of

non-quota students[20]. When observing the grades between 7.6 and 10 in highly prestigious and competitive majors, as cited above, the non-quota students were more represented than the quota students. The only major that verified the contrary was Civil Engineering[21].

The classes in following years demonstrated similar results as the year 2005, and in distinct periods. The GPA of those students who enrolled in 2008 and 2007 and who were, respectively, in their third and fifth semester, performed better than non-quota students in the grade range of 7.0 and 10.0. The quota students tended to surpass this group in the grade range of 5.0 and 6.9, which seems to indicate a tendency throughout the semesters in these majors. Observe in Table 15 enrolled students in their seventh semester, which during the second year of the adoption of the quota system had finished 70% of their total semesters.

8. Conclusion

Contrary to the pessimistic expectations presented by various arguments in the media regarding the politics of affirmative action in reserving spaces for black, indigenous and public school students, the data analyzed here painted a considerably encouraging reality, confirming other studies that reached similar conclusions in other contexts in Brazil, such as those by Veloso and Cardoso, Cordeiro, Furtado[22]. These results demonstrate

Table 15. Percentage of quota and non-quota students with GPA between 7.0 and 10.0 in prestigious majors, enrolled in 2006 and in their seventh semester.

Major	Quota students	Non-quota students
Architecture	32.6	51.4
Computer Sciences	33.3	60.0
Electrical Engineering	37.5	51.6
Civil Engineering	26.4	43.4
Chemical Engineering	17.6	45.0
Mechanical Engineering	44.4	63.6
Medicine	71.4	95.5
Odontology	51.8	81.2
Administration	67.6	71.7
Communication-Journalism	46.1	63.0
Law	55.5	77.0
Psychology	66.6	78.0

Source: Center for Data Processing.

[20]Queiroz, D., & Santos, J. T. (2006). The Quota System: a debate. From the data of maintaining privileges and power. Education and Society, v. 27, n. 96, 717-738.

[21]Queiroz, D., & Santos, J. T. (2007). The quota system and student performance in majors at UFBA. In Brandão, A. A. (org). Racial Quotas in Brazil: an initial evaluation (pp. 121-144). Rio de Janeiro: DP & A.

[22]Velloso, J., & Cardoso, C. B. (2011). Five years of quotas: the probability of enrolling blacks at the University of Brasília. Brazilian Journal of Pedagogical Studies, v. 92, n. 231, 221-245. Furtado, W. (2011) The practice of inclusion in the university: representations from professors and students. Ph.D. Thesis, FEESP. Cordeiro, M. J. (2007). Three years of effective presence of black and indigenous quota students in the classrooms at UEMS: initial analyses. In Brandão (org). Racial quotas in Brasil (pp. 87-120).

the biased, opinionated and non-analytic nature of such arguments communicated through media outlets and in various articles by intellectuals. In this respect, Abreu's reflection is pertinent in attributing the reaction to affirmative action for under-represented groups to a strong authoritarian inclination of Brazilian society, a product of a past characterized by a long period of colonization, slavery and subsequently, authoritarian regimes[23]. As a consequence, this history is responsible for the internalization of a tutelary culture, in which the law serves as a strong instrument in the vigilance and punishment of vulnerable populations, above all indigenous and black. From this there lies the difficulty of some groups to recognize the racial inequalities present in our education system and to see themselves as subjects deserving of rights.

In April of 2012, the Brazilian Supreme Court ruled that the adoption of a quota system in public universities was constitutional. Through this decision, the Supreme Court reiterated the decisions previously made by Administrations at public universities. Months later, the National Congress approved a law to establish quotas in all of the federal public universities in Brazil. On August 29, 2012, the president of the Republic, Dilma Roussef, sanctioned the Law 12.711, establishing quotas for at least 50% of spaces in federal institutions, reserved for students that had completed their education through high school exclusively in public schools.

In filling these spaces, 50% must be reserved for students from families with an income equal to or lesser than one minimum wage *per capita*. The second article of Law 12.711 indicated that these spaces must be filled by candidates self-declared as black, brown or indigenous, in equal proportion to the distribution in states where federal institutions are located and pursuant to the last census in 2010 from the Brazilian Institute of Geography and Statistics (Instituto Brasileiro de Geografia e Estatística—IBGE). Law 12.711 standardized various decisions made since 2004 in fifty federal institutions that had adopted a quota system for black, brown and indigenous students, as well as those from the public school system. As a result, after 2013 all federal institutions must follow what the Ministry of Education formulated as a quota system for the next four years, to be evaluated in a near future following the introduction of the new system.

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References

Abreu, S. Equality. (2008). The Affirmation of an Inclusive Legal Principle. In J. Zoninsein, & J. Feres (Orgs), *Affirmative Action in Higher Education in Brazil* (pp. 329-345). Belo Horizonte: Federal University of Minas Gerais Press; Rio de Janeiro, IUPERJ.

Bourdieu, P. (1998). The Conservative School: Inequalities Facing School and Culture. In M. A. Nogueira, & A. Catani (Orgs), *Writings on Education* (pp. 39-64). Petrópolis: Voices.

Bourdieu, P. (2007). The Contradictions in Inheritance. In P. Bourdieu (Coord.), *Misery in the*

[23]Abreu, S. Equality. (2008). The affirmation of an inclusive legal principle. In Zoninsein, J., Feres, J. (orgs). Affirmative Action in higher education in Brazil (pp. 329-345). Belo Horizonte: Federal University of Minas Gerais Press; Rio de Janeiro, IUPERJ.

World (pp. 587-593). Petrópolis: Voices.

Brazilian Institute of Geography and Statistics—IBGE. (2001 and 2011). *National Research by Household Sample: 2001 and 2011*. http://www.sei.ba.gov.br/images/bahia_sintese/xls/pnad_2011/tabela_1.1.5.xls

Cordeiro, M. J. (2007). Three Years of Effective Presence of Black and Indigenous Quota Students in the Classrooms at UEMS: Initial Analyses. In Brandão (Org.), *Racial Quotas in Brasil* (pp. 87-120). Rio de Janeiro: DP&A.

Ferraro, A. R. (2009). Gender, Race and Schooling in Bahia and Rio de Janeiro. *Research Notebooks, 39,* 813-835.

Furtado, W. (2011) *The Practice of Inclusion in the University: Representations from Professors and Students*. PhD Thesis, São Paulo: FEESP.

Louro, G. L. (1997). *Gender, Sexuality and Education*. Rio de Janeiro: Voices.

Nogueira, M. A. (2000). The Construction of Educational Excellence. A Study in the Trajectory Made by University Students from the Intellectual Middle Strata. In M. A. Nogueira, G. Romanelli, & N. Zago (Orgs.), *Family and School: Trajectories of Schooling in Middle and Popular Strata* (pp. 125-154). Petrópolis: Voices.

Pereira, J. B. B. (2002). The Black in Brazilian Racial Identity. In G. Seyfert et al. (Eds.), *Racism in Brazil* (pp. 65-71). São Paulo: Editor Petrópolis Foundation/ABONG.

Queiroz, D. M. (2002). Racial Inequalities in Higher Education in Brazil. In D. M. Queiroz (Coord.), *Blacks in the University* (pp. 13-55). Salvador: Program to Color Bahia/UFBA, New Touches.

Queiroz, D. M. (2003). Higher Education in Brazil and Affirmative Action for Black Students. *University and Diversity, 29,* 57-60.

Queiroz, D., & Santos, J. T. (2006). The Quota System: A Debate. From the Data of Maintaining Privileges and Power. *Education and Society, 27,* 717-738.

Queiroz, D., & Santos, J. T. (2007). The Quota System and Student Performance in Majors at UFBA. In A. A. Brandão (Org.), *Racial Quotas in Brazil: An Initial Evaluation* (pp. 121-144). Rio de Janeiro: DP&A.

Queiroz, D., & Santos, J. T. (2005 and 2006). The Entrance Exam with Quotas: An Analysis in a Public Federal Institution. *University of São Paulo Journal, 68,* 58-75.

Rosemberg, F. et al. (1990). *Women and Formal Education in Brazil: The State of Art and Bibliography*. Brasília: INEP.

Rosemberg, F., & Amado, T. (1972). Women in School. *Research Notebooks, 180,* 62-72.

Telles, E. (2004). *Race in Another America: The Significance of Skin Color in Brazil.* Princeton: Princeton University Press.

Velloso, J., & Cardoso, C. B. (2011). Five Years of Quotas: The Probability of Enrolling Blacks at the University of Brasília. *Brazilian Journal of Pedagogical Studies, 92,* 221-245.