

The impacts of quota in higher education: a balance of quota students in the state universities

Daniel Calbino Pinheiro^I 

Rafael Diogo Pereira^{II} 

Wescley Silva Xavier^{III} 

ABSTRACT

The work proposed to systematize the researches that evaluated the performance of the beneficiaries of the affirmative actions in the state universities. Through an integrative literature review, we sought to identify its effectiveness from three dimensions: academic performance indexes; evasion rate; and rate of diploma between quota holders and wide competition. The results indicate that, over the seventeen years of quota policies in Brazil, the quota holders obtained similar income to the other students, even surpassing them in the indexes of graduation and in the lowest dropout rates. It is concluded that the data dispel the myth that the quality of education would be worse with the quotas, despite the relevance of the continuous monitoring of these results, since the focus on the reality of the state institutions is still scarce.

KEYWORDS

affirmative action; federal universities; performance evaluation.

^IUniversidade Federal de São João Del-Rei, Sete Lagoas, MG, Brazil.

^{II}Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brazil.

^{III}Universidade Federal de Viçosa, Viçosa, MG, Brazil.

IMPACTOS DAS COTAS NO ENSINO SUPERIOR: UM BALANÇO DO DESEMPENHO DOS COTISTAS NAS UNIVERSIDADES ESTADUAIS

RESUMO

O trabalho propôs sistematizar as pesquisas que avaliaram o desempenho dos beneficiários das ações afirmativas nas universidades estaduais. Por meio de uma revisão integrativa da literatura, buscou-se identificar a sua efetividade a partir de três dimensões: índices de rendimento acadêmico; taxa de evasão; e taxa de diplomação entre cotistas e ampla concorrência. Os resultados indicam que, ao longo dos dezessete anos de políticas afirmativas, os cotistas obtiveram rendimentos similares aos demais estudantes, superando-os, inclusive, nos índices de diplomação e nas menores taxas de evasão. Conclui-se que os dados derrubam o mito de que a qualidade da educação seria pior com as cotas, apesar da relevância do contínuo monitoramento destes resultados, uma vez que, ainda são escassos os enfoques na realidade das instituições estaduais.

PALAVRAS-CHAVE

ação afirmativa; universidades estaduais; avaliação de desempenho.

IMPACTOS DE LA CUOTAS EN LA EDUCACIÓN SUPERIOR: UN BALANCE DE LAS PERFORMANCES DE CUOTISTAS EN LAS UNIVERSIDADES ESTADUALES

RESUMEN

El trabajo propuso sistematizar las investigaciones que evaluaron el desempeño de los beneficiarios de las acciones afirmativas en las universidades estatales. A través de una revisión integradora de la literatura, buscamos identificar su efectividad a partir de tres dimensiones: índices de rendimiento académico; tasa de evasión; y tasa de diploma entre titulares de cuotas y amplia competencia. Los resultados indican que, durante los diecisiete años de las políticas de cuotas en Brasil, los titulares de las cuotas obtuvieron ingresos similares a los otros estudiantes, incluso superándolos en los índices de graduación y en las tasas de abandono más bajas. Se concluye que los datos disipan el mito de que la calidad de la educación sería peor con las cuotas, a pesar de la relevancia del monitoreo continuo de estos resultados, ya que el enfoque en la realidad de las instituciones estatales aún es escaso.

PALABRAS CLAVE

acción afirmativa; universidades estatales; evaluación de desempeño.

INTRODUCTION

In 2017, the coordinator of an undergraduate course at UFMG said during a graduation ceremony that he was concerned about the loss of quality at the university. He exemplified the problem by saying, “I would never consult with a doctor who had entered the medical course through affirmative action”. (Takahashi, 2018, p. 1).

The epigraph represents one of the myths that have permeated affirmative action quotas since their creation in 2002. At the time, arguments against the policy took hold of scholars’ narratives such as Maggie and Fry (2004) and Lewgoy (2005), who claimed quality loss in education, since students favored by quotas passed entry exams with lower grades than non-quota ones and had lower academic performance coefficients. Moreover, the financial difficulty to support themselves during the course would induce quota students to abandon university education (increasing evasion), or, at least, delay the conclusion of the major in comparison to non-quota students (Wainer and Melguizo, 2018).

Two aspects should be established regarding the mentioned expectations. First, in terms of transformation in society, they eliminate the character of social mobility inherent to affirmative action. Moreover, even in pragmatic terms, the arguments were based on future projections and risk predictions but did not illustrate much data or experiences for argumentative corroboration (Ferez Junior and Daflon, 2015), since affirmative action policies were still in the early stages of implementation. However, 17 years after the first experiences in state universities, part of the discussion is still based on the same previous forecasts without resorting to empirical data already available on the Brazilian reality, which evidence the elitism strongly present in access to university education.

The speech references by the UFMG professor, in 2017, is not an isolated fact. At the end of 2019, an article published in the *Gazeta do Povo* newspaper, signed by another university professor, emphasized that “affirmative action is an inefficient, irrational, and senseless policy that is driven by emotional appeal rather than rational arguments” (Ferraz, 2019, p. 1). The reason: by including students in universities guided by “criteria other than their intellectual qualifications, we cause damage to the individual (who will fail if the subjects maintain their requirements) and to the institution itself, which will inevitably decline” (Ferraz, 2019, p. 1).

It is worth emphasizing that, when formulating their arguments, researchers did not mention publications that diverge from the supposed myth of quality loss, and it should be noted that there is still no systematic assessment of quota students’ performance (Ferez Junior and Daflon, 2015). Likewise, there are few consolidated tools for monitoring, at the national level, the system of slot reservations, from enrollment to completion. Failure to systematically evaluate the system implies the risk of disqualifying the policy or holding beneficiaries responsible for failure in the face of unknown indicators (Senkevics, 2018).

It is in this context that this article aims to map the studies that analyzed the academic performance of students after the implementation of quota policies.

To this end, the research question is: how does the national literature address performance among affirmative action students and traditional enrollment, concerning the academic performance coefficient (PC), the school dropout (evasion) rate, and the graduation rate at state universities?

As a methodological cut-off, we chose to only analyze the higher education institutions at the state level. The choice occurs as they are the pioneers in the implementation of affirmative action and, in theory, present the greatest result potential available on a longitudinal perspective. We also emphasize the limited space to address in a single article all state institutions and federal universities with due detail.

BRIEF HISTORY OF AFFIRMATIVE ACTION AND THE MYTH OF EDUCATION QUALITY LOSS

The Federal Constitution of 1988 and the Education Guidelines and Bases Law of 1996 establish that education must respect the principle of equal conditions to access and stay in school. Given the disparity between the constitutional order and its effectiveness for education, social inclusion policies were formulated, such as affirmative actions, understood as initiatives that aim to promote equality, reducing social injustices (Bayma, 2012).

The gradual process of discussion and implementation of affirmative action is part of a unique context in which the Brazilian State has promoted racial equality initiatives in response to the demands of social movements (Lemos, 2017). A first record dates back to 1968, when the Ministry of Labor was in favor of creating a law that would oblige private companies to hire a percentage of black employees, but such a law was never drafted.

It was only in the 1980s, with the re-democratization of the country, that the first project was formulated, proposing reparations in several areas of social life to make up for centuries of discrimination. The debate, at the time restricted to the black movement and intellectuals, expanded from the 1990s onward to the other spheres of society (Moehlecke, 2002).

In 1995, after the *Zumbi dos Palmares* March against Racism involving thirty thousand activists in Brasilia, the government launched the National Human Rights Program. For the first time, it recognized the effects of racism in the country and the need for policies, including affirmative action (Lemos, 2017). However, it would take eight more years for the issue to effectively enter the political agenda, with the program to fight racism presented at the International Conference against Racism, Xenophobia, and Intolerance, in Durban, South Africa, in 2001 (Moehlecke, 2002).

In this context, the pioneering case that gained great repercussion was the affirmative action policy that was created in the state of Rio de Janeiro. State laws of 2001 and 2002 reserved up to 45% of higher education slots for public school graduates, blacks, and people with disabilities. A similar situation occurred in the same year at Universidade Estadual de Mato Grosso do Sul, supported by two state laws that established reservations for indigenous and black people.

In the following years, respecting the particularities of the regional legislation, state institutions gradually adhered to affirmative action. By the end of 2019, of 42 state universities, 38 had adopted some type of affirmative action, encompassing several categories of enrollment quotas, with emphasis on: public schools, black, brown, and indigenous students, *quilombolas*, disabled people, military dependents, state natives, public school teachers, gypsies and transgenders.

Despite the advances mentioned in almost two decades, the phenomenon is still marked by debates, reproducing old myths. Among them, there is the belief in falling academic performance, low graduations, and widespread evasion with the entry of affirmative action students (Maggie and Fry, 2004; Lewgoy, 2005; Wainer and Melguizo, 2018).

The backdrop to these arguments is that affirmative action “authorizes individuals with controversial skills to care for the health of others” (Ferraz, 2019, p. 1).

Against these arguments, the national literature has contributed to studies that evaluate the performance of students after affirmative action policies. Of particular note is Cunha’s (2006) research, who investigated the first classes of affirmative action students at the Universidade de Brasília, especially in the medical major, registering that the beneficiaries obtained higher grades than their colleagues. In a more recent study at the same institution, Garcia and Jesus (2015) expanded the scope, with entrants between 2004 and 2014, noting the same trend.

From a broader perspective, Valente and Berry’s (2017) and Wainer and Melguizo’s (2018) research analyzed the performance of all federal university majors in the National Student Performance Exam (Exame Nacional de Desempenho dos Estudantes — ENADE) in the 2009-2012 and 2012-2014 editions, respectively. The two studies proved that there were no practical differences between the knowledge of students admitted through affirmative action quotas and traditional enrollment, who were already at the end of their undergraduate courses.

It is also worth mentioning that the investigations pointed out lower evasion rates of affirmative action students than their peers, such as those carried out at Universidade de Brasília (Velloso, 2009), Universidade Federal de Santa Catarina (Leal da Silva, 2015), Universidade Federal de Viçosa (Moreira Silva, 2017) and Universidade Federal do Espírito Santo (Arrigoni, 2018).

Despite the relevance of these studies in demystifying some beliefs about affirmative action in Brazil, we consider the systematization of the studies available in the literature, particularly of state universities, to be pertinent. This may facilitate an overview of the subject, in addition to contributing to a more accurate evaluation of the effectiveness of affirmative action policies over the last seventeen years.

METHODOLOGICAL PATHWAY

In order to answer to the general objective of this article, a bibliographic research in the national literature was carried out from August to December 2019. Sixty-nine dissertations and theses available in the Capes database and the Brazilian Digital Library dealing with the subject were analyzed, as well as 24 articles

available in each of the online journals of the A1, A2, and B1 Extracts (2013-2016 quadrennium) from the areas of Education, Administration, and Sociology.

The method adopted was bibliometric research (Caldas and Tinoco, 2004), which enabled mapping the research on the focus subjects. It also represented a primary tool to analyze researchers' behavior when making decisions to build this body of knowledge.

Due to the low number of papers found (only five dissertations, two theses, and two articles in journals), the authors decided to expand their search to the scielo.br platform and the Google Academic search engine, enlarging the sample to journals from other areas of knowledge and with inferior extracts in Capes (B2 to C), also including relevant books available in the online format.

The empirical interval of publications occurred between 2002 (beginning of affirmative action) and December 2019. The search used keywords that guided the filter of online search engines. Thus, the terms "quotas", "affirmative policies", "affirmative action", and "quota policy", which were present in the title, abstract, keywords, subject, and/or body of the texts, were used. A second review was then carried out based on an advanced search on the platforms, adding the name of each of the state universities that adhered to affirmative action, together with the cited etymologies. The purpose was to review whether any papers went unnoticed or not filtered by the first search.

After collecting the papers, the content was systematically read, selecting those that dealt with at least one of the academic performance criteria (performance, graduation, and/or evasion). At this point, investigations which limited themselves to providing isolated data, without establishing comparisons between quota and non-quota students, were excluded (Figure 1).

Thus, 15 papers were found that explored the contexts of 12 state universities. Chart 1 summarizes the research found, placing them by the legislations that govern the affirmative action policy in each institution.

To analyze the data, three criteria were adopted (academic performance, evasion rates, and graduation rates), comparing the performance of the institution's students, according to the major, area of knowledge and/or campus investigated, available in the research data.

Given the particularities of each state's legislation and the many types of affirmative action, we divided the comparative analysis between students from the traditional entry methods *versus* public school graduates and/or racial (black, brown, indigenous) affirmative action receivers. The literature found did not present data on other types of affirmative action in state universities.

AFFIRMATIVE ACTION STUDENT PERFORMANCE IN BRAZIL

RESEARCH BY STATE UNIVERSITIES IN THE SOUTHEAST

The Southeast region has nine State Universities, four in the state of São Paulo, three in Rio de Janeiro, and two in Minas Gerais. The first aspect highlighted

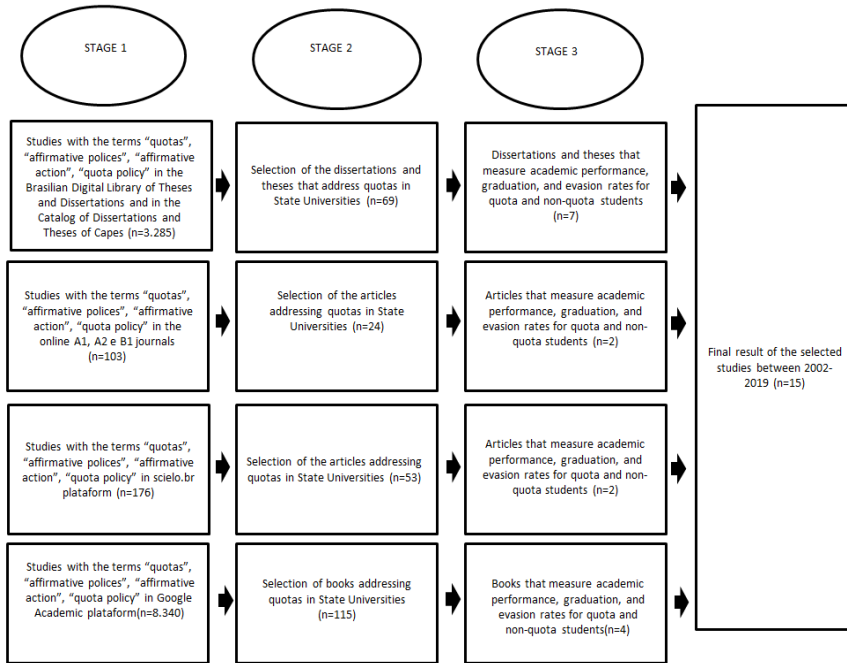


Figure 1 – Methodological pathway used.

is the low number of papers that have analyzed the universities in the Southeast region. Six research projects were registered that contemplated only three state institutions (UERJ, UENF, and UNIMONTES). It is noteworthy that the universities of the state of São Paulo were not research subjects, despite their importance in Brazil. One hypothesis may be their late adherence, since the Universidade de São Paulo (USP) and Universidade Estadual de Campinas (Unicamp) only adhered to affirmative actions in the entry exams of 2018 and 2019, respectively.

Regarding publications, the majority (four) investigated UERJ, possibly because of its pioneering spirit. The first is that of Bezerra and Gurgel (2011), who analyzed academic performance and evasion among students of traditional methods and the sum of affirmative action vacancies. In methodological terms, they established as a cut-off the classes that entered in the exams of 2005 and 2006 from six undergraduate courses. By using data provided by the institution's internal system, they used descriptive statistics to correlate the academic average accumulated between 2005 and 2009.

The results pointed out that, over the course of four years, the average of quota student grades (7.7 — classes of 2005 and 7.9 — classes of 2006) were close to those of traditional method students (8 — classes of 2005 and 8.2 — classes of 2006). The accumulated difference in the averages was 0.3 points, which is considered comparatively insignificant for the authors (Chart 2).

Chart 1 – Literature review.

Region	University	Affirmative Action Policy	Author
Southeast	UERJ (<i>Universidade Estadual do Rio de Janeiro</i>)	It began in the entry exam of 2003, reserving 20% of vacancies for public school students, 20% for blacks, and 5% for the physically disabled and ethnic minorities. However, after repeals and amendments, the current law establishes 20% for non-whites; 20% for public school students; 5% for people with disabilities and children of civilian and military police, security inspectors, or prison administrators, killed or disabled due to service.	Bezerra and Gurgel (2011); Cicalò (2008); Mendes Junior (2014); Machado (2013)
Southeast	UENF (<i>Universidade Estadual do Norte Fluminense Darcy Ribeiro</i>)	It started in the entry exam in 2003, allocating 50% of vacancies to those coming from public schools. Self-declaring non-whites would compete for 40% of the positions, respecting first those from public schools. Currently, the law is the same as previously reported in the case of UERJ, No. 5346/2008.	Brandão and Matta (2007)
Southeast	UNIMONTES (<i>Universidade Estadual de Montes Claros</i>)	The institution adhered to affirmative action in 2005, allocating 45% of vacancies. After State Law No. 22.570/2017, the percentage jumped to 50% of the vacancies, divided into: I. Non-white, low income, from public school (24%); II. Indigenous, low income, from public school (5%); candidates of low income and public-school graduation (16%); IV. Disabled people (5%).	Barros (2010)
South	UNIOESTE (<i>Universidade Estadual do Oeste do Paraná</i>)	The institution adhered to affirmative action in the 2009 entry exam, establishing 40% of vacancies for public school students. From 2014 on, it reserved 50% of vacancies to the Unified Selection System, expanding the reserved vacancies from 40 to 50% for public schools.	Corbari (2018)
South	UEL (<i>Universidade Estadual de Londrina</i>)	The institution began affirmative action in the 2005 exam, allocating 40% of vacancies to those coming from public schools, and up to half of these vacancies to those who self-declared non-white. However, as of resolution 015/2012, the reserves have remained at 40%, guaranteeing half to non-whites, regardless of the enrollment number.	Gabriel (2013); Silva and Pacheco (2013)

Continue...

Chart 1 – Continuation.

Region	University	Affirmative Action Policy	Author
South	UEPG (<i>Universidade Estadual de Ponta Grossa</i>)	The institution adhered to affirmative action in 2007, reserving 10% of vacancies for public school students and 5% for self-declared non-whites from public schools. For the following 8 years, the reserve increased by 5% for public school students and 1% for non-white students.	Souza (2012)
Midwest	UEMS (<i>Universidade Estadual de Mato Grosso do Sul</i>)	The university joined affirmative action in the entry exam of 2003, reserving 10% for indigenous and 20% for black students. Since the resolution of October 31 st , 2018, the university has approved 5% extra vacancies for handicapped, <i>quilombolas</i> , transvestites, and transsexuals.	Benatti (2017); Cordeiro (2008)
Midwest	UNEMAT (<i>Universidade do Estado do Mato Grosso</i>)	The institution adhered to affirmative action on December 14 th , 2004, taking effect in the 2005/2 entry exam. 25% of the vacancies were made available to non-whites in all undergraduate courses.	Costa (2015)
Northeast	UNEB (<i>Universidade do Estado da Bahia</i>)	The institution joined affirmative action in 2003, reserving 40% of vacancies for non-whites from public schools in the state of Bahia. After Resolution 1339 of 2018, it increased the reservation by 5% for indigenous people; <i>quilombolas</i> ; gypsies; people with disabilities, autism and high abilities; transsexuals, transvestites, and transgender people.	Santos (2007); Mattos, Macedo and Mattos (2013)

As for evasion, they identified that among affirmative action students, the percentage was almost half (12.2% — classes of 2005 and 9.3% — classes of 2006) of those admitted through traditional methods (23.2% — classes of 2005 and 22.6% — classes of 2006). The majors of Administration (classes of 2006) and Pedagogy RJ (classes of 2006) showed differences close to three times smaller than the traditional students (Chart 2).

The second investigation about UERJ, from Cicalò (2008), also researched academic performance and the evasion rate. However, it opted for a broader universe of majors, using 49 undergraduate courses between 2003 and 2007, in addition to detailing the type of affirmative action for public school and black students.

Chart 2 – Academic Performance and evasion in six majors in Universidade Estadual do Rio de Janeiro.

Major	Performance coefficient in 2005		Performance coefficient in 2006		Evasion – entrants of 2005 (%)		Evasion – entrants of 2006 (%)	
	Quotas	Non-quotas	Quotas	Non-quotas	Quotas	Non-quotas	Quotas	Non-quotas
Administration	8	8	7.9	8	14.8	28.8	9.2	29.2
Law	7.7	8.5	7.7	8.8	6.2	7.1	6.2	8.9
Chemical Engineering	6.6	7.1	6.7	7.4	27.7	38.6	18	30.1
Medicine	7.4	7.6	7.7	7.7	4.6	5.8	4.6	3.9
Pedagogy RJ	8.4	8.6	8.9	8.9	4.2	33.1	6.4	22.6
Pedagogy Countryside	8.4	8.3	8.5	8.7	15.7	26	11.7	27.2
Total average	7.7	8	7.9	8.2	12.2	23.2	9.3	20.3

Source: adapted from Bezerra and Gurgel (2011).

Regarding academic performance, the results indicate that the differences between racial quota students (6.37) and students admitted by traditional methods (6.41) were inexpressive (difference of 0.04 points). However, the author’s most surprising data were the affirmative action students from public schools (6.56), who had even higher performance than non-quota action students (Chart 3).

Chart 3 – Academic performance and evasion in 49 courses of Universidade Estadual do Rio de Janeiro.

Majors	Performance coefficient between 2003-2007			Evasion rate (%) between 2003-2007		
	Public school quotas	Black quotas	Non-quotas	Public school quotas	Black quotas	Non-quotas
History	7.15	7.22	5.67	4.1	5.38	19.2
Law	7.10	7.08	7.94	5.35	3.64	4.83
Engineering	4.7	4.11	4.29	–	–	–
Average of 49 majors	6.56	6.37	6.41	10	13	17

Source: adapted from Cicalo (2008)¹.

1 The author detailed the performance in only three of the 49 investigated majors.

As for the cumulative dropout rates from 2003 to 2007, the highest percentages were recorded for students admitted through traditional methods (17%), while the numbers fell to 13% for black students and 10% for public school students (Chart 3).

The third study on UERJ, by Mendes Junior (2014), in addition to analyzing academic performance and evasion rates, included the graduation rates of students. As a methodological cutout, 43 incoming classes from the 2005 entry exam were used, graduated between 2009–2011, dividing them between traditional students and all types of affirmative action.

To collect the data, the tool Business Intelligence, developed by the institution itself, was used, which extracts detailed information from the graduation databases and consolidates it into descriptive statistics. Different from the methodology of previous studies, the author chose to create a variable called “relative difficulty of the major” which, based on the average performance coefficient of students in each career, was divided into three groups: low, medium, and high relative difficulty.

As a result, the performance differences between affirmative action students and the students admitted through traditional methods produced an average absolute difference for all careers of 0.4 points in 2006 and 2009, in favor of the traditional students. However, by stratifying by difficulty levels, it was observed that the difference in average scores increased according to the relative difficulty of the major. In majors considered to be of high difficulty, the difference reached 0.12. In those defined as low difficulty, the gap narrowed to 0.6 in the first year, 2006 (Chart 4). Thus, for the author, there was a significant difference in terms of average grades for affirmative action students and traditional students, which were expressive in courses that require greater dedication and prior knowledge from students.

Chart 4 – Academic performance, graduation and evasion rates in 43 majors in the Universidade Estadual do Rio de Janeiro.

Majors	Performance coefficient in 2006		Performance coefficient in 2009		Graduation until 2011 (%)		Evasion in 2005 (%)		Evasion in 2006-2009 (%)	
	Quotas	Non-quotas	Quotas	Non-quotas	Quotas	Non-quotas	Quotas	Non-quotas	Quotas	Non-quotas
Low difficulty	7.4	7.9	7.1	7.8	61.4	53.8	3.8	12.8	32.6	44.9
Medium difficulty	7.1	7.4	6.7	7.2	49.0	42.0	7.2	15.4	39.8	47.1
High difficulty	4.6	5.2	4.8	5.3	28.7	29.7	7.2	18	26.4	30.7
Total average of 43 majors	6.8	7.2	6.7	7.1	46.7	42.1	5.8	15.6	32.8	39.3

Source: adapted from Mendes Junior (2014).

Although the differences were larger in the average performance coefficient, the graduation rates of affirmative action students were the highest averages (46.7%) compared to the traditional students (32.8%) in the 43 classes analyzed (Chart 4). Despite the data not allowing for more inference, since we did not have access to the standard deviation of the averages, it is relevant to emphasize that the academic performance from graduation rates serves as a comparative indicator that extends the analysis beyond the total sum of the performance coefficients.

As for evasion, the collected data showed the same trend as previous studies, being lower among quota students (32.8%) compared to non-quota ones (39.2%) (Chart 4).

The latest study about UERJ, by Machado (2013), carried out a census on the graduation and evasion rates in all the institution's students enrolled between 2003-2012. Using the information available in the report on the institution's 2012 affirmative action survey, the author divided the groups between traditional admittance methods and all types of affirmative action.

The results indicated that while 26% of traditional students graduated in the period analyzed, this number rose to 33% among the affirmative action beneficiaries. On the other hand, the lowest evasion rates were among affirmative action students (23%), when compared to traditional ones (36%) (Chart 5).

Chart 5 – Evasion and graduation rates of entrants in 2003 to 2012 at the Universidade Estadual do Rio de Janeiro.

Major	Graduation rate (%) between 2003-2012		Evasion rate (%) between 2003-2012	
	Quotas	Non-quotas	Quotas	Non-quotas
All enrollments at the institution	33	26	23	36

Source: adapted from Machado (2013).

After considering UERJ's reality, it is possible to note that the four surveys converged to similar results in identifying lower evasion among quota students (Bezerra and Gurgel, 2011; Cicalò, 2008; Mendes Junior, 2014; Machado, 2013), as well as higher graduation levels among quota students (Mendes Junior, 2014; Machado, 2013). This demystifies the belief that affirmative action students drop out more or have lower graduation rates.

As for academic performance, different methodological cutouts may imply different percentages. While Bezerra and Gurgel (2011) started from a smaller sample, composed of two selection processes, Cicalò (2008) expanded the universe to 49 majors between 2003 and 2007, and finally, the work of Mendes Junior (2014), stratifying three levels of difficulty. These pathways indicated different perspectives on student performance, whether in favor of affirmative action (Cicalò, 2008), or without significant differences between the groups (Bezerra and Gurgel, 2011), or in favor of the traditional methods, when analyzed by the degree of major difficulty (Mendes Junior, 2014).

As Sacristan (1995) points out, the evaluation process is a social construction. Information considered objective undergoes choice, selection, organization, and thus, interpretation. Therefore, it is not possible to think that there is only one answer for each aspiration. The complexity of the evaluation process becomes a reflection of the social phenomenon in which all public evaluation is inserted. Despite this singularity, given the results at UERJ, it is possible to infer that affirmative action students had satisfactorily developed in their courses, which allows the policy to be perceived as an instrument of inclusion, more than simply a resource to facilitate access to formal education (Bezerra and Gurgel, 2011).

Another state institution in Rio de Janeiro investigated by the literature was the UENF, conducted by Brandão and Matta (2007). The authors dealt with the academic performance and evasion rate of 415 first-generation quota students in 13 majors from the entry exam of 2003. Through data provided by the Academic Secretary of the institution, the authors used the accumulated performance coefficient of the first two periods of each course, dividing affirmative action students into racial and public-school criteria.

As for the results, the averages between public school quota students (6.9) and traditional students (7) did not show significant differences. However, racial quota students (6.6) registered the lowest rates in the comparative average. On the other hand, there was a proportional reversal in the evasion rates: the racial quota group had the lowest evasion rates (13.9%) compared to non-quota students (17.5%). Differently from what was found at UERJ, the public school quota students led in evasion percentage (24.9%) (Chart 6).

Chart 6 – Academic Performance and Evasion rates in thirteen majors in the Universidade Estadual do Norte Fluminense.

Major	Performance coefficient of two semesters in 2003			Evasion rate (%) 2003-2005		
	Black quotas	Public school quotas	Non-quotas	Black quotas	Public school quotas	Non-quotas
Petroleum Engineering	6.8	7.7	8.6	0	0	14
Veterinary	5.8	5.3	5.6	0	22.2	19.3
Bachelor in Biology	5.8	6.8	6.6	15.7	10	23.9
Degree in Biology	7	6.7	7.5	40	8.3	20
Social Sciences	7.3	7.5	8	14.2	50	0
Metallurgic Engineering	6.6	4.9	7.3	11	0	25
Civil Engineering	5.6	6.3	5.6	0	0	13
Physics	7.9	7.9	7	0	50	33.3
Mathematics	7.1	7	8	0	0	0
Agronomy	5.7	7.1	6.3	20	0	19.2
Chemistry	-	7	7.6	-	33.3	16.3
Zootechnics	6.2	6.3	6.1	33.3	100	26.3
Education	7.4	7.9	7.2	33.3	50	18.1
Total of averages	6.6	6.9	7	13.9	24.9	17.5

Source: adapted from Brandão and Matta (2007).

One hypothesis to explain these results, according to Brandão and Matta (2007), is that quota students enrolled in UERJ tend to highly value the major they take. For this reason, they persist in a higher proportion in the university despite lower average performance coefficients.

Although no other studies have been found that could supplement Brandão and Matta's (2007) analyses with more up-to-date data on UENF, the data brought by the authors, concerning the first generation of quota students, put into question the argument against affirmative action based on an alleged increase in the evasion of quota students.

Finally, in Minas Gerais, Barros's (2010) case study analyzed the students' academic performance in the medical course at UNIMONTES. The author made a longitudinal analysis of the entrants in the first two entry exams of 2005, comparing the score evolution during six semesters of the major. The academic performance evaluation was generated by consulting the school records (diaries) of the classes, dividing it between quota and non-quota students.

As a result, it was found that during their graduation, there were no difficulties in the progression of quota students. It was observed that the differences in the average performance decreased between the two groups during their graduation. Among the entrants of 2005/2, quota students outperformed non-quota ones in the accumulated average until the sixth semester (Chart 7).

Chart 7 – Academic Performance rate of six semesters in the medicine course at Universidade Estadual de Montes Claros.

Medicine major	Performance rate of Class 2015.1		Performance rate of Class 2015.2	
	Quotas	Non-quotas	Quotas	Non-quotas
First semester	83.1	84.6	88.3	87.8
Second semester	72.8	76.3	81.5	83
Third semester	80	84.4	83.8	80.7
Fourth semester	81.6	84.8	78	72.9
Fifth semester	79.7	82.6	83	80.1
Sixth semester	73	77	83.6	80.5
General Average	78.3	81.6	83	80.8

Source: adapted from Barros (2010).

Despite the small sample and the analysis focusing solely on the institution's first classes of quota students, the findings are relevant in establishing the satisfactory performance of the beneficiaries in one of the most competitive areas in Brazilian universities, due to the high social prestige. Moreover, it seems to corroborate with the same trends found by Cunha (2006) and Garcia and Jesus (2015) about the high performance of affirmative action medical students at UFBA.

RESEARCH IN THE STATE UNIVERSITIES OF THE SOUTH

The South of Brazil has nine State Universities, with seven in Paraná, one in Santa Catarina, and one in Rio Grande do Sul. When reviewing the literature, no research was found that discussed the states of Santa Catarina and Rio Grande do Sul. Likewise, although the state of Paraná has the highest concentration of State Universities in the country, only four studies analyzed three institutions in the state. However, it is important to consider that two (UNESPAR and UEM) have recently joined affirmative action, starting with the entry exams of 2019 and 2020, respectively.

Among the encountered investigations, Corbari's study (2018) analyzed the academic performance, graduation, and evasion rates at UNIOESTE. Based on the information provided by the academic system, a time frame was set between the 2009 and 2016 enrollments of 15 majors at the Cascavel Campus, separating students between affirmative action and traditional method ones.

The findings show that the average academic performance from 2009 to 2016 was higher among quota students (59.4) compared to non-quota ones (56.4). In addition, in 11 majors, quotas students outperformed the others, and in only four majors the average of non-quota students was larger (Chart 8).

Chart 8 – Academic Performance, evasion and graduation rates at the Universidade Estadual do Oeste do Paraná.

Major	Performance rate between 2009-2016 (in 100,0)		Graduation rate (%) 2009-2011		Evasion rate (%) 2009-2011	
	Public school quotas	Non-quotas	Public school quotas	Non-quotas	Public school quotas	Non-quotas
Mathematics	36	26	31.3	14.1	64.6	88.3
Agricultural Engineering	45	40	44.9	23	44.9	64.9
Economy	50	41	26.7	20	48.3	63.3
Biology	52	48	47.4	34.7	45.3	54.2
Degree in Language	56	53	53.6	46.4	41.1	47.6
Nursing	56	59	55.1	58.9	34.7	37
Accounting	71	59	70.8	44.4	25	50
Pharmacy	69	63	66	75.3	14.9	17.8
Pedagogy	68	65	73.5	58.2	25.5	33.3
Physiotherapy	70	67	70.8	70.8	20.8	25
Odontology	75	73	89.4	93.2	4.3	5.4
Computer Science	38	39	36.7	24.3	55.1	36.5
Administration	62	63	63.9	71.7	29.5	23.9
Civil Engineering	70	72	85.4	75	8.3	16.7
Medicine	73	79	76.1	89.8	8.7	1.3
Average totals	59.4	56.4	59	51.5	32.3	38.3

Source: adapted from Corbari (2018).

The superiority in academic performance was also accompanied by quota students' higher graduation rate (59%) compared to traditional students (51.5%), reproducing the same trend registered in the studies by Bezerra and Gurgel (2011) and Mendes Junior (2014) about UERJ. Evasion rates did not differ from the literature either, which was lower for quota students at 32.2% compared to non-quota ones at 38.3% (Chart 8).

Regarding affirmative action at UEL, the research by Gabriel (2013) and Silva and Pacheco (2013) stand out. Gabriel's analysis (2013) was based on a unique case, the dentistry major, investigating academic performance, graduation, and evasion rates. Entrants from 2005 to 2010 were analyzed, divided into traditional admittance, public school quotas, and racial quotas students.

Concerning academic performance, the results showed that in the three types of admission, students presented a higher-than-average performance in the subjects (minimum of 6.0 points). When comparing the groups, it was observed that non-quota students obtained a higher average (7.3) than public school (7.1) and black ones (7). The scores also reflected on graduation rates: while 91% of traditional students graduated within the minimum major time (5 years), these percentages fell to 84% among students from public schools and 57% among black students (Chart 9).

Chart 9 – Academic Performance, evasion, and graduation rates in odontology at the Universidade Estadual de Londrina.

Major	Performance coefficient between 2005-2010			Evasion (%) between 2005-2012			Graduation rate (%) between 2005-2012		
	Public school quotas	Black quotas	Non-quotas	Public school quotas	Black quotas	Non-quotas	Public school quotas	Black quotas	Non-quotas
Odontology	7.3	7	7.4	2	0	14	84	57	91

Source: adapted from Gabriel (2013).

However, despite low evasion rates in dentistry, non-quota students evaded the most (14%) compared to public school quota students (2%). Among black students, there was no record of evasion in the period analyzed. The data seem to reinforce the hypotheses of previous studies: in certain majors, even when quota students academically perform less, their evasion rates are better, which allows us to infer that affirmative action recipients value the opportunity greatly (Chart 9).

In a broader perspective, Silva and Pacheco (2013) analyzed the same institution and its academic performance and evasion in nine majors, defined by high, medium, and low competition. To understand the academic performance, they selected 2005, 2008, and 2011 class entrants and established the average performance coefficient at the end of the first and fourth years of each class, among quota and non-quota students.

The data show that the quota students' average in the nine majors was satisfactory, in other words, the required grade for approval in the semester, varying between 6.6 (lowest average) in the classes of 2008 and 7.3 in the classes of 2005 after the fourth year. However, when comparing the academic performance of non-quota students, it was observed that in the three analyzed classes the averages of nine majors were lower, with significant differences in the classes of 2008 (quota students 6.7 and non-quota 7.3) and 2011 (quota 6.8 and non-quota 7.4) (Chart 10).

Chart 10 – Academic Performance in thirteen majors at the Universidade Estadual de Londrina.

Major	Performance rate in 2005.1		Performance rate in 2005.4		Performance rate in 2008.1		Performance rate in 2008.4		Performance rate in 2011.1		Accumulated evasion between 2005-2011	
	Quotas	Non-quotas	Quotas	Non-quotas	Quotas	Non-quotas	Quotas	Non-quotas	Quotas	Non-quotas	Quotas	Non-quotas
Medicine	8.1	8.3	8.1	8.2	8	8.3	8.2	8.4	8	8.4	-	-
Civil Engineering	5.4	6.3	5.4	6.7	6.2	6.6	6.1	6.5	7.1	7.2	-	-
Law	8.1	8.3	7.4	8	7.1	7.6	7.0	7.6	8.5	8.5	-	-
Administration	7.6	8.1	7.3	7.8	7.2	7.5	6.9	7.3	6.9	7.3	-	-
Computer Science	5.5	5.5	5.9	6.5	4.2	5.4	4	5.7	4.8	6.5	-	-
Physiotherapy	7.3	7.4	7.9	8	7.2	7.6	7.6	7.7	7.3	7	-	-
Archiving	8.3	8.4	8.1	8.1	7	7.8	6.9	7.6	6.2	7.5	-	-
Sport Sciences	7.5	7.8	7.4	7.6	6.4	7	6.6	7	6.5	6.5	-	-
Degree in Languages	8.2	8	8.3	8.2	7.3	8.1	6.9	7.9	5.9	8.3		
Total average	7.3	7.5	7.3	7.6	6.7	7.3	6.6	7.3	6.8	7.4	6.4	9.5

Source: Silva and Pacheco (2013, p. 92).

Concerning evasion rates, the research analyzed the rate between 2005 and 2011, compared by admittance type. The same tendency was observed in the literature, in which, in all years, affirmative action students showed lower rates (6.4%) than traditional admittance ones (9.5%). This reinforces Mendes Junior's (2014) idea: even when quota students have lower performance, they greatly value the major taken, keeping evasion rates low (Chart 10).

Finally, Souza (2012) analyzed the academic performance and evasion rates of entrants in 2007 and 2009 in 39 majors at UEPG. In methodological terms, the institution's internal reports about affirmative action were used, dividing students between public school quotas, racial quotas, and non-quotas.

The findings indicate that the accumulated average of public school quota students was superior (6.3) to non-quota students (6.1). Yet, racial quota students showed the lowest averages (5.7), although the differences are between normal grade distribution since 70% of the students received averages between 5.7 and 6.3 (Chart 11).

Chart 11 – Academic performance and evasion rates at the Universidade Estadual de Ponta Grossa.

39 majors	Performance rate (total 10,00) between 2007-2009			Evasion rate (%) between 2007-2009		
	Public school quotas	Black quotas	Non-quotas	Public school quotas	Black quotas	Non-quotas
Entrants in 2007	6.4	5.4	6.1	13.5	15.8	14.5
Entrants in 2008	6.2	5.9	5.9	6.1	4.3	4.8
Entrants in 2009	6.2	5.7	6.3	3.3	5.6	6.1
General average	6.3	5.7	6.1	7.6	8.5	8.4

Source: adapted from Souza (2012).

Concerning evasion rates, despite being low, it was observed that variations were close among the three categories, with public school students at the lowest (7.6%) in comparison to students admitted through traditional methods (8.4%) and racial quota students (8.5%) (Chart 11).

Based on the data, it is possible to infer that affirmative action policies in UEPG have provided satisfactory academic performance, signaling that when opportunities are equal, the equality of results may increase, reducing educational inequalities (Souza, 2012).

RESEARCH IN THE STATE UNIVERSITIES OF THE MIDWEST

The Midwest region has three State Universities, distributed among three states. In this context, we found three studies, one on UNEMAT and two on UEMS. Regarding UNEMAT, we found Costa's (2015) study, which analyzed the institution's graduation and evasion rates. Based on data generated at the institution's academic department, entrants' performance was evaluated from 2005/2 to 2011/02 in 12 majors at the Cáceres campus.

At Campus Cáceres, it was observed that non-quota students presented higher graduation percentages compared to quota ones. The exceptions were the pedagogy (Sinop) and nursing (Cáceres) majors, in which the quota students obtained higher graduation rates than students admitted through traditional methods (Chart 12).

**Chart 12 – Graduation and evasion rates at
Campus Cáceres/Universidade do Estado de Mato Grosso.**

Campus Cáceres	Graduation rate (%)		Evasion rate (%)	
	Quota students	Non-quota students	Quota students	Non-quota students
Agronomy	11.8	48	13.3	13.7
Biology	12.5	49.5	23.5	34.4
Accounting	38.7	47.3	17.1	27.5
Computer Science	15.8	34.5	34.9	34.9
Law	46.6	58.1	9	18.7
Physical Education	47.5	56.9	10	10.6
Nursing	60.4	55.6	5.9	8.1
Geography	13.1	47.2	10.7	30.3
History	21	31.7	23.1	42.7
Degree in Languages	26.6	53.2	28.4	28.1
Mathematics	16.2	29.2	47.7	40.8
Pedagogy	62	82.1	9.8	21.1
Total Average	31.7	50.3	18.5	26.1

Source: adapted from Costa (2015).

One hypothesis for this reality is due to the regional particularities of the city. Marked by a strong agrarian tradition and a dynamic labor market, soybean harvesting periods demand time from those low-income students who need to work to support their families. In addition to this factor, the institution already had a low supply of assistance, extension, and research grants. With the arrival of affirmative action students, a group that needed special attention, UNEMAT's internal policies did not meet their specific demands, which may have interfered in the lower performance of quota students in relation to non-quota ones (Costa, 2015).

However, as far as evasion rates are concerned, this trend was the opposite. The quota students presented lower evasion rates in practically all the analyzed courses, which reinforces the conclusions of the studies previously analyzed, that is, even in cases with lower academic performance, affirmative action students tend to value their slots more.

As for the reality of the UEMS, the first study is that of Cordeiro (2008), who researched the academic performance, evasion, and graduation rates of students from 37 majors enrolled between 2004 and 2007.

In methodological terms, a longitudinal analysis was used, divided into three areas of knowledge (Agricultural Sciences/Health; Human Sciences; and Exact/Technological Sciences). Then, the performance of students who did the entry exam in 2004 and concluded the major at the end of 2007 was compared, separated into racial quota students and non-quota students.

The results showed that the academic performance of black quota students (6.5) presented the same average as non-quota students (6.5) in the sum of the three areas of knowledge, being even superior in Agrarian and Human Sciences. However, concerning indigenous students, their performance was well below average (3.7) in all three areas of knowledge (Chart 13).

Chart 13 – Academic Performance, evasion, and graduation rates between 2004-2007 at Universidade Estadual de Mato Grosso do Sul

Area of Knowledge	Academic average between 2004 and 2007			Graduation rate (%) at the end of 2007			Evasion rate (%)		
	Black quotas	Indigenous quotas	Non-quotas	Black quotas	Indigenous quotas	Non-quotas	Black quotas	Indigenous quotas	Non-quotas
Agricultural / Health Sciences	6.7	3.3	6.6	-	-	-	48.3	85.7	27.3
Human Sciences	8.1	6.6	8	-	-	-	40.7	65.8	18.4
Exact/ Technological Sciences	4.7	1.1	4.9	-	-	-	73.2	100	59.3
Accumulated percentage	6.5	3.7	6.5	20.7	11.9	28.6	54	83.3	35

Source: adapted from Cordeiro (2008).

The lowest average graduation rates were also observed among the indigenous students. While the non-quota and the black quota students had a graduation rate of 28.7 and 20.6%, respectively, those numbers fell to 11.9% among the indigenous beneficiaries. As for the evasion rates, the findings differ significantly from the reality of other state institutions. The numbers showed that black (54%) and indigenous (83.3%) affirmative action students registered the highest dropout rates in all areas, compared to students admitted through traditional methods (35%) (Chart 13).

In a more recent study at the same institution, Benatti (2017) broadened the research by analyzing the evasion rates at all 15 campuses in 2014. Using internal data provided by UEMS, the author discovered findings that diverged from the trends of Cordeiro's study (2008). It was observed that, specifically at the Dourados campus, indigenous quota students had the lowest evasion rates (26%) compared to black quota (33.8%) and non-quota students (32.7%). While the difference between these last two groups was large in Cordeiro's (2008) study between 2004 and 2007, the percentages were reduced to negligible values (1.1%) in 2014 (Chart 14).

Likewise, when comparing the evasion rates of the sum of the 15 campuses of the institution, it was observed that the evasion rate was higher among students admitted through traditional methods (38%), compared to black (37.2%) and indigenous quota students, the latter with the lowest numbers presented (36%) (Chart 14).

Chart 14 – Evasion rate in 15 campuses of Universidade Estadual de Mato Grosso do Sul in 2014.

Campus	Evasion rate (%) in 2014		
	Black quotas	Indigenous quotas	Non-quotas
Amambaí	33.3	0	36.4
Aquidauana	5.8	0	9.3
Campo Grande	46.9	54.5	49.5
Cassilândia	37.5	-	28.5
Coxim	14.2	-	53.3
Dourados	33.8	26	32.7
Glória de Dourados	100	80	51.1
Ivinhema	50	-	41.9
Jardim	42.8	50	24.2
Maracaju	36.3	0	26.1
Mundo Novo	23	100	57.6
Naviraí	36.3	50	38.8
Nova Andradina	54.5	-	45.4
Paranaíba	16.6	0	34.2
Ponta Porã	27.2	-	41.6
Accumulated percentage	37.2	36	38.0

Source: Adapted from Benatti (2017).

Benatti's (2017) research seems to illustrate a change in the evasion rate at Campus Dourado over nearly a decade. Although we have not found explanations in the author's study that justify these evolutions, the current results reinforce the trend of the other state universities previously registered, in which affirmative action students have done justice to the opportunities they have obtained, in terms of taking advantage of the slots in higher education.

RESEARCH ON THE STATE UNIVERSITIES OF THE NORTHEAST

The Northeast region has the largest number of State Universities; fifteen institutions spread over eight states. Of these, all have adhered to affirmative action policies, some late, such as UVA and URCA in 2018, and others with a reduced percentage of reserved slots, like UEMASUL (15%), UPE (20%), and UESPI (30%).

On the other hand, only two studies were registered that addressed to the pioneering experiences of UNEB. The first investigation, by Santos (2007), researched the academic performance of quota and non-quota students from the 2003 entry exams. In methodological terms, primary data were used from the class journals of 14 departments located in several Campi of the institution.

When calculating the averages of the performance rates, it was observed that there were no differences in the semester averages between quota and non-quota students. Whereas the sum of the 14 Campi revealed an average performance of 7.7, the non-quota students registered 7.8 (Chart 15).

Chart 15 – Academic performance of the entrants of 2003 at Universidade do Estado da Bahia.

Areas of Knowledge	Academic performance rate in 2003	
	Quotas	Non-quotas
Exact Sciences – Campus I	7.3	7.4
Human Sciences – Campus I	7.7	7.8
Life Sciences – Campus I	7.4	7.8
Education – Campus I	8.6	8.5
Exact Sciences – Campus II	8.2	8.4
Education – Campus II	8.1	8
Technology and Social Sciences – Campus II	6.7	7.3
Human Sciences – Campus III	7.5	7.8
Human Sciences – Campus IV	7.6	7.8
Human Sciences – Campus V	8.2	8.3
Human Sciences – Campus VI	7.8	8
Education – Campus VII	7.6	7.6
Human Sciences – Campus VIII	7	7.1
Education – Campus X	8.4	8.6
Total average	7.7	7.8

Source: adapted from Santos (2007, p. 117).

In some departments, affirmative action students showed higher scores than students admitted through traditional methods, as in the case of Education major Campus I (quota students 8.6 and non-quota 8.5) and Campus II (quotas 8.1 and non-quotas 8.0) (Chart 16). Thus, Santos (2007) concludes that the data refute, in UNEB's context, the idea that affirmative action students would not be able to keep up with their majors and would be less successful than other students.

Following a different methodological path, the research by Mattos, Macedo and Mattos (2013) approached the findings in the same institution. In methodological terms, the author used a longitudinal analysis, measuring the academic performance of nine majors distributed in three Campi of the institution from 2003 to 2009.

It was found that the academic performance of students who opted for the quota system varied in relation to non-quota students. However, this variation occurred without a determined pattern, and there was no regularity capable of awakening hierarchical evaluations (Chart 16).

The History, Pedagogy in Management, and Pedagogy in Early Childhood Education majors showed quota students with higher results than non-quota students (Chart 16). Thus, the survey results are against the detractors of the racial quota policy in UNEB, when they stated that affirmative action would reduce the level of academic performance of the institution (Mattos, Macedo and Mattos, 2013).

Chart 16 – General performance of the students at the Universidade do Estado da Bahia – 2005 to 2009.

Major	Academic performance rate 2005-2009	
	Quotas	Non-quotas
Administration in Marketing – Campus V	7.8	7.9
Administration in Microbusiness – Campus V	7.8	7.9
History – Campus V	7.8	7.6
Information Systems – Campus I	6.5	7
Pedagogy in Management – Campus I	8.2	8.1
Pedagogy in Child Education – Campus I	8.3	8.2
Law – Campus III	7.7	7.9
Pedagogy in Teaching – Campus III	8.3	8.1
Pedagogy in Communication – Campus III	8	8.1
Total	7.82	7.86

Source: adapted from Mattos, Macedo and Mattos (2013).

With these considerations in mind, despite the relevance of the studies presented, their representability is still low — only two studies among 15 State Universities in the Northeast Region. More emblematic is the North, which has no research on affirmative evaluations in these universities, despite having five State Universities spread over five states.

If we consider the particularities of the ethnic profile of the region, as well as the fact that all five institutions have already adhered to affirmative action (even late, as in the case of UERR in 2018), the absence of studies restricts the proper comparison with other institutions and makes it difficult to systematize public policies, necessary for their continuity.

DISCUSSION AND DATA ANALYSIS

We identified in the literature the presence of 15 studies that discussed the evaluations of affirmative policies in State Universities (Chart 17). The results indicate that the majority did not show significant distinctions between the average academic performance among students. The differences occurred between areas of knowledge, oscillating according to the reality of each course and institution

Chart 17 – Synthesis of the evaluations made at State Universities in Brazil.

Author	Type of work	University	Academic performance	Evasion rate	Graduation rate
Bezerra and Gurgel (2011)	Article	UERJ	No significant differences	Lower for quotas	Not analyzed
Cicalò (2008)	Article	UERJ	Higher for quotas	Lower for quotas	Not analyzed
Mendes Junior (2014)	Article	UERJ	Higher for non-quotas	Lower for quotas	Higher for quotas
Machado (2013)	Book	UERJ	Not analyzed	Lower for quotas	Higher for quotas
Brandão and Matta (2007)	Book	UENF	No significant differences	No significant differences	Not analyzed
Barros (2010)	Dissertation	UNIMONTES	No significant differences	Not analyzed	Not analyzed
Corbari (2018)	Dissertation	UNIOESTE	Higher for quotas	Lower for quotas	Higher for quotas
Silva and Pacheco (2013)	Book	UEL	Higher for non-quotas	Lower for quotas	Not analyzed
Gabriel (2013)	Dissertation	UEL	No significant differences	Lower for quotas	Higher for non-quotas
Souza (2012)	Dissertation	UEPG	No significant differences	No significant differences	Not analyzed
Costa (2015)	Thesis	UNEMAT	Not analyzed	Lower for quotas	Higher for non-quotas
Cordeiro (2008)	Thesis	UEMS	No significant differences	Lower for non-quotas	Higher for non-quotas
Benatti (2017)	Dissertation	UEMS	Not analyzed	Lower for quotas	Not analyzed
Santos (2007)	Book	UNEB	No significant differences in the groups	Not analyzed	Not analyzed
Mattos, Macedo and Mattos (2013)	Article	UNEB	No significant differences in the groups	Not analyzed	Not analyzed

(Bezerra and Gurgel, 2011; Brandão and Matta, 2007; Barros, 2010; Gabriel, 2013; Souza, 2012; Cordeiro, 2008; Santos, 2007; Mattos, Macedo and Mattos, 2013).

Moreover, even in the group of authors (four studies) that highlighted differences between students' performances, these occurred either in favor of students admitted through traditional methods (Mendes Junior, 2014; Silva and Pacheco, 2013) or between certain quota types (Cicalò, 2008; Corbari, 2018).

When comparing the differences, in some cases it is possible to infer that they relate to the different methodological pathways chosen. The examples of UERJ and the four studies about it (Bezerra and Gurgel, 2011; Cicalò, 2008; Mendes Junior, 2014; Machado, 2013), the two studies about UEL (Gabriel, 2013; Silva and Pacheco, 2013), and the two studies about UEMS (Cordeiro, 2008; Benatti, 2017) illustrate divergences in the findings stemming from different methodologies adopted.

In spite of the multiple interpretations of the evaluation process, the data show that affirmative action students have contradicted the expectations of lower academic performance, being able to keep up with their colleagues and, in some cases, obtaining even higher grades than theirs during graduation (Cicalò, 2008; Corbari, 2018).

As far as evasion rates are concerned, a large part of the studies identified that students admitted through traditional methods dropped out more (Bezerra and Gurgel, 2011; Cicalò, 2008; Mendes Junior, 2014; Machado, 2013; Corbari, 2018; Silva and Pacheco, 2013; Gabriel, 2013; Costa, 2015; Benatti, 2017). Although that is not a consensus among all majors in the 44 State Universities, the data weakened the arguments insisting the affirmative action group is more prone to evasion.

Regarding graduation rates, six studies addressed the theme, illustrating that the results were balanced among the groups analyzed. Thus, while three studies pointed to better performance among affirmative action students (Mendes Junior, 2014; Machado, 2013; Corbari, 2018), other research showed better results from students admitted through traditional methods (Gabriel, 2013; Costa, 2015; Cordeiro, 2008).

Thus, it is possible to infer that this generation of affirmative action students overthrew the unfounded beliefs that the beneficiaries would be unable to remain in the universities, dropping out *en masse*, and would lower the quality standard of public education, with worse performance and graduation rates.

Since the first results of the mass adoption of affirmative action at higher education institutions are recent, it is necessary to accumulate cases in order to analyze the main impacts of this policy. However, the results summarized here indicate that the performances of quota and non-quota students show little significant difference, which consequently weakens the arguments against quotas based on a hypothetical loss of quality. Moreover, quota policies can be considered as a mechanism of social mobility, given the indissociability between income and study time. The lower evasion rates among quota students indicate that social mobility can be fulfilled, in addition to reducing the negative effects of evasion on the allocation of resources in higher education.

FINAL CONSIDERATIONS

In order to systematize the research that evaluated the performance of affirmative policies in state universities, this article conducted an integrative review on the national publications in journals, dissertations, and theses available on online platforms. In the early 2000s, the narratives of scholars like Maggie and Fry (2004) and Lewgoy (2005) maintained that those favored by affirmative action would have lower academic performance and more financial difficulties to support themselves, inducing them to abandon higher education and/or delaying the completion of the major. However, the findings of this research were contrary to this literature.

Based on the 15 studies analyzed, covering 12 state institutions, the data allow us to state that the implementation of affirmative action did not generate a loss of performance in the universities analyzed, given that quota students had similar grades to other students, even surpassing them with better graduation rates and lower evasion rates.

In counterpoint to the epigraph that opens the article, the findings of this research question the supposed lower performance of quota students, which is not based on empirical data. In the same way, we question whether it is contradictory that another university professor, in the year 2019, published an article in a popular newspaper, affirming that quotas are an inefficient policy run by emotion rather than reason. By not using empirical data, available in almost two decades of affirmative policies in Brazil, wouldn't he be the one who grounded himself on irrational arguments, driven by emotional appeals that condemn a policy without a solid argumentative basis? Is the myth of quality loss not a way to camouflage social prejudice in an unequal country with a strong slave heritage?

Therefore, the data presented in this research illustrate that the affirmative action policy in state universities, at least in terms of academic performance, has contradicted the old and still reticent arguments that its implementation would damage the institution itself and decrease educational quality. It is also important to point out that the discrepancies in some studies, indicating lower academic performance of quota students, especially in exact science majors, reinforce the need to broaden the debate on mitigating eventual deficiencies in public education, such as the expansion of tutoring programs or the adoption of a leveling semester.

Despite the relevance of the studies, it is important to consider them limited since, of the 44 State Universities, only 31% were investigated. Moreover, it is worth highlighting the absence of studies in the North and in the Northeast, which are the regions with the greatest amount of State Universities in Brazil but had only two studies. Thus, more research in the area is fundamental, not only to systematically monitor the policy but also to facilitate elements for comparative studies of the many national realities.

In conclusion, this study provided relevant information about public policy in education — affirmative action. It also offered data that may serve as a following indicator at a national level and it qualified the policy against deniers, fake news, and unscientific news.

REFERENCES

- ARRIGONI, F. J. **Gestão pública: busca da igualdade social a partir da ação afirmativa cota no ensino superior brasileiro.** Thesis (Doutorado em Administração) – Fundação Getúlio Vargas, Rio de Janeiro, 2018.
- BARROS, F. **Uma análise sobre cotas no curso médico da Unimontes: desempenho acadêmico dos estudantes e percepções docentes.** Dissertation (Mestrado em Ciências) – Universidade Federal de São Paulo, São Paulo, 2010.
- BAYMA, F. Reflexões sobre a constitucionalidade das cotas raciais em universidades públicas do Brasil. **Ensaio: Avaliação e Políticas Públicas em Educação**, Rio de Janeiro, v. 20, n. 75, p. 325-346, 2012. <https://doi.org/10.1590/S0104-40362012000200006>
- BENATTI, V. **Dificuldade da permanência na UEMS: A realidade do estudante pobre e negro na unidade universitária de Dourados.** Dissertation (Mestrado em Sociologia) – Universidade Estadual de Mato Grosso do Sul, Dourados, 2017.
- BEZERRA, T. O.; GURGEL, C. A política pública de cotas em universidades, desempenho acadêmico e inclusão social. **Sustainable Business International Journal**, n. 9, 2011. <https://doi.org/10.22409/sbijournal2011.i09.a10187>
- BRANDÃO, A.; MATTA, L. Avaliação da política de reserva de vagas na Universidade Estadual do Norte Fluminense: estudo dos alunos que ingressaram em 2003. In: BRANDÃO, A. (org.). **Cotas raciais no Brasil: a primeira avaliação.** Rio de Janeiro: DP&A, 2007. p. 48-80.
- CALDAS, M. P.; TINOCO, T. Pesquisa em gestão de recursos humanos nos anos 1990: um estudo bibliométrico. **Revista de Administração de Empresas**, São Paulo, v. 44, n. 3, p. 100-114, 2004. <https://doi.org/10.1590/S0034-75902004000300008>
- CICALÒ, A. What do we know about quotas? Data and considerations about the implementation of the quota system in the State University of Rio de Janeiro. **Universitas Humanística**, Bogotá, n. 65, p. 261-278, 2008.
- CORBARI, E. **Avaliação do impacto da política de cotas na Unioeste: quem de fato foi incluído?** Dissertation (Mestrado em Ciências Sociais) – Universidade Estadual do Oeste do Paraná, Paraná, 2018.
- CORDEIRO, M. J. **Negros e Indígenas cotistas da Universidade Estadual do Mato Grosso do Sul: desempenho acadêmico do ingresso à conclusão do curso.** Thesis (Doutorado em Educação) – Pontifícia Universidade Católica de São Paulo, São Paulo, 2008.
- COSTA, J. **Cor e ensino superior: trajetórias e experiências de estudantes cotistas da Universidade Estadual do Estado de Mato Grosso.** Thesis (Doutorado em Sociologia) – Universidade Federal de São Carlos, São Carlos, 2015.
- CUNHA, E. M. P. **Sistema universal e sistema de cotas para negros na Universidade de Brasília: um estudo de desempenho.** 98f. Dissertation (Mestrado em Educação) – Universidade de Brasília, Brasília, 2006.

- FERES JUNIOR, J.; DAFLON, V. T. Ação afirmativa na Índia e no Brasil: um estudo sobre a retórica acadêmica. **Sociologias**, v. 17, n. 40, p. 92-123, 2015. <https://doi.org/10.1590/15174522-017004003>
- FERRAZ, C. Cotas nas universidades: uma política irracional e insensata. **Gazeta do Povo**, 2019.
- GABRIEL, M. **Perfil dos egressos do curso de odontologia da Universidade Estadual de Londrina**. Dissertation (Mestrado em Odontologia) – Universidade Estadual de Londrina, Londrina, 2013.
- GARCIA, F. A.; JESUS, G. R. Uma avaliação do sistema de cotas raciais da universidade de Brasília. **Estudos em Avaliação Educacional**, São Paulo, v. 26, n. 61, p. 146-165, 2015. <https://doi.org/10.18222/ae266102773>
- LEAL DA SILVA, G. H. **O desempenho e as cotas: o caso da UFSC**. Dissertação (Mestrado em Ciências Políticas) – Universidade Federal de Santa Catarina, 2015.
- LEMO, I. Narrativas de cotistas raciais sobre suas experiências na universidade. **Revista Brasileira de Educação**, v. 22, n. 71, e227161, 2017. <https://doi.org/10.1590/s1413-24782017227161>
- LEWGOY, B. Cotas Raciais na UNB: Lições de um equívoco. **Horizontes Antropológicos**, v. 11, n. 23, p. 218-221, 2005. <https://doi.org/10.1590/S0104-71832005000100013>
- MACHADO, E. **Ação afirmativa, reserva de vagas e cotas na Universidade do Estado do Rio de Janeiro (2002-2012)**. Rio de Janeiro: Flacso, 2013.
- MAGGIE, Y.; FRY, P. A reserva de vagas para negros nas universidades brasileiras. **Estudos Avançados**, São Paulo, v. 18, n. 50, p. 67-80, 2004. <https://doi.org/10.1590/S0103-40142004000100008>
- MATTOS, W.; MACEDO, K. A. S.; MATTOS, I. G. 10 anos de ações afirmativas na Uneb: desempenho comparativo entre cotistas e não cotistas de 2003 a 2009. **Revista da ABPN**, Florianópolis, v. 5, n. 11, p. 83-99, 2013.
- MENDES JUNIOR, A. Uma análise da progressão dos alunos cotistas sobre a primeira ação afirmativa brasileira no ensino superior: o caso da Universidade do Estado do Rio de Janeiro. **Ensaio: Avaliação e Políticas Públicas em Educação**, Rio de Janeiro, v. 22, n. 82, p. 31-56, 2014. <https://doi.org/10.1590/S0104-40362014000100003>
- MOEHLECKE, S. Ação afirmativa: história e debates no Brasil. **Cadernos de Pesquisa**, n. 117, p. 197-217, 2002. <https://doi.org/10.1590/S0100-15742002000300011>
- MOREIRA SILVA, B. C. **Desconstruindo mitos: meritocracia e a lei de cotas**. Dissertation (Mestrado em Administração) – Universidade Federal de Viçosa, Viçosa, 2017.
- SACRISTAN, G. **Comprender y transformar la enseñanza**. Madri: Morata, 1995.
- SANTOS, M. C. O sistema de cotas da Universidade do Estado da Bahia: relato de uma experiência. In: PACHECO, J.; SILVA, M. (org.). **O negro na universidade: o direito a inclusão**. Brasília: Fundação Cultural Palmares, 2007. p. 99-124.

SENKEVICS, A. Contra o silêncio racial nos dados universitários. **Educação e Pesquisa**, v. 44, e182839, 2018. <https://doi.org/10.1590/s1678-4634201844182839>

SILVA, M. N.; PACHECO, J. Q. As cotas na Universidade Estadual de Londrina: balanço e perspectivas. In: SANTOS, J. (org.). **O impacto das cotas nas universidades brasileiras (2004-2012)**. Salvador: CEAO, 2013. p. 67-104.

SOUZA, A. **Avaliação da política de cotas na UEPG**: desvelando o direito à igualdade e à diferença. Dissertation (Mestrado em Educação) – Universidade Estadual de Ponta Grossa, Ponta Grossa, 2012.

TAKAHASHI, R. As cotas baixaram a qualidade das universidades estaduais? **O Globo**, 2018.

VALENTE, R. R.; BERRY, B. J. L. Performance of Students Admitted through Affirmative Action in Brazil. **Latin American Research Review**, v. 52, n. 1, p. 18-34, 2017. <http://doi.org/10.25222/larr.50>

VELLOSO, J. Cotistas e não-cotistas: Rendimentos de alunos da Universidade de Brasília. **Cadernos de Pesquisa**, v. 39, n. 137, p. 621-644, 2009. <https://doi.org/10.1590/S0100-15742009000200014>

WAINER, J.; MELGUIZO, T. Políticas de inclusão no ensino superior: avaliação do desempenho dos alunos baseado no Enade de 2012 a 2014. **Educação e Pesquisa**, v. 44, e162807, 2018. <https://doi.org/10.1590/s1517-9702201612162807>

ABOUT THE AUTHORS

DANIEL CALBINO PINHEIRO has a doctorate in administration from the Universidade Federal de Minas Gerais (UFMG). He is a professor at the Universidade Federal de São João Del-Rei (UFSJ).
E-mail: dcalbino@ufsj.edu.br

RAFAEL DIOGO PEREIRA has a doctorate in administration from the Universidade Federal de Minas Gerais (UFMG). He is a professor at the same institution.
E-mail: rdp.ufmg@gmail.com

WESCLEY SILVA XAVIER has a doctorate in administration from the Universidade Federal de Minas Gerais (UFMG). He is a professor at the Universidade Federal de Viçosa (UFV).
E-mail: wescleysxavier@yahoo.com.br

Conflicts of interests: The authors declare they don't have any commercial or associative interest that represents conflict of interests in relation to the manuscript.

Funding: The study didn't receive funding.

Authors' contributions: Formal Analysis, Conceptualization, Data curation, Writing – Original Draft, Writing – Review & Editing, Investigation, Methodology: Pinheiro, D.C.; Pereira, R.D.; Xavier, W.S.

Received on April 26, 2020
Approved on August 18, 2020

