Impacts of the Quota Law[1] on a Federal Higher Education Institution: research on student dropout[2]

Impactos da Lei de Cotas em uma instituição Federal de Ensino Superior (IFES): estudos sobre a evasão discente

Impactos de la Ley de Cuotas en una Institución de Enseñanza Superior (IES): estudio sobre la deserción discente

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Abstract: Research results are presented using historical series of institutional data about student dropout in undergraduate courses, to compare the period before (2008 to 2012) with the period after (2013 to 2017) the implementation of the Quota Law, in order to obtain evidence of the impacts of this affirmative action within the Federal University of Ceará (UFC). The results revealed (i) a systematic decrease in dropout rates from 2013 on; (ii) inexistence of significant difference between the average evasion rates for the periods before and after the Quota Law; (iii) significant difference between the dropout rates of quota and non-quota students in all areas of knowledge, with those showing the highest percentage. It was concluded that it is urgent to implement and/or improve academic policies aimed at combating the dropout of quota students, and preventive actions for student assistance, including psychological and pedagogical monitoring, so that, in this way, the Law de Cotas achieves the expected social effect and the aforementioned university continues to fulfill its mission of training professionals with the highest qualifications.

Keywords: higher education; student dropout; public policy evaluation; affirmative actions; quota law.

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[1] The Quota Law was revised by the National Congress and had its text approved on 08/09/2023 by the Federal Chamber, becoming a Permanent Public Policy, now being analyzed by the Federal Senate and subsequent promulgation by the President of the Federative Republic of Brazil.

Resumo: Apresentam-se resultados de pesquisa empregando-se série histórica de dados institucionais acerca da evasão discente em cursos de graduação, para comparar-se o período anterior (2008 a 2012) com o posterior (2013 a 2017) à implementação da Lei de Cotas, de modo a obter-se indícios dos impactos desta ação afirmativa no interior da Universidade Federal do Ceará (UFC). Os resultados revelaram (a) decréscimo sistemático das taxas de evasão a partir de 2013; (b) inexistência de diferença significativa entre as médias das taxas de evasão dos períodos anterior e posterior à Lei de Cotas; (c) diferença significativa entre as taxas de evasão de alunos cotistas e não cotistas em todas as áreas de conhecimento, com aqueles apresentando maior percentual. Concluiu-se que se faz urgente a implementação e/ou o aprimoramento de políticas acadêmicas voltadas ao combate da evasão dos alunos cotistas, e ações preventivas de assistência estudantil, dentre as quais o acompanhamento psicológico e pedagógico, para que, desse modo, a Lei de Cotas surta o efeito social esperado e a referida universidade siga cumprindo sua missão de formar profissionais da mais alta qualificação.

Palavras-chave: ensino superior; evasão discente; avaliação de políticas públicas; ações afirmativas; lei de cotas.

Resumen: Son presentados resultados de una investigación que ha empleado series históricas de datos institucionales sobre la deserción de estudiantes en carreras de grado, con el objetivo de comparar el período anterior (2008 a 2012) con el período posterior (2013 a 2017) a la implementación de la Ley de Cuotas, con el fin de obtener evidencia de la impactos de esta acción afirmativa dentro de la Universidad Federal de Ceará (UFC). Los resultados revelaron (i) una disminución sistemática de las tasas de abandono a partir de 2013; (ii) inexistencia de diferencia significativa entre las tasas promedio de evasión para los períodos antes y después de la Ley de Cuotas; (iii) diferencia significativa entre las tasas de deserción de los estudiantes usuarios de las cuotas y no usuarios, en todas las áreas del conocimiento, siendo que los usuarios de las cuotas presentan el mayor porcentaje. Se concluyó que es urgente implementar y/o mejorar políticas académicas encaminadas a combatir la deserción de los estudiantes de las cuotas, y acciones preventivas para la atención al estudiante, incluyendo el apoyo psicológico y pedagógico, para que, de esta forma, la Ley de Cuotas logre el efecto social esperado y la citada universidad sigua cumpliendo su misión de formar profesionales con las más altas cualificaciones.

Palabras clave: educación superior; deserción discente; evaluación de políticas públicas; acciones afirmativas; ley de cuotas.

1 Introduction

Affirmative actions aim to combat discrimination and correct inequalities accumulated over the years. Moreover, for an affirmative action policy to be implemented, it is necessary to diagnose inequalities and, thus, the consequent need to repair damages. In Brazil, affirmative actions are based on the concept of equity expressed in the Federal Constitution, based on the principle that those who are unequal must be treated unequally to the extent of their inequalities (GOMES, 2001).

It should be noted that India was the first country to adopt policies of this nature, as its 1950 Constitution provided for the creation of positive discrimination programs to benefit underprivileged groups (FERES JR.; DAFLON, 2015). However, the term *affirmative action* emerged in the United States (USA) in the 1960s, with the primary objective of providing equal opportunities, above all, to the black population. Subsequently, such measures became a part of the political agenda of other countries, such as Canada, Australia, Argentina and Brazil, which, in 1983, had a bill authored by then Federal Deputy Abdias Nascimento proposing various compensatory actions for Afro-descendants which, notwithstanding, was not approved by the National Congress (MOEHLECKE, 2002; BELLO, 2005). However, the claims of socially stigmatized groups have become increasingly constant in the country, causing pressure on the public authorities, including on issues related to the criteria for selecting and admitting students to Higher Education Institutions (HEIs) in the country (PINHEIRO; PEREIRA; XAVIER, 2021).

It is worth mentioning that the implementation of compensatory policies related to the selection criteria adopted by the HEIs only became a reality with the approval of State Law No. 3524, from December 28, 2000 (RIO DE JANEIRO, 2000), by the Legislative Assembly of Rio de Janeiro state.

As a result of this law, the State University of Rio de Janeiro (UERJ) and the State University of Norte Fluminense (UENF) were the first HEIs to reserve places for graduates from public schools, initiating more significant changes in the selection

process for their students, within the scope of Brazilian higher education (DAFLON; FERES JÚNIOR.; CAMPOS, 2013). Furthermore, these first operationalization strategies of this affirmative action began to change the selection process within the scope of HEIs, through University Councils and State Laws, giving rise to debates that were made public through the most varied means of communication, such as academic journals, dissertations, theses, books and the media in general (PENHA LOPES, 2013). On the subject, Oliven (2007) commented:

> Discussing racial quotas at the university touches on countless sore points in Brazilian society, revealing the deepest social contradictions in our country. This debate, quite complex, involves university and society relations, the formation of the elite; the constitutionality of the implementation of racial quota policies, their possible scope; the ills of our slave-owning past, the ideology of Brazilian "racial democracy", discrimination against blacks and browns, still present today; the question of income distribution, the need for recognition of all social groups as a right of citizenship and, last but not least, what is our nation's project. The arguments sometimes emphasize the university's more internal problems and their administrative implications, and other times they raise questions of a more political and philosophical nature that refer to the model of society we want (p. 43).

Indeed, after the implementation of the quota policy at UERJ, more than 200 writs of mandamus and a public civil action were filed by allegedly harmed candidates, who claimed that affirmative action was an affront to the Federal Constitution, since the *Magna Carta* defines the merit as a way of accessing Higher Education, in addition to proclaiming equality of rights among citizens (CARVALHO, 2007).

Despite the various claims and criticisms that followed after the feat, gradually, other HEIs started building their spaces for the implementation of new affirmative actions. As a result, affirmative action policies in the various HEIs in the country, due to having been the result of local initiatives, were presented in a very heterogeneous way, with reflections, for example, in the mechanisms adopted for the inclusion of newcomers. In this sense, some HEIs have chosen to adopt the quota system as an inclusion mechanism, others have adopted the bonus system, and there are still those that have opted to increase vacancies for candidates considered underprivileged.

Other differences that can be cited concern the procedure for defining candidates able to enjoy the benefits. Certainly, this procedure is one of the great controversies in the implementation of such policies, especially for those who are against it. Indeed, it was observed that there are HEIs that form hetero-identification commissions for racial verification of candidates; others adopt a self-declaration procedure for interested parties; and there are those that adopt evaluation committees, in addition to self-declaration (DAFLON; FERES JÚNIOR; CAMPOS, 2013).

It is also worth considering the existing differences in the choice of beneficiary groups of affirmative actions, as there are HEIs that prioritized graduates from public schools; others established policies aimed at blacks, browns and indigenous people; some have reserved spaces for the disabled; and there were also those that established quotas for the children of police, firefighters, military personnel and inspectors killed or incapacitated due to service, as we found in State Law No. 5,074 of 2007, in the state of Rio de Janeiro (RIO DE JANEIRO, 2007).

Heterogeneity also marked the Federal Institutions of Higher Education (IFES), since many of them used their autonomy to implement affirmative actions. In this context, there was greater adherence to policies by the IFES from 2008 onwards, perhaps as a result of the implementation of the Support Program for Restructuring and Expansion Plans and Federal Universities (REUNI), according to Daflon, Feres Jr. and Campos (2013). This program was intended to expand access to IFES, seeking to prioritize, above all, the expansion of night courses to serve working students.

In addition to IFES, private HEIs also received important incentives from the federal government, such as tax exemptions and funding resulting from adherence to programs and policies aimed at democratizing access to higher education. The University for All Program (PROUNI) is the best example of this type of incentive, as it converts unpaid taxes by private HEIs into places for low-income students. Therefore, when adopting PROUNI, HEIs are obliged to offer a counterpart to tax exemptions by offering scholarships to low-income students from public schools (ANDRIOLA; BARROZO FILHO, 2020).

As new HEIs began to adopt affirmative policies, increasingly polarized discussions marked the course of this process in the country. Several opposing and favorable arguments permeated the debates about these actions, and, meanwhile, research was carried out in order to evaluate them, corroborating or refuting some of these arguments.

In this context of democratization of access to higher education, Law No. 12,711, of August 29, 2012, was sanctioned by the then President of the Republic, Dilma Vana Rousseff. Known as the Law of Quotas, this legislation forced the IFES linked to the Ministry of Education to make available, in each selective contest, at least 50% of their undergraduate vacancies to graduates who attended the entire high school in public schools. The Quota Law became even more representative by establishing specific criteria for filling vacancies for quota students, reserving vacancies for self-declared blacks, browns and indigenous people, as well as people with disabilities, in proportion to the total number of vacancies that must be, in the minimum, equal to the proportion of these population segments in the respective Federative Unit (UF) where the IFES is located, based, for this purpose, on data from the last census carried out by the Brazilian Institute of Geography and Statistics Foundation (IBGE).

Indeed, it is worth mentioning that, although the Quota Law is a necessary condition to make admission to higher education more democratic and representative, this measure in itself is not enough, since such a policy, in the way it was conceived, ends its function by inserting graduates from public schools in the IFES and nothing else. However, it is obvious that the social impact of a policy of this nature occurs when the benefited entrants obtain academic success, that is, when they graduate. We are therefore talking about the academic success of quota students.

This time, considering that evasion is a worrying phenomenon that directly impacts the academic success of students, as well as the performance of HEI courses, it is opportune to evaluate how evasion presents itself after the Quota Law. Moreover, starting from the premise that this important public policy must be submitted to analysis, since it has completed ten years of validity, it is necessary to contribute with scientific, valid and reliable information, through its evaluation, in order to produce data that help in decision-making, in order to make it even more fruitful (BRANDÃO; MATTA, 2007).

Therefore, based on the assumptions highlighted above, a study is presented on the impacts related to the evasion rates of undergraduate courses at the Federal University of Ceará (UFC) after the implementation of the Quota Law. The aforementioned IFES began to adopt quotas for freshmen from 2013, the year in which 12.5% of vacancies were reserved for graduates from public schools, meeting the minimum required by the aforementioned Law. As a result of this action, graduates from public schools Newcomers to the UFC, in 2013, constituted almost 36% of the total number of students enrolled in undergraduate courses, implying a significant increase compared to 2011, when this proportion was no more than 27% (ufc, 2014). As of 2014, UFC reserved 50% of vacancies in all undergraduate courses for graduates from public schools, who were candidates for quotas.

Thus, it is unquestionable that the quota policy contributes significantly to the increase in the number of graduates from public schools in UFC undergraduate courses. However, it is not enough for these graduates to enter the university, it is necessary that they successfully complete their respective courses, so that public policy has the expected social impact and the university system continues to fulfill its relevant social role.

Indeed, before presenting the study on the impacts of the Quota Law, some important information is highlighted that underlies the formulation of the hypothesis tested in this research, namely, changes in the profile of HEI entrants after the implementation of affirmative actions and data about student evasion.

1.1 Changes within HEIs: the new profile of university students

With so many affirmative policies being implemented in HEIs, in order to make them more representative with regard to the country's population scenario, it is to be expected that changes occur within these institutions, especially with regard to the profile of freshmen, as demonstrated the studies of Picanço (2016), Oliveira and Silva (2017).

In this vein, the research conducted by Andriola and Araújo (2023) revealed the existence of significant differences between quota students and non-quota students in terms of admission grades to the UFC, obtained in the National High School Examination (ENEM), which were favorable to the latter. If the Quota Law did not exist to benefit public school graduates (quota students), most of these students would not enroll in the UFC's high social demand courses, such as Medicine, Law, Dentistry, Psychology, Civil Engineering, Computing and Administration, among others, so that the implementation of this Affirmative Action substantially changed the profile of students entering UFC undergraduate courses.

In this wake, one of the most illustrative studies to look into the changes that occurred in Higher Education from the implementation of Affirmative Actions was carried out by Ristoff (2014). His study, carried out based on information arising from the socioeconomic questionnaire of the National Student Performance Examination (ENADE), aimed to analyze how much access democratization policies, such as PROUNI, the National Student Assistance Plan (PNAES), REUNI and the Higher Education Student Financing Fund (FIES) transformed the profile of Brazilian undergraduate students. The author found that Higher Education created important opportunities for social mobility for working, low-income, black, brown and

indigenous students, significantly changing the profile of undergraduate students. In addition, Ristoff (2014) stated that the Quota Law opened important spaces for underrepresented social groups, however, he recognizes that there is a long way to go for HEIs to reflect the reality of Brazilian society, given that the percentage of students graduating from public schools is much higher than those contemplated by the aforementioned affirmative action.

Waltenberg and Carvalho (2012) also carried out a study outlining a profile of graduates of courses evaluated by ENADE, based on the 2008 exam, therefore, it is a study prior to the implementation of the Quota Law. These authors compared the performance of students benefited by affirmative actions with other students, thus giving a different focus to the study carried out by Ristoff (2014). The results showed that in private HEIs, there were substantial differences between these groups of students in courses with high social prestige. In public HEIs, the performance of students benefiting from quotas was lower than that of non-beneficiaries, in all types of courses. Waltenberg and Carvalho (2012) considered that these results reveal the "price paid" by society in favor of diversity and the equalization of opportunities in the IFES.

1.2 Evasion of University Students

Velloso (2009) highlighted that one of the most vehement criticisms presented to quotas refers to the possible increase in student evasion, a fact that would have a negative impact on institutional performance indicators, such as the Graduation Success Rate (TSG) and, thus, on the quality of the Higher Education system itself. Logically, such an argument needs to be investigated scientifically, above all, because student evasion is an educational phenomenon that causes considerable social losses.

Research shows that student evasion usually occurs in the first semesters of the course, and in the first year this phenomenon is more frequent and intense, as highlighted by Prado (1990), Ribeiro (2005), Bardagi and Hutz (2009), Vieira and Miranda (2015). In the period from 2000 to 2005, the average student evasion rate in Brazilian HEIs was around 22%, being 12% in public HEIs and 25% in private HEIs, as asserted by Silva Filho et al. (2007).

According to Cunha et al. (2015), the pattern of student evasion in Brazilian HEIs does not differ from what occurs in international HEIs. Furtado and Alves (2012) reported that in South Africa and the United States of America, respectively, between 40% and 50% of students drop out of courses for which they were approved, while in Ireland and England, rates tend to be smaller.

In this context, Curado, Machado and Nóvoa (2005) highlighted that the high evasion rate can be explained, in part, as a consequence of the significant increase in demand for Higher Education in the last decades of the twentieth century, both in the national and international scenarios. As such, the increased demand for Higher Education, by itself, has already potentiated the problem of conspicuous evasion at this level of education, incremented by the misinformation of young high school graduates regarding the university *ethos*. In addition, there are other causes that may be related to the increase in evasion, such as previous educational experiences, motivation for studying, academic performance, socioeconomic status, failures, withdrawals and low social integration into the academic environment (SILVA; RODRIGUES; BRITO, 2014; LIMA JUNIOR; BISINOTO; MELO *et al.*, 2019). The latter seems to have a great impact, as research shows that groups of students who are virtually identical in educational, social and economic terms present extremely discrepant results depending on the HEI they attend (CURADO; MACHADO; NÓVOA, 2005).

Indeed, it is relevant to present research that compares evasion rates between quota students and non-quota students in different HEIs in the country. For example, Brandão and Mata (2007) carried out a study on the evasion rate of 415 students

from 13 courses of the first generation of quota students, from the 2003 entrance exam at Universidade Estadual do Norte Fluminense (UENF). With regard to evasion rates, they found that black quota students had the lowest evasion rates (13.9%) compared to the broad competition (17.5%). However, quota students from public schools were the ones with the highest dropout rates (24.9%).

The study by Cardoso (2008), carried out at the University of Brasília (UnB), aimed to compare evasion rates between quota and non-quota students, whose results found that quota students dropped out at a lower proportion than non-quota students. In 2004, the evasion rate of non-quota student was 6.5%, while that of quota students was 4.5%. In 2005, the proportion of evaded non-quota students was 10.7%, while among quota students it was 5.8%.

Dias et al. (2010) analyzed student evasion in the Accounting course at the State University of Montes Claros (UNIMONTES). The results revealed that of the 350 students who entered in the analyzed period, only 13% (n = 45) dropped out of the HEI, and among these dropouts, almost half were non-quota students (n = 27 or 60%), while only five were quota students (11%). The authors found, therefore, that there was no increase in student evasion rates as a result of the adoption of the quota system. Furthermore, they warned that "the category of students with the highest evasion rate came from the universal system, with 18.1% of total enrollments in this category" (DIAS; THEÓPHILO; LOPES, 2010, p. 10).

The research by Bezerra and Gurgel (2012) about evasion rates in Administration, Law, Chemical Engineering, Medicine and Pedagogy courses at the State University of Rio de Janeiro (UERJ), found that, in 2005, the average evasion rate in these courses was 12.25% for quota students and 23.27% for non-quota students. Similar results were found in 2006: 9.39% for quota students and 20.36% for non-quota students. In the two analyzed periods, students who entered through the quota system had lower evasion rates than non-quota students.

Machado (2013) conducted research on UERJ students enrolled in the period 2003-2012, using information available in the Quota Survey Report – 2012, from the

aforementioned IES. As a result of the study, the author highlighted that the evasion rates of quota students (23%) were lower than the evasion rates of non-quota students (36%). In the same direction, research by Mendes Júnior (2014) found that at UERJ the evasion rate of non-quota students was three times higher than among quota students. This finding led the author to conclude that quotas promote significant improvements in institutional performance indicators.

The study by Campos et al. (2017) was performed on a sample of 2418 students entering a public HEI in 2013 and focused on Accounting and Business courses. The authors found that the evasion rate was 25% among entrants due to broad competition, while the evasion rate was 23% due to the quota system. The survey found that there are no statistical differences between dropout rates in the areas of Business and Accounting Sciences, suggesting that affirmative actions do not significantly affect evasion rates at HEIs.

The research by Dario and Nunes (2017) was carried out with data from 942 students entering the first half of 2017 at the Federal University of Santa Catarina (UFSC). Unlike most studies found in the literature, the results indicated a higher evasion rate among quota students. Among self-declared blacks, the average evasion rate was 30.77%, while among quota students from public schools, the rate dropped to 20.21%. Thus, while the average evasion rate among quota students was 25.49%, among non-quota students it was 22.79%, while the average evasion rate at UFSC was 22.82%. It should be noted, as relevant, that Dario and Nunes (2017) did not perform statistical tests to compare the averages of quota students and non-quota students.

Corbari's research (2018) at the State University of Western Paraná (UNIOESTE) used information from the period 2009 to 2016, from 15 undergraduate courses at Campus Cascavel, separating students between broad competition and quota students from public schools. With regard to evasion, there was a lower rate among quota students (32.2%) compared to non-quota students (38.3%), in the period from 2009 to 2011.

As a summary of the above, it is observed that student evasion occurs in a different and very varied way in the Higher Education system. In studies that contrast groups of quota students and non-quota students, the results converge to an indicative pattern that evasion among quota students tends to be lower than evasion among non-quota students, thus corroborating the considerations of Curado, Machado and Nóvoa (2005) on the impacts of social integration.

2 Delimitation of the Research Problem

In the wake of the aforementioned studies, the following question were asked: *how is the evasion rate of UFC students presented, before and after the implementation of the Quota Law*? In an attempt to respond to the explicit research problem, the following hypothesis was outlined: H1 - the average evasion rate of students before the implementation of the Quota Law is significantly lower than the average dropout rate of students after the implementation of the Quota Law in UFC. In mathematical notation: $\mu_1 < \mu_2$, where μ_1 is the average evasion rate of students before the implementation of the Quota Law at UFC and μ_2 is the average evasion rate of students after the implementation of the Quota Law at UFC.

The Null Hypothesis (H0) asserts that there is no significant difference between the average evasion rate of students before the Quota Law and the average evasion rate of students after the Quota Law at UFC. In mathematical notation: $\mu_1 = \mu_2$, where μ_1 is the average evasion rate of students before the implementation of the Quota Law and μ_2 is the average evasion rate of students after the implementation of the Quota Law.

3 Methodological procedures

This is a descriptive, quantitative, *ex-post facto* study, also known as the statistical (GIL, 2010) or correlational (KERLINGER; LEE, 2002) method, based on the analysis of secondary data. As the evasion rates of undergraduate courses were compared in two different scenarios (before and after the implementation of the Quota Law), the Interrupted Time Series method was used, in order to identify whether after the Quota Law there was significant change in the evaluated historical series. If a substantive change was identified, a comparison would be made between groups of quota students and non-quota students in the post-quota scenario, resorting to the use of so-called *comparison groups* (COHEN; FRANCO, 2012).

3.1 Secondary data used in the study

Micro-data from the *Higher Education Census – Student Module*, made available by the National Institute of Educational Studies and Research Anísio Teixeira (INEP) and the Dean of Undergraduate Studies (PROGRAD) of the UFC, were used in order to obtain the rates of evasion of all undergraduate courses in the period of interest to the study (2008 to 2017), considering the entry status: *quota student* or *non-quota student*.

This last procedure was formalized using the *Electronic System of the Citizen Information Service* (e-SIC), since it was not possible to have access to the referred data in a "friendly" way, although several attempts were made with that sector. It is appropriate to consider that, as the UFC is a Federal Autarchy, maintained by the public authorities, as well as the other IFES in the country, it would not be imperative, nor acceptable, to face internal resistance to the delivery of the requested information. After all, transparency regarding access and disclosure of data of collective interest of Federal Authorities, as well as other bodies maintained by the federal government, is a requirement supported by the *Law on Access to Information*

(BRASIL, 2011). Finally, after nine months of waiting, between requests and resources intermediated by the responsible bodies and linked to the e-SIC, the requested information was obtained, allowing the execution of the study that is now detailed.

3.2 Organization of databases

The bases with the referred data were organized and unified, so that the appropriate statistical analyzes could be carried out, using the *Statistical Package for the Social Sciences* software (SPSS - version 22.0).

3.3 Universes and samples

Table 1 presents the number of students regularly enrolled in undergraduate courses, as well as those who dropped out among freshmen, in each year of the historical series used in the study.

Table 1 - Universes of students enrolled and freshmen in undergraduate courses at UFC

Universe/Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Students enrolled in on-campus graduation	20.991	23.300	24.634	25.467	26.257	26.792	25.719	26.225	25.827	27.726
Students enrolled in distance graduation	1.655	4.197	4.713	4.975	5.129	3.711	4.004	2.683	1.662	3.408
Universe of students enrolled in graduation	**22.646**	**27.497**	**29.347**	**30.442**	**31.386**	**30.503**	**29.723**	**28.908**	**27.489**	**31.134**
Students entering on-campus graduation	4.126	4.498	5.449	5.643	5.718	6.166	5.339	6.154	6.288	6.288
Students entering distance graduation	2.100	2.130	2.530	2.300	1.720	0	1.488	0	0	2.467
Universe of entering undergraduate students	**6.226**	**6.628**	**7.979**	**7.943**	**7.438**	**6.166**	**6.827**	**6.154**	**6.288**	**8.755**
Universe of evaded undergraduate students (on-site and distance learning) in relation to freshmen	**2.472**	**2.631**	**3.168**	**3.153**	**2.953**	**2.448**	**2.710**	**2.443**	**2.496**	**3.476**

Source: UFC Statistical Yearbooks (2014, 2019 and 2023).

In general, it is observed that, over the time frame, there was an increase in enrolled and freshmen students, with evasion following this pattern.

4 Test results of hipothesis H1

This section presents the results of the statistical analyzes carried out on the evasion rates between 2008 and 2017, with the aim of comparing the previous phase (2008 to 2012) with the subsequent to the implementation of the Quota Law in UFC (2013 to 2017).

4.1 Descriptive analyzes of the periods before and after the quota law

Evasion rates among students entering the period from 2008 to 2017 are shown in the Graph 1.

Graph 1 - Annual values of evasion rates in undergraduate courses at UFC
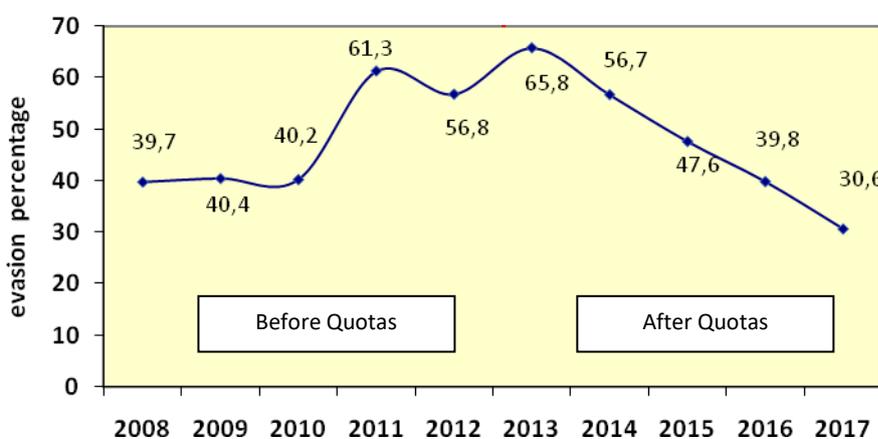
Source: Direct Survey (2022).

According to the information in Graph 1, the evasion rate reached its peak in 2013, with an average value of 65.8% and a constant downward trend in this rate. *A priori*, there was similarity between the average evasion values in the period before (47.7%) and after (48.1%) the implementation of the Quota Law at UFC. To verify the

statistical significance of the difference between the two averages, Student's[3] t test was used, as shown in Table 2.

Table 2 - Comparison of dropout averages in the periods before and after the Quota Law

	Group stats							
	Group	N	Average	Standard deviation	Standard Error	gl	t-value	p-value
Evasion Rates	Pre-quotas	14.377	0,477	0,24061	0,00980	27.948	-0,319	0,165
	Post Quotas	13.573	0,481	0,26885	0,00536			

Source: Direct Survey (2022).

The difference between the average evasion rates for the periods before (47.7%) and after the Quota Law (48.1%) was statistically insignificant [t(gl = 27,948) = -0.319; $p < 0.05$]. These results strengthen the findings by Dias *et al.* (2010) and Campos *et al.* (2017), that is: *affirmative actions resulting from the Quota Law do not significantly affect evasion rates in the UFC*. Therefore, Hypothesis H1 was not supported, and Hypothesis H0 was provisionally accepted. Nevertheless, an analysis of evasion rates was carried out considering quota students and non-quota students, in order to investigate whether the downward trend identified in the analyzed historical series would be related to the Quota Law.

4.2 Analysis of evasion rates for quota students and non-quotation students

Graph 2, presented below, provides additional information that allows for more accurate and detailed analyzes about the evasion of quota and non-quota

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[3] Gosset developed the t-test as an inexpensive way to monitor the quality of stout beer. He published the t-test in the Biometrika Journal in 1908, but he was forced to use his pseudonym by his employer, who believed that the use of statistics was an industrial secret. Student's t-test is employed to test hypotheses based on concepts and to confirm a null hypothesis when the test statistic (t) follows a t-Student distribution. This premise is typically used when the test statistic, in fact, follows a normal distribution but the population variance is unknown. In this case, the sample variance is used, and with this adjustment, the test statistic follows the t-Student distribution.

students, which occurred in the periods before and after the implementation of the Quota Law at UFC.

Graph 2 - Evasion rate among quota and non-quota students
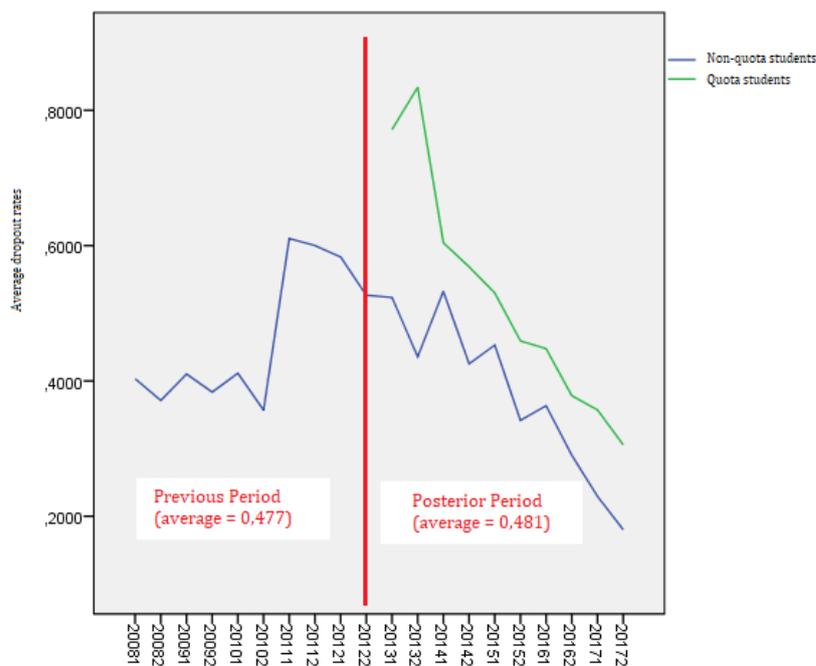
Source: Direct Survey (2022).

A superficial analysis of Graph 2 shows a systematic decrease in evasion rates since the 2013.2 school semester, despite some peaks. One of the reasons that may explain this trend lies in the internal policy for granting academic scholarships to undergraduate students. According to the Statistical Yearbook of the Federal University of Ceará (UFC), in its 2019 edition, the proportion of undergraduate students enjoying some type of scholarship ranged from 11.47% in 2009 (n = 2672 students) to 21.66 % in 2018 (n = 6015 students covered). These numbers implied a substantial increase of 125% in a decade, which may have contributed to the gradual decrease in evasion rates. Therefore, this Internal Policy may be contributing to the reduction of evasion rates of undergraduate students. Indeed, when comparing quota students (green line) with non-quota students (blue line), it was possible to verify that evasion rates among quota students were higher.

The next step consisted of using the Student's t test to verify the existence of a

statistically significant difference between the average evasion values of quota students compared to non-quota students, according to the information in Table 3.

Table 3 - Comparison of average evasion of quota students and non-quota students in the period after the Quota Law

|	Group stats							
	Group	N	Average	Standard deviation	Standard Error	gl	t-value	p-value
Evasion Rates	Quota students	6.968	0,5134	0,27947	0,00653	13.056	6,134	0,000
	Non-quota students	6.088	0,4485	0,23118	0,00752			

Source: Direct Survey (2022).

The result of using Student's t test showed that there was a significant difference between the evasion rates of quota students and non-quota students [t (gl = 13,056) = 6.134; p < 0.001], leading to the interpretation that quota students drop out more than non-quota students at the UFC. Therefore, the data described here are similar to the findings of Brandão and Mata (2007) and Dario and Nunes (2017), differing from the results of Mendes Jr. (2014), Bezerra and Gurgel (2012), Dias *et al.* (2010) and Cardoso (2008). To round off the analyses, it was decided to investigate the behavior of the evasion rates of quota and non-quota students, considering the major areas of knowledge of the respective courses of the apprentices.

4.3 Analysis of quota and non-quota students according to the areas of knowledge

Initially, Graph 3 presents the average evasion rates of quota and non-quota students, considering the different areas of knowledge, in the period after the implementation of the Quota Law at UFC.

Graph 3 - Average Evasion Rates of quota and non-quota students in the different areas of knowledge, in the period after the Quota Law
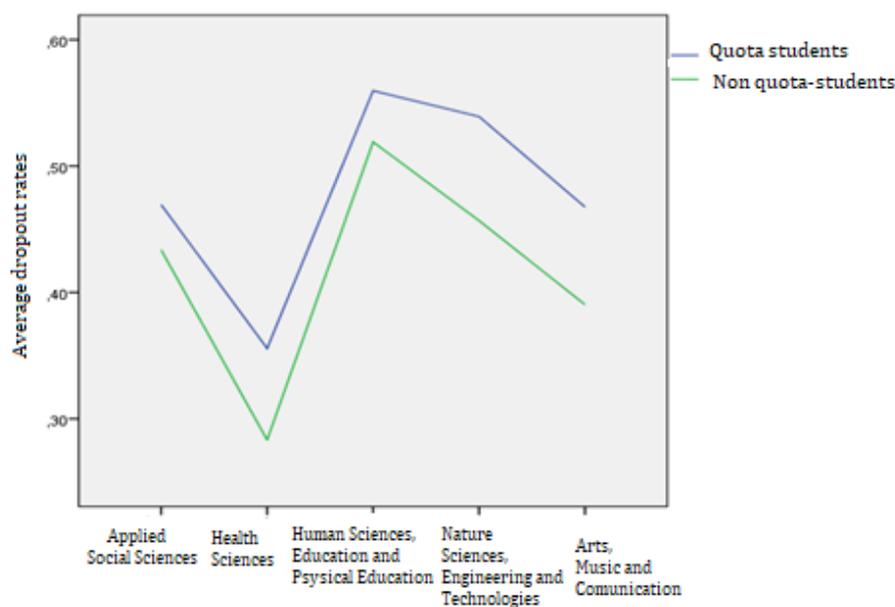
Source: Direct Survey (2022).

According to the information provided by Graph 3, it is clearly observed that the evasion rates of quota students are higher than those of non-quota students, regardless of the area of knowledge of the undergraduate course. Human Sciences, Education and Physical Education suffer from the highest evasion rates, while Health Sciences have the lowest rates. The trends revealed in Graph 3 justify carrying out a larger statistical analysis, with the aim of seeking to identify the existence of significant differences between the average values of evasion rates in the different areas of knowledge. Therefore, the Analysis of Variance Test (ANOVA)[4] was employed, since it was a comparison of five averages (Table 4).

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[4] The analysis of variance (ANOVA) aims to compare the variance resulting from an average (in this case, the evasion rates of quota students and non-quota students) between the different groups (in

Table 4 - Results of the ANOVA test comparing the average dropout rates between quota and non-quota students, considering the areas of knowledge of undergraduate courses

Variation Sources	Sum of squares	gl	Middle Square	F	p-value
Quota Student or Non-Quota Student	40,08731	13.056	0,032225	1,085825	0,0314
Areas of Human Knowledge	28,70747	4	7,176869	241,8289	0,0000
Error	147,6751	4976	0,029677		
Total	216,4699	18.036			

Source: Direct Survey (2022).

The result of the ANOVA Test corroborated the previous analyzes, revealing the existence of statistically significant differences between the average evasion rates of quota students compared to non-quota students [F = 1.09; p < 0.05], regardless of the area of knowledge the undergraduate course belongs to. The same trend was identified in the five Areas of Knowledge: *existence of statistically significant differences between evasion rates* [F = 241.83; p < 0.001], regardless of whether the student is a quota student or a non-quota student.

Thus, both in the aggregate analysis and when considering the different areas of human knowledge, the proportions of dropout quota students are substantially higher than those of non-quota students, corroborating the studies by Brandão and Mata (2007), in addition to Dario and Nunes (2017).

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this case, the different areas of knowledge) with the variability within each one of the groups (which is believed to be due to chance). It is a statistical test created by the English statistician, biologist and geneticist Ronald Aylmer Fischer, considered the creator of the scientific bases of Modern Statistics.

5 Final considerations

It is necessary to return to the principle that affirmative actions originate from Public Policies implemented by the State to reduce or correct inequalities that affect social groups. In this wake, in 2012 the Law of Quotas (Federal Law nº 12,711) was enacted, which allowed the introduction of affirmative actions in the IFES, with the objective of correcting distortions in the proportion of students who graduated from public schools present in the mentioned educational organizations. However, criticisms were made of the Quotas Law, directed, above all, at the possible increase in student evasion, a fact that would have a negative impact on indicators that reveal the performance and quality of the IFES. Thus, studies to shed light and resolve possible doubts regarding the effects of the Quota Law on IFES have been conducted by researchers at a national level.

In this vein, the study carried out at the UFC using a historical series of data related to student evasion in undergraduate courses allowed us to verify:

a) Nonexistence of significant difference between the average evasion rates of the periods before and after the implementation of the Quota Law;

b) Existence of significant differences between the average evasion rates of quota students and non-quota students, regardless of the areas of knowledge of undergraduate courses, with higher values among quota students.

Such findings allow a more accurate look at this reality, with the aim of discovering the causes of the high evasion rates of quota students, within the UFC, since such findings are not in line with the results of other studies in the scientific literature from the country. We are left with the question: *why do UFC quota studets present such different results from their peers at the University of Brasília (UnB), State University of Rio de Janeiro (UERJ), State University of West Paraná (UNIOESTE) and State University from Montes Claros (UNIMONTES)?*

It seems plausible to resort to the considerations of Curado, Machado and Nóvoa (2005) when highlighting that academic integration is an extremely relevant factor for the success of students. Therefore, it is inexorable that a more accurate investigation is carried out, in order to discover how UFC quota students are adapting to the university environment, considering the teaching processes, the course management peculiarities, the relationship with peers or even the quality of student assistance offered to this public.

It is important to point out that Bourdieu and Passeron (1992) emphasized that already in the selection process for admission to universities there is tacit discrimination, which excludes those whose experiences are not in line with what the social elite values. Consequently, students who do not represent the standard of the social elite tend to be marginalized and, as a consequence, many will not succeed academically. In this sense, the feeling of not belonging to the university environment may be causing the academic failure of the quota student coming from a very hostile reality and different from the standards of the social elite, as expressed by Ribeiro, Peixoto and Bastos (2017).

Furthermore, Shih, Pittinsky and Ambady (1999), in addition to Souza (2019), revealed that the subjects' academic performance is significantly influenced when they feel that the group they belong to is associated with a negative stereotype. This aspect can impact on the failure of quota students, however, it also reveals how much self-concept can be an important dimension to be worked on in favor of these students. In this sense, internal Student Assistance policies envisioning the psychological and pedagogical follow-up of quota students can have a positive impact on their academic life, guaranteeing them success in university education.

Finally, unless the intention is to perpetuate this reality, it is necessary that the Superior Administration of the UFC has the political will to intervene in undergraduate courses, in order to combat the high evasion rate of quota students and, thus, continue fulfilling its mission to train professionals of the highest qualification, giving return to the society that maintains it.

To conclude, the long-term social impacts, expressed by the academic success of users of the Quota Law, must be the most significant and relevant factor of this portentous public policy. Thus, longitudinal research that intends to investigate such impacts should also be encouraged, financed, supported and carried out institutionally. In this scenario of debates about the relevance and impacts arising from the implementation of the Quota Law, one can easily apply the Latin expression *fiat justitia ruat caelum* (let justice be done even if the heavens fall), authored by the Roman senator Lucius Calpurnius Piso Caesoninus (43 BC).

References

ANDRIOLA, W. B.; ARAÚJO, A. C. Perfil de ingressantes no Ensino Superior após a Lei de Cotas. **Revista Docentes**, Fortaleza, v. 8, p. 19-30, 2023. Disponível em: https://revistadocentes.seduc.ce.gov.br/revistadocentes/article/view/242. Acesso em: 14 set. 2023.

ANDRIOLA, W. B.; BARROZO FILHO, J. L. Avaliação de Políticas Públicas para a Educação Superior: o caso do Programa Universidade para Todos (PROUNI). **Avaliação: Revista da Avaliação da Educação Superior**, Campinas; Sorocaba, v. 25, p. 594-621, 2020. Disponível em: https://www.scielo.br/j/aval/a/yF8fSy9jbSG78hFspPdNkcL/abstract/?lang=pt. Acesso em: 20 set. 2023.

ARAÚJO, S. A. L.; ANDRIOLA, W. B.; CAVALCANTE, S. M. A.; CHAGAS, D. M. M. Efetividade da assistência estudantil para garantir a permanência discente no ensino superior público brasileiro. **Avaliação: Revista da Avaliação da Educação Superior**, Campinas; Sorocaba, v. 24, n. 3, p. 722-743, 2019. Disponível em: https://www.scielo.br/j/aval/a/CW7CvT8tqBYZs5wWp8V7WFs/?lang=pt. Acesso em: 04 set. 2023.

BARDAGI, M.; HUTZ, C. S. "Não havia outra saída": percepções de alunos evadidos sobre o abandono do curso superior. **Psico**, Campinas, v. 14, n. 1, p. 95-105, 2009. Disponível em: https://www.scielo.br/j/pusf/a/v74yVrtsghWs7HNPjzPN5VF/?lang=pt. Acesso em: 07 set. 2023.

BELLO, E. Políticas de ações afirmativas no Brasil: uma análise acerca da viabilidade de um sistema de cotas sociais para ingresso nas universidades. **Direito, Estado e Sociedade**, Rio de Janeiro, n. 26, p. 32-53, 2005. Disponível em: https://revistades.jur.puc-rio.br/index.php/revistades/article/view/324. Acesso em: 10 set. 2023.

BEZERRA, T. C.; GURGEL, C. M. A política pública de cotas em universidades, enquanto instrumento de inclusão social. **Pensamento & Realidade**, São Paulo, v. 27, n. 2, p. 95-117, 2012. Disponível em: https://revistas.pucsp.br/index.php/pensamentorealidade/article/view/12650. Acesso em: 08 set. 2023.

BOURDIEU, P.; PASSERON, J. C. **A reprodução**. Rio de Janeiro: Francisco Alves, 1992.

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.

BRASIL. **Lei nº 12.527, de 18 de novembro de 2011**. Regula o acesso a informações da Constituição Federal e dá outras providências. Brasília, DF, 2012.

CAMPOS, L. C.; MACHADO, T. R. B.; MIRANDA, G. J.; COSTA, P. S. Cotas sociais, ações afirmativas e evasão na área de negócios: análise empírica em uma universidade federal brasileira. **Revista de Contabilidade e Finanças**, São Paulo, v. 28, n. 73, p. 27-42, 2017. Disponível em: https://www.revistas.usp.br/rcf/article/view/125573. Acesso em: 18 set. 2023.

CARDOSO, C. B. **Efeitos da política de cotas na Universidade de Brasília**: uma análise do rendimento e da evasão. 2008. Dissertação (Mestrado) - Programa de Pós-Graduação em Educação, Faculdade de Educação da Universidade de Brasília (UnB), Brasília, 2008.

CARVALHO, L. **Regime de cotas em universidades enfrenta oposição e ações judiciais**. AASP, 21/09/2007. Disponível em: http://www.aasp.org.br/aasp/imprensa/clipping/cli_noticia.asp?idnot=1526. Acesso em: 28 dez. 2022.

COHEN, E.; FRANCO, R. **Avaliação de projetos sociais**. Petrópolis, RJ: Vozes, 2012.

CORBARI, E. **Avaliação do impacto da política de cotas na Unioeste**: quem de fato foi incluído? 2018. Dissertação (Mestrado em Ciências Sociais) - Universidade Estadual do Oeste do Paraná, Paraná, 2018.

CUNHA, J. V. A.; DE LUCA, M. M. M.; LIMA, G. A. S. F.; CORNACCHIONE JÚNIOR, E. B.; OTT, E. Quem está ficando para trás? Uma década de evasão nos cursos brasileiros de graduação em Administração de Empresas e Ciências Contábeis. **Revista de Educação e Pesquisa em Contabilidade**, v. 9, n. 2, p. 124-142, 2015. Disponível em: https://www.repec.org.br/repec/article/view/1141. Acesso em: 28 dez. 2020.

CURADO, A. P.; MACHADO, J.; NÓVOA, A. **Percursos escolares dos estudantes da Universidade de Lisboa:** relatório preliminar n. 1: factores de sucesso e insucesso escolar na Universidade de Lisboa. Lisboa: Reitoria da Universidade de Lisboa, 2005. Disponível em: http://hdl.handle.net/10451/2996. Acesso em: 14 nov. 2022.

DAFLON, V. T.; FERES JÚNIOR, J.; CAMPOS, L. A. Ações afirmativas raciais no ensino superior público brasileiro: um panorama analítico. **Cadernos de Pesquisa**, São Paulo, v. 43, n. 148, p. 302-327, 2013. Disponível em: https://www.scielo.br/j/cp/a/MBtLrKDNWYWY8ntQDwBSGYb/abstract/?lang=pt. Acesso em: 14 set. 2023.

DARIO, A. B.; NUNES, R. S. Avaliação de cotistas e não cotistas: uma análise do desempenho acadêmico e da evasão em um curso de graduação em Administração. *In:* SIMPÓSIO EM EDUCAÇÃO SUPERIOR, 3., 2017, Florianópolis, SC. **Anais** [...]. Florianópolis, SC: UFSC, 2017. Disponível em: https://repositorio.ufsc.br/handle/123456789/179305. Acesso em: 21 set. 2023.

DIAS, E. C. M.; THEÓPHILO, C. R.; LOPES, M. A. S. Evasão no ensino superior: estudo dos fatores causadores da evasão no curso de Ciências Contábeis da Universidade de Montes Claros – UNIMONTES – MG. *In:* **CONGRESSO USP DE INICIAÇÃO CIENTÍFICA EM CONTABILIDADE**, 10., 2010, São Paulo, SP. **Anais** [...]. São Paulo: USP, 2010. Disponível em: https://congressousp.fipecafi.org/anais/artigos102010/419.pdf. Acesso em: 22 set. 2023.

FERES JÚNIOR, J.; DAFLON, V. T. A nata e as cotas raciais: genealogia de um argumento público. **Opinião Pública**, Campinas, SP, v. 21, n. 2, p. 238-267, 2015. Disponível em: https://www.scielo.br/j/op/a/QyKvRBhmPkKc5f8v7LHFWbg/abstract/?lang=pt. Acesso em: 10 set. 2023.

FURTADO, V. V. A.; ALVES, T. W. Fatores determinantes da evasão universitária: uma análise com alunos da Unisinos. **Revista Contemporânea de Economia e Gestão**, Ceará, v. 10, n. 2, p. 115-129, 2012. Disponível em: http://www.periodicos.ufc.br/contextus/article/view/32153. Acesso em: 10 set. 2023.

GIL, A. C. **Como elaborar projetos de pesquisa**. São Paulo: Atlas, 2010.

GOMES, J. B. B. A recepção do instituto da ação afirmativa pelo direito constitucional brasileiro. **Revista de Informação Legislativa**, Brasília, v. 38, n. 151, p. 129-152, 2001. Disponível em: https://www2.senado.leg.br/bdsf/item/id/705. Acesso em: 07 set. 2023.

KERLINGER, F.; LEE, H. B. **Investigación del comportamiento**: métodos de investigación en ciencias sociales. México: McGraw Hill, 2002.

LIMA JUNIOR, P.; BISINOTO, C.; MELO, N. S.; RABELO, M. Taxas longitudinais de retenção e evasão: uma metodologia para estudo da trajetória dos estudantes na educação superior. **Ensaio: Avaliação e Políticas Públicas em Educação**, Campinas, SP, v. 27, n. 102, p. 157-178, 2019. Disponível em: https://www.scielo.br/j/ensaio/a/W5NdTy3HqkWyVcXhgWbvpxB/. Acesso em: 05 set. 2023.

MACHADO, E. **Ação afirmativa, reserva de vagas e cotas na Universidade do Estado do Rio de Janeiro (2002-2012).** Rio de Janeiro: Flacso, 2013.

MENDES JR., A. A. F. Uma análise da progressão dos alunos cotistas sob 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**, Campinas, SP, v. 22, n. 82, p. 31-59, 2014. Disponível em: https://www.scielo.br/j/ensaio/a/dLNVHQSf3zTQZT5QjNdmSsm/abstract/?lang=pt. Acesso em: 11 set. 2023.

MOEHLECKE, S. Ação afirmativa: história e debates no Brasil. **Cadernos de Pesquisa**, São Paulo, n. 117, p. 197-217, 2002. Disponível em: https://www.scielo.br/j/cp/a/NcPqxNQ6DmmQ6c8h4ngfMVx/abstract/?lang=pt. Acesso em: 19 set. 2023.

OLIVEIRA, A. S. R.; SILVA, I. R. Políticas de inclusão social no ensino superior brasileiro: um estudo sobre o perfil socioeconômico de estudantes nos anos 2010 a 2012. **Educação em Revista**, Belo Horizonte, MG, v. 33, p. e153900, 2017. Disponível em: https://periodicos.ufmg.br/index.php/edrevista/libraryFiles/downloadPublic/164. Acesso em: 20 set. 2023.

OLIVEN, A. C. Ações afirmativas, relações raciais e política de cotas nas universidades: uma comparação entre os Estados Unidos e o Brasil. **Educação**, Rio Grande do Sul, v. 30, n. 1, p. 29-51, 2007. Disponível em: https://revistaseletronicas.pucrs.br/ojs/index.php/faced/article/view/539. Acesso em: 10 set. 2023.

PENHA LOPES, V. **Pioneiros**: cotistas na universidade brasileira. São Paulo: Paco Editorial, 2013.

PICANÇO, F. Juventude e acesso ao ensino superior no Brasil: onde está o alvo das políticas de ação afirmativa. **Latin American Research Review**, Pittsburgh, EUA, v. 51, p. 109-131, 2016. Disponível em: https://www.academia.edu/26565547/Juventude_e_acesso_ao_ensino_superior_no_Brasil_Onde_est%C3%A1_o_alvo_das_pol%C3%ADticas_de_a%C3%A7%C3%A3o_afirmativa. Acesso em: 12 set. 2023.

PINHEIRO, D. C.; PEREIRA, R. D; XAVIER, W. S. Impactos das cotas no Ensino Superior: um balanço do desempenho dos cotistas nas universidades estaduais. **Revista Brasileira de Educação (RBE)**, São Paulo, v. 26, e260020, 2021. Disponível em: https://www.scielo.br/j/rbedu/a/pJbNpfcXxbkPtzwg3CWrSMD/. Acesso em: 10 set. 2023.

PRADO, F. D. **Acesso e evasão de estudantes na graduação**: a situação do curso de Física da Universidade de São Paulo. 1990. Tese (Doutorado) - Faculdade de Educação, Universidade de São Paulo, SP, 1990.

RIBEIRO, M. A. O projeto profissional familiar como determinante da evasão universitária: um estudo preliminar. **Revista Brasileira de Orientação Profissional**, Campinas, v. 6, n. 2, p. 55-70, 2005. Disponível em: http://pepsic.bvsalud.org/pdf/rbop/v6n2/v6n2a06.pdf. Acesso em: 19 set. 2023.

RIBEIRO, E. M. A. B.; PEIXOTO, A. L. A.; BASTOS, A. V. B. Interação entre estudantes cotistas e não cotistas e sua influência na integração social e desempenho acadêmico na universidade. **Estudos de Psicologia**, Campinas, v. 22, n. 4, p. 401-411, 2017. Disponível em: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1413-294X2017000400007. Acesso em: 02 set. 2023.

RIO DE JANEIRO. **Lei nº 3.524, de 28 de dezembro de 2000**. Dispõe sobre os critérios de seleção e admissão de estudantes da rede pública estadual de ensino em universidades públicas estaduais e dá outras providências. Rio de Janeiro, 2000.

RIO DE JANEIRO. **Lei nº 5.074, de 17 de julho de 2007**. Altera a lei 4151 de 04 de setembro de 2003. Rio de Janeiro, 2007.

RISTOFF, D. O novo perfil do campus brasileiro: uma análise do perfil socioeconômico do estudante de graduação. **Avaliação: Revista da Avaliação da Educação Superior**, Campinas; Sorocaba, v.19, n.3, p.723-747, 2014. Disponível em: https://periodicos.uniso.br/avaliacao/article/view/2058. Acesso em: 13 set. 2023.

SHIH, M.; PITTINSKY, T. L.; AMBADY, N. Suscetibilidade de estereótipo: saliência de identidade e mudanças no desempenho quantitativo. **Psychological Science**, EUA, v. 10, n. 1, 1999. Disponível em: https://psycnet.apa.org/record/1999-10204-016. Acesso em: 17 set. 2023.

SILVA FILHO, R. L. L.; MOTEJUNAS, P. R.; HIPÓLITO, O.; LOBO, M. B. C. M. A evasão no ensino superior brasileiro. **Cadernos de Pesquisa**, São Paulo, v. 37, n. 132, p. 641-659, 2007. Disponível em: https://www.scielo.br/j/cp/a/x44X6CZfd7hqF5vFNnHhVWg/?format=pdf&lang=pt. Acesso em: 10 set. 2023.

SILVA, F. I. C.; RODRIGUES, J. P.; BRITO, A. K. A. Retenção escolar no curso de Educação Física da Universidade Federal do Piauí. **Revista Educação em Perspectiva**, Viçosa, v. 5, n. 2, p. 75-96, 2014. Disponível em: https://periodicos.ufv.br/educacaoemperspectiva/article/view/6661. Acesso em: 10 set. 2023.

SOUZA, E. M. Ações afirmativas e estereótipos sociais: Desconstruindo o mito da inferioridade cotista. **Arquivos Analíticos de Políticas Educativas**, Arizona, v. 27, n. 75, p. 1-27, 2019. Disponível em: https://www.semanticscholar.org/paper/A%C3%A7%C3%B5es-afirmativas-e-estere%C3%B3tipos-sociais%3A-o-mito-da-Souza/5f2b7770451e79d259618894e5e72b184c5d1c4a. Acesso em: 01 set. 2023.

UNIVERSIDADE FEDERAL DO CEARÁ (UFC). **Anuário Estatístico 2014 – Ano Base 2013**. Fortaleza: Editora da UFC, 2014. Disponível em: https://www.ufc.br/a-universidade/documentos-oficiais/322-anuario-estatistico. Acesso em: 10 set. 2023.

UNIVERSIDADE FEDERAL DO CEARÁ (UFC). **Anuário Estatístico 2019 – Ano Base 2018**. Fortaleza: Editora da UFC, 2019. Disponível em: https://www.ufc.br/a-universidade/documentos-oficiais/322-anuario-estatistico. Acesso em: 10 set. 2023.

UNIVERSIDADE FEDERAL DO CEARÁ (UFC). **Anuário Estatístico 2022 – Ano Base 2021**. Fortaleza: Editora da UFC, 2022. Disponível em: https://www.ufc.br/a-universidade/documentos-oficiais/322-anuario-estatistico. Acesso em: 10 set. 2023.

VELLOSO, J. Cotistas e não cotistas: rendimento de alunos da universidade de Brasília. **Cadernos de Pesquisa**, São Paulo, v. 39, n. 137, p. 621-644, 2009. Disponível em: https://www.scielo.br/j/cp/a/ysCKB6ZfVQjgyM7FPDdQZYg/?lang=pt. Acesso em: 10 set. 2023.

VIEIRA, D. B.; MIRANDA, G. J. O perfil da evasão no curso de Ciências Contábeis da Universidade Federal de Uberlândia: ingressantes entre 1994 a 2013. *In:* **CONGRESSO DA UFSC DE CONTROLADORIA**, 6., 2015, Florianópolis, SC. **Anais** [...]. Florianópolis, SC: UFSC, 2015. Disponível em: http://dvl.ccn.ufsc.br/congresso_internacional/anais/6CCF/43_16.pdf. Acesso em: 10 set. 2021.

WALTENBERG, F.; CARVALHO, M. Cotas aumentam a diversidade de estudantes sem comprometer o desempenho? **Sinais Sociais**, Rio de Janeiro, v. 7, p. 36-77, 2012. Disponível em: https://cede.uff.br/wp-content/uploads/sites/251/2021/04/TD-073-WALTENBERG-F._-CARVALHO-M.-2013.-Cotas-aumentam-a-diversidade-dos-estudantes-sem-comprometer-o-desempenho.pdf. Acesso em: 01 set. 2023.

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