



# Effect of Affirmative Actions on Student Permanence at a Brazilian Federal University: Analysis from the Perspective of the Theory of Justice\*

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**Abstract:** The study aims to identify the Affirmative Actions (AAs) promoted among students of business programs at a Brazilian federal university and analyze whether, in the students' opinion, they meet the fundamental assumptions of the theory of justice. The documentary survey of AAs examines student housing, financial aid for student parents, food, transport, permanence, and pedagogical support. Sixty-two respondents took part in the survey. The results show that personal factors, especially those of a psychological nature, adversely affect the permanence and performance of university students. Considering the students' perception of Rawls' "equal liberty" and equality of opportunity, the university's AAs are understood to reflect the assumptions of John Rawls' theory of justice.

**Keywords:** Affirmative actions; John Rawls' theory of justice; higher education

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## *El efecto de las acciones afirmativas en la permanencia de los estudiantes de una universidad federal brasileña: análisis desde la perspectiva de la teoría de la justicia*

**Resumen:** El estudio tiene como objetivo identificar las Acciones Afirmativas (AA) que se promueven entre los estudiantes de los programas de negocios de una universidad federal brasileña y analizar si, en la opinión de los estudiantes, estas cumplen con los supuestos fundamentales de la teoría de la justicia de John Rawls. En la encuesta documental de las AA se examina la vivienda de los estudiantes, la ayuda financiera para dependientes, la alimentación, el transporte, la permanencia y el apoyo pedagógico. Sesenta y dos estudiantes participaron en la encuesta. Los resultados muestran que los factores personales, en especial los de naturaleza psicológica, afectan de manera negativa la permanencia y el desempeño de los estudiantes universitarios. Teniendo en cuenta la percepción de los estudiantes de los principios de igual libertad e igualdad de oportunidades, se entiende que las AA de la universidad reflejan los supuestos de la teoría de la justicia.

**Palabras clave:** acciones afirmativas; teoría de la justicia de John Rawls; educación superior

## *O efeito das ações afirmativas na permanência dos estudantes de uma universidade federal brasileira: análise sob a perspectiva da teoria da justiça*

**Resumo:** Este estudo tem o objetivo de identificar as ações afirmativas (AA) que são promovidas entre os estudantes dos cursos de negócio de uma universidade federal brasileira e analisar se, na opinião deles, elas cumprem com os pressupostos fundamentais da teoria da justiça de John Rawls. Na pesquisa documental de AA, a residência dos estudantes, o apoio financeiro para dependentes, a alimentação, o transporte, a permanência e o apoio pedagógico são examinados. Participaram da pesquisa 62 estudantes. Os resultados mostram que os fatores pessoais, em especial os de natureza psicológica, afetam de maneira negativa a permanência e o desempenho dos universitários. Considerando a percepção dos estudantes sobre os princípios de liberdade igualitária e igualdade de oportunidades, entende-se que as AA da universidade refletem os pressupostos da teoria da justiça.

**Palabras-chave:** ações afirmativas; teoria da justiça de John Rawls; ensino superior

## Introduction

Education in Brazil is guaranteed by the Brazilian Federal Constitution, which regards education as a social right and the state and family as responsible for providing it. The law places direct responsibility on each entity of the Federation and the state for offering or financing education to ensure the equality of opportunities, access, and permanence for all citizens (Brazil, 1988).

The National Education Plan (NEP) presents the strategic planning for compliance with the law and, in the case of higher education, endorses the role of Higher Education Institutions (HEIs), especially universities and research centers, in knowledge construction and scientific and technological development. In 2002, the National Affirmative Action Program (NAAP) was established, whose objectives include strategic administrative and management measures to achieve percentage goals for the participation of Afro-descendants, women, and people with disabilities in commissions, competitions, public positions, bids, among others. (Brazil, 2002).

The Federal University Restructuring and Expansion Plan Support Program (REUNI) was developed with the primary objective of creating conditions for expanding access and permanence in higher education. The REUNI Program had the following priorities: increasing the educational level of the population; improving the quality of education at all levels; reducing social and regional inequalities in terms of access to and permanence in public education; and democratizing the management of public education in official establishments (Brazil, 2007).

A society is just when it considers its citizens equal. According to Clève (2016), Brazil is a democratic constitutional state and, rather than heeding subjective justice formalized by legislatures, should do justice by ensuring equal rights for all. The author points out that equality does not happen naturally and must be provoked and that it is up to the state to do justice.

According to Rawls (2000), the general conception of justice is guided by the idea that all primary social goods, such as liberties, opportunities, wealth, and income, must be distributed equally

unless the unequal distribution of some or all of these goods benefits the less fortunate. In this way, the author presupposes a theory of justice based on two principles: a) equal liberty; and b) social and economic inequality, which is divided into the principle of difference and the principle of fair equality of opportunity.

Clève (2016) recognizes that Affirmative Actions (AAs) are positive instruments for correcting various social and natural inequalities. The satisfaction of needs for the effective exercise of liberties supposes a positive action of the state, concretized by the adoption of public policies. It should be noted that Rawls' theory of justice (2000) attributes to society the task of helping the less fortunate by providing them with equal opportunities. Thus, the theory of justice proposed by John Rawls will serve as a basis for this study.

A systematic review of the literature has identified previous studies on the subject, identifying research gaps to be explored such as i) understanding the factors that interfere in the student's permanence in their respective undergraduate programs (Maciel, Lima, & Gimenez, 2016); ii) gathering information that makes it possible to expand and qualify the management of AAs (Espíndola, 2014), and iii) researching the effect of AAs on promoting equal opportunities (Campos, Machado, Miranda, & Costa, 2017; Filipak & Pacheco, 2017; Gisi & Pegorini, 2016; Maciel *et al.*, 2016).

Given the above, the guiding question of this research emerges: Do the AA promoted by a federal university in the South of Brazil meet the assumptions established by the theory of justice? The present research aims to identify the AAs promoted among students of business programs at a medium-sized federal university in Rio Grande do Sul, Brazil, and analyze if, in the students' opinion, they meet the fundamental assumptions of the theory of justice.

According to Voos (2016), there are few studies on student drop-out/permanence in higher education. This research is justified because it delves into the knowledge of the AAs adopted by business undergraduate programs at a Brazilian federal university and their effect on student permanence and performance, considering the theory of justice.

Besides, such a population has not been studied from this perspective in previous research.

The scope of this study does not cover ethnic-racial aspects in higher education despite being inherent to the theme studied, especially in the Brazilian context that needs to promote public policies in this regard. For Santos (2009), the social exclusion experienced by black and poor students is realized in acute and innumerable difficulties to remain in higher education. Silva (2019) points out that underrepresented groups experience a hostile racial climate in higher education and rarely adjust to the academic environment. Hence, this is assumed as a limitation of the study and highlighted as a gap for future research given that experiences with racism, according to those authors, can impact the student's educational path, including access to and permanence in higher education.

The contribution of the study is strengthened by providing the studied university with data to support AAS: i) the review and validation of the actions taken, and ii) control of the institutional management of human and financial resources received to fulfill the institution's social purpose. In this way, it meets the commitment made with the REUNI to creating conditions for expanding access to and permanence in higher education, thus raising the level of education quality and reducing social and regional inequalities.

This paper is structured into five sections. This first section presents the introductory aspects of the research. The second one introduces the theoretical and literature foundations, followed by a detailed description of the methodological procedures. The fourth section presents and analyzes the data, and the last one provides some final considerations related to the research.

## Literature review

This section is divided into the fundamentals of the theory of justice and the relationship between AA and higher education.

### *Theory of justice*

With the statement, "Justice is the first virtue of social institutions," Rawls (2000) introduces his

theory of justice, which like others, arises from the need for answering questions not yet addressed by previous theories. The author reports that the study arose from a collection of ideas he conveyed in some articles he wrote in an average period of twelve years, the first being "*Justice with Equity*" in 1958. He completed his theory and published it in a book titled *A Theory of Justice* in 1971.

According to Carvalho (2012), Rawls' study sought to discuss a new form of liberalism called by many "egalitarian liberalism." Rawls says that his theory aims to overcome intuitionism, understood as a variety of fundamental principles that conflict with each other, offering contrary guidelines in similar cases. The author points out that, although racism in Brazil is not as formal as in the United States, it still is structural and becomes evident in the discrimination of the individual by their descent, appearance, and socioeconomic condition.

Rawls (2000) assumes that all individuals intend to achieve certain kinds of goods, which he identifies as "primary goods." These are classified as external (social) goods distributed by institutions such as wealth, opportunity, and rights and internal (natural) goods, inherent to each being, such as intelligence, health, and talents. As such, being humanity immersed in an orderly society, Rawls (2000) recommends that institutions ensure the coexistence of these individuals, with their subjectivities and different quantities of primary goods, in egalitarian conditions.

For Rawls (2000), the fundamental principles of justice determine that i) each person has an equal right to the broader system of fundamental liberties that is compatible with a similar system of liberty for all; ii) social and economic inequalities are acceptable provided that they are (a) to the greatest benefit of the underprivileged, and (b) linked to positions and offices open to all under conditions of fair equality of opportunity.

One of Rawls's central ideas is that representatives of society should make the rules from behind a "veil of ignorance." This veil would not allow these representatives to know their position in society and, therefore, whether their choices would affect their lives negatively or positively. According

to Rawls, his two principles of justice would end up being part of the choices of these representatives, even though other principles could also be chosen (Rawls, 2000).

In this regard, Trindade (2015) points out that Rawls defines “equal liberty” as the first principle of justice, which determines that, under any hypothesis, subjects cannot be discriminated against by the primary institutions of society. The author points out that when Rawls quotes “equal liberty,” he refers to the inherent civil and political freedoms of modern democracies. The second principle, also known as the principle of difference, manages the distribution of economic resources and wealth produced by society. The author defines that while the first principle incorporates the idea of freedom, the second is linked to equality and distribution of income in the basic structure of society. Still, the second principle overlaps the purposes of merely distributive justice, as it happens in the most egalitarian social institutions, which propose that each subject should access what is fair if the positions and benefits are accessible to all (Trindade, 2015).

Rawls’ theory of justice predicts that a just society starts from two assumptions: first, equality of opportunity for all under conditions of full equality, *i.e.*, full equity; and secondly, the benefits resulting from this just society should be distributed, preferably, to the less privileged members of society, as it is necessary to support the disadvantaged for social justice to occur. For a society to be considered just, inequalities should be reduced, considering the adoption of AAS in favor of minorities (Pinheiro, 2013).

For Bomtempo (2010), Rawls’ theory of justice presupposes three fundamental requirements: 1) the existence of justice issues; *i.e.*, in the case of AAS in higher education, they are proposed to repair inequalities resulting from a conflict of interests (among citizens) regarding the scarcity of resources (education); 2) pluralism of reasonable interests; *i.e.*, a society where there is hostility against, suspicions, and mistrust of AAS due to ethnic, socio-economic, philosophical, and religious diversities; and 3) the acknowledgment that all citizens are rational beings in a reasonable condition to conceive a sense of fair justice, recognizing the limits

of judgment and accepting the consequences; *i.e.*, they seek their objectives intelligently.

According to Valle (2013), the principles that define the rules of social justice, proposed by Rawls, look for the socioeconomic compensation of the less favored, thus promoting equal opportunities for them. The author points out that even though Rawls does not list education as a primary social good, he presupposes it as a fundamental social right to the development of free and equal people. Valle (2013) emphasizes that education must be equitably distributed and that educational institutions have the role of providing the necessary conditions for social progress.

### *Affirmative Actions and higher education*

For 2017, 3.2 million students entered Brazilian higher education, but only 18% enrolled in public institutions where higher education is free (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira [INEP], 2017). Considering that for the same year Brazil had 207.7 million inhabitants, the number of students entering higher education represented approximately 1.54% of the Brazilian population, while this percentage is 0.28% for public higher education (Instituto Brasileiro de Geografia e Estatística [IBGE], 2017).

As an institutional program, the NAAP, formalized in 2002, aims to establish strategic measures for the inclusion of minorities, such as Afro-descendants, women, and people with disabilities in commissions, competitions, public offices, among others. (Brazil, 2002).

According to Barros (2009), already in the 1990s, before the formalization of AAS, projects were implemented to reserve slots in HEIS for black and poor students (gross monthly family income equal to or less than 1.5 minimum wages *per capita*). The author points out that the pioneering universities in the adoption of admission quotas were the State University of Rio de Janeiro (UERJ), the Pontifical Catholic University of São Paulo (PUC-SP), the Federal University of Bahia (UFBA), and the Pontifical Catholic University of Rio de Janeiro (PUC-RJ). The repercussion of the results of these programs was attributed to the formulation of the first state “quota acts,” especially in the states of Rio de Janeiro in 2001 and Bahia in 2003.

The expansion of the debate on the democratization of higher education meant that, in 2004, the Ministry of Education deliberated on other forms of promoting racial equality and put forward a proposal for a partnership with private universities to offer slots to black, indigenous, physically disabled, and inmate students. The proposal was consolidated with the creation of the University for All Program (PROUNI), reserving 25 % of the slots available in private universities for these groups in exchange for tax exemptions by the federal government (Barros, 2009).

In 2009, within the Affirmative Action Programs provided for in the REUNI, the process of access to universities, specifically the SiSU (Unified Selection System), was created as a national unified selection method (INEP, 2009), in which all candidates in Brazilian territory have access to the same entrance exam through the National High School Examination (NHSE). The classification is given by the score achieved, regardless of the region in which the candidate has taken the test (Brazil, 2012).

The consolidation of AA programs concerning undergraduate studies would only occur on August 29, 2012, through Law 12.711/2012. According to Dias and Bax (2016), Quota Act and legalizes the allocation of 50 % of slots in federal HEIS linked to the Ministry of Education, as described in Table 1.

According to Table 1, the Quota Act prescribes allocating 50 % of slots in federal institutions to

high school graduates who are fully enrolled in public schools, from low-income families, and self-declared black, pardo, and indigenous people and people with disabilities. After completing the slots for the second and third criteria, the remainder is assigned to those who meet the first criterion. In this way, the legislation standardized the quota system for access to federal HEIS.

The National Student Assistance Program (NSAP) was instituted to continue with the NEP strategic planning to not only provide access to education but reduce evasion and ensure permanence and graduation in higher education. The program has the following objectives to improve the conditions for the permanence of young people in federal public higher education: to democratize the conditions for the permanence of young people in federal public higher education; to minimize the effects of social and regional inequalities in the permanence and completion of higher education; to reduce evasion rates; and to contribute to promoting social inclusion by education (Brazil, 2010).

The law establishes that it is up to HEIS, in harmony with the program’s objectives, to set out the criteria and methodology for the selection of students, as well as the requirements for them to have access to student assistance. It is also the institution’s responsibility to implement monitoring and evaluation mechanisms for the program. Student

**Table 1.** Distribution of Slots by Quotas

Criteria	Proportion	Law 12.711	Type
01	50 % of the total slots of federal HEIS linked to the Ministry of Education	Article 1 (heading)	Students who have completed high school in public schools
02	50 % of the slots referred to in the heading of Article 1	Article 1 Single paragraph	Students from families with incomes equal to, or less than, 1.5 minimum wages <i>per capita</i>
03	The total proportion of slots in 1, at least equal to the respective proportion of black, pardo, and indigenous people, and people with disabilities from the Federation unit where the institution is located, according to the latest IBGE census	Article 3	By self-declared black, pardo, and indigenous people and people with disabilities under the legislation

Source: Own elaboration based on Law 12.711 (Brazil, 2012).

assistance actions should be taken in the areas of student housing, food, transport, health care, digital inclusion, culture, sports, daycare, pedagogical support, access, participation, and learning of students with disabilities, global developmental disorders, and high skills and giftedness (Brazil, 2010).

According to the NSAP, student assistance actions should be coordinated with teaching, research, and extension activities to meet the needs of students regularly enrolled in classroom undergraduate programs. These activities will enable equal opportunities for improving academic performance and prevent situations of evasion due to insufficient financial conditions. The priority of the program is to assist students from the public education system or with *per capita* family income up to one and a half minimum wages, without prejudice to other requirements set by the institution (Brazil, 2010).

Accordingly, in 2013 the Ministry of Education created the Permanence Scholarship Program (PSP) to grant scholarships to undergraduate students from HEIS. Unlike other programs, to receive the Permanence Scholarship the student must meet the following requirements, besides having a family income *per capita* of no more than 1.5 minimum wages: be enrolled in undergraduate programs with a minimum academic load of five hours a day; not to exceed two semesters of the regulatory time to graduate. from the undergraduate program in which the student is enrolled. These requirements are duly agreed, approved, and monthly validated by the federal HEIS (Brazil, 2013).

In legislating on this matter, the state aims to remedy failures stemming, in part, from its system since the mishaps students have undergone in higher education originate from the poor quality of Brazilian education, from early childhood to undergraduate programs (Iosif, 2007). The author ponders over the causes thereof, ranging from access, economic, and cultural vulnerability of students to the quality of formal education itself. According to the report by the National Forum of Vice Presidents for Community and Student Affairs (Fonaprace, 2011), this reality persists in undergraduate programs, with greater socioeconomic vulnerability in students who are covered by AA policies, most of whom cannot adequately

pay for housing, food, teaching materials, among others. This situation reflects their difficulty to stay in university (Fonaprace, 2011).

The study by Miranda *et al.* (2018) proposes a scheme to organize the factors that influence academic performance. The authors suggest that the definition of student performance and permanence factors involves four large groups of variables to be considered, namely a) characteristics of the students: age, gender, school starting age; b) family background: with whom the student lives, parents' occupational status, parents' employment, availability of books at home, *per capita* income range in which the family is inserted; c) school: location of the school, degree of expenditure per student, size of the classroom, lack of institutional material, and d) institution: provision of public and private education, monitoring of teachers' compliance with the program, external knowledge assessment tests, assessments used to compare local/district versus national performance, school autonomy in defining budget use, establishing salaries and hiring teachers.

In this context, some studies have analyzed the perspective of AAs in higher education. Espíndola (2014) discusses the contribution of the Affirmative Action Program to democratizing access to and permanence of black students at the Federal University of Santa Catarina (UFSC). Based on the results, the author recognizes democratization concerning quota students' access but suggests that, for permanence, more effectiveness in and better management of programs are needed

Gisi and Pegorini (2016) analyze the advances related to expanding access to this level of education and student permanence. The authors identified an advance in the democratization of access, social mobility, not significant performance differences between quota and non-quota students, and increased investments in institutional policies aimed at performance and permanence.

Maciel *et al.* (2016) review permanence policies. After applied research in universities in the state of Mato Grosso, they highlight that programs proposed by the REUNI are of significant scope and are responsible for the expansion of higher education in the country. The authors consider

that public policies aimed at reducing inequality reflect in academic permanence and performance. However, they indicate that, although the actions represent a significant advance, it is necessary to develop programs specific to each student, according to their profile and objectives, and each undergraduate program.

Campos *et al.* (2017) explore whether the adoption of AAS affects the drop-out rates of accounting students and other business programs. The findings indicate that there is no significant difference in the performance and permanence between studied quota and non-quota students, thus showing the success of AAS in promoting social justice and distributing benefits and essential resources.

## Materials and methods

In this study, the documents analyzed constituted legal publications (public notices, minutes, reports) of the studied HEI, and the survey was conducted in the second half of 2018. The questionnaire (Appendix I) was prepared based on the studies of Barbosa (2017), Miranda *et al.* (2018), and John Rawls' theory of justice (2000) and completed by regularly enrolled AA student beneficiaries to verify their perception regarding the effectiveness of access, permanence, and performance AAS in promoting freedom and equality of opportunity. The AAS subject to the study are student housing, child support, food aid, university restaurant, transport allowance, permanence aid, and educational support.

The questionnaire is composed of three blocks. Block 1 contains questions about the students' profile (open, binary, and multiple-choice questions). Block 2 comprises assertions related to large groups: the institution (study environment, library, accessibility, class size, pedagogical project), students (past performance, prior knowledge, absenteeism, use of time, motivation, personal effort, anxiety, and stress), and professors (academic training, mastery and presentation of contents, consistency in assessments) (10-point agreement scale, where 1 = strongly disagree and 10 = strongly agree). Block 3 asks questions to verify the student's perception of the efficiency of AAS in promoting the principles of the theory of

justice (open, binary, multiple-choice questions, and 10-point agreement scale, where 1 = strongly disagree and 10 = strongly agree).

Two pretest stages of the questionnaire were carried out to verify the suitability of the content, whether the instructions for the respondents were sufficient, and whether the assertions and questions were explicit and the answers relevant; that is, if they reflected the questions' objective. The time required for its application was also tested. An original version of the questionnaire was reviewed by three female doctoral students who participate in post-graduate accounting programs. In the second stage, it was answered by seven students who live or have lived in the residence hall, two undergraduate history students, an undergraduate law student, three Master's students in business and one in physics, who resided in the hall during the graduation period. From this pretest, adjustments were made to the instructions, assertions, and questions, arriving at the final version. The research was not submitted to an Ethics Committee, as the studied university does not have a formalized committee for this yet. However, ethical principles such as the Free and Informed Consent (FIC) were considered when conducting this research.

After the validation of the questionnaire, it was sent in printed form, along with its presentation and consent form, to AA beneficiaries of in business programs (Administrative, Accounting and Economic Sciences, Foreign Trade, and Cooperative Management) in 2018. Among students actively enrolled in 2018, 245 received some aid or benefit, which represents about 18% of the total number of students in these programs. Not reaching the necessary sample for the developing research, a choice was made to take the presentation and the questionnaire to the electronic medium. For this, the Google Docs tool was used. The documents were emailed, and then an electronic message was sent via smartphone (using the WhatsApp software) informing them of the sent email, clarifying the research purposes, and asserting the importance of the respondent's participation. The emails and data of the students were obtained together with the coordinating offices of said programs.

The study is based on descriptive analysis and content analysis, the latter based on the assumptions of Bardin (2016). The variables involved were (i) gender equality, (ii) respect for differences; and (iii) equity in the provision of opportunities. The descriptive analysis was performed on the results of Questions 1 to 21, and the content analysis was as shown in Table 2. Content analysis is a set of techniques of analysis of communications aiming to obtain indicators that allow the inference of knowledge of the conditions of production/reception (inferred variables) of messages (Bardin, 2016). In this context, word association tests were performed, and stereotypes and connotations were identified manually, *i.e.*, without the aid of software.

The modality of indicators is by association or equivalence. According to Bardin (2016), association means that the elements appear associated (together) and equivalence that the elements appear in the same context, which allows following the categorization of the elements, observing the steps of inventory (isolating the elements), and sorting (splitting the elements). The categories analyzed are shown in Table 2.

Table 2 identifies the questions that correspond to each factor; that is, when analyzing the content of Questions 01 to 06 and 18 to 21, we obtained inputs to evaluate the factors related to the institution that the respondents attend and their professors. Questions 07 to 17 are related to

students themselves and their relationships. The analysis of students' perceptions regarding the effectiveness of AAs in promoting social justice was based on Questions 22 to 26.

## Data analysis

This section aims to identify permanence AAs promoted among students in business programs from a federal university in Rio Grande do Sul, Brazil, and analyze if they meet the assumptions of the theory of justice of "equal liberty" and equal opportunity by observing the principle of difference.

Regarding the undergraduate program, most of the sample is enrolled in Accounting Sciences (40.32%), followed by Administrative Sciences (19.35%), Cooperative Management (17.74%), Foreign Trade (14.52%), and Economic Sciences (8.07%). Regarding the age of the respondents, most are between 18 and 24 years old (54.84%), followed by the age groups of 25 to 31 years old (29.03%) and 32 and older (16.13%). Regarding gender, there are 39 (62.90%) women and 23 (37.10%) men. Regarding the year of admission to the university, 43.55% entered in 2018, 20.97% in 2017, 20.97% in 2016, 9.68% in 2015, 3.22% in 2014, and 1.61% in 2011.

Through desk research carried out in the HEI home page, AAs aiming to promote student permanence and performance in higher education in 2018 were identified, as listed in Table 3.

**Table 2.** Content Analysis – Categories

<b>Category</b>	Indicators - Association/Equivalence
<b>Structural Factors (Institution and Professors)</b>	Questionnaire - Block 2 - Questions 01 to 06 and 18 to 21
<b>Individual Factors (Students and their Relationships)</b>	Questionnaire - Blocks 1 and 2 – Questions 07 to 17
<b>Affirmative Actions</b>	Questionnaire - Block 3 - Questions 22 to 26
<b>Social Justice</b>	Questionnaire - Block 3 - Questions 22 to 26

**Source:** Own elaboration.

**Table 3.** Description of Student Aids and Benefits

Specification	Institutional Legal Basis	Description
Residence hall - University Student House (USH)	Regulatory Instruction (RI) 003/2012	Residence hall identified as USH that houses students from outside the city who are studying and have a proven social vulnerability background
Financial housing assistance	Internal Circulation Notice (ICN) 24/2016	On campuses outside the headquarters, where the USH is unavailable, students receive financial housing assistance for ten months
Financial aid for student parents	IN 001/2018	Financial aid for ten months for students who have legal dependents between 0 (zero) and 5 (five) years and 11 months old. It is limited to two aids per student
Financial aid for food	IN 001/2017	Financial aid for ten months on campuses outside the headquarters, where University Restaurants (URS) are not available
Financial aid for food – URS	IN 001/2017	Made available through meals at the closest UR to where the student carries out their academic activities. There are three modalities: <ul style="list-style-type: none"> <li>• Universal allowance: A discount in which the student will pay an amount per meal, defined, and published annually, regardless of the socioeconomic and pedagogical assessment</li> <li>• Partial allowance: Granted to students with proven socioeconomic vulnerability, who will pay the equivalent to 50 % of the universal allowance per meal</li> <li>• Full allowance: Granted to students with proven socioeconomic vulnerability, who will be exempt from payments per meal</li> </ul>
Transport aid - credit modality	IN 002/2017	Credit for urban public transport granted to students in the headquarters during the academic period. It is of exclusive use, personal, and non-transferable
Transport allowance	IN 002/2017	Aid for students through a direct allowance for public transport. Since the campus is in an area not served by public transport with a school pass, a financial transfer is made
Permanence AID	IN 004/2015	Financial aid for ten months for students regularly enrolled in undergraduate programs, who demonstrate a situation of socioeconomic vulnerability. It aims to minimize evasion in higher education, promoting the student's qualified stay in their undergraduate program.
Pedagogical support	IN 001/2016	Support the permanence of students regularly enrolled in undergraduate programs

**Source:** Own elaboration based on Academic System Home Page (2018).

The student aid and benefits programs promoted by the studied HEI and shown in Table 3 (housing, parenting, food, transport, and permanence aids) are offered to students who meet the following criteria a) be a student in his or her first undergraduate program, who have not completed any other campus-based or distant higher education program in any educational institution; b) be regularly enrolled in an undergraduate classroom-program; c) attend at least 75 % of classes; d) have an average grade higher than 5.0 or evolution in academic performance; e) take at least 15 credits, except soon-to-be graduates who must be enrolled in all remaining classes to complete their program; and f) apply for the aids and appear in the selection processes established by the academic unit responsible for student affairs. The hei also offers pedagogical monitoring to the student to minimize the evasion of students who have difficulties in fulfilling the above criteria (ECI 24/2016).

In the period between 2013 and 2017, the HEI granted more than 36,000 aids and benefits to students from various undergraduate programs offered by its campuses. Table 4 presents the amount

of aids and benefits provided according to the 2018 Directory of this institution.

In view of their purposes (Table 3), financial aid for housing, food, and transport is granted to undergraduates who are on campuses outside the institution’s headquarters that do not have URS or USHS yet, while ensuring that these campuses can directly take on this expenditure. In the same way, the transport allowance is passed on to students on campuses located in cities where there is no offer of public transport. Table 4 shows that there was an increase in the amounts of financial aid and other benefits in 2014, 2015, and 2016, periods in which the studied HEI opened new undergraduate programs on both campuses outside its headquarters and the main campus. Student aid and benefit programs are funded by resources from the NSAP and other sources, according to the institution’s budgetary availability (ECI 24/2016).

The second stage of the research was an analysis of the data collected through the questionnaire. The categories were coded *a priori*; that is, as proposed by Bardin (2016), using the association of words and expressions (Table 5).

**Table 4.** Number of Student Aids and Benefits (2013–2017)

Specification	2013	2014	2015	2016	2017
Financial housing assistance	53	65	53	113	90
Financial aid for student parents (in 2016, it replaced the preschool aid)	75	87	104	134	95
Financial aid for food	160	654	266	389	276
Transport allowance	91	278	223	347	224
Permanence aid	1,374	1,349	1,420	1,529	1,625
USH	275	300	335	425	399
Food allowance through URS	4,809	6,065	5,734	4,833	1,870
<b>Total</b>	<b>6,837</b>	<b>8,798</b>	<b>8,135</b>	<b>7,770</b>	<b>4,579</b>

USH = University Student House; URS = University Restaurants.

**Source:** Own elaboration based on Academic System Home Page (2018).

**Table 5.** Categories for Coding

Categories	Related Words/ Expressions	Data Categorizing Method
Structural Factors	Institution, school, teaching, professors, classroom, laboratory, library, study rooms, Internet, curriculum	Average score assigned by respondents to Questions 01 to 06 and 18 to 21 (Block 2)
	Previous knowledge, commitment, participation, expectations, anxiety, stress, socioeconomic conditions, social interrelationships	Average score assigned by respondents to the choice of program (Block 1) and Questions 07 to 17 (Block 2)
Affirmative Actions	Public policies, permanence scholarship, benefits, aids	Content analysis of the answers to Questions 22 to 26
Social Justice	Equal opportunities, equity, freedom of choice, effectiveness	Content analysis of the answers to Questions 22 to 26

Source: Own elaboration.

As indicated in Table 5, the words and expressions used for structural factors related to the permanence and performance of undergraduate students are listed in Questions 01 to 06 and 18 to 21 of the questionnaire. The expressions categorized as individual factors related to the permanence and performance of undergraduate students are listed in Questions 07 to 17. The words and expressions aligned with the AA and Social Justice categories were verified by the content analysis of the answers to Questions 22 to 26.

In order to find the result of this categorization, the following calculation was made: all the scores of the assertions associated with each category were added, and then the ratio of the assertions was determined in relation to the maximum possible total ratio (number of assertions of the categories multiplied by ten (maximum score) and by the number of respondents). It should be noted that the objective was to present the percentage of positive responses received in relation to the

maximum possible. Table 6 shows the accurate results obtained.

**Table 6.** Results of Averages Attributed to Structural and Individual Factors

Categories	Formula	Result
Structural Factors: Institution + Professors	SUM (SRA. 1 to 6, 18 to 21) *100 %	Total of 4,690 statements, for a maximum possible total of 6,200, meaning 75.64 % of positive assertions
	SUM (MPS. 1 to 6, 18 to 21)	
Individual Factors: Students	SUM (SRA. 22 to 26) *100 %	Total of 3,974 statements, for a maximum possible total of 6,200, meaning 64.09 % of positive assertions
	SUM (MPS. 22 to 26)	

Note: SRA = Score Received by Assertion; MPS = Maximum Possible Score by Assertion.

Source: Own elaboration.

The results related to structural factors indicate a positive evaluation (75.64%) by the sample, composed of 62 respondents benefitted by AAs. This result suggests the positive response of the HEI surveyed about the incentives offered by joining the SISU and the REUNI in 2011. This effect is in line with the results of Gisi and Pegorini (2016) that the advances in access and permanence in higher education, because of AAs, are positive and allow greater participation of the student in university life, favoring the democratization of education.

Regarding individual factors, whose index was 64.09%, it is necessary to return to the result concerning the effect of these factors on performance and permanence. It was observed that the assertion with the highest value, *i.e.*, the one that students pointed out as a more significant influence in this negative case, was the one related to anxiety and stress. These, according to Miranda *et al.* (2018), along with personal motivation and efforts, are related to behavioral factors and may be a consequence of the individual's construct, the "baggage" brought from a previous existence to university. This result suggests that students require more attention since, according to the

authors, the non-treatment in the initial phase can lead to drop-out, personal disbelief, and even deep depression.

For Rawls (2000), a conception of political economy is the one through which organizations, economic policies, and primary institutions are evaluated. Its objective should include the common public good based on social justice and “some criterion for the fair division of social advantages” (Rawls, 2000, p. 286). The author highlights the need for institutions to make investments that not only adjust to the present time but are also useful in the future. This assumption is in line with what the REUNI Program proposed, the restructuring of universities being an investment aimed at transforming the future of society. In this way, the positive result obtained by Structural Factors and Individual Factors confirms the effectiveness of the program.

To find out whether AAs meet Social Justice assumptions, Block 3 presented four discursive questions (22 to 25) and one (26) with three affirmations to be scored from 0 to 10. Table 7 presents the answers to Questions 22 and 23.

**Table 7.** Block 3 - Affirmative Action Questions

Question	Yes	No	Remarks
22 - Do you attend or have ever attended academic monitoring or tutoring programs offered by the university?	21	41	- If yes, which? (06) Mathematics; (04) Economics, (01) Accounting, (10) Unidentified monitoring
23 - If the answer is yes, was(were) the program(s) sufficient?	17	04	- If no, why? Difficulties with learning, incompatibility, and unavailability

Source: Own elaboration.

Table 7 shows that only 34% of respondents used tutoring, of which 81% consider that their learning expectations were met. Those who did not reach the goal stated they had individual problems, which suggest limitations in prior knowledge

and unavailability because of work (extracurricular activities).

Being previous formal education one of the weaknesses of the student, as a result of public schooling or even own individual limitations, Miranda *et al.* (2018) point out, that according to the result of several pieces of research, prior knowledge is related to the academic history; that is, high achievers in the undergraduate program can be a reflection of how they learned or studied before admission. As such, the studies suggest that, although the studied HEI offers extra classes, many students do not seek this help and lose a learning opportunity. However, those who use such resources show positive results.

Respondents were asked to give their opinion regarding academic support programs that the institution could implement to contribute to improving academic performance (Question 24) and permanence (Question 25). Similar answers were obtained, categorized, and quantified, as shown in Table 8.

**Table 8.** Suggested Academic Support Programs for Performance and Permanence

Opinion	Performance	Permanence
Practical classes, mini-courses, laboratory classes, internships, labor market access	11	03
Programs to reduce anxiety, treat depression, share experiences, provide psychological counseling regarding academic pressure	07	03
Study groups, “students helping students”	03	00

<b>Tutoring, motivational classes, classes for beginners, more monitoring, more advertisement</b>	06	03
<b>English courses</b>	02	00
<b>Training for professors, more professors available</b>	02	01
<b>Monitoring program and virtual support</b>	02	00
<b>Selection of participants in projects and scholarships by the average grade</b>	01	00
<b>More time to study</b>	01	00
<b>Academic support for those who work</b>	01	00
<b>Better publicizing the projects and events of programs, research projects</b>	01	01
<b>Existing programs are sufficient, take measures to keep them</b>	02	08
<b>More investments in and expansion of AA programs</b>	00	12
<b>Social integration activities involving professors and students</b>	00	02
<b>More social, interactive, recreational, campus-based assignments</b>	00	03
<b>Encouraging exchange programs</b>	00	01

Source: Own elaboration.

Table 8 shows that eleven respondents consider that their performance will reflect on their access to the labor market. Next, the most referred factor is stress, anxiety, and depression, followed by the request for support programs (tutoring). When permanence is the issue, it is observed that some respondents (8) are satisfied with AA programs, but eleven suggest that more investments in and expansion of these programs are necessary. Others point to the need for more integration of all people involved (academia in general), including socialization between students and professors. Among the responses related to anxiety and depression, the following one stands out for its specific content:

I think there could be a support program for students who feel coerced by professors because this is one of the biggest problems. This is not a thing from nowadays only; people feel bad about complaining about a professor and feel coerced. It problem affects the people most in need of assistance because they already suffer from social, cultural, and other inequalities. In conclusion, this is a “trigger” for those who suffer from depression. For these and other reasons, students drop out of academic training.

In another case, the response related to permanence questions the distribution of benefits, according to the transcription below.

Expansion of scholarship and aid since many, like me, are unemployed. I received (and thank God I did receive) one aid, while others received all aids and much more.

The study by Lima (2014) highlights the use of specific programs and an ombudsman to monitor AAs, evaluate their results, and suggest improvements. Voos (2016) discusses the importance of training managers from certain divisions to assist and monitor students, such as academic secretary’s offices, centers of academic assistance, and the ombudsman’s office.

To know the respondents’ level of agreement with the effectiveness of permanence AAs (student house, transportation allowance, food aid, monitoring, permanence scholarship) in promoting social justice, they were asked to evaluate them on a point scale where 0 (zero) strongly disagree and 10 (ten) strongly agree, as shown in Table 9.

**Table 9.** AA and the Assumptions of Social Justice

Perspective	Example	Mean
a) Freedom and autonomy of choice: culture, religious doctrines, philosophical positions, politics, life projects, aspirations, etc.	The benefits received do not compromise my religious belief, political position, gender issues, identity, and others.	8.08
b) Equality, as regards your social and economic condition	The benefits received helps me make the most of the program I attend	8.16
c) Opportunities for to new competitors	The benefits received make me feel equal to other students' conditions as to my education and academic life	7.29

Source: Own elaboration.

Regarding the evaluation of the respondent as a direct AA beneficiary, Table 9 shows that, from the perspective of equality regarding social and economic conditions, the agreement index is 8.16. About to their freedom and their choices, positions before society, the index is 8.08, and for the opportunities in academic life, the respondents reached a satisfaction rate of 7.29. It is worth mentioning that the limit index was 10, concluding that 78.4% of the respondents considered that AAs do meet Social Justice assumptions.

After evaluating the perspectives, the respondents made comments on them, as transcribed in Table 10.

**Table 10.** Comments on aas and the Prospects of Social Justice

1	"I also think that, even though the university promotes equality and opportunity, people will never feel the same because deep down, they know that they depend on a benefit, an aid, and so on, to complete their higher education. This causes two sensations: satisfaction for being able to complete a very important stage of life and fear that all this help will end, and they won't be able to complete their education."
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2	"I think the aid is positive as an incentive for us who do not have many resources. It helps us a lot in our development at the university because we are supported and feel better."
3	"I believe they help the student to find balance, but each student has a different need."
4	"I believe that AAs contribute to the education of students, but they should be monitored during the education process and provide guidance to students."
5	"I believe that, sometimes, scholarships and aids can buy opinions."
6	"I believe they are good and do help; however, there're no rules that force beneficiaries to commit to their studies first."
7	"I think so. It's pretty fair to all college students."
8	"I believe that such programs are extremely important because they give the less privileged the opportunity to have quality education and promote a better future for that person."
9	"Undoubtedly, AAs positively influence academic training; however, the supervision by the PRAE leaves much to be desired regarding those who really need the program and those who don't."
10	"While collaborating with the students' permanence and support in the university, AAs imposes an academic performance duty since many ask more of these students and judge them for their poor performance, but ignore psychological and emotional factors that have a great influence on it."
11	"Although AAs at the university have decreased significantly in the last few years, they significantly improve the quality of life of the beneficiary student, besides its great importance in enabling permanence until graduation, avoiding evasion of less-than sufficient students."
12	"AAs promote benefits, especially for people who lack financial resources."
13	"AAs impose a duty that no other student has. Students serviced by AAs cannot get sick, cannot cancel subjects, cannot have psychological problems because there are standards/rules to follow. The PRAE promote the idea, for example, that USH residents are the best students and/or have very good performance/grades. AAs guarantee physical/material 'stability,' but destroy the student psychologically. The university lacks empathy in this regard."

14	"Given the number of students serviced by AAS that have already graduated, I conclude that they are indeed rather effective."
15	"The AAS above are largely instrumental in promoting freedom, equality, and opportunity, but it must be borne in mind that most of the students assisted by such programs have lower cultural capital and that does not change from one moment to another. Therefore, the cited AAS alone do not guarantee equal conditions."
16	"I believe that the student's information culture does not have the capacity yet to absorb or actually identify what is true or false in the issues raised because the external influence and the media are still forming opinions."
17	"These actions have helped us to have more access to learning."
18	"Thus, the student has more opportunities, for the ones that need them."
19	"The aids help me a lot, and if it weren't for that, I wouldn't be in university."
20	"The aid received is the best way for the university to support its students, given that there are no great improvements with the economic situation of the country. However, you can live equally with the other students."
21	"The aid is fundamental for the permanence of many students; it is an essential aid mainly for those who already have children."
22	"The benefits received do not compromise my religion or political option at all. They are effective for making the best out of [my studies] because during the year, the expenses on supplies are constant, among other personal expenses. It makes me feel in an egalitarian relationship with the others because all my colleagues belong to the same social class, i.e., it's a class that does not have a class division."
23	"For many students, it is the only way to stay in university."
24	"It depends only on the interest of each student."
25	"They are not effective, simply because of the lack of permanence scholarships."
26	"They are effective; however, benefits should be audited to ensure that they are being used to maintain a certain level of study and not to simply keep a student that is 'uninterested' or no longer needs the benefit, partially or totally."
27	"They are very effective because they allow everyone to have a good future and fulfill their dreams."

28	"If there were no aids, I would not be able to attend university, but as they exist, I feel equal to others, and I'm encouraged to reciprocate the university's support through my study and dedication."
29	"Yes, these benefits that the university proposes influence much equality among students, giving the same opportunity to all. The studied HEI is a very egalitarian university."
30	"Yes, because it offers support, even if small, to any newcomer [and] the possibility of an incentive to study."

Source: Own elaboration.

Table 10 reports the 30 answers regarding Question 26. Succinct expressions were not considered, such as "Yes" (8), "Surely they are effective" (3), "No" (2), "No comment" (6). It is observed that of the 30 quotes, 28 indicate agreement of respondents with the efficiency of AA in promoting equality of opportunity.

Some quotes are specific, indicating that, for its respondents, it was only feasible to attend the university because of AA aids and benefits. It is suggested that such statements confirm the theory of justice by proposing that "a sense of justice leads us to promote just systems and to play our part in them when we believe others, or at least a sufficient number of them, will play theirs" (Rawls, 2000, p. 295). It is stated that AAS answer the questions of justice because the student, when he feels welcomed and is sure to have his primary needs met, does his part with good performance and permanence in higher education. However, as described by student 1 in Table 10, "although the university promotes equality and opportunity, people do not feel equal." This statement is consistent with what is emphasized by Silva (2019) that students rarely enjoy the same level of adjustment to the academic environment.

In relation to Answer 10 (refer to Table 10), in which the respondent indicates that there is higher pressure for results from the students who receive AA, Rawls (2000) states that such actions cannot only occur in the present but also the future. The author affirms that a characteristic of the public sector is that it provides all the public goods. So, the public goods of the university are research, education, and

extension activities, being AAS a mere compensation for the differences among individuals resulting from intellectual and financial inheritances.

The considerations taken into account by Respondent 26 (Table 9) refers to the need for the entity responsible for resource allocation to guarantee that the process occurs as provided in the regulations; that is, that the beneficiaries meet the requirements and, in return, attend all classes and have an outstanding academic performance. This leads us to review Rawls (2000), who rejects the postulate that “justice is happiness according to the virtues” (p. 342) since the equity presented in the theory of justice indicates that it is impossible to define virtue from legitimate expectations and moral merit. Thus, as the author suggests, the institution should ensure fairness in the distribution of aids and benefits.

## Final considerations

This study aimed to identify the AAS promoted among students of business programs at a federal university in Rio Grande do Sul, Brazil, and analyze if they meet the fundamental assumptions of the theory of justice. The studied population consisted of 62 students from the Administration, Accounting Sciences, Economics, Foreign Trade, and Cooperative Management programs actively enrolled in 2018 who were receiving one or more AAS in the period.

Initially, a survey of student assistance programs was carried out to identify their features in relation to AAS and which of them are promoted by the studied HEI. It was found that the institution makes AAS available to all undergraduate students that fit the profile: being a student in his or her first undergraduate program, taking at least 15 credits of an undergraduate program, attending at least 75 % of classes, and yielding an average grade higher than 5.0. It was verified that, among the graduates with active enrollment in the Administration, Accounting Sciences, Economic Sciences, Foreign Trade, and Cooperative Management programs in 2018, 245 received some type of aid or benefit.

The survey was organized based on Miranda *et al.* (2018), Barbosa (2017), and Rawls (2000). The students evaluated the effect of structural and individual factors from their point of view, considering their experiences and the university they attend. The result was favorable, as the respondents agreed with the positive assertions in the questionnaire. It is worth highlighting that personal factors, especially those of a psychological nature, adversely affect the permanence and performance of students.

From the students' perception, AAS to reflect the theory of justice in that “each person has an equal right to the broader system of fundamental liberties that is compatible with a similar system of liberty for all” and that “social and economic inequalities are acceptable provided that they are to the greatest benefit of the underprivileged, and attached to positions and offices open to all under conditions of fair equality of opportunity” (Rawls, 2000, p. 64).

As a contribution, the study generated data on the relationship between the AAS and the sample, which will allow the HEI to evaluate, review, observe, and rate its effectiveness, as well as to account for students' giving back to society for the return investments. Previous studies indicated the need for more considerable investments in AAS, which continue to be required by the students, according to this study. The data collected on the sample studied go on to create other previously organized databases, contributing to validating future studies on the subject.

The research is limited as it relies on a sample of business programs at a single HEI in Rio Grande do Sul, south of Brazil. The study is also limited by not considering ethnic-racial subgroups within AAS. As to the state of the art of AAS, this study should be replicated with a larger sample of programs or universities, which may result in data of greater amplitude and applicability. Another research opportunity relates to graduated AAS beneficiaries and their insertion (or not) in the labor market and the individual factors and academic relations of students living in residence halls both in the researched and in other HEI.

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## Appendix I - Questionnaire

### *Block 1. Personal and Academic Information*

Age:  
Sex:  
Program:  
Starting Year:

Why did you choose your program? (The respondent can choose more than one alternative)

- Identification with the area/ occupation       Labor market occupation  
 To apply for civil servant jobs       Family influence  
 Availability of college slots       Other. Specify.

### *Block 2. Determining Factors*

We stress that there is no right or wrong answer; so, feel free to express your opinion.

Below are some assertions arranged in blocks about the factors studied. Read each assertion and indicate to what extent you agree or disagree with them, being 0 (zero) strongly disagree and 10 (ten) strongly agree.

#### Regarding the Institution I Attend

- 01 I believe that the spaces available for extra-class study (laboratory, library, study rooms, Internet) are suitable.  
02 I believe that the circulation areas, bathrooms, canteens, lounges are adequate and meet the students' needs.  
03 I believe the class size (number of students in the classroom) is adequate for the proposed learning.  
04 I believe that the assistance provided by the program coordinating and secretary's offices meets the students' needs.  
05 I believe that the curriculum is adequate for the academic training that I seek.  
06 I believe that, in general, the schedules and lesson plans are adequate for the proposed program contents.

#### About Me, as a Student

- 07 My prior knowledge and performance in school were adequate and prepared me for higher education.  
08 My absences from or delays in classes do not affect my academic performance.  
09 In addition to classroom activities, I study the classes' contents whenever possible, using supplementary readings.  
10 My academic and professional expectations are motivational factors in my education.  
11 I participate in all class and extra-class activities promoted by the program or university.  
12 Academic training is my current priority, so I spend most of my time on study activities.  
13 I am aware of the undergraduate research activities of my program.  
14 I am aware of the community extension activities promoted by my program or university.  
15 Anxiety and stress negatively influence my academic performance.  
16 My socioeconomic conditions are enough to guarantee my livelihood.  
17 I take part in social and leisure activities at university.

#### About my Professors

- 18 Professors have the appropriate qualification, knowledge, and training for the program.  
19 The form and presentation of the contents addressed by professors cater to the students' needs.  
20 Extra class assistance meets the students' needs.  
21 The form of assessment is consistent with the teaching methods and contents received.

**Source:** Designed based on Miranda *et al.* (2018).

### *Block 3. Affirmative Actions of the University*

- 22 Do you attend or have ever attended academic monitoring or tutoring programs offered by the University?  
 Yes. Which?  
 No

23 If the answer is yes, was(were) the program(s) enough?

Yes.

No. Why?

24 In your opinion, what academic support programs could the institution implement to contribute to improving your academic performance?

25 In your opinion, what academic support programs could the institution implement to contribute to your permanence in the university?

26 Evaluate affirmative actions according to your level of agreement on a scale from 0 (zero) strongly disagree to 10 (ten) strongly agree.

In your opinion, Affirmative Actions (student housing, transport assistance, food allowance, monitoring, permanence scholarship) are effective in promoting:

freedom and autonomy of choice: culture, religious doctrines, philosophical positions, politics, life projects, particular aspirations, and others. [Example: The benefits received do not compromise my religious belief, political position, gender issues, identity, etc.].

equality, as regards your social and economic condition [Example: The benefits received help me make the most of the program I attend].

opportunities for new competitors. [Example: The benefits received make me feel equal to other students as to my education and academic life].

**Source:** Adapted from Rawls (2001) and Barbosa (2017).