Advances And Challenges Of International Social Security Agreements: An Analysis Of The Evolution Of Benefits Granted In Brazil From 2010 To 2018

Elaine De Souza Barros

Federal University Of Santa Catarina (Ufsc)

Fabrícia Silva Da Rosa

Federal University Of Santa Catarina (Ufsc)

Summary

With increasing globalization, an increasing number of people have migrated abroad and seek to maintain the social security rights acquired in other countries. Given this reality, the present study aims to analyze the current scenario of international social security agreements signed by Brazil and the other agreeing countries, as well as the evolution of the numbers of benefits granted in the period from 2010 to 2018, considering the signatory country, the type of agreement and the coverage of benefits granted. The data that supported the research were collected in the Social Security Statistical Yearbook (AEPS) - Infologo database, and the issue was addressed through document analysis, using descriptive data. The results indicated that, in the period analyzed, Brazil accounted for 11,552 social security benefits granted in 15 countries with which the Brazilian Government maintains current social security agreements. The amounts spent during this period reached the mark of R\$ 10,357,000.00 (ten million, three hundred and fifty-seven thousand reais), which represents, on average, approximately R\$ 896.55 (eight hundred and ninety-six reais and fifty-five cents) per benefit granted. It is concluded, therefore, that the number of agreements signed by Brazil has increased, as has the quantity and value of benefits granted, but it is still insufficient to meet the needs of migrant workers.

Keywords: International Social Security Agreements; Benefits granted; Migrant worker.

Date of Submission: 27-01-2024 Date of Acceptance: 07-02-2024

I. Introduction

The internationalization of social security is a crucial measure for countries, given the transformations in labor relations on a global scale. With the expansion of the global economy and the internationalization of employment contracts, worker migration has reached unprecedented levels, which makes it essential that nations adopt social security policies that accompany these changes. As highlighted by Jones and Smith (2010), the adequacy of social security is essential to guarantee the social protection of workers in a context of increasing labor mobility.

In this scenario, the International Social Security Agreements (AIPS) and the adequacy of social security have become fundamental to guarantee the social protection of workers in a context of increasing labor mobility (Jones & Smith, 2010). In the case of Brazil, AIPS have been signed with several countries, allowing workers to accumulate social security benefits in different countries (Organization for Economic Cooperation and Development (OECD), 2016).

According to Holzmann and Wels (2018), one of the challenges to the effectiveness of AIPS is the lack of clear and accessible information for migrant workers and their dependents about their social security rights. Furthermore, coordination between social security institutions in the countries involved is not always effective, which can lead to problems in granting and paying benefits.

The relevance of portability of social security benefits has become increasingly evident, as the absolute number of international migrants and their proportion in the world population have increased. Furthermore, it is important to highlight the growing population that will spend part of their working life or retire abroad, which highlights the need for pension policies that take into account the international mobility of workers (Holzmann & Wels, 2018).

In this sense, it is essential that there is a joint effort by signatory countries to improve the implementation of AIPS, guaranteeing the social protection of migrant workers and their dependents. To achieve this, it is necessary to invest in the clear and accessible dissemination of information about social security rights, as well as in the harmonization of social security legislation in the countries involved (Kilmister, Wels, & Holzmann, 2020).

DOI: 10.9790/487X-2602033245 www.iosrjournals.org 32 | Page

According to Andrade and Silva (2018), the purpose of AIPS is to ensure that the social security contribution periods completed in the countries that sign the agreements are totalized, in order to ensure the social security rights provided for in the text of the agreement signed to the respective workers. and their legal dependents. Based on this, the worker can use the contribution time completed in another country, with which Brazil has an agreement, and vice versa, for the purpose of fulfilling the required waiting period and other requirements to obtain the benefit.

During the term of the agreement, a relationship is established between the agreeing countries that guarantees access to social security benefits, without modifying the current legislation of each country. It should be noted that requests for benefits and the decision regarding whether to grant or reject them must comply with the legislation of the country where the request is analyzed. Furthermore, the AIPS provide for the institution of temporary displacement, which allows the worker, who moves to another country, to remain linked to the social security of the country of origin, respecting the rules and the period pre-established in each agreement (Andrade & Silva, 2018).

According to data from the Social Security Statistical Yearbook – AEPS Infologo ¹(2018), Brazil is currently making social security payments to 15 countries, guaranteeing coverage of the basic labor rights of its respective migrants by social security.

Holzmann (2016) draws attention to the fact that the world is not considering the process of migrant labor mobility, which occurs in a very dynamic way due to the multiple migrations of individuals, sometimes to several countries. The fact is that the world should be concerned about guarantee of the social security rights of these workers, as the number of people who migrate continuously is increasing. According to a survey carried out by the aforementioned researcher, 1 in 5 European individuals will spend part of their life outside their country of origin, this means that 20% of the European population will request some social security benefit from the countries to which they contributed.

According to the World Migration Report 2022, released by the United Nations (UN) on December 1, 2021, the international migrant population reached 281 million in 2020, representing 3.6% of the global population. This number is significant, especially considering the restrictions that the Covid-19 pandemic has imposed on international migration, including border closures. The report also highlights that 108,000 restrictions were created to combat Covid-19, affecting mobility, but not preventing movement between countries. The 2020 Global Migration Report, released in 2019, had already indicated an increase in the number of international migrants, reaching 272 million in 2019, or 3.5% of the global population. This number represents an increase of 51 million compared to 2010 and 200 million compared to the 1970s, when this total was 2.3% of the world population (UN, 2021).

In view of the above, this study raises the following research question: How has the numerical data on international social security agreements signed by Brazil evolved in the period between 2010 and 2018?

Therefore, this research aims to analyze the current scenario of international social security agreements signed by Brazil and the other agreeing countries, as well as the evolution of the numbers of benefits granted in the period from 2010 to 2018, considering the signatory country, the type of agreement and coverage of benefits granted and issued, based on the information available in the AEPS Infologo database.

To address the research question, a documentary and bibliographic analysis was carried out, based on the numerical evolution of international social security agreements established by the Brazilian Government in the period between 2010 and 2018.

According to Holzmann and Werding (2015), there is a large gap when researching the subject of portability of social security benefits. Studies are still very incipient, lacking shared conceptual and theoretical understanding of international agreements and dedicated to understanding the numbers behind AIPS in Brazil.

In summary, this study seeks to better understand the numbers of international pension agreements paid by Brazil, considering the quantity and value of benefits granted, as by better understanding the numbers behind AIPS in Brazil, it will be possible to identify advances and challenges in the implementation of these agreements, as well as thinking about strategies to improve their effectiveness and guarantee the social protection of migrant workers and their dependents.

II. Theoretical Reference

Legal and constitutional guarantees in Brazil and on the international scene.

According to Saraiva (2009), strikes by workers seeking better working conditions were the material source of labor law. In addition to the 1988 Federal Constitution, it is important to highlight the international treaties and conventions ratified by Brazil, such as the Conventions of the International Labor Organization - ILO.

.

DOI: 10.9790/487X-2602033245

¹ Tool made available by the Ministry of Social Security to consult historical data on benefits maintained by the INSS and on the collection of social security contributions, in May 2023, available at http://www3.dataprev.gov.br/infologo/inicio.htm.

According to Castro (2011), globalization has resulted in an increase in the geographic movement of workers, leading the International Labor Organization (ILO) to recommend that nations develop social security agreements to guarantee social protection for these workers.

In 1935, the ILO published Convention No. 48, which began to consider the issue of social security rights for migrant workers. After this period, other important ILO Conventions dealt with the issue of migrant workers: Convention No. 97 of 1949; Convention No. 118 of 1962; Convention No. 143 of 1975; and Convention No. 157 of 1982. (Flick & Flechas, 2007).

The right to retirement was guaranteed to all urban and rural workers, as well as domestic employees, by the 1988 Constitution, if the requirements for obtaining the benefit were met. Furthermore, the conditions for guaranteeing retirement under the General Social Security Regime (RGPS) were established in article 201 of the Constitution, without making a distinction between insured persons who are or are not in the national territory (Brazil, Constitution of the Federative Republic of Brazil, 1988).

According to Fick and Flechas (2007) and Castro (2011), the Brazilian Government seeks to establish international agreements to recognize the rights of insured and Social Security beneficiaries who are non-national workers. Such agreements do not change the legislation of the countries involved and can be adapted in accordance with their own applicable legislation, respecting the uniqueness of each agreement signed.

Initial efforts to coordinate social security regimes through international agreements date back to the period before the Second World War, as noted by Taha et al. (2015). However, reciprocal agreements, as known today, emerged only after the conflict ended.

Since 1919, when France and Italy signed a bilateral social security agreement to address the problem of missing or fragmented social benefits for migrant workers, other countries have followed suit and concluded similar bilateral and multilateral agreements (Flick & Flechas, 2007).

Each country currently sets its own rules regarding social security benefits. In the United States, retirement pay began as a sickness or disability benefit for workers who suffered workplace injuries and was later expanded to include retirement pay (Bateman, Kingston, & Piggott, 2001).

According to D'addio and Cavalleri (2014), the European Union (EU) currently has the most complete system of portability of social benefits, with its citizens having full and non-discriminatory access to the portability of most of these benefits. The researchers highlight that this is reflected in the fact that only a small percentage of EU citizens consider the lack of portability as an obstacle to moving to another member country.

Both the Brazilian insured linked to the RGPS - General Social Security Regime, and the beneficiary of international agreements need to follow the legislation that includes the Federal Constitution of 1988, Constitutional Amendment No. 103 of 12/11/2019, Law No. 8,213 of 23 /07/1991 with its modifications, Constitutional Amendment n° 20 of 12/15/1998, Decree n° 3,048 of 05/06/1999, Normative Instruction n° 45 INSS/PRES of 08/06/2010 with its amendments, in addition of the Social Security Agreement signed between the countries (Ministry of Social Security (MPS), 2023b).

In accordance with INSS/PRES Normative Instruction No. 45/2010, international agreements are signed by the authorities of the signatory States with the aim of providing benefits to insured workers and their dependents. These agreements do not imply a change in the legislation of the countries involved and must be adapted to their own applicable legislation, taking into account the particularities of each agreement, establishing a reciprocal relationship for the provision of social security benefits (Instituto Nacional do Seguro Social (INSS), 2010).

According to information provided by the Ministry of Social Security (MPS), Brazil currently has international social security agreements of both a bilateral nature, signed with sixteen countries, and a multilateral one, involving ten or more countries. Recently, the country has ratified new bilateral agreements, with six countries and multilateral agreements with the Community of Portuguese Speaking Countries, which are still in the process of being ratified by the National Congress (MPS, 2023a).

Social Security Agreements can cover various benefits, such as permanent or temporary incapacity for work, work accidents and occupational illnesses, length of service, old age, death and professional rehabilitation. When the beneficiary of international pension agreements expresses interest in requesting the benefit in Brazil, it is the responsibility of the General Social Security Regime to analyze the granting of the benefit (INSS, 2023a), which may be:

- a) retirement: lifetime and monthly payment, retirement is obtained by the insured person based on age or contribution time. In the age-based modality, the worker acquires the right to retire upon reaching the previously established age. Due to contribution time, the worker becomes entitled to retirement when he reaches the established period of contribution to the social security system in which he participates. There is also disability retirement, in which the worker will be entitled to payment of the benefit while he recovers his ability to work or permanently (Nogueira, 2007; Jesuíno & Lima, 2011).
- b) pension: according to Nogueira (2007) and Jesuíno and Lima (2011), pension is the payment due to the dependents of the insured person who dies. Its value corresponds to the pension that the insured person would

- receive if they were to retire due to disability, eliminating the need for a waiting period.
- c) Financial assistance: is paid to the insured person so that they are protected against salary losses when they are struck by illness, suffer an accident or are sentenced to imprisonment, among other causes of temporary absence from work. In disability retirement, the worker is entitled to the benefit while trying to recover his ability to return to work (Nogueira, 2007; Jesuíno & Lima, 2011).

According to the MPS (2023a), to request a benefit provided for in an International Agreement, the insured must make a request for the benefit and file it with the managing entity in the country where they reside.

For totalizing the working periods in the bilateral Social Security Agreement between Brazil and other countries that are parties to the agreements, some general rules must be complied with to request the benefit from Brazil, in this way the explanation of these rules allows the worker to have greater knowledge of their rights (INSS, 2023a).

Around the world, it is common for international social security agreements to focus on long-term benefits, such as disability retirement, old age and death pensions. Benefits related to worker health and social assistance, or maternity subsidies are generally subject to specific social security agreements and are not portable. This is the trend observed in most international social security agreements, as pointed out by Sabates-Wheeler (2009).

A research group from the *Center for Economic Studies* (CES) held a workshop in Italy in 2012 and on this occasion discussions were opened on various topics, such as: the need to stimulate research into international agreements, as well as the ideal model of rules between countries, conceptual issues on this topic; assessments of existing agreements; and empirical work on the effects of pension agreements, or lack thereof, demonstrating that the matter deserves more academic attention.

International agreements agreed by Brazil

International Social Security Agreements are bilateral treaties signed between the governments of two countries with the aim of ensuring to insured people and their dependents the social security rights acquired and in the process of acquisition, as established in the social security legislation of the respective countries. These agreements are based on the existence of reciprocity between the pension systems involved. They enable the totalization of contribution periods, or recognized and equivalent periods, in order to enable the implementation, maintenance and recovery of social security rights.

According to the MPS (2023a), the main reasons that led to the signing of international agreements are: I) the large volume of foreign trade; II) the receipt of significant foreign investments; III) the reception of migratory flows in the past; and IV) special friendly relations between countries.

International pension agreements signed by Brazil normally cover the same pension benefits offered by the RGPS, such as retirement due to age, retirement due to disability, death pension, retirement based on contribution time, special retirement, accident benefit, sickness benefit, imprisonment, family allowance and maternity allowance. (MPS, 2023a)

These agreements can be classified as bilateral and multilateral, and both are considered international legal acts and follow a specific process in each country involved for their processing. The process begins with countries negotiating the text of the agreement and ends with its promulgation, allowing the international act to come into force. In Brazil, it is the responsibility of the Executive Branch, through the body responsible for drafting policies in the area of social security, to negotiate and sign Social Security agreements. After this process, the international instrument must be submitted to the National Congress for ratification and subsequent promulgation. (MPS, 2023a)

According to the social security agreements signed by Brazil, it is possible for a professional to be temporarily moved to work in another country and maintain their employment relationship with the company in Brazil and with the RGPS. Each agreement establishes different forms of treatment for temporary displacement and the benefits assured, taking into account their specificities (MPS, 2023a).

Bilateral Agreements

A bilateral social security agreement is a treaty or agreement entered into between two countries with the aim of coordinating the social security or social security systems of those countries. The agreement aims to protect the rights and benefits of workers and taxpayers who move from one country to another (MPS, 2023a).

The first record of a bilateral agreement signed by Brazil was with Luxembourg, approved by the National Congress through Legislative Decree No. 52 on September 16, 1965, in force by Decree No. 60,968 of July 7, 1967. In addition to the benefits covered by all agreements maintained by Brazil, the agreement with Luxembourg also covers retirement based on contribution time, sickness, maternity, disability, old age, death, and accidents at work insurance, in the same way as family allowance, excluding birth benefits granted on a non-contributory basis.

Until 2019, Brazil signed 16 bilateral agreements: Germany, Belgium, Cape Verde, Canada, Chile, Korea, Spain, United States, France, Greece, Italy, Japan, Luxembourg, Portugal, Quebec and Switzerland, covering three or more benefits, such as: special retirement, retirement due to age, retirement due to disability, retirement based on contribution time, sickness benefit, accident benefit, incarceration benefit, death pension, family allowance and maternity allowance (MPS, 2023a). Table 1 presents the effective date of active bilateral agreements in Brazil, as well as the date of their last amendment.

In recent years, Brazil has signed new bilateral social security agreements with the countries: Austria, Bulgaria, India, Israel, Mozambique and the Czech Republic, which are currently in the process of being ratified by the National Congress, for subsequent publication of the respective Presidential Decree (MPS, 2023a).

Table 1: Bilateral agreements in force in Brazil

Countries	Beginning of Term	Last update	
GERMANY	01/05/2013	-	
BELGIUM	01/12/2014	-	
CAPE GREEN	07/02/1979	-	
CANADA	01/08/2014	-	
CHILE	01/03/1993	01/09/2009	
KOREA	01/11/2015	-	
SPAIN	01/12/1995	01/03/2018	
U.S	01/10/2018	-	
FRANCE	01/09/2014	-	
GREECE	01/09/1990	-	
ITALY	05/08/1977	-	
JAPAN	01/03/2012	-	
LUXEMBOURG	01/08/1967	01/04/2018	
PORTUGAL	25/03/1995	28/12/2015	
QUEBEC	01/10/2016	-	
SWITZERLAND	01/10/2019	-	

Source: Prepared by the authors based on data provided by AEPS - Infologo (2023).

Multilateral Agreements

A multilateral social security agreement is an agreement established between two or more countries with the aim of coordinating social security and social security systems between them (MPS, 2023a).

Multilateral migration agreements are commonly established in regions that have economic integration and free movement of workers, considering migration as an essential factor in the integration process (Van Ginneken, 2013). Such agreements are generally negotiated between a group of countries at a regional level, as is the case with the Caribbean Community (CARICOM) and the MERCOSUR Agreement (Jousten, 2015).

Brazil has established two multilateral agreements related to the social security area. The first of these agreements is the Multilateral Social Security Agreement of the Southern Common Market (MERCOSUR), signed on December 15, 1997, approved through Legislative Decree No. 451, of November 14, 2001 and coming into force on 01 /06/2005. (MPS, 2023a).

The Mercosur multilateral agreement is in force for Argentina, Brazil, Paraguay and Uruguay and stipulates the granting of existing social security benefits, in accordance with the legislation of each country, covering issues such as illness, disability, death and retirement. It is worth noting that this agreement does not replace bilateral or multilateral agreements previously signed with the same signatory countries in previous agreements. If there are more favorable provisions for beneficiaries in previous agreements, these will be applied.

The Second Multilateral Social Security Agreement is part of the Ibero-American Multilateral Social Security Convention, in force since May 19, 2011, which in addition to Brazil, Argentina, Bolivia, Chile, El Salvador, Ecuador, Spain, Paraguay, Peru, Portugal and Uruguay, according to the last update in October 2016. The agreement was signed on July 10, 2007, during the XVII Ibero-American Summit of Heads of State and Government, held in Santiago, Chile (MPS, 2023a).

The multilateral agreement established with the Ibero-American community includes social security benefits related to retirement due to age and disability, as well as aid in cases of illness, accident and death pension. It is worth noting that this agreement does not replace bilateral or multilateral agreements previously signed with the same signatory countries in previous agreements. If there are more favorable provisions for beneficiaries in previous agreements, these will be applied (MPS, 2023a).

Motivated by the volume of international trade between countries, international investment flows and the volume of migration, Brazil also signed a new agreement with the PORTUGUESE LANGUAGE COMMUNITY – CPLP, which is currently in the process of ratification by the National Congress, for subsequent publication of the respective Presidential Decree (MPS, 2023a).

Temporary travel

Temporary Displacement refers to the movement of the worker, either on the initiative of the employer or on their own in the case of self-employed workers, to provide temporary services in the country with which an agreement has been established. During this period, the worker continues to be subject to the social security legislation of the country of origin, including issues related to funding (MPS, 2023a).

Workers who travel to provide services in the agreement country are exempt from the obligation to join the Social Security of the country in which they are temporarily working, as long as they comply with the deadlines stipulated in the relevant agreement. During this period, they remain linked to the Social Security of their country of origin (MPS, 2023a)

The request for the Temporary Relocation Certificate, whether by the company or the self-employed worker, must be made to the Social Security Agency 90 days in advance of the start date of the removal. Relocation and extension deadlines vary according to the provisions established in each specific agreement. During the period of temporary displacement, the worker has the right to receive medical assistance through the official government network of the country with which the agreement was established. If the worker or self-employed person returns early before the deadline stipulated in the Certificate, the company must inform the INSS so that the document can be rectified. The worker or self-employed person is provided with a Temporary Travel Certificate, which aims to waive membership in the Social Security of the agreed country where they will provide services, thus remaining linked to Brazilian Social Security (INSS, 2023b).

If there is a need for the insured to stay beyond the initially foreseen period, the company may exceptionally request an extension of the Initial Travel for a further period, as specified in each Agreement, with authorization at the discretion of the competent authority of the Agreement Country. The request for extension of Temporary Relocation must be filed up to 90 (ninety) days before the end of the initial authorized period. (MPS, 2001).

Only the Agreements in force between Brazil and Canada, Italy and MERCOSUR do not provide for temporary travel for self-employed workers. (INSS, 2023b).

III. Methodology

According to Dixon (1998), the topic of social security can use a variety of analysis methods and the researcher also emphasizes that the analysis of social security systems is a challenge.

The topic of International Pension Agreements is still relatively new, presenting an incipient condition. Considering that the purpose of the research is to analyze the current scenario of international social security agreements signed by Brazil and the other agreeing countries, as well as the evolution of payments made, this study can be classified as exploratory, as it allows a comprehensive understanding of a specific phenomenon and offers elements that can help explain its characteristics (Raupp & Beuren, 2006; Vergara, 2016).

In relation to the problem, we can classify it as qualitative research, since an investigation based on documents was conducted and descriptive data was used, that is, information that has not yet been analyzed in depth.

With regard to the methods used, this study is characterized as documentary and bibliographical research. The analysis was conducted based on the numerical evolution of international social security agreements established by the Brazilian Government in the period from 2010 to 2018. Aspects such as the signatory country, type of agreement, benefits granted and credits issued were considered. This information was obtained through the AEPS Infologo database.

In this study, we sought to analyze the current scenario of international pension agreements signed by Brazil and the other agreeing countries, as well as the evolution of payments made under international pension agreements signed by Brazil in the period from 2010 to 2018, this being the last year in which the data were made available.

16 bilateral and 2 multilateral agreements were analyzed, based on analyzing the evolution of payments made under international social security agreements that were signed by Brazil between 2010 and 2018, using national and international authors who study the topic, in order to to corroborate the reference used.

The data released in the research were taken from the Social Security Statistical Yearbook – AEPS, as it is the census released by the Ministry of Social Security, which shows all the amounts paid by the National Institute of Social Security (INSS).

The documents relevant to these social security agreements were analyzed, such as the Agreement regulations and other regulations. The quantity and value of benefits granted by species group and country were

also surveyed; the quantity and value of credits granted by species group and country.

IV. Analysis of Payments of International Social Security Agreements Established by Brazil The practical implementation of the International Social Security Agreements established by the Brazilian Government

The operationalization of each International Social Security Agreement will be conducted through Liaison Bodies. These standards regulate the procedures and routines applicable to international agreements within the benefits area of the National Social Security Institute (INSS).

To grant the social security benefit, each country involved in the international social security agreement will analyze the request, taking into account the provisions established in the specific agreement.

In accordance with INSS/DIRBEN Ordinance No. 1045 OF 08/04/2022, which amended DIRBEN/INSS Ordinance No. 995, of March 28, 2022, residents in Brazil can request the benefits provided for in International Agreements through the channels remote service from the INSS or directly at the Social Security Agencies for International Agreements Service - APSAI. On the other hand, residents abroad must request the benefits provided for in International Agreements at the Liaison Body or competent Institution in the country with which the agreement was established. These bodies will be responsible for receiving and processing applications, ensuring the application of the provisions of the social security agreement.

Furthermore, according to Ordinance DIRBEN/INSS n° 995, of March 28, 2022, in Brazil, the requirements for receiving the social security benefit are the same for all contributors to the General Social Security Regime (RGPS). The difference lies in the inclusion of the contribution period carried out abroad. The benefits contemplated in the Agreements may have their insurance or coverage periods totaled. This means that the periods contributed under Brazilian legislation and the country(ies) involved in the agreement will be added together, if the insured does not meet the requirements for granting the benefit based exclusively on the periods completed under Brazilian legislation. In this way, the totalization of contribution periods allows the insured person to meet the necessary requirements to obtain the social security benefit.

Normative Instruction No. 77, of January 21, 2015, is the rule that establishes routines to speed up and standardize the recognition of rights of insured people and Social Security beneficiaries. Section V establishes the rules that will address the guidelines and criteria to be applied to calculate social security benefits.

When calculating the social security benefit with aggregation of periods (insurance period in Brazil and insurance period in the agreeing country), the value of the benefit is proportional to the time of activity in Brazil in relation to the total time. Initially, the benefit is calculated based on a theoretical value, considering that the entire contribution period was carried out in Brazil. However, the basic calculation period is made up only of the contribution salaries that generated payments in Brazil, following the same calculation rules established by Brazilian legislation. In this way, the benefit is calculated considering only the contribution salaries registered in Brazil, even with the totalization of contribution periods from different countries.

The portion of the social security benefit under Brazil's responsibility is calculated by multiplying the theoretical value of the benefit by the contribution time in Brazil and dividing by the total contribution time, according to the following equation:

Brazilian share by totaling periods

$$RMI(1) = \frac{RMI(2)x TS}{TT}$$

Where:

RMI (1) = proportional benefit

RMI (2) = theoretical performance

TS = length of service in Brazil

TT = total insurance periods completed in both countries (observing the maximum limit, according to current legislation)

Source: Art. 650 of Normative Instruction No. 77, of January 21, 2015

The numerical evolution of agreements

The Social Security Statistical Yearbook – AEPS - Infologo, consolidates information regarding international social security agreements signed and paid by Brazil, detailing the granting and issuance of benefits.

The AEPS contains data on international pension agreements signed with Germany, Argentina, Belgium, Canada, Chile, Spain, France, Greece, Italy, Japan, Luxembourg, Paraguay, Portugal and Uruguay. The AEPS does not yet contain data relating to other countries with signed agreements and does not have data for the years

2019, 2020 and 2021.

The benefits of the General Social Security Regime (RGPS) supported by international agreements cover both foreigners residing in Brazil and Brazilians domiciled in the agreement countries.

According to AEPS Infologo, which is a source of information on international Brazilian Social Security agreements, the benefits granted under these agreements are those in which the application is presented by the insured person or their dependents to Social Security. These requests are analyzed, approved and released for payment, ensuring that beneficiaries receive the benefits to which they are entitled. This concession refers to the process of introducing new benefits into the social security system, considering the provisions agreed between the countries involved.

The data available in AEPS contains the quantity and value of benefits granted by countries that are signatories to international agreements. According to the database, from 2010 to 2018, 11,552 benefits were granted under Social Security, totaling a total value of R\$ 10,357,000.00 (ten million, three hundred and fifty-seven thousand reais). These social security benefits were paid to 15 countries with which Brazil has agreements. In the tables and graphs below you can see the quantities and values of benefits granted, by species group and by country, in the years studied.

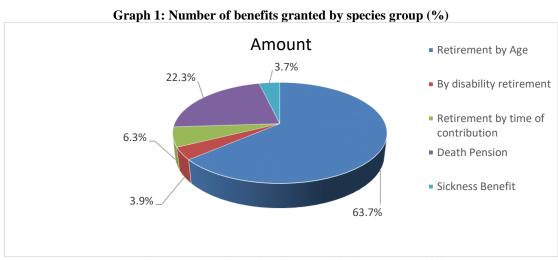
Table 2 presents the total amount of benefits granted considering species groups.

Table 2: Total amount of benefits granted by species group

	Table 2: Total amount of benefits granted by species group							
Years	AMOUNT OF BENEFITS GRANTED UNDER INTERNATIONAL SOCIAL SECURITY AGREEMENTS							
	Species Groups							
	Age Retirement	By disability retirement	Retirement by time of contribution	Death Pension	Sickness Benefit	Total		
2010	432	38	66	438	41	1.015		
2011	434	48	61	192	44	779		
2012	829	63	92	287	53	1.324		
2013	1.310	83	146	351	88	1.978		
2014	1.101	71	135	340	55	1.702		
2015	1.029	56	78	275	47	1.485		
2016	871	46	78	266	44	1.305		
2017	606	21	30	210	18	885		
2018	750	29	43	217	40	1.079		
TOTALS	7.362	455	729	2.576	430	11.552		

Source: Prepared by the authors based on data provided by AEPS - Infologo (2023).

It appears that the type of benefit most granted was retirement due to age, with 7,362 benefits granted, followed by the death pension, with 2,576 benefits granted in the period analyzed. In the sum of old-age pensions and death pensions, these represent approximately 86% of the total benefits granted in the sample, as can be seen in the graphic representation below (Graph 1).



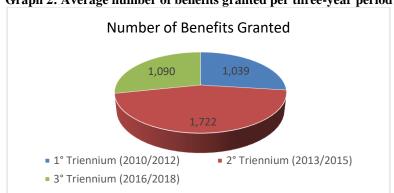
Source: Prepared by the authors based on data provided by AEPS - Infologo (2023).

The graphic representation below (Graph 2) presents information on the average number of benefits granted per three-year period in the sample. In the 1st three-year period, the average number of benefits granted

was 1039. In the 2nd three-year period, there was a significant increase, with an average of 1722 benefits granted, representing an increase of approximately 65.74% in relation to the previous three-year period.

However, in the last three-year period studied, the average number of benefits granted was 1090, which indicates a drop of 36.7% compared to the 2nd three-year period. This drop took the number of benefits granted back to the level observed in the 1st three-year period.

This information highlights the fluctuations in the granting of benefits over the three years studied, showing a significant increase in the 2nd three years and a subsequent drop in the last three years, returning to initial levels.



Graph 2: Average number of benefits granted per three-year period

Source: Prepared by the authors based on data provided by AEPS - Infologo (2023).

In table 3, the data shows the different amounts of benefits granted by country, as well as a brief demonstration of the evolution of the countries over the analyzed period and provides an overview of the distribution of these benefits within the scope of international social security agreements.

It appears that the country that granted the most social security benefits was Portugal, followed by Japan and Spain. The average number of benefits granted was approximately 469 for Portugal, 360 for Japan and 221 for Spain, while the general average of benefits granted by the Brazilian Government, in the period analyzed, was 1,284. It is noteworthy that the agreement with Japan, one of the most recent social security agreements signed by Brazil, which came into force in 2012, already has the second highest number of benefits granted.

Based on the information provided, we can infer that the countries Uruguay, Portugal and Italy present a dispersion relative to the averages, similar to the dispersion relative to the average of the consolidated total. This means that the variation in data within these countries is comparable to the variation in the consolidated total. Furthermore, Uruguay is the country with the dispersion percentage that is closest to the dispersion relative to the average of the consolidated total in relation to the other countries in the dispersion range of up to 35%. In relation to the other countries, these present a trend curve furthest from the total consolidated average, with the majority of countries presenting a dispersion greater than 50% in relation to the consolidated average, demonstrating a greater fluctuation in the values of benefits granted in the period.

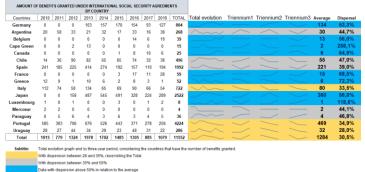


Table 3: Total amount of benefits granted by signatory country

Source: Prepared by the authors based on data provided by AEPS - Infologo (2023).

Table 4 presents the total value of benefits granted considering groups of species. This value reached the value of R\$ 10,357,000.00 (ten million, three hundred and fifty-seven thousand reais), which represents, on average, approximately R\$ 896.55 (eight hundred and ninety-six reais and fifty-five cents) per benefit granted in the period analyzed.

Based on the information provided, it is possible to verify an increase in the total value of benefits granted when comparing the years 2010 and 2018. According to the data, there was an increase of 270.11% in the total value of benefits granted in this period. This means that the value of benefits in 2010 was significantly lower than in 2018, having more than tripled over these eight years. This increase was higher than the official inflation rate accumulated in Brazil during the same period, which was 69.03%, according to the Brazilian Institute of Geography and Statistics (IBGE). This suggests that the value of benefits granted has increased significantly in real terms, that is, above the rate of inflation.

Furthermore, it is observed that the benefits granted reached their peak in 2012, suggesting that the highest total value in benefits granted was recorded in that year. In subsequent years, the values of benefits granted apparently remained in relative balance, which means that the total value did not have significant fluctuations and remained stable in subsequent years.

These observations indicate that these results may be the result of several factors, such as adjustments in benefit policies, changes in economic conditions or updates to eligibility criteria.

Table 4: Total value of benefits granted by species group

	VALUE OF BENEFITS GRANTED UNDER INTERNATIONAL SOCIAL SECURITY AGREEMENTS (R\$						
Years	Thousand)						
	Age Retirement	By disability retirement	Retirement by time of contribution	Death Pension	Sickness Benefit	Total	
2010	198	33	69	214	28	542	
2011	329	33	41	141	31	575	
2012	532	44	86	252	34	948	
2013	892	64	148	322	65	1.491	
2014	809	46	150	359	41	1.405	
2015	864	45	90	316	45	1.360	
2016	881	51	127	333	49	1.441	
2017	706	31	42	332	20	1.131	
2018	952	52	56	371	33	1.464	
TOTALS	6.163	399	809	2.640	346	10.357	

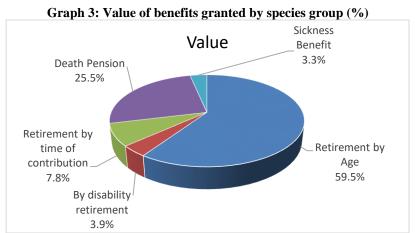
Source: Elaborated by the authors based on data provided by AEPS - Infologo (2023).

Graph 3 shows the percentage of the value of benefits granted by species group.

Based on the information provided, it appears that, in the period analyzed, the type of benefit with the highest amounts spent was retirement due to age, totaling R\$ 6,163,000.00 (six million, one hundred and sixty-three thousand reais), representing 59.5% of the total. The death pension was the second type of benefit with the highest value, totaling R\$2,640,000.00 (two million, six hundred and forty thousand reais) in benefits granted, which represents 25.5% of the total value of benefits granted.

Together, these two types of benefits add up to an approximate value of R\$8,803,000.00 (eight million, eight hundred and three thousand reais), representing around 85% of the total value of benefits granted in the analyzed sample.

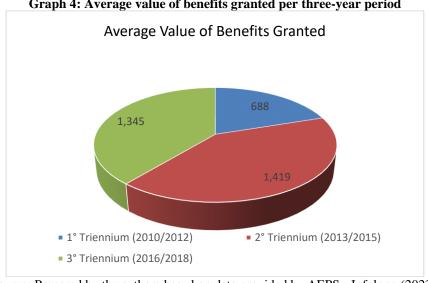
This information highlights the importance of retirement due to age and the death pension in the context of benefits granted during the period studied. These two types of benefits represented the largest portion of expenses and expenses related to benefits in the period analyzed.



Source: Prepared by the authors based on data provided by AEPS - Infologo (2023).

The graphical representation below (Graph 4) presents information on the average value of benefits granted per triennium from 2010 to 2018. In the 1st triennium, the average value of benefits granted was R\$688,000.00 (six hundred and eighty-eight thousand reais). In the 2nd triennium, there was a significant increase, with an average of R\$1,419,000 (one million, four hundred and nineteen thousand reais) in benefits granted. This value represents an increase of approximately 206.25% in relation to the previous three years, indicating a significant growth in the average values of benefits granted.

In the last three years studied, the average number of benefits granted was R\$1,345,000 (one million, three hundred and forty-five thousand reais). This represents a slight drop of 0.055% compared to the 2nd threeyear period. This drop can be considered insignificant, indicating a scenario of stability. The average number of benefits granted remains relatively constant, without significant variation.



Graph 4: Average value of benefits granted per three-year period

Source: Prepared by the authors based on data provided by AEPS - Infologo (2023).

The data in table 5 provides information on the values of benefits granted by signatory country.

Furthermore, the data in the table confirm the scenario previously described in Chart 4, where there is growth in the first years of the sample, followed by stabilization in the most recent years of the analyzed period.

It appears that Portugal was the country that granted the most amounts of social security benefits, followed by Japan and Spain, which are also among the countries that granted the most amounts of benefits. In the period analyzed, the average value of benefits granted was approximately R\$389,000.00 (three hundred and eighty-nine thousand reais) for Portugal, R\$300,000.00 (three hundred thousand reais) for Japan and R\$187,000.00 (one hundred and eighty-seven thousand) for Spain, while the general average value of benefits granted by the Brazilian Government, in the period analyzed, was approximately R\$ 1,151,000.00 (one million, one hundred and fifty-one thousand reais).

Based on the data, it can be inferred that the values of benefits granted in countries in the dispersion range between 28% and 35% (Spain, Italy, Portugal and Uruguay) are closer to the average of the consolidated total. The trend curve of these countries is similar to the dispersion relative to the average of the consolidated total. Furthermore, Spain is the country that comes closest to the consolidated total in terms of dispersion. This strengthens the inference that the values of benefits granted in Spain are even closer to the average of the consolidated total compared to other countries in the same dispersion range.

Portugal has the lowest dispersion relative to the average compared to other countries in the dispersion range of up to 35%. This suggests that benefit values granted in Portugal are more stable over the period analyzed. Therefore, there is less fluctuation in the amounts granted compared to other countries in this range.

In relation to the countries in the other bands, it was observed that they present a trend curve that is more separated from the total consolidated average, with the majority of countries presenting a dispersion greater than 50% in relation to the consolidated average. This indicates a greater fluctuation in the values of benefits granted throughout the period analyzed for these countries, resembling the behavior of the numbers in Table 3.

Finally, it was observed that the agreement with Japan already has the second highest number not only in quantity, but also in value of benefits granted.

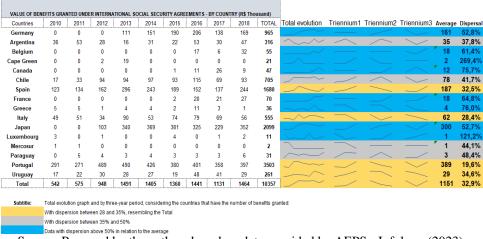


Table 5: Total value of benefits granted by agreement country

Source: Prepared by the authors based on data provided by AEPS - Infologo (2023).

The variation in the number of benefits granted over the years may be influenced by the volume of migrant workers in each country, as well as the number of applications made by these migrants. These fluctuations may reflect changes in economic, political or demographic conditions that affect labor migration.

Furthermore, it is important to consider the possibility of failures in the dissemination or clarity of information on the social security rights of migrant workers and their dependents. If potential beneficiaries do not have adequate knowledge of their rights or find it difficult to access them, this could impact the numbers of benefits granted in each country. (Holzmann & Wels, 2018)

Therefore, this analysis highlights the importance of reviewing and improving international social security agreements, in order to guarantee the full exercise of social security rights by migrant workers.

The research by Holzmann and Werding (2015) points out that in the area of international social security benefits, research on quantitative information on agreements is still scarce, such as the value and quantity of benefits, information that is extremely relevant for a more complete assessment of agreements, noting, still the lack of dissemination of studies on the topic.

V. Limitations

It is important to highlight that in the first two years of the sample, the group of countries that make up the Mercosur Multilateral Agreement is included. This differentiation may have an impact on the data presented, since the accounting was carried out differently in relation to other years, disregarding the Group and starting to consider only the countries that are part of the bloc.

Furthermore, records from other countries (Korea, United States, Quebec and Switzerland) that have bilateral agreements signed with Brazil were not made available in the AEPS – Infologo database. This can also influence data analysis and comparisons between countries.

It is worth highlighting that it is necessary to consider in the analysis of Tables 3 and 5, the effective date of the agreements signed with the countries, as they did not present records in periods prior to their validity.

Therefore, when interpreting the data in the tables and when carrying out a more in-depth analysis, it is essential to consider these aspects mentioned, such as the composition of the sample, differentiated accounting in the first years, the availability of records and the effective date of the agreements. This additional information helps to contextualize and better understand the results presented.

VI. Final considerations

This study aimed to analyze the current scenario of international social security agreements signed by Brazil and the other agreeing countries, as well as the evolution of the numbers of benefits granted in the period from 2010 to 2018, considering the signatory country, the type of agreement and coverage of benefits granted and issued, based on information made available in the Social Security Statistical Yearbook (AEPS) – Infologo database.

It also demonstrated the status of international pension agreements signed by Brazil by analyzing the progress of aspects of these agreements, regarding the benefits granted, also considering the particularities of the pension agreements signed by Brazil based on the information available in AEPS - Infologo.

Based on the database provided by the Social Security Statistical Yearbook – AEPS - Infologo, there was a movement in payments of social security benefits within the scope of international social security agreements in the period 2010 to 2018.

According to the database, from 2010 to 2018, 11,552 benefits were granted under Social Security, totaling a total value of R\$ 10,357,000.00 (ten million, three hundred and fifty-seven thousand reais). These social security benefits were paid to 15 countries with which Brazil has signed agreements.

On average, around 1,284 benefits were granted during this specific period, representing a value of R\$ 1,151,000.00 (one million, one hundred and fifty-one reais), however the numbers still indicate a fluctuation in the values of benefits granted throughout of the period analyzed between the agreeing countries.

The amounts granted increased gradually over the period from 2010 to 2018. There was, in fact, an increase in the total value of benefits of 270.11% if compared to the value of the year 2010 in relation to the value of the year 2018. This percentage It even exceeds the official inflation rate accumulated in Brazil during the same period, which was 69.03%.

To carry out the numerical analyses, the effective date of the agreements signed with the countries was considered, as they did not have records in periods prior to their validity.

The variation in the number of benefits granted over the years may be influenced by the volume of migrant workers in each country, the number of applications made by these migrants and possible failures in the dissemination of information on the social security rights of migrant workers and their dependents. These fluctuations may reflect changes in economic, political or demographic conditions that affect worker migration.

The records of the other countries (Korea, United States, Quebec and Switzerland) that have bilateral agreements signed with Brazil were not made available in the AEPS – Infologo database, which could influence the data analysis and comparison between countries.

The total number of social security agreements signed by Brazil has increased, but still in a much lower number than what migrants need, as only 18 agreements are in force in Brazil, however, even in an insufficient number, they allowed an expansion of social security protection for migrant workers.

Finally, carrying out studies involving migration corridors has been a useful tool for analyzing and comparing bilateral and multilateral social security agreements, as well as informing political managers and social policy researchers about the improvement and effectiveness of signed agreements and opportunities for possible improvements.

There are still several issues that must be analyzed and addressed, such as the taxation of agreements and the financial implications for the public accounts of the countries involved, which remain as suggestions for future research.

Bibliographic references

- [1]. Andrade, Es, & Silva, Eb (2018). International Social Security Agreements: Analysis Of Their Effectiveness In Relation To Brazilian Workers. Brazilian Pension Magazine, 43 (1), Pp. 33-53.
- [2]. Bateman, H., Kingston, G., & Piggott, J. (2001). Forced Saving: Mandating Private Retirement Income. Cambridgeuniversity Press.
- [3]. Brazil. (1966). Legislative Decree No. 52. Source: Https://Www2.Camara.Leg.Br/Legin/Fed/Decleg/1960-1969/Decretolegislativo-52-28-Novembro-1966-349457-Publicacaooriginal-1-Pl.Html
- [4]. Brazil. (1967). Decree No. 60.9688 Of July 7, 1967. Source: Https://Www2.Camara.Leg.Br/Legin/Fed/Decret/1960-1969/Decreto-60968-7-Julho-1967-402117-Publicacaooriginal-1-Pe.Html
- [5]. Brazil. (1988). Constitution Of The Federative Republic Of Brazil. National Congress. Source: https://www.Planalto.Gov.Br/Ccivil_03/Constituicao/Constituicao.Htm
- [6]. Brazil. (1991). Law No. 8,213 Of July 23, 1991. Source: Http://Www.Planalto.Gov.Br/Ccivil_03/Leis/L8213cons.Htm
- Brazil. (1998). Constitutional Amendment No. 20 Of December 15, 1998. Source: http://www.Planalto.Gov.Br/Ccivil_03/Constituicao/Emendas/Emc/Emc20.Htm
- [8]. Brazil. (1999). Decree No. 3,048 Of May 6, 1999. Source: http://www.Planalto.Gov.Br/Ccivil_03/Decreto/D3048.Htm
- [9]. Brazil. (2019). Constitutional Amendment No. 103, Of November 12, 2019. Source: http://Www.Planalto.Gov.Br/Ccivil_03/Constituicao/Emendas/Emc/Emc103.Htm
- [10]. Castro, P. G. (2011). General Theory Of International Social Security Law: International Agreements In Brazilian Social Security Law: Theory And Practice. Ltr.
- [11]. D'addio, A.C., & Cavalleri, M.C. (2015). Labor Mobility And The Portability Of Social Rights In The Eu. Cesifo Economic Studies, 61 (2), Pp. 346-376.
- [12]. Dixon, J. (1998). Comparative Social Security: The Challenge Of Evaluation. Journal Of Comparative Policy Analysis: Research And Practice, 1 (1), Pp. 61-95.
- [13]. Flick, Bj, & Flechas, Âc (2007). Social Security For Migrant Workers: Their Treatment In The European Union, In The International Labor Organization In The Treaty Law. International Law: Revista Colombiana De Derecho Internacional.
- [14]. Holzmann, R. (2016). Do Bilateral Social Security Agreements Deliver On The Portability Of Pensions And Health Care Benefits? A Summary Policy Paper On Four Migration Corridors Between Eu And Non-Eu Member States. Iza Journal Of European Labor Studies, 5 (1), Pp. 1-35.
- [15]. Holzmann, R. (2018). The Portability Of Social Benefits Across Borders. Iza World Of Labor.
- [16]. Holzmann, R., & Wels, J. (2018). International Portability Of Pension Benefits: Economics And Global Overview. Geneva Papers On Risk And Insurance-Issues And Practice, 43 (4), Pp. 535-565.
- [17]. Holzmann, R., & Wels, J. (2020). The Cross-Border Portability Of Social Security Benefits: Status And Progress? International Social Security Review, 73 (1), Pp. 65-97.
- [18]. Holzmann, R., & Werding, M. (2015). Portability Of Social Benefits: Research On A Critical Topic In Globalization. Cesifo Economic Studies, 61 (2), Pp. 335-345.
- [19]. National Social Security Institute (Inss). (2010). Inss/Pres Normative Instruction No. 45/2010. Accessed On May 7, 2023, Available At Https://Www.Gov.Br/Inss/Pt-Br/Centrais-De-Conteudo/Legislacao/Instrucao-Normativa.

- [20]. National Social Security Institute (Inss). (2015). Inss Ordinance No. 77 Of January 21, 2015. Accessed On May 13, 2023, Available At Https://Www.In.Gov.Br/Materia/-/Asset_Publisher/Kujrw0tzc2mb/Content/Id/32120879/Do1-2015-01-22-Instrucao-Normativa-N-77-Of-January-21-2015-32120750.
- [21]. National Social Security Institute (Inss). (2022). Inss/Dirben Ordinance No. 1045 Of August 4, 2022. Accessed On May 13, 2023, Available At https://In.Gov.Br/En/Web/Dou/-/Portaria-Dirben/Inss-N-1.045-De-4-De-Agosto-De-2022- 421934145.
- [22]. National Social Security Institute (Inss). (2022). Inss/Dirben Ordinance No. 995 Of March 28, 2022. Accessed On May 13, 2023, Available At Https://Www.In.Gov.Br/En/Web/Dou/-/Portaria-Dirben/Inss-N-995-De-28-De-Marco-De- 2022-389273860
- [23]. National Social Security Institute (Inss). (2023a). International Agreement. Accessed On May 7, 2023, Available At Https://Www.Gov.Br/Inss/Pt-Br/Saiba-Mais/Acordo-Internacional/Informacoes.
- [24]. National Social Security Institute (Inss). (2023b). International Agreement Initial Temporary Displacement Certificate. Accessed On May 13, 2023, Available At Https://Www.Gov.Br/Inss/Pt-Br/Saiba-Mais/Acordo-Internacional/Servicos-Novo-1/Acordo-Internacional-Certificado-De-Deslocamento- Temporary-Initial.
- [25]. Jesuino, Fd, & Lima, Dv (2011). Impact On Social Security Accounts: Rgps And Rpps Eligibility Criteria And Pnad 2009. Xxxv Enanpad.
- [26]. Jones, A., & Smith, B. (2010). The Importance Of Internationalizing Social Security. 19 (3), Pp. 342-354.
- [27]. Jousten, A. (2015). The Retirement Of The Migrant Labor Force: Pension Portability And Beyond. Cesifo Economic Studies, 61 (2).
- [28]. Kilmister, A., Wels, J., & Holzmann, R. (2020). The Portability Of Pension Rights: General Trends And Global Overview. International Social Security Association, Pp. 1-22.
- [29]. Ministry Of Social Security (Mps). (2001). International Social Security Agreements. Accessed On May 13, 2023, Available At Https://Www.Gov.Br/Trabalho-E-Previdencia/Pt-Br/Images/Previdencia/Arquivos/Office/3a_081014-111357-716.Pdf.
- [30]. Ministry Of Social Security (Mps). (2018). Social Security Statistical Yearbook. Source: Infologo Aeps: http://www3.Dataprev.Gov.Br/Infologo/Inicio.Htm
- [31]. Ministry Of Social Security (Mps). (2023a). International Agreements. Accessed On May 7, 2023, Available At Https://Www.Gov.Br/Trabalho-E-Previdencia/Pt-Br/Assuntos/Acordos-Internacionais/Acordos-Internacionais.
- [32]. Ministry Of Social Security (Mps). (2023b). General Social Security Regime. Accessed On May 7, 2023, Available At Https://Www.Gov.Br/Previdencia/Pt-Br/Assuntos/Previdencia-Social.
- [33]. Nogueira, N. (2007). Social Security And Assistance Benefits: The Elderly And Their Families. [Master's Dissertation, Pontifical Catholic University Of São Paulo]. Source: https://Repositorio.Pucsp.Br/Jspui/Handle/12511.
- [34]. United Nations (Un). (2021). World Migration Report 2022. Accessed On May 4, 2023, Available At https://News.Un.Org/Pt/Story/2021/12/1772272.
- [35]. Organization For Economic Co-Operation And Development (Oecd). (2016). Perspectives On International Migration 2016. Oecd Publishing. Source: Https://Doi.Org/10.1787/Migr_Outlook-2016-En
- [36]. Raupp, F. M., & Beuren, I. M. (2006). Research Methodology Applicable To Science. How To Prepare Monographic Works In Accounting: Theory And Practice. São Paulo: Atlas.
- [37]. Sabates-Wheeler, R. (2009). Social Security For Migrants: Trends, Best Practices And Ways Forward. Project On Examining The Existing Knowledge Of Social Security Coverage, Working Paper, 12.
- [38]. Saraiva, R. (2009). Labor Law (10th Ed.). Method.
- [39]. Taha, N., Siegmann, K. A., & Messkoub, M. (2015). How Portable Is Social Security For Migrant Workers? A Review Of The Literature. International Social Security Review, 68 (1), Pp. 95-118.
- [40]. Van Ginneken, W. (2013). Social Protection For Migrant Workers: National And International Policy Challenges. European Journal Of Social Security, 15 (2), Pp. 209-221.
- [41]. Vergara, S. C. (2016). Management Research Projects And Reports (16th Ed.). São Paulo: Atlas.