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International migrations in Brazil in the period 2005-2010, with an emphasis on direct and indirect effects of return immigration of Brazilians*

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The aim of this article is to analyze international migrations in Brazil in the period 2005-2010, with a special emphasis on the return immigration of Brazilians and its indirect effects, using the Demographic Census of 2010 as a source. Initially, information regarding immigration is examined, based on the last stage and fixed prior date, as well as emigration,¹ from the new item introduced in the latest census. Next, the indirect effects of international return immigration to Brazil are estimated. Results showed that the volume of immigrants and emigrants is relatively small in relation to the size of the Brazilian population, and the difference between census data on last-stage international migrants leads to a mistaken conclusion, with a small negative balance in the five-year period of 2005-2010. However, when considering immigrants whose last migratory stage is internal and who were residing abroad in 2005, the migratory balance becomes positive. It can be stated that international migrations in the 2005-2010 period did not have a significant impact on the size and composition of the Brazilian population. Of the 361,800 last-stage international immigrants of the period 2005-2010, 68.8% were native-born Brazilian. When taking into account its indirect effects, it is concluded that return migration in Brazil, in the period, accounted for 75.5% of its immigration flows.

Keywords: Brazil. International immigration. International emigration. International return immigration. Direct and indirect effects of international return immigration.

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¹ While the terms immigrant and emigrant refer to international migrants, who enter from outside the country or depart to another country, respectively, the terms in-migrant and out-migrant correspond to persons entering to or departing from an area inside the country, respectively – i.e., internal migration (UNITED NATIONS, 1970: 3).

Introduction

This article aims to analyze the meaning and limitations of Brazilian census data on international migration, suggest how to overcome some of these restrictions, and improve estimations based on last-stage migration information, regarding international migratory flows between 2005 and 2010. Despite relevant efforts from Brazilian researchers, as will be seen below, much remains to be done to fill all the gaps. This analysis is a contribution to the understanding of Brazilian international migrations.

In addition to data collected on immigration, based on traditional items in the country's censuses, information from questions about emigration in the last census is used, introduced in Brazil for the first time. This novelty allows *proxies* of basic migration measures, such as the net international migration and net international migration rates), to be obtained by means of direct measurement, but with a view to obtaining approximate results, due to the characteristics of data available. There is also an analysis of the demographic characteristics of the country's emigrants and immigrants. At a second stage, indirect effects of international return migration are analyzed.

This article makes two main contributions: it significantly improves information on last-stage immigrants by making an addition to those appearing in the census data as such, incorporating international fixed-date immigrants from the 2005-2010 five-year period who, after arriving in Brazil, completed an intermunicipal internal migration. It also shows the absolute predominance of the role of return migration of Brazilians in the international migration flows of the same quinquennium, adding to the number of Brazilian returnees their indirect effects through the application of an improved methodology, based on the one originally adopted by Ribeiro (1997).

The following section reviews key migration concepts and measurements used in the article. This is necessary because, contrary to the case of fertility and mortality, the concepts in this area are not univocal. Subsequently, an analysis of the questions on international migrations in the Demographic Census of 2010 is made, as well as some of the results obtained from them, concerning volume and composition, by sex and age, of international migrants. Also discussed are some measurements of the impact of international migrations on the Brazilian population, in the five-year period of 2005-2010. Finally, indirect effects of international return migration are estimated, and final considerations are presented.

Direct techniques, concepts and measures in migration

Studies using administrative data (BAENINGER; LEONCY, 2001) and estimates of networks of not easily identified populations (SOARES et al., 2012) have made a very relevant contribution to the understanding of specific aspects of the international migration phenomenon.

However, demographic censuses are the most important sources of information on migrants, at least in developing countries, which usually lack administrative data of quality, or

representativeness, national data broken down in the form usually demanded by researchers. Indeed, when it comes to relatively rare events such as international migration, demographic censuses are often the only sources capable of ensuring a more complete coverage of the entire population. In addition, they provide the socioeconomic characterization of international migrants, their age and sex distribution, marital status, participation in the labor force, income, schooling and place of residence (BILSBORROW, 1997).

The richness and also the complexity of census information on migration require conceptual clarity and rigor in the treatment of concepts and the application of techniques (RIGOTTI, 1999), including the study of international migration, in the light of the innovations of the 2010 Demographic Census, as highlighted by Campos (2011). This care is even more important when periods of international crises give rise to various hypotheses about changes in age pattern of migrations and the sex composition and volume of migrants – the Brazilian context in the second half of the 2000s.

In addition to their coverage and representativeness, demographic censuses should include information long recommended by the United Nations (UNITED NATIONS, 1970) – and summarized in the following section – which should allow international comparative and historical studies. In a contemporary global scenario where the relevance of movements between countries is increasing, the UN has issued specific recommendations for data on international migration (UNITED NATIONS, 1998).

The lack of information on emigrants have stimulated not only the use of indirect estimation techniques of international migration based on the usual items – such as place of birth, place and length of residence or date of arrival – but has also included new census items to measure emigration (ZABA, 1987; BILSBORROW, 1997).

Somoza (1977) was a pioneer, suggesting the question to mothers regarding their children's place of residence, while Hill (1979) proposed collecting information on the place of residence of siblings of residents of the household.

The analysis of data on internal migrants and related techniques, as well as applied studies (CARVALHO; RIGOTTI, 1998; CARVALHO; CAMPOS, 2006, ERVATTI; OLIVEIRA, 2011), presented significant progress in Brazil. The development concerning international migrations was not uniform, largely due to the lack of data on emigration. In this context, the inclusion of new information on emigrants in the 2010 Census opens up new potential for study.

Measurement techniques that use data directly related to migration are called direct. Brazil is a privileged case, as since 1991 the Demographic Censuses include the items *time of residence in the current place of residence* and *place of last residence* (which are crossed to give the results on last-stage migration), as well as the *place of residence on a fixed date* five years before the census (RIGOTTI, 2010).

These information allow for estimations of several useful indicators for demographic analysis; the article by Bell et al. (2002) is one of the most complete references. Among the various indicators addressed by the authors, migratory balance is one of the most

relevant, given its contribution to population growth. However, international literature rarely highlights the indirect effect, that is, those children of fixed date migrants born at the place of destination and surviving at the end of the period analyzed.²

Rigotti (2010) points out that the use of the fixed-date item allows for the estimation of conventional measures used in the migration analysis (migration rates and migration balance), which makes its use methodologically advantageous. The same cannot be said for the case of the last stage migrant, except in a hypothetical situation, where the exchange of population between two localities within a period is composed of single-stage migrants, without return and passage³ migrants.

In addition, the impact of the migratory balance of a given period on population size can be analyzed from the *net migration rate*. Although it relates the migratory balance to the regional population in question, there are several concepts on the net migration rate in the literature (UN, 1970). This work adopts a definition that, theoretically, is not a rate because its denominator does not refer to the population exposed to the risk of migrating. However, in addition to being well known, functional and easy to interpret, it is applied directly in population projections by the component method.

In this article, the net migration rate (NMR) is the quotient between the migratory balance of a period and the resident population at the end of the period - that is, the proportion of the observed population resulting from the migratory process, if positive, or the proportion by which the observed population would be increased in the absence of migration, if negative (CARVALHO, 1982).⁴

Census information for the analysis of international migration, via the direct technique

In this section we analyze the volumes of emigrants and immigrants registered by the 2010 Demographic Census, as well as some of their demographic characteristics, such as sex ratio and proportional age distribution. For a better understanding of the information used in this article, we also present a brief analysis of census migration items that allow to portray the country's international migration in the first decade of the twenty-first century.

Immigrants

The items of the 2010 Demographic Census regarding immigration include: nationality, which allows the identification of natural-born Brazilians, foreigners and naturalized

² For further details reading Rigotti (1999) is recommended. At the end of the article, when discussing the international immigration of Brazilian returnees, this effect is called an indirect effect 2.

³ Migrants who, during the period under analysis, enter a certain area as residents, and subsequently move within the same period to a third area.

⁴ In the population projections by the component method, for the Net Migration Rate the estimated closed population should be used at the end of each interval, rather than the one observed. The estimated closed population is the one observed minus the migratory balance, which has already been estimated.

Brazilians;⁵ the year in which the individual settled in Brazil, in the case of naturalized Brazilians and foreigners; the country of birth; the length of residence in the country and the previous foreign country of residence (last stage); and the foreign country of residence five years before the date of the census (prior fixed date).

The latter item produces information on immigration, regarding the country of residence at the beginning of the last five-year period (fixed-date international immigrants). Obviously, when answering this question, immigrants under the age of five are not included on the census date.

Based on information from the last-stage item, it is only possible to identify immigrants and, consequently, know the origin (country of previous residence) and length of residence in Brazil, with less than ten years of residence in the current municipality of residence, and without any inter-municipal migratory stages after arriving in the country.⁶ Consequently, the use of the last-stage data for the collection of information on international immigration of Brazilians (return migrants) results in a sub-enumeration of the amount of international immigrants in the last decade, who had origin in a foreign country. The longer the residence time of the international immigrant in the country, the greater the tendency towards sub-enumeration due to the occurrence of internal re-emigration.

Faced with this limitation, and seeking to minimize this sub-enumeration, in the five-year period 2005-2010 individuals were added who, after migrating to Brazil, performed at least one internal intermunicipal stage, but with a fixed date five-year immigration. In the present study, these individuals are called international *remigrants* of the five-year period 2005-2010, expressing a link between international and domestic migration.

Table 1 presents data from the 2010 Demographic Census referring to fixed-date (2005-2010) and last-stage immigrants, by sex. There are two columns of last-stage immigrants: the first one only includes those who did not make a subsequent intermunicipal stage; the second one includes the remigrants. In 2010, 268.200 immigrants were registered by the fixed prior date item in Brazil, 147 thousand men and 120 thousand women, aged five years and over. On the other hand, the volume of immigrants aged five years or more registered by the last stage item, added to the remigrants identified thanks to the fixed date information of the five-year period 2005-2010, comprises 386.8 thousand individuals, 209.7 thousand of whom were men and 177.1 thousand women. The incorporation of remigrants (45,477) meant a significant 13.3% increase in the group of last-stage immigrants in the five-year period 2005-2010. This surprising proportion indicates a high internal mobility over a period of only five years. It should be noted that there is still a, probably small, underestimation, due to the non-inclusion of those full returned migrants, who made at

⁵ According to the IBGE (2010), foreigners are individuals who were not born in Brazil, plus those who were born in Brazil and registered as foreigners, not registering as Brazilian. Naturalized Brazilians are the foreigners who obtained the recognition of Brazilian nationality through the naturalization process or provisions of Brazilian legislation.

⁶ This problem does not exist in relation to non-native Brazilians, because this information is provided by other items.

least one intermunicipal stage after returning to Brazil. Full returnees are those residing in the country in 2005, emigrated and returned to Brazil still within the 2005-2010 period.

Subtracting the number of fixed date immigrants from the volume of last-stage immigrants, it is observed that around 118,000 people (or 30.1%) were in Brazil in 2005, emigrated and then returned to the country within the five-year period. They constitute the international full returnees and surprisingly high proportion of all last stage immigrants of the quinquennium.

The number of international immigrants, declared as last stage, between 2000 and 2005 (around 114,000) was well below those of the five-year period 2005-2010. The difference is probably largely due to the phenomenon of remigration. If, in the second half of the decade, remigrants were estimated as 13.3% of the total number of last-stage international immigrants, this proportion was probably higher in relation to immigrants in the first five years, since the longer the time passed after immigration international, the greater the probability of there being at least one stage of intermunicipal migration. This is a fundamental aspect, often neglected by studies on international migration in Brazil, which analyze last-stage data.

However, even in the second half of the decade, despite the international crisis which slightly affected Brazil, the number of international immigrants from the five-year period 2005-2010 corresponds to a small volume, in absolute terms, and an extremely small one, (2%) considering the Brazilian population, with 190.700.000 inhabitants, in 2010 (IBGE, 2014).

Regarding the composition of international immigrants by sex, there is a greater volume of male immigrants over the five-year period 2005-2010, in the various age groups, with the exception of some older groups, in information both for fixed date and late stage (Table 1). In total, for this period, there were 22% and 18% more men, among fixed-date and last-stage immigrants, respectively. Analyzing the sex ratio, this indicator shows a very similar behavior between the fixed-date and the last-stage migration information (Graph 1).

In Graph 1, the differences between men and women in the composition of immigrant flows from 2005-2010 are more notable among those aged 35-64, with a ratio in this large range age group of 139 and 143 men for every 100 women, respectively, for last step and fixed date immigrants. For the total number of immigrants from the five-year period 2005-2010, the sex ratio is 111 men for every 100 women, among the last step, and 116 men for every 100 women, among those of fixed date.

Graph 2 presents the distribution, in 2010, of the last-stage and fixed-date international immigrants in Brazil, of the five-year period 2005-2010, by sex and age group. It should be noted that, when immigrating, individuals were around 2.5 years younger. The age composition of immigrants, by sex, shows a similar proportional distribution between fixed-date and last-stage migrants, the latter being slightly older. This older structure is probably due to the fact that the full returnees (left and returned within the quinquennium), who are on average younger, are not included among the fixed date ones.

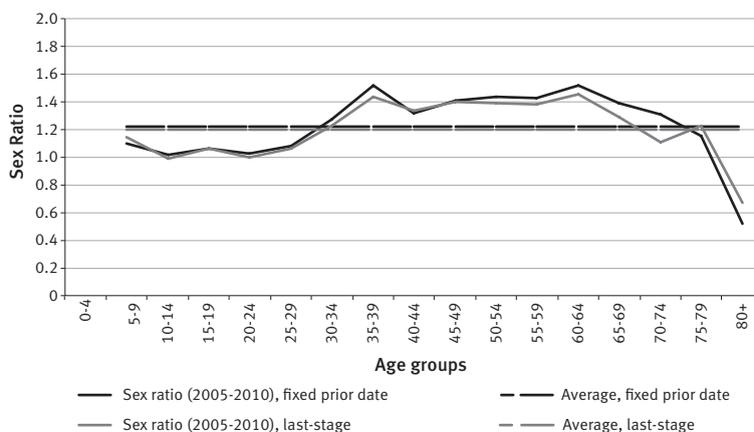
TABLE 1
Fixed date and last stage international immigrants for the five-year period 2005-2010, by sex,
according to age group
Brazil – 2010

Age group	International immigrants								
	Last stage (2005-2010)			Last stage (2005-2010) (1)			Fixed date (2005-2010)		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
1 to 4 years	12,823	12,157	24,980	12,823	12,157	24,980	-	-	-
5 to 9 years	12,537	10,799	23,336	14,297	12,517	26,814	11,575	10,521	22,096
10 to 14 years	8,426	8,669	17,095	9,422	9,569	18,991	7,378	7,288	14,666
15 to 19 years	9,390	9,176	18,566	10,680	10,065	20,745	7,986	7,533	15,519
20 to 24 years	17,613	17,771	35,384	19,495	19,602	39,097	12,709	12,415	25,124
25 to 29 years	26,861	24,852	51,713	30,183	28,363	58,546	20,761	19,252	40,013
30 to 34 years	26,028	20,963	46,991	30,048	24,429	54,477	22,324	17,592	39,916
35 to 39 years	20,870	14,404	35,274	24,611	17,151	41,762	19,735	12,971	32,706
40 to 44 years	15,568	11,697	27,265	18,244	13,679	31,923	14,097	10,718	24,815
45 to 49 years	11,859	8,518	20,377	13,639	9,782	23,421	10,570	7,496	18,066
50 to 54 years	8,135	6,041	14,176	9,534	6,848	16,382	7,495	5,227	12,722
55 to 59 years	5,445	3,951	9,396	6,155	4,459	10,614	4,837	3,400	8,237
60 to 64 years	4,231	2,834	7,065	4,842	3,324	8,166	3,877	2,552	6,429
65 to 69 years	2,594	2,005	4,599	2,914	2,264	5,178	2,362	1,701	4,063
70 to 74 years	1,155	1,177	2,332	1,382	1,247	2,629	1,078	825	1,903
75 to 79 years	680	543	1,223	762	620	1,382	475	412	887
80 and over	632	940	1,572	688	1,026	1,714	388	747	1,135
Total	184,847	156,497	341,344	209,719	177,102	386,821	147,647	120,650	268,297

Source: IBGE. Microdata of the 2010 Demographic Census.

(1) The immigrants, that is to say, those fixed-date international immigrants (2005-2010) who, after establishing residence in the country, have made at least one intermunicipal migratory stage.

GRAPH 1
Sex ratio of last-stage and fixed prior date immigrants, for the five-year period 2005-2010,
according to age group
Brazil – 2010

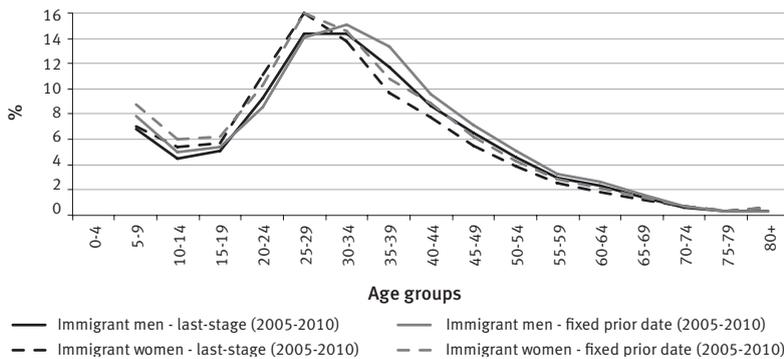


Source: IBGE. Microdata from the 2010 Demographic Census.

Regarding sex differences, women have a younger age structure, both among last-stage and fixed-date returnees. In general, there is a concentration of international immigrants in the young adult ages, with a lower participation of children and young people, and especially, of older people. The age groups between 15 and 64, which correspond to the working-age population, represented, in the period 2005-2010, approximately 78.8% of last-stage international immigrants and 83.3% of those at a fixed date.

The proportional age distribution of the 2005-2010 last-stage and fixed-date international immigrants 2005-2010, as shown in Graph 2, is close to the classical form of the migration curve.⁷ The Brazilian curve is marked by a lower peak in the early ages, a trough in the adolescent ages and a more pronounced peak in ages corresponding to the adult populations, followed by a declining trajectory as the migrant’s age increases. Regarding the classical form, the peak age at the advanced ages, generally related to retirement, is not observed in the Brazilian distribution. Brazil is not characterized as a recipient of foreign retirees, nor does it receive important flows of retired Brazilian returnees. In the latter case, either because it does not attract them or because they are few in number, due to the past trajectory of the country’s emigration.

GRAPH 2
Distribution of last-stage and fixed prior date immigrants for the five-year period 2005-2010, by sex, according to age group
Brazil – 2010



Source: IBGE. Microdata of the Demographic Census 2010.

Emigrants

In the 2010 Demographic Census, the IBGE innovated by incorporating questions related to international emigrants, in the basic questionnaire. These questions were limited to private households and answered by residents in the interview conducted in their dwellings. Respondents were asked if any person(s) who resided with them in the

⁷ The classical form of the migration curve was proposed in a study developed by Rogers and Castro (1981) for the standardization of migration curves. In the data collected by the authors, the migration curves could be characterized from a basic form, with a higher peak at the productive ages and two smaller peaks, at the younger and older ages, related to family migration and retirement, respectively.

current domicile was / were living in another country (on the reference date). If the answer was positive, information on the year of birth, sex, year of the last move abroad and the country of residence on July 31, 2010 were recorded for each emigrant (CAMPOS, 2018).

Despite the novelty of this type of information in Brazilian censuses, some limitations in the enumeration of individuals should be considered, similar to those already acknowledged by the pioneering work of Somoza (1977) and also in Bilsborrow (1997), concerning the responses of mothers or siblings. Since information about emigrants is provided by individuals who remained in the country and lived with the emigrant before they moved abroad, there are situations that may produce enumeration errors, due to omission or excess. Omission errors occur when it is impossible the reference to the emigrants, as in cases where, before departing, all inhabitants made the emigration, or when all those who remained in the country died, or due to forgetfulness (memory error). The excess enumeration error occurs when there is double counting of emigrants, as in the cases of dismemberment of a domicile into new domiciles, where the same emigrant is reported in more than one residence (CAMPOS, 2014; OLIVEIRA, 2013).

The magnitude of the errors of omission and excess are unknown and there is no basis to assume these errors tend to compensate each other. However, given the main causes of errors, both excess and omission, one can realistically assume that they are smaller when dealing with emigration closer to the census date. Certainly, estimates of the number of more recent emigrants are more reliable.

Table 2 shows the volume of international emigrants from Brazil, by sex, declared by residents in the country, according to the date of the last departure abroad. In total, approximately 560,000 emigrants were declared, 84% of whom would have left the country between 2000 and 2010, that is, around 471,000 individuals.

A steady decline is observed in the reported number of surviving emigrants in 2010 when going back in time, for both men and women. This certainly reflects, in part, the effects of omission errors, which tend to increase when a longer period of time is taken into account. It should not be forgotten, however, that the emigrants declared in the Demographic Census of 2010 refer to those who survived both mortality and return migration to Brazil. Obviously, that mortality operated for longer among older migrants and should not have a significant impact on the most recent (last two quinquennial years), considering their age structure (a high concentration among young adults) and the short time living abroad.

Although there are limitations in the enumeration process of emigrants adopted in the 2010 Census, information regarding the last five years of the first decade of the century offers an unprecedented input to assess the demographic impacts of international emigration in the country's population. Assuming the data reported for the last five years are close to the Brazilian reality and that we are not dealing with an atypical period, it is possible to infer that international migration has not contributed to significant changes in the size of the Brazilian population in recent periods, as well as in their age composition. About 156,000 men and 183,000 women residing abroad in 2010 would have emigrated

TABLE 2
International last stage emigrants, by date of the last departure and sex, according to age group
Brazil – 2010

Age groups	Last departure													
	up to 2,000				2000-2005				2005-2010				Total	
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total		
1 to 4 years	-	-	-	-	-	-	621	793	1,414	621	793	1,414		
5 to 9 years	-	-	-	249	233	482	1,473	1,424	2,897	1,722	1,657	3,379		
10 to 14 years	133	86	219	592	561	1,153	2,372	3,051	5,423	3,097	3,698	6,795		
15 to 19 years	369	446	815	833	826	1,659	7,737	7,861	15,598	8,939	9,133	18,072		
20 to 24 years	939	1,174	2,113	5,414	4,414	9,828	30,837	33,420	64,257	37,190	39,008	76,198		
25 to 29 years	3,356	3,751	7,107	16,459	16,517	32,976	39,051	46,512	85,563	58,866	66,780	125,646		
30 to 34 years	7,034	8,297	15,331	16,211	18,668	34,879	28,700	33,522	62,222	51,945	60,487	112,432		
35 to 39 years	7,544	10,451	17,995	9,747	11,042	20,789	16,231	20,629	36,860	33,522	42,122	75,644		
40 to 44 years	7,624	10,361	17,985	6,170	7,609	13,779	10,116	13,758	23,874	23,910	31,728	55,638		
45 to 49 years	4,999	7,312	12,311	3,524	4,399	7,923	7,011	9,381	16,392	15,534	21,092	36,626		
50 to 54 years	3,200	4,992	8,192	2,197	2,542	4,739	5,354	5,259	10,613	10,751	12,793	23,544		
55 to 59 years	1,713	2,023	3,736	1,326	1,076	2,402	2,676	2,979	5,655	5,715	6,078	11,793		
60 to 64 years	738	1,025	1,763	590	285	875	1,861	1,912	3,773	3,189	3,222	6,411		
65 to 69 years	429	562	991	112	194	306	732	967	1,699	1,273	1,723	2,996		
70 to 74 years	170	215	385	44	182	226	273	478	751	487	875	1,362		
75 to 79 years	41	68	109	80	43	123	309	344	653	430	455	885		
80 and over	57	149	206	87	128	215	316	379	695	460	656	1,116		
Total	38,346	50,912	89,258	63,635	68,719	132,354	155,670	182,669	338,339	257,651	302,300	559,951		

Source: IBGE. Microdata of the Demographic Census 2010. Elaboration of the authors.

from Brazil in the 2005-2010 period and accounted for only 0.17% of the male population and 0.19% of the female population, as listed in the 2010 Census.

Nevertheless, thanks to the new information about international emigrants, Campos and Macedo (2014) were able to show how international migration networks are well established and concentrated in the Brazilian territory, while connected to a few countries of destination.

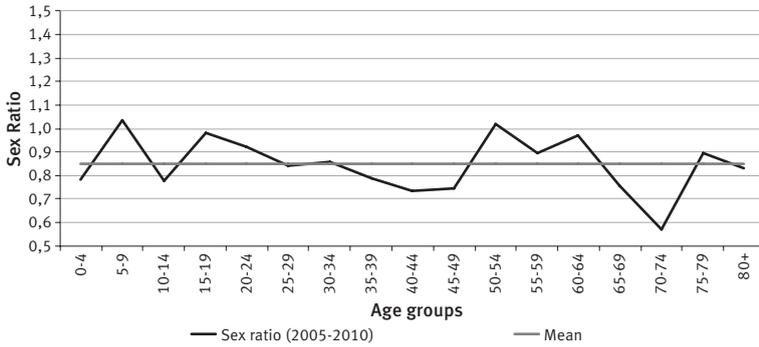
The impact of emigration in the 2005-2010 period was slightly higher, considering the second indirect effect of international emigration, that is, children born abroad, the offspring of individuals who undertook international emigration in the five-year period. Lee (1957) proposes a simple method of separating the total number of children born in the origin and destination, adopting the assumption that for the migrants of the last five-year period, half of the children in the 0-4 age group were born in the origin and the other half was born in the destination (second indirect effect). To the extent that international emigrants aged 0 to 4 were recorded, it is possible to estimate the second indirect effect directly, using Lee's method (1957).

There were 1,414 Brazilian emigrants declared in the 2010 Census, aged between 0 and 4 years in 2010. Adopting the Lee's algorithm, the indirect effect of emigration, in the period 2005-2010, correspond to 1,414 children, only 0.4% of the total emigration of the five-year period. Regarding the participation of men and women in the composition of emigration flows in Brazil, a higher number of women are observed in the 2005-2010 five-year period (Table 2). Comparing these results with those of last-stage immigrants of the same period, it is possible to verify that international migratory flows presented a distinct composition, with a predominance of men, among immigrants, and of women among emigrants, with 18% more men and 17% more women, respectively.

The sex ratio, by age, among last-stage emigrants in the five-year period 2005-2010 can be analyzed from Graph 3. It is observed that, except for the 5 to 9 and 50 to 54 age groups, in which the numbers of male and female emigrants are virtually equal (Table 2), in all the other groups, emigrant women were declared in greater numbers than men.

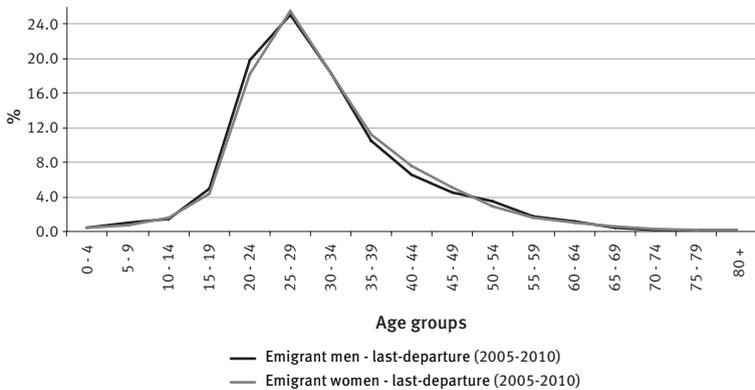
Graph 4 shows the distribution of last-stage emigrants, from the five-year period 2005-2010, according to sex and age group (on average 2.5 years younger than in 2010). At the time of departure, about 90% of the emigrants were concentrated in the ages between 15 and 49 years, with about 44% of all emigrants leaving the country between 20 and 29 years of age. These characteristics are common to both men and women.

GRAPH 3
Sex ratio of last-stage emigrants, five-year period 2005-2010, by age of departure
Brazil – 2010



Source: IBGE. Microdata of the Demographic Census 2010. Elaboration of the authors.

GRAPH 4
Distribution of the last-stage emigrants of the five-year period 2005-2010, by sex, according to age group on the date of leaving the country
Brazil – 2010



Source: IBGE. Microdata of the Demographic Census 2010. Elaboration of the authors.

Balances and rates of international migration, in the five-year period 2005-2010

In order to evaluate the contribution of international migrations in Brazil, in the 2005-2010 five-year period, to the Brazilian population stock in 2010, according to sex and age, the following were considered: the numbers of immigrants (including remigrants⁸) and last-stage emigrants (in both cases aged five and over) and *proxies* of the migratory balance and net international migration rates. *Proxies*, because the true migratory balances and

⁸ As defined previously, remigrants are those who, within the five-year period 2005-2010, after migrating to the country, have been involved in an intermunicipal migratory stage. It is not possible to identify them by means of the last-stage item, but some of them are identifiable from the fixed date question.

net migration rates refer to the difference between fixed-date immigrants and emigrants, information not available in the Demographic Census 2010 in relation to emigrants. The following data were used: resident population in Brazil in 2010; last-stage immigrants from the five-year period 2005-2010, residing in Brazil in 2010, including the remigrants; and last-stage emigrants from Brazil, with a declared departure from the country between 2005 and 2010. It is noteworthy that the number of last-stage migrants will always be higher than the fixed-date ones for the same period, the difference corresponding to full-return individuals; in the case of full return immigrants they correspond to those who were residing in Brazil in 2005, left the country and returned during the five-year period, and were alive at the time of the census. Among the last-stage emigrants of the 2005-2010 period, they correspond to those who were not residing in the country in 2005. In this last case, full returnees are unknown. The difference between last stage immigrants and last-stage international emigrants, as a *proxy* of the international migratory balance will correspond to the true migration balance if the absolute numbers of full returnees are the same for both immigrants and emigrants.

Regarding the 2005-2010 immigrants, 118,524 were full returnees, that is, they lived in Brazil at the beginning of the five-year period, and they correspond to 30.6% of last-stage immigrants.⁹ It should be noted that there is an omission error in this proportion, since, as already seen, there is no way to identify those who changed their municipality once they returned to the country,.

Data in Table 3 show that the last-stage immigrants in Brazil, in the five-year period 2005-2010, including remigrants, amounted to 361,800 individuals, while last-stage emigrants totaled 336,900, both categories comprising people aged five years and more in 2010, which produced a difference between immigrants and last-stage emigrants, here taken as *proxy* of the migratory balance of the quinquennium, ranging around 24,900 people. It is noteworthy that the inclusion of remigrants increased immigration estimate by 13.3% and positively reversed the *proxy* of the international migratory balance in the five-year period 2005-2010. If the remigrants were not considered, the migration balance estimate of the five-year period would be negative (by at least 20,561), which shows the importance of taking in consideration the remigrants in Brazil's international balance in the five-year period analyzed.¹⁰

Just as the number of quinquennial emigrants did not have significant implications on the size and age structure of the country's population, the international migratory balance had no significant influence on these variables and could be considered basically null in the 2005-2010 five-year period.

⁹ Probably, this large proportion of full returnees is largely due to the economic crisis in the main destinations of Brazilian migrant flows.

¹⁰ Despite the small numbers involved in the proxy migratory balance, including non-migrants, failure to correct reported numbers of late-stage immigrants through the fixed date information available, as has hitherto been the case in Brazil, is not justified, regardless of their impact on the numbers involved. Regarding the total number of last-stage immigrants, the impact was obviously significant, at 13.3%.

TABLE 3
Total population, fixed-date immigrants, last-stage immigrants and emigrants, in the five-year period 2005-2010, proxy of migratory balance and net international migration rate, by age group
Brazil – 2010

Age groups	Population (2010)	Fixed date immigrants (2005-2010)	Last-stage immigrants (2005-2010) (1)	Last-stage migrants (2005-2010)	Proxy of migratory balance (2005-2010)	Proxy net migration rate (%)
1 to 4 years	13,806,733	-	-	-	-	-
5 to 9 years	14,967,768	22,096	26,814	2,897	23,917	0.16
10 to 14 years	17,167,135	14,666	18,991	5,423	13,568	0.08
15 to 19 years	16,986,788	15,519	20,745	15,598	5,147	0.03
20 to 24 years	17,240,864	25,124	39,097	64,257	-25,160	-0.15
25 to 29 years	17,102,917	40,013	58,546	85,563	-27,017	-0.16
30 to 34 years	15,744,616	39,916	54,477	62,222	-7,745	0.05
35 to 39 years	13,888,191	32,706	41,762	36,860	4,902	0.04
40 to 44 years	13,008,496	24,815	31,923	23,874	8,049	0.06
45 to 49 years	11,834,647	18,066	23,421	16,392	7,029	0.06
50 to 54 years	10,134,321	12,722	16,382	10,613	5,769	0.06
55 to 59 years	8,284,433	8,237	10,614	5,655	4,959	0.06
60 to 64 years	6,503,286	6,429	8,166	3,773	4,393	0.07
65 to 69 years	4,852,789	4,063	5,178	1,699	3,479	0.07
70 to 74 years	3,744,738	1,903	2,629	751	1,878	0.05
75 to 79 years	2,570,686	887	1,382	653	729	0.03
80 and over	2,917,391	1,135	1,714	695	1,019	0.03
Total	190,755,799	268,297	361,841	336,925	24,916	0.01

Source: IBGE. Microdata of the Demographic Census 2010. Elaboration of the authors.

(1) Including migrants.

In the five-year period, the amount of last-stage male immigrants, with five or more years of age in 2010, amounted to 196,800 individuals while emigrants amounted to 155,000, which resulted in a small gain of 41.800 men. For females, the number of last-stage immigrants was lower than that of males, totaling 164,900 women, while the number of emigrants was higher, at around 181,800, which likely produced a small loss of female migration (16,900 individuals), among women aged five years or more in 2010.

The *proxies* of the estimated rates related to international migration occurring in the five-year period 2005-2010, indicate that the Brazilian population recorded in the 2010 Census would be basically the same, in the absence of international migration flows between 2005 and 2010. The male population of five or more years would be around 0.04% lower, while the female population would be approximately 0.02% higher.

It is interesting to note that these rates by age group would have been negative only for young adult ages. Population losses were mainly concentrated between 20 and 29 years (Table 3).

Distribution of last-stage immigrants in the 2005-2010 period, by birthplace and the indirect effects of return migration of Brazilians¹¹

Of the 386,821 last-stage immigrants in the 2005-2010 five-year period identified (Table 1), 266,033 were Brazilian and 120,788 were foreigners. Brazilian returnees correspond to 69% of the total, a very high proportion. This indicates that, at least in that five-year period, the country had a low capacity to attract foreigners, especially considering that the absolute numbers involved are relatively small.

The weight of the return of Brazilians among the immigrants of the period was, however, even greater if considering the indirect effect of return migration, consisting on the foreign immigrants who arrived at the country as a consequence of immigration of Brazilians.

Ribeiro (1997) proposed a methodology to analyze the demographic effects of the return migration of northeastern Brazilians from the State of São Paulo. Migratory return flows directly and indirectly affect the size and demographic composition of the population of destination, through three effects: First, there is the *direct effect* of return migration, which corresponds to natural-born persons who returned during the period under analysis; the second is defined herein as *indirect effect 1* of return migration, which refers to persons not born in the place of birth of the returnee, but whose migration is associated with that of the returned migrant; and the third is called *indirect effect 2*, which is related to the number of children of the returning migrant, born at the place of destination, during the period analyzed, after the return of the parents.¹² When analyzing the impacts of indirect effects on the population of destination at the end of the period, obviously only the survivors of their components should be considered.

The original methodology to estimate the indirect effects of return migration, developed by Ribeiro, was later applied in Miranda-Ribeiro and Garcia (2005), Ojima and Nascimento (2015) and Miranda-Ribeiro, Garcia and Lobo (2016)¹³ in their analyses of return migration in Minas Gerais, the Northeast and Brazilian states, respectively. This work uses a modified methodology, first adopted in the analysis of international return migration in Afghanistan (CARVALHO; CAMPOS; RIGOTTI, 2016).

Indirect effects of return migration are estimated based on the relationship between returning immigrants and the other individuals in the household. Two groups of households are used to estimate the indirect effects of return migration: the first one consists of households whose head is a returnee (called *group 1*); and the second covers households in which the person in charge is not a returning immigrant, but with the presence of at least one returnee (called *group 2*).

¹¹ A similar analysis regarding emigration is not feasible, as the nationality of emigrants was not reported in the 2010 Census.

¹² In the original work (RIBEIRO, 1997), children born at the destination were denominated an indirect effect 1, while the non-return immigrants, whose immigration was associated with the returnees, were called indirect effect 2. Due to the chronology of the processes, it was decided to change the label of the indirect effects.

¹³ It seems that this type of analysis has not been applied in other contexts and countries.

The methodology is adapted to Brazilian last-stage return immigrants, who were residing in the country for less than five years, according to the 2010 Census. For the analysis of indirect effects, remigrants in the five-year period will also be considered (immigrants whose last migration stage is internal, but whose origin of fixed-date migration is international).

The analysis of return immigration is restricted to individuals with residence time in the country of less than five years. This is due, firstly, to a decrease in the coverage of last-stage immigration information with the increase in the length of residence in the country, largely due to the remigration of those who, after arriving in the country, made another internal migratory stage, whose international origin is not captured by the last-stage item. Secondly, in relation to remigrants of international origin in the 2005-2010 period, the problem is minimized by the fixed prior date information on those residing abroad at the beginning of the five-year period.

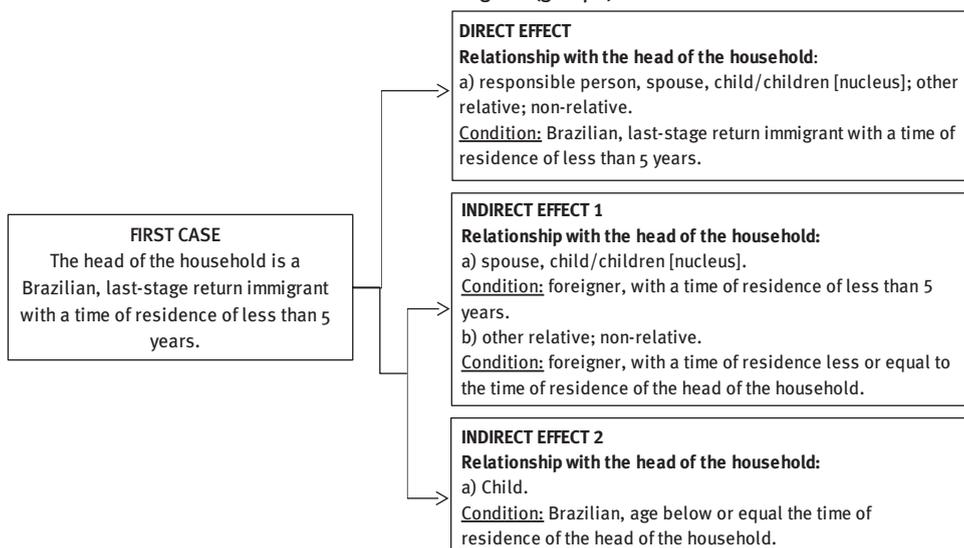
In group 1 (Chart 1), the household head is Brazilian, and an return immigrant, with a residence time in the country of less than five years. The direct effect is comprised of all household members, Brazilians, immigrants with a residence duration in the country of less than five years. The indirect effect 1, in turn, is estimated from two subgroups: those belonging to the household nucleus and the other individuals in the household not pertaining to the nucleus.¹⁴ Foreign spouses and children (household nucleus), with a duration of residence of less than five years, and other foreign relatives and non-relatives, with a duration of residence less than or equal to that of the person in charge of the household make up indirect effect 1. The Brazilian children of the heads of household, aged less than or equal to the time of residence of the parent, configure the indirect effect 2.

In group 2 (Chart 2), the household head is not a Brazilian returnee with a residence time of less than five years, but at least one of the household members is a Brazilian international returnee with a residence time of less than five years. The direct effect consists of all members of the household, Brazilians, returnee immigrants with a residence time of less than five years. Indirect effect 1 consists of all foreign members of the household, with a duration of residence less than or equal to that of the return immigrant. It is assumed that these foreigners migrated to Brazil as a consequence of the return of the Brazilian resident(s) in the same household. Indirect effect 2 was not estimated for group 2, since it is not possible to identify the children of the Brazilians returnee.

¹⁴ In this work, the household is formed by the responsible person, spouse and child.

CHART 1

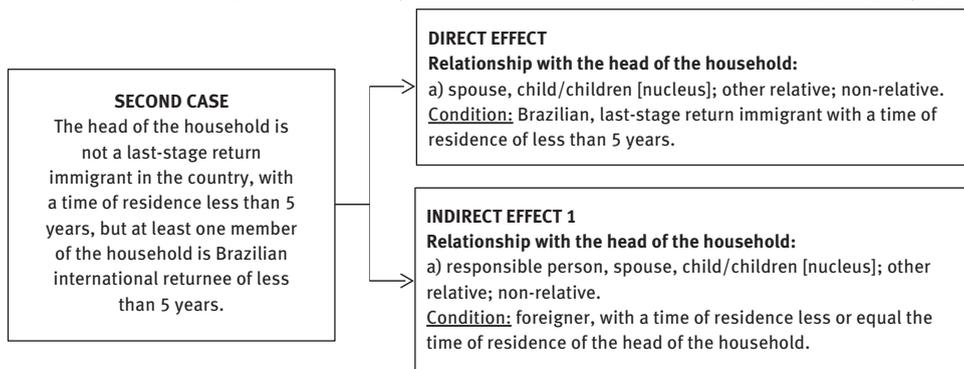
Direct and indirect effects of international return migration of Brazilians in households whose head is a return immigrant (group 1)



Source: Adapted from Carvalho, Campos, and Rigotti (2016).

CHART 2

Direct and indirect effects of international return migration of Brazilians in households whose head is not a return Brazilian immigrant but with the presence of at least one Brazilian return immigrant (group 2)



Source: Adapted from Carvalho, Campos and Rigotti (2016).

Table 4 shows the last-stage immigrants, of all ages, according to their return *status*, by sex and relationship with the head of the household, in the period 2005-2010,¹⁵ including remigrants, identified through fixed-date information. Of the total number of international immigrants, 68.8% were returnees. Table 4 shows a significant difference in the relative weight of heads of household, among Brazilian returnees and non-Brazilian

¹⁵ In this case (and for the analysis of the indirect effects of international return migration) children between 0 and 4 years are included.

international immigrants. Brazilian returnees responsible for their household represent 39% of total international returnees, while among international foreign immigrants, the heads of household represent a lower proportion (24.5%). This difference is largely explained by the fact that a significant proportion of foreign immigrants are linked to households whose head is a Brazilian international return immigrant, as will be seen later. Finally, it is worth mentioning that individuals outside the household (other relatives, non-relatives and individuals in a collective household) represent 14.1% of the total number of return immigrants, while this proportion rises to 30.1% of all non-return immigrants.

TABLE 4
Brazilian and foreign immigrants in the 2005-2010 period, by sex, according to relationship with head of household
Brazil – 2010

Relationship to head of household	Brazilian return immigrants			Foreign immigrants			Immigrants
	Men	Women	Total	Men	Women	Total	
Person responsible	68,053	35,568	103,621	22,482	7,144	29,626	133,247
Spouse	14,814	39,414	54,228	9,813	13,672	23,485	77,713
Child	38,180	32,612	70,792	15,979	15,311	31,290	102,082
Other Relatives	16,642	14,765	31,407	12,451	10,892	23,343	54,750
Non-relatives	2,674	2,242	4,916	5,727	4,063	9,790	14,706
Indiv. Collective household	514	555	1,069	2,392	862	3,254	4,323
Total	140,877	125,156	266,033	68,844	51,944	120,788	386,821

Source: IBGE. Microdata of the Demographic Census 2010. Created by the authors.

Table 5 shows Brazilian return immigrants, by sex and age groups, in the 2005-2010 period.

TABLE 5
Brazilian return immigrants in the five-year period 2005-2010, by sex, according to age groups
Brazil – 2010

Age groups	Men	Women	Total
0 to 4 years	5,564	5,041	10,605
5 to 9 years	7,691	6,421	14,112
10 to 14 years	5,568	5,712	11,280
15 to 19 years	6,394	5,840	12,234
20 to 24 years	12,499	12,555	25,054
25 to 29 years	22,415	21,010	43,425
30 to 34 years	23,008	20,106	43,114
35 to 39 years	18,219	14,321	32,540
40 to 44 years	13,437	11,395	24,832
45 to 49 years	9,348	8,014	17,362
50 to 54 years	6,816	5,682	12,498
55 to 59 years	4,097	3,711	7,808
60 to 64 years	2,759	2,440	5,199
65 to 69 years	1,591	1,584	3,175
70 to 74 years	798	740	1,538
75 to 79 years	417	313	730
80 and over	256	271	527
Total	140,877	125,156	266,033

Source: IBGE. Microdata of the Demographic Census 2010. Authors' elaboration.

Among Brazilian returnees, the proportion of those under the age of ten (9.3%) is not insignificant, together with the huge proportion of those under the age of 40 (72.4%), which indicate that, on average, Brazilian returnees did not reside overseas for a long period. Most probably, these people were part of the flows of Brazilian emigration in the second half of the last decade of the last century and the first decade of the present decade, especially the latter.

Table 6 shows the direct and indirect effects of international return migration, in the five-year period 2005-2010, including remigrants, identified by the fixed-date information. Of the total number of Brazilian return immigrants (266,033), 67.1% belonged to households whose head was an international returnee (178,523). Approximately one-third of the returnees resided in households whose head was not an international returnee (87,510). At first glance, this high proportion suggests new types of relationships in families and households. The significantly higher proportion of returnees in the son and daughter category, in households not headed by Brazilian returnee (44.8%, against 17.7% in the other group), is a strong indication that these are households where the son and daughter, unaccompanied by their parents, emigrated and subsequently returned to the country, as part of a family strategy for survival and income generation. In addition, it is necessary to take into account that the individuals probably considered are those whose residence time was less than five years, which reduces the proportion of returnees, heads of household. Some of the household heads in group 2 may be return immigrants with a residence time equal to or greater than five years.

Indirect effect 1 considers other foreign members of households, whose immigration would be related to international return immigration of Brazilians, in the period 2005-2010. In the same way as the direct effect, 64.4% of this type of immigration consists of individuals from group 1. The volume of people related to indirect effect 1 (25,947) corresponded to 21.5% of the total number of foreign immigrants, which makes this component among non-Brazilians extremely significant.

Indirect effect 2 is composed of Brazilians, the children of those responsible for the households headed by returnees (group 1), born after the migration to Brazil. The estimated volume of the indirect effect 2 (12,841 people) is much lower than that of indirect effect 1. It should be taken into account that the time elapsed after the international immigration to Brazil is very short, on average 2.5 years, and that this is an underestimation, since the 2010 Census only provides information about the relationship to those responsible for the household. There is an omission error in the estimates of the number of individuals who make up indirect effect 2, corresponding to the number of Brazilians in 2010, children of other returnees from the quinquennium, who are not responsible for the households, born after their parents' return. It is also worth noting that, since the children of non-head of household returnees born after the parents return were not included in indirect effect 2, due to a lack of information, the indirect effect 2 was not estimated for group 2.

The sum of the direct effects in groups 1 and 2 (266,033 people) indicates that 68.8% of last-stage immigrants, at the 2005-2010 period, are Brazilian returnees (as already observed in Table 5). If the indirect effect 1 is added to the number of Brazilian return immigrants, the total is 291,980 people, directly or indirectly related to the return of Brazilians, during the five-year period. Thus, the flow of returnees was responsible, directly and indirectly, for 75.5% of the total migratory flow to Brazil, in the five-year period 2005-2010.

TABLE 6
Direct and indirect effects of international return migration, in the period 2005-2010, by sex
Brazil – 2010

Direct and indirect effects	Relationship to the head of household	Households whose head is an international Brazilian immigrant			Households whose responsible person is not an international return immigrant, but with the presence of some international returnees			Total (a) +(b)
		Men	Women	Total (A)	Men	Women	B Total	
Direct effect	Person responsible	68,053	35,568	103,621	-	-	-	103,621
	Spouse	7,418	28,636	36,054	7,395	10,779	18,174	54,228
	Son and daughter	16,710	14,877	31,587	21,470	17,737	39,207	70,794
	Other relatives	2,921	3,167	6,088	13,719	11,598	25,317	31,405
	Not relatives	531	382	913	2,142	1,859	4,001	4,914
	Ind. dom. collective	148	112	260	366	445	811	1,071
	Total	95,782	82,742	178,523	45,091	42,418	87,510	266,033
Indirect effect 1	Person responsible	-	-	-	2,615	519	3,134	3,134
	Spouse	2,046	1,728	3,774	116	330	446	4,220
	Son and daughter	6,014	5,734	11,748	1,184	960	2,144	13,892
	Other relatives	660	475	1,135	1,580	1,703	3,283	4,418
	Not relatives	36	27	64	133	87	219	283
	Indiv. collective household	-	-	-	-	-	-	-
	Total	8,756	7,965	16,721	5,628	3,598	9,226	25,947
Indirect effect 2	Child	6,215	6,626	12,841	-	-	-	12,841

Source: IBGE. Microdata of the Demographic Census 2010. Created by the authors.

Conclusion

The item on emigration, introduced in the universal questionnaire of the Demographic Census of 2010, offers a panoramic view on Brazilian emigration abroad possible for the first time. However, when analyzing temporal distribution of the exit date from the country, it was concluded that the data provided a diminishing reflection of emigration flows, due mainly to two problems: the return of Brazilians, greater the farther away the time of departure abroad; and growing omission errors in the reported data as it goes back in time. It was inferred that data from the quinquennium immediately preceding the Census (2005-2010) was of a reasonable quality. In the absence of alternatives, this information can and should be used and analyzed, enabling significant progress in knowledge of the

Brazilian demographic reality. Given the interest in comparing, for the first time in the country, international entry and exit flows, the article is intentionally focused on the analysis of the 2005-2010 period.

It should be kept in mind that the 2005-2010 five-year period was probably atypical in the country, in terms of international migration flows, since, on the one hand, the Brazilian economy had a fairly positive performance and, on the other hand, several countries traditionally receiving Brazilian emigrants faced a great and widespread economic crisis, especially the United States and Western European nations. It is quite likely that the migratory situation in the previous five years was very different from that identified in the period 2005-2010. In principle, due to the relatively favorable situation in Brazil, it would be expected that in the five-year period 2005-2010 the country would have attracted more foreign immigrants. This was not the case, since, in addition to being modest, the flows were comprised of returnees and foreigners linked to them, around 75%.

These aspects reinforce the importance of the item on emigration, since its absence would make it impossible to study from a historical perspective for the first time, a phenomenon structured in well-established and spatially concentrated networks in a few areas of the immense Brazilian territory (CAMPOS; MACEDO, 2014).

In 2010, the last-stage immigrants of the five-year period, aged five years and over, amounted to approximately 362,000, around 197,000 men and 165,000 women. As for emigrants, they added up to around 337,000 people, 155,000 men and 182,000 women. At the end of the five-year period, there was a difference of around 25,000 people of both sexes, among surviving international last-stage immigrants and emigrants (the *proxy* of the migratory balance of the period 2005-2010). Among men, the difference was slightly positive, around 41,000 individuals, and among women, slightly negative, around 17,000 people.

Due to the problems inherent to the data and the fact that they do not refer to international fixed-date migrants, it cannot be safely stated that the country had net gains or losses of population through international flows migration during the five-year period in question. The number of immigrants and emigrants are relatively so small that the Brazilian population was virtually closed during that period, something not inconsequential given the hypotheses and attempts of prognoses made on the international migrations in a moment of great global transformations.

If the Brazilian international migratory flows in the 2005-2010 period in both directions are not significant, the composition is even more surprising, regarding country of birth of the components of immigration flows. Around 69% of last-stage immigrants were native-born Brazilians. If we add this proportion to those who are not Brazilian, whose migration to Brazil was related to the return migration of Brazilians in the five-year period, the indirect effect 1, we conclude that around 75.5% of the immigration flows of the period 2005-2010 were related to the return migration of Brazilians.

The small percentage of international immigrants in relation to the Brazilian population, and the huge proportion, among them, of components of direct and indirect effects of return migration, in a context of reasonable economic performance in Brazil and economic crisis in the main countries traditionally participating in international flows with Brazil, in the five-year period 2005-2010, are an indication of the country's low attractiveness. This result also suggests a hypothesis that the phenomenon of return was mainly due to factors of expulsion from the countries of overseas residence, rather than an attraction to Brazil, their country of origin.

In spite of the weight of international migrations in Brazil's total population in the 2005-2010 period and the limitations of any demographic census, the analysis of data on immigrants and emigrants is justified in several aspects. Often neglected or ignored, the richness of Brazilian census data on migration, as well as the indirect effects of migration, deserve more attention from experts and researchers on the subject.

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Resumo

Migrações internacionais no Brasil no período 2005-2010, com ênfase nos efeitos diretos e indiretos da imigração de retorno dos brasileiros

O objetivo do artigo é analisar as migrações internacionais do Brasil no período 2005-2010, com ênfase especial na imigração de retorno de brasileiros e seus efeitos indiretos, tendo como fonte o Censo Demográfico de 2010. Num primeiro momento, são examinadas as informações de imigração internacional, com base nos quesitos de última etapa e data fixa, assim como as emigrações para o exterior, a partir do novo quesito introduzido no último censo. Num segundo momento, são estimados os efeitos indiretos da imigração de retorno internacional para o Brasil. Entre os resultados, observou-se que o volume de imigrantes e emigrantes é relativamente pequeno, em relação ao tamanho da população brasileira, e a diferença entre as migrações internacionais de última etapa levaria a uma conclusão equivocada, de pequeno saldo negativo no quinquênio 2005-2010. Porém, ao se considerarem os imigrantes cuja última etapa migratória é interna e que em 2005 residiam no exterior, o saldo migratório torna-se positivo. Pode-se afirmar que as migrações internacionais no período 2005-2010 não impactaram, de maneira significativa, o tamanho e a composição da população brasileira. Dos 361,8 mil imigrantes internacionais de última etapa do período 2005-2010, 68,8% eram brasileiros natos. Quando se levam em conta seus efeitos indiretos, conclui-se que a migração de retorno no Brasil, no período, explica 75,5% dos seus fluxos migratórios.

Palavras-chave: Brasil. Imigração internacional. Emigração internacional. Imigração de retorno internacional. Efeitos diretos e indiretos da imigração de retorno internacional.

Resumen

Migraciones internacionales en Brasil en el período 2005-2010, con énfasis en los efectos directos e indirectos de la inmigración de retorno de los brasileños

El objetivo de este artículo es analizar las migraciones internacionales de Brasil en el período 2005-2010, con especial énfasis en la inmigración de retorno de brasileños y en sus efectos indirectos, a partir de las informaciones del Censo Demográfico de 2010. En un primer momento, se examinan las informaciones de la inmigración internacional, sobre la base de los requisitos de última etapa y fecha fija, así como las emigraciones hacia el exterior, a partir del nuevo requisito introducido en el último censo. En un segundo momento, se estiman los efectos indirectos de la inmigración internacional de retorno a Brasil. Entre los resultados, se destaca que el volumen de inmigrantes y emigrantes es relativamente pequeño en relación con el tamaño de la población brasileña, y que la diferencia entre las migraciones internacionales de última etapa llevaría a una conclusión equivocada, de leve saldo negativo en el quinquenio 2005-2010. Sin embargo, al considerar a los inmigrantes cuya última etapa migratoria es interna y que en 2005 residían en el exterior, el saldo migratorio se vuelve levemente positivo. Se puede afirmar que las migraciones internacionales en el período 2005-2010 no impactaron de manera significativa en el tamaño y la composición de la población brasileña: de los 361.800 inmigrantes internacionales de última etapa del período 2005-2010, 68,8% eran brasileños natos. Si se tienen en cuenta sus efectos indirectos, se concluye que la migración de retorno en Brasil en el período explica el 75,5% de sus flujos inmigratorios.

Palabras clave: Brasil. Inmigración internacional. Emigración internacional. Inmigración de retorno internacional. Efectos directos e indirectos de la inmigración de retorno internacional.

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