On the Recent Worsening of Income Distribution among the Jewish Population in Brazil

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Abstract
Brazilian income distribution is one of the most unequal in the world, yet the first 15 years of the twenty-first century showed some improvement in reducing inequality. However, data from Brazilian censuses show that the income distribution of the Jewish population in Brazil worsened from 2000 to 2010. The goal of this paper is to investigate whether this observed phenomenon should be attributed to the emergence of new Jewish identities among poorer segments of Brazilian society or a structural change in the more traditional Jewish community. We calculated Gini coefficients, Lorenz curves, and Kuznets ratios of the Jewish population (i) in Brazil, (ii) in the capital cities of São Paulo and Rio de Janeiro, considered as a unit, and (iii) among the general Brazilian population from microdata in the 1980 and 2010 censuses. The results show that the worsening of income distribution among the Jewish population in Brazil is more intense in areas outside of urban centers in São Paulo and Rio de Janeiro. This finding suggests that the observed phenomenon should be attributed to emerging new identities rather than structural change in the more traditional community. A conclusion section addresses issues for further research.

Keywords Brazil · Jewish demography · Income distribution

Introduction
Demographic and social studies about contemporary Jewry have focused on various aspects of the Jewish population around the world. For example, DellaPergola and Rebhun (2018) and Rebhun (2014) compiled studies on Jewish families and intermarriage, identification, migration, and socioeconomic status in Israel, the USA, Great Britain, Argentina, and the former Soviet Union, among others. However, to
the best of our knowledge, few research efforts worldwide have addressed the question of income inequality among contemporary Jewry.

Regarding socioeconomic status, for instance, Burstein (2007) shows that “by all conventional measures, [American] Jews are much more successful educationally and economically than other ethnic, racial, and religious groups in the United States” (Burstein 2007, p. 209). The author then explored three possible approaches to explaining the success of American Jews, namely human capital, marginality, and Jewish particularity, and suggested a fourth approach, social capital. Nonetheless, income distribution, per se, is not part of his research agenda.

Among the studies that specifically address the topic is a paper by Cornfeld and Danieli (2015), who analyzed the evolution of income distribution between 1987 and 2011 in Israel. They concluded that “individuals with secondary education or lower did not benefit from the contemporary growth in GDP” and suggested that “the level of inequality before redistribution has declined due to an increase in labor force participation. However, the level of inequality after taxes and transfers increased (…) [as] the result of a significant reduction in direct taxes and transfers” (Cornfeld and Danieli 2015, p. 51).

In the USA, Walters and Wilder (1997) estimated the real and relative income of American Jewish households using data from the National Jewish Population Surveys of 1970–1971 and 1990. They show that, “while the median real income of American Jewish households did not change significantly from 1969 to 1989, lower income Jewish households (…) experienced dramatic real income growth.” At the same time, “the average Jewish income advantage declined due to the rising incomes of other urban, non-Hispanic white households” (Walters and Wilder 1997, p. 197).

Moreover, the Pew Research Center website shows very limited data on income inequality among the US Jewish population, including breakdown by age, generational cohort, gender, immigration status, educational distribution, marital status, importance of religion, etc.¹

In Brazil, on the other hand, income distribution has been a major theme in the public policy discussion for years. Brazilian income distribution is known to be one of the least equitable in the world. The World Development Indicator DataBank (WDI)² Gini index estimate for Brazil in 2018 was 53.9, placing the country in the 105th position out of 109 countries.³ Income inequality is one of the most pervasive and permanent social problems in Brazil.

The debate about recent trends in social inequality indicators in Brazil is still ongoing. Early analyses (Neri 2019) based on household survey data show improvement in the income distribution indicators from 2001 and 2015. This finding seems to be reinforced by the World Bank’s World Development Indicators (WDI) database, which shows a significant improvement in the Brazilian Gini index from 1996 (59.9) to 2015 (51.9). The improvement of income distribution in Brazil is usually

¹ https://www.pewforum.org/religious-landscape-study/religious-tradition/jewish/income-distribution/ Accessed on 5 March 2021.
² https://databank.worldbank.org/source/world-development-indicators. Accessed on 28 March 2021.
³ For that ranking, we collected data available since 2015 in the World Development Indicator database.
associated with minimum wage real increases and the implementation of the Family Grant Program, which involved direct cash transfers to lower-income groups across Brazil. The Family Grant Program is especially ubiquitous in poorer regions of the Northeast and North.

However, Medeiros, Souza, and Castro (2016), inspired by Piketty’s *Capital in the Twenty-First Century*, combined household surveys and the aggregated data from the Brazilian Federal Revenue Office and concluded that the country’s Gini index showed stability from 2006 to 2012. They claim that the aggregated data on capital earnings from the Federal Revenue Office are allegedly more accurate than self-declared information gathered through household surveys. The authors’ conclusion seems to be reinforced by the United Nations Development Program (UNDP) World Inequality Report (WIR) 2022 report (Chancel, Piketty, Saez, and Zucman 2022), which shows that:

“The top 10% income share has always been higher than 50%. Since the 2000s, wage inequality has been reduced in Brazil and millions of individuals lifted out of poverty, largely thanks to government programs such as the increase in the minimum wage or Bolsa Família [Family Grant Program, a direct cash-transfer program]. At the same time, in the absence of major tax and land reform, overall income inequality has remained virtually unchanged, with the bottom 50% capturing around 10% of national income and the top 10% about half of it”. (Chancel, Piketty, Saez, and Zucman 2022, p. 185).

Finally, Barros, Cury, France, and Machado (2021) developed a methodology that combined previous databases with the recently released 2018 Household Budget Survey and concluded that income inequality in Brazil improved between 2002 and 2015.

The debate about income distribution in Brazil and the lack of specific studies on Jewish communities have inspired this research effort.

The Jewish population in Brazil represents only 0.05% of the overall Brazilian population. The main official source of statistical information about this population is the census, conducted every 10 years by the IBGE (Brazilian Institute of Geography and Statistics). However, information from the official Brazilian decennial census has been scarcely explored by researchers (Decol 2001, 2009a, 2009b).
The Berman Institute’s *World Jewish Population 2018* (Dashefksy et al. 2019—WJP 2018) dedicates one subsection to Brazilian Jewry. According to the text, the 2010 census registered 107,329 Jews in Brazil, with more than 98% living in urban areas; 47.6% of the overall Jewish population in the country lived in the State of São Paulo, which represents a 36% increase from the 2000 census. There was also a 2.5% increase in the number of Jews in Rio de Janeiro and an 8.7% decrease in the remaining southeastern and southern states. The 2010 census also revealed an unexpected increase of 8000 Jews in the northeastern, northern, and midwestern states, which likely reflects new emerging identities, like “Bnei Anussim” (or “new *Conversos*”), or misclassifications. Based on documentation efforts undertaken by the Jewish Federation of São Paulo State (FISESP), WJP 2018 estimates Brazil’s core Jewish population at 93,200 people.

Poverty and income distribution among the Brazilian Jewish population and general populations cannot be compared since the social status of the Jewish community in Brazil is significantly higher than that of the overall population. However, poverty and income inequality are different social problems with quite different social developments. The former can be addressed through charity while the latter poses distinct challenges. The continuous worsening of income distribution may ultimately be regarded as a hidden movement that slowly threatens community cohesion.

Regarding this issue, roughly 10 years separate Misha Klein’s *Kosher Feijoada* (2012), which describes a relatively cohesive Jewish community in Brazil, from Klein and Gherman’s recent papers (Gherman and Klein 2019; Klein and Gherman 2021) discussing the sharp rupture inside that same community over the support for the extreme-right candidate in the 2018 elections.

The goal of this research is to analyze and compare Brazilian Jewry’s income distribution from 1980 to 2010 to that of the general population. The research is especially interested in identifying similar patterns between the two groups in the same period. To achieve this goal, the analysis relied on microdata from the 1980, 1991, 2000, and 2010 censuses.

This paper is organized as follows: sections “*Average income and income distribution indicators for Jewish and general populations from 1980 to 2010*” presents basic statistics on the Jewish population in Brazil according to the 1980–2010 censuses and highlights two noticeable facts: the relatively small decrease in that population in the 80s and the atypical increase in the first decade of the twenty-first century. Section “Conclusion and issues for further discussion” compares average income, Lorenz curves, Kuznets ratios, and Gini indexes for the Jewish population in Brazil (taken as a whole), in the capital cities of São Paulo and Rio de Janeiro (considered as a unit), and among the general population in data from four censuses (1980, 1991, 2000, and 2010). A last section summarizes main conclusions.
The Jewish Population in Brazil according to the 1980–2010 Censuses: Two Noticeable Facts

Microdata from the Brazilian census are available in the Brazilian Institute for Geography and Statistics (IBGE) website for the 1970, 1980, 1991, 2000, and 2010 censuses, all of which include a specific question about religious affiliation in the restricted sample questionnaire. The sample size usually comprises approximately 20 million entries.8

The exact wording of the question on religious affiliation is straightforward: “What is your religion or cult?” Respondents self-declare their answers, choosing from a list of options. However, the 1970 census does not specify the Jewish religion among the existing options. Therefore, the analysis was restricted to the four remaining censuses: 1980, 1991, 2000, and 2010.

The breakdown of the variable for religious affiliation in the 1980 census is simpler: it distinguishes only nine broad religious groups, including (i) atheists, (ii) Catholics, (iii) members of Protestant and traditional churches, (iv) members of Pentecostal and Neo-Pentecostal churches, (v) followers of Allan Kardec spiritism, (vi) African Spiritism, (vii) Eastern religions, (viii) “Judaic or Israelite,” and (ix) other religions. In contrast, the 1991, 2000, and 2010 censuses provide a much more complex picture. The 1991 census distinguishes 47 religious groups. Christians encompass 30 groups, including Roman Apostolic Catholics, Lutherans, Presbyterians, and many members of Neo-Evangelical, Pentecostal, and Neo-Pentecostal churches. The option for Jews is “Judaic or Israelite” again.

The 2000 and the 2010 censuses are even more detailed. The first one distinguishes 52 broad religious groups and 142 subgroups.10 Christians encompass 36 broad groups and 87 subgroups. The exact wording for the broader Jewish groups in the 2000 census is “Judaism,” including two subgroups, “Judaism” and “others.” The second one distinguishes the same 52 broad groups and 150 subgroups. Christians comprise 35 groups and 92 subgroups. The group for “Judaism” lists three subgroups: “Judaism,” “Essenism,”11 and “others.”

Together, Catholics constituted almost 90% of the total population in the 1980 census but less than 65% by 2010. The decreasing share of Catholics was followed by the relative growth of Pentecostal and Neo-Pentecostal Evangelicals.

Table 1 shows the breakdown of religious groups among Catholics, other religious groups, and Jews in Brazilian censuses since 1980. According to Table 1, the Jewish population stands for only 0.05–0.08% of the overall population.

8 In the 1980 census, there were 29.3 million entries in the restricted sample questionnaire; in 1991, 17.0 million; and in 2000 and 2010, 20.0 million and 20.1 million, respectively.
9 In Portuguese, “Qual é a sua religião ou culto?”
10 The complete list of religious affiliation considered in the 2000 and 2010 censuses can be seen at: https://www.iser.org.br/wp-content/uploads/2020/07/Comunicacoes_ISER_n69.pdf. Accessed on 31 March 2021.
11 The inclusion of “Essenism” in Jewish categories sounds weird, and I cannot provide any explanation about it. As a matter of fact, the 2010 census counts only 2 inhabitants that had self-declared as being “essenists.” The category did not appear in previous censuses.
There are two noticeable facts regarding the Jewish population in Table 1: the decrease from 91.8 thousand in 1980 to 86.4 thousand in 1991 (−5.9%) and the increase from 86.8 thousand in 2000 to 107.0 thousand in 2010. (+23%). Both variations can partially be attributed to the sampling nature of the statistic. In addition, the likely decrease in the Jewish population in the 80s can be associated with a severe economic crisis that hit Brazil between 1982 and 1994, which supposedly made several middle-class Jewish families emigrate to the USA and, to a lesser extent, Israel.12

The second fact—the significant increase of the Brazilian Jewish population in the first decade of the twenty-first century—deserves more attention. Besides statistical margin of error, it may reflect the first signs of new identities, as mentioned above, especially the Bnei Anussim.

A quite impressive analysis of the emergence of the Bnei Anussim in São Paulo can be found in Gutierrez (2011). His dissertation paper is an ethnographic analysis of a Bnei Anussim group in a poor and distant periphery of São Paulo. According to the text, the Brazilian Bnei Anussim Federation (FISBA), founded in 1998, reached 300 groups all over Brazil and more than 1300 members before internal disputes resulted in defections and dropouts (Gutierrez 2011, p. 14). Moreover, the author

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12 This hypothesis is merely impressionistic. There are not, to my knowledge, any statistics about the emigration of Brazilian Jewish families to the USA in the 80s. On the other side, the Israeli Central Bureau of Statistics registers the aliya of 1763 Brazilian Jewish in the 80s: 2356 from 1990 to 2001 and 2037 from 2002 to 2010. The information is available at www.cbs.gov.il (https://tinyurl.com/35ky66mj) Accessed on 17 February 2022.
discusses the social status of *Bnei Anussim* in Brazil and the associated prejudice against them. They are usually identified as coming from poor, uneducated, and former Neo-Pentecostal observant groups, which creates obstacles to the full integration of *Bnei Anussim* into the “symbolic Judaic universe” (Gutierrez 2011, p. 28).

The emergence of *Bnei Anussim* groups in the first decade of the twenty-first century may explain, at least partially, the increase in the Jewish presence in the North and Northeast regions of Brazil between 2000 and 2010. According to Table 2, this population amounted to almost 5000 inhabitants in 2000 and nearly 12,500 in 2010, an increase of 153%. Table 2 also shows that the core of the Jewish population in Brazil still lives in the states of São Paulo (SP) and Rio de Janeiro (RJ), particularly in the capital cities: roughly 71% in 2000 and 61% in 2010.

For this reason, average income and income distribution indicators in Sect. 3 are presented for Brazil and for the state capitals of São Paulo and Rio de Janeiro. This procedure has been adopted as an imperfect way to filter the impact of *Bnei Anussim* in the analysis of income distribution among the more traditional Jewish community in Brazil.

The absolute decrease in the Jewish population in Rio de Janeiro State and Rio de Janeiro City cannot go unnoticed. The trend is usually attributed to economic and safety issues. Rio de Janeiro has continuously lost economic importance since the Brazilian capital was moved to Brasilia, in the Central-West, back in the 1960s.

### Average Income and Income Distribution Indicators for Jewish and General Populations from 1980 to 2010

Figure 1 shows household average monthly per capita income defined as the sum of the monthly income from all sources of all household residents divided by the total number of residents—excluding those who are unrelated, such as servants. The data

| | 2000 | 2010 | Var (%) |
|---|---|---|---|
| | Population | % | Population | % | |
| North | 2002 | 2.3 | 5175 | 4.9 | 158 |
| Northeast | 2926 | 3.4 | 7282 | 6.8 | 149 |
| Central-West | 1313 | 1.5 | 2558 | 2.4 | 95 |
| Southeast | 70,385 | 81.2 | 79,044 | 74.2 | 12 |
| SP State | 42,175 | 48.7 | 50,580 | 47.5 | 20 |
| SP City | 37,500 | 43.3 | 43,373 | 40.7 | 16 |
| RJ State | 25,750 | 29.7 | 24,252 | 22.8 | −6 |
| RJ City | 23,862 | 27.5 | 21,676 | 20.4 | −9 |
| South | 10,011 | 11.6 | 12,438 | 11.7 | 24 |
| Total | 86,637 | 100.0 | 106,497 | 100.0 | 23 |
| Non-weighted sample size | 8698 | | 6354 | |
apply to the general and Jewish populations from 1980 to 2010, as represented by the columns and lines, respectively. The darker columns and lines represent the statistics for Brazil; the lighter areas represent a combination of the capital cities of São Paulo and Rio de Janeiro considered as a unit; the dashed line and the dotted column represent the statistics for Brazil, excluding the capital cities of São Paulo and Rio de Janeiro. Values have been updated to July 2010 by the Brazilian official inflation index.13

First, the chart shows that the average income of the Jewish population is much higher than that of the general population, both in Brazil as a whole (6–7 times higher) and in the capital cities of São Paulo and Rio de Janeiro (3–4 times higher). Second, it also shows that the average income of the Jewish population in those cities (lighter line) increased from 2000 and 2010, while in Brazil, it stagnated in the same period (darker line).

This second observation suggests that the regional income distribution of the Jewish population in Brazil is worsening: upper-middle class and rich Jewish families have concentrated themselves in the São Paulo and Rio de Janeiro capital cities, and poor and lower-middle class Jewish families have stayed away from this so-called center of Jewish life in Brazil. The question is whether this trend

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13 The Brazilian official inflation index is the Índice de Preços ao Consumidor Amplo (IPCA), or Consumer Price Broad Index, prepared by the Brazilian Institute of Geography and Statistics (IBGE).
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reflects the emergence of new classifications like Bnei Anussim or, alternatively, a social change in the more traditional Jewish community.

Regardless, the overall impact is palpable. Table 3 presents a detailed picture of income distribution for the general and Jewish populations in Brazil. For instance, the monthly income of the top 25% of the Jewish population in 1980 (R$ 3143) places them among the richest 1% of the general population (whose monthly average income is R$ 3360). Similarly, the monthly income of half the Jewish population in 2010 (R$ 2500) places them among the top 5% of Brazilian earners in the general population (the same R$ 2500).

Table 3 also suggests that Jewish income distribution worsened from 2000 to 2010. The monthly average income for each percentile up to 50% decreased in that period while rising for the higher percentiles (90%, 95%, 99%). For example, the monthly income of the poorest 5% of the Jewish population fell from R$ 286 in 2000 to only R$ 80 in 2010, while among the richest 95%, it increased from R$ 11,378 in 2000 to R$ 12,500 in 2010.

Moreover, the closer to the poorer end of the Jewish population, the more intense the decrease in monthly average income. For example, the monthly average income of the poorest 10% of the Jewish population was 56% lower in 2010 when compared with 2000; in addition, the poorest 25% of Jews lost 35% of their monthly average income in the same period. The average income of the richest 10%, 5%, and 1% of the Jewish population, on the other hand, showed a slight increase from 2000 to 2010 (by 3%, 10%, and 5%, respectively).

In contrast, the general population’s monthly average income percentiles increased from 2000 to 2010, especially for the poorer percentiles of the population: the poorer the share of the population, the higher the increase. For example,

| Percentiles | 1980 General* | 1980 Jewish | 1991 General* | 1991 Jewish | 2000 General* | 2000 Jewish | 2010 General* | 2010 Jewish |
|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|
| 1%          | –             | –           | –             | –           | –             | –           | –             | –           |
| 5%          | 33            | 242         | 23            | 176         | 11            | 286         | 22            | 80          |
| 10%         | 50            | 492         | 35            | 383         | 47            | 632         | 78            | 278         |
| 25%         | 97            | 1064        | 73            | 861         | 114           | 1454        | 192           | 945         |
| 50%         | 201           | 1878        | 161           | 1546        | 253           | 2844        | 400           | 2500        |
| 75%         | 435           | 3143        | 367           | 2778        | 545           | 4993        | 753           | 5000        |
| 90%         | 922           | 5019        | 767           | 4592        | 1209          | 8059        | 1500          | 8300        |
| 95%         | 1451          | 6625        | 1276          | 6353        | 2005          | 11,378      | 2500          | 12,500      |
| 99%         | 3360          | 13,433      | 3138          | 12,150      | 5063          | 24,019      | 6500          | 25,250      |

Sample size (000) | 118,620 | 91 | 142,251 | 80 | 169,787 | 86 | 189,987 | 106 |

Amounts are in Brazilian reais (R$) of July 2010

*Excluding Jewish population
the monthly average income of the poorest 5% of the general population increased by 106%, whereas the poorest 10% saw an increase of 64%.

Table 4 shows the same picture restricted to 2000 and 2010 and highlights the general and Jewish populations in Brazil while singling out the capital cities of São Paulo and Rio de Janeiro. It indicates that the monthly income percentiles for the poorest Jews in Brazil decreased from 2000 to 2010, while increasing in the capital cities of São Paulo and Rio de Janeiro in the same period. There is significant difference among the higher income shares in Brazil and in the capital cities of São Paulo and Rio de Janeiro.\(^\text{14}\)

### Table 4: General and Jewish populations in Brazil, and in the capital cities of São Paulo and Rio de Janeiro: Monthly income percentiles, 2000 and 2010. Source: Based on data from Brazilian censuses (IBGE)

| Percentiles | Brazil | SP and RJ |
|-------------|--------|-----------|
|              | 2000   | 2000 | 2010 | 2010 |
|              | General* | Jewish | General* | Jewish | General* | Jewish | General* | Jewish |
| 1%          | –       | –     | –     | –     |
| 5%          | 11      | 286   | 22    | 80    |
| 10%         | 47      | 632   | 78    | 278   |
| 25%         | 114     | 1454  | 192   | 945   |
| 50%         | 253     | 2844  | 400   | 2500  |
| 75%         | 545     | 4993  | 753   | 5000  |
| 90%         | 1209    | 8059  | 1500  | 8300  |
| 95%         | 2005    | 11,378| 2500  | 12,500|
| 99%         | 5063    | 24,019| 6500  | 25,250|

Sample size (000): 169,787 for Brazil, 86 for SP and RJ, 189,987 for general populations, 106 for Jewish populations.

### Table 5: Gini index for the Brazilian Jewish and general populations: 1980–2010. Source: Based on microdata from Brazilian censuses (IBGE)

| Year  | General population*—Brazil | 1980 | 0.60  | 1991 | 0.63  | 2000 | 0.64  | 2010 | 0.61  |
|-------|-----------------------------|------|-------|------|-------|------|-------|------|-------|
|       | General population*—SP and RJ |      | 0.53  |      | 0.57  |      | 0.61  |      | 0.64  |
|       | General population*—outside SP and RJ | | 0.59  | | 0.62  | | 0.63  | | 0.59  |
|       | Jewish population—Brazil |      | 0.47  | | 0.48  | | 0.51  | | 0.57  |
|       | Jewish population—SP and RJ |      | 0.45  | | 0.47  | | 0.48  | | 0.52  |
|       | Jewish population—outside SP and RJ | | 0.51  | | 0.51  | | 0.56  | | 0.65  |

*Excluding Jewish population

\(^{14}\) Sections “Non-weighted sample size of the Jewish population in Brazil, in each census edition” and “General and Jewish populations in capital cities of São Paulo and Rio de Janeiro: monthly income percentiles, from 1980 to 2010” in the Appendix show the complete set of information on monthly income.
Fig. 2 Evolution of the Gini index for the Brazilian Jewish and general populations, 1980–2010. *Source:* Based on microdata from Brazilian censuses (IBGE)

Fig. 3 Evolution of the Gini index for the Brazilian Jewish and general populations in the capital cities of São Paulo and Rio de Janeiro, 1980–2010. *Source:* Based on Brazilian census microdata (IBGE)

Footnote 14 (continued)
percentiles for the general and the Jewish population in and outside the capital cities of São Paulo and Rio de Janeiro.
A different way of analyzing this data is through the Gini index, a widely known income distribution measure. The closer the index is to 1, the more unequal the income distribution; the closer to 0, the more equal. Table 5 shows the Gini index for both populations from 1980 to 2010. Data are also shown in Figs. 2 and 3.

The Gini index for the Jewish population is clearly lower than that of the general population but seems to be increasing. Conversely, the Gini index for the general population is higher (one of the highest in the world) and seems to have improved during the first decade of the twenty-first century. As mentioned above, this improvement is usually associated with the Family Grant Program in the Northeast and North regions in Brazil.

Figure 3 shows a quite different picture. First, the 2010 Gini index for the general population in the capital cities of São Paulo and Rio de Janeiro is even higher than that of 2000, suggesting that the effects of the Family Grant Program had not been as impactful in those two important urban centers as in the Northeast and in the North regions. Moreover, it shows that the Gini index for the Jewish population in these two cities also increased, but not by much, when the whole country is taken into consideration.

Gini indexes are estimated as twice the area between the identity line and the Lorenz curve. The Lorenz curve is a graph plotting the cumulative percentage of total income against the cumulative percentage of the corresponding population (ranked in increasing size of income share). The closer the Lorenz curve is to the identity line, the more equitable the income distribution. Figure 4 shows the Lorenz curves for both the general and Jewish populations in Brazil and in the capital cities of São Paulo and Rio de Janeiro in 2000 (upper) and 2010 (lower).

Figure 4 shows that, in 2000, the Lorenz curve for the Jewish population in Brazil was positioned between that of the general population and the identity line, which indicates an unequivocally more equitable income distribution. It can be said that the former Lorenz-dominates the latter. Moreover, the same curve for the Jewish population in the capital cities of São Paulo and Rio de Janeiro was positioned slightly closer to the identity line, indicating an even more equitable income distribution, a further Lorenz dominance.

In 2010, in contrast, the Lorenz curve for the Jewish population in Brazil crosses that of the general population, suggesting that the gap between Jewish households in the bottom and middle-income levels is wider than that of the general population. This indicates that there is a subgroup of the Jewish population in the country that is significantly poorer than the rest. Meanwhile, the Lorenz curve for the Jewish population in São Paulo City still Lorenz-dominates the general population.

Table 6 offers yet another angle to approach income distribution through, the comparison of Kuznets ratios using the same data set. Kuznet’s ratios compare the income gap between the richest and poorest layers of society. For instance, the p90/p10 Kuznets ratio compares the income gap between the richest 10% and the poorest 10%.

For the Jewish population in Brazil, all Kuznets ratios p90/p10, p90/p50, p50/p10, and p75/p25 increased from 2000 to 2010, indicating a widening gap between the richest and poorest segments in all measures. For the Jewish population in the capital cities of São Paulo and Rio de Janeiro, all Kuznets ratios were almost stable.
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Fig. 4 Lorenz curves for income: general* and Jewish populations, 2000 and 2010. Source: Based on data from the 2000 and 2010 Brazilian censuses (IBGE). *Excluding Jewish population
For the general population, in contrast, the trends were more diverse: the p90/p10 and the p50/p10 increased while the p90/p50 and the p75/p25 decreased, suggesting the expansion of the middle class among the general population.

Therefore, Table 6 reinforces the case for a geographically restricted worsening of income distribution among the Jewish population from 2000 to 2010. This deterioration is more intense if the population outside of the state capitals of São Paulo and Rio de Janeiro is taken into consideration. Income distribution among Jews within those large urban centers has remained relatively stable, having improved among the general population, at least according to the official Brazilian census data.

Finally, Table 7 compares the educational level of the Brazilian general and Jewish populations (excluding the capital cities of São Paulo and Rio de Janeiro) and São Paulo and Rio de Janeiro cities taken as a unit from 2000 to 2010 among adults (25–65 years old). The table shows a contrast between the Jewish populations outside the capital cities of São Paulo and Rio de Janeiro and within those cities and the general population. In particular, the portion of Jewish adults outside São Paulo and Rio de Janeiro with an incomplete elementary or middle school education (up to 8 years of schooling) remained relatively stable but decreased substantially among the Jewish population in São Paulo and Rio de Janeiro as well as the general population. Furthermore, the portion of the Jewish population with a college degree outside São Paulo and Rio de Janeiro decreased from 2000 to 2010 while it increased in all other categories.

### Conclusion and Issues for Further Discussion

The initial goal of this research effort was to assess and compare the evolution of income distribution among the Jewish and general populations in Brazil between the 1980 and 2010 censuses.

The first results confirmed that income distribution among Brazilian Jews worsened from 2000 to 2010, in contrast to what was observed among the general population in the same period.

However, further investigation revealed that the Jewish population in Brazil grew atypically between 2000 and 2010, primarily outside of the states of São Paulo and Rio de Janeiro, considered the traditional Jewish economic and cultural centers and home to most of the Jewish population in the country.
Table 7 Educational level, general and Jewish Population, Brazil (excluding capital cities of São Paulo and Rio de Janeiro) and capital cities of São Paulo and Rio de Janeiro, 2000 and 2010. Source: Based on microdata from Brazilian censuses (IBGE)

| Educational level                                      | Years of schooling | Brazil excluding SP and RJ, general pop. | Only SP and RJ, general pop. | Brazil excluding SP and RJ, Jewish pop. | Only SP and RJ, Jewish pop. |
|--------------------------------------------------------|--------------------|------------------------------------------|----------------------------|-----------------------------------------|----------------------------|
|                                                        |                    | 2000 (%) 2010 (%)                        | 2000 (%) 2010 (%)           | 2000 (%) 2010 (%)                      | 2000 (%) 2010 (%)          |
| 1. Incomplete elementary or middle school              | Up to 8            | 72.2 46.8                                | 54.7 29.4                   | 12.4 14.4                               | 5.2 2.8                    |
| 2. Complete middle school, incomplete high school      | 9–11               | 19.2 15.5                                | 26.3 16.8                   | 17.9 9.2                                | 17.4 2.2                   |
| 3. Complete high school, incomplete college            | 12–15              | 1.6 26.4                                 | 3.4 31.3%                  | 5.6 26.2                                | 5.5 16.0                   |
| 4. Complete college or more                            | 16+                | 6.0 11.0                                 | 15.3 21.9                  | 63.5 50.1                               | 71.7 78.9                  |
| 5. Not available                                       |                    | 0.9 0.3                                  | 0.4 0.7                    | 0.5 0.1                                 | 0.2 0.1                    |
The academic literature about the Jewish community in Brazil in the last decade of the twentieth century and the first decade of the twenty-first century suggests that this atypical growth of the Jewish population can be associated with the emergence of new Jewish identity groups—or “new Conversos”—among poorer segments of the Brazilian population like the Bnei Anussim groups.

Thus, the subsequent goal was to assess whether the observed worsening of income distribution should be attributed to the emergence of these new identities or to a comprehensive social and economic change inside the more traditional community. Since it is not possible to directly distinguish between the more traditional Jewish community and the “new Conversos,” this paper assumed that the former is concentrated in the capital cities of São Paulo and Rio de Janeiro while the latter are spread across Brazil, especially in the Northeast and North regions. Therefore, the paper analyzed the income distribution both in the Jewish population in Brazil as a whole, and in the state capitals of São Paulo and Rio de Janeiro as a unit.

The analysis of the inequality indexes of these three populations—the Brazilian general population, the Jewish population in Brazil, and the Jewish population in the São Paulo and Rio de Janeiro state capitals—showed that the worsening of income distribution in the Jewish population was restricted to the populations outside of the capital cities of São Paulo and Rio de Janeiro, suggesting that the observed phenomenon should be attributed to emerging new identities rather than a social and economic change inside the more traditional Jewish community.

Finally, I would like to suggest avenues for further research. The first suggestion is to deepen the analysis, taking into consideration education and spatial distribution of the Jewish population in Brazil. The second suggestion is straightforward: extend the analysis to the next Brazilian decennial census, which is the natural “next step” of this research effort. The challenges posed to this analysis by the “new Conversos” are likely to be even greater. A third suggestion is also straightforward: extend the analysis to other countries after checking for the availability of data on religious affiliation in foreign censuses, which will allow for an international comparison.

Appendix

Non-weighted sample size of the Jewish population in Brazil, in each census edition

|              | 1980 | 1991 | 2000 | 2010 |
|--------------|------|------|------|------|
| Brazil       | 22,671 | 8400 | 8698 | 6354 |
| SP City      | 10,218 | 3744 | 3718 | 2088 |
| RJ City      | 6773  | 2395 | 2359 | 1016 |

Source: Based on Brazilian census

Unfortunately, the Brazilian 2020 census was indefinitely postponed owing to the coronavirus pandemic, the current economic recession, and the current Brazilian government, who seems not to consider it of the utmost relevance.
General and Jewish populations in capital cities of São Paulo and Rio de Janeiro: monthly income percentiles, from 1980 to 2010

| Percentiles | 1980 General | 1991 General* | 1991 Jewish | 2000 General* | 2000 Jewish | 2010 General* | 2010 Jewish |
|-------------|--------------|---------------|-------------|---------------|-------------|---------------|-------------|
| 1%          | 41           | –             | –           | –             | –           | –             | –           |
| 5%          | 125          | 451           | 69          | 249           | 33          | 250           | –           |
| 10%         | 176          | 725           | 110         | 459           | 67          | 425           | 140         |
| 25%         | 294          | 1209          | 210         | 949           | 135         | 850           | 310         |
| 50%         | 529          | 2022          | 407         | 1684          | 278         | 1613          | 610         |
| 75%         | 1023         | 3355          | 838         | 2934          | 618         | 2740          | 1311        |
| 90%         | 2003         | 5260          | 1693        | 4694          | 1367        | 4450          | 3000        |
| 95%         | 2948         | 6996          | 2602        | 6633          | 2129        | 6160          | 5000        |
| 99%         | 5964         | 14,734        | 5781        | 12,413        | 4717        | 12,667        | 11,800      |

Sample size (000): 13,465, 68, 14,482, 58, 16,232, 61, 17,442, 65

Source: Based on data from Brazilian censuses (IBGE). Amounts are in Brazilian reais (R$) of July 2010. *Excluding Jewish population

General and Jewish populations outside capital cities of São Paulo and Rio de Janeiro: monthly income percentiles, from 1980 to 2010

| Percentiles | 1980 General* | 1991 General* | 1991 Jewish | 2000 General* | 2000 Jewish | 2010 General* | 2010 Jewish |
|-------------|---------------|---------------|-------------|---------------|-------------|---------------|-------------|
| 1%          | –             | 24            | –           | –             | –           | –             | –           |
| 5%          | 32            | 88            | 22          | 97            | 9           | 163           | 22          |
| 10%         | 48            | 164           | 34          | 209           | 43          | 316           | 74          |
| 25%         | 90            | 605           | 67          | 612           | 104         | 967           | 182         |
| 50%         | 181           | 1370          | 147         | 1227          | 234         | 2276          | 378         |
| 75%         | 371           | 2515          | 319         | 2419          | 493         | 4551          | 713         |
| 90%         | 762           | 4111          | 674         | 3873          | 1067        | 7269          | 1400        |
| 95%         | 1209          | 5610          | 1087        | 5358          | 1770        | 9955          | 2237        |
| 99%         | 2744          | 9440          | 2679        | 9873          | 4437        | 22,755        | 5667        |

Sample size (000): 105,155, 23, 127,769, 22, 153,555, 25, 172,545, 41

Source: Based on data from Brazilian censuses (IBGE). Amounts are in Brazilian reais (R$) of July 2010. *Excluding Jewish population
Histograms for income: general population and Jewish population, from 1980 to 2010
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