THE MULTIPLE DIMENSIONS OF POVERTY: POSADAS IN THE CONTEXT OF URBAN ARGENTINA

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ABSTRACT

This paper presents an analysis of the evolution of multidimensional poverty between 2003 and 2015 for the city of Posadas (Misiones, Argentina), vis. a vis. the whole Northeast Region (Corrientes, Chaco, Formosa and Misiones) and all the urban agglomerations included in the Permanent Household Survey, conducted by the National Institute of Statistics and Census of Argentina.

The multidimensional poverty index comprises 12 indicators grouped into 5 dimensions: housing, basic services, living standard, education plus employment and social protection. Using the Alkire-Foster methodology, the incidence of poverty, the average intensity, and the adjusted headcount ratio (M0) are estimated.

It is found that multidimensional poverty as measured by the adjusted headcount ratio has significantly decreased for Argentina and Posadas (up to 8% and 9% in 2015, respectively). In turn, the city of Posadas presents a multidimensional poverty level higher than the national average, throughout the analyzed period. However, it was observed that after 2010, the poverty gap between Posadas and the urban agglomerates of Argentina fell and reached its lowest value in 2015. This can be explained by the fact that Posadas manages to maintain the rate of reduction of intensity and incidence of poverty, unlike the national aggregate.

KEY WORDS: Multidimensional Poverty; Posadas; Northeast Region of Argentina.

INTRODUCTION

The multidimensional measurement of poverty is a form of direct measurement of this problem, which contrasts and complements the poverty measurement by income, which assumes that access to a certain amount of monetary resources guarantees the satisfaction of basic needs or the achievement of operations. Essentials the direct and multidimensional measurement of poverty is not new. It has a long history in Europe, with measures of relative deprivation and in Latin America with the measures of Unsatisfied Basic Needs (Santos, 2014, Alkire et al., 2015). Even so, measurement by income has been used more generally, both in academic studies and in the political sphere.

However, from the year 2000 onwards there has been a significant resurgence of interest in this form of measurement, first in the academic sphere and then in the field of public action. This resurgence has been motivated by different issues. These include participatory studies carried out on people in situations of poverty (Narayan et al., 2000), the growing recognition of Sen's approach to capacities (Sen, 1999), the increased preponderance of the rights approach and consensus. Expressed in the Millennium Development Goals, replaced in 2015 by the Sustainable Development Goals. All these approaches reveal or highlight the importance of the multidimensionality of poverty and the insufficiency of the income variable as an approximation to the measurement of this problem.[1]

Among the methodological developments of multidimensional poverty measures, the methodology of Alkire and Foster (2011) (AF, hereafter) stands out, which presents several convenient properties such as robustness to the use of ordinal variables in conjunction with cardinal variables, sensitivity to the intensity of poverty, that is, to the amount of deprivation experienced by the multidimensionally poor, the possibility of decomposing the aggregate of poverty into contributions of population subgroups, as well as the possibility of disaggregating the contributions of each dimension and indicator.

Currently nine countries in Latin America have introduced Multidimensional Poverty Indexes officially, all of them following the AF methodology.[2] Others are in the process of developing it.

Argentina is going through a process of restoring public statistics as well as improving them. Between 2007 and 2013, poverty statistics by revenues did not enjoy credibility, mainly due to a

[1]. Also, the literature on the measurement of subjective well-being and happiness indicates that monetary income is important to explain well-being only up to a certain point, from which a higher income does not translate into greater well-being (Easterlin, 2010).

[2]. The countries are Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Honduras, Mexico and Panama.

sub-estimate of official inflation. In 2013, the INDEC stopped reporting the poverty and indigence rate, producing a statistical vacuum until 2015 that was covered by independent statistics such as the Observatory of the Argentine Social Debt (OASD, 2014), the Institute of Thought and Policies Public (ITPP, 2014), the Center for Distributive, Labor and Social Studies (CDLSS), among others. As of 2016, poverty estimates for income were reasonably resumed, incorporating several improvements in the stage of poverty identification (in terms of the definition of the Basic Food Basket, its composition in each region and changes in the scale adult equivalent, INDEC, 2016b) and in the aggregation stage, reporting not only the incidence rates but also the poverty gap, sensitive to the depth of poverty (Foster, Greer and Thorbecke, 1984). In turn, INDEC has declared that it is working on the development of multidimensional measures of poverty (INDEC, 2016 a).

In this context of growing international and national interest in multidimensional measurement, this work offers multidimensional poverty estimates comparing the particular case of the city of Posadas, the capital of the Province of Misiones, with the regional aggregate to which it belongs - the Argentine Northeast. and with the total of large urban aggregates in the country. The motivation for making these comparisons is historically, poverty, measured both by income and by Unsatisfied Basic Needs (UBN), has registered substantially higher levels in the Northeast and Northwest Argentine regions (NEA and NOA respectively) than in the total urban aggregates.[3] The same pattern is found when statistics of other development indicators such as infant mortality, literacy, medical coverage and access to public services (such as natural gas at home, absent in the NEA) are observed. These regions have always been in the most backward places within the country.

This paper presents the estimates of the multidimensional poverty index proposed by Santos and Villatoro (2018), designed especially for the context of Latin American countries (IPM-LA), for the period of time 2004-2015.[4] It uses the AF methodology. The IPM-LA covers twelve indicators grouped into five dimensions: housing conditions, basic services, standard of living -where the income variable is included-, education, and employment and social protection. It is understood that this index presents a measurement that surpasses the previous measurements, in as much as: a) it combines the indicator of monetary deprivation with other indicators of non-monetary deprivations of relevance, b) unlike the UBN indicators, whose thresholds have become somewhat

[3]. The Northeast of Argentina (NEA) is made up of the provinces of: Misiones, Corrientes, Chaco and Formosa. The Argentine Northwest (NOA) is made up of the provinces of Salta, Jujuy, Tucumán, Santiago Del Estero, Catamarca and La Rioja.

[4]. Santos y Villatoro (2018) offer greater justifications and analysis of robustness of this IPM.

obsolete, the IPM-LA uses updated and relevant thresholds for the current socio-economic context of Argentina, c) uses a measure of aggregation that is axiomatically preferable to the incidence rate, since it incorporates sensitivity to the intensity of poverty. In this way, we seek to reflect this problem more comprehensively and offer new evidence that may be useful in the design of public policy. The microdata from the Permanent Household Survey (EPH) are used for the estimates.

The antecedents of multidimensional measurement in Argentina with the AF method correspond to Santos et al (2010), Battiston et al. (2011), Paz (2014), Santos and Villatoro (2018), Paz and Arévalo (2015) and Salvia et al. (2015). In all the works, except those of Salvia et al. (2015) and Paz (2014), data from the EPH are used. The first two papers analyze the evolution of poverty between 1992-2006 for Argentina, Brazil, Chile, Uruguay, Mexico and El Salvador. They include 6 dimensions (income, attendance at the school for minors, education of the head of household, health, water and housing) and find that poverty levels have been significantly reduced in El Salvador, Brazil, Chile and Mexico; while in Argentina it does not change significantly in the period under study. Santos and Villatoro (2018) propose the IPM-LA used here and estimate multidimensional poverty for 17 countries in Latin America around 2005 and around 2012. In the case of Argentina, they find a significant reduction in poverty between those years, although with a 15% multidimensional poverty rate in 2012 (using a poverty line measurement alternative to the official one at that time).

Paz (2014) performs a multidimensional measurement considering 4 dimensions: economic capacity of the household, quality of housing, basic sanitation and social inclusion, between the years 2010-2014 using the Annual Urban Household Survey published by INDEC. It finds, consistently with what was stated above, that, in this period, there is a strong asymmetry among the urban units analyzed and that the highest levels of poverty are found in the north of the country. On the other hand, Paz and Arevalo (2015), carry out a multidimensional measurement for the 2005-2015 period, adding to the dimensions considered by Paz (2014) the health dimension and using the Permanent Household Survey. They find that poverty has been reduced over the years studied, being the most important reduction in the first half (2005-2010). In the case of Posadas, they conclude that although the incidence of poverty has been reduced, the intensity has remained almost constant. At the national level they find that in 2015 25% of the people were poor. Finally, Salvia et al. (2015) use data from the Argentine Social Debt Survey (ASDS, carried out by the OASD-UCA), considering the dimensions of adequate food, basic services, decent housing, educational achievements and employment and social security, for the years 2010 -2014, find that for the last year analyzed 24.7% of people were multidimensionally poor (a reduction of 0.6 pp

compared to 2010). They also identify that the most recurrent lack is Employment and Social Security, which affected 26% of people in 2014.

Although the IPM-LA has several similarities with the index estimated by Paz and Arevalo (2015) and by Salvia et al. (2015), is a bit more comprehensive in that it incorporates a greater number of housing indicators (such as housing tenure), as well as employment indicators. Unlike the work of Salvia et al (2015) that gives the same weighting to each indicator and that identifies as poor the person who presents deprivation in the income indicator and in at least one more indicator, in the IPM-LA each indicator it receives its specific weighting and to be considered poor, the person must overcome the multidimensional poverty threshold k (which will be explained later), regardless of the specific indicators of deprivation. In general, these joint works of the IPM-LA, have in common the fact of trying to reflect the phenomenon of poverty from a series of common dimensions: housing, sanitation, economic capacity and social inclusion.

From now on, section 2 describes the methodology used, specifying the dimensions, indicators, cutting lines and other data used. Section 3 presents the main results for Posadas, agglomerates of the NEA and Argentina, comparing incidence, intensity, adjusted count rate (M0, hereafter). Finally, the conclusions are presented.

DEVELOPMENT

1.1 Methodology

1- Measure M0 and its components. The IPM-LA uses one of the multidimensional poverty measures AF, called M0 or adjusted count rate. Next, the measurement used following Santos and Villatoro (2018) is described.

Let x_ij (belonging to the positive real numbers R_ +) the achievement of each person i = 1, ..., n in each indicator j = 1, ..., d and let z_j be the threshold of deprivation of the indicator j. A person is deprived on this indicator if their achievement is below the deprivation threshold.

Formally, deprivation is defined as:

$g_{ij}{}^{0}$=1 $x_{ij} < z_j$ (1)

$g_{ij}{}^{0} = 0$ in the other cases.

In addition, each deprivation is weighted by the weighting of the indicator given by w_j; being:

$$\sum_{j=1}^{d} w_j = 1 \quad (2)$$

For each person, we can construct the sum of weighted privations (deprivation score):

$$c_i=\sum_{j=1}^{d} w_j \; g_{ij}{}^0 \qquad (3)$$

From the deprivation score, the poor are identified using a second poverty threshold, called k, which represents the minimum number of deprivations that a person must experience to be considered multidimensionally poor. Thus, someone is considered poor if:

$$c_i \geq k \qquad (4)$$

The deprivations of non-poor people are multidimensionally censored; formally:

$$g_{ij}{}^0(k) = g_{ij}{}^0 \quad c_i \geq k \qquad (5)$$

$$g_{ij}{}^0(k) = 0 \quad c_i < k$$

The censored deprivation score is:

$$c_i\,(k)=\sum_{j=1}^{d} w_j \; g_{ij}{}^0(k) \qquad (6)$$

The M0 measure combines two sub-indices: the proportion of multidimensionally poor people, called incidence or counting rate, and noted with the letter H, and the intensity of poverty given by the weighted average of deprivation experienced by the poor, noted as A.

Formally, H = q / n where q is the number of multidimensionally poor people, n is the total population. At the same time, $A=\sum_{i=1}^{n} c_i\,(k)/q$.

The Multidimensional Poverty Index (MPI) or more generically M0 is:

$$IPM=M0=H*A \qquad (7)$$

The measure M0 satisfies the axiom of dimensional monotonicity given that it is adjusted for the intensity of poverty. This means that when a person identified as poor becomes private in an additional indicator, the intensity A increases and then M0 increases.

M0 can be decomposed by population sub-groups and also by indicators, once the identification stage has been completed. The disaggregation by indicators is done by analyzing the censored count rates defined as the proportion of people who are poor and are deprived in each indicator. Formally, the censored count rate of indicator j is given by: $\mathrm{TRC_j} = \frac{1}{n}\sum_{i=1}^{n} g_{ij}^0(k)$ (8)

1.2 Data source used

The microdata provided by the National Institute of Statistics and Censuses (INDEC, hereinafter referred to) collected through the Permanent Household Survey (EPH) on a quarterly basis for urban agglomerations throughout the country are used. The analysis focuses on the period 2003-2015 although some quarters could not be included due to lack of data (I and II of 2003, III of 2007 and III and IV of 2015).

The research emphasizes the Northeast Region of Argentina and for that, the data of the agglomerates of Posadas (Province of Misiones), Corrientes, Formosa and Resistencia (Province of Chaco) are used.

It should be clarified that, according to what was published by the INDEC (2017), the results of the estimations obtained here should be understood as indicative or considered with reservations since the survey was subject to discretional management in several senses, which affects the reliability of the estimates made from their microdata, between the years 2007 and 2015.

1.3 Indicators, dimensions and selected cuts

The present poverty index replicates the one proposed in Santos and Villatoro (2018), which consists of 5 dimensions and 13 indicators; although given the data source used here, only 12 indicators can be included due to lack of data on durable goods. In turn, the analysis includes urban areas only, since the EPH does not cover rural areas. The selection of indicators, thresholds and weights is discussed in depth in Santos and Villatoro (2018). The selection is based on normative judgments complemented with a detailed analysis of correlation, robustness and redundancy.

All the indicators are defined at the household level, assuming externalities within it. All members of the household are considered poor if their household is identified as poor.

Next, the indicators and dimensions used are detailed:

Table Nº 1. Dimensions, indicators and weights

Dimensions	Deprivation indicator	Weight
1. Housing		**22,2%**
Housing materials	Households with earthen floor or roof materials or precarious walls (waste, cardboard, cane, straw, others)	7,4%
People per room	Households with 3 or more people per room	7,4%
Housing Tenure	Households living in illegally occupied homes or in a leased or borrowed home	7,4%
2. Basic Services		**22,2%**
Improved Source Water	Households with piped water to the land, well without mechanical pump, bottled water, rainwater, river or stream	7,4%
Improved Health	Households without bathroom, shared bathroom or latrine without septic tank	7,4%
Energy	Households without access to electricity or using wood, coal or manure as fuel for cooking[5]	7,4%
3. Standard of living [6]		**22,2%**
Monetary income	Households with insufficient income per equivalent adult to cover food and non-food needs	22,2%
4. Education		**22,2%**
Attendance at school	Homes where at least one boy between 6 and 17 years old does not attend school	7,4%
School backwardness	Households with at least one boy between 6 and 17 years behind for more than 2 years with respect to the grade for his age	7,4%
Educational achievement	Households where no member between the ages of 20 and 59 has at least 9 years of education or no member of 60 years or older with full primary	7,4%
5. Employment and Social Protection		**11,1%**
Job	Households with at least one member aged between 15 and 65 years unemployed, employed without payment or discouraged	7,4%
Social Protection	Homes where no member has medical coverage or, no member contributes to the social security system or receives pension or retirement income	3,7%

Source: Own elaboration based on Santos y Villatoro (2018)

[5]. Access to electricity is included in Santos and Villatoro (2018), but this information is not available in the Permanent Household Survey.

[6]. Santos and Villatoro (2018) includes an indicator of the possession of durable goods within the standard of living dimension; Since this information is not available in the EPH, the Monetary Revenue indicator obtains the full weight of its dimension.

The monetary income indicator deserves special clarification. For the same, the total basic basket computed by the INDEC between the years 2003-2006 is used as the poverty line. Given that between 2007 and 2013 the INDEC underestimated inflation, the official values of the poverty line were not reliable and between 2013 and 2015 valuations of the basket were not published directly. For this reason, we proceeded as follows: between the years 2007-2008, the INDEC basket estimated for the fourth quarter of 2006 is used but adjusted for the variation in the Consumer Price Index of the True Inflation series. Then, from 2009 until 2015, the basket estimated by the Latin American Economic Research Foundation (FIEL) is used.[7]

Finally, the value of the poverty threshold used (k) is 25%. That is, a person must be private in a complete dimension (with the exception of Employment and Social Security) plus some indicator of another dimension. Santos and Villatoro (2018) offer robustness analysis regarding the threshold k.

2. Results

2.1 Posadas vs. Argentina

Incidence, intensity and M0. Table 2 presents the results of the Multidimensional Poverty Index or Adjusted Counting Rate and its two components: incidence (H) and intensity (A) for the total urban agglomerates of the EPH and for the particular case of Posadas, both among the years 2003-2015.

[7]. Alternatively, estimates have been made with baskets from the Statistics Office of the City of Buenos Aires and also by adjusting the INDEC baskets with alternative inflation series. The results do not differ qualitatively from those reported here.

Table Nº 2. Adjusted Counting Rate (M0), Incidence and Intensity for the total urban agglomerations of the EPH and the particular case of Posadas

	TOTAL AGGLOMERATED URBAN EPH			TOTAL POSADAS		
Año	Incidence (%)	Intensity (%)	M0 (%)	Incidence (%)	Intensity (%)	M0 (%)
2003	43,44	38,73	16,83	54,14	41,88	22,67
2004	39,84	38,65	15,4	50,67	41,01	20,77
2005	34,13	38,82	13,25	46,89	38,81	18,20
2006	28,40	39,06	11,09	39,02	39,03	15,22
2007	24,72	38,62	9,54	38,39	39,78	15,27
2008	22,23	38,74	8,61	35,12	39,15	13,75
2009	22,13	38,26	8,46	36,66	36,66	13,44
2010	25,12	37,22	9,35	40,57	38,05	15,43
2011	23,63	36,63	8,65	37,88	38,47	14,57
2012	23,27	36,49	8,49	34,17	37,48	12,81
2013	21,84	35,95	7,85	32,56	37,12	12,08
2014	26,33	35,33	9,3	31,15	35,45	11,04
2015	23,45	35,26	8,26	28,98	33,95	9,83

Source: Self Made

It can be seen that, between 2003-2015, the proportion of multidimensionally poor people in the total urban agglomerates surveyed by the EPH is reduced by 20 percentage points (-46%). However, almost all the reduction takes place in the first half of this period, between 2003 and 2008. It should also be borne in mind that the starting point was a very high level of poverty, 43%, as it was still very recent. crisis of the year 2001. In 2015 just under a quarter of the Argentine population was multidimensionally poor, experiencing at least a quarter of the deprivations mentioned.

The intensity of poverty, on the other hand, hardly decreased 3 percentage points in the whole period (-9%). But unlike the intensity, the reduction occurs in the second half of the analyzed stage (2010-2015). In 2003, on average, the multidimensionally poor experienced 4.7 weighted deprivations (close to 5), while in 2015, this was 4.23 (closer to 4 deprivations).

The adjusted count rate, or M0, shows a reduction of 8 percentage points (-50%) and again almost all of this variation occurs between 2003-2008, which is to be expected, given that Incidence is reduced in the same period and the intensity hardly changes in the whole series.

In the case of the Posadas agglomerate, there is a reduction in the incidence of multidimensional poverty of 25 percentage points (-46%). Unlike the total agglomerates, in

Posadas the reduction was carried out throughout the period studied (except for the year 2010) and not only in the first half. The intensity also shows a progressive decrease of 7 percentage points (-19%), which occurs throughout the period, except for the period 2009-2010. Finally, the adjusted count rate (M0), product of the previous subcomponents, presents a reduction of 12 percentage points (-56%).

Figure 1 shows adjusted count rates for the total urban agglomerates of Argentina and Posadas.

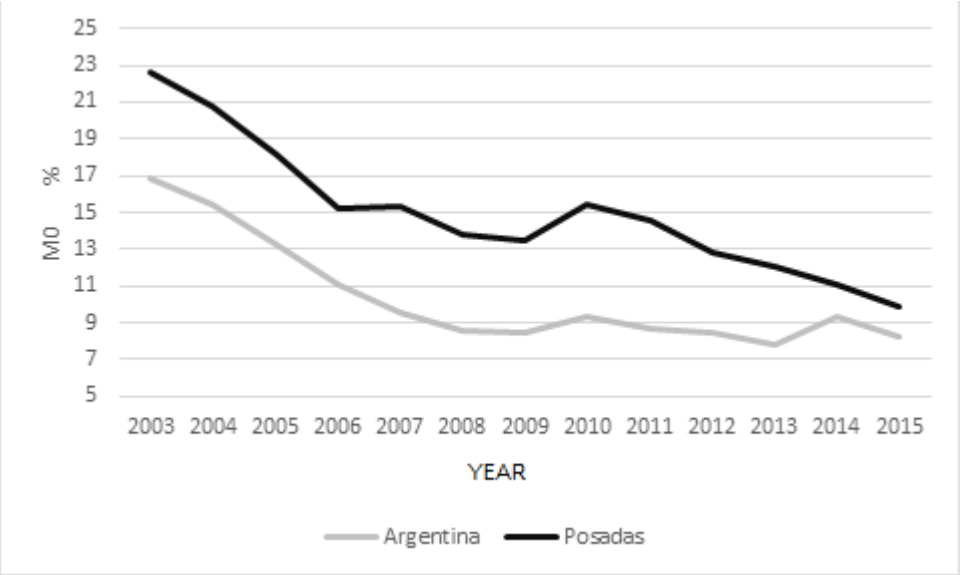

Figure Nº 1. Adjustment Rates Adjusted: Posadas and Argentina
Source: Self Made

A certain convergence can be observed in the M0 of Posadas and Argentina. In effect, it starts from a difference of this poverty indicator of 5.84 percentage points and reaches 2015 with a difference of 1.57 percentage points. That is to say, the indicators of the agglomerate Posadas in terms of poverty have always been higher than those of the Total Country, but this difference has been reduced (-50% of the gap).

Counting Rates Censored by indicator. Counting rates censored tell us the proportion (of the total number of people) that is multidimensionally poor and is private in each indicator. These indicators reveal the composition of multidimensional poverty. Figure 2 shows these rates for the years 2003, 2009 and 2015 for the Posadas case and in Figure 3 for the case of the total urban agglomerates of the country.

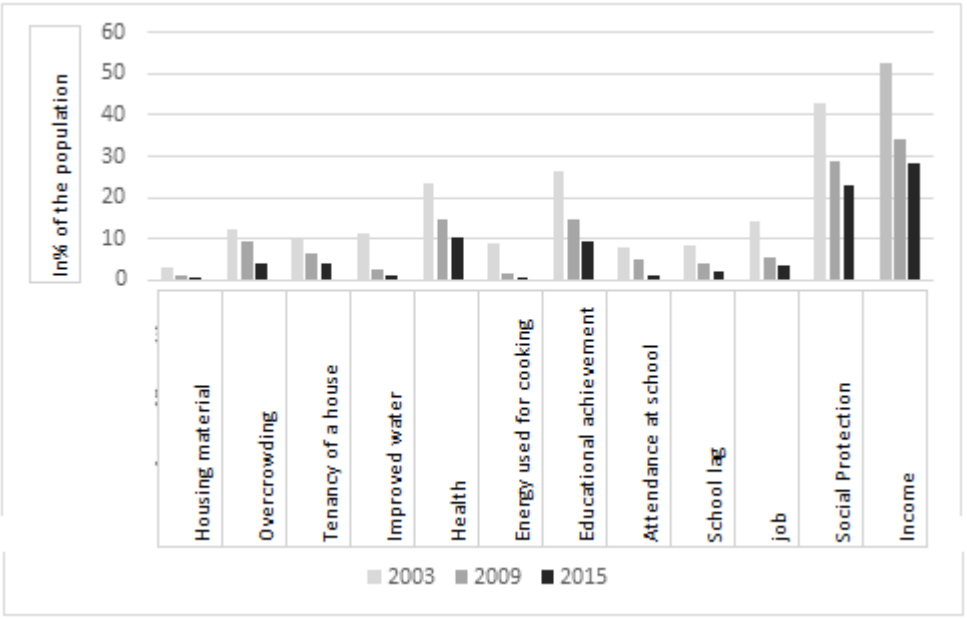

Figure Nº 2. Censored Count Rates of Posadas
Source: Self Made

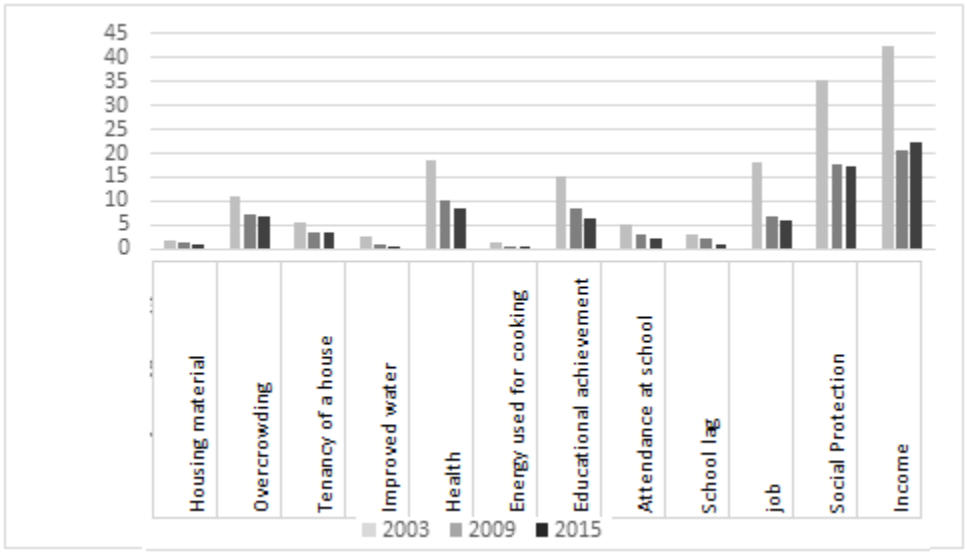

Figure Nº 3. Counting Rates Censored in Argentina
Source: Self Made

It can be seen that both in the case of Posadas and in the total urban agglomerations of the EPH, the dimensions where there is a greater proportion of multidimensionally poor and private persons in this indicator are those of income and social protection. In line with the results of the M0, it is observed that in all the indicators, but especially in the one of income and social protection, while there were sustained reductions in the two sub-periods in the case of Posadas, in the total of urban agglomerations there were a stagnation in the second sub-period and even in some

indicators (such as income) an increase in deprivation. Among the indicators of non-monetary deprivation, those that presented a greater relative reduction of deprivation in the case of Posadas were those of Energy Used for Cooking (-98%), Improved Water (-89%) and School Assistance (-84%), in all cases, between 2003-2015. In the case of Argentina, the largest relative reductions are in Energy Used for Cooking (89%), Improved Water (85%) and School Backlog (69%).

2.2 Posadas vs. the NEA

In this section, the results of the City of Posadas are compared with those of the other capitals of the provinces that make up the Northeast Region (Corrientes, Resistencia and Formosa).

Incidence, Intensity and M0. The incidence of multidimensional poverty (as well as that of income poverty) in the NEA reached extremely high levels around the 2001 crisis. Indeed, in 2003, Posadas, Formosa and Resistencia started with 55% of poor people in average and Corrientes presented 63%. The intensity of poverty was also high. In Posadas and Formosa, on average, the multidimensionally poor experienced 41% of deprivations (almost 5 simultaneous deprivations). In Corrientes and Resistencia the intensity was similar to that of the total agglomerates of the EPH, 38%. Throughout the period both incidence and intensity were reduced and by 2015, Posadas and Formosa have the lowest Incidence levels with 28%, followed by Corrientes with 31% and last with Resistance with 37%. In turn, in terms of intensity, the 4 agglomerates approached levels of 33% of deprivation among people considered multidimensionally poor.

Figure 4 shows the M0, which synthesizes the incidence and intensity of poverty, for the four agglomerates of the NEA. There, a clear descending behavior is observed throughout the period. The average reduction of M0 in the NEA has been 40% in a period of 12 years. Also here is observed in the four agglomerates a marked reduction until 2008, followed by some fluctuations, although with declining trend until 2015. Posadas is, however, the only cluster among the four that after the increase in poverty between 2009 and 2010, maintains a decreasing trend. It should also be noted that while in 2003 Resistencia had the lowest level of M0 of the four agglomerates (between 2 and 3 percentage points of difference), in 2015 it reversed its position and ended with an M0 level between 2 and 3 percentage points above of others. In any case, these four agglomerates are shown as a fairly homogeneous set in their levels and in their evolution of multidimensional poverty between 2003 and 2015.

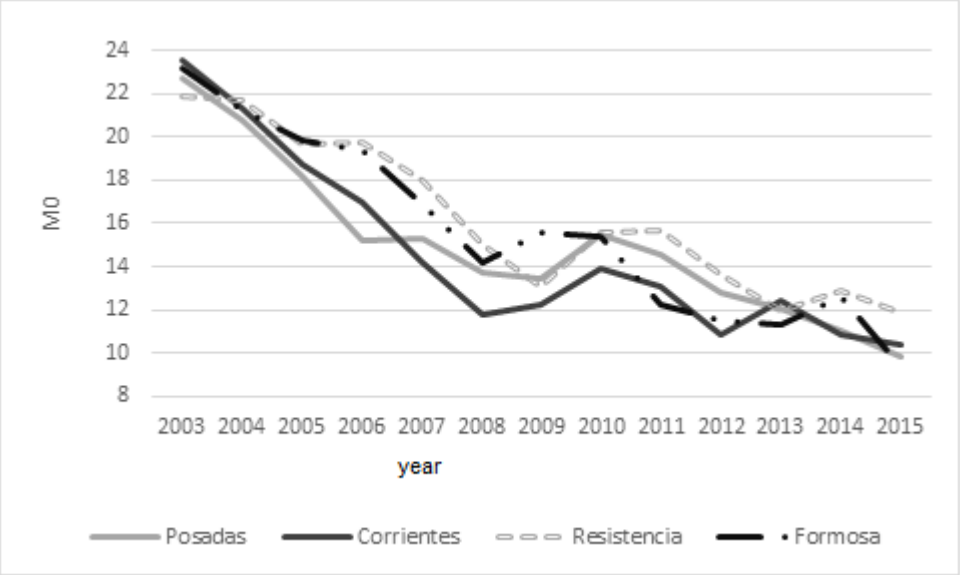

Figure Nº 4. Adjusted Counting Rate (M0) in agglomerates of the NEA
Source: Self Made

Censored Recount Rates. In relation to the count rates censored by agglomerate in 2003, Corrientes was the city that started off with the worst conditions, presenting the highest values of deprivation in 5 of the 12 indicators (Income, Social Protection, Employment, School Lag and Overcrowding). It should be noted here that Posadas had the lowest levels of deprivation in the Income indicator (52%) and, in turn, the highest levels of deprivation in Improved water (11%), nearly three times the average of the other agglomerates of the region.

By 2015, all the agglomerates have lower censure rates censured in all indicators and no one is distinguished in worse situation than the others.

In the following graphs you can see the main hardships for agglomerates selected in 2003 and 2015:

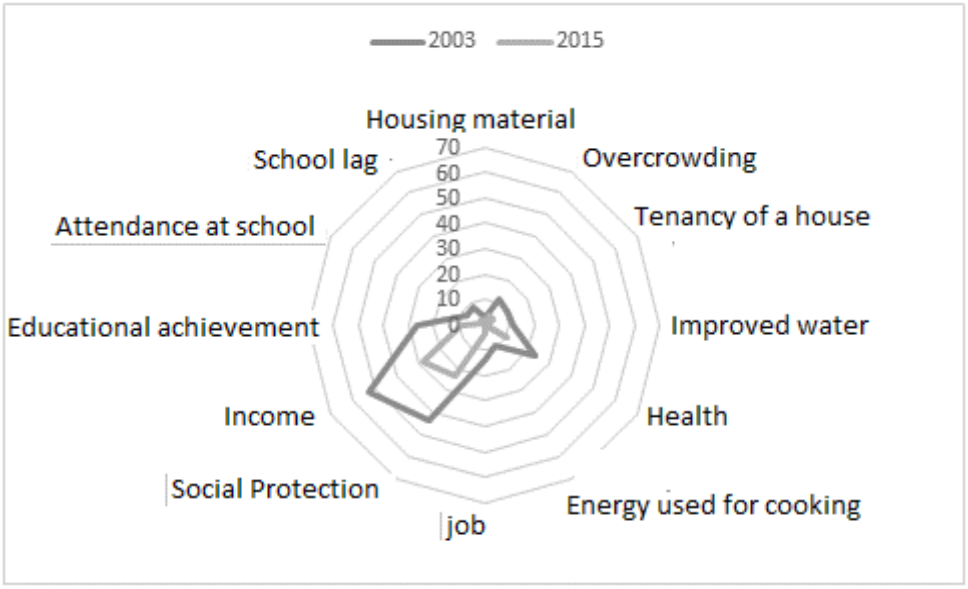

Figure Nº 5. Counting Rates Censored in Posadas 2003 and 2015
Source: Self Made

It is observed that the outline of the series of the year 2015 is always within the contour of the series of the year 2003, showing that the censored count rates show a reduction in all the analyzed indicators.

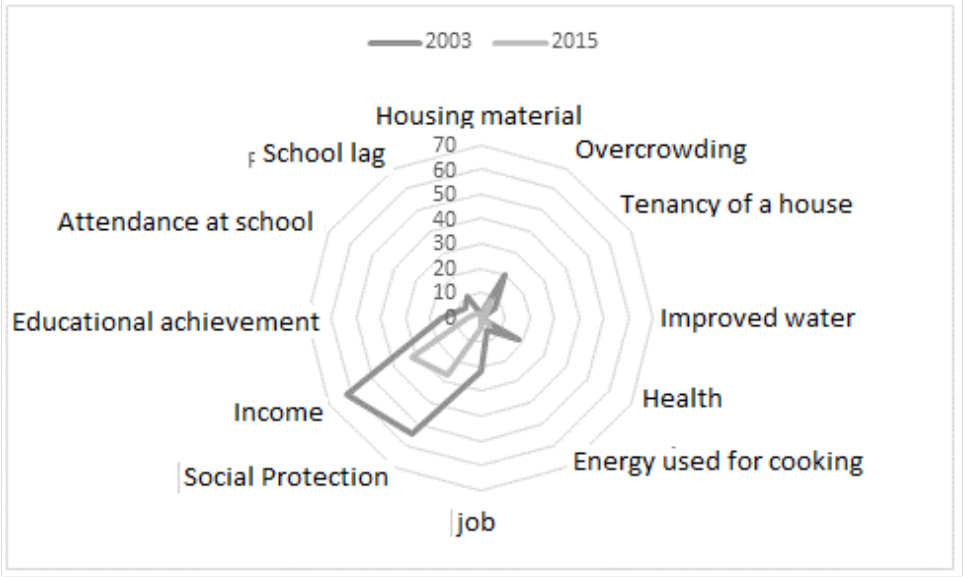

Figure Nº 6. Counting Rates Censored in Corrientes 2003 and 2015
Source: Self Made

The aforementioned for the case of Posadas, is also valid for the city of Corrientes, with important reductions in the matter of the indicators of Income and Social Protection.

In ordering deprivations in terms of censored census rates, certain constants can be seen: in both years the first places are occupied by the Income and Social Protection indicators. At the same time, changes are identified: the Employment indicator disappears in 2015 from the group of the first five indicators with the greatest deprivation; instead, the indicators of Tenure of Housing (Posadas) and Educational Achievement (Corrientes) appear.

CONCLUSION

The multidimensional poverty estimates carried out in this study indicate, in line with other empirical evidence, that poverty levels have decreased significantly in the period 2003-2015, both in the total urban agglomerations of the country and in the particular case of the NEA and from the agglomerate of Posadas, from a high level of aggregate incidence of 43% post-crisis of 2001, up to 23%, value still very high. There were also reductions, albeit slight, in the intensity of multidimensional poverty, resulting in a reduction in the adjusted count rate.

However, the evolution of these indicators has been somewhat mixed. While for the total of urban agglomerates the greatest reduction of M0 occurs between 2003-2008, for the city of Posadas and in general for the NEA, the reduction takes place throughout the period analyzed, although in the first half the Reduction rate is higher. Even for Posadas, the peculiarity is that the intensity of poverty is reduced to a greater extent in the second half (2008-2015).

Throughout the period analyzed, the poverty levels of the NEA have been higher than the national average, something that a priori was expected. However, the poverty gap has been significantly reduced: measured through M0 Posadas had an indicator 5.84 percentage points higher than the national average in 2003, while in 2015 that difference was 1.57 percentage points.

Regarding the composition of poverty, it is observed that throughout the period, the indicators of Income and Social Protection are the ones that present the highest contributions. In turn, in the case of the NEA, the reduction in the censored count rates of the Employment indicator for all agglomerates and the increase in the importance of deprivation in Housing Tenure and Educational Achievement are highlighted.

It is encouraging that the difference in poverty levels between the average of all urban agglomerates and one of the less developed regions such as the NEA has been reduced. Even so, this geographical area continues presenting 2015 levels of multidimensional poverty higher than the rest of the country. It is also observed that the composition of poverty in the urban NEA is not radically different from the composition in the rest of urban Argentina and that the highest relative deprivations are concentrated in the aspect of income, social protection, educational attainment, sanitation and job.

A priori, the results of the work suggest that poverty reduction policies should be oriented, both at the national level but especially in the NEA region, to three fundamental fronts: that of the nucleus of income generation (employment and social protection), the educational one, with longer-term impacts but necessary to deactivate the possible poverty 'traps' and some critical housing aspects such as access to improved sanitation that has direct impacts on health.

REFERENCES

Please refer to articles in Spanish Bibliography.

BIBLIOGRAPHCIAL ABSTRACT

Please refer to articles Spanish Biographical abstract.