Poverty and gender in Latin America

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Abstract

This article investigates the gender bias introduced by the traditional measure of income poverty. Although the assumptions of the traditional income poverty measure - full income pooling and equal resource allocation - are not confirmed by the evidence, alternative measures of poverty are scarcely used in the literature. In this paper, we present different poverty measures at the individual and household levels and compare their results to that from traditional poverty measure, analyzing the potential extent of misclassification. Our analysis is based on household surveys for 16 Latin American countries (circa 2016). Our results indicate that departing from the conventional methodology has much more influence on women than men, worsening female indicators. Our results suggest that households are crucial venues for income support for low income partnered women and for women with no access to any income. This last group still represents around a quarter of Latin American women, whose autonomy is seriously compromised due to this fact.

Keywords: income poverty, gender, Latin America
JEL Codes:

Introduction

The traditional approach to measuring poverty considers that all individuals within a poor household are poor, whereas all individuals in a non-poor household are not poor. This practice of considering the household as the standard unit of poverty measurement is assuming that intrahousehold differences in resource allocation do not exist. This neglection of intrahousehold inequality implies that per capita consumption - the ratio between total household consumption and the number of people in the household - is an adequate wellbeing metric to calculate the proportion of population living below the poverty threshold. In Latin America, this translates into the use of per capita income as a common measure of household wellbeing and monetary poverty, given that most regular household surveys collect information on this variable, whereas expenditure and consumption data are collected in specific expenditure surveys conducted every ten years approximately. Poverty, measured in this way, tends to result in slightly higher female rates, which give ground to commonplace generalizations about the female face of poverty. It may also have implications in terms of public policies, as public resources are generally targeted in a household basis.

* Economic Commission for Latin America and the Caribbean (ECLAC), United Nations
1 For the conceptual discussion about the use of consumption or income as a measure of well-being, see Atkinson and Brandolini, 2001; Meyer and Sullivan, 2003).
This methodology implies two crucial and distinct assumptions (Ponthieux 2013). First, that of full income pooling, the joint use of all resources within the household, justifying the consideration of total household income as the metric for total wellbeing. Second, that of equal resource allocation between the household members, justifying the use of per capita income as a correct measure for individual wellbeing.

But if any of these assumptions does not apply, the dynamics of intra-household decision making about resource pooling and allocation may have a direct and significant effect on the final level of wellbeing of individuals. Despite theoretical advances to understand within household decisions, measurement issues remain lagged behind, and the gap between research and statistical practice has increased over time (Ponthieux and Meurs, 2015). There is wide evidence suggesting that who generates and controls household resources has relevant influence on how these resources are spent and then in the welfare situation of family members (see Hoddinott and Haddad, 1995; Bussolo et al, 2009; Duflo, 2003; among others).

The usual assumptions of pooling of all monetary resources and equal sharing within the household, besides being consistent with the unitary model of household behavior, are very convenient for empirical analysis, mainly due to the limitations of available data. Unfortunately, individualized consumption data is generally speaking not available nor in developed not in developing countries. But the literature tends not to find strong evidence to support these assumptions (see Bourguignon et al, 1993; Browning, 1995; Lundberg et al, 1997; Ward Batts, 2008; Attanasio and Lechene, 2002; among others). Ponthieux and Meurs (2015) review different studies and conclude that the presence of children, a traditional division of labor and the need to monitor low resources seem to have a positive influence on the probability of pooling resources. Besides recent the empirical reject of the income pooling assumption, recent statistics on the sharing of resources within households in Europe also suggests that income pooling is not a common practice (Ponthieux, 2013). Anthropological and sociological evidence has also questioned the pooled income hypothesis underlying the unitary model both in developed and developing countries (Cuesta, 2006).

Some studies explore the possibilities of bringing to surface the individual differences in wellbeing based on the traditional measure of poverty. The main approach within the concept of monetary poverty consists on analyzing the poverty status of female headed households against that of male headed households (Bradshaw et al., 2018; Fukuda Parr, 1999; Liu et al, 2017; among others). Even if the idea of feminization of poverty is widespread, the evidence is mixed. Buvinic and Gupta (1997) present a meta-analysis about this issue and find that in 38 out of 61 studies female headed households are found to be poorer than male ones. Quisumbing et al (2001) consider ten developing countries and find that only in two cases there is evidence of female headed households suffering more from poverty than male headed ones. Other studies have concentrated in specific populations to reach an individual measure, for instance men and women living alone (Wiepking and Maas, 2005; Barcena and Moro, 2013; among others).

Other depart from the traditional assumptions, exploring the gender differences in poverty when different pooling and sharing rules are established within the household. For example, the consideration of only the individual earned income (Gornick and Jantii, 2010; Ponthieux, 2010), or that all personal income is

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2 In a study for 21 European countries, around 47% of adults living in multiperson households declared holding back at least some of their income from the pool. These represents around 38% of total households (Ponthieux, 2013).

3 This approach should not be confused with the indicator of ‘in work poverty’ included in the European portfolio of social indicators, which combines an individual status (being in work) with a household status (being poor). This
retained by the person who receives it and household income is equally shared (for a review on these studies see Ponthieux and Meurs, 2015).

When trying to advance in the measurement of individual well-being, in the absence of individualized expenditure data, some studies have trusted in collective bargaining models to predict the extent of intra-family inequalities (see Browning et al, 2014; Bargain et al, 2015; among others). Others have relied on the construction of individual-based multidimensional poverty measures, leaving aside consumption or income and considering other dimensions of well-being (see Cantillon and Nolan, 2001; Bessell, 2015; Espinoza-Delgado and Klasen, 2016; Klasen and Lahoti, 2016). In principle, assessing individual-based poverty seems to be more feasible in a non-income multidimensional framework than in a monetary one (Klasen, 2007), since attainments in many non-monetary dimensions, such as education and health, can be ascribed to individuals, and the information on these attainments are often available in the household surveys. In spite of this, most popular multidimensional poverty measures, are estimated at the household level (Duclos & Tiberti, 2016), being not sensitive to gender either. To overcome these difficulties and taking into consideration the documented inequality in time use patterns between men and women has led researchers to focus on the dimension of time and to estimate time poverty (Burchardt, 2008; Bardasi and Wodon, 2010; Zacharias, 2011; among others).

In any case, studies based on either of these approaches are scarce in Latin America. In this paper we argue that even without individualized consumption data, it is still feasible to conduct useful empirical research that sheds light about measurement of individual wellbeing, the possible methodological options and the involved variation in results. To do this, we first compare the traditional poverty measure (which assumes complete income pooling and equal sharing, based on per capita income) with other measures such poverty by sex of the household’s head and male and female poverty in single adult households. We then depart from the income pooling assumption and consider male and female poverty considering only earned income (Ponthieux 2010) and a minimal pooling assumption (Davies and Joshi 1994). Our estimations are based on 16 Latin American countries and for people aged 25 to 59 years old. A detailed comparison of female and male poverty magnitudes under different assumptions, and of the changes in the ordering of countries according to these assumptions, grounds the reflection about the current limitations to individual well-being measurement and the possible paths to advance in our knowledge about gender gaps in well-being.

1. Intrahousehold decision making and individual well-being

When trying to elaborate poverty profiles at the individual level, the assumptions about income pooling and sharing of resources within households become crucial. The underlying problem refers to how decisions about resources are taken within the household. Economic literature has tried to model collective households’ decisions, where individual interests may differ: the basic problem consists on how to aggregate utility functions (which may be similar or different) over the various individuals that integrate the family. Attempts have gone from the basic unitary model to more complex bargaining models -

indicator leads to a gender paradox, as women turn out to be overrepresented in less favorable labor market positions but do not face higher risks of in work poverty (see Phontieux, 2010).
cooperative and non cooperative—where individual preferences differ and outcomes are the result of strategic interaction between symmetric or asymmetric family members.

Standard measures of poverty incidence (and of income inequality) assume equal sharing of resources within the household, which neglects the intrahousehold inequality. This is consistent with the unitary approach (Becker, 1981) which implies income pooling of resources, an assumption which has failed verification on empirical grounds and received many criticisms (see Bergstrom, 1989; Bergmann, 1995, among many others) giving place to the development of bargaining models.4

Bargaining models are based on game theory and imply that the outcome of intra-household resource allocation varies with individuals’ bargaining power, depending on their access to extra household resources. Examples of cooperative bargaining models are Chiappori’s (1992) “collective model”, McElroy and Horney’s (1981) Nash bargaining models, and Lundberg and Pollak’s (1993) separate spheres bargaining models. Non cooperative bargaining models in turn allow for asymmetric information (household members may be unaware of each other’s earnings, assets and use of time), enforcement problems (recourse to social norms is often the only way to enforce a cooperative solution) and inefficiency (the household may sacrifice something, income or public good provision, as a consequence of intra-family distribution of power). Examples are Woolley (1988) and Rubenstein (1982). More recently there has been a development of collective models that are general models that do not specify any process to reach the outcomes, and so are very flexible to apply empirically and to include both unitary and bargaining models as particular cases. Their outcomes can be understood as the result of a sharing rule being used to share out household income between members. Examples of collective models usually pass the test of their key assumption of collective rationality which implies that the outcome of the household decision making is efficient in a Pareto sense. Examples of these models include Bourguignon et al (1993), Browning et al, (2006), among others. Donni and Chiappori (2011) provide a survey of non unitary models of household behavior.

In the absence of direct measures of intra household allocation of resources, some studies have approximated individual welfare trough indirect estimations based on an identification strategy that relies on the existence of adult goods in different types of households – the Rothbarth approach. This method was initially designed to elicit the resources accruing to children, by comparing consumption in specific goods in households with and without children. Based on a structural collective models and using household surveys which collect consumption data of one or two items in a way that can be “assigned” to individuals, demand functions can be estimated that allow for teasing out how resources are shared inside the household even if data on consumption of most items are collected at the household level. These studies tend to conclude that ignoring intra-household distribution of resources leads to a large underestimation of poverty. These estimations of individuals’ share of resources are based on strong behavioral assumptions, and so their use should be validated before they can serve as tools for poverty monitoring (World Bank, 2017). Based on this methodology, Bargain et al (2014) for Cote d’Ivore find that children shares are small and decline with household size, and so child poverty, measured on the basis of individual allocations within households, is much larger than in traditional poverty measures which assume equal sharing. When comparing the prediction from collective bargaining models with real individualized consumption data for Bangladesh, Bargain et al (2018) find that the model performs well in predicting the allocation between parents and children, suggesting the robustness of the identification based on adult exclusive goods. Predicted sharing among adults is less accurate. World Bank (2018)

4 A typical recent test consists on analyzing whether changes that exogenously redistribute income within households have any impact on household expenditure decisions.
presents estimates of intrahousehold differences in resource allocation and poverty in nuclear households in Bangladesh and Malawi, finding that intra-household differences in consumption and poverty are significant. Women and children are allocated a smaller share of the households’ resources than men. Intrahousehold inequalities in resource allocation appear to be more pronounced for nonfood items than for core food items, hinting at a degree of solidarity within families.

For Latin America, estimations of intra-household resource allocation are scarce. Cuesta (2006) constructs non-cooperative allocation rules dominated by gender discrimination among household members for Chile. His estimates show a substantial worsening of poverty and inequality under such allocation rules, underlying the existence of potentially large consequences of extreme discriminatory practices within the household. On a similar line, Echeverria et al (2018) identify the fraction of total household expenditure that is devoted to children and adults in Argentina, exploiting the observability of assignable goods in expenditure surveys. Results indicate the existence of a positive gender bias in expenditure when children are females for all families, and document that children fare better when mothers have a higher bargaining power in the allocation process, measured by their employment status.

Taken as a whole, these studies give an idea of the potential misclassification of individuals with respect to households’ poverty classification: many poor individuals may not live in poor households. In the following paragraphs, we present different poverty measures at the individual and household levels and compare them to the traditional one, analyzing the potential extent of misclassification in Latin American countries.

2. Methodological aspects

Traditional poverty measures in Latin America and based on income and not in consumption, as periodical household surveys compile data on income. Household disposable income is measured as the sum of all incomes received by the household. Income from work and employment (including income from self employment, unemployment, sickness and other social security benefits) are collected at the individual level (and usually net of social contribution and direct taxes). Income from property and from transfers (from other households and from the state) may be collected individually or collectively, depending on the country. Per capita household income is compared to an income threshold in order to classify households as poor or non poor.

Poverty thresholds

At present, all countries in the region have their own national poverty thresholds, which are determined following the traditional approach of designing baskets whose size and composition allow to satisfy nutritional and other needs an reflect the consumption habits in a society (so called basic needs poverty lines). Some decades ago, the beginning of the calculation of this national poverty lines in the region was influenced by the action of the Economic Commission for Latin America and the Caribbean (ECLAC), which provided technical assistance for their estimation. ECLAC (1991) proposal was based on the idea of setting food energy requirements for the population, and then considering the total expenditure of people whose

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5 Brazil has no official poverty line, being an exception in the region.
average caloric intakes meet their requirements. Besides orientating the estimation of national poverty lines in the region, ECLAC estimated comparable poverty lines for countries in the region. After estimating the indigence line for each country based on their expenditure surveys (cost of the basic food basket of the population that covers their nutritional needs), comparable poverty lines for the region were estimated by multiplying the indigence line by a constant factor (Orshansky coefficient, set at 2 for urban areas and 1.75 for rural areas).

More recently, ECLAC (2018) updated its methodology for the estimation of comparable poverty lines for the region. The more innovative element with respect to the previous estimation refers to the selection of the reference group, which is defined as the population that covers its nutritional and other basic needs. Additionally, the Orshansky coefficient is the one that emerges from each country data set, instead of being set as a constant for all countries. These updated ECLAC poverty lines are the ones considered for poverty measurement in this article.

The World Bank monitors poverty around the world, setting a poverty line of 1.9 US dollars per day per person (expressed in purchasing power parity, PPP). This value comes from poverty thresholds used in poor developing countries around the world and was identified by Ravallion el al (1991). Since 2017 on, the World Bank has been publishing poverty estimations based on two additional poverty lines, set at 3.2 and 5.5 US dollars (PPP) per person per day. These thresholds correspond to the median of official poverty thresholds for countries with medium low income and medium high income respectively (Jolliffe and Prydz, 2016). As shown in the table A.1 (in the annex), ECLAC poverty lines are, in general terms, relatively similar to national thresholds, and are also close to the medium threshold used by the World Bank (3.2 USD PPP), which corresponds to middle income countries.

**Poverty measurement and gender**

In order to discuss the implications of poverty measurement in terms of gender, we construct poverty indicators both at the household and individual level, and we restrict our sample to population aged 25-59.

At the **household level**, we do not change the pooling and sharing assumptions. We try to show the boundaries and possibilities of the traditional measure in describing gender differences in individual wellbeing. With that purpose, we calculate the following poverty measures:

- **Traditional measure**: based on per capita income, total population, by sex
- **Poverty by headship**: based on per capita income, total population, by sex of household head
- **Poverty for single adults**: based on per capita income, one-adult household, by sex

At the **individual level**, we propose different pooling assumptions in order to illustrate the magnitude of the potential gender differences in wellbeing. Basically, we consider people as if they lived alone, calculating the following indicators.

- **Earned income poverty**: based on personal earned income, total population, by sex
• **Poverty minimal pooling**: based on individual income and individualized household income components with fixed children wellbeing, total population, by sex

We compare the magnitude of poverty rates, and also analyze degree of overlapping between the traditional measure of poverty and alternative measures at the individual leve. We label as ‘consistently poor’ those who are poor by the traditional measure and by the alternative one, and we express this figure as a percentage of the alternative poor. We label as ‘consistently non poor’ those who are non poor under both the traditional and the alternative measure, and express this figure as a percentage of the alternative non poor.

**Data**

Our analysis is based on household surveys for 16 Latin American countries, circa 2016. Table A.2 (annex) shows the main characteristics of these surveys. Our calculus considers people aged 25-59 is a standard practice in the literature but implies important restrictions to the sample, as shown in table 1.

<table>
<thead>
<tr>
<th></th>
<th>% of hh with people aged 25-59</th>
<th>% of people aged 25-59</th>
<th>% of single-adult (aged 25-59) households</th>
<th>% of people aged 25-59 in single-adult hh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>78.5%</td>
<td>43.9%</td>
<td>20.2%</td>
<td>9.2%</td>
</tr>
<tr>
<td>Bolivia</td>
<td>80.2%</td>
<td>39.7%</td>
<td>21.7%</td>
<td>10.9%</td>
</tr>
<tr>
<td>Brazil</td>
<td>83.1%</td>
<td>47.8%</td>
<td>18.4%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Chile</td>
<td>80.4%</td>
<td>45.1%</td>
<td>18.1%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Colombia</td>
<td>85.5%</td>
<td>45.0%</td>
<td>22.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>85.1%</td>
<td>46.7%</td>
<td>18.3%</td>
<td>8.4%</td>
</tr>
<tr>
<td>Dominican Rep.</td>
<td>82.9%</td>
<td>41.7%</td>
<td>26.5%</td>
<td>13.0%</td>
</tr>
<tr>
<td>Ecuador</td>
<td>83.9%</td>
<td>40.6%</td>
<td>15.8%</td>
<td>7.2%</td>
</tr>
<tr>
<td>El Salvador</td>
<td>84.4%</td>
<td>40.1%</td>
<td>16.8%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Honduras</td>
<td>87.4%</td>
<td>37.0%</td>
<td>11.8%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Mexico</td>
<td>85.3%</td>
<td>43.2%</td>
<td>14.6%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Panama</td>
<td>83.5%</td>
<td>41.0%</td>
<td>20.0%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Paraguay</td>
<td>83.9%</td>
<td>40.5%</td>
<td>17.3%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Peri</td>
<td>82.5%</td>
<td>41.5%</td>
<td>15.1%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Uruguay</td>
<td>70.5%</td>
<td>43.7%</td>
<td>25.2%</td>
<td>12.8%</td>
</tr>
<tr>
<td>Venezuela</td>
<td>89.0%</td>
<td>43.8%</td>
<td>16.1%</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

Source: based on household surveys

3. **Household-level poverty measurement**
We first present results based on the traditional poverty indicator, using per capita income, assuming then full pooling and sharing of resources. In other words, we neglect intrahousehold inequality to reach an individual measure of well being considering per capita income to identify the proportion of the population living below a certain poverty threshold. We try to show the boundaries and possibilities of this measure in describing gender differences in individual wellbeing.

The purple diamonds in Figure 1 represent the proportion of men and women between 25 and 59 years living in poor households, in 16 countries in Latin America for the year 2016, using ECLAC’s poverty lines (see section 2) and per capita income. Given the fact that households are composed relatively equally of both sexes, gender differences on poverty incidence tend to be very small when calculated under this methodology, reflecting basically differences in household composition. Thus, all the data are quite aligned along the 45 degree line. However, in every Latin American country analyzed, the proportion of woman living in poor households is higher than the one for men (all the diamonds are over the 45 degree line in Figure 1). The region (population-weighted) average of this indicator for woman is 24% and 21.6% for men; the county rankings for men and woman are very similar with Uruguay with the lower rates for both genders and Honduras with the highest.

As previously mentioned, the main analytical problem with this indicator is that it does not reflect the potential wellbeing differences among individuals. Perfect pooling assumes that there cannot be neither non-poor individuals in a poor household, nor poor individuals in non-poor households. With this methodology, the differences that may exist between women and men are not visible and dilute within the household. So this traditional approach seems to be unsuitable (and probably misleading) to reflect gender profiles of wellbeing, as it makes it impossible to track the situation of individuals.

A second option, also used in traditional poverty analysis, is to consider the incidence of poverty according to the sex of the household head (orange squares in Figure 1). Some precautions should be taken when looking at these results. First, not all individuals among the poor in female-headed households are woman: this measure includes males and females living in (fe)male-headed households. Second, almost two thirds (63%) of all households with at least one member between 25 and 59 years-old in the region are male-headed (population-weighted average) and most of the female-headed ones are single-parent or unipersonal. Moreover, the presence of female headed households in increasingly important in Latin America (see Chant, 2003; Liu et al, 2018). This suggests that the household composition is intimately related with the household head’s sex. Finally, the concept of female or male headship remains contentious, as it comes from the judgment and declaration of family members and may have different implicit meanings in different contexts and countries (see Budlender, 2003; Randall et al, 2011).

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6 Figures go from 74% of male headed households in Ecuador to 54% in Uruguay.

7 Both the changes in the wording of questions about household headship and, probably more importantly, the changes in attitudes towards gender equality, may affect the definition of headship.
Again, poverty rates according to the sex of the household head do not show significant differences among the majority of countries within the region. The average rates do not differ greatly from the ones considered previously either: in the region 23.1% and 22.2% of people between 25 and 59 living in male and female-headed households respectively are poor. In almost every country, poverty rates in female-headed households are lower than the proportion of woman living in poor households, and the opposite occurs for men. Even more, in Bolivia, Ecuador, El Salvador, Mexico, Peru, Venezuela, and the region average, poverty rates are higher in male-headed households than in female-headed ones. This may be due to the households’ composition which is determined jointly with household income, and may be related to the household head’s sex. This is an obviously important limitation of this approach (Bennett et al, 2014; Klasen et al, 2013), which refers to the endogeneity of female headship condition. Some women may be able to form female headed households because they have access to economic resources which allow them to live independently of their husbands or parents.

Up to our knowledge, there are not studies comparing monetary poverty in male and female headed households in Latin America countries. Liu et al (2018) estimate deprivation in living conditions (housing conditions, assets, etc.) and find that there is a statistically significant difference between the living conditions of female and male headed households in 10 out of 14 countries. In eight countries, female headed households are shown to be disadvantaged, whereas in two countries the opposite is true, and in the remaining four no statistically significant difference is found. The inclusion of controls in their model is crucial: the relationship between female headship and poor living conditions cannot be generalized, and when it exists it can be attributable to the family circumstances of female versus male household heads. On line with that evidence, the results that we are presenting here also suggests that, in general terms, Latin American female headed households are not more vulnerable to monetary poverty than male headed ones. It is also interesting to note that in Bolivia and Peru, both countries where female headed households represent a lower share of total households in the region (around 27% of total households), female poverty tends to be significantly lower than male one, suggesting that female household headship is mainly possible in the presence of sufficient economic resources.
Figure 1. Traditional poverty incidence by sex and poverty incidence by sex of household head. People aged 25-59.
Latin America. 16 countries. Circa 2016

An alternative approach undertaken in the literature is to consider only those households composed by just one adult in the considered age group, which results in poverty rates as shown in the orange squares of Figure 2 (the purple diamonds remain as the traditional measure for the total population, not strictly comparable). Here, the household and individual characteristics overlap as there is just one income-generator. However, it implies a large restriction to the sample. Households with one (and only one) adult aged 25-59 represent 19% of households with adults in this age group in average, with variations between 15% in Peru and 25% in Uruguay. Also, 61% of the adults considered are female.

In this case, the gender-related differences are more evident. In all countries poverty rates for women that are not sharing their household with other adults are higher than for men. Moreover, in most cases single adult male households are less poor than the male average, whereas poverty for single adult female households is higher than the global proportion of woman living in poor households. Considering the weighted average for the 16 countries, 16.5% of males and 26.1% of females living with no other adult are poor. The most important difference with the consideration of the full sample is the reduction of male poverty (5 percentage points)

Source: based on household surveys
The kind of households that are being considered in this measure are atypical: those with just one male adult are in general households of single men whereas the one-adult female households are divided into single-parent and single women. There are important differences in the average incomes received by these different types of households. As in the case of household-head, this indicator shows the problem of considering simultaneously the households by composition and gender. Also, this measurement is excluding a major percentage of the population, and the differences it reflects may be mainly due to demographic factors.

Figure 2. Traditional poverty incidence by sex, total population and households with one adult between 25 and 59 years-old. People aged 25-59.

Latin America. 16 countries. Circa 2016

Source: based on household surveys

The figures shown in this section reflect the limitations of the traditional measure, defined at the household level, to identify individual differences of wellbeing. Gender differences only become visible when specific restrictions on the sample are imposed, and even then, it is impossible to separate the household composition from gender and income generation. This illustrates the need of exploring other poverty measures, defined at the individual level, to illustrate about gendered poverty.
4. Exploring the individual-level poverty measures

In this section we explore the magnitude of the potential gender differences in wellbeing through the analysis of different pooling assumptions. In both the exercises proposed, the basic idea is that we consider people as if they lived alone, defining an individual-based indicator. As we have not enough information at this stage to develop an indicator which takes into account the pattern of income distribution within households, the indicator presented here has to be seen in any case as an extreme reference that allows comparisons with the traditional indicator of poverty. In this sense, the results presented below should be mainly analyzed in terms of gender-based gaps instead of focusing on the obtained poverty levels.

We use two different pooling assumptions based on the literature: poverty in earned income (Ponthieux 2010, 2018) and minimal pooling (Davies and Joshi 1994). The first indicator compares earned income (form any source) to the poverty threshold, identifying as poor those who would not escape from poverty if they were living alone and based on their own earnings. This is an individual indicator, referring only to the person and their earnings. “Conceptually, it reflects the monetary outcome of the individual’s economic activity and also the distribution of the aggregate primary income between individual, and between men and women.” (Ponthieux 2018:81). This indicator is defined for all people, not just workers. Those who do not participate in the labor market will be defined as poor in earned income.

The second indicator, proposed by Davies and Joshi (1994) departs from the idea that each person keeps their personal resources for themselves, including an equal share of the household income that is not possible to assign to an individual. This assumption is very strong, as people with no personal income, including children, would receive only their share of the non-individualized household income. To relax this assumption, they propose that each adult of the household contributes a proportional part of their income to the support of children, and the rest is kept for their selves. In this approach the children receive the same amount of resources as in full pooling and equal sharing (the per capita income).

Figure 3 (earned-income poverty) and Figure 4 (minimal-pooling poverty) show the results of these measures for men and women for the 16 analyzed countries, compared to the proportion of men and women who live in poor households (traditional measure). They illustrate the dramatic differences in poverty levels that this change in perspective implicates.

In both cases the region-average poverty for men decreases slightly, from 21.6% in the traditional measure to 20 and 19.9% in the earned-income and minimal-pooling. It is noticeable that in the low-poverty countries, poverty increases for men when an individual approach is considered. On the other hand, female figures increase significantly in all the countries. For instance, for the region average the increase is around 25 percentage points, with 50% of women of the region controlling resources under the poverty line. It is also interesting to note that the dispersion between countries is considerably lower under these alternative measures when compared to the traditional one.

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8 This approach is undertaken by Meulders and O’Dorchai (2010).
Figure 3. Traditional poverty incidence and poverty in earned income. People aged 25-59.
Latin America. 16 countries. Circa 2016

Source: based on household surveys
Figure 4. Poverty incidence for complete pooling (traditional measure) and minimal pooling (own income). People aged 25-59.
Latin America. 16 countries. Circa 2016

The relevant changes in poverty incidence under these measures is mainly the result of the fact that women are over-represented among those without any income. Figure 5 indicates that 25% percent of woman between 25 and 59 years-old of the region have no own income at all, whereas the figure is 8% for men. There are significant differences between countries, ranging from 12.5% in Uruguay to 37.7% in Bolivia. This lack of economic autonomy is a very important aspect of women’s reality in the region, and is the core of gender inequalities in the region. It is closely tied both to the functioning of the labor market and to the weakness of public care systems that may potentially incentive female labor force participation.

Source: based on household surveys
Last, we consider the extent to which poverty at the individual level is related with poverty at the household level. To do this, we evaluate the consistency of the identification of the poor and non-poor in each individual measure to the household one. The results are very similar between both pooling assumptions. The results indicate that the overlap between measures is far from perfect and significant differences appear between men and women. While 40% of woman identified as poor under the minimal pooling measure live in poor households, 56% of men are in this situation. The figures are smaller for income poor but the gender differences remain.

On the other hand, the overlap between the non-poor is clearly higher for women than for men. In general terms, non poor income woman live in non poor households, while over 10% of men that have personal income over the poverty line live in poor households.

This implies that woman with low personal income (or no personal income at all) tend to live with higher income men and take advantage of the pooling and sharing of household income. This does not apply for men: for them the poverty condition tends to overlap more.
Table 2. Poverty consistency between measure. People aged 25-59.
Latin America. 16 countries. Circa 2016

<table>
<thead>
<tr>
<th></th>
<th>Minimal pooling</th>
<th>Earned income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Consistently poor (1)</td>
<td>Consistently non-poor (2)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Men</td>
</tr>
<tr>
<td>Argentina</td>
<td>40,4%</td>
<td>49,4%</td>
</tr>
<tr>
<td>Bolívia</td>
<td>50,1%</td>
<td>62,9%</td>
</tr>
<tr>
<td>Brasil</td>
<td>45,9%</td>
<td>58,4%</td>
</tr>
<tr>
<td>Chile</td>
<td>26,3%</td>
<td>33,5%</td>
</tr>
<tr>
<td>Colombia</td>
<td>47,9%</td>
<td>57,4%</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>31,4%</td>
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<td>Ecuador</td>
<td>41,2%</td>
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<td>71,8%</td>
</tr>
<tr>
<td>Panamá</td>
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<td>53,8%</td>
</tr>
<tr>
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<tr>
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<td>44,3%</td>
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<tr>
<td>Dominican Rep.</td>
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</tr>
<tr>
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<tr>
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<td>49,5%</td>
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<tr>
<td>Latin America</td>
<td>43,6%</td>
<td>55,8%</td>
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</table>

(1) The proportion of people identified as poor by the individual indicator (earned-income poverty or minimal-pooling poverty) that also live in poor households (traditional measure).
The proportion of people identified as not poor by the individual indicator (earned-income poverty or minimal-pooling poverty) that also live in not poor households (traditional measure).

Source: based on household surveys

5. Final comments

This paper presents a detailed analysis of gendered monetary poverty, arguing that the gender-blindness of the traditional poverty measure undermines its utility and value to analyze female poverty. In order to advance in our knowledge of wellbeing and gender issues, research should be based on individuals, rather than households, as the unit of analysis.

The choice between household or individual based measures implies significant differences in terms of the size of poverty, the gender gap in poverty incidence, and even in the ranking of countries. While in Latin America no significant differences between men and women are found under the traditional poverty measure or the female headed measure, the restriction of the sample to one adult household results in higher female poverty rates, bringing to the surface the incidence of household composition. A higher proportion of these women live with at least one child and the restriction of the sample is very sizeable, questioning the usefulness of the household level to analyze gender differences in wellbeing.

Individual level poverty measures result in dramatic differences about gender gaps in well being in the region. Under these measures, female poverty multiplies by two or more in all countries, whereas male poverty is, in most countries, reduced. Although better information is required to understand pooling and sharing strategies within households in Latin America, this exercise illustrate about the significant differences in resource controlling between male and female adults. Our results suggest that households are crucial venues for income support for low income partnered women and for women with no access to any income. This last group still represents around a quarter of Latin American women, whose autonomy is seriously compromised due to this fact.

The construction of better individualized data is a necessary condition in order to make an accurate analysis of gendered poverty and construct robust and comparable poverty profiles. These data should reflect women’s control over household resources. This implies important investments in survey data collection, with previous analysis about the appropriate methodological tools. Such a strategy probably implies interviewing all adult household members. Ideally, these data should measure time, asset, power and income poverty of adult women and men within households. Undoubtedly, these data will better inform policies to reach potentially poor individuals, but also to understand the complexities behind the poverty condition. It would also allow the calculation of multidimensional poverty measures really based on individualized data.

Taking the individual, rather than the household, as the unit of analysis seems a reasonable step to advance in our knowledge of wellbeing and on gender issues. If we want to stay within the boundaries of income, we need to develop better tools to understand the mechanisms of decision making at the household level and to generate new empirical evidence to allow us to monitor the situation of women in different places and across time. Collective decision-making models may contribute to make
assumptions about the sharing rules within households in the region, but there is a lot of room for theoretical and empirical developments in this area in Latin America, in order to be able to reflect the differential situations of men and women.

References


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Review of Income and Wealth, 64(1), 52–82.


## Annex

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Coverage</th>
<th>Total households</th>
<th>Total observations</th>
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<th>Male</th>
<th>Female</th>
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