Seminario internacional. Políticas de tiempo, tiempo de las políticas

TIME-INCOME POVERTY MEASURE (LIM-TIP): An analytical framework[1]

Rania Antonopoulos

[1] This project is being generously supported by UNDP's Regional Centre in Panama and ILO's office in Chile. Three empirical case studies have been undertaken for the cases of Mexico, Argentina and Chile, with the participation of colleagues with expertize in time use data, labor markets and social policies in the national context of these countries.

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Background

Despite progress made in poverty reduction and gender equality many challenges are still with us. In the last decades, a substantial amount of research has been undertaken to better understand their persistence, especially in the context of human development. By now, it is well recognized that economic growth must become more inclusive of poor and marginalized segments of our societies because growth on its own does not always reduce poverty and gender inequalities nor brings about real improvements in people's wellbeing automatically. For women in particular, low labour force participation is still in evidence; decent job creation has been lackluster; they continue to allocate their time more so than men as (unpaid) contributing family workers and to dedicate disproportionately their time on unpaid household production activities. These trends are worrisome, and especially so for women living in poverty.

Since the 1980's a host of poverty reduction social policies and social assistance programmes have been introduced. From a women's empowerment point of view, it is important to remind ourselves that poverty reduction strategies are designed according to the particular lens policy makers adopt. Their understanding of poverty and women's social roles influences the choice of poverty-reduction programs greatly. If unpaid work is seen as 'natural'; if the need to reduce it is not taken into account when interventions are chosen; and if there is unawareness on how unpaid and paid work are interconnected, women's strategic interests are not well served.

Time use surveys point us in the right direction in this regard. They provide sufficient information and they can help us make progress in terms of redressing inequitable gender-ascriptive roles and processes within and beyond the household. CEDAW and the Fourth World Conference on Women held in Beijing 1995, have been instrumental in this regard: incorporation of a gender perspective when producing, analysing and disseminating national statistics has gradually gained visibility. A good example of that goes back to 1989, when the CEDAW Committee issued General Recommendation No. 9 stating that "statistical information is absolutely necessary to understand the real situation of women in each of the States Parties to the Convention." Thus came the great push forward that led to data gathering methodologies that made transparent, and allowed tracking of inequities, including gender gaps in health, education, political participation, earned income opportunities, labor force participation etc. at the national and international levels. They have proven to be imperative for monitoring of trends and advocacy for sound economic analysis

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and policy formulation.

Key to these developments has been the data collection on time use through Time Use Surveys**.** Research has documented what we knew all along: women spend disporportinate amounts of time on UNPAID household production, care and maintencance activities while men allocate more of their time in PAID work. In many instances when paid and unpaid work are combined, women work longer hours but overall their earnings are lower than men's. The unpaid workload women carry shapes their daily lives in ways that affects their economic and financial autonomy adversely, particularly worrisome for women living in poverty to begin with: reinforcing other inequalities, it 'traps' them even deeper into socieconomic exclusion and marginalization. In Latin America, in recent years, the focus on the unpaid work burdens of women has contributed greatly to the work-family and care responsibility reconciliation policies and debates within the public agenda. The need for Time Use Data is firmly put on the agenda and an indication of this comes in many forms: ongoing discussions and research on refining methodologies of Time Use data collection; new national level initiatives underwayt ocollect Timu Use data (eighteen countries have undertaken initiatives to measure time-use through their National Institutes of Statistics); and very importantlthe inclusion of 'total work hours' as one of the indicators of economic autonomy of women used by the Observatory of Gender Equality in Latin America and the Caribbean.

The links between the information collected in surveys of time use and public policy is crucial. So far by pointing out gender disparities the policy discusion has focused on two main themes: first, inclusion of unpaid work as part of GDP with the aim to make women's contribution to the economy and to well being visible, via satellite accounting and second, advocacy for work-family reconsiliation policies. Reduction of unpaid work through development of infrastructure (water, santiation etc) and increase of public spending in care provisioning (childcare, eldercare, health services for the ill and disabled etc) is also of course a part of the ongoing discussions

In what follows, an analytical framework is presented that argues for inclusion of unpaid work in the conceptual framework and calculations of poverty itself. Empirical analysis, according to this framework can shed light on poverty differences between men and women and female headed households versus other types of households. But the contribution of this work, in my view, lays elsewhere: it shows *that gender differences (and in this instance- unpaid work) point out the 'missing' but KEY analytical economic categories* that must inform the very framework we use in economic analysis. Conceptualizing and measuring poverty, let alone designing poverty reduction strategies, must be corrected for a long standing omission, that is, of household production. This is useful for gender 'impact' analysis but goes a step furhter. It shows that if unpaid work is not made visible our estimates of poverty are wrong. Furthermore, it provides the groundwork to evaluate whether a variety of social and economic policies can potentially contribute (on not) to poverty reduction in a way that is meaningful and transformative to the lives of women and men.

The conceptual concern with existing income-poverty measures: why unpaid work matters

Official income poverty measures provide estimates of a ***minimum necessary level of money-***

income that must be secured by households so as to gain access to a basic basket of necessities. This datum is utilized to establish the prevalence (headcount) and severity (depth/gap) of poverty. Much attention and research has focused on the calculation of this threshold and for good reason, indeed: it allows for tracking of trends -nationally and internationally; and supports adjudication of the efficacy of poverty reduction policies.

Independently of specific conceptual and methodological predilections involved in the specification of the level of poverty thresholds ($1.25 or $2 a day, absolute levels or relative poverty, etc.) and despite heated debates in this regard, there is an *implicit* common assumption behind these calculations, that in achieving any given level of standard of living, households dedicate a certain ***minimum necessary amount of time on household production,*** which is combined with money-income (or consumption expenditures), presumed to be always available. To give just a few examples, to ensure a household's survival and reproduction, time must be dedicated to caring for the very young, the elderly, and those who fall in ill health; household production activities must be performed so as to transform purchased raw ingredients into consumable meals; cleaning materials must be used so that ultimately sanitary and healthy environments can be maintained etc. While several (although not all) of these essential unpaid household production activities are mandated to be included and measured by the SNA 1993 as constitutive parts that contribute to household well-being and GDP, poverty measures do not take explicit account of them. If time spent on unpaid work contributes to wellbeing, then lack of time must impact households and individuals negatively.

Much like in the case of establishing minimum income requirements, the size, composition, geographic location and other household and individual characteristics of its members influence decisively the *minimum requirements* of time that must be dedicated to achieve necessary levels of unpaid household production of goods and services, so as to fulfill adequate levels of provisioning of household maintenance and reproduction needs. Similarly to income deficits, not all households are able to secure sufficient household production (unpaid) time requirements and therefore, when not made explicit and accounted for, existing inequalities across and within households -that emerge due to time-deficits for required household production- are hidden and assumed away.

Consider two households with identical incomes, equal to just-above the poverty threshold (taking into account differences in household size and using appropriate equivalency scales). The first household consists of two adults, one of which participates in paid work on a full time basis, while the other performs most of the unpaid household production and maintenance activities. The second household has two members who are fulltime paid workers and two young children. Both of these households will have the same poverty ranking. Upon closer examination, the second household on might not have the minimum amount of time required to perform necessary household production activities, (including caring of under-aged children), nor the resources to purchase the requisite market substitutes. Alternatively, with the same level of consumption expenditures per person, one household's composition may require double the amount of time for household tasks- time which may not be available unless paid work time is reduced. As a result, despite identical incomes, if time-deficits that prohibit performance of basic household production activities are not taken into account, households of largely disparate levels of access to a minimum

set of goods and services are given the same ranking. More importantly, bridging income gaps without the simultaneous remediation of time-deficits may result in overall deterioration of living standards for some households and individuals. To remedy such a discrepancy it is proposed that a framework is needed to explicitly incorporate time constraints into the concept and measurement of income poverty.

It must be noted that our framework **is a different line of argument** from the one that proposes that income-poverty thresholds are flawed because they do not take into account some other essential aspect of poverty. The measure of poverty we propose postulates ***an effective and natural link between the two dimensions of time available for household production and income***, and by implication, of unpaid and paid work requirements. It is based on the concern that the 'commodity space' accessible to individuals and households is dependent on the availability of time for household production. Accordingly, ***this is different from standard multidimensional measures of deprivation*** where there is no such *effective link* between the dimensions.

Objectives of the research project

The principal goal of this project is to provide an alternative measurement to the official income-poverty threshold, one that integrates household production time requirements with income requirements. **LIM-TIP**, the Levy Institute Measure of Time-Income Poverty aims to provide a framework of a four-way classification of households according to their income and time status, subsequently used for empirical analysis for the cases of Mexico, Chile and Argentina.

The second goal of our project is to provide a useful methodology and a tool, the (im)-mobility Transition Matrix, for simulating the potential of potential poverty reduction initiatives on households' ability to transition out of poverty.

The third objective rests with the exploration of *differentiated* hardships poverty of time imposes (especially when coupled with income-poverty) on individuals, not only households. Adults, along gender and other socioeconomic and demographic characteristics such as age, location, worker status, marital status, etc. are liable to experience poverty differently.

In what follows I briefly present the analytical framework of the study.

Analytical Framework

The proposed framework (LIM-TIP)[3] examines these questions by integrating paid and unpaid work. It begins with the recognition that the economic wellbeing of households and individuals depends on paid and unpaid work. They in fact gain access to the necessities and conveniences of life through purchased goods and services (which require earned income) but also through unpaid household production activities (which requires that someone allocates time to unpaid work).

[3] Much of this section and the development of the proposed framework is owed to Ajit Zacharias who is serving alongside with me as the Co-Director of the Levy Project.

Basic identity of time-accounting and the time-deficit equation

The starting point of our approach is the fundamental time deficit equation for the household. The basic accounting identity of time allocation states that the physically fixed number of total hours equals the sum of time spent on income-generation (L), household production (U), personal care (C) and "leisure/free-time" (V). Assuming the unit of time to be a week, we can write:

The fundamental time deficit equation is derived by rewriting this equation. We replace the variables on the right-hand side of the equation with the threshold values for personal care and household production:

The threshold values reflect the "norms" for the household, conditional on its characteristics. The idea here is identical, in principle, to setting thresholds of minimum consumption requirements for income-poverty. That is, a person may actually only spend five hours a day sleeping, but we assume that they need, say, for example, 8 hours of sleep.

The symbol represents the minimum required time for personal care and non-substitutable household activities. Personal care includes activities such as sleeping, eating and drinking, personal hygiene, some minimum rest etc. The idea behind non-substitutable household activities is that there is some minimum amount of time that the household members need to spend in the household if the household is to reproduce itself as a unit. That is, even if you have a full-time nanny and a maid, you may still need to spend some time in household management and childcare.

The symbol represents the amount of substitutable household production time that is required to subsist with the poverty-level of income. The idea here is that if the household is at the poverty-level income, then, in order to attain the poverty-level consumption, it has to spend a certain number of hours in household production activities. In general, income-poverty thresholds used in poverty assessments makes the implicit assumption that households around or below the poverty line possesses the required number of hours to spend on household production.

A central goal of our approach is to expose this assumption and make the household production needs of low-income households integral to the assessment of the nature and extent of poverty.

Evidence suggests that there are well-entrenched disparities in the division of household production tasks among the members of the household and that women tend to spend far more time in household production relative to men. The parameter is meant to capture these disparities: it represents the share of an individual in the total time that their household needs to spend in household production to survive with the poverty-level of income.

The symbol thus represents the notional amount of time that is available to the individual in household for income-generating activities and leisure/free time. Since the parameter is the same for all individuals, the variations among individuals in the time available to them will depend solely on the variations in the time that they have to devote to household production, which, in turn, depends on the total time that their household requires to spend and their share in that total.

We define the individual's time deficit/surplus as the excess or deficiency of hours of income-generating activity compared to available time:

To derive the time-deficit at the household-level, we add up the time deficits of individuals in the household:

A crucial point to note in this expression is that we are not allowing the time-deficit of an individual in the household to be compensated by the time-surplus of another individual of the same household. This is a sharp contrast to the usual assumption of "unitary" household found in the mainstream literature. What does this mean in practice? Suppose that we're looking at the time allocation of the husband and wife in a family where both are employed. Suppose that the wife suffers from a time-deficit because she has a full-time job and also performs the major share of housework; and, suppose that the husband has a time-surplus because after returning home from work he does very little housework. Adding up the husband's time-surplus and the wife's time-deficit to get the total time deficit for the household would be equivalent to assuming that the husband automatically changes his behavior to relieve the time-deficit faced by the wife. This is the unreasonable assumption behind the unitary household models of time allocation. In contrast, we're postulating that no such automatic substation takes places within the household.

Now, if the household has a time deficit, i.e., then it is reasonable to consider that as shortfall in time with respect to ; that is, we are going to assume that the household does not have enough time to perform the amount of substitutable household production.

Equity problem and the new time-adjusted income poverty threshold

If the minimal assumptions behind the equations set out above are accepted as reasonable, then it follows that there is a fundamental problem of inequity that is inherent in the poverty thresholds if the deficits in the necessary amounts of household production are not taken into account**.** Consider two households that are identical in all respects who also happen to have an identical amount of money income**. Su**ppose that one household does not have enough time available to devote to the necessary amount of household production while the other household has the necessary available time. To treat the two households as equally income-poor would be inequitable toward the household with the time deficit.

So how might we solve the problem of this inequity? Since we are dealing **with time deficit that arise from the minimum necessary household production time that can be compensated by market substitutes** *(and* **not** *the entire time allocated to unpaid work)* the natural way is to assess how much the replacement cost would be. **The replacement cost can then be added to the income-poverty threshold of the household with the time deficit to generate an income poverty threshold adjusted by time-deficit**:

The standard and adjusted thresholds coincide if the household has no time deficit. Because the modification of the standard threshold involves the incorporation of a non-monetary variable, i.e., time, we end up with a two-dimensional measure of poverty: "time-income poverty." The two-dimensional poverty measure states that the household is poor if its income, , is less than its adjusted threshold or if it has a time deficit. That is,

For the individual in the household, the two-dimensional poverty measure would deem her to be poor if the income of the household that she belongs to is less than the adjusted threshold or if she has a time deficit**:**

Information Content and Uses

The two-dimensional measure provides additional information about deprivation that is not available from the standard income-poverty measure:

1. Poverty rates now include the "hidden" income-poor: : household's income is above the standard income-poverty threshold but is below the time-adjusted income poverty threshold.

2. A four-way classification of the households:

Income poor, with time-deficit
Income poor, without time-deficit
Income non-poor, with time-deficit
Income non-poor, without time-deficit

3. A richer framework for thinking about the impacts of a variety of policy scenarios and interventions that aim to reduce poverty through a Transition-Matrix analysis (which will be presented during the seminar) For example we may wish to ask: Who might be able to transition out of poverty through newly created employment and income growth should jobs become plentiful? For those that do not, what other additional interventions might be needed?

The standard income-poverty measure is, in this respect, a two-state variable: employment and/or income growth can make the household non-poor or keep it poor, depending on the household composition and prevailing wage rates. Our measure offers a richer framework, which can help address issues of decent work and public services required for low-income working people. Consider the income-poor and time-nonpoor group. This group can include households that, **if they tried to work their way out of poverty**, i.e., by allocating more time toward employment, they might **end up facing time-deficits**. Likewise, in the third group, there may be households who **might fall into income-poverty if they reduce their time-deficit on their own**, i.e., by cutting down on the time that they allocate toward employment. Given the threshold parameters of time allocation, i.e., values of , the poverty ***risks*** faced by some in group 2 depend on the availability of employment and potential hourly earnings; the vulnerability of those in group 3 would depend upon their hourly earnings and their ability to control their time allocation toward hours of employment**.**

From a policy perspective**, we would want to use the actual situation and potential scenarios outcomes because combining them would provide a fuller picture of the vulnerabilities faced by the low-income households than using one approach alone**. In this perspective, social provisioning and social income protection become necessary redistributive anti-poverty actions. The advantage of our approach is that it sheds light on prioritization of resource allocation by identification of who in the population requires specific income or other types of support. It is, of course, not limit necessary potential scenarios to full-time work availability. This simply serves as a hypothetical scenario in a series of other alternative policy scenarios.

During the planned seminar we will present as an example the details of our methodology, the data used and our findings for the case of Mexico. First we will compare poverty differences between official measures and LIM-TIP and secondly we will present the outcomes of the full-employment policy simulation scenario.