# The Hidden Poor: Solving Time Poverty through Redistribution of Household Production

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## Abstract

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### # Introduction

Redistribution of household production has been identified as an important tool to achieve gender equality (Elson 1995; xx())he The incorporation of the 3R (recognizition, reduction adn redistribution) strategy as a target in the sustainable development goals, is a testament to the decades of activism and advocacy emphasizing that inequality on this front is not purely or even primarily a "private family matter" but a matter of public policy. While redistribution of household production responsibilities from females to males is important intrinsically for human rights and fairness concerns, it is also instrumental in achieving gender equality in labor market outcomes (Bruyn-Hundt 1996; Elson 2017; Esquivel 2016). Yet, difficult questions remain about public policies and collective actions that would reduce inequality, especially in poorer countries. A limited consensus seems to have emerged regarding the effectiveness of certain policy initiatives (e.g., paid paternity leave). But, many of them are likely to have only limited efficacy in the poorer countries due to their structural features such as the widespread absence of formal wage labor and weak welfare states.

In the case of the US,

## 1 LIMTIP: A New Measure of Time Poverty for the United States

- Describe the LIMTIP measure and how it is constructed: Methods paper
- Brief description of the LIMTIP measure and the Hidden Poor in the US. Small section

Poverty is a multidimensional concept that goes beyond the simple notion of lack of income. In addition to income, poverty can be understood as a lack of access to resources, including time. LIMTIP is a metric that incorporates in addition to income poverty, aspects of time poverty. Time poverty refers to a scenarion wherein people may not have any time left after engaging in activities that are essential for taking care of the household, its members, self-care, and paid work (when appropriate).

As with any other measures of poverty, it is necessary to identify a threshold to determine if given the resources available to a person or household, they should be classified as poor or non-poor. In the case of time, however, thinking about a threshold is less intuitive because all individuals have the same amount of time available to them i.e 24 hours in a day. Instead, the approach used for the construction of the LIMTIP has been to identify the time balance people would potentially face after considering the necessary time spent on essential activities and household responsabilities. In this framework, people with a negative balance are considered time-poor. We express the weekly time balance of individual i in household j,  $X_{ij}$ , as:

$$X_{ij} = 168 - M - \alpha_{ij}R_j - D_{ij}^0(L_{ij} + T_{ij}) \tag{1}$$

where 168 is the number of hours in a week, M is the sum of personal care and non-substitutable

household production requirements,  $R_j$  is the required time of household production that a family j needs to maintain the household,  $\alpha_{ij}$  is the share of individual i in the household production requirements. To account for required time due to working, the Equation ?? also includes  $D_{ij}$ , a dummy variable that takes a value of 1 if the person is employed and zero otherwise. Thus, for those employed, one also accounts for hours of employment  $L_{ij}$ , the hours of commuting  $T_{ij}$ .

To construct this measure, we need a dataset that contains information on individuals' time use, in addition to standard information required for poverty analysis. The main source of information for time use comes from the American Time Use Survey (ATUS), which only provides information for a single person in the household and a single day. It is necessary to combine the ATUS with the ASEC data to construct a synthetic dataset that contains information on time use for all household members, which will allow us to impute all required variables for Equation ??.

Using ATUS and ASEC data and utilizing statitical matching we develop income and time poverty estimates for the United States for the years 2005 to 2022. In this policy brief we focus on discussing the LIMTIP estimates for the year 2022.

The LIMTIP

$$P_i^L * = P_i^O - p_i * X_i \tag{2}$$

The underlying idea is that if we were to monetize the time deficits of individuals and add those to the official income poverty thresholds, we get an adjusted poverty line - LIMTIP. The estimation of LIMTIP helps us calculate the number of hidden poor, i.e time poor individuals who are left outside the scope of official income poverty estimates. The difference between the LIMTIP measure of poverty and the official poverty estimates give us the number of hidden poor. For our US estimates, we find that xx number of individuals are hidden poor in 2022. The time trend shows that hidden poor has xxxx over time. Further, in Table xx and yy we present the distribution of individuals and hh respectively across the four-way classification of LIMTIP (time poor and i) for the year 2022.

Next, we develop three redistribution scenarios wherein we redistribute the share of household production responsibilities among the household's working-age persons while all else remains. In other words, we examine the effects of a new set of values of  $\alpha_{ij}$ . Redistribution will change the magnitude of the time balanace in Equation ?? and, depending on the extent and direction of the change, may result in a time-poor person becoming time-nonpoor or a time-nonpoor person experiencing time poverty. We focus on the subsample of households for which redistribution is possible and efficient. For example redistributing household prod in a hh with atleast one time poor and one time non poor individual along with the constraint that redistribution can take place to adults belonging to 18-64 years and who are able. This allows for us to not redistribute hh pro to children and/or those with ddisability.

## 2 Identifying the Problem

- The problem we need to identify the problem of time-poverty caused by redistribution (or lack thereof) of household production.
- Identify either: how many Time poor individuals live in household with time non-poor adults.
- Or identify the baseline of time poverty if there is full flexibility for time allocation. (Household Deficit consider both time deficits and surpluses)

This would give us a fist look at how much poverty could be alleviated if household production was redistributed.

We could even look at Who are this individuals who are living in time poverty, but that Do not need to. (describe the characteristics of these individuals)

- Added value. This will help us identify those who cannot be helped by redistribution of household production. (even if their incidence changes
- This raises the question. Do we want to analyze redistribution in household that are not time poor?

## 3 Redistribution Scenarios

- Here we would describe the three redistribution scenarios we have developed. This would be "realistic" scenarios.
- Describe the scenarios and the assumptions behind them.

Intrahousehold redistribution can potentially reduce time deficits. We construct three redistrubution scenarios based on different guiding principles udnerlying the mechanism of redistribution. The extent of the reduction would depend on the principle that we use in distributing household responsibilities among the members. First, we use the simple egalitarianism principle that involves an equal division. B

xxxx We also briefly outline the methods used for implementing the principles in our data, with the detailed explanation of some aspects provided in Appendix xx. Next, we provide an assessment of the different principles in terms of how far they improve the position of women and how much such improvements are congruent with the betterment of the economic well-being of their families. In the subsequent section, we compare and contrast the joint distribution of time and consumption poverty among families and individuals that would result from each principle.

#### 3.1 Distribution Rules for Household Production

Alternative values of  $\alpha_{ij}$  indicate how household production requirements, net of the portion met by household members that are not of working age or are physically unable to take on more work, are shared between working-age persons in the household. Below we discuss the three principles.