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 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 cannot be justified in the name of "private family matter" rather is a matter of public policy. While redistribution of household production responsibilities from females to males is important intrsinsically 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, issues related to lack of public prpovisioning of care infrastructure and services, persistence of childcare deserts, lack of paid parental leave laws among others have gained momentum. In 2021, the value of unpaid care work in the U.S. amounted to $600 billion, constituting approximately 2.6% of the GDP (Reinhard et al. 2023). Moreover, like most other countries, we observe gender disparity in sharing of household work such that Women disproportionately shoulder the burden of unpaid care work. According to the 2018 American Time Use Survey, among adults aged 15 and older, women on average spent 5.7 hours per day on unpaid household and care work, compared with 3.6 hours for men. In other words, women spent 37 percent more time on unpaid household and care work than men (Hess & Hayes 2020). Additionally, the U.S. falls behind many OECD countries in childcare policies and outcomes, spending only 0.4% of GDP on early childhood education and care (ECEC), compared to the OECD average of 0.8% (OECD 2020). Notably, the U.S. lacks federal laws granting paid parental leave, setting it apart from other OECD nations. Around 51% of the U.S. population resides in childcare deserts, defined as census tracts with more than 50 children under the age of 5 and either no childcare providers or significantly limited options, resulting in a severe shortage of licensed child care slots (Malik et al. (2018). In the above setting, care demand falls onto the household, partculalrly women. This in turn restricts care providers allocation of time to other activities including employment, leisure, socializing and self care. Time-trade off are crucial determines individual's well-being. While some hosuheolds may be able to outsource some of these care needs, other income-constraint hosuehodls may not be able to. In the last two decades, there has been growing interest in studying time and income poverty and in developing their linkages (xx).

Time constraints that stem from the overlapping domains of paid and unpaid work are of central concern to the debates surrounding economic development and gender equality. In this backdrop, we develop a novel measure of poverty for the U.S. that incorporates time deficits, known as the Levy Institute Measure of Time and Income Poverty (LIMTIP). Time deficits due to household production is gaining attention in the U.S given the persisting lack of publicly provided care,

affordable child and elderly care, and limited paid parental leave benefits. These time deficits constrain people's time allocation in a range of activities, in turn affecting their overall well-being, productivity, labor market participation, and earnings. The consequences are particularly serious for women due to the disproportionate burden of household responsibilities they bear, which are closely intertwined with labor market and well-being outcomes. Standard measures of poverty fail to capture hardships caused by time deficits and thereby do not provide a complete picture for effective poverty-alleviation and welfare programs. Understand the incidence of time poverty that individuals face and how that may have implications for the study of poverty, gender equality and overall development is therefore crucial.

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 scenario 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, α_{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 utilzing 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

$$P_j^L * = P_j^O - p_j * X_j \tag{2}$$

The underlying idea is that if we were to monetize the time deficits of individuals and add those to the offical 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 indivuals 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 α_{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 househodd 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)