Redistribution and Time Poverty: Balancing Responsibilities in Couple Households

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Abstract

This policy brief examines how redistributing household production responsibilities could reduce time poverty among married U.S. couples. Using the Levy Institute Measure of Time and Income Poverty (LIMTIP), we analyze three scenarios based on equality, equity, and opportunity cost principles. Our findings show that redistribution could effectively reduce time poverty in households where time surplus exceeds deficits, with the equity-based approach proving most successful. However, redistribution has limited impact when all household members are already time-poor. The effectiveness varies across household types and structures, suggesting targeted approaches may work better than universal solutions.

1 Introduction

Redistribution of household production, which includes unpaid caregiving and domestic chores, has been identified as an important tool to achieve gender equality. The United Nations Sustainable Development Goal 5, Target 5.4, has incorporated the recognition, reduction, and redistribution of unpaid work strategy, popularly known as the 3R strategy. This is a testament to decades of activism and advocacy emphasizing that gender inequality on this front cannot be simply justified as a "private family matter", but rather be considered a matter of public policy. Redistribution can take place from households to the public and/or private spheres, as well as among household members. Evidence shows that it is disproportionately undertaken by girls and women globally, such that women spend 3.2 time more time on unpaid work comapred to men and boys (Addati et al., 2018). In the recent report by ILO, care responsibilities account for 45 per cent—or 708 million—of women outside the labour force globally. In contrast, only 5 per cent of inactive men, or about 40 million, report caregiving as the reason for non-participation (Department, 2024)

While redistribution of household production responsibilities from women to men is important intrinsically for human rights and fairness concerns; it is also instrumental in achieving gender equality in labor market outcomes (Bruyn-Hundt, 1996; Elso, 2017; Esquivel, 2016). Studies have demonstrated that gender gaps in the workforce and the unequal sharing of household responsibilities can severely impede economic growth and development (Berik et al., 2009; Duflo, 2012; Elson, 2009). Yet, public policies and collective actions have been less than adequate, especially in poorer countries due to constrained fiscal capacity, widespread absence of formal wage labor, and weak welfare states. Moreover, in patriarchal contexts, cultural barriers also restrict redistribution of household production among their members, or redistribution to the public and private spheres. While in some developed countries such as Norway and Sweden, public policies have been able to promote gender-equitable sharing of household production, such as paid paternity and maternity leaves, they have attained limited attention and success in other countries.

The U.S. is not an exception. Issues related to lack of public provisioning of care infrastructure and services, widespread existence of childcare deserts, and lack of paid parental leave laws, among others, have drawn attention. In 2021, the value of unpaid household 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, with women being in charge of a disproportionately larger share of the burden. 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 et al., 2020).

Unfortunately, the U.S. also falls behind in other dimensions of this problem. Compared to other OECD countries, the U.S. lacks effective childcare policies, spending only 0.4% of GDP on early childhood education and care (ECEC), compared to the OECD average of 0.8% (OECD, 2020). The U.S. also 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).

1.1   What does this mean for time poverty?

The lack of public provisioning of care infrastructure and services, and the disproportionate burden of household production on women, has implications for time poverty, both at the individual and the household/family level.

What do we mean by time poverty?

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. Over the last decades, the Levy Economic Institute has been at the forefront of recognizing the importance of time for understanding income and poverty dynamics (Zacharias, 2011). As part of this work, they developed a new measure of poverty that incorporates the dimension of time into traditional poverty measures: The Levy Institute Measure of Time and Income Poverty (LIMTIP for short).The LIMTIP is a metric that, in addition to income poverty, incorporates aspects of time poverty that better capture the control households have over their resources. This measure uses synthetic data in order to incorporate the value of time, or more specifically the amount of resources required to outsource the responsibilities that cannot be covered by the household members, into traditional measures of poverty thresholds. The By incorporating this dimension, the LIMTIP not only provides a more comprehensive understanding of poverty but also allows for the identification of the hidden poor, i.e., individuals whose families do not have enough monetary resources to accommodate for the time deficits they face (Antonopoulos et al., 2017; Masterson, 2012; Zacharias et al., 2012, 2014, 2018, 2021). This group of hidden poor are those who are not considered poor by official income poverty measures, but are classified poor when we adjust for time poverty. Therefore, LIMTIP provides a peep into this group of people and can allow for more extensive poverty alleviation and welfare programs.

In principle, individual time poverty refers to the lack of time available for individuals to engage in activities that are essential for taking care of the household, its members, self-care, and paid work. This in itself is a difficult concept to grasp, because every individual has different responsibilities and needs, and thus, different time constraints. To formalize this definition, LIMTIP assumes that all individuals have the same daily time constraints, 24 hours per day (168 hours per week) that they need to allocate among household production, personal maintenance, and paid work.

For the identification of time poverty, using weekly hours as the unit of analysis (168 hrs per week), we identify the amount of time individuals would have left (X_{ij}) after engaging in required activities for taking care of their share of responsibilities (α_{ij}) in household production (R_j), personal maintenance (M), and paid work (commuting T_{ij} and time spent at work L_{ij}). This is expressed in the following equation (see Equation **??**):

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

Some of these components are identified based on people's decisions (i.e., time spent on paid work), but others are assumed to have some minimum time requirements, such as the case for household production and personal maintenance. If the responsibilities of an individual exceed the 168 hours per week,

An individual is classified as time poor if they have a negative time balance based on equation Equation **??**.

At the household level, however, we assume that individuals with time surpluses are unable or unwilling to share and redistribute some of the responsibilities of those with time deficits. In this framework, a household is considered to be time-poor as long as there is atleast one person with a time deficit living in the household.[1] This is expressed in the following equation (see Equation **??**):

$$X_j = \sum_{i=1}^{I_j} \min(X_{ij}, 0) \tag{2}$$

Once household time deficits X_j are identified, we adjust the official income poverty thresholds to account for the monetized value of the time deficits. The adjusted poverty line is then calculated as:

$$Z_j^{adj} = Z_j + 52 * P * |X_j| \tag{3}$$

where P is the price we use to give a monetary value to the time deficits the household j faces, Z_j is the official poverty line (SPM Poverty line), and Z_j^{adj} is the adjusted poverty line. Intuitively, households that are not time-poor will not change status compared to the official poverty estimates. However, households that are time-poor could have their poverty status change if, after considering the adjusted poverty line, they fall below it. This group of households is considered to be the hidden poor.

In this framework, as pointed out in (**policybrief_USLIMTIP?**), it is not uncommon to see households with a mixture of time availability (i.e., deficits and surpluses) among its members. The mixture of time availability among household members suggests that not everyone may be pulling their weight in terms of household production. We therefore, tap the scope of redistributing household production among household members with the objective of more equitable sharing of housheold work as well as reducing time poverty incodence of the household.

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[1] To identify time poverty status, we only consider the time deficits of household members age 18 or older.

In spite of the growing recognition of the importance of time constraints and the responsibility of household production, the issue of time poverty has received limited attention in the U.S., partially due to data availability constraints.

What does this mean for Time Poverty in the U.S.? While most of the earlier work on LIMTIP has focused on the analysis of time poverty in developing countries (Masterson, 2012; Masterson et al., 2022; Zacharias et al., 2018), recent work has extended the measure to the U.S. (Zacharias et al., 2024; **policybrief_USLIMTIP?**).[2] Similar to earlier work, one of the findings of (**policybrief_USLIMTIP?**) is that a large share of the population experiences some level of time poverty, which translates into a significant share of households who are *hidden poor*, thus not captured by the official income poverty measure. In this policy brief, we suggest that a significant share of time-poor individuals and households could potentially exit time poverty if household production responsibilities were to be redistributed among its members (similar to Zacharias et al. (2021)).

Following (**policybrief_USLIMTIP?**), this policy brief explores the potential impacts of redistribution further. Using the new estimates for LIMTIP for the U.S., we provide insights into how redistributing household production can reduce the incidence of poverty not only for individuals but also of the households they live in. Specifically, given the marked responsibilities gap between men and women, we focus on analyzing the impact of redistribution among married couples. To do this, we consider three redistribution scenarios based on equality, equity, and opportunity cost principles and assess the impact of redistribution on time poverty of working-age (18-64 years) household members who are part of a heterosexual couple. Further, we present the impacts for different household types, household structures (presence of young children and other members), poverty groups and employment status.

2 Where we are: Time Poverty in the United States

Between 2015 and 2019 in the U.S., under LIMTIP definition, an average of 35.0% of all households had at least one member who was time poor. If we restrict this to households with a married couple, this share increases to 36.1%, providing a glimpse of high prevalance of time poverty among married couples. This group consitutes the focus of our analysis.

Within these time poor housheolds, 52% of the married couples may be classified as time poor, with only 7.8% of other members in the household experiencing time poverty. From this share of time poor married couples, 44% of married men are experiencing time poverty compared to 61% among married women.

Who are the couples in this time poor households?

Table **??** provides an overview of the characteristics of the households where these couples live.

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[2]This is in addition to the work done for the Levy Institute Measure of Economic Well-Being (LIMEW).

The first type of classification we consider is one that classifies households in regards to their potential to exit time poverty via redistribution. Households can vary in terms of the presence of time poor and time non-poor members and in terms of the total time deficit and surplus. Members with time surpluses could take on more household responsibilities, reducing the burden of those with time deficits, and potentially lifting the household out of poverty. Even if the household remains time-poor, redistribution could still make the time deficits more equal among the household members, particulalry balancing the share between men and women. We consider three types of households:

- Households where everyone is time poor, thus redistribuion cannot eliminate time poverty for the household.
- Households where there is at least one non-time poor individual, but its insufficient to eliminate time poverty for the household, and
- Households where the total time surplus is greater than the total time deficit, thus redistribution can eliminate time poverty for all members in the household.

Overall, 5.2% of couples live in a household where all members are time poor, but 76% could potentially leave time poverty if household production responsibilities were to be redistributed. Over half of the couples have a young child living with them (56%) and 25% have other members in the household. In terms of employment status, the vast majority of working-age individuals are employed, with 97% of husbands and 91% of wives are working. This is not surprising, as discussed in (**policybrief_USLIMTIP?**), for most individuals, time poverty is driven by the need to work.

What about other characteristics?

As shown in Table **??**, household struture is a critical factor for understanding if redistribution has the potential to reducing time poverty. Household with young children have the lowest chance to exit time poverty (65.5%), compared to other groups. In contrast, the presence of other age-able members in household drastically increases those chances (97.3%). This is not surprising. The presence of young children increases the time demands on the child care activities, as well as overall household activities due to larger size. On the other hand, the presence of a fall back person for the couple greatly increases the potential of redistribution, because of of this "other-members" do not typically experience time constrains.

A third pattern observed relates to wife employment status. Families where wives are not currently working show higher potential for time redistribution reducing time poverty. However, this is also observed alongside two other characteristics of these families: they tend to have young children, while also showing a larger proportion of additional household members present.

3 Where we are going: Redistribution Scenarios

The idea of redistribution of household production responsibilities follows the principle that everyone in a household should be able to carry out their **fair** share of household work. But what

Table 1: Summary Statistics Population

	All Mem. TP	At Least 1 Mem. NTP	Hhld can exit TP	Has Y. Children	Oth Mem Present	H. Working	W. Working
All	5.2	18.9	75.9	55.8	25.3	97.2	91.3
Has Y. Children	7.3	27.2	65.5	100.0	17.9	97.3	89.3
No Y. Children	2.6	8.3	89.1	0.0	34.6	97.2	93.9
Other H Member	0.1	2.6	97.3	39.5	100.0	96.4	88.9
No Other Member	7.0	24.4	68.7	61.3	0.0	97.5	92.1
Wife Works	5.7	20.4	73.9	54.5	24.7	97.1	100.0
Wife Not Working	0.4	2.8	96.9	69.0	32.2	98.3	0.0

constitutes a fair share? While one could construct many rules and strategies to redistribute household responsibilities within a household, we consider three principles that could guide the redistribution of household production responsibilities among eligible household members.

For the implementation of these scenarios, we consider that all other elements in LIMTIP Equation **??** remain constant with the exception of α_{ij}, which is the share of household production time that each individual i in Household j takes on. The goal is to simulate different α_{ij} based on each redistribution scenario, but maintaining the total share of work done by the eligible household members (all members 18-64). This approach imposes the implicit assumption that all household members are equally efficient at taking care of the household responsibilities. We outline the methods used for implementing the scenarios below.

3.1 Scenario 1: Equal Shares

The first scenario considers the impact of redistributing household production such that all responsibilities are equally distributed across all eligible household members.

$$\alpha_{ij}^E = \frac{1}{I_j} * (1 - \alpha_j^{nw})$$ (4)

where α_{ij}^E represents the redistributed share of individual i; I^j is the number of working-age persons in household j and α_j^{nw} represents the total share of all non-working age household members. While this principle aligns with the idea of equality, it overlooks time equity by redistributing tasks without taking into consideration the time available to individuals.

3.2 Scenario 2: Time Available

The time available scenario is based on the principles of equity. In contrast with Scenario 1, this one suggests that household responsibilities should be redistributed relative to the available time individuals may have after setting aside the time for personal maintenance requirements, and income generation ($Z_{ij} = 168 - M - D_{ij}(L_{ij} + T_{ij})$).

To implement this, we first calculate the time available (Z_{ij}) for each individual and recalculate the shares α_{ij}^A using the ratio of time available to the total time available among working-age members.