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The Distribution of the Cost of Cuban Social Reproduction in 2016:

The Relative Contributions of Domestic and Diasporic Households, the Private Sector, and the State¹

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Abstract

Drawing on feminist political economy and social reproduction theory, we propose an accounting framework for understanding the distributional role of household production, employment, remittances, and government social transfers in the social reproduction of the Cuban people. We apply this quantitative framework to available data and produce estimates for 2016. Our findings demonstrate that households—both domestic and diasporic—were the largest contributors to social reproduction in Cuba. Our empirical exercise provides insight for a qualitative conceptualization and analysis of the changing distribution of social reproduction in Cuba, especially regarding changes in state provisioning and employment. Results reveal how the actual distributional arrangements underlying Cuban social reproduction differ from the official commitments and goals of the Cuban Revolution and signal several potentially unsustainable self-reinforcing dynamics.

Keywords: social reproduction, reproductive bargain, distribution, state, households, remittances, Cuba

1. Introduction

Social reproduction theory (SRT) has emerged as a feminist framework for social research in capitalist countries, in both the Global North and South (Bakker 2007; Bakker and Gill 2019; Mezzadri 2022; Bhattacharya 2017a). SRT provides a framework to elucidate how production and reproduction interweave and facilitate the processes that allow labor power—the human capacity to work—to be replenished, both daily and intergenerationally. The social reproduction of labor power is a gendered process co-constructed with systems of oppression based on race,

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socio-economic status, citizenship, and other social categories in which those relations are embedded. Per the conviction that social oppressions are systemic and “grounded in capitalism’s necessary-but-contradictory” relationship between production and reproduction, social reproduction feminists analyze the institutional sites and conditions under which social reproduction occurs (Ferguson 2020, p. 121).

Many SRT scholars emphasize that social analyses from this perspective offer a path for a transformative agenda towards a post-capitalist future (Bhattacharya 2017a; Jaffe 2020; Ferguson 2020). Yet, theoretical references to how social reproduction will be—or already has been—developed under socialism are sparse. Jaffe (2020, p. 129) argues that the possibility of providing “an account of social reproduction of non-capitalist societies” will require a totally “different notion of value.” Similarly, Gimenez (2019, p. 306) places a *socialist social reproduction* in opposition to what she calls *capitalist social reproduction*.¹ The lack of theoretical development of social reproduction in a post-capitalist society may be due—at least in part—to the dearth of alternative models of social reproduction in concrete historical experiences of self-denominated socialist societies. Yet, as pointed out by Bhattacharya (2017b, p.72), labour power must be replenished in any society, as it “is a transhistorical quality that humans possess irrespective of the social formation on which they are part.”

Following Pearson (1998), we believe that despite its development as an analysis for the capitalist world, the SRT framework is also useful to study *existing* non-capitalist contexts, particularly contemporary Cuba. While a precise classification of the Cuban economic, social, and political system is a subject of ongoing debate—with some considering it state socialism, state capitalism, a mixed economy, in transition to socialism—the official position of the Cuban state is that the system is socialist.² For this reason, we believe that understanding the institutional organization and distribution of social reproduction in Cuba fills an important gap in the SRT literature as well as studies of Cuban political economy. An understanding of who bears the cost of social reproduction is vital to grasp the conflicts and contradictions of the Cuban state’s role, responsibilities, and commitments to the Cuban people—while also grappling with the political-economic significance of women’s work to sustain individuals, households, and the system more generally.

Our approach to understanding social reproduction processes in Cuba builds on the work of Moos (2021), which proposes a feminist-Marxian accounting framework for estimating the aggregate annual cost of social reproduction in the United States using national income accounts and an imputed value of household production based on time use data.³ Drawing inspiration from this exercise, we propose an accounting framework for understanding the distributional role of household production, employment, remittances, and government social transfers in the social reproduction of the Cuban people. Using available data from various sources, such as official Statistics Yearbooks, the National Survey of Gender Equality report (2016) and selected scholarly publications such as Vidal (2020), we provide a snapshot for 2016. While data limitations only allow us to estimate a single year, we believe that our quantitative framework also provides insight for a qualitative conceptualization and analysis of the changing distribution of social reproduction in Cuba, especially regarding changes in state provisioning and employment.

In reformulating this method and research question for the Cuban case, we focus on what Pearson (1998) described as the actual socialist “social reproduction bargain.” Our empirical exercise reveals the underlying distributional arrangements between families, communities, the market, and the state—and how this differs from the official commitments and goals of the Cuban Revolution. Our findings demonstrate that households—both domestic and diasporic—were the largest contributors to social reproduction in Cuba. Following Pearson (1998, 1997), we argue that the transformations in the distribution of the costs of social reproduction in Cuba have consequences on the legitimacy and support for the government and the Revolution, whose meaning is also increasingly contested. As Pearson (1997, p. 676) argued regarding the 1990s crisis, the distribution of the costs of social reproduction changed and necessitated “a renegotiation of the reproductive bargain between the state and society with ongoing repercussions on the political as well as economic social organization of life in Cuba.” We argue that those renegotiations have taken place both explicitly and implicitly. In that sense, this proposal entails a critical approach to the state and its role in shaping and directly contributing to social reproduction in Cuba.

This paper makes the following contributions to the literature. First, as already discussed, understanding how labor power is socially reproduced in Cuba—or any self-described socialist country—is an underdeveloped area of research. We aim to build on the work of Pearson (1998, 1997), using a social reproduction lens to understand the Cuban economic, social, and political model transformations, utilizing empirical tools from feminist-Marxian economics as developed by Moos (2021). Second, while Cuban gender studies emerged in the 1990s, there is a general consensus that it lacks a “gender theory” and has an “inclination to focus almost exclusively on the achievements of the Cuban Revolution, and to hide its flaws” (Dore 2020, p. 3). Similarly, before the Covid-19 pandemic, a misleading notion of clear boundaries between private and public spheres and between production and reproduction persisted in Cuban gender research.⁴ For this reason, there is an insufficient account of the household as a site of reproduction, and therefore of all the unpaid domestic and care work done within them, primarily by women. Similarly, with a few notable exceptions such as Junco (2013), households’ contribution to the reproduction of the overall system has rarely been analyzed or documented. An SRT framework allows us to make visible these historically ignored areas and to illustrate how the costs of social reproduction are distributed in a self-described socialist context.

The rest of the paper is structured as follows. Section 2 conceptualizes the cost of Cuban social reproduction, defines the components, and outlines the “ideal variables” abstracting from data limitations. Section 3 operationalizes this social reproduction accounting framework by identifying the variables that best approximate the main components and using data to estimate proxies for the cost of social reproduction in 2016. Section 4 discusses the implications for the distribution of responsibilities for Cuban social reproduction. Section 5 discusses the limitations and possible extensions. Section 6 offers concluding remarks.

2. Conceptualizing the Cost of Cuban Social Reproduction

The empirical method we employ to measure the cost of social reproduction is a consumption-based approach. Rather than focus on the content of the labor process of certain types of work to identify social reproduction, we conceptualize the cost of social reproduction as being the total of societal resources that are available to individuals and households to socially reproduce

themselves on a daily and generational basis. This includes remuneration from waged work, social benefits provided by the state, money sent from family abroad in the form of remittances, and the imputed value of unpaid household production. This is a commodious conception of social reproduction. It is distinct from gross domestic product (GDP) or other “official” measures of the economy because it considers labor’s social reproduction—rather than material output, profits, or other measures—the central story of political-economic relations and processes.

The components of the Cuban Cost of Social Reproduction (CCSR) can be represented by the following equation:

$$CCSR = HP + REM + GovBen + Remtt \quad (1)$$

Each component is comprised of:

$$HP = UCWH + UCWOH + HOUP \quad (2)$$

$$REM = RSOW + RNSW + RIW \quad (3)$$

$$GovBen = UB + SA \quad (4)$$

$$Remtt = \xi(\tau M + NM) \quad (5)$$

Where HP is the imputed value of household production and includes all the unpaid care work done within households for household members (UCWH), unpaid care work done for the community and other household members (UCWOH), and household own-use production (HOUP), which includes rural (and urban) subsistence. The second component, REM (equation 3) includes all remuneration of the state-owned and non-state sectors (RSOW and RNSW respectively), and the remuneration from the informal sector (RIW), which can be either workers who only perceive income from laboring exclusively in informal activities or complementary income in informal activities of workers whose status is also formal. Government benefits (equation 4) include universal benefits (UB) and focalized services, such as social assistance (SA), but subtract spending on public administration and security. The last component, remittances (equation 5) includes both monetary and non-monetary estimates of remittances that

have social reproduction purposes. The parameters τ and ξ represent the share of remittances destined for social reproduction purposes and the exchange rate respectively. The first one is a value between 0 and 1 and is contextually contingent.

The compensation of workers and state spending on social benefits—the second and third components of equation (1)—are the classic focus of distributive arrangements and class struggle. Household production, on the other hand, has been largely ignored in this general scheme—except for by feminist scholars. Yet, household production is critical to workers' livelihoods. In fact, we believe that unpaid household production works to subsidize other institutions—such as the state or private employers—and cushion workers' consumption when redistributive processes are otherwise lacking.

2.2 The Role of the State

Starting from equation (1), we can delineate the state's contribution to the total cost of social reproduction (SCSR). In doing so, we need to distinguish the contributions of the state as an employer and as a social provisioner.

$$SCSR = \varphi REM + UB + SA \quad (6)$$

The first component of equation (6) denotes the remuneration of workers in the state sector, while the other components refer to the state contribution of universal and focalized benefits.

The ratio SCSR/CCSR represents the state's contribution to the total cost of social reproduction in Cuba. If it would be possible to estimate the ratio across time, we would have a way to measure how the state contribution has changed, and the political-economic implications of this evolving distributional arrangement. Even without a complete time series, this accounting framework could potentially allow for useful comparative statics.⁵ By analyzing the relative weights of the components given the historical and institutional transformations undertaken in Cuban society in the last decades we can analytically highlight the state involvement in social reproduction.

Additionally, there are different ways to disaggregate this set of equations further to analyze more specific distributive arrangements. For example, given the close relationship between income-earning sources and the forms of organization of production (state versus non-state, state versus private), with enough data we could potentially analyze differences in the cost of social reproduction of state versus non-state workers. Similar analyses might be potentially used for other class definitions, such as those proposed by Espina and Echevarría (2020).⁶

3. Measuring the Cuban Cost of Social Reproduction: Method and Data

An empirical analysis of the cost of Cuban social reproduction (CCSR) presents several data challenges. The Cuban economy is complex, consisting of both formal and informal employment, a large state sector, and numerous social arrangements that are not well-documented by official statistics. Furthermore, data collection in Cuba is sparse and not always published or made publicly available. Nevertheless, we have produced an estimate for the cost of social reproduction, based on a simplified version of the accounting framework described in section 2, for 2016.

We produce estimates for the CCSR for 2016 not because of historical or political significance of this year, but because it is the only year in which nationally representative data for time use is available, allowing us to impute a value for household production. We have made other conceptual choices to work within the limitations of available data on the Cuban economy. We selected proxies for the various components and note their limitations explicitly. Although very significant for the Cuban economy, we are not able to create a proxy for the informal sector nor distinguish between state and private employment—as there are no reliable data.

Data sources include Cuban official statistics from the Statistical Yearbook 2021, as well as occasional publications by the National Statistics Office, data from official reports such as the National Survey of Gender Equality, and data from different authors' publications. This section shows both the potentialities of using existing data as a proxy, as well as the challenges that data limitations impose on measuring crucial socio-economic indicators that are relevant for political economy and economic policy analyses.

3.2 Imputed value of household production

Cuba does not have an ongoing nationally representative survey fully devoted to gathering data on time use.⁷ In 2016, a nationally representative survey of gender equality (ENIG by its Spanish acronym) was conducted which included a module on time use. This provides the most recent estimates of unpaid work time. We use data provided by a report by the Centre of Woman Studies (Cuban Women Federation) and the Centre of Population and Development (2018) of the results of this 2016 survey to impute a “value” to unpaid work as the raw data of the survey is not publicly available.

The survey was applied to a sample of 19,189 people between 15 and 74 years old across the Island.⁸ The time use module follows a “limited” list of activities type of survey, including direct care and accompanying children, the elderly, the disabled, family and friends, indirect care activities such as cleaning, cooking, doing laundry, care of animals and family harvesting, and non-working activities such as participation in community work, exercise, sports, reading, sleeping, among others.⁹ Table A.1 in the appendix shows a summary of the average weekly time devoted by women and men surveyed in paid, unpaid, and total work time by employment status and table A.2 provides a more detailed account of time spent by activity.

We used an input-based method to impute the monetary value of household production. Like in many other estimates in the Global South, we abstract from the value of intermediate goods, and instead consider labor as a “rough indication of the value added by household production” (Budlender and Brathaug 2002, p. 5).¹⁰ We created two different estimates for an imputed value of household production: a “generalist approach” which multiplied unpaid work hours by the average wage, and a “specialist approach” which used average wages by sector of economic activities and matching them with the unpaid work activities. (See appendix for estimation details). Because hourly average wage rates are not published in Cuba, we estimated hourly average wages based on the available data which publishes average monthly salaries in the Statistical Yearbook and hours of weekly employment from the ENIG time use information.¹¹ Due to data limitations, our imputation of the value of domestic work is based on the average hourly wage in the state sector, which is lower than the overall average wage. While official data

on non-state sector workers’ wages is not available, it is widely known that their salaries tend to be higher than state-sector workers. It is important to note that our estimation of the average wage is likely underestimated, as it is based on data that excludes wages of workers in the non-state sector.

Table 1 presents the results using the two different approaches. (See the appendix for an analysis of the limitations and implications of each approach as well as additional estimates based on legislated hours of paid work). For our estimates, we have chosen to use the “specialist” estimate for the imputed value of household production, which is the more conservative estimate. However, this should be considered a lower-bound, as it still does not account for much of the household production that people do, such as supervisory care of children or other dependents while doing other “primary” activities or more emotional/intimate forms of caring labor (see Moos 2021, p.10).

Table 1: Household production valuation results using different methods

Approach	Value (MM CUP)			% of GDP		
	Women	Men	Combined	Women	Men	Combined
Mean (average) wage	30808.93	17823.00	49942.42	34%	20%	55%
Adjusted specialist approach	25282.81	16285.07	41566.52	28%	18%	45%

3.3 Remittances

The size of remittances to Cuba are highly contested. No official estimates are available—except for the period 1993-2001 in which the National Statistics Office published a disaggregated series within the balance of payments (Vidal 2022). The more recent series of remittances is provided by Vidal (2022) using different sources. In the year 2016, information comes from the Havana Consulting Group (THCG)—a consulting firm focusing primarily on the Cuban economy and on the Cuban market—which provides an estimate for cash and goods remittances.¹² Based on this data, we produce an estimate of the total annual value for remittances in 2016 which includes both monetary and non-monetary contributions to the social reproduction of Cuban households on the Island.

The existence of monetary duality in the last decades—and in our year of study, 2016—complicates our analysis. From 1994 until 2021, Cuba had two official national currencies—the Convertible Cuban Peso (CUC) and the Cuban Peso (CUP). This was originally part of a partial dollarization process and other monetary measures meant to face the severe economic crisis of the 1990s. During this time, there were multiple exchange rates in the Cuban economy which makes it more difficult to homogenize total remittances in Cuban pesos (CUP).¹³ Between 2005 and 2021, the Cuban economy operated two exchange rates, an official and a “parallel” one. In public finances—including public services, rations, state employment, state business, state institutions, and banks—one CUC was equal to one USD, which was also equal to one CUP (Vidal 2020, p.100). However, starting in 2005, in other sectors such as markets for agricultural goods and other goods and services produced by small private enterprises, some cooperatives, or self-employed Cubans, a CUC was equal to 24 CUP (Vidal 2020, p. 100). In 2021, the Cuban convertible peso (CUC) stopped circulating officially, as part of a monetary “reordering” of the Cuban economy.

In 2016, an estimated 56 percent of cash remittances arrived by formal means such as Western Union (THCG 2017). The portion of the remittances received from formal channels had a one-to-one parity between the US dollar and the Convertible Cuban Currency (CUC)—without considering the transaction cost. In the informal exchange market, 1 USD was typically equivalent to 0.95 CUC, but it could vary. The CUC had a fixed exchange rate of 24 Cuban pesos (CUP). For this reason, we multiplied the estimated value of remittances by 24 to convert it from USD to CUP.¹⁴

Historically, almost all remittances sent from Cubans in the diaspora have had the purpose of socially reproducing Cubans on the Island. More recently, after the expansion of the non-state sector, remittances have also been used as seed capital for small businesses. The information available of the shares of remittances used for business purposes is based on case studies or surveys of non-statistically significant sample sizes conducted by different scholars. According to Munster Infante (2013), a survey conducted by Manuel Orozco in 2009 found that approximately 5 percent of remittances were used to start a private business. More recently,

Delgado Vázquez’s (2016) survey of 74 families suggest that in 2015 a much higher proportion of remittances were used for entrepreneurship, which is consistent with the expansion of the private touristic sector and the entrance of AirBnB in Cuba.¹⁵ Although the results point to ambiguity in dividing the two difference purposes for remittances, 44.6 percent of surveyed people reported using the remittances they received as capital for private business purposes (Delgado Vázquez 2016). For this reason, the parameter τ , which represents the proportion of remittances intended for social reproduction purposes, changes across time and depends on the political-economic context. It is plausible to assume that in 2016 it was close to 0.554 while in other periods may be very close to or equal to 1, such as in recent times of economic and social crisis exacerbated by the Covid-19 pandemic and the upsurge of US sanctions.¹⁶

Table 2: Remittances estimates (cash, goods, and total) in 2016

	Million current USD	Million current CUP
Remittances (cash)	3,445.00	82,680.00
Remittances (goods)	2,999.68	71,992.32
Remittances (total)	6,444.68	154,672.32
Remittances social reproduction (cash)	1908.53	45804.72
Remittances social reproduction (goods)	1661.82272	39883.74528
Remittances social reproduction (total)	3570.35272	85688.46528

Source: Authors calculations based on Vidal (2020)

3.4 Remuneration of workers

As is the case in much of the Global South, there is no data available for Cuba’s informal sector. Additionally, there are no public official statistics that report the remuneration of workers in the non-state sector, particularly the private and own-account sector, separate from the remuneration of public sector workers. However, some proxies can be selected to roughly calculate the remuneration of workers, even if they underestimate the size of the economy by excluding the informal sector.

The 2021 National Statistic Yearbook reports the GDP components using the income method. The variable “Remuneration of workers” includes the wages and salaries earned by workers, allowances and expenses on work trips, and the contribution to social security. It does not

include other payments such as profits redistribution among workers or in-kind benefits such as free meals; therefore, it is an underestimated proxy. The variable refers to all formal workers in the economy, including the private, non-state sector.¹⁷ Therefore, the variable includes the wages of “hired” workers in the private sector—identified in the official (non-public) surveys. It does not include the remunerations of business owners. It is not possible to distinguish between state and non-state workers’ wages.

Despite the exclusion of the informal sector and the inability of distinguishing between state and non-state workers’ remunerations, we use this data to provide an estimate of total gross wages. We subtract the contribution to social security from the workers’ remuneration variable and a personal income tax.

Table 3: Components of the remuneration proxy (millions of Cuban pesos)

<i>Categories</i>	<i>MM Cuban Pesos</i>	<i>Source</i>
<i>Remuneration of workers</i>	33,054.00	Table 5.14
<i>Contribution to social security</i>	4,709.90	Table 6.3
<i>Personal income tax</i>	2,343.20	Table 6.3
<i>Net remuneration of workers</i>	26,000.90	

Source: Cuba Statistical Yearbook 2021.

3.5 Government benefits

This component includes universal benefits (UB), focalized services, such as social assistance (SA), and excludes spending on public administration and security. Within universal benefits, we consider public spending in the following sectors: education, public health, science and technological innovation, culture and sports, and other activities of communal, association and personal services. Focalized government spending includes social assistance and social security. Table 4 shows the quantities of each category for 2016.

Table 4: Government benefits components (millions of Cuban pesos)

<i>Government benefits categories</i>	<i>MM Cuban Pesos</i>	<i>Source</i>
<i>Universal Benefits:</i>		
<i>Education</i>	8,235.3	Table 6.3

	<i>Public Health</i>	10,254.6	Table 6.3
	<i>Science and technological innovation</i>	89.6	Table 6.3
	<i>Culture and Sports</i>	1,795.8	Table 6.3
	<i>Other activities of communal, association and personal services</i>	1,072.8	Table 6.3
<i>Focalized services:</i>			
	<i>Social assistance</i>	317	Table 7.14
	<i>Social security</i>	5,798.7	Table 6.3

Note: Tables numeration is taken from the 2021 National Statistic Yearbook. Tables numeration might change from one-year publication to another.

It is important to note that much of Cuba’s public expenditures are financed by revenues from state-owned enterprises. However, in the case of social security, it is also funded from a direct tax on workers’ wages, which we subtract from total remuneration. The amount and type of contribution vary according to the form of organization of production of workers (Colina Hernández 2020).¹⁸ The state budget covers the difference between state spending and the contribution made by employers and individual workers to the social security (Colina Hernández 2020). In other words, the state re-distributes the contributions and makes up for the difference with resources from the state-budget, including revenues from state-owned enterprises.

The original CSR method in Moos (2021) is inspired by the Marxian accounting work of Shaikh and Tonak (1987), particularly the net social wage (NSW) that estimates net redistribution to the working class. Following Shaikh and Tonak, Moos (2021) excludes spending on military, security, and police from government benefits received by the working class—based on the idea that these expenditures represent reproduction of the state, not working-class labor power.

We also exclude national defense spending from state spending on social reproduction—a decision that could be considered controversial for the Cuban case. Both the net social wage (NSW) and cost of social reproduction (CSR) methods were originally developed to study the US in the late 20th century—in other words, for a hegemonic imperialist power. The view posited by the Cuban state, is that in Cuba, government spending on the military represents a legitimate defense against imperialism or other external threads that risk national sovereignty—and is therefore crucial to the social reproduction of the Cuban people.¹⁹ Similarly, some may argue that the meaning and effect of the police in a capitalist country—as state apparatus that

disciplines and controls the working class—may be distinct in the Cuban context, especially in light of reforms and community policing. However, we believe that this position has become more difficult to sustain over time. In recent years, the government has used repression to hinder social and political discontent—especially political demonstrations in response to severe crises and ineffective reforms. Regardless of how distinct the Cuban context is from the US, we agree that spending on military, police, and security represent the costs of reproducing the state—not the reproduction of working-class labor power. For this reason, we exclude these expenditures from our analysis of government social benefits.

4. Results and Discussion

Table 5 presents the results of this empirical exercise. While there are limitations of this analysis, which we will discuss in greater detail in section 5, we believe that this empirical exercise presents several important insights into the Cuban social reproductive bargain in 2016.

Remittances, both cash and in-kind, represented the largest component of Cuban social reproduction—48 percent. Based on the most conservative estimate of the imputed value of household production—the specialist approach using reported hours of paid and unpaid work—we estimate that, *at minimum*, 23 percent of Cuban social reproduction was the direct result of unpaid work within the household. Net government social benefits and net remuneration of formal workers in the public and private sectors comprised nearly the same contribution to social reproduction, 15 and 14 percent, respectively.

Table 5: 2016 Cuban Cost of Social Reproduction

Component	2016 CUP (millions)	% of Total SR
Household Production (imputed value—specialist method)	41,566.52	23%
Remittances	85,688.46	48%
Net Remuneration of Workers	26,000.90	14%
Net Government Social Benefits	26,491.00	15%

First, in 2016 nearly half of Cuban social reproduction on the Island was financed by households in the diaspora. This material reality has social and political-economic effects that are far-reaching into Cuban society. It is well-known that a reliance on remittances has increased economic inequality on the Island, particularly among racial groups. The Revolution had early success in addressing racial inequality—although not as completely as the official discourse may claim. However, the racial dynamics of those who emigrate—a majority of white Cubans—and the racial biases in the receiving countries, means that white Cubans on the Island are more likely to receive remittances, and enjoy a higher standard of living than Black Cubans (Hansing and Hoffmann, 2019). Next, as remittances play a bigger role in one’s access to resources, the motivation to emigrate may be intensified.²⁰ While the social reproduction of domestic households depends on those in the diaspora, it is not a sustainable social reproduction strategy on the individual or societal level. Remittances are subject to fluctuations due to political maneuvers—such as strict limitations on the dollar amount imposed under President Trump and lifted by President Biden—as well as economic pressures faced by families abroad, such as joblessness and inflation.²¹ Our results imply that the largest contributor to social reproduction in 2016 is one that is inherently volatile and has the strong potential to create negative feedback loops. As emigration patterns persist and the birth rates continue to decline, this may exacerbate self-reinforcing crises of social reproduction that are not easily managed by social or economic policy.

Second, it is important to note that *sending and receiving* remittances should be understood as socially reproductive work. As noted by Pearson (1998, p. 254), an important social reproduction strategy for households during the economic crisis was “the reactivation of links with overseas family members.” Maintaining close relationships and communication—especially in light of limited access to the internet or postal services—represents time, energy, and commitment that can be thought of as caring, affective, or emotional labor—which is part and parcel of social reproductive labor yet not included in our estimates of household production.²² These responsibilities often fall to women, who in many families take on the role of reaching out, keeping in touch, and maintaining relationships with family and friends abroad.

Third, it is also important to note that some remittances are financing care work and subsidizing household production. Receiving remittances can allow people—usually women—to leave paid work to care for their family. In this case, the individual or household in the diaspora is subsidizing the unpaid care work of the caregiver on the Island. Take for example adult siblings, one in the US who sends remittances, and one in Cuba who takes care of their aging parent. Similarly, there are also many cases of adult children in the US who send remittances to pay for a paid caretaker for an adult parent on the Island. In both cases, remittances represent a cost of social reproduction not only in the abstract sense that we assume all of workers resources are devoted to their social reproduction, but because they are either directly or indirectly paying wages for care work.

Fourth, even based on the most conservative estimate of the imputed value of household production—which excludes the more intimate and nurturing aspects of caring and socially reproductive labor—we see that domestic households represent a crucial aspect of the social reproduction of Cuban labor power. While this is what we expect of nearly any society, regardless of the political or economic system, it is important to note that in the Cuban case, unpaid household production contributes more than either remuneration or government social benefits. This highlights the important role of households—and particularly women—in maintaining and sustaining Cuban society and economy. It also has important political implications that are only now coming to the surface in Cuban politics. While to our knowledge there is no research that incorporates a quantitative estimate of the role of household production in Cuba, the publication of record, *Granma*, published an article describing household labor as “productive” (Silva Correa 2022). The recently passed Cuban Family Code also recognizes household labor.

Fifth, in conceptualizing remittances, remuneration, and household production as the results of working-class paid and unpaid labor, as well as kinship ties to households in the diaspora, we see that government social benefits represent a relatively small percentage of Cuban social reproduction. This is one of the elements undermining the support for the Cuban government. Our results support the common complaint that social benefits are not contributing enough to household’s needs while there has been a deterioration in remunerations due to unsuccessful

economic reforms. As the largest employer, the Cuban state's role in social reproduction is not limited to the provisioning of social benefits. However, as the non-state sector gradually grows, the role of the state is diminished even further. This is especially problematic if the state does not expand its role as a social benefits provider in response to chronically low wages and disappointing economic reforms.

Finally, it should be noted that our empirical results do not imply a stable or sustainable system of social reproduction. As noted earlier with regards to remittances and the motivation to emigrate, there are several self-reinforcing dynamics apparent in the current social reproductive bargain that, if not addressed, could threaten the Island's social reproduction. This is equally true for the reliance on domestic households, as those in the diaspora. As Elson (1998) notes:

The domestic sector is most often seen as the absorber of such [private and public sectors] shocks, the safety net of last resort. But ... this is a one-sided view of the domestic sector. Its capacity to absorb and compensate for malfunctions elsewhere in the system is not unlimited. It can be undermined by lack of resources, insecurity and demoralization; and in return it will be unable to supply, or at least will resist supplying, the demand, the labor, the intangible social assets that the public and private sectors need to reform and recover (p.199).

Cuban households—particularly the women within them—have been asked to do remarkable things to ensure social reproduction despite severe economic crisis, stagnating wages, deteriorating social benefits, food and medicine shortages, and other material challenges. It cannot be assumed that an ongoing reliance on domestic households will continue without further renegotiation that extends beyond merely recognizing domestic labor.

5. Limitations and Extensions

Our paper abstracts from several issues which have the potential for future research. First, we have decentered the focus of our analysis from external issues constraining the performance of Cuban sites of social reproduction. The historical and ongoing US sanctions against Cuba have imposed severe limitations on the possibilities of the Cuban economy to carry out regular trade, investment, and exchange necessary for greater economic development.²³ The Cuban economy has also been structurally dependent on foreign countries—such as the USSR and Venezuela—

making the Island extremely vulnerable to external shocks and international crises. Hence, we have assumed, but not developed, the importance of external factors as given constraints. While we do not minimize the role of external influences, our decision to focus on internal issues is based on the premise that the Cuban government and citizenry have more power to transform the socio-economic conditions on the Island.

Second, we do not fully address the fact that prices have been rising in the last decades, and wages and salaries have not recovered the purchasing power they had before the 1990s crisis. An analysis of the deterioration of the remuneration component in real terms should be included in future extensions of this framework.

Third, we do not develop the implications of informality in Cuba, although we acknowledge it is part of the remuneration component of social reproduction. Informality has become a significant source of income for formal and informal workers on the Island, with relevant consequences for the redistributive process. Informal work also presents important linkages with both the state and the Cubans abroad, as many resources come from either “detours” from state-owned enterprises (corruption) and imported merchandise from Cubans traveling abroad, often connected to family members in the diaspora. Further extensions of this framework could benefit from rich distributive analyses of informality.

Fourth, similarly to Moos (2021), aggregate analyses abstract, at least directly, from other collective identity inequalities embedded in social reproduction processes. Although the framework we develop is useful for analyzing potential social divisions, future studies could emphasize the inequalities based on gender, race, income, age, or area of residency, to mention a few.

Finally, our empirical analysis of the social reproductive bargain in Cuba does not delve deeper into the processes defining it nor do we theorize how it has evolved over time. A more thorough analysis of what the processes and politics behind the renegotiation of the social reproductive bargain in Cuba since Pearson (1998) is an important area of further research, but beyond the scope of this paper.²⁴

6. Conclusion

This paper developed an accounting framework for understanding the distribution of the cost of social reproduction in Cuba. In doing so, we have illuminated key aspects of the transformation of the reproductive bargain—in particular, the major role of domestic and diasporic households and the diminished role of the state. Our results demonstrate that there has indeed been a transformation of the Cuban reproductive bargain, as defined by Pearson (1998), and formalized in our empirical exercise. However, the political discourse of the Cuban government still conveys a message anchored to the “old” social contract, one in which the state constitutes the main provider of social reproduction. The conceptual and methodological proposal of our paper provides a crucial message underpinned by feminist political economy. The Cuban costs of social reproduction are financed by people’s work, in the widest sense, from within and outside the Island.

Contra to the stated ideals and commitments of the revolution, the results of our empirical exercise for 2016 suggest that households—both domestic and diasporic—are the largest contributors to Cuba's social reproduction. In the context of insufficient social provisioning by the state and inadequate remuneration from both private and public sector jobs, the gap between the requirements for basic social reproduction and the state's contribution, implies that families are required to take on the lion’s share of responsibility for themselves. As Pearson (1998) argues:

...people’s expectations not only of what the state will provide but also of how individuals’ entitlements and economic roles will be allocated and rewarded in the long term are undergoing profound modification. Cubans are having to take back into the family and the household a more active role in their long-term reproduction and make decisions which are a response to a rational rethink of what the Cuban revolution, as well as the economy, can offer...The current changes imply not just a change in the division of responsibility between state and household for reproductive activities, but also, as we have seen, a gendered redistribution of these responsibilities which is part of the wider changes (p.253-254).

As noted by Pearson (1998), the additional burdens put on households translates into a gendered allocation of those responsibilities. A reliance on households on and off the Island to socially reproduce Cuban labor power is a reliance on the socially reproductive labor of women.

The socio-economic importance of women in maintaining Cuban social reproduction is an under-theorized and under-politicized area. While there has been some recent acknowledgment of domestic labor in the official discourse, as mentioned earlier, and an increasing interest in some academic spaces, this has not yet constituted a major political change in Cuba. In other words, in Cuba, the consequences of the reliance on women's socially reproductive labor that is felt by many but named by few.

Official state discourse still presupposes that the Cuban government is the greatest contributor to social reproduction—but the lived experiences of Cuban people and the results of our analysis show otherwise. The discordance between the *real* and *imagined* socialist social reproductive bargains is a source of conflict and struggle. We hope that this paper will inspire not only greater recognition of the crucial importance of Cuban women's reproductive labor—as well as a more critical analysis of the state's lack of recognition and over-reliance on the social reproduction contributions of households. These insights could inspire political demands for a more sustainable and equitable socially reproductive bargain.

References

- Bakker, I. (2007) 'Social Reproduction and the Constitution of a Gendered Political Economy', *New Political Economy*, 12(4), pp. 541–556. Available at: <https://doi.org/10.1080/13563460701661561>.
- Bakker, I. and Gill, S. (2019) 'Rethinking power, production, and social reproduction: Toward variegated social reproduction', *Capital & Class*, 43(4), pp. 503–523. Available at: <https://doi.org/10.1080/03052169.2019.1648800>.
- Bhattacharya, T. (Ed.) (2017a) 'Introduction: Mapping Social Reproduction Theory', in *Social Reproduction Theory. Remapping class, recentering oppression*. London: Pluto Press.
- Bridgman, B. *et al.* (2012) 'Accounting for Household Production in the National Accounts, 1965–2010', *Bureau of Labor Statistics, U.S.* [Preprint]. Available at: https://apps.bea.gov/scb/pdf/2012/05%20May/0512_household.pdf.
- Budlender, D. and Brathaug, A.L. (2002) *Calculating the value of unpaid labour: a discussion document*. Working Paper 1. Statistics South Africa.

Colina Hernández, H. (2020) *Sistema de pensiones de la seguridad social en Cuba: un debate presente para el futuro*. Working paper. FRIEDRICH-EBERT-STIFTUNG – CUBA. Available at: <http://library.fes.de/pdf-files/bueros/fescaribe/16174.pdf>.

Delgado Vázquez, D. (2016) 'Efectos del uso diferenciado de las remesas en la desigualdad social. Un estudio en la capital cubana'. Latin American Council of Social Sciences. Available at: <http://biblioteca.clacso.edu.ar/clacso/becas/20160401090229/denissedelgado.pdf>.

Domínguez Mederos, E.F. (2021) *Right to Live Without a Blockade. The impact of US sanctions on the Cuban population and women's lives*. Oxfam. Available at: <https://www.oxfamamerica.org/explore/research-publications/right-to-live-without-a-blockade/>: OXFAM.

Dore, E. (2020) 'Gender and Feminism: New Directions in Cuban Studies', *Cuban Studies*, (49), pp. 3–5.

Elson, D. (1998) 'The economic, the political and the domestic: Businesses, states and households in the organisation of production', *New Political Economy*, 3(2), pp. 189–208. Available at: <https://doi.org/10.1080/13563469808406349>.

Ferguson, S. (2020) *Women and Work. Feminism, Labour and Social Reproduction*. Pluto Press.

Fuentes-Ramírez, R.R. (2016) *Three Essays on Economic Stages and Transition*. Doctoral dissertations. University of Massachusetts.

Gimenez, M.E. (2019) 'Capitalism and the Oppression of Women: Marx Revisited', in *Marx, Women, and Capitalist Social Reproduction*. Brill (Historical Materialism Book Series).

Hansing, K. and Hoffmann, B. (2019) 'Cuba's New Social Structure:: Assessing the Re-Stratification of Cuban Society 60 Years after Revolution'. German Institute of Global and Area Studies (GIGA). Available at: <http://www.jstor.com/stable/resrep21213>.

Jaffe, A. (2020) *Social Reproduction Theory and the Socialist Horizon. Work, Power and Political Strategy*. Pluto Press.

Lara Junco, T. (2013) 'Economía del cuidado en tiempo de transformaciones económicas', in *Miradas a la Economía Cubana. Entre la eficiencia económica y la equidad social*. Caminos, pp. 147–160.

Mezzadri, A. (2022) 'Social reproduction and pandemic neoliberalism: Planetary crises and the reorganisation of life, work and death', *Organization*, 29(3), pp. 379–400. Available at: <https://doi.org/10.1177/13505084221074042> journals.sagepub.com/home/org.

Mezzadri, A., Newman, S. and Stevano, S. (2021) 'Feminist global political economies of work and social reproduction', *Review Of International Political Economy* [Preprint]. Available at: <https://doi.org/10.1080/09692290.2021.1957977>.

Munster Infante, B.M. (2013) ‘Remesas y pobreza desde una perspectiva de género. El caso del Consejo Popular de Santa Fe’. Latin American Council of Social Sciences. Available at: <http://biblioteca.clacso.edu.ar/clacso/becas/20131004012852/Informe.pdf>.

Pérez-López, J.F. (2020) ‘Reflections on Cuba’s National Income Statistics’, *Cuban Studies*, 49, pp. 136–146. Available at: <https://doi.org/10.1353/cub.2020.0009>.

Silva Correa, Y. (2022) ‘¿Tiene valor económico el trabajo no remunerado?’, *Granma*. Available at: <https://www.granma.cu/cuba/2022-05-17/tiene-valor-economico-el-trabajo-no-remunerado-17-05-2022-23-05-56>.

THCG (2017) ‘Remittances to Cuba in 2016 grow by 2.7%’, *The Havana Consulting Group*. Available at: <http://www.thehavanaconsultinggroup.com/enUS/Articles/Article/30>.

Vidal, P.A. (2020) ‘Where the Cuban Economy Stands in Latin America: A New Measurement of Gross Domestic Product’, *Cuban Studies*, 49, pp. 97–118. Available at: <https://doi.org/10.1353/cub.2020.0006>.

Vidal, P.A. (2022) *El impacto económico de las sanciones estadounidense a Cuba, 1994-2020*. Documento de trabajo 1/2022. Real Instituto Elcano.

¹ As Gimenez (2019) has pointed it out, capitalist social reproduction, as defined by the author, and SRT as outlined here so far, differ in “theoretical assumptions” and “in the dimensions of social reproduction they consider important.” She states that under socialism, “reproduction would become foundational in practice, rather than theory,” meaning that the “satisfaction of the material needs and self-development of direct producers would determine the objectives of production” (Gimenez, 2019, p.306, footnote 118). For a more detailed account of such differences see Gimenez (2019), Chapter 13 “From Social Reproduction to Capitalist Social Reproduction.”

² The Cuban economic, social and political system has been classified in various ways, ranging from state capitalism, state socialism to a mixed economy, depending on the analysis’ dimension and the approach taken (Fuentes-Ramírez, 2016). In both its constitution and political discourse of elites, especially the one aiming to position the country worldwide, Cuba declares that its system is socialist. However, the historical and current official discourse within the Island and the academic production conceive the Cuban model as one “*in transition to socialism*.”

³ Key findings in Moos (2021) show that neoliberal policies in the US have allowed employers to reduce their relative contribution to the social reproduction of the working class, thereby increasing the role of households and somewhat contradictorily, the state as well.

⁴ This is ironic given the current rediscovery of socialist-feminism and Marxist-Feminism in academic and political circles in the advanced capitalist world (Bakker and Gill 2019; Ferguson 2020; Jaffe 2020; Mezzadri, Newman and Stevano, 2021; Bhattacharya 2017a). However, it is less surprising in Cuba, given the dominant conception that a

“classless” society would automatically end identity-based inequalities—and that feminism was therefore revisionist, bourgeois, and divisive— that prevailed during the first 30 years of the Revolution.

⁵ This would require a more complete model of the social reproduction process, including behavioral assumptions, which is beyond the scope of this paper but an area of future study.

⁶ Espina and Echevarría (2020) identify nine socio-economic groups according to their linkages with property, income source and employment: (1) Working class: salaried workers employed in “jobs with a productive content”, state-owned enterprises and salaried workers in cooperative, mixed or private property enterprises; (2) Petty urban bourgeoisie: groups of owners of micro, small and medium private businesses, in a market economy regime, who employ additional labor (family or not) and are themselves workers in their businesses; (3) Small rural bourgeoisie: private or credit and service cooperatives peasants (they do not corporatize property); intermediaries and traders of agricultural production; (4) Cooperative members of agricultural and non-agricultural activities; (5) Self-employed workers: owners of the means of production, eventually also employ family labor; (6) Rentiers and recipients of remittances: their basic income does not involve their own work in any proportion; (7) Group of administrative and technical employees: salaried workers employed in jobs of routine intellectual technical content, without high qualification requirements, employed in state, cooperative, mixed or private property enterprises; (8) Group of intellectuals, artists and specialists: salaried or independent workers, employed in jobs with a technical content with high qualification requirements and/or creative intellectuals, linked to state, cooperative, mixed, private property or self-employed enterprises; and (9) Group of directors, officials and managers: salaried workers in tasks of administrative and managerial direction (p.45).

⁷ In 2001 a time use survey based on a time use diary, was conducted in 5 municipalities, but it was not nationally representative.

⁸ A probabilistic multi-stage method of household selection was applied. The final household sample size was 14,099. Within households, all members between 15 and 74 years old were interviewed.

⁹ Most of the time use surveys of the Latin American region, such as in countries like Ecuador, Colombia, Peru, Mexico, do this, but with greater detail than in the Cuban survey.

¹⁰ In these cases, it is usually not possible to consider other inputs such as “taxes less subsidies on production, consumption of household durables, and the goods and services used in production” (intermediate goods) due to data limitations. There are different ways to decide which goods purchased by the household are used for final consumption, which for intermediate consumption and which are fixed assets. See for instance Bridgman et al. (2012) methodology for the US case.

¹¹ While there were no significant differences by sex, they were not identical.

¹² THCG reports that are publicly available do not provide a description of the methodology used for obtaining the cash and goods remittances estimates. However, Vidal (2020) evaluated the consistency of the cash remittances estimates with the structure and proportion of the balance of payments and use this information to estimate the full cash remittances series until 2020.

¹³ This is a general problem for Cuban National Accounts. See Vidal (2020); Pérez-López (2020).

¹⁴ The Havana Consulting Group does not provide details on the methodology used to estimate the remittances value, nor for how the percentages of formal and informal means are estimated. In our calculations we have assumed that the estimated value is a “net value,” meaning it does not include any other costs of transactions and already includes the estimation of flows coming from both formal and informal channels. Given this assumption, we decided to directly multiply the estimated value of remittances by 24 to convert it to Cuban Pesos.

¹⁵ These changes occurred after former US President Barack Obama’s change in the policy of US towards Cuba.

¹⁶ We are aware of the limitations of this assumption. Still, we think it is a conservative estimate and results should be interpreted as a lower-bound as the share comes from a non-statistically representative sample.

¹⁷ Personal communication with Marlon Millian, Director of the National Account Department of the Cuban National Statistics Office, August 2022.

¹⁸ The state budget law establishes that state-owned, mixed, private, and budgeted enterprises contribute 14 percent of the total payroll to social security. From that percentage, the enterprises keep a 1.5 percent to pay short-term benefits, such as maternity leaves and the other 12.5 percent is the employer contribution to social security, including the state in its employer role. In addition, workers from the state-owned, mixed, and private sectors contribute (individually) 5 percent of their wages if those are greater than 500 CUP. Workers in other sectors, such as the own-account sector, cooperatives (both in agriculture and non-agriculture activities), artists and crafters, and farmers, contribute different percentages according to a pre-established scale.

¹⁹ We do not deny Cuba’s history of internationalism and solidarity in fighting against imperial power and apartheid. History also demonstrates the existence of “real threats and intentioned policies” over time of both the US government and some Cuban American groups in the US to intervene in the Island, including military intervention. The existence

of the US embargo and the Helms-Burton Act of 1996 are vivid examples of it. Resources from the US taxpayers have historically funded different programs and so-called “regime change.” Although it is beyond the scope of this paper to delve deeper in the reasons that explain, and somehow historically justify, the need of Cubans to “be prepared to defend themselves of a real US military attack,” it is important to nuance the analysis. US policy against Cuba, and the embargo have been used to justify internal inefficiencies and the lack of public transparency and government’s accountability. It has also justified the increasing control of the military over the economy since the 1990s—intensified even further in the last decade—which impinge not just the distributional aspects in comparison with civil society but the possibilities to transition to a mature stage of socialism. See for example <https://jovencuba.com/economia-militar/amp/>

²⁰ Furthermore, Cubans’ desire and ability to immigrate to the US is heavily influenced by the Cuban Adjustment Act of 1966—which enables Cubans living in the US to become lawful permanent residents and eventually citizens of the United States—a unique privilege that is much more limited to other immigrants from Latin America and the Global South.

²¹ The Trump administration undertook more than 240 sanctions reinforcing the embargo, including travel and remittances restrictions, which ended up with the closing of Western Union in 2020—the main company for delivery of cash remittances. See Domínguez Mederos (2021) for a detailed list of the sanctions. Under Biden’s administration the US government recently relaxed the remittances restrictions by authorizing a Miami-based agency, VaCuba, to operate with a Cuban authorized enterprise Orbit SA in sending remittances to the Island.

²² Note we are not using the term “emotional labor” as originally used by Hoschield (refers to managing self/others’ emotions on the job) but in the way that it is commonly used to refer to caring.

²³ See for instance, a 2021 OXFAM report titled “Right to live without a blockade. The impact of US sanctions to the Cuban population and women’s lives”, available at <https://www.oxfamamerica.org/explore/research-publications/right-to-live-without-a-blockade/>

²⁴ Such an analysis is currently being developed in Maqueira Linares, “Dynamics of Social Reproduction in Cuba: Distributional and Gender Consequences of the Post-1990s Economic and Social Reform Periods,” work-in-progress.

Appendix: Methodology and detailed results household production valuation exercise

According to the System of National Accounts (SNA) a portion of unpaid work is included in the production boundary (and therefore should be included in the GDP). The goods produced by households' unpaid work for their own consumption (such as food from garden plots, firewood, and water collection) are considered part of the production boundary, i.e., 'paid work', in conjunction with paid employment and self-employment. Unpaid care work is defined then as the sum of unpaid domestic and caregiving services to household members within the household and community services and other households' aid. Hence, the SNA production boundary excludes "all production of services for own final consumption within households" (Charmes 2019, 8).

Besides these efforts from the SNA of including unpaid work in the general production boundary, measurement problems remain. Gross Domestic Product (GDP) estimates worldwide barely include the goods produced by the households via unpaid work. This information, in conjunction with the unpaid direct and indirect care work, is collected via time use surveys. Cuba is not the exception. Therefore, we will consider own-use household production of goods as unpaid work in the household production estimation, using the data in the ENIG 2016 report.

Information on the time use module of the ENIG 2016 survey

The survey was applied to a sample of 19,189 people between 15 and 74 years old across the Island.¹ The time use module follows a "limited" list of activities type of survey, as most of the time use surveys of the Latin American region, but much less detailed.² It is comprised of 7 questions, listed 19 activities for a question on participation in domestic and care work, 10 activities for collecting time use information in unpaid care work, and 8 activities for gathering information regarding time use in personal and social activities. In addition, it contains one question about time devoted to study-related activities, one question about time-use in paid work, one question about community time to and from employment or study place, and a question about whether the person has left paid work or study in the last 5 years for some care-related motive.³ Table A.1 shows a summary of the average weekly time devoted by women and men surveyed in paid, unpaid, and total work time by employment status.

Table A.1: Cuba 2016: Average weekly time of women and men, 15-74 years old

	Total 15-74			Employed			Unemployed		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
I. Paid work	28.09	34.26	22.09	49.49	50.20	49.03	N/A	N/A	N/A
II. Unpaid work	30.18	22.16	36.38	25.49	22.01	31.23	33.54	22.07	40.26
II.1 Unpaid work own household	28.22	21.04	35.20	24.52	21.04	30.28	32.16	21.05	38.50
II.1.1 Unpaid domestic work own household	22.36	17.27	26.51	19.56	17.16	23.12	25.10	17.51	29.29
II.1.2 Unpaid direct care work own household	6.27	3.38	8.29	5.36	3.48	7.16	7.05	3.14	9.21
II.2 Unpaid work other households	0.39	0.30	0.49	0.29	0.27	0.32	0.53	0.38	1.02

II.2.1 Unpaid domestic work other households	0.24	0.22	0.26	0.18	0.18	0.18	0.31	0.29	0.32
II.2.2 Unpaid direct care work other households	0.16	0.08	0.23	0.11	0.08	0.14	0.23	0.09	0.30
II.3 Unpaid work (volunteer)	1.15	1.21	1.09	1.08	1.11	1.03	0.85	1.04	1.14
III. Personal activities*	84.25	86.08	82.08	78.27	80.02	75.25	92.11	99.05	88.07
Total working time (I + II)	57.06	56.02	58.07	75.38	71.41	80.26	33.54	22.07	40.26
Total time (I + II + III)	141.31	142.10	140.15	154.05	151.43	155.51	126.05	121.12	128.33

Note: * Includes activities such as time in social media, learning and study activities, recreation, social activities and sleeping.

Source: National Survey of Gender Equality, Cuba, 2016. Table 3.1 (Authors' translation).

It is not clear from the report whether paid work follows SNA recommendations, i.e., includes the time in the production of goods by households for their own consumption, and what exactly is within the unpaid volunteer work. In any case, it is worth mentioning that women devoted 14 hours more to unpaid care work weekly than men. Considering the employment situation, differences between employed and unemployed men regarding unpaid domestic and care work are almost zero (22.07-22.01), contrary to women, whose differences are more than 9 hours per week (40.26-31.23). Hours of paid work barely differ between men and women (50.20 versus 49.03). Women bear the greatest burden regardless employment situation.

A more detailed account of time spent by activity is summarized in Table A.2 below.

Table A.2: Cuba 2016. Selected activities of unpaid domestic and direct care work. Average weekly hours by sex

	Women	Men
Attending business or family enterprise	0.29	1.26
Farming of animals and crops for the family	1.12	3.09
Care, support and accompanying of sick and disable people requiring continuous care	1.01	0.53
Care, support and accompanying of elderly people 60+ requiring continuous care	2.27	1.03
Care, support and accompanying of children	5.41	2.22
Cleaning and care of clothing (washing, ironing, sewing)	5.00	1.38
Food management, preparation and serving, washing dishes, etc.	9.03	3.19
Food shopping and doing related errands	4.25	3.40
Maintenance and household minor repairs	0.50	2.43
Household care: cleaning and sanitation	7.13	4.11
TOTAL AVERAGE TIME	36.01	22.64

Source: National Survey of Gender Equality, Cuba, 2016. (Authors' translation).

Unpaid work valuation methodology⁴

In imputing a ‘value’ to household production, we use an input-based method, which consider the inputs to production to value the goods and services produced by the households. We consider labor as a “rough indication of the value added by household production” as do so many of the applications for global south contexts when data absence does not allow the consideration of other inputs such as “taxes less subsidies on production, consumption of household durables, and the goods and services used in production” (intermediate goods) (Budlender and Brathaug 2002, 5).⁵

Tables A.1 and A.2 above are the main sources of information for estimating the average number of hours of unpaid work in 2016 in Cuba. We decide to include not just the household services but also the information provided for the production of goods by households, as Cuban official statistics do not incorporate it into the GDP calculations.⁶ The time use survey did not include information about simultaneous activities or supervisory care, so we have no decision to make for valuation purposes.

A crucial part of the valuation methodology concerns the price of labor. Four wage imputation approaches are commonly used: the mean (average) wage approach, the opportunity cost approach, the generalist approach, and the specialist approach.⁷ We use the mean (average) wage and an ‘adjusted specialist approach’ as per data availability.

In the mean wage approach the general average wage of the economy is considered, and typically disaggregated by sex. We take the average wage for 2016 for state and mixed enterprises (740 Cuban pesos per month), as it is the information reported by the official statistics office. It is not disaggregated by sex. Although in Cuba there is equal pay for equal work policy, hence women and men of similar characteristics doing similar jobs perceive the same wage, women on average earn lower wages because they are concentrated in less remunerated sectors. There are reasons to consider this wage imputation an underestimation. One, as mentioned in previous sections, wages are just one part, frequently less than half, of workers’ income. Two, the official data on average wages do not consider other payments workers receive for different concepts, such as utility redistribution and bonds, and only refer to the civil sector. One limitation in this approach is that the wage imputation is based just on employed people, so it would assign a wage to the relevant population of the time use survey in another employment situation that might not be appropriate.

The second method we use is an adaptation of the specialist approach. The specialist approach “assigns different wages to different activities, regardless of who performs them. In each case, the paid worker whose functions and circumstances most closely match the unpaid work concerned is chosen” (Budlender and Brathaug 2002, 7). Labor force surveys or household surveys are the main source of information for using this approach, as it requires detailed information on the wages of different occupations. However, due to the absence of both types of surveys for the Cuban case, we adopt an ‘adjusted’, or limited, specialist approach, by selecting average wages by sector of economic activities and matching them with the unpaid work activities. In particular, we follow the Cuban version of the International Standard Industrial Classification of all economic activities (ISIC), which in Cuba is called CNAE by its Spanish acronym, and classify each activity listed in table A.2 in the most suitable sector according to the descriptions in CNAE.⁸ Then we choose the average monthly wage of the matched sectors for the wage imputation. As in the mean (average) approach, the wages refer only to the state-own and mixed workers, and no sex differentiation is considered. The underlying questions of this approach are: what if all these goods and services

provided by the households would have been done for pay? In which sectors would the people performing those activities within the households be located?

In the mean (average) wage approach we considered all unpaid work (own-use production and care work) done for own households and for other households, and volunteer work (table A.1, second row, first three columns). For the second approach, we use information in table A.2, which is the more detailed time use data provided in the ENIG 2016 report.

In general, the following steps are taken for the valuation process:⁹

Step 1: Computing average annual hours of unpaid work.

To compute the average annual hours of unpaid work by sex and combined, we divide the weekly average time of unpaid work by 7 and multiply it by 365.

Step 2: We multiply the amounts obtained in step 1 by the relevant population. The ENIG 2016 focused on people between 15 and 74 years old, so we restrict the calculations to this group. As the unpaid work done by household members outside the aforementioned group is left outside, it could be considered an underestimation. However, children's unpaid labor is not as relevant in the Cuban case as it is in other Global South contexts.

Step 3: Calculating the hourly wage rates

The time use provides information on average hours of unpaid work per week, while the wages information provided by the National Statistics Office is monthly. Within each wage imputation approach, we use two ways to compute the hourly wage rate. We first assume 40 hours per week of employment, as per labor legislation. In a second moment, we use the ENIG 2016 time use information in paid work, by sex and combined, to calculate the hourly wage. We divide the corresponding monthly wage by four and then by the average time in paid work registered in table A.1, first row, columns 4, 5, and 6.¹⁰

Step 4: We take the appropriate wage hourly averages from step 3 and multiply it by the number of unpaid work hours in a year, by sex and combined.

Step 5: We calculate the 'value' of unpaid labor as a percentage of the GDP for the year 2016.

Wage imputation approaches and results

Tables A.3 and A.4 show the results obtained using the mean (average) wage approach. In table A.3, the hourly wage rate is identical between sexes, as it is assumed a 40 hours per week of employment for all the members of the relevant population. In other words, the same wage and hours of employment are imputed to both men and women.

Table A.3: Unpaid work valuation using mean (average) wage of state-owned and mixed enterprises (a)

	Women	Men	Combined
Hours per week	36.38	22.16	30.18
Hours per year	1897.0	1155.5	1573.7
Population 15-74 years old	4 304 366	4 185 508	8 489 874
Total hours per year	8 165 197 829.17	4 836 294 701.03	13 360 272 145.97
Wage per hour (a)	4.625	4.625	4.625
Total "wages" per year (MM CUP)	37764.04	22367.86	61791.26
% of GDP	41%	24%	68%

Table A.4 shows slightly different hourly wage rates, but still very close to each other, as the same monthly wage is assumed (740 Cuban pesos). However, hours of weekly employment were taken from the ENIG time use information, and even when there are no significant differences by sex, they are not identical. We believe this second approximation is more realistic, due to considering the reported hours of employment. Still, it is possible to claim there is an underestimation in both cases due to the selected wage does not cover a portion of the workers in the economy—the non-state sector—in which we know earnings are higher, but official data is not available.

Table A.4: Unpaid work valuation using a mean (average) wage of state-owned and mixed enterprises (b)

	Women	Men	Combined
Hours per week	36.38	22.16	30.18
Hours per year	1897.0	1155.5	1573.7
Population 15-74 years old	4 304 366	4 185 508	8 489 874
Total hours per year	8 165 197 829.17	4 836 294 701.03	13 360 272 145.97
Wage per hour (b)	3.77	3.69	3.74
Total "wages" per year (MM CUP)	30808.93	17823.00	49942.42
% of GDP	34%	20%	55%

Adjusted specialist approach

In the adjusted specialist approach, we use time use information from table A.4. Using the CNAE classification of Cuban economic activities and industries for the ‘paid economy’ we match the time use activities with the CNAE economic sectors whose definitions resemble the most time use listed activities (table A.5). The only activity it was not possible to match was “attending business or family enterprise,” as the type of work and business would vary. In this case, we choose the same average wage from the previous approach. Then, we select the corresponding sectoral average wages and proceed to compute hourly wages as we did before. First, we consider 40 hours per week of employment and then the reported hours of paid work in the ENIG (table A.1).

Table A.5: Unpaid work time classification following CNAE and average sectoral wages

Unpaid work activities according to ENIG 2016 report	CNAE matching sector	Section CNAE	Wage (CUP/month) in 2016
Attending bussines or family enterprise	-	-	740
Farming of animals and crops for the family	Agriculture, cattle raising and forestry	A	1006
Care, support and accompanying of sick and disable people requiring continuous care	Public Health and Social Assistance	Q8690	816
Care, support and accompanying of elderly people 60+ requiring continuous care	Public Health and Social Assistance	Q8690	816
Care, support and accompanying of children	Education	P8510	533
Cleanign and care of clothing (washing, ironing, sewing)	Other community, association and personal service activities	S96	503
Food management, preparation and serving, washing dishes, etc.	Hotels and restaurants	I56	556
Food shopping and doing related errands	Hotels and restaurants	I56	556
Maintenance and household minor repairs	Other community, association and personal service activities	S95	503
Household care: cleaning and sanitation	Servicios empresariales, actividades inmobiliarias y de alquiler	N812	707

Notes: Activities listed do not fully match the questionnaire list. Wages refer monthly averages of state-owned and mixed enterprises only and do not include other workers' payments.

Table A.6: Average weekly time in unpaid activities and mean relevant sectors' hourly wages

	Weekly average time		Average wage CUP/hr (a)	Average wage CUP/hr (b)		
	Women	Men	Combined	Women	Men	Combined
Attending bussines or family enterprise	0.29	1.26	4.625	3.77	3.69	3.74
Farming of animals and crops for the family	1.12	3.09	6.2875	5.13	5.01	5.08
Care, support and accompanying of sick and disable people requiring continuous care	1.01	0.53	5.1	4.16	4.06	4.12
Care, support and accompanying of elderly people 60+ requiring continuous care	2.27	1.03	5.1	4.16	4.06	4.12
Care, support and accompanying of children	5.41	2.22	3.33125	2.72	2.65	2.69
Cleanign and care of clothing (washing, ironing, sewing)	5.00	1.38	3.14375	2.56	2.50	2.54
Food management, preparation and serving, washing dishes, etc.	9.03	3.19	3.475	2.83	2.77	2.81
Food shopping and doing related errands	4.25	3.40	3.475	2.83	2.77	2.81
Maintenance and household minor repairs	0.50	2.43	3.14375	2.56	2.50	2.54
Household care: cleaning and sanitation	7.13	4.11	4.41875	3.60	3.52	3.57
TOTAL AVERAGE TIME	36.01	22.64	-	-	-	-

The tables below present the results. Because the disaggregated data do not have the combined information (the time spent in each activity of women and men together on average), we just combine total hours at the end of the valuation process. The adjusted specialist approach (a) considers the 40 hours per week of employment to compute hourly wages by activity, hence the wage rate is the same for both women and men by each activity. This partly explains why the percentage of GDP is higher than in the specialist approach (b) when we use the reported hours of employment in ENIG to compute the hourly wage rate. As women work for pay slightly less time per week, the wage rates are not identical, and the 'value' imputed to women's unpaid work is slightly smaller. At the same time, they contribute much more to unpaid work.

Table A.7: Unpaid work valuation using an adjusted specialist approach (a)

	Women	Men	Combined
Hours per week	36.01	22.64	-
Hours per year	1877.66	1180.51	-
Population 15-74 years old	4 304 366	4 185 508	8 489 874
Total hours per year	8 082 154 310.84	4 941 051 986.97	-
Wage per hour (b)	Differentiated		
Total "wages" per year (MM CUP)	30990.41	20437.76	51428.17
% of GDP	34%	22%	56%

Table A.8: Unpaid work valuation using an adjusted specialist approach (b)

	Women	Men	Combined
Hours per week	36.01	22.64	-
Hours per year	1877.66	1180.51	-
Population 15-74 years old	4 304 366	4 185 508	8 489 874
Total hours per year	8 082 154 310.84	4 941 051 986.97	-
Wage per hour (b)	Differentiated		
Total "wages" per year (MM CUP)	25282.81	16285.07	41566.52
% of GDP	28%	18%	45%

Finally, table A.9 presents a comparison of the results using the different approaches. As is always the case the differences in the results are contingent on the assumptions made for the valuation procedure. Notice we have applied just two approaches, a mean (average) wage approach, and an adjusted specialist approach. But within each approach, we have made different assumptions to compute the hourly wage rate, as our wage information is monthly, and it is not disaggregated by sex. We first consider 40 hours per week of employment, as per labor legislation, for both men and women. Option (b) considers then the reported hours of paid work of women and men according to the ENIG 2016. This second option has the advantage of including a more accurate measure of hours in employment, but the ‘imputed price’ is slightly smaller, as women work for pay a little bit less than men, while having significantly more hours of unpaid work.

Table A.9: Comparison of results of different ‘valuation’ approaches

Comparison of different approaches						
Approach	Value (MM CUP)			% of GDP		
	Women	Men	Combined	Women	Men	Combined
Mean (average) wage (a)	37764.04	22367.86	61791.26	41%	24%	68%
Mean (average) wage (b)	30808.93	17823.00	49942.42	34%	20%	55%
Adjusted specialist approach (a)	30990.41	20437.76	51428.17	34%	22%	56%
Adjusted specialist approach (b)	25282.81	16285.07	41566.52	28%	18%	45%

We have highlighted some reasons to argue that these estimates are conservative, i.e., underestimated. Some of the reasons are related to the time use data itself, as the list of activities is not sufficiently detailed, as is frequently the case in Latin American time use surveys, and no supervisory care, for instance, is considered. The other group of reasons is related to the monetary value imputation. The absence of a labor force survey or another household survey impedes having a better, although also frequently underestimated, reference for the wages that cover at least all types of workers in the economy, and not just state-owned and mixed enterprises wages. Additionally, the wages reported by the official statistics do not account for all payments done to workers, and certainly not in-kind benefits. Still, we choose the more conservative estimate for our calculations of the cost of social reproduction, although also analyze different scenarios according to the estimates of the household component.

¹ A probabilistic multi-stage method of household selection was applied. The final household sample size was 14 099, and within household all members between 15 and 74 years old were interviewed.

² The 2001 time use survey style was a diary.

³ The question specifically asks for time devoted last week to work for which the person received some payment.

⁴ The “valuation” methodology generally follows Budlender and Brathaug (2002) and Budlender and Brathaug (2004), adjusting to data availability and Cuba’s particularities.

⁵ There are different ways to decide which goods purchased by the household are used for final consumption, which for intermediate consumption and which are fixed assets. See for instance Bridgman et al. (2012) methodology for the U.S. case.

⁶ In the questionnaire, just two questions capture household production of goods, as shown in the first two rows of table A.2.

⁷ See Budlender and Brathaug (2002) for a detailed explanation of each approach.

⁸ The CNAE has been used recently in Cuba to classify the sectors in which the SMEs and the own-account workers are involved.

⁹ Adapted from Budlender and Brathaug (2004).

¹⁰ According to the information in the ENIG report, paid work seems to be equivalent to employment. In the wording of the question and after some calculations it seems the survey did not follow the SNA classification on paid work and consider paid work as employment. This is the reason why we took hours of paid work in table A.1 for the hourly wage calculations. However, it is not clear whether it includes or not the time in transportation to and from employment.