NATURE OF TIME POVERTY IN SRI LANKA

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Abstract

Poverty as a concept encompasses multiple dimensions, yet, for decades, has been measured based on tangible wealth or the level of income. It brings into question the effectiveness of using only an income-based indicator to measure such a complex phenomenon.

This paper attempts to analyse poverty through a novel lens known as time poverty. Conceptually, time poverty is defined as the lack of time for leisure due to time spent on employment and domestic activities. This is directly linked to welfare as it affects the health and productivity of individuals. Employing the first Time-Use Survey conducted in Sri Lanka in 2017, this study aims to measure time poverty based on the time allocated for labour and non-labour market activities. Based on the findings, insights relating to the gendered nature of time poverty, socio-demographic patterns and occupational influences can be inferred. The incidence of time poverty was approximately 40 per cent, with a significant portion of the employed men and women in the urban area being subject to time poverty. At the higher threshold of time poverty, women were more time-poor than their male counterparts across urban, rural and estate sectors. When considering both sex and sector, women in the urban sample were the most time-poor. Thus, a gendered pattern can be identified through these results, necessitating policy attention.

Keywords: *Gender, Poverty, Sri Lanka, Time Allocation, Time poverty*

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INTRODUCTION

Time is a crucial resource that has a bearing on every aspect of life. It is allocated among numerous activities ranging from paid, unpaid, market and non-market work, further influenced by social-cultural norms, gender, and division of labour (Asian Development Bank, 2015). The notion that material prosperity, achieved by spending time in labour market activities, leads to greater well-being and reduced poverty is commonly accepted. The question then arises regarding the importance of examining time spent on non-market activities as an indicator of welfare. From an economic perspective, the impact of leisure time, also known as residual time, is rarely considered. As discussed by Ribeiro and Marinho (2012), time allocation for non-market activities such as domestic work and self-care has a significant impact on welfare in terms of non-monetary well-being indicators such as happiness and leisure.

This multidimensional approach paved the way for the study of time poverty. In its simplest definition, time poverty refers to not having sufficient time to participate in the activities that an individual desires to do (Vickery, 1977). Giurge and Whillans (2019) proved that rising wealth often diminishes the availability of time for non-labour market activities such as leisure and self-care, thereby creating time poverty. In terms of theoretical and conceptual direction, time poverty necessitates further clarification. The definitions of time poverty used by academics thus far differ based on the focus of the study. While some academics are motivated to examine the number of working hours (Bardasi and Wodon, 2009), others focused on individuals' lack of time to fulfil tasks they wish to do and the subjective experiences of time pressure (Qi and Dong, 2017). Thus, an explicit definition or conceptualization does not exist for this area of study.

Although Sri Lanka has made commendable progress in combating poverty over the past few decades, it can be argued that policies for the eradication of poverty are not as effective as expected. Tudawe (2011) indicated that state interventions for the poor do not consider factors creating transitory or chronic poverty. This indicates that a more holistic approach to the formulation of policies to eradicate poverty must be adopted, considering the faceted nature of poverty. Therefore, analysing time poverty among specific groups may enable an enhanced understanding of factors that lead to chronic poverty and an individual's inability to recover from the poverty trap. Further, studies can examine whether being time-poor may have an impact on the level of productivity during income-earning hours.

A considerable amount of research employs time availability to measure poverty for developed economies through the execution of Time-Use (TU) surveys. While developed countries have increasingly benefitted from the more extensive surveys performed on TU, for developing countries suffering from extreme poverty, initiating such surveys at present will prove useful in the future. Accordingly, time poverty is a concept that has not been explored in Sri Lanka due to the lack of data availability. This study, a first of

its kind, attempts to empirically estimate the prevalence of time poverty in Sri Lanka, employing the first TU Survey conducted by the Department of Census and Statistics in 2017. Examining the existence of time poverty based on empirical evidence and comprehending its impact on economic mobility among people can help frame policy interventions and effectively address poverty alleviation in Sri Lanka.

Additionally, encouraging the study of time poverty is vital due to the association with material poverty on two levels. Firstly, addressing concerns of time poverty would allow households and individuals to direct attention towards health, family, and work. Thus, the availability of sufficient time may ensure resilience to stressors and an informed decision-making process within the household (Giurge and Whillans, 2019). Secondly, individuals would prefer spending long hours at work, as the alternative may result in income poverty (Bardasi and Wodon, 2009). However, excessive working hours coupled with hours spent on domestic work can impair productivity and affect income earning capabilities.

LITERATURE REVIEW

Conceptual Review

The concept of time poverty was first extensively examined by Vickery (1977) to challenge the existing official standards of poverty and their accuracy in measuring household resources. This two-dimensional poverty analysis was effectively utilized to identify time-poor households that did not qualify for the standard well-being level in the United States of America. A time-poor household is one that spends too much time in the labour market and too little time on non-market work. Through this seminal piece of work, Vickery (1977) defined the resources of households as being determined by their assets and the number of adult hours that can be used for income-earning purposes in the marketplace or based on the production of goods and services. Consequently, a household's ability to transform the available time into consumption depends on the household's productivity levels in the labour market and non-labour market activities.[1] The importance of identifying the involuntary poor population for government transfer programs is highlighted in this paper, as equity considerations require policymakers to examine whether households are poor due to their choice of time allocation or due to factors beyond their control. Notably, involuntary poor households will remain poor unless a change occurs in household composition or a change in market work. Hence, the application of this bi-dimensional approach resulted in this study becoming the steppingstone for time poverty analysis, facilitating the development of income-support programs for poor households.

[1] Vickery (1977) proves that although resources may exist in similar amounts among households, the efficiency of employing such resources can vary at different levels among households.

Similarly, Becker (1965) identified the importance of time as a household resource in production activities. He linked the theory of the allocation of time (given the classification that households can be both consumers and producers) to the household utility by examining the methods in which households maximize utility through consumption, which is a result of a combination of time and market goods. Becker (1965) described these commodities as Z_i, which is a function of a vector of market goods (x_i) and a vector of time inputs (T_i).

$$Z_i = f_i(x_i, T_i) \quad \text{.....(1)}$$

Thereby, households are both producers and utility maximisers employing the production function (f_i) to combine market goods and time resources to produce Z_i, and they choose the ideal combination of these commodities by maximizing a utility function (U).

$$U = U(Z_i, \dots Z_m) = U(f_1, \dots f_m) = U(x_1, \dots x_m; T_1, \dots T_m) \quad \text{.....(2)}$$

The objective of this paper was to provide a theoretical foundation for the cost of time, derived in the same way as the cost of goods. Becker (1965) highlighted that, while economists have given attention to the earnings forgone due to time spent on human capital investment, non-working uses of time have not been equally examined.

To effectively understand the causes of time poverty, one could employ theories of income poverty. Firstly, when considering ideas put forward by behavioural theorists, the behaviour of individuals can be deemed as a key contributing factor to time poverty. Goodin, Rice, Bittman, and Saunders (2005) conducted a study in Australia to identify if time poverty arises due to the lack of choice or if it is an illusion rather than obligation. Additionally, cultural factors may have a significant impact on time poverty, specifically concerning women. Studies related to time poverty in developing countries explore a common theme of gendered analysis. Research conducted in Sub-Saharan Africa (Lawson 2007), Brazil (Ribeiro and Marinho 2012)[2] and India (Irani and Vemireddy 2020)[3] displayed how cultural expectations and norms cause women to be time-poor compared to their male counterparts.

Furthermore, when considering structural factors, the economic context of individuals can have a significant impact on being subjected to time poverty as individuals can be victims of a time trap. Lawson (2007) identified that in the Sub-Saharan African region, time spent on the collection of wood and water has a substantial effect on the amount of time spent on income-earning activities. This impact is most noticeable in single-female-headed households as they are culturally obligated to conduct domestic chores and

[2] Ribeiro and Marinho (2012) discussed time poverty with special references to female children and the impact time poverty may have on their education and future.

[3] The lack of equitable unpaid household work distribution in India is highlighted by Irani and Vemireddy (2020).

caregiving activities. While spending more time on non-labour market activities may affect time spent on income-earning work, contrarily, reduced time spent on self-care and leisure may hinder income-earning opportunities in the future due to diminished mental and physical capacities.

Empirical Review

Understanding if modern economies have increased or reduced leisure time and the implications of these lifestyle patterns have been the central focal point of a majority of the time poverty studies conducted in the developed world. Goodin, Rice, Bittman, and Saunders (2005) employ the TU survey of 1992 in Australia to analyse if the feeling of being time pressured is an illusion or reality. Within this study, free time[4] ranged from a low 32.51 hours per week (for women in two-earner households with children) to a high 49.91 hours (for a woman without children, in a one-earner household). An interesting finding was that two-adult and two-earner households have systematically less free time than other households regardless of gender and the existence of children. However, the author calculated the discretionary time[5] for two-earner households and stated that they have as much uncommitted discretionary time as their counterparts in other households, irrespective of the less free time they have. Thus, the study provides evidence in relation to time pressure being an illusion in developed economies where individuals feeling time-pressured is a choice rather than an obligation.

These TU findings were further employed to identify lifestyle patterns and changes by Kalenkoski and Hamrick (2012). The results indicated that time-poor individuals had altered eating patterns than non-time-poor individuals. Subsequently, it was discovered that the likelihood of purchasing fast food was reduced by 3 per cent on an average day for time-poor individuals, mainly due to the time taken to travel to fast food establishments. From a health perspective, the authors highlighted that if fast food is considered unhealthy, this result is favourable for time-poor individuals. However, the authors further stipulated that there is a greater risk of obesity among time-poor individuals due to the finding that time-poor spend 18 minutes less on sports and physical activity on a given day than non-time-poor individuals.

With the availability of multiple TU data, recent literature has paid particular attention to the study of time poverty among specific groups. Conway et al. (2021) set out to investigate the level of time poverty among student parents and if student parents tend to spend less time on education than non-parents. This study indicated that students with children had 60 minutes less on average of discretionary time and spent approximately

[4] Time remaining after obligatory activities such as paid-labor time, household labor, and personal care.

[5] Discretionary Time refers to the time allocated for personal care, household work, child and adult care.

30 minutes less on education per day, compared to students without children. Additionally, for each child that a respondent had, an average of approximately 29 minutes less was spent on discretionary time per day. Women with children were most likely to have less time for education and were likely to enrol part-time if their children were young. As is evident from the studies mentioned in this review, a gendered pattern is prevalent. Time poverty reports in Guinea by Bardasi and Wodon (2006) indicated that women were likely to be 3 per cent more time-poor than their male counterparts. For women living in rural areas, this possibility increased by another 10 per cent. In addition to paid fieldwork or other paid labour work, women had long working hours for domestic work. Further, married women were more likely to be time-poor than unmarried women in both rural (by 13 per cent) and urban (by 10-11 per cent) sectors. Similar results were evident in a study conducted by Ribeiro and Marinho (2012) in Brazil, where women in urban areas were 18.6 per cent more time-poor than men, and women in rural areas were 14.1 per cent more time-poor than men. Once again, this can be attributed to the combination of increased time spent by women on labour work and domestic work time.

Furthermore, employing the first TU survey conducted in Pakistan in 2007, Saqib and Arif (2012) examined the incidence of double jeopardy between low-income levels and being time-poor. Results indicated that individuals employed in industries with longer working hours and low wage rates are likely to be more time-poor. A high level of time poverty was observed in sectors such as trade, transport, and manufacturing, for both men and women. Thus, literature has highlighted the TU patterns in developing countries by giving reference to gender dimensions.

METHODOLOGY

The framework employed in this study for measuring the level of time poverty in Sri Lanka is similar to the traditional techniques and methods used to analyse income poverty. When examining the consumption poverty line, individuals below the assigned monetary threshold determine the level of poverty, while those above the poverty line do not factor into the consumption poverty estimates. Similarly, Bardasi and Wodon (2006) show that only those above the time poverty threshold have an impact on the time poverty measure, while those below the time poverty line are given a value of zero. Further, they defined two levels of time poverty; the lower threshold which is defined as 1.5 times the median of the total hours worked by an individual, and the higher threshold which is 2 times the median. Thus, an individual is time-poor if the total working hours named t_i, is greater than the pre-determined poverty line; t. Employing the FGT class (Foster, Greer and Thorbecke 1984) indicators, the measures considered under these classes are, namely poverty headcount index, the poverty gap, and the squared poverty gap. The poverty headcount index (P_0) provides the proportion of the population that is poor, and in the context of time poverty, it can be defined as the proportion of the population that is time-poor. This refers to the share of the population that has working hours above the poverty

line t. If the population size is n, and the number of time-poor individuals is n_{tp}, the headcount index will be as follows:

$$P_0 = \frac{n_{tp}}{n} \quad \text{.....(3)}$$

The second indicator is the time poverty hiatus, also referred to as the time poverty gap (P_1). The time poverty gap measures the mean distance that separates the sample population from the time poverty line.

$$P_1 = \frac{1}{n} \sum_{i=1}^{n_{tp}} \left[\frac{t_i - t}{t}\right] \quad \text{.....(4)}$$

As mentioned above, t_i refers to the total number of working hours for individual i, and the summation captures only those who are time-poor. Thus, the time poverty gap measures the intensity of time poverty. The squared time poverty gap considers the squared value of the time poverty gap. This is an important measure as it gives more weight to those that have relatively longer working hours, indicating their time poverty plight. In other words, the level of inequality among the time-poor respondents is estimated through the squared time poverty measure. The mathematical expression for this indicator is as follows:

$$P^2 = \frac{1}{n} \sum_{i=1}^{n_{tp}} \left[\frac{t_i - t}{t}\right]^2 \quad \text{.....(5)}$$

By utilizing the above-mentioned poverty indicators, time poverty and its impacts can be measured in a Sri Lankan context. This study is entirely sourced by the TU Survey in Sri Lanka, conducted for the first time in 2017 by the Department of Census and Statistics to examine the time-related behavioural patterns of Sri Lankans. The survey was conducted island-wide by interviewing approximately 17,000 respondents above the age of 10 years. From the fourth quarter of the Labour Force Survey (LFS) in 2017, 6,440 housing units were selected for this purpose. The data collection for this survey was carried out using two methods: a household questionnaire and a time diary which recorded activities every 15 minutes for a period of 24 hours.

RESULTS AND DISCUSSION

Sample Characteristics

Examination of the TU patterns of the respondents, based on the socio-demographic characteristics and labour market indicators, provides a comprehensive profile of the overall TU trends evident in the sample. The mean age of the sample was estimated at 40 years of age, and on average, the female sample is one year older than the male sample. Table 1 displays the socio-demographic characteristics of the sample through a cross-referencing between employment status and the sector of living.

Table 1: Sample Characteristics (as a percentage)

	Total Sample			Not Employed			Employed		
	Both	Male	Female	Both	Male	Female	Both	Male	Female
Urban	16.33	45.51	54.49	16.90	16.01	17.29	15.67	16.19	14.74
Rural	78.85	46.19	53.81	78.69	78.94	78.58	79.04	79.13	78.87
Estate	4.82	45.94	54.06	4.41	5.04	4.13	5.29	4.68	6.39
Female	-	-	53.93	-	-	68.98	-	-	31.02

Note: Not employed refers to persons available and /or looking for work, and who did not work but have taken steps to find a job and are ready to accept a job if given a work opportunity. Employed refers to a person (during the reference period) who worked as paid employee, employers, own account workers (self-employed), or unpaid family worker is said to be employed.

Source: Authors' calculation using micro-data of the Time Use Survey (2017).

When considering the demographic characteristics, 54 per cent of the respondents who filled the diary are female. Furthermore, only 16 per cent of the sample is drawn from the urban sector, while 79 per cent and 5 per cent are drawn from the rural and estate sectors, respectively. When considering the gender aspects of the sample, only 31 per cent of women were employed at the time of the survey, in contrast to the 65 per cent of men who were employed. Consequently, close to three-quarters of those not employed are women. Moreover, it is important to highlight that a vast majority of the working females are located within the rural sector (79 per cent).

As evident in the Labour Market Characteristics outlined in Table 2 and Table 3, a larger percentage of women in the rural sector are employed as skilled agricultural workers (22 per cent) and as technical and allied industry workers (17 per cent). It is important to highlight that 14 per cent of women within the sample are professionals and 5 per cent of women are managers who hold senior ranks and legislators. Employed males are primarily engaged in skilled agricultural work (19 per cent) and technical and allied industry work (17 per cent). A greater portion of women is employed as professionals compared to men (14 per cent), while a greater portion of men is employed as machine operators and machine assemblers compared to women (12 per cent).

Table 2: Labour Market Characteristics

Labour Market Characteristic			**Employed Sample**
Occupation	Both	Male	Female
Managers, Senior ranks, and Legislators	7.31	8.41	5.34
Professionals	8.15	4.77	14.15
Technicians and allied employees	7.53	7.52	7.56
Clerks and Clerks supported by employees	3.28	2.42	4.80
Service and Sales staff	7.86	8.37	6.97
Skilled agricultural workers	18.50	18.47	18.54
Technical and allied Industry workers	16.81	17.11	16.28
Machine Operators and assemblers	8.71	11.66	3.47
Elementary Jobs	21.19	20.49	22.42
Employment Sector			
Government	23.74	19.24	31.05
Semi-Government	7.55	7.97	6.86
Private	68.71	72.79	62.09

Source: Authors' calculation using micro-data of the Time Use Survey (2017)

Table 3: Distribution of Employed Sample by Monthly Income and Gender

Income Level (LKR)	**Both**	**Male**	**Female**
Less than 10,000	4.73	4.36	5.73
10,000 – 19,999	16.49	16.49	16.50
20,000 – 39,999	36.72	38.38	33.75
40,000 – 59,999	22.66	22.84	22.33
60,000 – 79,999	9.30	8.78	10.24
80,000 and more	10.10	9.15	11.80

Source: Authors' calculation using micro-data of the Time Use Survey (2017)

Time-Use Patterns

The TU patterns among respondents are crucial to identify certain ingrained attributes within the Sri Lankan context, as given in Table 4.

Table 4: Mean Time Spent on Different Activities by Work Status, Gender and Sector of Living (hours)

Sample	Total Sample			Employed			Not employed		
	SNA	Non-SNA	NP	SNA	Non-SNA	NP	SNA	Non-SNA	NP
									Total Sample
Both	2.61	2.66	11.72	5.21	1.99	9.34	0.36	3.23	13.77
Male	3.97	1.09	11.88	5.89	1.76	11.04	2.33	2.48	12.32
Female	1.45	3.99	11.58	3.99	2.98	10.91	1.22	3.30	12.58
									Rural Areas
Both	2.40	2.53	10.90	4.74	1.89	8.66	2.14	3.09	12.86
Male	3.63	1.03	11.11	5.39	1.07	9.02	2.51	0.93	14.91
Female	1.34	3.82	10.73	3.59	3.33	8.02	2.27	4.05	11.96
									Urban Areas
Both	3.53	3.46	15.72	7.49	2.51	12.71	1.21	4.22	18.15
Male	5.67	1.75	12.51	8.37	1.41	12.93	2.43	1.49	20.58
Female	1.75	3.68	12.07	5.78	4.66	12.27	1.68	5.34	17.16
									Estate Areas
Both	2.94	1.99	11.42	5.38	2.00	9.60	0.58	1.97	13.32
Male	3.87	1.05	11.96	5.85	1.17	9.74	2.37	0.85	15.71
Female	2.15	2.78	10.96	4.77	3.08	9.41	1.31	2.57	12.04

Source: Authors' calculation using micro-data of the Time Use Survey (2017).

Table 4 indicates the TU patterns of the total sample, the employed sample, and the unemployed sample based on the three-level hierarchical classification of the International Classification of Activities for Time-Use Statistics 2016 (ICATUS); System of National Accounts (SNA) activities, Non-SNA activities, and Non-Productive (NP) activities, whilst further specifying the TU patterns based on gender and sector of living.[6] It is evident that the male respondents of the sample spent 4 hours a day on average for SNA activities and 1 hour a day on average for non-SNA activities. In contrast, the female respondents spend approximately 4 hours per day on average for non-SNA activities, which is significantly greater than their male counterparts.

[6] SNA activities include employment and production of own goods. Non-SNA activities include unpaid domestic, caregiving services and volunteer services. Non-Productive activities include socializing, learning, self-care, and leisure.

When considering the TU patterns of the employed and unemployed samples, the employed sample spent a significantly higher number of hours (approximately 5 hours on average) on SNA activities, while the unemployed sample spent less than half an hour on average per day for SNA activities. Evidently, a vast majority of the time of the unemployed sample is spent on NP activities categorised as learning, socializing and self-care and maintenance, according to the ICATUS. Further, a gendered pattern can be observed whereby men spend more time on SNA activities, while women spend more time on non-SNA activities in comparison to unemployed men. Men, both employed and unemployed, spend approximately 2 hours on non-SNA activities such as domestic services and caregiving services, while both employed and unemployed women spend an additional hour on non-SNA activities compared to their male counterparts.

An examination of the employed sample indicated that both men and women in the urban sector spend more time on SNA activities in contrast to those in the rural and estate sectors. However, it is important to note that although employed men in the urban sector reportedly work nearly 2 hours more on average on SNA activities compared to women, employed women work 4 hours more on non-SNA activities compared to men. This indicates an important household dynamic in urban households in which working women spend more time on employment activities and domestic activities than urban males.

It is thus evident that women spend more time working on SNA activities and non-SNA activities than men. Despite the greater number of hours spent on SNA activities by men in all three sectors, when considering both SNA and non-SNA activities, women spend more time in domestic and labour market activities. This shows the impact of the fusion between gender equality in the workplace and the South Asian cultural norm of women's role in the household and domestic activities.

Further, it is evident that even though women spend a considerable amount of time in labour market activities, it is still expected of women to carry out the household non-SNA activities such as chores and caregiving services for children and the elderly. The disparity in time patterns between employed men and women for non-SNA activities indicates that household activities may not be equally distributed between the two sexes.

Finally, considering the employment status in relation to TU patterns, it is apparent that from the total sample, employees and employers engage in the highest number of hours for SNA activities (6 hours on average per day). Interestingly, these two categories of respondents record the lowest number of hours spent on non-SNA activities within the total sample.

The gender dynamics in time spent for paid and unpaid work is apparent from Table 5 as employed women spend relatively longer hours involved in non-SNA activities compared to the employed men. Among the employed women, the total number of hours spent on both SNA and non-SNA activities are the highest among employees and employers.

Table 5: Time Spent by Employment Status

	Total Sample			Male Sample			Female Sample		
	SNA	Non-SNA	Non-Productive	SNA	Non-SNA	Non-Productive	SNA	Non-SNA	Non-Productive
Employee	6.04	1.81	9.62	6.55	1.10	9.91	5.11	3.10	9.10
OAW	4.26	2.12	9.06	4.90	1.23	9.27	2.73	4.23	8.58
UFW	2.29	3.10	7.60	3.41	0.71	8.80	2.01	3.68	7.31
Employer	6.03	1.62	10.35	6.28	1.04	10.02	5.02	3.97	11.67

Note: OAW refers to Own Account Workers, UFW refers to Unpaid Family Workers

Source: Authors' calculation using micro-data of the Time Use Survey (2017)

The difference in the TU patterns among employed and unemployed women is highlighted in Table 6. Employed women spend approximately the same number of hours on non-SNA activities as unemployed women in all three sectors. This illustrates the plight of employed women and their TU patterns which will be further analysed in the section pertaining to the level of time poverty in Sri Lanka.

Table 6: Mean Time Spent by Women in SNA and Non-SNA Activities

Status	Total		Urban		Rural		Estate	
	SNA	Non-SNA	SNA	Non-SNA	SNA	Non-SNA	SNA	Non-SNA
Employed	3.99	3.51	5.78	4.66	3.59	3.33	4.77	3.08
Not employed	0.31	4.21	0.20	5.34	0.33	4.05	0.33	2.57
Total Sample	1.45	3.99	1.75	5.15	1.34	3.82	2.15	2.78

Source: Authors' calculation using micro-data of the Time Use Survey (2017)

Time Poverty Measurement

Table 7 indicates the weekly *working time* of the adult population; above 15 years of age, and the child population; below 15 years of age. The *working time (Definition 1)* has been calculated by considering time spent on both SNA activities and non-SNA activities, thereby including the sum of all domestic chores and labour market activities. In the case of children, the *working time (Definition 2)* includes SNA, Non-SNA activities, and time spent for learning.[7]

[7] In 2017 the minimum age of employment in Sri Lanka was 14 years of age according to the Employment of Women, Young persons, and Children Act No. 47 of 1956. This was later amended to 16 years of age in January 2021.

Table 7: Cumulative Distribution of Weekly Working Hours for Various Groups

Group	Mean	Median	75th percentile
Adult Population, above 15 years of age under Working Time Definition 1 (Adults)			
Both	40.7	42.0	75.3
Men	39.6	36.7	75.3
Women	41.6	42.0	75.3
Gender Gap (%)	5.1		
Urban	53.5	61.3	80.5
Rural	38.1	33.3	73.5
Estate	39.7	38.5	73.5
Children Below 15 years of age under Working Time Definition 2 (Children)			
Both	43.7	52.5	73.5
Boys	41.2	49.0	70.0
Girls	46.2	56.0	75.3
Gender Gap (%)	12.1		
Urban	58.7	63.0	77.0
Rural	41.4	47.3	73.5
Estate	37.0	35.0	1.8

Source: Authors' calculation using micro-data of the Time Use Survey (2017)

Based on the findings in Table 7, it can be observed that women spend more time working on paid and unpaid activities relative to their male counterparts. Additionally, those living in the urban sector spend approximately 10.5 hours more per week on average compared to those in the rural and estate sectors. Utilizing these cumulative weekly working hours, the time poverty thresholds could be calculated.

Table 8 (below) indicates the lower and upper poverty thresholds based on sex and the sector of living. Based on the lower time poverty threshold, 36 per cent of all respondents can be categorized as being time-poor. This rate is higher among men (54 per cent) and women (42 per cent) in urban areas than in rural areas. Despite a higher percentage of men (37 per cent) being time-poor than women (35 per cent) at the lower threshold of poverty nationally, when examining the higher poverty threshold level, a larger percentage of women (16 per cent) are more time-poor than men (14 per cent). In both the rural and estate sectors, a higher percentage of women are time-poor compared to men. The gender gap among these two sectors is approximately 3 per cent of the population share. In the rural sector, this can be attributed to the fact that women spend approximately 5 hours more on average on labour market work and 8 hours on average on domestic chores and caregiving daily. Time-poor women in the estate sector spend

approximately 2 hours more on average per day on labour market activities compared to women in the rural sector.

Table 8: Time Poverty Rates (Percentage of Time-poor individuals in the group)

Adult Population

	Time Poverty Line Lower Threshold: 63 Hours/week				Time Poverty Line Higher Threshold: 84 Hours/week			
	All Sectors	Urban	Rural	Estate	All Sectors	Urban	Rural	Estate
Both	36.12	47.30	33.47	37.53	15.31	21.67	14.08	10.52
Men	37.43	53.97	33.54	39.90	14.12	22.65	12.43	8.96
Women	35.06	41.59	33.57	35.51	16.33	20.83	15.54	11.85

Child Population

	Time Poverty Line Lower Threshold: 78.75 Hours/week				Time Poverty Line Higher Threshold: 105 Hours/week			
	All Sectors	Urban	Rural	Estate	All Sectors	Urban	Rural	Estate
Both	15.73	21.24	14.75	13.29	0.66	0.27	0.65	1.99
Boys	12.21	18.37	11.12	9.54	0.11	-	0.14	-
Girls	19.37	24.16	18.56	16.43	1.24	0.54	1.19	3.65

Note: The number of data points is not sufficient for boys in urban and estate sectors under the higher time poverty threshold.

Source: Authors' calculation using micro-data of the Time Use Survey (2017).

The child poverty rates further provide noteworthy results. When analysing, it is vital to recall that these calculations have been made considering time spent on learning activities. Evidently, a larger percentage of girls within the time sample can be considered as being time-poor compared to boys in the sample. A substantial gap of 7 per cent exists between the share of girls and boys that are time-poor. A greater percentage of boys in the urban sector are time-poor compared to boys in the rural and estate sectors. Similarly, girls living in the urban sector can be considered more time-poor than their counterparts living in the rural and estate sectors based on the lower time poverty threshold. This may be due to their higher participation in additional studying opportunities available for children in the urban sector. Thus, once again, a gender dynamic is prevalent even among time-poor children.

The expectation of girls to partake in educational activities and household activities, an expectation that develops into adulthood norms, can be cited as a major reason for girls

to be more time-poor relative to boys. When looking at the higher time poverty threshold, the plight of rural and estate sector children is apparent. Children in the rural and estate sectors spend more time on domestic activities and caregiving activities compared to the children in the urban areas. Further research, in terms of chronic poverty, could be conducted to examine the impact of this additional time spent on non-educational activities by rural and estate children in relation to their occupational prospects.

Table 9: Incidence of Time Poverty by Occupation -Lower Threshold (percentages)

Occupation	Total Sample			Urban	Rural	Estate
	Both	Men	Women			
Total sample	49.08	47.82	51.33	68.60	44.68	51.60
Managers, Senior ranks, Legislators	57.08	56.14	59.76	67.07	53.56	43.42
Professionals	53.45	52.45	54.05	58.31	51.86	18.70
Technicians	54.15	51.07	59.49	70.17	48.95	0.00
Clerks	57.20	54.86	59.31	71.68	49.56	62.41
Service and sales staff	53.86	53.69	54.25	68.89	49.88	45.94
Skilled agricultural workers	27.51	26.46	29.27	1.93	25.48	46.31
Technical, Industry workers	52.86	51.30	55.82	72.18	48.87	65.36
Machine operators	56.04	54.87	62.92	77.42	50.91	52.46
Elementary jobs	50.85	48.76	54.30	72.62	47.19	53.45

Source: Authors' calculation using micro-data of the Time Use Survey (2017)

The incidence of time poverty based on the occupation for each sex is illustrated in Table 9 (above). From the total sample, clerks (57 per cent), managers in senior ranks, legislators (57 per cent) and machine operators (56 per cent) fall into the category of professions that are most time-poor. Interestingly, a higher percentage of women employed in these occupations are more time-poor than their male counterparts, particularly among machine operators (63 per cent), managers (60 per cent) and technicians (60 per cent). Furthermore, when considering the sample based on the sector of living, a larger percentage of the population employed in the urban sector (67 per cent) are more time-poor than those living in the rural and estate sectors.

When examining the TU patterns in the urban sector, it becomes evident that a larger share of respondents employed in machine operating, elementary jobs and industry workers are the most time-poor. This correlates with the idea that these occupations fall

under informal occupations for which wages are dependent on the number of hours worked, thereby leading to higher rates of time poverty as individuals will spend more time in labour market activities to earn higher wages.

The remaining FGT class poverty measures such as the time poverty gap and squared time poverty gap are presented in Table 10. The intensity of time poverty can be analysed based on these estimates.

Table 10: Time Poverty Gap and Squared Time Poverty Gap (as a percentage)

Time Poverty Gap – Adult population								
	Time Poverty Line – 63 hours/week				Time Poverty line – 84 hours/week			
	Total	Urban	Rural	Estate	Total	Urban	Rural	Estate
Both	12.22	16.57	11.29	10.79	2.41	3.39	2.22	1.67
Men	11.94	17.84	10.66	10.55	2.17	3.35	1.94	1.52
Women	12.48	15.48	11.88	10.99	2.61	3.43	2.46	1.81
Squared Time Poverty Gap – Adult Population								
	Time Poverty Line – 63 hours/week				Time Poverty line – 84 hours/week			
	Total	Urban	Rural	Estate	Total	Urban	Rural	Estate
Both	5.86	8.13	5.40	4.58	0.62	0.89	0.57	0.43
Men	5.55	8.43	4.96	4.24	0.59	0.90	0.53	0.39
Women	6.13	7.89	5.80	4.88	0.65	0.88	0.60	0.47

Source: Authors' calculation using micro-data of the Time Use Survey (2017)

As evident in Table 10, based on the higher poverty threshold, 2 per cent of the total population is intensely time-poor, and this rate is higher among women compared to men. Predominantly, rural women are more intensely time-poor than men. Table 10 further shows the squared time poverty gap for the sample population. For the higher poverty threshold, it is clear that not a large portion of the sample is suffering from severe time poverty. In comparison to the previous results, women are the more time-poor sex within the sample and women living in urban areas (0.88 per cent) are the most time-poor, considering the higher squared time poverty threshold.

Thus, the prevalence of time poverty in Sri Lanka is evident through these results. The gender dynamics provide useful insight into the TU patterns in households in all three sectors. Women within the sample are more time-poor than men, particularly when analysing the higher threshold of time poverty. Employed women are relatively more time-poor than their male counterparts and other unemployed women.

CONCLUSION

Considering the TU patterns among the respondents, the findings indicate that women spend a higher number of hours employed in both SNA and non-SNA activities compared to men. Thus, the gendered nature of TU makes it clear that being employed does not significantly reduce the number of hours women spend on household and caregiving activities in the domestic sphere. Secondly, respondents within the urban sample spend a substantially longer number of hours on SNA activities, particularly among men. This result further corroborates the findings that urban sector employees in management and professional occupations spend a higher number of hours in employment relative to the other occupations. Moreover, the findings related to time poverty, based on the lower threshold of time poverty, indicate that approximately 40 per cent of the sample is time-poor, of which the urban sample is severely time-poor. It is apparent that 47 per cent of the urban sample proved to be time-poor and this percentage was significantly higher among men.

However, when considering the upper time-poverty threshold, a higher percentage of women (16 per cent) were time-poor. Interestingly, when cross-referencing both sex and sector, women in the urban sector proved to be the most time-poor from the entire sample. It can be argued that although more women are becoming educated and moving towards employment, societal expectations of women to perform domestic chores have led to women being subject to a higher level of time poverty. This is further aggravated in the urban sample due to increased living costs within this sector. The child poverty rates further indicated patterns in the allocation of time among children in the urban, rural and estate sectors. Although children in the urban sector were more time-poor due to more time spent on learning activities, it is interesting to note that children in the rural and estate sectors spend more time on domestic chores and caregiving activities.

The above findings reveal that time poverty is a prominent issue in Sri Lanka, particularly among the urban population. While material wealth and prosperity will help in alleviating poverty in its tangible form, this does not address the issue of time poverty, which according to this study, seems to be increasing as individuals gain more income. Time poverty affects the well-being of individuals as they do not have sufficient time for rest or leisure post-employment and domestic activities. One main policy ramification that could tackle this problem would be the proper enforcement of labour laws stipulating appropriate and healthy working hours for citizens. An institutional framework must be put in place to address the issue of time poverty among employed individuals. Particularly in the urban context, organizations may attempt to fully optimize the time of their employees, leading to heightened physical and mental health issues.

The proper enforcement of labour laws stipulating time of employment would ensure workers do not expend too much time on employment activities. Further research on understanding the trade-off between income poverty and time poverty can carry

significant policy implications, particularly with reference to individuals trapped in the poverty cycle. Secondly, the gendered dynamic of time poverty requires immediate attention. As culture and society are moving towards a world of equality, in the Sri Lankan culture, this seems to be affecting only the employment sphere and not the domestic sphere. A cultural shift must ensure men contribute to household work and domestic work equally. This requires a change in attitudes encouraged by social institutions such as schools, households and religious institutions. Fostering equality at the household level is important to address the plight of women, made evident within this study. Hence, this is an important starting point for future research within the scope of time poverty. It is a versatile concept that can be employed to comprehend well-being of an individual, at the household, community, and the national level.

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