

No Time for Self: An Investigation of Time Poverty in Different Work Structures

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Abstract

The availability of time is similar for everyone, except its value varies in different work structures, which affects the time use pattern of people differently. Around the World, time poverty is a widespread phenomenon that affects a large segment of people in every corner of the society, mostly; it is much visualized among the employees class due to their higher time devotion to paid and unpaid works, which reduces the time spent on self maintenance activities. The present study tries to establish a relationship between various job places in the education sector and its impact on employee's self-maintenance time. For this purpose we have selected the Punjab state by stratified random sampling, the data has been based on primary and secondary sources collected from various educational institutions viz schools, colleges, and ITI's employees, for measuring the time poverty we use Foster–Greer–Thorbecke (FGT) Index. The results of the study showed that women are much more affected by time poverty than their male counterparts because of unequal distribution of unpaid work among male and females. In addition the nature of job also affects employees' magnitude of time poverty, as it regulate the level of income which determine the time spent on various activities.

Keywords: Gender, Work, Time Poverty, Education

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1. Introduction

Time is a priceless economic resource which is used in a number of ways, in a number of human activities across the sex, caste, categories of employment, professional sets and income levels. There are various aspects of poverty; it is a worldwide phenomena which have been acknowledged by a number of ways (Saboor *et al.*, 2015). One perspective of it is income and the other is time. Poverty is not stated just in monetary terms, it can also be termed in terms of time. Poverty in time use indicates that time is not effectively and adequately used for the well being of the individual self which results in a type of deprivation.

Time poverty is an important concept in which individuals do not have sufficient time after being engaged in necessary activities and committed actions of paid and unpaid work associated with tasks that build their social and human capital. Time is finite; individuals allocate time to various life tasks to maximize their well-being (Becker, 1965). Consistent with this, Vickery (1977) had defined the concept of time poverty as insufficient time to maintain physical and mental well-being. It is a significant problem which society faces and poses a widespread threat to the well-being and economic development of individuals and society on the whole. It is the minimum amount of time needed to maintain them, and it could be scientifically proven; for example, everyone needs a minimum amount of sleep for smooth body and mind functioning. Thus, a typical definition of time poverty is where some people do not have proper time for rest or leisure, taking into consideration working hours, whether on the job, doing household chores, or being involved in other activities such as collecting water and wood (Blackden & Wodon, 2006).

We know that the principle lesson of economics and social life is the optimum utilization of time and resources. Time is an important indicator of individuals well being and his capacity to do the things. Most of the individuals do not have enough time to meet their necessities of relaxation and leisure because of longer hours of paid and unpaid work. Vickery (1977) called this phenomenon as “time poverty.” Time poverty has negative impact on human wellbeing and capabilities. The lack of adequate rest and personal care can create emotional and physical stress and cause health deterioration. The lack of adequate disposable time adversely affects workers’ abilities to invest in human capital, their social networks, and their time with families, and participation in cultural and political activities.

Time poverty is a multidimensional phenomenon which focuses on a human well being by a number of aspects like ill health, low literacy rate, inadequate housing facilities, gender discrimination, inadequate means to improve the life etc. (Khan *et al.* 2013). The longer working days reduce the time for personal care and relaxation, the estimates of time use poverty in most of the developing and developed countries address the gender related issues, because women are mainly responsible for care of children, cooking and other household tasks regardless the increase in the demand of their time in the labour market.

Employment and household time combined together may lead to time deficit. Double deprivation of time and income poverty was robust on individuals. When they are employed they suffer more of time poverty than those without employment (Antonopoulos and Memis, 2010). The occupation and family structure like shift worker, unsocial hours of work, marriage status have been affected by the time poverty. The unskilled workers, a mother with child and other care responsibilities are also severely affected by the time poverty (Chatzitheochari and Arber, 2012). The job hours may be similar for both sexes but women

also bear unpaid work hours greater than men. While the official poverty line ignores the time deficit, the proportion of women in income and time poverty is generally higher than men due to double bind (Zacharias, 2017). Women try to use their resources efficiently with the help of methods like multitasking, but it increases the time pressure simultaneously (Rose, 2017).

Numerous attempts have been made at the world level to find poverty, but time poverty is still a new phenomenon. In this field, a time-use survey approach is used to find a person's day-to-day routine. It was done in developed nations like the United States of America under the American Time Use Survey (ATUS) in 2003 (Hamermesh et al., 2005), but less developed nations have still been behind in these areas. After becoming the second-largest populated country, India is still far behind in this area of research. Only one time-use survey was conducted by the Indian government in 2019 (Hirway, 2022).

As mentioned in Bardasi and Wodon (2006), there is no established measure to calculate time poverty; however one method is to use a time poverty line that is a multiple of the median number of hours for the all individuals. An alternative is to use a more judgmental approach in setting a time poverty line would be to manually calculate what might be perceived to be a normal working day. Hence, although the definition of time poverty in this context visualize relatively broad after incorporating domestic chores, it is supported both instinctively and by previous work (Ilahi, 2000).

2. Objectives and Methodology

The present study is tried to find the time poverty among the employed working in various educational institution. The study checked the variation of gender-wise time poverty with the status of employment like regular or non regular. The study also revealed the time poverty of employees working in private and government institutions.

To achieve the objective of the study, a pre-determined schedule cum questionnaire method was used. The study covered the educational institutions in the state of Punjab. Punjab is an agrarian state and more than half of their population relies on it for their living but services sector also a major chunk of their GDP. As clearly visualize, Indian government has taken a big step of LPG (liberalization, Privatization and Globalization) policy in 1991 that opens a new opportunities among the all sectors of the economy. Punjab has also passed through this journey of development. In this change among all sectors, service sector played a major role to uplift the GDP of the country. As food bowl state of the country from earlier stages, Punjab has also witnessed of steady growth in the service sector that opens a new opportunities for women to enter the labour market. Among the all occupation of service sector, education is one of the most prominent sector. In Punjab, most of the girls also choosing B.Ed after their graduation (GOP, 2020) that encourages us to check the situation of the women in this higher preferential sector and a comparative analysis show a true picture of the time poverty among gender. The study covered a sample of 400 (160 males and 240 females) employees in education sector from various institutions like schools, colleges and ITI's of Punjab state of India. The higher ratio of the females in each institution is a reason behind their higher share than males. To check the time poverty FGT index has used.

2.1 FGT Index

FGT (Foster, Greer, and Thorbecke) index deals with income poverty, but after some modification in the structure, it applies to time poverty. It checks the three aspects under the

index head count index of poverty, poverty gap, and squared poverty gap. In the time poverty framework, the head count index of poverty defines the share of time poor population. The time poverty gap shows the distance of respondents from the time poverty line. The squared time poverty gap, it focuses more on those working hours that are too long. It finds these with the squaring of the time poverty gap.

At the starting FGT Index, Head count ratio is to be found with the help of the given formula described here:

$$\text{Head Count Index of Time Povert} = \frac{q}{n}$$

Where, q means respondents who are timely poor and n means total respondents.

To calculate the time poverty index, the time poverty gap is to be found with the help of the formula given below:

$$TPG = \frac{1}{n} \sum_{i=1}^q \left(\frac{y_i - z_i}{z_i} \right)$$

Where, TPG is time poverty gap, z_i is the aggregate time consumption by the respondents; and y_i is the time poverty line. It shows the time required by the respondents to get rid of the time poverty. It is the simplest way to estimate the time poverty gap.

By squaring the time poverty gap, we get the squared time poverty gap which shows the severity among the time-poor respondents, which has been described mathematically below:

$$\text{Time Squared Poverty Gap} = \frac{1}{n} \sum_{i=1}^q \left(\frac{y_i - z_i}{z_i} \right)^2$$

2.2 Time Poverty Line

The time poverty line was drawn from the respondents' collected data by taking the average of the activities they did. It is further classified under three categories. First, the self-maintenance activities that covered the meal of the day, refreshment and freshening up, secondly, entertainment covered watching TV, internet surfing, mobile use, playing games etc. and sleeping time as last category that is consider for the calculation of the time poverty line. On the basis of the average time consumption of the activities mentioned above, a time poverty line is fixed at 685 min (11.25 hrs) a day.

3. Result and Discussion

3.1 Occupational Status

Occupation is an economic activity that directly impacts the financial status of a person. It plays a crucial role in time use patterns in both the genders. The changes in occupational and financial structures transform the time contribution to SNA and extended SNA activities. To

illustrate, a higher income enables a person to invest in a new gadget and outsourcing services which leads to a reduction in time devotion (Bittman et al., 2002). Table 1 has categorised the occupation status of the respondents on the basis of gender under two categories i.e. government and private. Out of the total respondents, nearly 80 per cent of occupied respondents were in the government sector while 20.5 per cent offered their services to the private sector. Among the male respondents, 89.38 per cent were working in government educational institutions like schools, colleges, and other institutions, and the remaining 10.63 per cent were associated with the private institution in education sector. On the other hand, a higher share of females were working in the private educational institutions that was 27 per cent of the total sample i.e. 240 respondents while 72.92 per cent were associated with the government educational institutions. The study has observed that females generally agreed to work at lower income in the private sector than that of their male counterparts, even though they have to bear the burden of the same level of household duties.

Table 1: Occupation Status of Respondents

Occupation Status	Male	Female	Total
Government	143 (89.38)	175 (72.92)	318 (79.50)
Private	17 (10.63)	65 (27.08)	82 (20.50)
Total	160 (100.00)	240 (100.00)	400 (100.00)

Source: Primary Survey: 2019-20

Note: Parenthesis shows the Percentage out of their total.

3.2 Education and Types of Institute

Every institution is governed by its structure of rules and regulations. The difference in the schedule of employees is the result of structural differences among the institutions. These structural differences can result from a pack of social security and other facilities which further impact the schedule of the respondents employed in different institutions. With increasing level of education, people enter the job market which impacts their routine (Bardasi & Wodon, 2006). Table 2 has divided the respondents on the basis of the type of institution and gender. The division has shown that the percentage of the female respondents was more than the male respondents in schools and other higher educational institutions. Higher proportions of people were employed at schools in private and government sectors. In the category of government employees, only 23.62 per cent were serving while 41.09 per cent of private-sector employees were working in colleges. Out of the total sample, only 11.81 per cent of the government employees were working in ITIs whereas less than 2 per cent of females were working in the government sector and the reason behind it was due to lower enrollment under various courses in ITIs. Majority of female respondents (70 per cent) were working in school. In contrast, only 54.24 per cent of males were in government employment and only 30.95 per cent of males were employed in private sector and were working in schools. The higher share of females was working in school due to a significant share of girl's enrollment in B.Ed. course (GOP, 2020). Every institution has different working hours and it affects the employed in different ways, so it is important to show the segregation of respondents according to their work place. In contrast to the earlier mentioned study and with support of other studies, education does not always have an inverse relationship with time poverty (Arora, 2015).

Table 2: Education Institution Wise Gender-based Segregation

Institute Type	Male		Female		Total	
	Govt.	Pvt.	Govt.	Pvt.	Govt.	Pvt.
School	64 (54.24)	13 (30.95)	111 (72.55)	63 (72.41)	175 (64.58)	76 (58.91)
College	24 (20.34)	29 (69.05)	40 (26.14)	24 (27.59)	64 (23.62)	53 (41.09)
ITI	30 (25.42)	0 (0.00)	2 (1.31)	0 (0.00)	32 (11.81)	0 (0.00)
Total	118 (100.00)	42 (100.00)	153 (100.00)	87 (100.00)	271 (100.00)	129 (100.00)

Source: Primary Survey: 2019-20

Note: Parenthesis shows the Percentage out of their total.

3.3 Types of Job

The economic condition of an employee is highly linked with the type of their job. It is a strong determinant of social and financial security for them. The type of job affects the stability of an employee's life. Due to graver job insecurity, contractual/Adhoc/PTA/guest faculty employees have more burden than the regular faculty (Begum et al., 2022) and that is a reason of greater exploitation at work. Table 3 has described respondents working on different types of job on the basis of gender. About 71.50 per cent of the respondents were working on a regular basis and remaining 28.50 per cent were working on an irregular basis. Majority of the irregular employees were working on an Adhoc basis (13.5 per cent). 70 per cent of males were employed as regular employees whereas 70.42 of females were employed on regular basis. Further, female respondents were more likely to work as contractual and guest faculty than the males their percentage was 9.58 and 2.08 per cent respectively. The reason behind it was that due to some fear associated with social, financial and locational factors, they did not shift far from the areas surrounding their homes.

Table 3: Job Type and Gender Wise Segregation of Respondents

Type of Job	Male	Female	Total
Regular	117 (73.13)	169 (70.42)	286 (71.50)
PTA	8 (5.00)	16 (6.67)	24 (6.00)
Adhoc	27 (16.88)	27 (11.25)	54 (13.50)
Contractual	8 (5.00)	23 (9.58)	31 (7.75)
Guest Faculty	0 (0.00)	5 (2.08)	5 (1.25)
Total	160 (100.00)	240 (100.00)	400 (100.00)

Source: Primary Survey: 2019-20

Note: Parenthesis shows the Percentage out of their total.

3.4 Occupation and Time Poverty

Every occupation is related to a particular time and work structure. It closely deals with the employees' work-life balance that affects their routine. Some persons face higher work pressure than others due to ownership structure differences like government and private,

regular and non-regular etc. It also affects gender in different ways because each person is allied with different degree of work pressure. Majority of females are facing higher work burden as they manage jobs along with their household responsibilities. Table 4 has explained that overall time poverty of the sampled respondents was almost similar in both the government and the private sectors; however, females were more timely poor than males. The difference in time poverty was much more prominent in the government sector. Male person have reported to be 11.02 per cent timely poor while 73.2 per cent females happened to be time poor. In private sector, 23.81 per cent males and 77.01 per cent females were facing time poverty. While considering time poverty gap, it was analysed that private sector was more characterized with time issues rather than the government sector with overall difference of 10.74 per cent. Likewise squared time poverty gap was 1.58 in government sector and 4.39 points in the private sector for both the categories of males and females. In the comparison of males and females, females were much pressurized with time constraint than males in both the types of occupation but in private sector both had been facing more time poverty gap than those who were in government occupation. The squared time poverty gap also supported the time poverty gap results that had shown a 7.09 in private occupation and very low value of 1.58 was seen in government occupations.

Table 4: Time Poverty in Occupation-wise

Time Poverty	Male		Female		Total	
	Government	Private	Government	Private	Government	Private
Head Count	11.02	23.81	73.2	77.01	45.32	45.95
Time Poverty Gap	0.81	1.13	12.03	21.35	8.22	18.96
Squared Time Poverty Gap	0.0005	0.18	2.89	7.09	1.58	4.39

Source: Primary Survey, 2019-20

3.5 Type of Job and Time Poverty

The distinction between regular and non-regular jobs differed in terms of working hours, job stability, and access to benefits. In the society, the first job preference of everyone is for regular employment due to job security and also a fixed structured work schedule. It directly attached with their work-life balance and also affects their way of experiencing the time poverty. On the other side, non-regular jobs have been characterised with more insecure employment provision, like part-time or temporary like guest faculty etc. So, these jobs exaggerated working hour's one side and other side simultaneously restricted the benefits and protections as compared to regular employees. These factors attached with non-regular employees also works to increase the time poverty due to the irregularity of their schedules than faced by regular employees (Kim & Lee, 2023). In addition, non-regular employees also have tackled double burden of work due to additional child and elder care, it is only happen with the lake of affordable care system at work place or we can say due to affordability level of these employees which has further contribute to time poverty. Due to job type, there are several factors like employee personal circumstances, policy support and affordable care facility at job places that somehow affects to their time poverty level. Therefore it is an urge need to check the challenges associated with different job types to understand the time poverty in better sense. Table 5 has elucidated time poverty in the context of the nature of job (Regular and non regular faculty). The data has shown perfect synchronization of findings where again it has shown females suffered from more time poverty in both regular and non-regular jobs. Males were poorer in non-regular jobs than the regular jobs while females were

more timely poor in regular jobs also but severity level has shown a different angle. It has shown that females in non-regular type of jobs faced much time poverty due to instability of their income. Approximately 70 per cent of regular and non-regular female employee's children in the age bracket of less than 15 years increased their work burden after the job. It was also observed that females were involved under low salary jobs than males in education sector. The data has clearly shown that out of the total number of respondents approximately 50 per cent regular and non-regular employees faced time poverty. The data has presented the higher time poverty gap and severity level among the non-regular employees than the regular employees. In males and females the same results were seen but comparatively it had shown a huge gap in both types of jobs. There was higher time poverty gap of 21.41 among the females working under non-regular structure of jobs which meant they are more away from time poverty line than the males. In regular type also women suffered more than the men which were only 0.91 point gap than the females' gap of 11.97 points from the time poverty line. It also presented a higher gap of severity level between the males and females. The non-regular female employees faced higher severity than the regular employees and they needed higher time to improve their situation than the males.

Table 5: Time Poverty and Nature of Job

Time Poverty	Male		Female		Total	
	Regul ar	Non-regular	Regul ar	Non-regular	Regul ar	Non-regular
Head Count	10.26	25.58	70.42	76.33	49.3	53.51
Time Poverty Gap	0.91	1.03	11.97	21.41	6.47	11.21
Squared Time Poverty Gap	0.09	0.16	4.95	5.04	2.52	2.60

Source: Primary Survey, 2019-20

3.6 Educational Institutions and Time Poverty

Employees working in schools, colleges, and ITIs (Industrial Training Institutes) indeed experienced time poverty differently due to the nature of their institutional framework, which often involved varying and demanding working hours. The higher working hours left less time with the employees that was to be devoted to other tasks at home. Long working hours after making employees' time poor that restrict their personal development and well-being (Boye, 2009). An institution's framework is different in different countries, but the gender dimension does not have much difference at all. The higher dominance of males in every institution made more difficult for females. The time schedule was also different in the institutions, affecting the routine work and making it more pressurized. The institutions where the job hours were higher impacted females more than their counterparts. Table 6 had shown the situation of time poverty among the respondents working under various types of educational institutions. In overall head count ratio, out of the total respondents those who were working in schools had higher percentage than others. In schools 56.18 per cent of respondents faced the time constraints further 47.01 and 18.75 per cent from college and ITI faced it respectively. The time poverty gap and squared time poverty gap has also supported the head count ratio and shown the similar results. The higher time poverty and severity level in schools has represented that lower working hours in schools job left higher time with the respondents which diluted in the form of household tasks. In the sample, majority of non-regular female employees were working in schools at low salary and that was a major reason behind working for longer hours after job and inability of purchasing time-saving services. In

the comparison of males and females, the latter had given the similar results as the total number of respondents which meant a higher paid work left less time with the females and due to the effect of the income their unpaid work got reduced. Among the male respondents, similar situation was found in case of the schools and ITI but a different situation had emerged in colleges, it had shown a higher time poverty gap and severity level than others due to the various type of employees working in colleges like contractual, guest faculty, PTA basis which these affected their income more than regular ones and as observed under study they were also associated with part-time work like tuition. As Table has clearly shown, females were still more struggling with time constraints than males in every type of educational institution.

Table 6: Institution-wise Time Poverty

Time Poverty	Male			Female			Total		
	School	College	ITI	School	College	ITI	School	College	ITI
Head Count	10.53	18.87	13.33	75.86	70.31	100	56.18	47.01	18.75
Time Poverty Gap	0.43	1.19	0.33	22.68	10.43	0.26	11.56	5.82	3.08
Squared Time Poverty Gap	0.03	0.19	0.03	5.45	4.48	0.05	2.74	2.34	0.04

Source: Primary Survey, 2019-20

3.7 Location-Wise Time Poverty

A place of living has significantly correlated with the time poverty. In Punjab, most person is shifted from rural to urban areas due to easy availability of resources but these resources access not same for everyone due to their economic conditions. The higher cost factor is directly affected their schedule. As per the observation, most of the urban respondents faced time poverty differently than rural areas among male and female respondents. The higher cost structure of the purchasing of goods in urban areas somehow affects their time poverty differently than rural areas but, in both places, females suffer more with time poverty.

Table 7: Location-wise Time Poverty

Time Poverty	Male			Female		
	Rural	Urban	Total	Rural	Urban	Total
Head Count	9.26	21.09	16.47	78.32	81.61	79.60
Time Poverty Gap	1.02	6.14	3.29	24.19	31.36	27.80
Squared Time Poverty Gap	0.36	2.51	1.40	6.24	9.48	7.68

Source: Primary Survey, 2019-20

Table 7 shows that more females are time poor than their male counterparts. We can see that 79.60 per cent of the females and 16.47 per cent of the males have been found to be working for more than 11.25 hours a day. If we see the poverty gap among males and females than the data show that poverty gap in females found to be 27.80 per cent where as in case of males it is found just 3.29 per cent. Thus, as compared to males, the females need much greater amount of free time to be non-poor in terms of time. The square time poverty gap for females is 7.68 per cent where as for males it is just 1.40 per cent which further shows that the time poverty is severer among the females than the males. Further, we can also observe that in urban areas both males and females in the urban areas are more time poor (21.09 per cent

males and 81.61 per cent females) as compared to their rural counterparts (9.36 per cent males and 78.32 per cent females). Poverty gap and square of poverty gap are also higher for urban areas than the rural ones for males as well as the females.

So it is clear from the data that not only the women are more time poor than the males in the rural as well as in the urban areas, their time poverty is also severer than the males. The reason for greater time poverty in urban areas is the nature of work structure because most of the women in urban areas are employed so they bear double burden of both paid and unpaid work.

4. Conclusion and Policy Suggestion

In nutshell we can conclude that time poverty is a serious threat for the wellbeing of the society. The employees are working in private institutions faces higher degree of time poverty in both genders but women time poverty situation shows higher severity than men. The nature of job is another affecting variable that shows a variation of time poverty and squared time poverty gap in the case of regular and non-regular employees but due to higher domestic chores clearly presents a wide gap among men and women employees in every educational institutions. So, there is need to curtail the time poverty gap among employees. It is only possible to change to socio and cultural aspects of gender biased society. Income is the major variable that affects the situation of women directly and due to non-consideration of the major junk of work contribution was neglected by the society due to the unaccountability. There is need to estimate the unpaid work by regular time-use surveys at state and national level.

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