

The Work-Leisure Model for Employed Labour Force in the Province of Khyber Pakhtunkhwa

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ABSTRACT

Think of an individual with given level of skill and fixed amount of time to be allocated either to work or to leisure, he or she may face the problem of optimization due to income constraint. The aim of this research article was to define the concepts of work and leisure, distribution of fixed time (24 hours) between work and leisure and to compare the behavior of employed male and female labor force in the supply of labor. For the achievement of these goals the stratified random sampling technique was used. The data was collected through a comprehensive interview schedule filled from 190 employed males and females, who were selected purely on random basis. The Work-Leisure Model showed that initially due to rise in the wage rate both the genders increased their time of work by sacrificing their leisure, but the sacrifice of males was lower than the sacrifice of females. Beyond certain rate of wage males and females decreased their supply of labor for work and increased the allocation of time to leisure; however the males were lower than the males in this regard.

Key Words: Work-Leisure, Labor Force, Skill, Budget Constraint

INTRODUCTION

Imagine an individual with a certain amount of education and labor experience and therefore a given level of skill. An individual having a fixed amount of time (24 hours) at his or her disposal is confronted with the decision as to how that time should be allocated between "Work" (Labor Market Activity) and "Leisure" (Non-labor Market Activity). The term leisure is used in a broad sense which includes all kind of activities for the person does not get paid, for example, work with in the household, rest, relaxation and so forth. In analyzing the Work-Leisure decision, it is assumed that the individual engages in work to obtain money and real earnings (goods and services), which provide utility. It is also assumed that all uses of "Leisure" are sources of utility. Two sets of information are necessary to determine the optimal distribution of an individual's time between work and leisure. The first one is the "subjective information" (utility) concerning the individuals' Work-Leisure Preferences. The second one is the "objective information" (budget constraint). In other words it is assumed that the individual wants to maximize his or her utility by allocating time to work or leisure is subject to the budget or income constraint. This piece of research seeks answer to the question, "How an individual allocates his or her time to work or leisure?" This leads to the following objectives of the article:

OBJECTIVES

An attempt has been made to achieve the following main objectives:

- To define the concepts of work and leisure
- To determine the time allocation of labour fore to work and leisure
- To derive the backward bending supply curves for males and females

Review of Literature

The specific review of literature for this article is based on the Tarki European Report 2009. Regarding this report, Judit Monostori (2009) states that this study undertakes to analyse the results of a few international surveys, with the aim of comparing the countries of Europe in terms of the role of work and of leisure in the lives of their populations. We explore the preferred balance between these two activities and the ways in which those preferences vary across the different social groups. We should note here that the attitudes under analysis are highly dependent on culture and personal values, the precise characterization of which is beyond the scope of this paper.

The models used to analyse the relationship between work and leisure rely on three different principles:

- The spillover model states that the nature of a person's work experiences, working conditions and job satisfaction will affect their attitudes and life beyond the domain of work. Those who are satisfied with their jobs and working conditions are predicted to be better at managing their leisure time, and to feel more fulfilled in their non-work lives.
- The compensation model holds that there are compensatory mechanisms operating between the world of work and the non-work domain. Specifically, those who are dissatisfied with their working lives are thought to be more likely to prefer activities outside the domain of work than are those who are happy with their work and who have well-paid jobs and good working conditions (Wilensky 1960).
- According to the segmentation model, there is no tie-in between the work domain and the non-work domain. The preferences of individuals are believed to be independently shaped in the two domains (Dubin 1958, 1973).

Studies that have tested the validity of these three models have reached conflicting conclusions. In their investigation of people's satisfaction with work and life in general, Tait's research group found evidence supporting the spillover model (Tait, Padgett and Baldwin 1989), while other studies have argued for the compensation or the segmentation models (Rain, Lane and Steiner 1991; Kelly and Kelly 1994).

The inconsistent results have prompted some researchers to study the relationship between the work domain and the non-work domain among individual social groups, rather than at the level of society as a whole (Champoux 1978; Kabanoff 1980; Shaffer 1987). Another development is the rise in the prominence of studies that seek to break the phenomenon down into distinct aspects: instrumental, cognitive and affective (Elizur 1991).

A further line of research is the direction of influence between work and non-work relations. Kohn, Kirchmeyer and Cohen, for instance, all describe how a person's experiences in the non-work domain can affect their labour market behavior – i.e. what position they can secure, how successful they are in aligning the job with their preferences and how much independence they can attain (Kohn 1990; Kirchmeyer 1992; Cohn 1997a,b).

Besides the relationship between work and leisure, it is also worth looking at the importance of the work and the non-work domains in people's lives. Previous research into this has unequivocally indicated that, over the past few decades, the non-work domain – specifically leisure activities – has gained in importance in society and in the lives of individuals (Eurostat 2004).

The roles of work and leisure, however, may be assessed from a number of different perspectives, and the analyses of the various dimensions may not lead to congruent results. One possible approach is to look at the amount of time allocated to work and the

amount of time left for leisure among different social groups and in various countries. Another approach may focus on the importance of one or the other type of activity for the members of a society. As a third dimension, we could also measure the intensity of work activities versus that of leisure activities.

METHODOLOGY

The total number of employed males and females in different economic activities is fairly large in the whole province (the target area), thus the province has been divided into two strata on the basis of developed districts (like Peshawar, Abbottabad and Mardan etc) and less developed districts (like Bunir, Swat and Swabi etc). One district from each stratum has been selected randomly, using the simple random sampling technique. Two villages from the rural areas and two streets/mohallas from the urban/town areas of each sample district, which have also been chosen on random basis. Obviously homogeneity exists in each substratum. A list of all employed males and females from four villages and four streets of two sampled districts have been prepared. This list known as sampling frame constitutes the universe. The proposed sample size has been 200 employed males and females, however only 190 were interviewed. The sample size has been distributed proportionately to the number of employed male and females in the sub-strata.

The determination of extents of time allocation to work and to leisure the two-step method has been adopted. First a basic model of work-leisure choice to understand the critical variables which determine the workers' optimum combination of work and leisure based on the data obtained from sample employed labor force. Second by manipulating the actual wage rate confronting the workers. The model was used to derive the supply curve for the sample individuals.

Work-Leisure Times

For the purpose of this dissertation the following question was asked from each sample employed worker "How many hours will you work if the wage rate per hour increases by Rs. 50 in each step?"

Step	Wage Rate (Per Hour)	Work Hours	Leisure Hours
Initial Step	W1 (actual) Rs. -----	-----	-----
Step-1	W2 Rs. -----	-----	-----
Step-2	W3 Rs. -----	-----	-----
Step-3	W4 Rs. -----	-----	-----
Step-4	W4 Rs. -----	-----	-----

In the response of this question for various wage rates various Work-Leisure time combinations have been recorded from the sample employed males and females in the sample area. The actual wage rates for both the genders have been derived from their average earnings per month presented in table. 1 below:

Table.1 Gender-Wise Income of sample employed Workers

Average	Male	Females
(Per Month)	Rs. 12600	Rs. 104000
Per Day	Rs. 420	Rs. 347
Per Hour	Rs. 70	Rs. 58

Considering Rs.70/- per hour for males and Rs. 58/- per hour for females as actual wage rates in the zero step (initially). After adding Rs. 50/- to the actual wage W_1 and the increased wage rates in each step, the second column vector of the table is obtained. So far as the initial working hours are concerned, it is assumed that every worker on average works for six hours per day and leisure time is 18 hours. Taking the averages of all reported times by the respondents, the following work-leisure times corresponding to each wage rate were derived.

Table.2 Work-Leisure Times for Males

Steps	Wage Rate (Per Hour)	Work Time (In Hour)	Leisure Time (In Hour)	Budget Line ($W \times 24$)
Initial Step	$W_1: Rs. 70 \times 6 = 420$	6.0	18.0	$70 \times 24 = 1680$
Step-1	$W_2: Rs. 120 \times 8.3 = 996$	8.3	15.7	$120 \times 24 = 2800$
Step-2	$W_3: Rs. 170 \times 11.4 = 1938$	11.4	12.6	$170 \times 24 = 4080$
Step-3	$W_4: Rs. 220 \times 9.1 = 2002$	9.1	14.9	$220 \times 24 = 5200$
Step-4	$W_5: Rs. 270 \times 7.3 = 1971$	7.3	16.7	$270 \times 24 = 6400$

Table.3 Work-Leisure Times for Females

Steps	Wage Rate (Per Hour)	Work Time (In Hour)	Leisure Time (In Hour)
Initial Step	$W_1: Rs. 58$	6.0	18.0
Step-1	$W_2: Rs. 108$	9.2	14.8
Step-2	$W_3: Rs. 158$	11.3	12.7
Step-3	$W_4: Rs. 208$	8.0	16.0
Step-4	$W_5: Rs. 258$	6.7	17.3

Will an individual choose to work more or fewer hours as the wage rate increases? It depends. The following figure-1 and figure-2 for males and females based on table.2 and table.3 respectively depict the answer to this question.

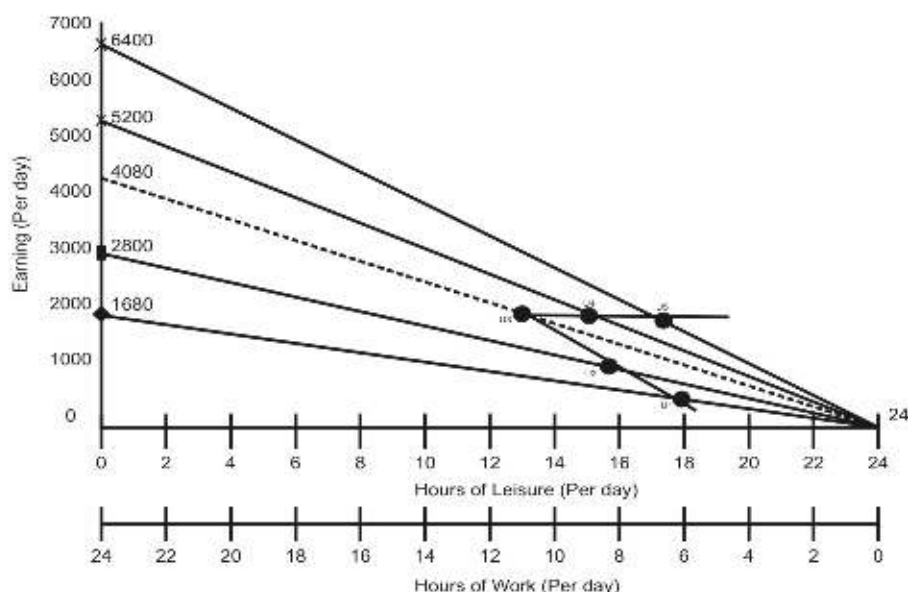


Figure 1. Work Leisure times for males

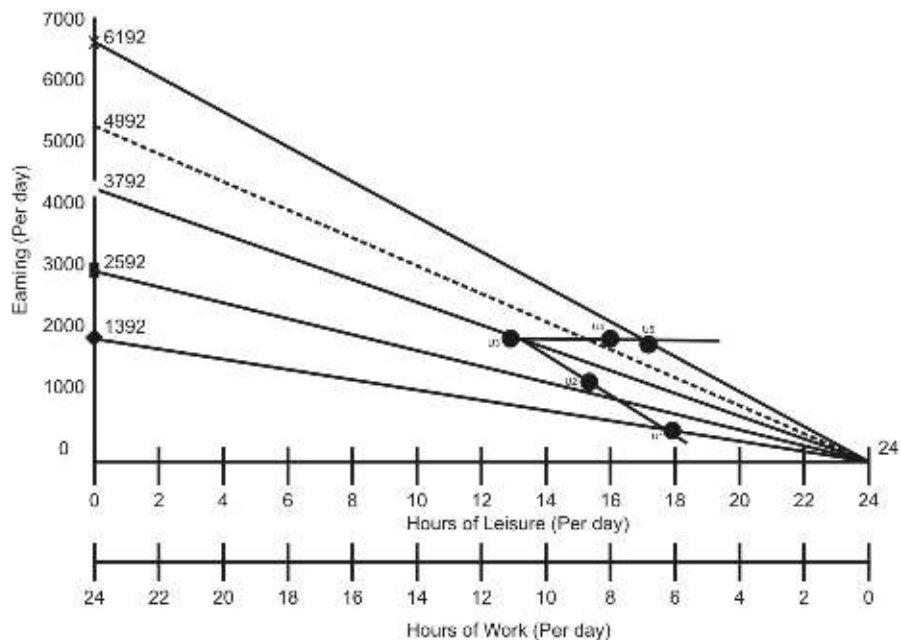


Figure 2. Work Leisure times for females

Earning per day has been measured along the vertical axis and hours of leisure (per day) or hours of work (per day) have been measured along the horizontal axis. It is assumed that the maximum utility attained from income (work) and leisure is constrained by budget or income. Therefore, five budget constraints, determined by earnings per day Wage rate per hour multiplied by 24 hours of leisure (or zero hours of work) was drawn by five lines. Slope of each budget constraint was the respective wage rate. For example in case of males when the wage rate was $W_1 = \text{Rs. } 70$, then the hours of work were 6.0 (or hours of leisure are 18.0) the worker optimized his satisfaction at point U_1 and earned $\text{Rs. } (70 \times 6) = 420$ per day. But when the wage rate increased to $W_2 = \text{Rs. } 120$, the working hours increased to 8.3 hours. The table. 2 and figure-1 reveal that up to step two with a rise in the wage rate, working hours increased. In response to further increase in the wage rate, the number of hours to work decreased or the number of leisure increased. Because of this trend the shape of the labor supply curve was backward-bending. The same behavior of female workers could be observed in table.3 and figure-2. Very interestingly the number of working hours by females with a rise in wage rate increased very rapidly and fell also at a very increasing rate as compared to the behavior of males. However, both the figures revealed that for a worker, "Hours" of work might for a time increase as the wage rate rise, but beyond some point, further wage rate increases might lead to fewer hours of labor being supplied. Indeed the hours of work and wage rate combinations associated with five optimum positions of figures-2 and 3 can be translated into a diagram such as shown in figure-3 below, which has traditional axis measuring the wage rates along the vertical axis and hours of labor supplied measured left to right on the horizontal axis:

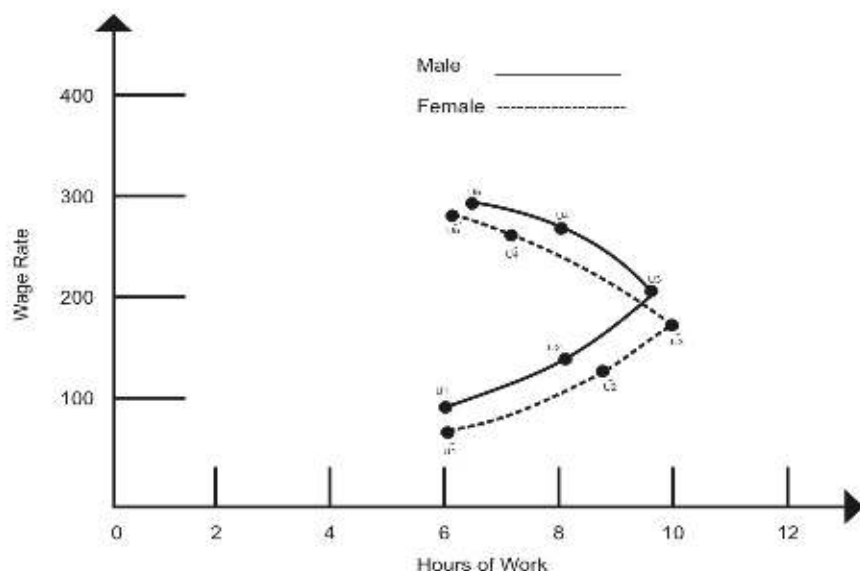


Figure 3. Labor Supply Curves for male & female workers.

In so doing it was observed that the workers labor supply curve was forward rising for a time and then backward bending. Was a backward bending labor supply curve a realistic possibility? Higher wage rate means that larger earnings were obtainable from a given number of hours of work. It was expected that a worker to use a part of these enhanced earnings to buy goods and services e.g. a new stereo or movie tickets etc. so naturally leisure time was required for these purchases and leisure was substituted for work. Thus even with a rise in the wage rate hours of work beyond certain point declined and the labor supply curve became backward bending. It was important to note that sample employed males were willing to offer fewer hours to work for higher wage rate as compared to the females. All this concluded that in case of female's hours to work fell rapidly with a rise in the wage rate beyond certain point as compared to the one in case of males. This might be attributed to the Cultural, Economic and Social (CES) constraints. These bounded the females to observe a strict *parda*, look after children and perform domestic activities and especially not to be outside (or at the place of job) beyond certain point of time (evening shifts were prohibited for females by the male decision makers). This behavior and lower wage rates of female created the problem of male-female earnings differentials biased against females.

CONCLUSION

This study has explored how much leisure time people have in the province of Khyber Pakhtunkhwa, what their attitudes are towards work and towards leisure time, which of these two they prefer, what money means to them, and what sacrifices they are prepared to make in an effort to earn a higher income.

Our results provide evidence that the answers to these questions are, to some extent, related to its cultural, traditions and values. It is also clear that the province does not have homogeneous populations in various areas i.e. there is substantial variation across the genders and age groups within the same area. However it is important to note that employed male are willing to offer fewer hours to work and more hours to leisure for

higher wage rate. It is also notable that in case of female hours to work fell faster with a rise in the wage rate beyond the bending point of labour supply curve. While comparing the Work-Leisure attitude of both the genders, it is observed that males allocate more hours to work and less to leisure up to Rs. 200 per hour reward and the behaviour of the females is reverse. The results conclude that the time allocation to work by females is lower than the time allocated by males. This is because of socio-cultural factors and male dominated society in the province.

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