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THE IMPACT OF THE STANDARD WORKWEEK ON WORKERS' BEHAVIOR: A CRITICAL VIEW

by

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Abstract

Using the leisure-income model it is usually claimed that due to the standard workweek some workers are in "equilibrium" while others are either "overemployed" or "underemployed." The three groups are alleged to behave differently, and various economic phenomena are explained in those terms. This note points out that the analysis is based on three psychological assumptions which have no roots in the leisure-income model, and which are claimed to be wrong. It also reveals that the attempts to use the notions of "overemployment" and "underemployment" to explain such phenomena as the shortening of the standard workweek, wage hikes demands and multiple jobholding are unjustified.
I. Introduction

Many workers are both a price (=wage rate) and quantity (=hours of work) takers. The leisure-income model is usually used to classify those workers into three groups, and it is hypothesized that each group will behave differently. Those workers whose desired hours of work are identical to the actual ones (=the standard workweek) are sometimes called "typical" and claimed to be in "equilibrium." Those workers whose desired hours of work exceed the actual ones are called "underemployed" or "income preferrers," while those whose desired hours of work fall short of the actual ones are called "overemployed" or "leisure preferrers." A discrepancy between the desired and actual hours of work is claimed to provoke workers into making adjustments. In the absence of overtime on their primary job, the "underemployed" will tend to moonlight (e.g., Rees (1973, p. 21), Reynolds (1974, pp. 45, 576)), while the "overemployed" might resort to absenteeism (e.g., Perlman (1969, p. 36) and Moses (1962, pp. 320-21)). Moreover, some writers--Moses (1962, pp. 323-24), Perlman (1969, pp. 34-39) and Mabry (1973, pp. 213-20)---suggest that those two types of workers are "dissatisfied" with the standard workweek, and that they will demand higher wages and/or changes in the standard workweek itself in an attempt to reach an "equilibrium."

In this note we claim that the classification of workers into "typical," "underemployed" and "overemployed" cannot serve any useful purpose, and that all too frequently the leisure-income model has been misused in that analysis.

In the next section we show that the attempt to derive psychological implications on the workers' state of mind from the leisure-income model is unfounded. And in the third section we shall show that the attempts that have been made to relate certain observed economic phenomena to the notions of "underemployment" or "overemployment" are not justified.
II. The Psychological Inferences

In Figure 1 we present a standard analysis of the problem. The workers are faced with a given (fixed) wage rate which is represented by the line TX. Given that wage rate and their preferences, let us assume that one worker would have liked to be (in a world of free choice) at A and work TL hours, while another would have liked to be at B and work TM hours. Due to the standard workweek, assumed to be TH hours, both workers must be at C. The former worker is "underemployed" while the latter is "overemployed." Since for both workers point C does not represent an "equilibrium"--the subjective marginal rate of substitution between leisure and income deviates from the objective one--they are "dissatisfied" and will attempt to take some corrective measures.

The above analysis is based on three implicit psychological assumptions. First, to merely be in "equilibrium"--in Figure 1 this is a point of tangency between an indifference curve and a budget line--is satisfying, and a worker would like to be in "equilibrium." Second, whenever a worker is not at a point of tangency, he makes a comparison with such a point even if it is unattainable. Third, workers perceive earnings per hour as the going wage rate, and all comparisons are made with the hypothetical case in which the worker is a price taker only at that wage rate (i.e., as if there were infinite number of offers of standard workweeks at that wage rate).²

Such assumptions are alien to the leisure-income model. That model assumes that utility is derived from time (leisure and working time) and income only, and that it is unchanged whether a specific bundle happens to be a "point of tangency" or not. The worker is assumed to compare the utility obtained from attainable bundles--in the case of Figure 1 bundles C (=working) and T (=not working). His goal is supposed to be the
Figure 1: Types of Workers
maximization of utility over that attainable set. The chosen bundle might not be a "point of tangency," but the worker is presumed to be "satisfied" since he reached the highest attainable level of utility. While his "wants" might be unlimited, and he might be aware of the fact that beyond his reach there could be better bundles, this is supposed not to influence his behavior or choices. Thus, there is nothing in the leisure-income model which could give rise to the above (psychological) assumptions.

Casual observations suggest, however, that in reality there are satisfied and dissatisfied workers. It seems obvious, therefore, that the leisure-income model does not "tell the whole story." Is it possible then that the workers' goal is in fact to be in "equilibrium" (="point of tangency"), where they will be "satisfied?" If that were true we could have found for every worker a fictional two-wage rate scheme which will make point C of Figure 1 a "point of tangency" for him. In the case of the "underemployed" worker of Figure 1 this scheme is represented by TDZ, which is tangent to the indifference curve I₂ at C. The worker would have become "satisfied," while the employer still gets TH hours of work and pays OY dollars, as before. The above suggested contract would have been preferred by both the employer and the workers,³ and should have expected to prevail.

It seems that employers do not offer, and workers do not demand, such a scheme in their contract negotiations. One could have argued that since each worker might require a specific contract the costs of administrating the scheme deter its adoption. But this seems to be unlikely, as the employer could always accept the worker's "declaration" on his desired scheme. More likely is the deduction that the psychological premise which assigns significance to an "equilibrium" (="point of tangency") is simply wrong.
Differences in satisfaction among workers could probably be explained by differences in their psychological profiles, and within the domain of economics they might be explained by assuming that behavior is affected by interdependencies of utility or by an earnings target.  

III. The Explained Economic Phenomena

The standard analysis of the problem could still be defended by relating it to psychological theories or by showing that its predictions are useful in explaining observed economic phenomena. To my knowledge no one attempted the former course. Thus, this section deals with the attempts which were made to explain economic phenomena.

It has been claimed by Mabry (1973, p. 217) that "... we could expect a movement to develop among ... leisure preferrers ["overemployed"] for a shorter workweek. Because wages are higher in the United States, and because we might expect more leisure preferrers to exist where wages are high, this may explain why there has been more pressure in the United States for shorter workweeks than in other countries." It is true that a shorter workweek at a given wage rate could benefit only, and therefore be supported by, the so-called leisure preferrers (="overemployed"). But the movement for a shorter workweek usually stated its demand within the context of given total earnings (e.g., Bronfenbrenner and Mossin (1967, p. 322), Bloom and Northrup (1969, p. 483) and Chamberlain and Cullen (1971, pp. 481-82)). In Figure 1 this means a movement of point C to the right, raising the level of utility for all workers, whether they were "underemployed," "overemployed" or in "equilibrium." All workers would then support such a demand, and the noted difference between the U.S. and other countries, if it exists, should be due to other reasons.
Moses (1962) suggested that "dissatisfied" workers, whether leisure or income preferrers, will press for higher wages. For example, "... leisure preferrers ... may become a social group that will militate for wage increases as a way of compensating for the fact that they must work more hours than they would like" (Moses (1962, pp. 323-24)). In Figure 1 this means a movement of point C upward, raising the level of utility of any worker, "satisfied" or not. If a demand for a wage hike could be made, it would have been supported by all workers. It is, therefore, not surprising that the current focus of unions is on higher wage rates at the given standard workweek or on increases in paid time not worked (Rowan (1965, p. 33)), since they benefit all workers.

These two examples seem to suggest that no relationship could be established between the trends of collective bargaining contracts and demands by specific types of "dissatisfied" workers.

Finally let us turn to the much publicized relationship between multiple jobholding and "underemployment." It has been argued, for example, by Reynolds (1974, p. 516) that "Several million people are now holding more than one job, indicating that for them the standard workweek was already too short." Let us consider the case of the individual of Figure 1 who is "underemployed" at the given wage rate, but is at a "point of tangency" at C with the two-wage rate scheme, TDZ. In the latter situation he is not "underemployed." For that worker to moonlight, however, the same condition must be fulfilled in both cases. In Figure 1 it is the well-known requirement that the wage rate on the second job will be higher than the subjective marginal rate of substitution (between leisure and income) at C.

If "underemployment" cannot be the cause of multiple jobholding, how could one explain the frequent claims and observations which connect the
standard workweek with multiple jobholding? To understand that relationship we should first consider the general model of utility maximization subject to the money income and time constraints, for example, such as Becker's (1965). It is easy to show that within such a general model a worker will hold two jobs, i and j, only if

\[
\frac{w_i}{u_i} = \frac{w_j}{u_j}
\]

where \( u_k \) is the marginal (dis)utility from work on the \( k \)th job and \( w_k \) is the marginal wage rate on that job. A necessary (though not a sufficient) condition for a worker to be a dual jobholder, i.e., for the above equation to hold, can be shown to be that either the marginal wage rate(s) or the marginal utility(ies) will decline. The standard workweek phenomenon fulfills that condition. Once it is viewed not as limiting one's hours of work, but instead as paying a positive wage rate for standard time and a zero wage rate for overtime, it becomes clear that it is a special case of a declining marginal wage rate. As such, it is expected to encourage multiple jobholding. And as the standard workweek is shortened, the decline in the marginal wage rate occurs for fewer hours of work and the probability that the above equation will hold, i.e., that the worker will become a multiple jobholder, increases.
Footnotes

1 A notable exception in the literature, which does not have any of the faults outlined in this note, is Bronfenbrenner and Mossin (1967).

2 It is unclear why no one has attempted to make the at least equally plausible (psychological) assumption that the workers compare their situation with the one in which they are quantity takers only. If the comparison were made with a point of tangency, we would have not known a priori whether it were above or below C.

3 If the worker had enjoyed being at a "point of tangency," the employer would have been able to pay him less under such a scheme than under the regular one, or he would have been able to hire better quality workers with the same salary.

4 For a theory of human behavior which is based on the notion of an earning target see Katona (1964, especially pp. 300-01).

5 For the sake of brevity we do not deal with the alleged relationship between "overemployment" and absenteeism. It could be noted, however, that if absenteeism does not involve a reduced salary, as in the case of workers who are entitled to several "sick days" per year, all workers are expected to be absent. And if absenteeism is penalized by a lower salary, the workers can no longer be viewed as both quantity and price takers, as is assumed throughout this note.
References


