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Subsidy on Housing Facilities in Ukraine

1. Introduction

Due to low level of income for Ukrainian households many social programs are being implemented. According to official statistical data (www.ukrstat.gov.ua) average real per capita income has fallen below the official poverty level in the period between 1991 and 2003¹. This fact implies that major part of population has income below the poverty line and endures low level of life.

At the same time due to structural changes in Ukrainian economy, government started to shift the burden of payment for housing facilities from the enterprises to households, making households responsible for complete cost of their housing facilities instead of compensating up to 80% of its cost as it was in Soviet times. Thus the cost of facilities has been consistently rising since 1991, consuming bigger and bigger share of individuals' income, which is predominantly wage income according to official governmental statistical sources.

For the year 1995, 60% of the household had to spend 40-80% of their aggregate income for the payment of housing facilities. Historically this period coincided with frequent cases of debts in the payment of wages by public entities (e.g.: educational and medical sphere). As a result, there appeared a tendency for nonpayment for the facilities by Ukrainian households.

Such situation worsened the quality of services of facilities provided, that is lower temperature of central heating, scheduled instead of constant supply of hot water and electricity. These reasons urged eve more households not to pay for facilities, leading to causality between these factors resulting to marginal quality of such services and extremely low level of payments (on average in the period between 1991 and 1995 the level of payments for facilities went down to 40% in some regions with the longest average nonpayment period of 26 months²).

As a result government decided to improve the situation by introducing housing facilities subsidy program. Facilities program is the most expansive and most significant social program in Ukraine. Moreover, it's the first in-kind program, aimed at assisting the low income households.

¹ Similar data on year 2004 is not available.

² Source: www.bank.gov.ua

2. Program Description

The program was introduced in 1995. The basic idea behind the program is that the household should pay not more than 20% of its total average income (calculated for the previous 6 months). That is if the total cost of facilities paid by the household, including the rent, electricity, cold and hot water usage, central heating, natural gas and garbage collection, exceeds 20% of aggregate income of the household, governmental housing authorities can assign a subsidy to cover the exceeding amount, that is government assumes responsibility over the exceeding amount and covers it through non-cash transfer with service providers.

Eligibility of the households is determined according to the estimated aggregate income of the household. The program stipulates that each grown-up member of the household is either employed, or goes to school full time, or is registered at the local unemployment authority as an officially unemployed. Another step in determining the eligibility of a particular household involves consideration of housing conditions of the family: the area of the apartment, number of people that are registered in the apartment and compares the average area per each member of household to official housing standards (minimal area per person should be not less than 21 m²).

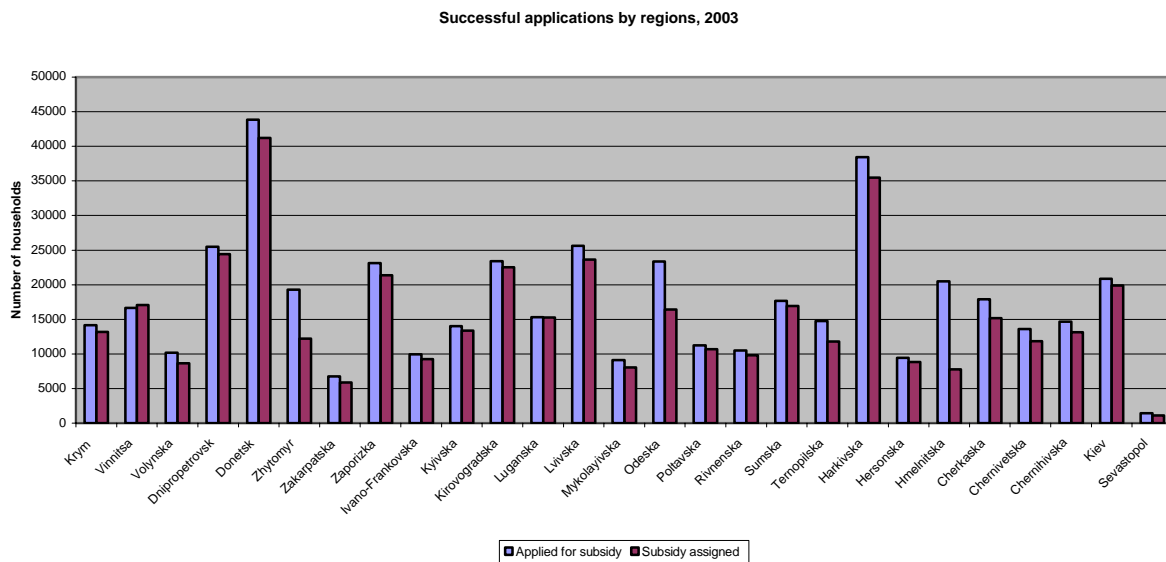
According to the methodology used by local housing administrations, the cost of facilities paid by the household depends of the last two parameters: area of the apartment and the number of inhabitants, which are fixed in the short run. Given that the subsidy is assigned each 6 months, we can assume that these variables as fixed and cannot be controlled by the individual. Moreover, as the field of housing facilities is serviced by the natural monopolies, the prices of facilities are treated as given by individuals, thus household are price takers with fixed level of consumption of utilities services implying fixed level of facilities paid.

Initially, the target group for the program consisted of pensioners whose only source of income – pension – frequently could not cover the cost of housing facilities, and low income families, especially those with 2 and more dependents (children or senior citizens). However, as Konyev³, 1996 indicates up to 80% of population was eligible for this subsidy (Rivno region in particular). At the

³ Konyev, V. (1996), 'Subsidy as a tool criminal tool', Den No. 52, p. 9.

same time the percentage of population applying for subsidy has consistently decreased since its introduction. According to Olen Bagmet, the head of Main Department of Labor and Social Protection number of eligible households dropped twice during the period of this program: in 1995 every 3rd household was eligible for the subsidy, and in 2004 every 6th household, while the growth of income for the same period comprised only 18.5%. Currently 47,700 households receive the subsidy making the total amount about 17.5 mln UAH. The average subsidy assigned to the family is 19-20 UAH in summer and 70-80 in winter⁴. As stated in the article, the reduction of the number of eligible households is not directly related to increase in income. Instead, the program was modified dramatically, making the process of obtaining the subsidy more time consuming and requiring more documents.

Time-series data on the number of people applying for the subsidy is not available Different sources only indicate the reduction in this number within the sample period. But the percentage of successful applicants stays relatively constant, as Bagmet (2004) notes. As an example, we may consider regional data for 2003.



Graph

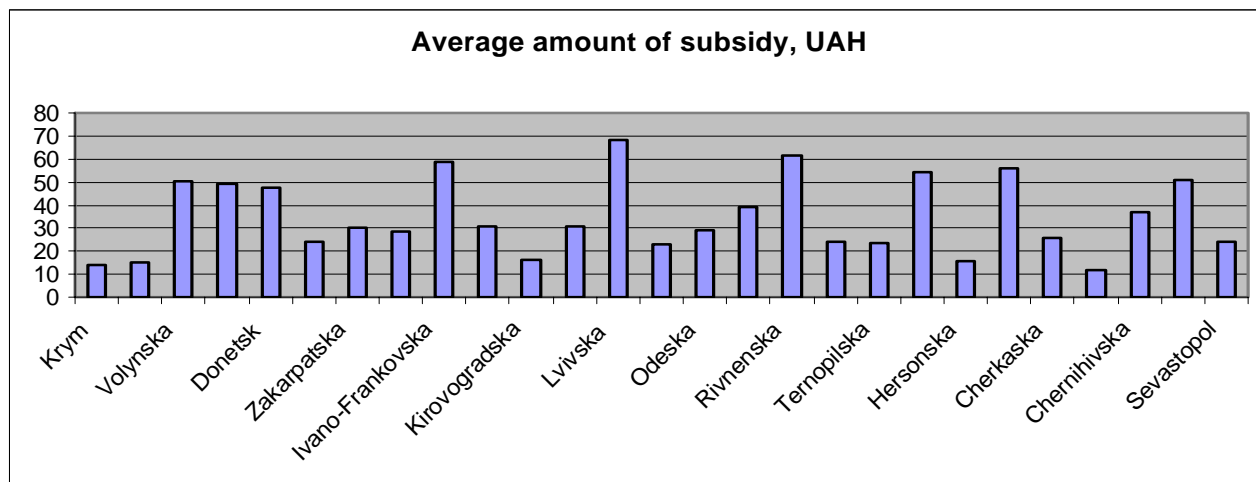
2.1 Successful applications for subsidy by regions, 2003⁵

Graph 2.1 gives the comparative picture of the numbers of applications for housing subsidy in different regions of Ukraine. As we observe, the greatest number of applications occurs in Donetsk

⁴ 'Den', 2004, No. 151, p.5

⁵ Website of Ministry of Labor and Social Policy.

and Harkivsk regions, which is attributed to the biggest number of population in these regions. However, valuable piece of information that can be drawn from these data is that on average about 88% of applications are successful, with the lowest 38% in Hmel'nitska oblast and the highest 98% in Luganska oblast.



Gr

aph 2.2 Average amount of subsidy assigned in 2003

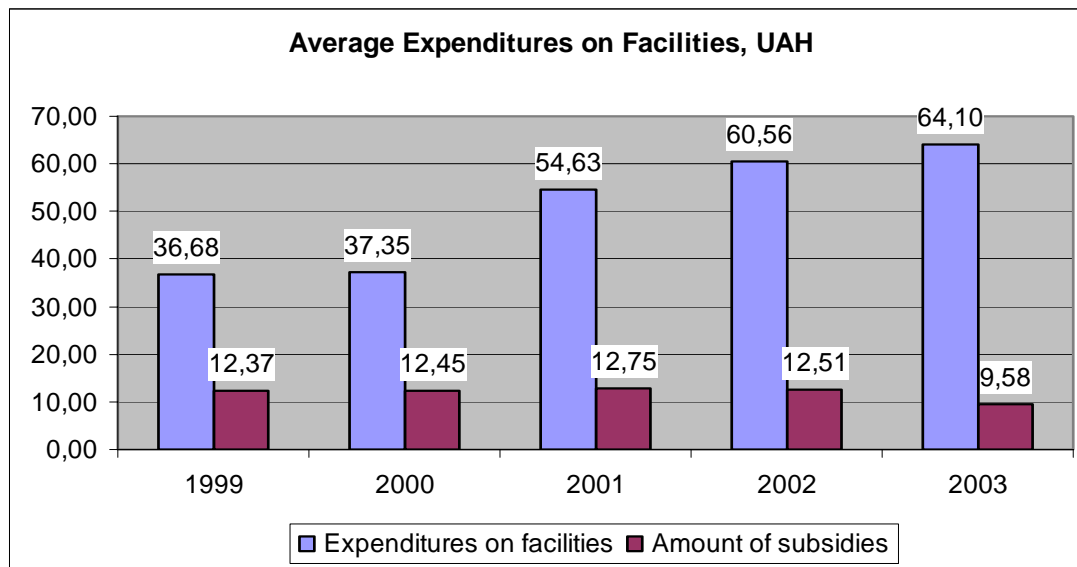
Likewise, from Graph 2.2 we may observe that the average amount of subsidy assigned for a particular household varies substantially between the regions. The highest level of subsidy (68 UAH) is assigned in Lvivska oblast and the lowest (11.8 UAH) in Chernivetska oblast.

Various sources indicate that the process of obtaining the subsidy may include numerous incidents of criminal activity. Income documents may be forged or contain lessened amounts of income in order to obtain bigger subsidy: in Zhytomyr every 3rd subsidy is assigned criminally⁶. Random survey of 65 cases out of 16000 conducted by KRU defined the amount of illegal subsidies assigned totaling 2500 UAH. As on 0.4% of cases was analyzed, the actual amounts of misusing the program can be significant. Amendments to the program stipulate that the amount of subsidy assigned illegally should be returned in double without the right for further application to participate in the program.

However, we believe that misuse is just one drawback of the program. The real problem is that the program is not designed efficiently. As stated above, the actual amount of subsidy assigned is about 20 UAH. Considering the time required for gathering all necessary documents and waiting in

⁶ Source: www.ztown.info

lines in the housing administrations many individuals refuse to participate even if they are eligible for the program. As a result the actual participants of the program are pensioners, who do not value their time too high and are ready to wait as long as it takes, and individuals, who are able to forge income documents.



Graph 2.3 Average Per Capita Expenditures on Facilities, UAH

Moreover, as Graph 2.3 indicates, the average amount of subsidy assigned to the households versus the actual payment decreased. This tendency shows a controversy: as the prices on facilities have gone up more than twice during the period of the program, and the real income rose only by 18.5% theoretically the subsidized amount is expected to increase, which is not supported by empirical data.

The problem is in the design of the program. As will be shown in the next part of the paper, individuals may get worse off after participating in this program. The effort amount spent of gathering all necessary documents may outweigh the benefits received through the program. Thus we suspect that government is using a queuing strategy: only those who really need the subsidy will end up participating in the program.

3. Theoretical modeling

Our analysis will rely on the theory of consumer choice. In order to analyze optimal choice of a representative household in “Other goods and services – Facilities” and “Effective income – Leisure” consumption spaces we will make an important assumption: level of expenditures on facilities is fixed for a given household. We believe that under current ways of estimation and pricing (for instance, expenditures on heating depend only on the number of inhabitants but not on the real amount of heat consumed) this proposition sounds rather realistic. In other words, we rule out the possibility of changing the apartment (and therefore automatically the level of expenditures on facilities) in the short run. Moreover, we assume that price for a unit of these services is normalized to one.

First, we look at household’s consumption choice in “Other goods and services – Facilities” space and figure out how the introduction of the program will affect it. As it was stated before, the program will influence only those households, for which $I < 5 F^*$ (where I – per period income of household; F^* - expenditures on facilities it faces (fixed). As Figure 3.1 clearly indicates, welfare of the household is higher after it takes part in the program ($U_2 > U_1$).

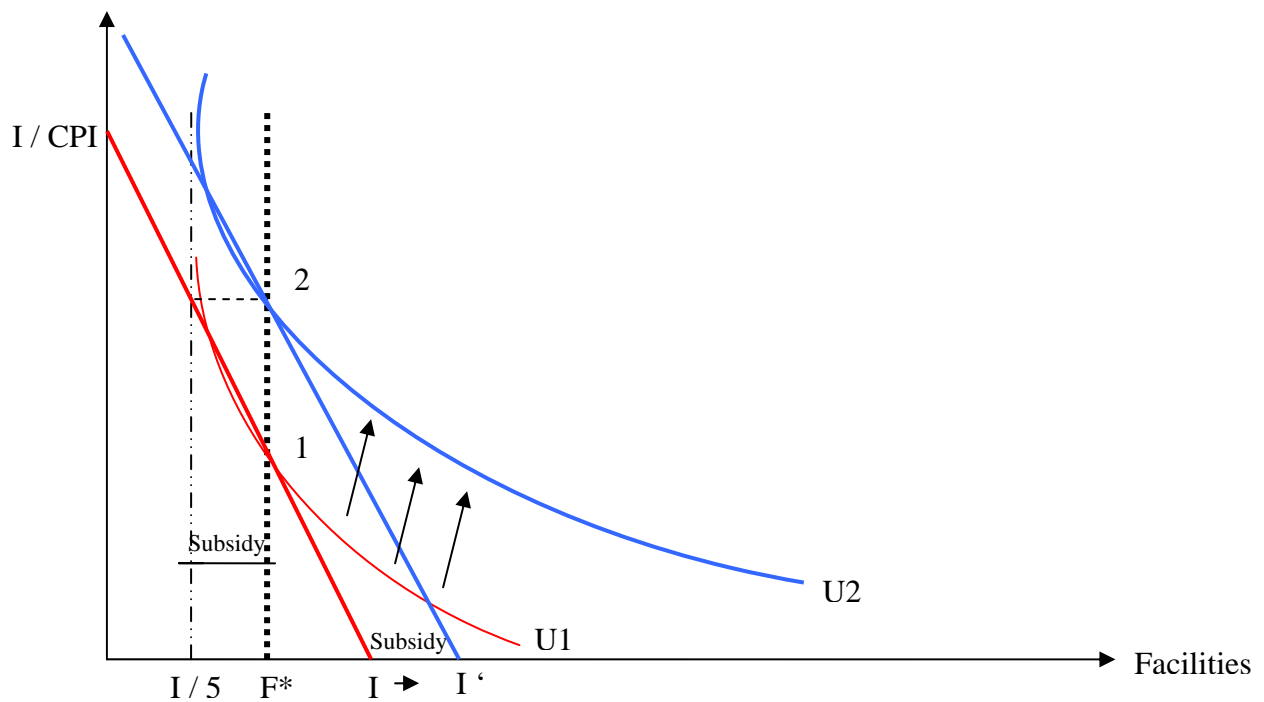


Figure 3.1 Initial and final consumption bundles of a representative household participating in the program.

However, note that in both cases it consumes the same level of F^* , in both point 1 and 2 corresponding indifference curves are not tangent to given budget constraints. These points are not optimal indeed due to our initial assumption. So, though welfare improvement for the target group is achieved, we must admit that a program focusing on making F^* a choice variable for a household could in principle do better.

Second, let's look at the relationship between changes in income and level of welfare for a representative household participating in the program. Figure 3.2 examines changes to household's welfare brought about by changes in per period income. Since, the amount a participating household pays for facilities varies together with income it receives, welfare is directly affected. There is no ambiguity, an increase in income will always lead to higher welfare level and vice versa.

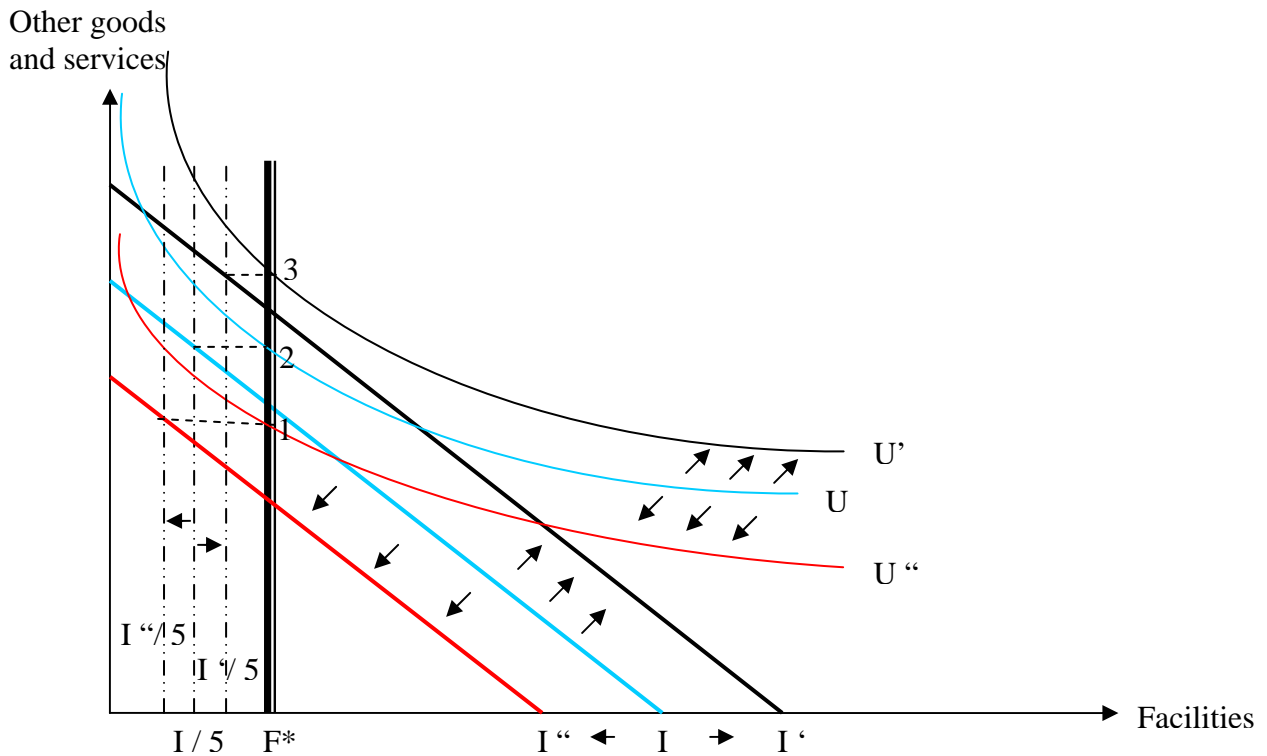


Figure 3.2 Relationship between changes in income and level of welfare for a representative household participating in the program.

Third, we need to consider the possibility of household changing its level of labor effort in response to insensitive imposed by the program. Without loss of generality, let's assume that before the program effective income is determined solely by the number of hours worked:

$$I = L \cdot w - F^*$$

where: L – number of working hours,

w – wage per hour,

F^* – expenditures on facilities.

Thus we can infer that after the household decided to participate in the program its effective income can be estimated as follows:

$$Y = \begin{cases} I - 0.2I = L(1 - 0.2)w = 0.8wL, & \text{if } I < 5F^* \\ I - F^* = Lw - F^*, & \text{if } I > 5F^* \end{cases}$$

In “Effective income – Leisure” consumption space this equation can be represented as two line segments. Here we will consider two possibilities: almost costless document collection and a time consuming one.

In the first case, we have the same result as above, i.e. participation in the program is unambiguously welfare improving. The effect on labor supply is not clear. Both positive and negative changes in labor effort are possible ($L' > L_{\text{initial}} > L''$). See Figure 3.3.

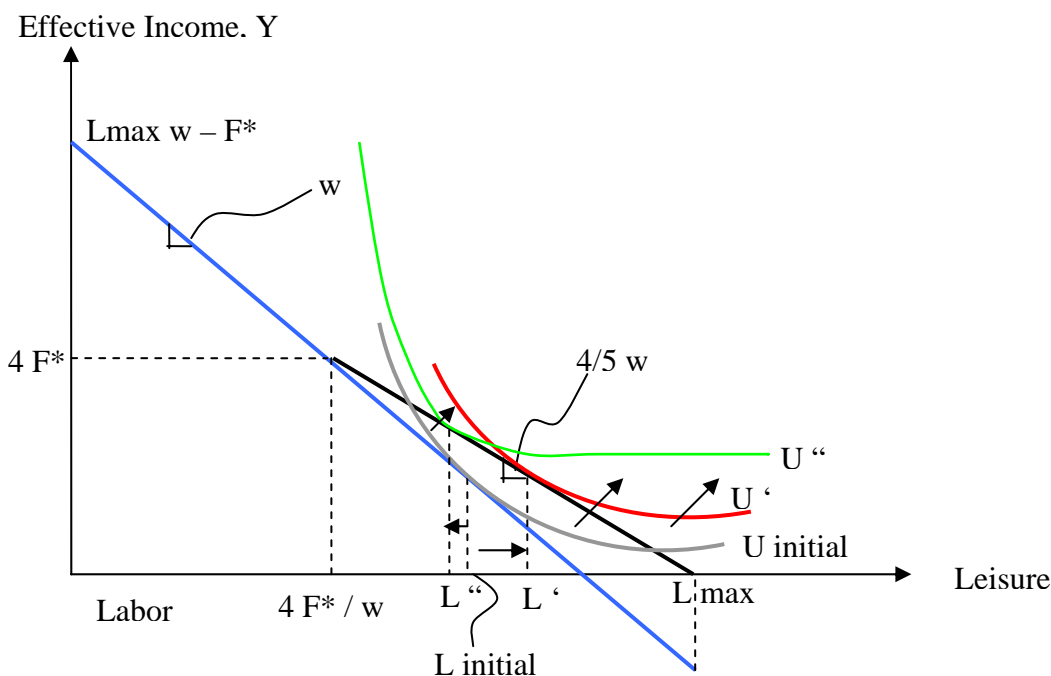


Figure 3.3 Choice of labor effort under assumption that cost of gathering all the appropriate documents is negligible.

However, if we assume that cost of gathering all the appropriate documents is significant we will find out that ambiguity that characterizes changes in level of labor supply remains, nevertheless, the above finding that the program is unambiguously welfare improving is no longer universally valid. Figure 3.4 shows the special case where household (eligible for the program) will refuse to participate.

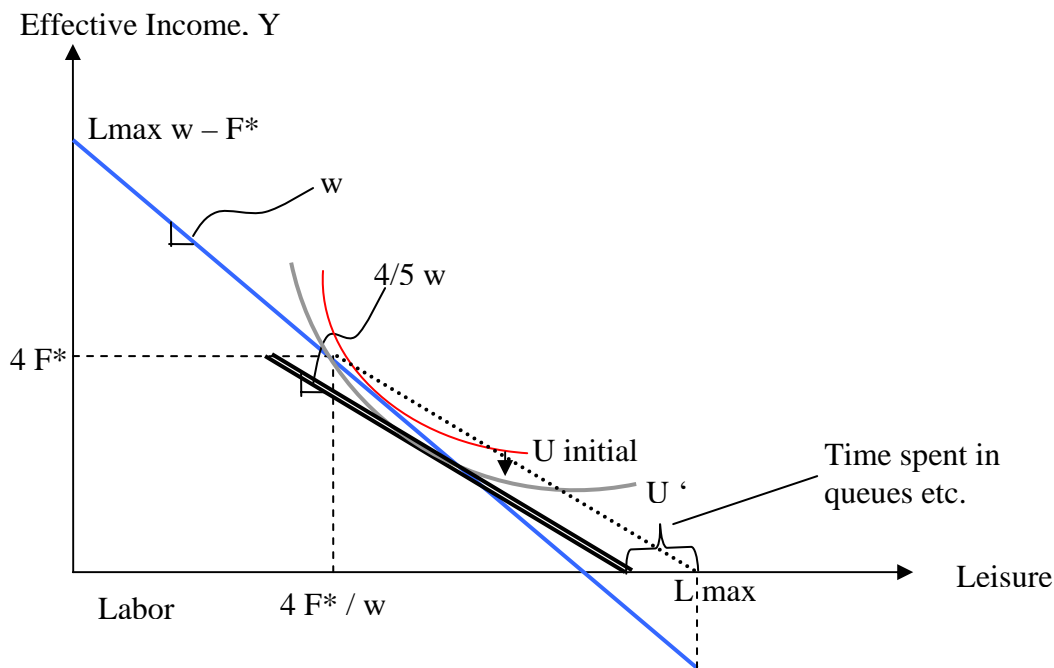


Figure 3.4 A possible welfare implication of the program under assumption that cost of gathering all the appropriate documents is significant.

Thus, our findings enable us to stress the fact that the program seems to have limited implication on those who highly value their leisure time. Therefore, additional features of the program that will reduce time needed to collect all necessary documents will increase number of participants, increase welfare of participants, and, hence, increase expenditures.

4. Conclusions

The analysis of the program of subsidizing individual expenditures of housing facilities has shown that the program is designed inefficiently. The need for the program was justified by the big amount of debts of individual households for housing facilities, caused by low income level, debts in wage payments and the low quality of services provided. These non-payments led to even worse quality of services provided to individuals.

Thus government decided to compensate any cost of facilities exceeding 20% of aggregate income of the household, introducing this first in the history of Ukrainian economy in-kind transfer program. However, as the income level in Ukraine is low, 80% of the population were eligible to participate in the program. Here is the drawback of the program: it is designed in a way not to assist all individuals who qualify to participate (meet all requirements and have low income). As numbers indicate, big fraction of individuals (especially working individuals) end up deciding not to participate in the program as the time and effort loss due to gathering all necessary documents outweigh the benefit received through the program (average amount of subsidy in about 20 UAH).

This leads us to the conclusion that government intended to discriminate potential beneficiaries of the program using queuing strategy, making individuals wait in lines first to obtain all the documents and then to submit these documents to housing authorities. Thus mostly pensioners appear to be the only group of individuals, who do not value their time highly enough, they became the main beneficiaries of the program.

But the biggest problem is that individuals cannot actually choose the amount of facilities consumed. Even if some households decide to provide some services for themselves (e.g.: heating) government prevents them by imposing strict regulations. Also, charges for facilities are calculated according to standards and not the actual amount consumed.

And last but not the least problem is caused by the fact that market for public facilities is operated by natural monopolies, as the industry shows increasing returns to scale and frequent rises in prices for services cannot be prevented by consumers.

As there is still the need to provide assistance to low income working individuals we suggest that the program is modified to lessen the bureaucratic load of the program so that more people participate in the program. This will lead to significant reduction in debts for facilities and contribute to better quality of the services provided and increase the allocative efficiency between the households, increasing the welfare of the whole society.