

## **“WORK FOR ALL” — PROBLEMS IN THE WELFARE STATE OR THE CONTRIBUTION BY JAN SERCK-HANSEN**

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Presented by U. Ennuste

Received July 11, 1994; accepted August 15, 1994

This paper examines a contribution by Jan Serck-Hansen into economic analyses of labor markets he has made in his lecture “Work for All”, 1976. This concerns the admission of negative income tax to regulate labor supply.

I would like to make a contribution to the memory of my former colleague Serck-Hansen, who died 7 years ago<sup>1</sup> at the age of 55 from a brain tumor. In the spring 1976, he gave a lecture to his former students (in the course of what we call an after-exam education) in Norway about the labor market<sup>2</sup>.

In that lecture he started out with pointing at a newly printed parliament report<sup>3</sup>. This was at the beginning of the Norwegian oil era and the dreams about what we could do with the oil money was probably unrealistic. But the idea was clear. The oil money should give us a better future. It should give us “work for all”<sup>4</sup>.

Among groups not necessarily registered as unemployed there is a strong desire to get into the labor market, to be paid for one’s work. This is not a question of employment, but of how many people it is practically possible to bring into the labor force, for instance, handicapped people of various kinds, various groups of women, young people and old people.

Serck-Hansen, as a typical academician, looked for a solution for this; he writes:

In this market-game there are

1. parameters to be determined by the authorities;
2. the way the private market is organized. This last point can be influenced by oligopolistic tendencies, different limits for demand and supply and negotiation strategies.

In a situation of too little participation in the labor force, the authorities should build up a theory to explain why such a situation exists. Without such a theory, it is impossible to explain anything at all. My feeling is that in this report the authors have not done that and they are therefore not able to understand what is going on.

<sup>1</sup> He died on 3, January, 1987. He was born on 9, July, 1931. He graduated in the spring of 1957 and got his doctoral degree in 1970. He was promoted to full Professor in 1973 from the University of Oslo, the place he was connected with all the time. He visited twice the Estonian Academy of Sciences.

<sup>2</sup> “Arbeid for alle”, (Work for all), unpublished manuscript dated 8/10–76.

<sup>3</sup> Stortingsmelding nr. 50, 1974–75, (Parliament report no. 50 1974–75).

<sup>4</sup> In this parliament report, the headline was “Work for All” (Arbeid for alle).

This stresses some important points in the welfare state. Only a few years ago (in the late seventies, before the budget crisis), our central insurance organization did not permit having any income in case of a person with a disability pension. You know what politicians are. If a person has obtained a disability pension, this means that he is not able to work. Today we have observed in Norway and in many other western welfare states, an increasing number of people getting disability pensions on diagnoses that cannot be established by a medical doctor. The number of people on disability pension is increasing all the time, and especially in case of those under the 80s, and this is a heavy burden on the public budget.

What kind of motives was behind Serck-Hanssen's way of reasoning? What he meant by "work for all" was how it should be possible for all people to belong to the labor force.

Let us now move over to the theory, and let me first make it in the general way. Below we have a model where  $U$  is the utility level,  $w$  is the wage,  $Y$  is income and  $h$  is the labor supply.  $\partial U/\partial Y$  is the marginal utility of money and  $\partial U/\partial h$  is the marginal disutility of work and it is negative, since the wage is positive.

$$U = U(Y, h) \quad Y = w \cdot h,$$

$$L(Y, h) = U(Y, h) - \lambda(Y - w \cdot h),$$

$$\frac{\partial L}{\partial Y} = \frac{\partial U}{\partial Y} - \lambda = 0, \quad \frac{\partial L}{\partial h} = \frac{\partial U}{\partial h} + \lambda \cdot w = 0.$$

The next is to make a numerical example as a base for our figures. We take

$$U = Y + 2 \cdot h - 0.25 \cdot h^2,$$

$$w = 1 \Rightarrow h = 6, \quad w = 2 \Rightarrow h = 8,$$

$$w = 3 \Rightarrow h = 10, \quad w = 4 \Rightarrow h = 12.$$

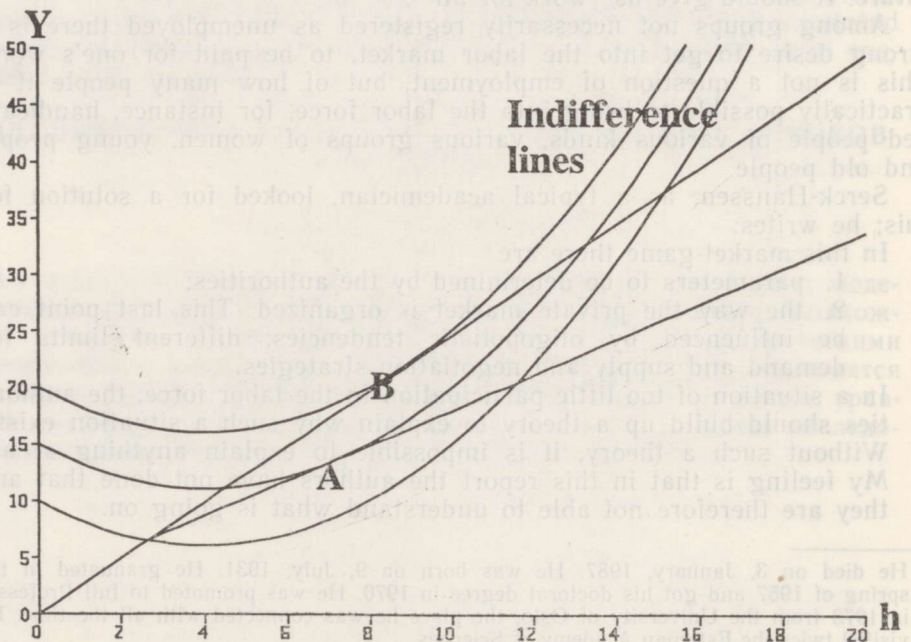


Fig. 1. Income  $Y$ , labor supply  $h$  and indifference lines of utility  $U$ .

In Fig. 1 *A* stands for the equilibrium after tax has been exempt, and *B* for the equilibrium without tax. Now we introduce a broken budget line *C*, *D* and *E*, and introduce a new concept, namely some kind of pension receiving which the individual is not supposed to work.

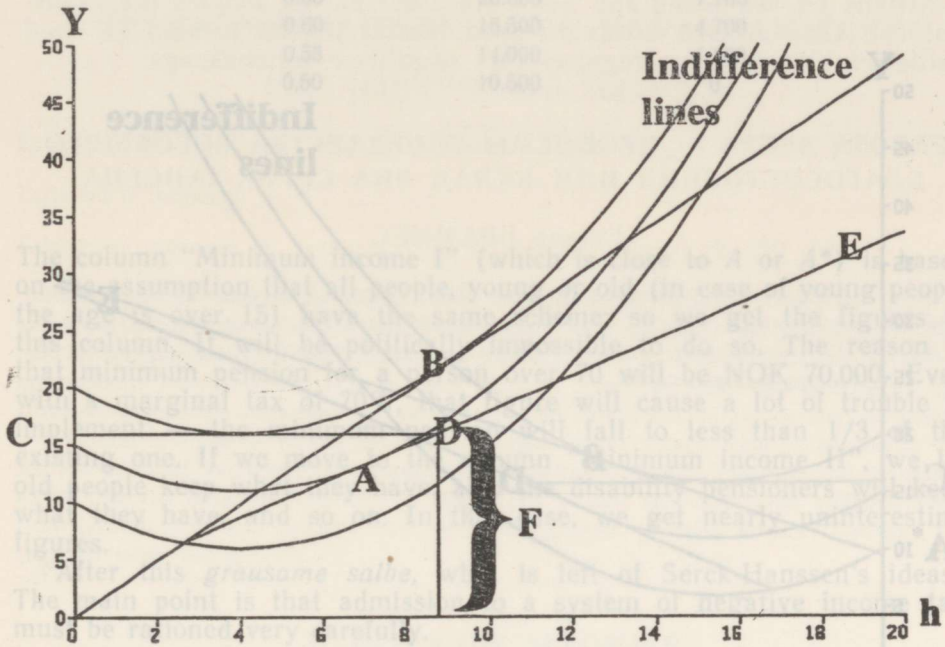


Fig. 2. Work free pension *F*.

In Fig. 2, the work-free pension is marked *F*, and we can see that the individual in question will equalize the utility level without tax, and will choose not to work if there is any tax involved.

This person will have the choice between two alternatives:

1. Pension, or 2. Equilibrium with some tax and he will choose not to work.

This line of reasoning is central in Serck-Hanssen's paper. The broken budget line *C—D—E* denotes the case when the person will choose not to work, at least not to be employed in paid work.

As a utility maximizing person he is, in his own interest, engaged in some activities, until he reaches the bottom of his disutility curve, where the broken budget line is a tangent to the highest possible indifference curve. Note that in our special case we have suggested that he should work 4 hours a day without payment. He should be engaged in some hobby activities and should not be engaged in paid work, since this is an assumption in the pension scheme. But Serck-Hanssen's reasoning does not stop here. He suggests something more in this paper under the headline "Work for All". His main line of reasoning goes in the direction of what we in welfare theory have learned to label "Negative Income Tax". That is why we introduce now a new approach.

$$U(Y, h) = Y + 2 \cdot h - 0.25 \cdot h^2,$$

$$Y = (1 - t) \cdot \omega \cdot h + A,$$

$$U(h) = [(1 - t) \cdot \omega + 2] \cdot h + A - 0.25 \cdot h^2,$$

$$\frac{dU}{dh} = (1-t) \cdot \omega + 2 - 0.5 \cdot h = 0,$$

$$Y = 2 \cdot (1-t) \cdot \omega \cdot [(1-t) \cdot \omega + 2] + A,$$

$$h = 2 \cdot [(1-t) \cdot \omega + 2].$$

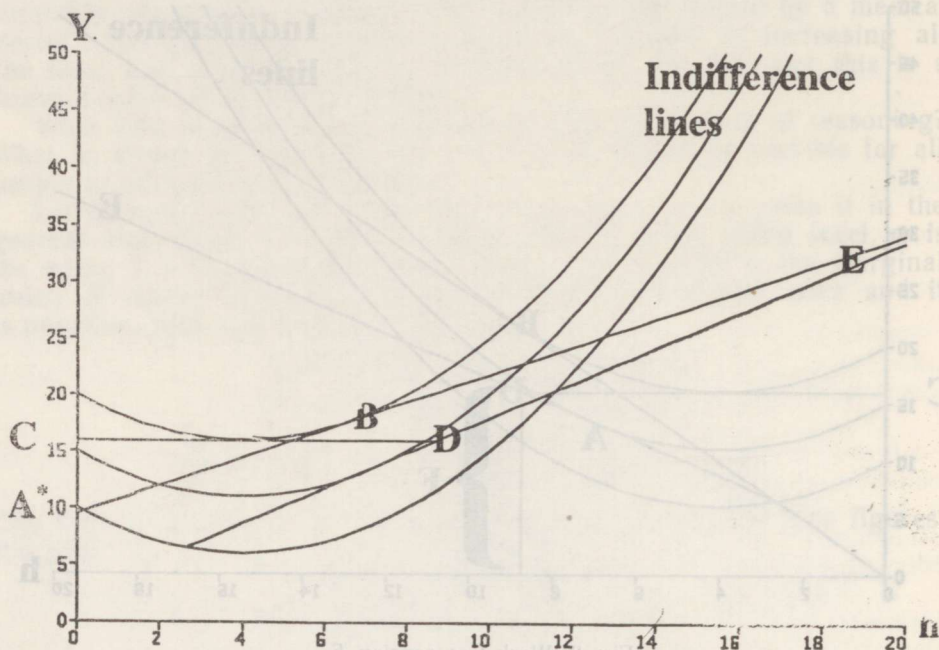


Fig. 3. Minimum income  $A^*$ .

In this model, a person who has chosen not to take paid work, will receive an amount  $A$  from the authorities. The point is that the person, in his self interest, will choose to take paid work. That is shown in Fig. 3. The budget line in question will go between  $A^*$  and  $E$ . The point is that he will repay some of his pension-money to the authorities.

Fig. 3 has actually been simplified by removing some of the unnecessary lines. We recognize only the broken budget line  $C-D-E$  and the negative income tax-budget line  $A^*-E$ .

I have published a paper on "minimum income"<sup>5</sup>, a concept that is fairly close to negative income tax. Minimum income is rather close to the size of  $A$  in the model equation set, or close to  $A^*$  in Fig. 3. In this connection I took GNP, and divided it by the size of the population, reaching a figure of NOK 160.000. The reason for this is to built up a feeling of the magnitude of numbers in Norway to be used in the following.

If we introduce a scheme of negative income tax, the following Table will first give you marginal tax<sup>6</sup>.

<sup>5</sup> 'Rehabilitation problems — some reactions from an economist (Attføringsproblematikk — en økonoms reaksjoner). — Norsk Attføringsforums Kontaktorgan, NA-forum nr. 1, 1988, page 4—14. The numbers for today.

<sup>6</sup> The model is rather simple. We assume a proportional income tax. This is not far from correct. On paper, the Norwegian income tax will be progressive, but reality shows differently.

Marginal tax	Minimum income I	Minimum income II
0.70	22.500	10.500
0.65	20.000	7.700
0.60	16.500	4.700
0.55	14.000	1.800
0.50	10.500	0

The column "Minimum income I" (which is close to  $A$  or  $A^*$ ) is based on the assumption that all people, young or old (in case of young people the age is over 15) have the same scheme; so we get the figures in this column. It will be politically impossible to do so. The reason is that minimum pension for a person over 70 will be NOK 70.000. Even with a marginal tax of 70%, that figure will cause a lot of trouble to implement — the minimum pension will fall to less than 1/3 of the existing one. If we move to the column "Minimum income II", we let old people keep what they have, also the disability pensioners will keep what they have, and so on. In that case, we get nearly uninteresting figures.

After this *grausame salbe*, what is left of Serck-Hanssen's ideas? The main point is that admission to a system of negative income tax must be rationed very carefully.

If we look at the people on disability pension, the idea is that they should take part in a negative income tax scheme. It is important that the rules for getting a disability pension should not be influenced by this. Which means that  $A$  (or  $A^*$ ) should be around NOK 70.000 and the main argument for the system would be that the pensioners would repay part of their pension to the authorities and thereby improve the budget.

For old people over 70 this is not a problem. They pay taxes under the normal tax scheme and thereby repay part of their pension<sup>7</sup>.

Yet there is one group of people who have a system in the neighbourhood of negative income tax. The group is the Norwegian artists. They have a constant marginal tax of 65% and  $A$  was in 1991 NOK 111.378. But the administration have made a mess of it. First, artists belong to the general tax system. Secondly, they have modified it, assuming that an artist's personal income exceeds the minimum income, so that he would meet the marginal tax of 65%. It should be mentioned that for the artist also the negative income tax system should be strictly rationed.

This is not all the points Serck-Hanssen is making in his article «Work for All». But the points I have picked out will even today, much more than when Serck-Hanssen actually wrote it, be a central concern for the authorities. As I have mentioned earlier, the number of people on disability pension are a heavy burden on public budgets. Remember now the setting of Serck-Hanssen's paper. He talked to his former students and felt obliged to apply an economic theory (not too complicated), in a way to have a practical value. I think he succeeded in this respect.

<sup>7</sup> Administrative, it is no problem to find out if a person is over 70 or not.

## «TÖÖD KÕIGILE» — HEAOLURIIGI PROBLEEMID ENK JAN SERCK-HANSSENI PANUS

Gunnar BRAMNESS

Artiklis on vaadeldud Jan Serck-Hansseni panust tööturu majandusanalüüsi. Oma mõtted esitas ta 1976. aastal peetud loengul ja need käsitlevad tööpakkumise reguleerimist negatiivse tulumaksuga.

## «РАБОТА ВСЕМ» — ПРОБЛЕМЫ ГОСУДАРСТВА ВСЕОБЩЕГО БЛАГОСОСТОЯНИЯ ИЛИ ВКЛАД ЯНА СЕРКА-ХАНСЕНА

Гуннар БРАМНЕС

В статье рассматривается вклад Яна Серка-Хансена в экономический анализ рынка труда. Свои мысли он высказал в лекциях 1976 г., посвященных проблеме регулирования предложений на труд негативным подоходным налогом.