

STOCKHOLM UNIVERSITY
Department of Economics

Course name: Labour market economics
Course code: EC2102
Examiners: Ann-Sofie Kolm and Peter Skogman Thoursie
Number of credits: 7,5 credits
Date of exam: Friday, 17 January, 2014
Examination time: 3 hours

Write your identification number and the number of the question on every cover sheet. Do not write answers for more than one question in the same cover sheet. Explain notions/concepts and symbols. Only legible exams will be marked. No aids are allowed.

The exam consists of 6 questions. One can get 100 points in total. For the grade E 40 points are required, for D 50 points, C 60 points, B 75 points and A 90 points. Question 1 is a credit question. If you received 10 credit points on your assignments, then you should not answer question 1.

If you think that a question is vaguely formulated: specify the conditions used for solving it.

Results will be posted January 31, 2014 at the latest

Good luck!

Q1. (10 points) **This is a credit question which should only be answered if you have NOT received 10 credit points on your assignment.** Use Marshall's rules to discuss four factors which are likely to generate elastic labour demand curves in a particular industry?

Q2. (20 points) Use the basic static model of individual labour supply to explain how an income dependent transfer is likely to affect labour supply. More specifically, assume that the transfer S is received when no income from work is reaped, and that the transfer then falls with the rate z as labor income increases. That is, $Transfer = S - zwh \geq 0$, where w is the hourly wage and h is the number of work hours. Show how the budget line looks prior to the income dependent transfer, as well as how it looks ex post. Discuss both how labour supply on the intensive margin (hour decision) and the extensive margin (participation decision) is affected by the income dependent transfer. Moreover, illustrate and discuss the special case of an individual being indifferent between working a few hours and working a large amount of hours as a consequence of an income dependent transfer. Motivate your answer.

Q3. (20 points) How is a more generous unemployment benefit likely to affect wage setting, search effort among unemployed job searchers, the reservation wage, and the rate of unemployment? Motivate your answer. What do we know from the empirical research about the impact of more generous unemployment benefits on the duration of unemployment?

Q4. (20 points)

- (i) Suppose all workers have the same preferences represented by

$$U = \sqrt{w} - 2x$$

where w is the wage and x represents whether the job involves a dirty work environment or not. There are only two types of jobs in the economy, a clean job ($x = 0$) and a dirty job ($x = 1$). Let w_0 be the wage paid by the clean job and w_1 be the wage paid for doing the dirty job. If the clean job pays \$36 per hour, what is the wage in dirty jobs? What is the compensating wage differential? (10 points)

- (ii) Explain intuitively why it is difficult to empirically find evidence this theory. (10 points)

Q5. (20 points)

Suppose that you access to information which quarter an individual is born, how many years the individual has been in school and the wage rate at the age of 40. Due to the legislation discussed in Angrist & Krueger (1991) those who are born in the first quarter have less years of schooling on average compared to those who are born in the other quarters.

Consider the following definitions:

$QB = 1$ if the individual is born in the first quarter, 0 otherwise

Wage = hourly wage rate

Sch = Years of schooling

The following estimations are performed

- $Wage = 150 + 6Sch$, implying that one additional year in school increase the hourly wage rate by 6 SEK
- $Sch = 16 - 0.2QB$, implying that those who are born in the first quarter of the year have 0.2 less years of schooling compared to those born in the 2nd to 4th quarter of the year
- $Wage = 140 - 2QB$, implying that those who are born in the first quarter of the year have a 2 SEK less wage rate on average compared to those who are born in the 2nd to 4th quarter of the year

Explain why the return to schooling of 6 SEK is potentially biased. Calculate the causal return to schooling based on the estimations presented above (i.e., calculate the IV-estimate). Give the intuition of this strategy and why it solves the selection problem.

Q6. (10 points)

- (i) Explain intuitively why both taste based discrimination and statistical discrimination can imply that two individuals from two different groups, say men and women, can receive different wage levels even if they are equally productive. (5 points)
- (ii) Explain why it is difficult to empirically detect discrimination. (5 points)