

UNIVERSITY OF OSLO
DEPARTMENT OF ECONOMICS

Exam: **ECON4715 – Labour Economics**

Date of exam: Friday, December 16, 2016

Grades are given: January 9, 2017

Time for exam: 14.30 p.m. – 17.30 p.m

The problem set covers 5 pages (incl. cover sheet)

Resources allowed:

- No written or printed resources – or calculator - is allowed (except if you have been granted use of a dictionary from the Faculty of Social Sciences)

The grades given: A-F, with A as the best and E as the weakest passing grade. F is fail.

Final Exam ECON4715 – Labour economics

This exam has 4 questions, with in total 16 sub-questions.

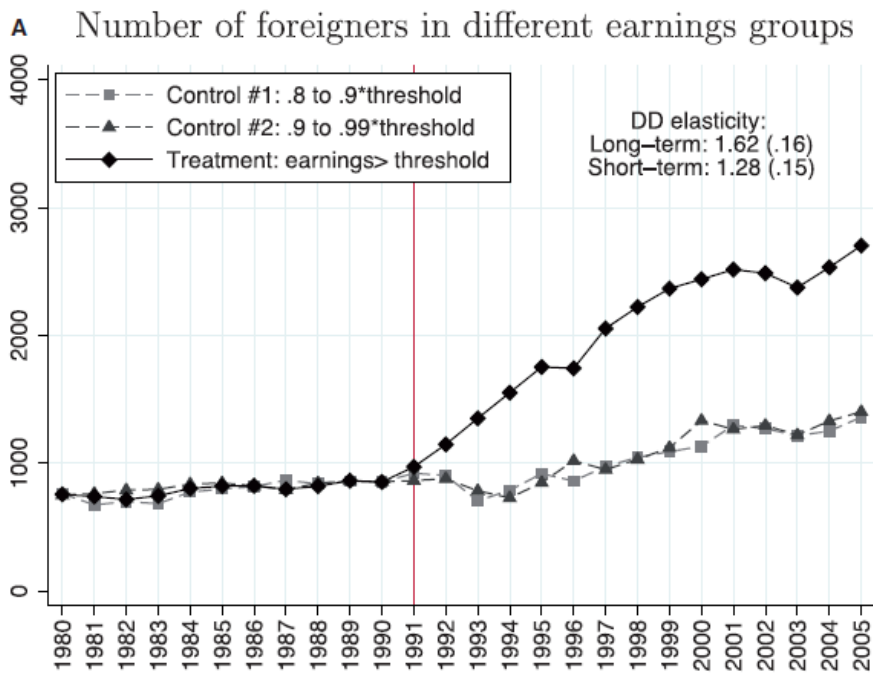
When answering the questions on the exam you should be brief and to the point!

Make sure to write clearly. Difficult to decipher answers will not be counted!

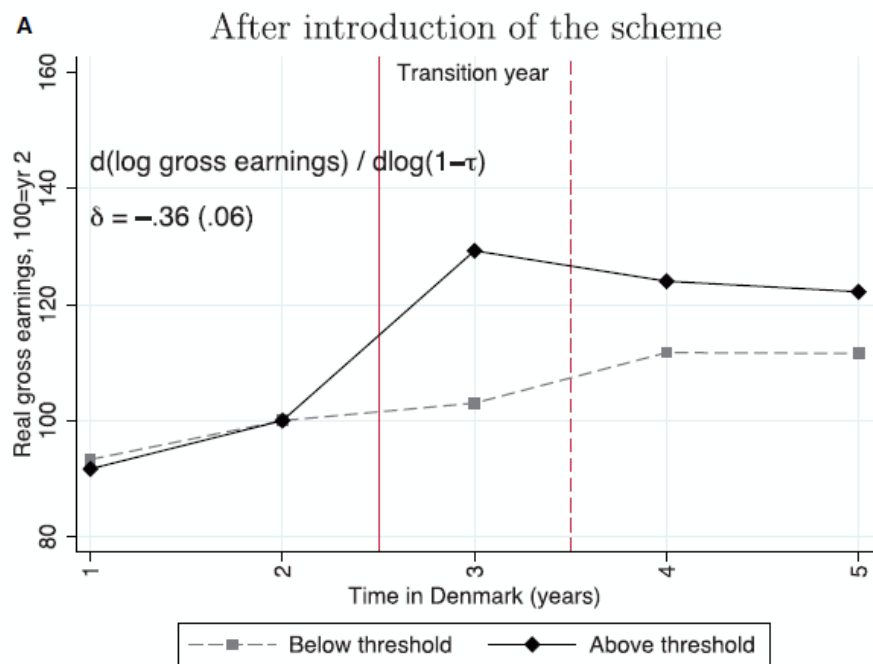
1. In this question you have to indicate whether you think the statement is true or false and explain why. You do not get any points if you only state whether the statement is true or false.
 - (a) Assuming consumption and leisure are normal goods, hours worked will fall when the wage increases if the income effect dominates the substitution effect.
 - (b) In order to use schooling as a signal, the signal must be more costly for low-skilled workers than for high-skilled workers.
 - (c) When the government imposes a payroll tax on workers, the effects are identical to the effects had the government imposed the tax on employers.
 - (d) If in the principal-agent model the principal can only offer a contract $w = b \cdot y$ (instead of $w = s + b \cdot y$) then the firm will set b strictly less than 1.

2. Becker's theory of taste based discrimination
 - (a) Explain whether the presence of employer taste based discrimination always results in a wage differential between workers that belong to the minority (discriminated) group and workers that belong to the majority group.
 - (b) Explain the consequences of employer taste based discrimination for the composition of the workforce of firms.
 - (c) Explain the long-run consequences of employer taste based discrimination.
 - (d) Explain whether employee taste-based discrimination always results in a wage differential between workers that belong to the minority (discriminated) group and workers that belong to the majority group.

3. This question is about: H. J. Kleven, C. Landais, E. Saez, and E. Schultz: *Migration and Wage Effects of Taxing Top Earners: Evidence from the Foreigners' Tax Scheme in Denmark*, *The Quarterly Journal of Economics* (2014) 129 (1): 333-378. The paper studies a preferential tax scheme for foreign top earners in Denmark, who were subject to a low 30% tax rate for a maximum of three years if they earned more than the threshold \bar{z} .
- (a) Figure 1a is taken from the paper. Under what assumptions does this figure show that there was a positive causal impact of the scheme on migration?
 - (b) What is the predicted effect of the tax scheme on the labor supply of people who earn less than \bar{z} and who earn more than \bar{z} according to the neoclassical labor supply model?
 - (c) What is the predicted effect of the tax scheme on the labor supply of people who earn less than \bar{z} and who earn more than \bar{z} according to the matching frictions model where the wage is determined by Nash bargaining?
 - (d) Figure 1b provides some evidence on the wage profiles of foreign workers in Denmark. Does this support the neoclassical labor supply model or the wage bargaining model?
4. This question is about D. O. Staiger, J. Spetz and C. S. Phibbs, *Is There Monopsony in the Labor Market? Evidence from a Natural Experiment*, *Journal of Labor Economics* (2010) Vol. 28. no 2.
- (a) Explain the difference in the determination of wages between the competitive firm and a monopsonist.
 - (b) The paper investigates whether mandated changes in the wages for nurses at Veteran Affairs (VA) hospitals affect wages for nurses at other hospitals in the same area. Table 1 provides the main results. Does this provide evidence for monopsony power in the market for nurse labor? Why or why not?
 - (c) The paper reports an estimated short run labor supply elasticity equal to 0.1. Explain whether this estimate indicates the presence of a high or a low level of monopsony power.
 - (d) Is the long-run labor supply elasticity likely to be larger or smaller?
 - (e) What are the welfare implications of a monopsony?



(a) Kleven et al. (2014): Figure III



(b) Kleven et al. (2014): Figure VII

Figure 1. Figures from Kleven et al. (2014)

Table 1. Table from Staiger, Spetz and Phibbs (2010)

Table 2
Reduced-Form Estimates of the Impact of VA Wage Changes on the
Wage Changes in Non-VA Hospitals, 1990–92

Independent Variable	(1)	(2)	(3)	(4)
Change in log wage of RNs at the nearest VA (1990–92)	.128 (.033)	.178 (.043)	.137 (.077)	.190 (.106)
Change in log wage of RNs at the nearest VA (1990–92) × dummy if > 15 miles to VA		-.078 (.040)	-.105 (.042)	-.139 (.082)
Change in log wage of RNs at the nearest VA (1990–92) × dummy if > 30 miles to VA		-.049 (.037)	-.035 (.056)	-.100 (.098)
Dummy if > 15 miles to VA				.008 (.012)
Dummy if > 30 miles to VA				.013 (.014)
MSA dummies?	No	No	Yes	Yes
R^2	.029	.044	.274	.276
No. of observations	1,179	1,179	1,179	1,179