

May/June Examination Period 2022-23

ECN356 Labour Economics

Duration: 2 hours

**YOU ARE NOT PERMITTED TO READ THE CONTENTS OF THIS QUESTION PAPER UNTIL
INSTRUCTED TO DO SO BY AN INVIGILATOR**

Answer ALL questions

Section A carries 40 marks and Section B carries 60 marks.

Provide an explanation for all your answers. Credit is given for the quality and clarity of your explanations and not just for having the correct answer. But be as concise as possible: there is no gain from lengthy explanations.

You are permitted to bring 20 x A4 pages of notes into your examination (i.e. 10 double sided pieces of paper). These can be typed or handwritten and can include graphs and images. They can include material from any source.

Your notes must be stapled together and include your student ID number and the module code on the first page. You must submit your notes at the end of the examination with your answer booklet.

Calculators are permitted in this examination. Please state on your answer book the name and type of machine used. Complete all rough workings in the answer book and cross through any work that is not to be assessed.

Possession of unauthorised material at any time when under examination conditions is an assessment offence and can lead to expulsion from QMUL. Check now to ensure you do not have more than 20 pages of notes. You should also not have mobile phones, smartwatches or unauthorised electronic devices on your person. If you do, raise your hand and give them to an invigilator immediately.

It is also an offence to have any writing of any kind on your person, including on your body. If you are found to have hidden unauthorised material elsewhere, including toilets and cloakrooms, it will be treated as being found in your possession. Unauthorised material found on your mobile phone or other electronic device will be considered an assessment offence. A mobile phone that causes a disruption in the exam is also an assessment offence.

EXAM PAPERS MUST NOT BE REMOVED FROM THE EXAM ROOM

Examiner: Dr. Anna Raute

SECTION A: Answer ALL questions**Question A.1**

Among single women aged 30 – 40, average hours worked per year is 2000 and the average wage is £25 per hour. If the average wage increases to £27 per hour, average annual hours worked increase to 2050 hours per week.

a) What is the elasticity of labour supply for this group of workers? Interpret your findings. **[10 marks]**

b) Do you assume the elasticity of married women aged 30-40 to be similar? Briefly explain your reasoning. **[5 marks]**

Question A.2

Consider two groups of people – group A and group B. The tuition costs of attending university is the same for each group. On average, group A members complete a BSc degree and their average annual salary is £65,000, while group B members enter the labour market after A-levels and their salary is £40,000. What can we say from that information about the returns of obtaining an undergraduate degree?

[15 marks]**Question A.3**

After controlling for age and education, it is found that the average woman earns £0.80 for every £1.00 earned by the average man. After controlling for occupation, the average woman earns £0.92 for every £1.00 earned by the average man. The conclusion is made that occupational choice reduces the wage gap by 12p and discrimination is left to explain the remaining 8p. Explain why discrimination may explain more than 8p out of the 20p differential (and occupational choice may explain less than 12p of that differential).

[10 marks]

SECTION B: Answer ALL questions**Question B.1**

Suppose that the UK government is expanding the Working Tax Credit, an in-work benefit system designed to encourage people with children to work (similar to the EITC – Earned Income Tax Credit – we discussed in class). It introduces a 15 percent earnings subsidy to working parents with low earnings (below £20,000 a year).

You are asked to estimate the effect of the introduction of the policy on the labour supply of low-income mothers with children below school age. Researchers have collected data on labour force participation (an indicator variable for employment) and number of hours worked per week (for those who were already in the labour market), for low-income mothers (who are eligible for the policy) and low-income women without children (who are ineligible for the policy), both before and after the policy introduction:

Table 1: Employment Rates

	Before policy introduction	After policy introduction
Mother (treatment group)	0.56	0.62
Childless (control group)	0.78	0.80

Table 2: Weekly hours worked (conditional on working)

	Before policy introduction	After policy introduction
Mother (treatment group)	16.5	19.0
Childless (control group)	23.7	24.5

- a) Use the data in Tables 1 and 2 to answer the following questions:
- What is the difference-in-differences estimate of the introduction of the policy on employment rates and hours worked of the target group?
 - Interpret your finding. Is it consistent with economic theory?

[15 marks]

- b) What is the key assumption one needs to make so that the difference-in-differences estimator identifies the causal impact of the policy introduction? Can this assumption be "tested" in this case? What kind of data would you need to do so?

[10 marks]*Turn over*

- c) Researchers have also collected data on children's cognitive development and find, that compared to children whose mothers were not affected by the policy, the reform negatively impacted the development of children whose mothers were affected by the policy. In light of what we discussed in class, how can you explain this negative impact on children.

[10 marks]

- d) The government is also considering to expand free early childhood education for low income mothers. How do you think this would impact the effects of the policy on labour force participation and child development?

[10 marks]

Question B.2

We discussed in class how firms increasingly use non-compete clauses in employment contracts, which ban workers from going to, or starting, a competing business within a certain time after leaving their job. Researchers found that when Hawaii banned non-compete clauses for technology workers, worker mobility increased by 11 percent and new-hire wages by 4 percent.

- a) Can you provide an economic explanation for these results?

[10 marks]

- b) How do you think such a ban may affect the creation of new businesses?

[5 marks]

End of Paper

End of Examination/ Dr. Anna Raute