

Written Exam at the Department of Economics winter 2020-21

Health Economics

Final Exam

8 January 2021

(3-hour open book exam)

Answers only in English.

The paper must be uploaded as one PDF document. The PDF document must be named with exam number only (e.g. '127.pdf') and uploaded to Digital Exam.

This exam question consists of 5 pages in total

This exam has been changed from a written Peter Bangsvej exam to a take-home exam with helping aids. Please read the following text carefully in order to avoid exam cheating.

Be careful not to cheat at exams!

You cheat at an exam, if you during the exam:

- Copy other people's texts without making use of quotation marks and source referencing, so that it may appear to be your own text. This also applies to text from old grading instructions.
- Make your exam answers available for other students to use during the exam
- Communicate with or otherwise receive help from other people
- Use the ideas or thoughts of others without making use of source referencing, so it may appear to be your own idea or your thoughts
- Use parts of a paper/exam answer that you have submitted before and received a passed grade for without making use of source referencing (self plagiarism)

You can read more about the rules on exam cheating on the study information pages in KUnet and in the common part of the curriculum section 4.12.

Exam cheating is always sanctioned with a warning and dispeiling from the exam. In most cases, the student is also expelled from the university for one semester.

This is an open book exam and the assessment of the answer takes this into account. Still, the assessment criteria remains:

Students are assessed on the extent to which they master the learning outcome for the course.

To receive the top grade, the student must with no or only a few minor weaknesses be able to demonstrate an excellent performance displaying a high level of command of all aspects of the relevant material and can make use of the knowledge, skills and competencies listed in the learning outcomes.

In this course the very good student demonstrates a deep understanding of the theoretical and empirical models presented in the research articles of the course, and is able to connect, combine or adapt general ideas and concepts to specific health economic problems under consideration. The student is able to refer to and extract relevant points from the academic papers in the syllabus, and relate them to the problem under consideration.

For successful completion of the course, the student demonstrates a reasonable (textbook level) insight into the underlying economic issues in the health care sector, is able to draw on basic modeling frameworks in analyzing such problems, and presents a discussion of these issues in a fairly clear and organized way and relate it to empirical findings and identification.

Corona virus

The world is currently going through another wave of the corona virus pandemic, which has resulted in new restrictions and lockdowns.

1. Using your knowledge from the Health Economics course, discuss whether governments face a trade-off between saving lives and saving the economy when deciding whether to impose restrictions and lockdowns. Why/why not?

Luckily, vaccines are in the process of being approved and will soon be available. In most developed countries, approved vaccines will be offered to the public free of charge.

2. Discuss the economic rationale behind the decision to offer vaccines free of charge

Almond (2006) studies the impact of the Spanish flu in 1918 on children exposed while in utero.

3. Describe the fetal origins hypothesis's predictions for the health consequences of the corona pandemic
4. Discuss how you would estimate the impact of the corona pandemic on children exposed while in utero, including which outcomes you could study already now and what they can tell us about the future.

Bidencare

Joe Biden won the 2020 US presidential election. As part of his campaign, he vowed to “**Allow consumers to buy prescription drugs from other countries.** To create more competition for U.S. drug corporations, Biden will allow consumers to import prescription drugs from other countries, as long as the U.S. Department of Health and Human Services has certified that those drugs are safe.”

5. How do you expect this policy to affect pharmaceutical prices in the US?
6. How do you expect this policy to affect pharmaceutical innovation from Novo Nordisk (Danish producer of insulin for the global market)?

Insurance coverage and emergency department visits

In the US, children under the age of 23 are covered by their parents' health insurance. Using a regression discontinuity design, Anderson et al. (2012) studies what happens to insurance coverage and emergency department visits when children turn 23 and are no longer covered by their parents' insurance.

Figure 1: Share of the population who are privately insured

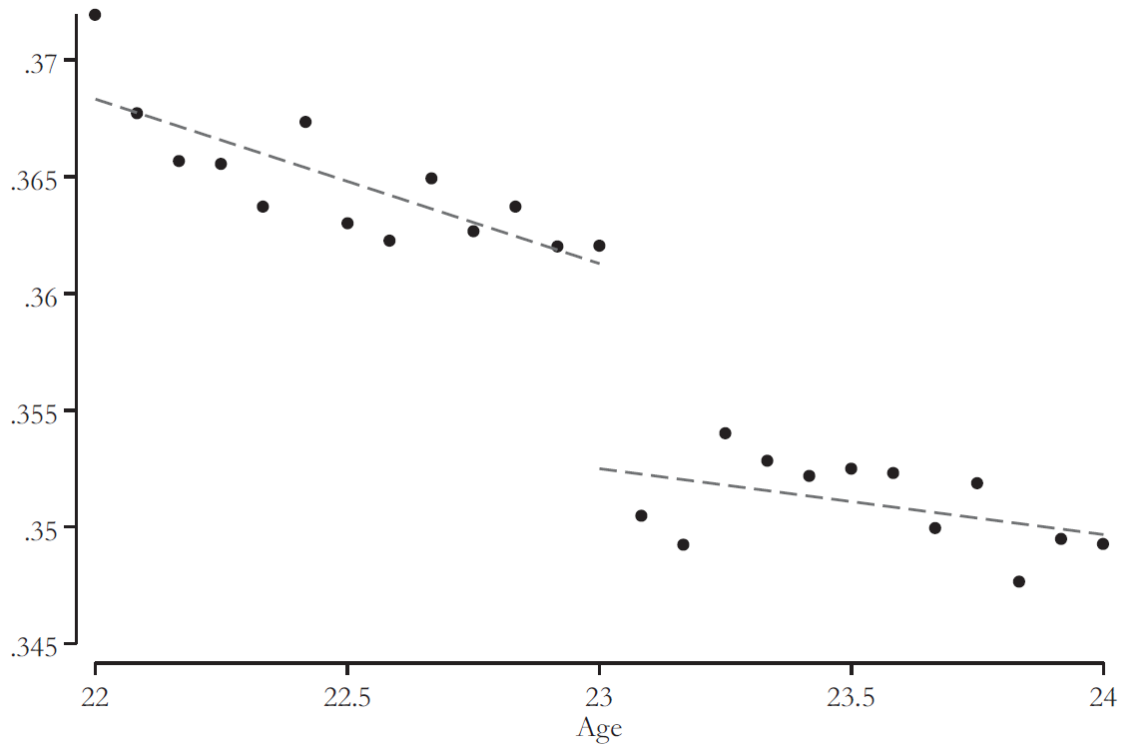


Figure 1 shows the share of 22-24-year-olds in the US with private insurance.

- Using Figure 1, explain the regression discontinuity method and provide a rough estimate of the effect of aging out of parents' insurance on the share of young adults with private insurance.
- According to the textbook setting in the model by Liran Einav and Amy Finkelstein in *"Selection in Insurance Markets: Theory and Empirics in Pictures"* (2011), what predictions can we make for the average risk of those insured at ages 22 vs. 24?

Figure 2: Number of ED Visits per 10,000 Person Years

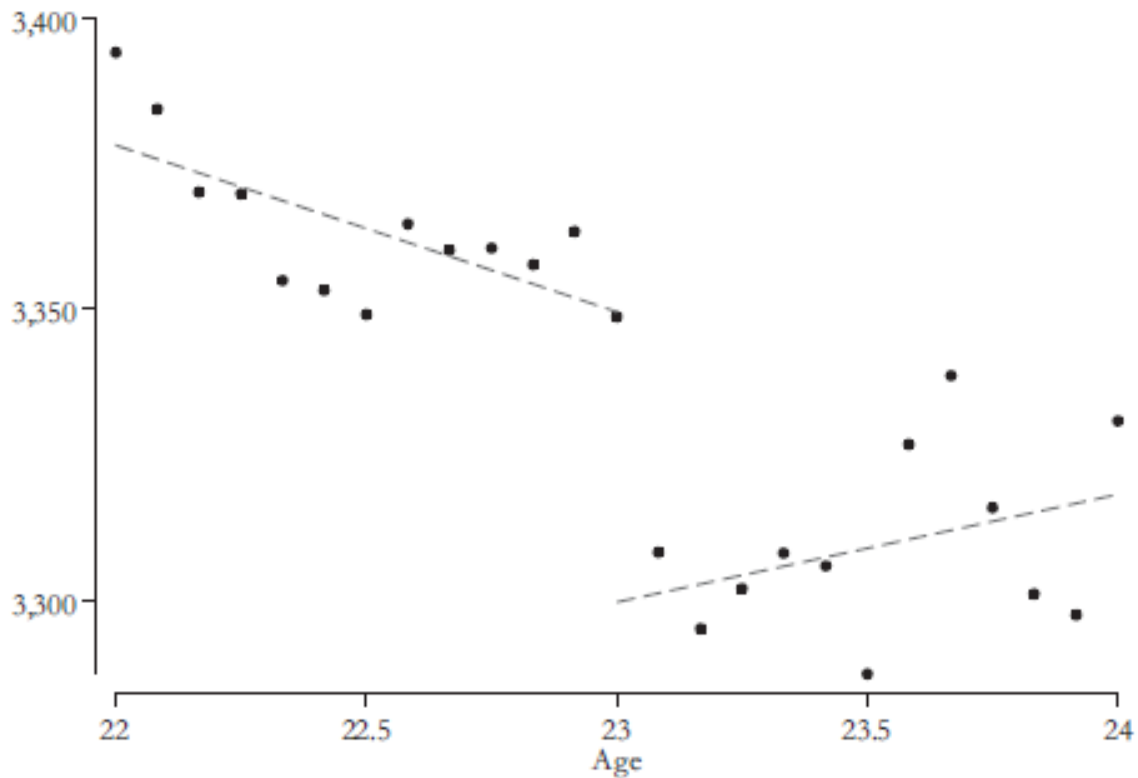


Figure 2 shows the number of emergency department visits by age.

9. What does Figure 2 reveal about the effects of insurance coverage on emergency department visits?
10. What do these results imply for the optimal level of cost sharing on emergency department visits?
(Hint: you may use the following formula $\frac{U_I^S - \bar{U}_I}{\bar{U}_I} x = -(1 - c) \frac{dx}{dc}$).
11. Which other arguments should policy makers and insurance companies consider when deciding the level of cost sharing on emergency department visits? Discuss