INFORMATION ABOUT THE ECON 121 FINAL EXAM - FALL 2023

The final exam will be on **Saturday 16 December from 11:30 AM to 2:30 PM** San Diego time. You may take it in person in **Center Hall 105** or remotely in a location of your choosing. The exam will mimic a problem set, providing you with a dataset and asking questions about it. It will be open book, but you may not communicate with anyone while taking it. Our TAs Ida and Songyu will grade the exam. If you think you lost points in error, discuss the issue with them for clarification. If you are not satisfied, you may challenge the grade, but Prof. Vogl will regrade the whole test, including questions you did not challenge. You may lose points.

The exam will guide you through estimating the economic returns to international migration in a sample of workers from a lower middle income country. The country has an agreement with a richer country to make available a fixed number of temporary visas to work in the richer country, which it allocates to workers through a lottery. Male workers apply to the lottery, and then the government randomly chooses a some of them to receive the visas. For political reasons, the government sets the probability of receiving a visa to be proportional to the population of the applicant's subdistrict.

The file `https://github.com/tvogl/econ121/raw/main/data/migration.Rdata` contains data from a survey that researchers carried out to learn about the impact of the visa program. The researchers randomly chose localities (which are smaller than subdistricts) and then interviewed all applicants who lived in these localities before the lottery.[1] The survey included questions about geography (`subdistrict` and `locality`), the lottery outcome (`winner`), migration (`migrated`), log monthly income before and after the lottery (`ln_income_pre` and `ln_income_post`), indicators for getting married before or after the lottery (`married_pre` and `married_post`), and a number of demographic characteristics (`muslim` to `children`).

You may refer to books, internet resources (including AI), notes, and code from problem sets, solutions, and classroom examples. You may **not** communicate with any person but Prof. Vogl during the exam; evidence of such communication will result in failure. If you are taking the exam remotely, record yourself with Zoom and submit the recording on Canvas; if you have questions during the exam, you may e-mail your question to Prof. Vogl. Write code and answers in the R Markdown template. When you finish, knit to PDF (or knit to HTML and then print to PDF in a web browser), and submit the PDF on Gradescope.

The next page has instructions for self-proctoring with Zoom and for compiling and submitting your PDF.

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[1]For applicants who had migrated since the lottery, the researchers obtained phone numbers from family members who still lived in the sample localities and then interviewed the applicants by phone.

Zoom Recording   If you to take the exam remotely, you must create a Zoom recording that shows you and all windows on your screen. Zoom will email you a link (and possibly a password) to the cloud recording. **Make sure you practice before the start of the exam.** You have 24 hours to submit the link on Canvas (until Sunday 17 December at 2:30 PM San Diego time).

1. Open Zoom
2. Start a new meeting
3. Begin recording - select Save to the Cloud
4. Make sure (a) video is on, (b) sound is on, (c) you and all the windows on your screen are visible
5. Begin the exam (11:30 AM)
6. Finish the exam (2:30 PM)
7. End the Zoom meeting
8. Zoom emails you a link to the cloud recording
9. Submit the cloud recording link on Canvas (include the password if there is one)

PDF   The R Markdown template includes code to produce a PDF containing the output alongside your code and comments. When you finish, click "knit" in RStudio to run the entire code and save the PDF. **Make sure you practice before the start of the exam.** Only the PDF needs to be submitted. When the exam is over, you have 5 minutes to upload to Gradescope.

1. Begin the exam (11:30 AM)
2. Answer exam questions by either:
   (a) writing code and comments
   (b) writing prose
3. Finish the exam (before 2:30 PM)
4. Click "knit" in RStudio
5. Upload the PDF to Gradescope (before 2:35 PM)