Homework due on Wednesday, October 19, at 13:00

For your homework, please do the following:

(1) Make sure you can create PDF documents typeset as a scientific paper. The easiest way to do that is using LyX. You can download it from

https://www.lyx.org/

Please follow the download instructions, which may ask you to install a LaTeX system on your computer first. (Note: A few hours ago, I had trouble accessing the website, which was not responding quickly enough. If you can't download LyX, I can extend the deadline for this homework.)

If you do not want to use LyX, you can use LaTeX directly, or typeset your document in Scientific Workplace/Scientific Word or in Mathematica (journal article style).

(2) To get started with LyX, download

LyXTemplateFilesFromAPreviousCourse.zip

from our class website. The downloaded file will be named LyXTemplateFilesFromAPreviousCourse.zip.txt. You will need to remove the extension ".txt" so that your computer recognizes it properly as a zip file. Then unzip the file to get the template files from my previous course. All files should be in the same folder so that LyX can find the bibliography file and the bibliography style file. Then you can open the LyX file (named HW20150417MichalFabinger.lyx) in LyX and start editing.

(3) Bibliography may be managed by editing the bib file in a text editor. Or you may use bibliography software to achieve that. The following should work, I think:

http://bibdesk.sourceforge.net/

http://www.jabref.org/

https://www.mendeley.com/

https://www.readcube.com/

https://www.zotero.org/

(4) When you write documents, not just this homework, it's a good idea to copy the text from the PDF and paste it either to Microsoft Word or to

https://www.grammarly.com

These can perform a spell/grammar check for you.

(5) The document you submit for this homework should be in PDF format (created by LyX or the typesetting software mentioned above). In addition to demonstrating that you can create a correctly formatted document, you should show that you can create figures and/or tables using data. Ideally, you should use some economically relevant data and perform an analysis of an interesting, economically relevant question that you could continue to investigate in your term paper. But it is perfectly fine just to demonstrate that you did get started on using mathematical software to the extent that based on your data you can create figures and/or tables.

The easiest software to get started with is Mathematica, which uses Wolfram Language. For motivation see this video:

https://www.wolfram.com/language/video.html

For free introductory videos see:

http://www.wolfram.com/training/courses/

You can get a trial version of the software at

https://www.wolfram.com/mathematica/trial/

The full student license is not expensive, given what the software can do:

https://www.wolfram.com/mathematica/pricing/students-individuals.php

But you can even get a cheaper student one-semester license:

https://store.wolfram.com/view/app/mathematica/student-semester

or use Mathematica in our computer lab.

You can use other software for this homework if you prefer. Python and R would be particularly useful for you in the long run. For a nice video of data analysis in R, see:

https://www.udacity.com/course/data-analysis-with-r--ud651

(6) This time the length of your document will not matter much. If you can submit something coherent that could serve as a starting point for your term paper, that would be great, of course. But this homework is mainly just to demonstrate your use of the software.