

Income Distribution

ECON 473

Markus Poschke

McGill University
Winter 2023

Course description and objectives

Income inequality has been a topic of long-standing interest to economists. Its importance to society is hard to overstate. Recent increases in income inequality in many developed countries, as well as policy changes, have heightened this interest.

The purpose of this course is to acquire tools for analyzing data to measure inequality and its evolution; to translate these tools into empirical analysis of data; to analyze potential determinants of changes in income distribution; to develop a theoretical understanding of the ideal distribution of income, consumption and wealth; to discuss the theory and empirics of redistributing income; and to learn to develop effective arguments regarding the sources of inequality and associated public policies.

Learning outcomes

You will learn how to use and understand others' use of measures of inequality; how inequality has evolved and how it differs across countries; what factors are the most likely drivers of inequality; and what the effects of potential policy responses might be.

You will practice how to work with microeconomic data using Stata, to analyze inequality and to conduct regression analysis. This skill is useful for many other contexts. You will practice how to theoretically analyze economies with heterogeneity, both with a positive and a normative perspective. You will see how theory informs empirical analysis, and how empirical findings prompt progress in the formulation of theories. You will practice to make coherent and convincing arguments on inequality, its sources, and public policy, drawing on data and on theory.

Administrative Issues and Course Structure

3 credits

Contact:

email: markus.poschke@mcgill.ca

Classes. Wed/Fri 11.35am-12.55pm in Birks 203.

Office hours. Wed 3.30-4.30pm, Leacock 537.

Prerequisites and tools: *ECON 230 or ECON 250; ECON 227 or ECON 257 or equivalent; Calculus 1 and 2.*

The theoretical part of the course uses both differential and integral single-variable calculus in analyzing social welfare functions and inequality measures. The empirical part of the course requires the ability to run ordinary least squares regressions and to interpret their results. More advanced knowledge of econometrics is helpful but not required. The course will make use of some economic tools you may have already encountered in intermediate micro, related to insurance, taxation, labor supply and utility possibility frontiers; these will be reviewed in class. Although macro is not a prerequisite, you may also encounter some concepts that students who have taken intermediate macro would be familiar with.

Several problem sets will require the use of the statistical program **Stata**. Stata is the statistical software used by most empirical economists. Its great advantage for the purpose of this course is that users have programmed various measures of inequality and poverty that can be downloaded and used. Knowledge of Stata is not a prerequisite for this course. I will post a separate document on how to use Stata at McGill on *mycourses*. To get started with Stata, consult the resources list below. **I am recruiting a dedicated Stata assistant for the class.** He will hold three lectures introducing you to Stata, on **Jan 11, Jan 18 and Feb 8**, and provide support to you after that. We will also both from time to time demonstrate in class how to do various things using Stata.

Course materials: There is no textbook covering all class topics. Some of the material on measurement is covered in Frank Cowell (2011), *Measuring Inequality*, 3rd edition, Oxford University Press (e-book available; referred to as C below). You may also be interested in *Capital in the 21st Century* by Thomas Piketty.

Most of the course will be based on journal articles. I will post the articles on *mycourses* as we go along. I will also make class notes (slides) available. Warning: The list of articles in the course outline is incomplete.

Continuous class attendance is strongly encouraged. Any points raised in class can end up in the examinations.

Finally, I will occasionally post links to news articles on Twitter (@mposchke) or on *mycourses*. These are for your background information and not required reading, except for the ones that I may from time to time discuss in class.

mycourses: I will use *mycourses* for posting relevant materials such as readings and problem sets and for making announcements. You should therefore regularly check the course's *mycourses* page. You may also want to download the *myCourses Pulse* mobile app to stay connected.

Evaluation: The grade for the course will be based on a midterm exam (worth 30%), three assignments (worth 35% in total), an essay (20%), a group presentation (10%), and class participation (5%).

The *midterm* will be in class on Friday, March 24. It will be a closed-book exam and will account for 30% of the final grade.

There will be three individual *assignments*. Each assignment accounts for 11 $\frac{2}{3}$ % of the total course grade. These assignments will involve working with actual individual and household level data using Stata. (You may use other software if you prefer.) You will analyze these data in a guided way, generate results, and be asked to interpret them and compare them to other evidence discussed in the course. I will give detailed instructions for each assignment in due time. The required coding skills for data analysis will mostly be covered in the Stata introduction sessions in the course. You will need to submit results in writing. The deadlines for the assignments most likely will be Feb 1, Feb 15, and Feb 24. Assignments submitted up to 24 hours beyond the due date will be marked down by 10%. After that delay, no credit will be given.

The essay will account for 20% of the total course grade. The deadline for the essay will be the final day of classes, Apr 13. The group presentations will be worth 10%, and will take place in the final four classes of the course (Mar 29 and 31 and Apr 5 and 12). Early in the term, I will ask you to sign up for one of four topics for your essay and group presentation. The presentations will focus on forcefully and skillfully making and defending arguments on the topic. The essay will allow you to go more in depth.

Finally, your class participation accounts for the final 5% of the grade. This includes asking and answering questions in class and actively participating in discussions.

Stata resources. There are tons of online resources on data analysis with Stata, or Stata more generally. A web page with links to lots of useful resources for economists (going far beyond what you need in this course) is <https://www.stata.com/links/resources-for-learning-stata/>.

Communication policy If you have a question, it is likely that others also have it. So the preferred means of communication are *discussion boards* set up in *mycourses*, organized by general topics. Please consult those first if you have a question. If your question has not already been asked, please post your question there and I will aim to answer within 48 hours. I encourage you to answer other students' questions if you know the answer (I will monitor Q&A for accuracy and courtesy).

For questions that require confidentiality and/or discussion, please see me during office hours. Email should be used only as a last resort, for issues that cannot be addressed via discussion boards or office hours.

University statements: McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic

offences under the Code of Student Conduct and Disciplinary Procedures (see <http://www.mcgill.ca/students/srr/honest/> for more information).

L'université McGill attache une haute importance à l'honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l'on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le Code de conduite de l'étudiant et des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter le site <http://www.mcgill.ca/students/srr/honest/>).

Work submitted for evaluation as part of this course may be checked with text matching software within *myCourses*.

In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

Conformément à la Charte des droits de l'étudiant de l'Université McGill, chaque étudiant a le droit de soumettre en français ou en anglais tout travail écrit devant être noté.

As the instructor of this course I endeavor to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me and the Office for Student Accessibility and Achievement (formerly Office for Students with Disabilities).

No audio or video recording of any kind is allowed in class without the explicit permission of the instructor. The use of Mobile Computing and Communications Devices devices must, in all cases, respect policies and regulations of the University, including in particular the Code of Student Conduct and Disciplinary Procedures; the Policy Concerning the Rights of Students with Disabilities; and the Policy on the Responsible Use of McGill IT Resources.

I strongly encourage you to put away other mobile computing and communications devices during class. In other words, you may need your laptop but you can still close the other tabs in your web browser and turn off/put away your phone. I work hard to create a collaborative learning environment, and I expect everyone in the room to be present and to contribute. An increasing number of high-quality studies show that the use of laptops, tablets, and smartphones in an in-person classroom reduces learning both for the student using the device and those around them. Multitasking is bad for the quality and efficiency of cognitive work. Reviews of this evidence are [here](#) and [here](#).

Instructor generated course materials (e.g., handouts, notes, summaries, exam questions, lecture and class recordings etc.) are protected by law and may not be copied or distributed in any form or in any medium without explicit permission of the instructor. Note that infringements of copyright can be subject to follow up by the University under the Code of Student Conduct and Disciplinary Procedures.

End-of-course evaluations are one of the ways that McGill works towards maintaining and improving the quality of courses and the student's learning experience. You will be notified by

e-mail when the evaluations are available. Please note that a minimum number of responses must be received for results to be available to students.

The reading list is subject to change during the semester. In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.

Course outline

The course outline is subject to revisions, the order of topics may be changed, and topics may be dropped or added depending on the pace of the course. I have made the outline very detailed to give you a good impression of what to expect. Note: The list of references to articles is incomplete.

week	topic/event
1	Introduction, measurement <i>Inequality: an overview</i>
2	<i>Stata intro 1</i> ; a snapshot of current distributions of earnings and income (Díaz-Giménez et al. 2011, Piketty and Saez 2007)
3	<i>Stata intro 2</i> ; recent developments (Heathcote et al. 2010, Guvenen et al. 2022) <i>Causes of wage inequality</i>
4	The relative-demand/relative-supply framework (Katz and Murphy 1992, Autor et al. 2008)
5	Skill-biased technical change and the college wage premium
6	<i>Stata intro 3</i> ; capital-skill complementarity (Krusell et al. 2000) <i>Theory</i>
7	Utilitarianism and critiques (C 1 & 3)
8	Social Welfare Functions and inequality aversion (C 1 & 3) <i>Reading week</i>
9	The leaky bucket: a thought experiment (C 1)
10	A short introduction to optimal redistribution (Diamond and Saez 2011) <i>Recent developments</i>
11	The top 1% (Piketty and Saez 2003, Bakija et al. 2012, Saez and Zucman 2016, Smith et al. 2019) <i>Presentations</i>
12	Topics 1 and 2
13	Topics 3 and 4

References

- Autor, D. H., Katz, L. F. and Kearney, M. S. (2008), ‘Trends in US wage inequality: Revising the revisionists’, *The Review of Economics and Statistics* **90**(2), 300–323.
- Bakija, J., Cole, A., Heim, B. T. et al. (2012), ‘Jobs and income growth of top earners and the causes of changing income inequality: Evidence from us tax return data’, *Working Paper, Williams College* .
- Diamond, P. and Saez, E. (2011), ‘The case for a progressive tax: from basic research to policy recommendations’, *The Journal of Economic Perspectives* **25**(4), 165–190.
- Díaz-Giménez, J., Glover, A. and Ríos-Rull, J.-V. (2011), ‘Facts on the distributions of earnings, income, and wealth in the united states: 2007 update’, *Federal Reserve Bank of Minneapolis Quarterly Review* **34**(1), 2–31.
- Guvenen, F., Pistaferri, L. and Violante, G. L. (2022), ‘Global trends in income inequality and income dynamics: New insights from grid’, *Quantitative Economics* **13**(4), 1321–1360.
URL: <https://onlinelibrary.wiley.com/doi/abs/10.3982/QE2260>
- Heathcote, J., Perri, F. and Violante, G. L. (2010), ‘Unequal we stand: An empirical analysis of economic inequality in the united states, 1967–2006’, *Review of Economic Dynamics* **13**, 15–51.
- Katz, L. F. and Murphy, K. M. (1992), ‘Changes in relative wages, 1963-1987: Supply and demand factors’, *Quarterly Journal of Economics* **107**(1), 35–78.
- Krusell, P., Ohanian, L. E., Ríos-Rull, J.-V. and Violante, G. L. (2000), ‘Capital-skill complementarity and inequality: A macroeconomic analysis’, *Econometrica* **68**(5), 1029–1053.
- Piketty, T. and Saez, E. (2003), ‘Income inequality in the united states, 1913–1998’, *The Quarterly Journal of Economics* **118**(1), 1–41.
- Piketty, T. and Saez, E. (2007), ‘How progressive is the us federal tax system? a historical and international perspective’, *The Journal of Economic Perspectives* **21**(1), 3–24.
- Saez, E. and Zucman, G. (2016), ‘Wealth inequality in the united states since 1913: Evidence from capitalized income tax data’, *The Quarterly Journal of Economics* **131**(2), 519–578.
- Smith, M., Yagan, D., Zidar, O. and Zwick, E. (2019), ‘Capitalists in the twenty-first century’, *The Quarterly Journal of Economics* **134**(4), 1675–1745.