Income Distribution
ECON 473

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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 develop a theoretical understanding of the ideal distribution of income, consumption and wealth; to build on this to develop methods of measuring inequality, life-time and intergenerational mobility; to translate these tools into empirical analysis of various countries; to acquire tools for analyzing data; to analyze potential determinants of changes in income distribution and mobility; and to discuss the theory and empirics of redistributing income.

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.

Administrative Issues and Course Structure

3 credits

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Classes. We will hold weekly live online classes, on Tuesdays from 10.05 to 11.25am. The Zoom link will be accessible via *mycourses.* On Thursdays, I will upload videos of recorded lectures to *mycourses.* The Tuesday classes will serve to summarize and discuss the lectures, as well as to discuss and support the data analysis component of the course (see below). You will be able to ask any questions about the course material in the Tuesday classes. To allow for a structured flow of these classes, please add your questions by Monday night to a shared file I will make available. If you have other questions regarding the course, please email me.

Tuesday classes will be recorded. While the class is more lively if we can see each other, you are not required to have your camera on.

I remind everyone of their responsibility in ensuring that any class video material and other associated materials are not reproduced or placed in the public domain. This means that each of you can use it for your educational (and research) purposes, but you cannot allow others to use it by putting it up on the Internet or by giving it or selling it to others who may also copy it and make it available. Please refer to McGill's Guidelines for Instructors and Students on Remote Teaching and Learning for further information. Thank you very much for your cooperation.

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 (if you have write permission in the applications folder of your computer) 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 two lectures introducing you to Stata, on Jan 19 and 26, 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 is covered in these three books:

[W] Edward N. Wolff (2009), *Poverty and Income Distribution,* 2nd edition, Wiley Blackwell.

[C] Frank Cowell (2011), *Measuring Inequality,* 3rd edition, Oxford University Press (e-book available).

[P] Thomas Piketty (2014), *Capital in the 21st Century,* Harvard University Press (e-book available).

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 (online) 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 my-courses. 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.

Evaluation: The grade for the course will be based on three assignments, an essay, a final exam, and class participation.

The *final exam* will account for 50% of the grade and will take place in the end-of-term exam period. It will be an open book take home exam covering the entire course. While the exam will be open book, it is of course not permitted to contact others during the exam. If you miss it due to medical reasons, the usual McGill procedures apply.

There will also be three individual *assignments.* Each assignment accounts for 10% 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 4, Feb 18 and Mar 11. No late assignments will be accepted.

There will also be an essay, accounting for 15% of the total course grade. The deadline for the essay most likely will be Apr 1. Your short essay will need to use empirical and theoretical elements covered in the course, and use them to support a well-argued opinion.

Finally, your class participation accounts for the final 5% of the grade. (You do not need to use your camera for this if you prefer not to.)

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/`.

University statements: In case of absence at the final exam for medical reasons, please refer to the University Regulations Concerning Final Examinations. Note: According to Senate regulations, instructors are not permitted to make special arrangements for final exams.

Please consult the Calendar, section 4.7.2.1, General University Information and Regulations at www.mcgill.ca.

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/`).

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.

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.

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
	Inequality: an overview
2	*Stata intro 1;* a snapshot of current distributions of earnings and income (Díaz-Giménez et al. 2011, Piketty and Saez 2007)
3	*Stata intro 2;* recent developments (Heathcote et al. 2010)
	Causes of wage inequality
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	Capital-skill complementarity (Krusell et al. 2000)
7	Labor market polarization (Autor and Dorn 2013)
	– Reading week –
	Theory
8	Utilitarianism and Social Welfare Functions (C 1 & 3)
9	The leaky bucket: a thought experiment (C 1)
10	A short introduction to optimal redistribution (Diamond and Saez 2011)
	Recent developments
11	Robots
12	The top 1%
13	Buffer

References

Autor, D. H. and Dorn, D. (2013), 'The growth of low-skill service jobs and the polarization of the US labor market', *American Economic Review* **103**(5), 1553–1597.

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.

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.

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. (2007), 'How progressive is the us federal tax system? a historical and international perspective', *The Journal of Economic Perspectives* **21**(1), 3–24.