

# **Income Distribution**

## **ECON 473**

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McGill University  
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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**

3 credits

1 lecture per week, Tue 2:35pm-5:25pm in LEA 212

#### **Contact:**

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office hours: Tue 9-10am in Leacock 537 or by appointment.

**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. We can and will occasionally use the Stata on the computers in the class room. To get started with Stata, watch the movies and use the data at <https://stats.idre.ucla.edu/stata/>. I will also demonstrate how to do various things using Stata in class.

**Course materials:** There is no textbook covering all class topics. Some of the material is covered in three books, which are on reserve in the library:

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

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

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

The books will be complemented by 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.

**Grading:** The grade for the course will be based on two assignments, a group presentation, 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 a three-hour closed book exam covering the entire course. If you miss it due to medical reasons, the usual McGill procedures apply.

The *group presentation* will account for 10% of the grade. Presentations will last 20-30 minutes and will be scheduled throughout the course. I will make guidelines for a good presentation available in due time. Groups will consist of up to four students who will be tasked to prepare the presentation together and can decide on how to execute it. The papers to be presented are listed below. Since the first presentations will take place early, you need to select a topic for presentation by Jan 30. To do so, I will create a discussion topic for each topic on *mycourses*. To sign up for joining the group presenting that paper, post your name there. First come, first served.

Once all presentations have been assigned, I will publish preliminary target dates for presentations. I will assign each group a final date with at least one week's notice before the presentation. Each group needs to send me their presentation at least 30 minutes before class. All group members need to be present at the presentation. I expect the rest of the class to be engaged with presentations. Note that all chapters/papers presented are required reading not just for presenters, but for all students in the class.

There will also be three *assignments*. The first assignment may consist in short essays and in exercises that involve working with theory and/or with data and will account for 15% of the grade. The third assignment will involve working with data using Stata. It will account for 20% of the grade. The second assignment will be a practice assignment for the third one. I will ask you to hand it in, but it will only count towards participation. No late assignments will be accepted. Tentative deadlines/dates: Feb 13, Mar 20, Mar 27. I reserve discretion to modify these dates somewhat, depending on our speed.

I may also on occasion give you questions to ponder at home that will not be formally evaluated, but that will be discussed in the following class. Participation in these discussions and your class participation more generally account for the final 5% of the grade.

**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](http://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, 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 students 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.

1. Jan 9: Introduction, measurement part 1 (Corak (2016), C 2, W3.1-3.3)
2. Jan 16: Measurement part 2, inequality measures in Stata
3. Jan 23: Social welfare functions, inequality aversion, optimal income distribution (C 1, 3)
4. Jan 30: Utilitarianism and critiques, inequality today (Díaz-Giménez, Glover and Ríos-Rull 2011)
5. Feb 6: Stata training
6. Feb 13: Recent trends in inequality (Heathcote, Perri and Violante 2010)
7. Feb 20: The relative demand and supply model, skill-biased technical change, Stata (P9, Katz and Murphy (1992), Autor, Katz and Kearney (2008))
8. Feb 27: Capital-skill complementarity (Krusell, Ohanian, Ríos-Rull and Violante 2000)  
*Presentations 1-2*
- Mar 6: Reading week
9. Mar 13: Polarization (Autor and Dorn 2013)  
*Presentations 3-4*

10. Mar 20: The top 1%, wealth inequality (W5, P10, Saez and Zucman (2016), de Nardi, Fella and Yang (2015))  
*Presentations 5-6*
11. Mar 27: Assignment 3
12. Apr 3: Redistribution (P14, Piketty and Saez (2007), Diamond and Saez (2011), Badel and Huggett (2017))  
*Presentations 7-8*
13. Apr 10: Health inequality (Hong, Pijoan-Mas and Rios-Rull 2017)  
*Presentations 9-10*

### List of presentation topics

1. Brzozowski, Gervais, Klein and Suzuki (2010) on inequality in Canada
2. Fuchs-Schündeln, Krueger and Sommer (2010) on inequality in Germany
3. Hammar and Waldenström (2017) on global earnings inequality
4. Abbott and Gallipoli (2017) on permanent income inequality
5. Chetty, Hendren, Kline and Saez (2014) on intergenerational mobility
6. Chetty, Grusky, Hell, Hendren, Manduca and Narang (2016) on the “fading American Dream”
7. Buera and Kaboski (2012) on structural change and new jobs in services
8. Alvaredo, Atkinson, Piketty and Saez (2013), Kaplan and Rauh (2013) on the top 1%
9. Gabaix and Landier (2008) on CEOs and entrepreneurs
10. Chetty, Stepner, Abraham, Lin, Scuderi, Turner, Bergeron and Cutler (2016) on income and life expectancy

### References

- Abbott, B. and Gallipoli, G. (2017), ‘Permanent Income Inequality’, *mimeo*, UBC pp. 1–50.
- Alvaredo, F., Atkinson, A. B., Piketty, T. and Saez, E. (2013), ‘The top 1 percent in international and historical perspective’, *Journal of Economic Perspectives* **27**(3).
- 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.

- Badel, A. and Huggett, M. (2017), ‘The sufficient statistic approach: Predicting the top of the laffer curve’, *Journal of Monetary Economics* **87**, 1–12.
- Brzozowski, M., Gervais, M., Klein, P. and Suzuki, M. (2010), ‘Consumption, income, and wealth inequality in canada’, *Review of Economic Dynamics* **13**(1), 52 – 75. Special issue: Cross-Sectional Facts for Macroeconomists.
- Buera, F. J. and Kaboski, J. (2012), ‘The rise of the service economy’, *The American Economic Review* **102**(6), 2540–2569.
- Chetty, R., Grusky, D., Hell, M., Hendren, N., Manduca, R. and Narang, J. (2016), ‘The fading american dream: Trends in absolute income mobility since 1940’, *NBER Working Paper* **22910**.
- Chetty, R., Hendren, N., Kline, P. and Saez, E. (2014), ‘Where is the land of opportunity? the geography of intergenerational mobility in the united states’, *The Quarterly Journal of Economics* **129**(4), 1553–1623.
- Chetty, R., Stepner, M., Abraham, S., Lin, S., Scuderi, B., Turner, N., Bergeron, A. and Cutler, D. (2016), ‘The Association Between Income and Life Expectancy in the United States, 2001-2014’, *Journal of the American Medical Association* **315**(16), 1750–1766.
- Corak, M. (2016), “inequality is the root of social evil,’ or maybe not? two stories about inequality and public policy’, *Canadian Public Policy* **42**(4), 367–414.
- de Nardi, M., Fella, G. and Yang, F. (2015), ‘Piketty’s book and macro models of wealth inequality’, *NBER Working Paper* **21730**.
- 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.
- Fuchs-Schündeln, N., Krueger, D. and Sommer, M. (2010), ‘Inequality trends for germany in the last two decades: A tale of two countries’, *Review of Economic Dynamics* **13**(1), 103 – 132. Special issue: Cross-Sectional Facts for Macroeconomists.
- Gabaix, X. and Landier, A. (2008), ‘Why Has CEO Pay Increased So Much?’, *Quarterly Journal of Economics* **123**(1), 49–100.
- Hammar, O. and Waldenström, D. (2017), ‘Global earnings inequality, 1970–2015 ’, *mimeo, PSE*.
- 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.

- Hong, J. H., Pijoan-Mas, J. and Rios-Rull, J.-V. (2017), ‘Health and Inequality’, *mimeo*, *U Penn*.
- Kaplan, S. N. and Rauh, J. (2013), ‘It’s the market: The broad-based rise in the return to top talent’, *Journal of Economic Perspectives* **27**(3).
- 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.
- 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.