

University of Waterloo
Department of Economics
Econ 606 Research Methodology
Fall 2021
Tuesdays 8:30-9:50

Instructor Information

Class Room:

Instructor: Ana Ferrer

Office: Office

Office Phone: 888-4567, ext. 38771

Office Hours: On-line

Email: aferrer@uwaterloo.ca

Course Description

The Research Methods course is designed to lay the foundations that prepare students for research in economics or for work as a professional economist. Research tasks include researching material, evaluating information and writing reports or brief notes on a topic, compiling a critical literature review, and designing an academic research project. You will also gain experience in presenting research work to an audience.

The class will be divided in 5 groups and each group assigned a topic: Employment, Education, Immigration, Discrimination and Environment. You will develop your research skills within your area of expertise and enrich your set of skills (and that of your classmates) by providing and receiving feedback across groups.

Course Structure, Requirements and Assessment

The course is presented below in terms of its objectives. As the course progresses you will realize that there is a certain amount of back and forth between objectives as some inform the others. Written assignments are identified as A1, A2, etc..., the presentations are identified as P1 and P2.

Objective 1. Identifying resources

Once you are assigned to your group. Each of you will conduct a literature review within your topic (A1).

The group will then meet to identify two distinct lines of inquiry to be explored in pairs. You will work on eliminating overlapping papers from the individual literature reviews, discussing the reliability, variety and validity of the resources identified and identifying gaps in your research, including resources that you may be missing (for instance, technical knowledge from economic theory/ econometrics, or background in institutional, political or historical context). As a group, you have to construct a narrative about why you have chosen these two lines of inquiry. Is it to cover as broader area of research as possible? Is it to focus on specific aspects (such as those aspects of most relevance to the group)? Is it to find points of intersection with the research areas of other groups? (A2)

Deliverables: Two written assignments

- **A.1. Individual.** One **annotated bibliography** of at least 5 papers (5%)

- **A.2. Collective.** Write up the **purpose of your research group**: the narrative linking your individual research, resources identified, resources missing... (2 paragraphs min.) (5% same grade for all members of the group)

- **Objective 2. Communicating to a non-professional audience**

An essential part of your job will be communication. In many cases you, as experts, will have to translate this expertise to non-expert audiences. This is a difficult process since it might not be obvious what your audience will know. Striking the balance between being informative and being concise requires much critical thought.

The following assignment may be done in consultation with other individuals in your group or in other groups. Larger discussion is encouraged so that you can get the point of view of people who may not know as much as you on a particular topic. Trying to explain basic concepts to individuals outside your group can be a valuable exercise. Also, practicing with a friend that is not taking the course or a relative may prove very useful.

Deliverables: one written assignment and one presentation

- **P.1. Individual.** Summarize and present one paper from your annotated bibliography (or the research area assigned to your group) in **five minutes**. Record the presentation and upload to LEARN **on November 3rd** (10%)
- **A.3. Individual.** One **opinion piece** (1 pager) as an expert economist on a **current issue** of your choice within your topic. Check the news to find items related to your topic and write a short commentary from the point of view of an expert economist in the area. The purpose is to provide accessible, economic rationale as background for the news item (5%)

- **Objective 3. Communicating to professional audiences**

In many cases you will need to communicate your expertise in a professional context. In these cases your audience will be professionals like you, but without detailed knowledge of the subject at hand. Examples of this sort of communication are reporting to your boss, or sharing the results of your research with colleagues. Here, your audience may not know as many details as you, but they will question your research based on broader experience or knowledge in other areas. In this type of communication, it is not enough that it describes basic details; it needs to be a critical thinking piece, establishing connections and showing a coherent line of thought.

The following assignments may be done in consultation with other individuals in your group or in other groups. Larger discussion is encouraged so that you can get the point of view of people who may not know as much as you on a particular topic.

Deliverables: one individual written assignment, two collective assignments and one presentation

A.4. Individual. One **policy brief** within your topic (2-3 pages). The policy brief should (i) describe the issue, providing enough background/context for readers to follow your arguments, (ii) describe the policy debate, what policies/changes are people discussing; (iii) Reference theory and report data relevant to the issue; (iv) make a supported policy recommendation regarding the policy issue. (10%)

A.5. Collective (with another group member). One **draft research project proposal** (8-10 pages). The proposal should concern original academic research or a cost benefit- type of analysis. (15%)

The proposal should: (i) formulate the research question in detail (about 2-3 pages), framing it with reference to available literature; (ii) describe the proposed method for analysis as well as the data to be used, (iii) suggest expected outcomes and outline issues that may require further work.

P.2. Collective (with another group member). **Present your research proposal** in a research workshop. You will have **ten minutes** to complete the presentation of your research proposal. The recommended format is a narrated PowerPoint presentation. **Upload the presentation to LEARN by the due date** (10%)

You will receive feedback on your proposal when you present it.

A.6. Collective. A **final research project proposal** that updates your research proposal with the evaluation and the comments from the workshop is due on the day of the final exam. The report should be handed electronically by December 9th (20%)

NOTE: Evaluation of the final research proposal will consider whether you have incorporated feedback from the draft and the workshop in your final report.

- **Objective 4. Constructive, critical thinking**

Providing constructive feedback is an essential part of team work and should be an important tool in your professional skill set. This feedback may be in the form of clarifying questions, questions about alternative methodologies or related topics, or forwarding information that may help to do a better job (an article you have read, an alternative data you know of...).

You will provide constructive feedback through the discussion sessions. Discussion sessions are synchronous to provide you with an interactive experience, but are not mandatory. You can submit your feedback in writing through the discussion threads provided. Discussion sessions will be recorded and posted.

There will be **mandatory feedback** assigned for the presentations of research proposals of your classmates. This feedback can be delivered in the chat section of the virtual presentation if you are attending synchronously, or in writing as a thread. (10%)

Failure to provide this mandatory feedback on workshop presentations will result in a 50% penalty on your own presentation grade. There is no make up for this penalty

Other opportunities for participation will be available through the discussion sessions as we work through the material. (10%)

Reading the assigned papers in advance will facilitate your contribution to discussions, as well as during the presentations of your classmates. Please note that **class participation will be evaluated for economic content**. That means that your questions or contributions should be based on economic arguments or content, rather than simply expressing a general opinion.

Failure to deliver any of the above will result in a **mark of 0 for the particular component**, unless backed by a medical note, in which case an extension of 3 days for written work and virtual presentations will be granted.

Week	Topic	In class - Discussion	Assignments due*
0	Introduction – Critical thinking	Sept 9 – Introduction / Critical thinking	
1	Data	Sept 14– Correlation and Causation Sept 16 – Discussion	
2	Education	Sept 21 – The relevance of studying the returns to education Sept 23 – Discussion	A1 and A2 due (Sept, 23 th)
3	Employment	Sept 28 – Employment Sept 30 - Discussion	
4	Gender	Oct 5 – Discrimination Oct 7 – Discussion	A3 (opinion piece) due (Oct 5 th)
5	BREAK		
6	Immigration	Oct 19 - Immigration Oct 21 – Discussion	A4 (policy brief) due (Oct. 21 st)
7	Environment	Oct 26 – Environment Oct 28 – Discussion	
	PRESENTATIONS BEGIN		
8		No class	Upload your paper presentation (P1) on LEARN on Wednesday Nov 3 rd
9		P2: Education (Nov 9) P2: Employment (Nov 9)	A5 (draft) due (Nov 9 th) Mandatory feedback (2 discrimination and 1 immigration)
10		P2: Employment (Nov 16) P2: Discrimination (Nov 16)	Mandatory feedback (1 Immigration and 2 environment)
11		P2: Immigration (Nov 23) P2: Environment (Nov 23)	Mandatory feedback (2 Education and 1 employment)
12		P2: Environment (Nov 30)	Mandatory feedback (1 employment)
			A6 (Final report) due Dec 9th

(*) Check on learn for timing

Late Work

Late work will not be accepted under any circumstances. Electronic documents must be in Word or pdf format. Please ensure that a readable copy reaches me in the time specified in the assignment. If the document is unreadable or cannot be opened you will get a 0 in that assignment.

Electronic Device Policy

Attendance Policy

Attendance is mandatory. If you will not attend a class (in person or virtually), please notify me.

Turnitin.com

Text matching software (Turnitin) may be used to screen assignments in this course. Turnitin is used to verify that all materials and sources in assignments are documented. Students submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin in this course. It is the responsibility of the student to notify the instructor

if they, in the first week of term or at the time assignment details are provided, wish to submit the alternate assignment.

Text books and reading material

On occasion we will refer to analytical and statistical methods. A convenient reference guide for these is:

- Angrist, J. and J. Pischke (2014) "Mastering metrics. The path from cause to effect", Princeton University Press

Readings

Starred articles are seminal papers in the literature. I will refer to them in the short lectures.

Choose one of the non-starred articles for your first presentation. You are also welcome to propose a different academic paper within the topic (published or in a working paper stage) for my consideration. Paper presentations are uniquely assigned. Once a paper is assigned (by sending me an email, which I will reply to confirm) it will become unavailable to other students in that group.

1. Education

(*) Ferrer and Riddell (2002). "The Role of Credentials in the Canadian Labor Market". *Canadian Journal of Economics*, November 2002; 35(4): 879-905

(*) Heckman, J., L. Lochner and P. Todd (2003) "50 years of Mincer earnings regressions" NBER WP 9732; IZA DP 775

Elsner, B. and I. Isphording (2017) "A Big Fish in a Small Pond: Ability Rank and Human Capital Investment", *Journal of Labor Economics*, vol. 35 (3) pp.787-828

Dorsett, R. and Paolo Lucchino (2018) "Young people's labour market transitions: The role of early experiences" *Labour Economics*, 54, pp. 29-46

David Figlio and Umut Özek, (2019) "Unwelcome Guests? The Effects of Refugees on the Educational Outcomes of Incumbent Students," *Journal of Labor Economics* 37, no. 4: 1061-1096.

Elira Kuka, Na'ama Shenhav, and Kevin Shih (2020) "Do Human Capital Decisions Respond to the Returns to Education? Evidence from DACA", *American Economic Journal: Economic Policy* 2020, 12(1): 293–324

Bin Huang and Yu Zhu (2020) "Higher Education Expansion, the Hukou System, and Returns to Education in China", *IZA DP No. 12954*

2. Employment

(*) Autor, D. and D. Dorn (2013) "The Growth of Low-Skill Service Jobs and the Polarization of the US Labor Market", *American Economic Review* 2013, 103(5): pp. 1553–1597

(*) Card, D. and A. Mas (2016), "The Labor Market in the Aftermath of the Great Recession", *Journal of Labor Economics*, vol. 34(1) pp S1-S6

(*) Brynjolfsson, Erik, Tom Mitchell, and Daniel Rock. 2018. "What Can Machines Learn, and What Does It Mean for Occupations and the Economy?" *AEA Papers and Proceedings*, 108 : 43-47

(*) Zmitrowicz, K. and M. Khan (2014) "Beyond the Unemployment Rate: Assessing Canadian and U.S. Labour Markets Since the Great Recession", *Bank of Canada Review*, Spring 2014

Glitz, A. (2017) "Coworker networks in the labour market", *Labour Economics*, 44, pp.218-230

Fallesen, P., Lars Pico Geerdsen, Susumu Imai and Torben Tranæs, (2018) "The effect of active labor market policies on crime: Incapacitation and program effects", *Labour Economics* 52, pp.263-268

Stephen R.G. Jones , Fabian Lange W. Craig Riddell and Casey Warman (2020) "Waiting for Recovery: The Canadian Labour Market in June 2020", *CPP Volume 46 Issue S2, August 2020, pp. S102-S118*

Abraham, K, Haltiwanger, J, Sandusky, K. and Spletzer, J. (2018) "Measuring the GIG Economy: Current Knowledge and Open Issues" *NBER WP# 24950*

Robert G. Valletta, Leila Bengali, and Catherine van der List (2020), "Cyclical and Market Determinants of Involuntary Part-Time Employment," *Journal of Labor Economics* 38, no. 1: 67-93.

3. Discrimination

(*) Goldin, C. (2014) "A Grand Gender convergence: Its last chapter", *The American Economic Review*, Vol. 104(4), pp. 1091-1119.

(*) Olivetti, C., and B. Petrongolo. (2017). "The Economic Consequences of Family Policies: Lessons from a Century of Legislation in High-Income Countries."

Kottelenberg, M. and S. Lehrer (2017) "Targeted or Universal Coverage? Assessing Heterogeneity in the Effects of Universal Child Care." *Journal of Labor Economics*, 35(3): 609-53.

Doleac, J. and B. Hansen (2020), "The Unintended Consequences of "Ban the Box": Statistical Discrimination and Employment Outcomes When Criminal Histories Are Hidden," *Journal of Labor Economics* 38, no. 2: 321-374.

Yue Qian and Sylvia Fuller (2020) "COVID-19 and the Gender Employment Gap among Parents of Young Children", *Canadian Public Policy, Volume 46 Issue S2, August 2020, pp. S89-S101*

Fischer, S. (2017) "The downside of good peers: How classroom composition differentially affects men's and women's STEM persistence", *Labour Economics* 46, pp. 211-226

G Dossi, D Figlio, P Giuliano, P Sapienza (2019), "Born in the Family: Preferences for Boys and the Gender Gap in Math", *CALDER Working Paper No. 216-0219-1*

3.- Immigration

(*) Borjas (1987) "Self-Selection and the Earnings of Immigrants", *The American Economic Review* , Vol. 77, No. 4 (Sep., 1987), pp. 531-553

(*) Card, David. (2009) "Immigration and Inequality." *American Economic Review*, 99(2): 1-21.

Borjas, George J and Edo, Anthony (2021) "Gender, Selection into Employment, and the Wage Impact of Immigration", *NBER WP 28682*

Gaetano Basso, Giovanni Peri, Ahmed S. Rahman (2020) "Computerization and immigration: Theory and evidence from the United States", *Canadian Journal of Economics Volume 53, Issue 4, Pages 1457-1494*

Akcigit, Ufuk, John Grigsby, and Tom Nicholas (2017) "Immigration and the Rise of American Ingenuity." *American Economic Review*, 107 (5): 327-31.

Edo, Anthony and Rapoport, Hillel (2017) "Minimum Wages and the Labor Market Effects of Immigration" *CESifo Working Paper Series No. 6547*.

Benoit Dostie, Jiang Li, David Card, Daniel Parent, (2020) "EMPLOYER POLICIES AND THE IMMIGRANT-NATIVE EARNINGS GAP", *NBER Working Paper 27096*

5. Environment

Whittington, D. and J. Cook (2019), "Valuing Changes in Time Use in Low- and Middle-Income Countries", *Journal of cost-benefit analysis*, vol. 10(S1) pp. 51-73

Palma, A., I. Petrunyk and D. Vuri (2019) "Air Pollution during Pregnancy and Birth Outcomes in Italy", IZA DP #12467

Deschênes, Olivier, Michael Greenstone, and Joseph S. Shapiro. 2017. "Defensive Investments and the Demand for Air Quality: Evidence from the NOx Budget Program." *American Economic Review*, 107 (10): 2958-89.

Dolphin, G., M. Pollitt, and D. Newbery (2019) "The political economy of carbon pricing: a panel analysis", *Oxford Economic Papers*, 2019, 1–29

Indaco, A., F. Ortega and S. Taspinar (2019) "Hurricanes, Flood Risk and the Economic Adaptation of Businesses", IZA DP 12474

Other reading material:

1.- Critical Thinking

<https://owl.english.purdue.edu/owl/resource/659/03/> (OWL is a great resource throughout the course)

PBS. (2002). "Commanding Heights, Episode One: The Battle of Ideas," documentary film.

<http://www.pbs.org/wgbh/commandingheights/hi/story/index.html>

"Breaking Through the Criticism Barrier: Making Feedback Count." Columbia University Graduate School of Arts and Sciences Teaching Center.

http://www.columbia.edu/cu/tat/pdfs/breaking_through.pdf

"Why Critical Thinking Will Never Be on a Test." Peter Green, Huff Post Education, December 13, 2015 http://www.huffingtonpost.com/peter-greene/why-critical-thinking-will-never-be-on-the-test_b_6919576.html

"Afraid Of Being 'Found Out?' How To Overcome Impostor Syndrome". Margie Warrell. April 3, 2014. Forbes. <http://www.forbes.com/sites/margiewarrell/2014/04/03/impostor-syndrome/>

2.- Economics Research

Kramarz, F, Angrist, J.D., Blau, D. M., Falk, A., Robin, J-M., Taber, C. (2006). "How to do Empirical Economics." *Investigaciones Económicas*, 30(2): 179-206.

Pischke (2012) "How to get started on research in economics?"

http://econ.lse.ac.uk/staff/spischke/phds/get_started.pdf

Gelman, A. (2009). "A statistician's perspective on "Mostly Harmless Econometrics: An Empiricist's Companion", by Joshua D. Angrist and Jorn-Steffen Pischke." *The Stata Journal*, 9(2): 315–320.

Deaton, A. (2007). "Random Walks by Young Economists." Letter from America, RES newsletter https://www.princeton.edu/~deaton/downloads/letterfromamerica_apr2007_random_walk.html

Varian, H. (1994). How to Build an Economic Model in Your Spare Time in *Passion and Craft: Economists at Work*, M. Szenberg, ed. University of Michigan Press, 1997.

<http://people.ischool.berkeley.edu/~hal/Papers/how.pdf>

Guest Lecture, Sandra Keyes: <http://subjectguides.uwaterloo.ca/econ606>

3.- Working with Data

Chapters 1 and 2 of J.D. Angrist and J.S. Pischke (2009). *Mostly Harmless Econometrics: An Empiricist's Companion*, Princeton University Press.

Rosenzweig, M., and Wolpin, K. (2000). "Natural 'Natural Experiments' in Economics." *Journal of Economic Literature*, 38(4):827-874.

Deaton, A. (2009). "Instruments of Development: Randomization in the Tropics and the Search for the Elusive Keys to Economic Development." NBER Working paper #14690.

Engle, R. (2004). "Risk and Volatility: Econometric Models and Financial Practice" *American Economic Review*, 94(3):405-420. (Revised version of Nobel Lecture)

R. Fernández, A. Fogli, C. Olivetti, (2004), "Mothers and sons: Preference formation and female labor force dynamics", *Quarterly Journal of Economics*, 119 (4) pp. 1249–1299

4.- Writing: Annotated Bibliographies and Policy Briefs

Annotated bibliographies: https://uwaterloo.ca/writing-and-communication-centre/sites/ca.writing-and-communication-centre/files/uploads/files/annotated_bibliographies_1.pdf

"How to Write a Briefing Note" University of Victoria - English (Susan Doyle)

<http://web.uvic.ca/~sdoyle/E302/Notes/WritingBriefingNotes.html>

<http://web.uvic.ca/~sdoyle/E302/Notes/index.html>

"Policy Brief Instructions: The Pathway to a Focused, Jargon-Free & Visual Document " Policy Institute -UC Davis. <http://policyinstitute.ucdavis.edu/files/Policy-Institute-Policy-Brief-Instructions.pdf>

"How-to manuals, tips and best practices when writing for public sector executives:

www.publicsectorwriting.com

Examples by topic:

(a) Immigration:

<https://www.oecd.org/policy-briefs/PB-Fiscal-Economic-Impact-Migration-May-2014.pdf>

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2746081

"Health Literacy and Immigrant Populations" Policy brief prepared for Public Health Agency of Canada, 2009. http://www.metropolis.net/pdfs/health_literacy_policy_brief_jun15_e.pdf

(b) Education:

"Is the return to education the same for everybody?" <https://wol.iza.org/uploads/articles/92/pdfs/is-the-return-to-education-the-same-for-everybody.pdf?v=1>

"The boom in university graduates and the risk of Underemployment"

<https://wol.iza.org/articles/boom-in-university-graduates-and-risk-of-underemployment/long>

<http://www.oecd.org/policy-briefs/Belgium-employment-helping-low-educated-young-people.pdf>

"Briefing note for the Minister: Standing Committee Report on Raising Adult Literacy"

<http://www.publicsectorwriting.com/wp-content/uploads/2010/03/EXAMPLE-Briefing-Note-for-Information.pdf>

(c) Gender:

“Women in crime”, <https://wol.iza.org/articles/women-in-crime>

“Can universal preschool increase the labor supply of mothers?”
<https://wol.iza.org/articles/can-universal-preschool-increase-labor-supply-of-mothers/long>

“Equal pay legislation and the gender wage gap”
<https://wol.iza.org/articles/equal-pay-legislation-and-the-gender-wage-gap/long>
<https://siepr.stanford.edu/sites/default/files/publications/Policy-Brief-Jun16.pdf>

“Women's Economic Equality Strategy.” Canadian Centre for Policy Alternatives, Policy Brief, Oct, 2000. <https://www.policyalternatives.ca/publications/reports/policy-brief-re-womens-economic-equalitystrategy>

<http://www2.warwick.ac.uk/fac/soc/economics/research/centres/cage/manage/events/social-market-foundation-smf-cage-combating-discrimination-on-airbnb-final.pdf>

(d) Employment and Inequality

http://www2.warwick.ac.uk/fac/soc/pais/research/researchcentres/csgr/research/projects/ineq/ineq_policy_brief.pdf

“Overeducation, skill mismatches, and labor market outcomes for college graduates”
<https://wol.iza.org/uploads/articles/88/pdfs/overeducation-skill-mismatches-and-labor-market-outcomes-for-college-graduates.pdf?v=1>

“The Dynamics of Inequality Among Canadian Children” Population and Lifecourse Strategic Knowledge Cluster Policy Brief #18, November, 2014.
http://sociology.uwo.ca/cluster/en/publications/docs/policy_briefs/PolicyBrief18.pdf

“Low-wage employment” <https://wol.iza.org/uploads/articles/276/pdfs/low-wage-employment.pdf?v=1>