

Course Description Form - HYIE001 -

**GENERAL DESCRIPTION**

**Professor:** Milovich, Juliana – juliana-yael.milovich@sorbonne-nouvelle.fr

**Course title:** Impact evaluation of public policies [2021-2022]

**Wednesday, 12h00-14h00 (Room 17)**

**Language of instruction:** English

**Semester:** Fall Semester

**Timetable of the lectures (provisional)**

22<sup>nd</sup> September: Lecture 1

29<sup>th</sup> September: Lecture 2

6<sup>th</sup> October: Lecture 3

13<sup>th</sup> October: Lecture 4

20<sup>th</sup> October: Lecture 5

27<sup>th</sup> October: Lecture 6

3<sup>rd</sup> November: no lecture

10<sup>th</sup> November: Lecture 7

17<sup>th</sup> November: Lecture 8

24<sup>th</sup> November: Lecture 9

1<sup>st</sup> December: Lecture 10

8<sup>th</sup> December: Lecture 11

15<sup>th</sup> December: Lecture 12

**Course description – Aims of the course:**

Public policy is being reshaped, guided by a growing global trend marked by a shift in focus from measuring and analysing the inputs of a program – for instance, how much money is spent, how many school materials are distributed, or how many children participate in a nutritional intervention – to assessing the differences in outcomes as a result of an intervention – such as raising incomes, stimulate cognitive abilities, or improve nutritional health.

In this sense, *impact evaluations* seek to answer a basic question: *what is the impact or causal effect of an intervention on an outcome of interest?* This can be applied to many contexts in social sciences: what is the causal effect of a maternity leave policy? If natural resources are extracted by contaminating rivers and lands, what will be the impact on food security? Does pre-school education contributes to improve children's social, emotional and physical development, and if so, how much? Answering these questions enables to provide convincing and comprehensive evidence that could be used to inform policy, shape public opinion, and improve program design.

Different methodologies can be used, according to the approach to address the *causal-and-effect* question. This course will provide a detailed understanding of impact evaluations in practice and the main methodologies that can be implemented. In particular, the course will focus on randomized assignment, instrumental variables, regression discontinuity design, differences-in-differences, and matching. The course will present advantages and disadvantages of each approach. Each empirical method will be presented and illustrated using applications in the areas of labor, health, education, development and political economy. Tutorials and laboratory sessions, in which students can apply the techniques using micro-econometric software packages, could complete the course.

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**Knowledge, skills and understanding:**

- Acquire skills and knowledge of the main econometric and statistical tools that have been developed to estimate the causal impact on one or more outcomes of interest of any intervention (particular focus in Latin America and the Caribbean region)
- Learn to apply the appropriate techniques through case studies from development economics.

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**Course requirements (grading & assessment):**

Grades will be calculated as follows:

**1- (Team) Research project: 50%**Submission via email

Deadline for submission: Friday 17<sup>th</sup> December 2021 at midnight

It must be written in no more than 5 pages (bibliography included). Preferably in English but the language shouldn't be a constraint or an additional difficulty, rather a useful skill to develop. If you feel more comfortable writing in French, Spanish or Portuguese, you can do it so.

This project could be done individually or as a team group of 2 persons. If you work on it as a team, it would be advisable that both team members have similar research interests. Any research project takes time to disentangle and write. Therefore, you are encouraged to start working on it from the beginning of the course.

You can choose among the following options:

- 1- Use the project of this course as a beginning to start developing the main document of your Master Thesis.
- 2- Or you could work on another different personal research project.
- 3- Alternatively, in case you may have a personal research project that doesn't involve using the methodologies nor the content that we learn in this course, I suggest you search for interventions (policies, programs, or projects) on a topic of your interest, that has taken place/is currently taking place in the Latin American region or any country within the region.

Whichever option you choose is up to you and, irrespective of your choice, here below you have a suggested structure and the main points that you will need to cover.

As a suggestion, the content of this project could be structured as follows:

- a) Introduction
- b) The intervention: description of the policy, program, project you are interest in evaluating its impact
- c) Evaluation design:
  - a. Data
  - b. Methodology
  - c. Estimated equation (optional)
- d) Expected main results
- e) Expected policy impact & Conclusions
- f) References

Feel free to include graphs and tables whenever you consider they could be useful to illustrate your development.

The following questions/steps could help you guide the development of your research and the information your research project should include:

- 1) What is the research question (description of the intervention and motivation)?
- 2) Why is it relevant (context, existing literature, contribution of the research)?
- 3) How is the research question answered (methodology)?
- 4) How is the evaluation designed (design of the data collection, description of data, empirical strategy/estimated equation)?
- 5) Which are the main findings?
- 6) Which is the policy impact?

If you encounter any difficulties or you would like to exchange on your research project, please do not hesitate to let me know. When possible, you will be given space and time to work on it at the end of each lecture.

## **2- Team presentation of a paper in class: 50%**

Presentations will be organized during Sessions 10 & 11: 4 presentations per session

This team project will contribute to enhance your comprehension and analysis of a research article -- useful to learn about the research that has been carried out on the topic, stimulate inspiration and ideas for your own research and reflect on how your research could contribute --, while developing group work skills.

It is to be done as a team group of 2 persons and you are encouraged to choose together the paper that is of interest of both team members. For instance, each team member could search for one article and then you could exchange and choose. If encountered any difficulties in finding a proper article, we could see together how to find one. When possible, you will also be given space and time to work on it at the end of each lecture.

As a suggestion, the structure of the presentation could be as follows:

- 1) What is the research question (description of the intervention and motivation)?
- 2) Why is it relevant (context, existing literature, contribution of the research)?
- 3) How is the research question answered (methodology)?
- 4) How is the evaluation designed (design of the data collection, description of data, empirical strategy/estimated equation)?

- 5) Which are the main findings?
- 6) Which is the policy impact?

The presentation needs to be done in no more than 10-15 minutes, to leave 5-10 minutes for questions and discussion. In total, each group will have a slot of 20 minutes. The preferred language for the presentation is English but this shouldn't be a constraint or an additional difficulty, rather a useful skill to develop. If you feel more comfortable presenting in Spanish or in French, you can do it so.

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**Course workload:**

Students are expected to read the required readings before each class and to actively participate in class discussions.

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**Pedagogical format:**

The lectures are interactive. Theory and key concepts will be presented in lecture format. After each lecture, the presentation will be shared with you through iCampus.

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**Readings:**

All readings will be shared with you before each lecture through iCampus.

The following readings will be used throughout the course:

- Gertler, P.J., S. Martinez, P. Premand, L.B. Rawlings, C.M.J. Vermeersch. 2011. *Impact Evaluation in Practice*. World Bank: Washington, D.C. (<https://www.worldbank.org/en/programs/sief-trust-fund/publication/impact-evaluation-in-practice>)
- Angrist, J.D and J-S. Pischke, (2009) *Mostly Harmless Econometrics: An Empiricist Companion*, Princeton University Press, Princeton, MA. (<http://www.mostlyharmlesseconometrics.com/>)
- Scientific papers specified in the outline of the course.

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**Course Outline (provisional)**

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**Session 1&2: Why evaluate? What is impact evaluation?**

Presentation of the semester.

Required reading:

Chapter 1 in: Gertler et al., *Impact evaluation in practice*.

Suggested readings:

Gertler, Paul J. 2004. "Do Conditional Cash Transfers Improve Child Health? Evidence from PROGRESA's Control Randomized Experiment." *American Economic Review* 94 (2): 336–41.

Martinez, Sebastian, Sophie Nadeau, and Vitor Pereira, 2012. "The Promise of Preschool in Africa: A Randomized Impact Evaluation of Early Childhood Development in Rural Mozambique." Washington, DC: World Bank and Save the Children.

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**Session 3: How to evaluate? How to implement an impact evaluation?**

Required reading:

Chapter 3 in: Gertler et al., *Impact evaluation in practice*.

Suggested reading:

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Angrist, J.D and J-S. Pischke, (2009) *Mostly Harmless Econometrics: An Empiricist Companion*, Princeton University Press, Princeton, MA. (Chapter 2, pp. 12-24; Chapter 3, pp. 52-59)

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Optional reading:

Ravallion, Martin. 2001. "The Mystery of the Vanishing Benefits: Ms. Speedy Analyst's Introduction to Evaluation." *World Bank Economic Review* 15 (1): 115–40.

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#### **Session 4: Randomized assignment**

Required reading:

Chapter 4 in: Gertler et al., *Impact evaluation in practice*.

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Optional reading:

Schultz, Paul. 2004. "School Subsidies for the Poor: Evaluating the Mexican Progresa Poverty Program." *Journal of Development Economics* 74 (1): 199–250.

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Additional material:

<https://www.iadb.org/en/project/BO-L1065>

<https://vimeo.com/86744573>

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#### **Session 5: Observational Setting and Natural Experiments**

Required reading:

Angrist, J. D., Krueger, A. B., (1991). "Does compulsory school attendance affect schooling and earnings?" *The Quarterly Journal of Economics*, 106(4), 979-1014.

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Suggested reading:

Angrist, J.D and J-S. Pischke, (2009). *Mostly Harmless Econometrics: An Empiricist Companion*. Princeton University Press, Princeton, MA. (Chapter 3, pp. 58-60; Chapter 4, pp. 115-118).

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#### **Session 6: Instrumental Variables**

Required reading:

Chapter 5 (pp. 89-100) in: Gertler et al., *Impact evaluation in practice*.

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Suggested readings:

Angrist, J. D., Krueger, A. B., (1991). "Does compulsory school attendance affect schooling and earnings?" *The Quarterly Journal of Economics*, 106(4), 979-1014.

De Poli, Silvia, Loris Vergolini, and Nadir Zanini. "The impact of a study abroad programme on learning abilities and personality traits: evidence from a randomization." *Applied Economics Letters* 25.8 (2018): 562-566.

Angrist, J.D and J-S. Pischke, (2009). *Mostly Harmless Econometrics: An Empiricist Companion*. Princeton University Press, Princeton, MA. (Chapter 4, pp. 84-89, 94-96, 112-123).

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Optional reading:

Acemoglu, Daron, Simon Johnson, and James A. Robinson. "The colonial origins of comparative development: An empirical investigation." *American economic review* 91.5 (2001): 1369-1401.

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## **Session 7: Difference-in-Difference**

Required readings:

Chapter 7 in: Gertler et al., *Impact evaluation in practice*.

Suggested readings:

Mullerova, Alzbeta. "Family policy and maternal employment in the Czech transition: a natural experiment." *Journal of Population Economics* 30.4 (2017): 1185-1210.

## **Session 8: Matching**

Required readings:

Chapter 8 in: Gertler et al., *Impact evaluation in practice*.

Suggested readings:

Bernard, T., A.S. Taffesseb, E. Gabre-Madhin. 2008. Impact of cooperatives on smallholders' commercialization behavior: evidence from Ethiopia. *Agricultural Economics*, 39(2), 147–161.

## **Session 9: Regression Discontinuity Design**

Required readings:

Chapter 6 (pp. 113-126) in: Gertler et al., *Impact evaluation in practice*.

Suggested reading:

Angrist, J.D and J-S. Pischke, (2009). *Mostly Harmless Econometrics: An Empiricist Companion*. Princeton University Press, Princeton, MA. (Chapter 6, pp. 189-195)

Optional reading:

Barrera-Orsorio, Felipe, Leigh Linden, and Miguel Urquiola. 2007. "The Effects of User Fee Reductions on Enrollment: Evidence from a Quasi-Experiment." Columbia University and World Bank, Washington, DC.

## **Sessions 10 & 11:**

Oral presentations

## **Session 12: Tutorials and laboratory sessions**

Apply methods using publicly available data and the software Stata