Labor economics

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CONTENTS

> **Although it is obvious that people acquire useful skills and knowledge, it is not obvious that these skills and knowledge are**
> – Schultz, 1961

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ONE

LECTURES

1.1 Introduction

You can download the slides for this lecture here.

1.1.1 References

Becker, G. S. (1994). *Human capital: A theoretical and empirical analysis, with special reference to education* (3rd ed.). Chicago, IL: Chicago University Press.

Ben-Porath, Y. (1967). The production of human capital and the life cycle of earnings. *Journal of Political Economy*, 75(4, Part 1), 352–365.

Lagakos, D., Moll, B., Porzio, T., Qian, N., & Schoellman, T. (2018). Life cycle wage growth across countries. *Journal of Political Economy*, 126(2), 797–849.

Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87(3), 355–374.

Weiss, Y. (1986). The determination of life cycle earnings: A survey. In O. Ashenfelter & R. Layard (Eds.), *Handbook of labor economics* (Vol. 1, pp. 603–640). Amsterdam, Netherlands: North-Holland Publishing Company.

We outline the research program in the economics of human capital. We start by reviewing some facts about the distribution of human capital across and within countries and then study two seminal models emphasizing different mechanisms how education affects labor market outcomes. We present an overview on the National Longitudinal Survey of Youth 1979 with a focus on human capital information, the slides are available here. We also discuss the usefulness of mathematical modeling in economics.

1.2 Returns to schooling

You can download the slides for this lecture here.

1.2.1 References

Heckman, J. J., Lochner, L. J., & Todd, P. E. (2006). Earnings functions, rates of return and treatment effects: The Mincer equation and beyond. In E. A. Hanushek & F. Welch (Eds.), *Handbook of the economics of education* (Vol. 1, pp. 307–458). Amsterdam, Netherlands: North-Holland Publishing Company.

We study several models of schooling decisions. We contrast their economic assumptions with a focus on the role of uncertainty and nonlinearities in the return to increasing schooling. In the process, we contrast alternative return concepts and investigate their empirical validity.

1.3 Multidimensionality of skills

You can download the slides for this lecture here.

1.3.1 References

Eisenhauer, P., Heckman, J. J., & Mosso, S. (2015). Estimation of dynamic discrete choice models by maximum likelihood and the simulated method of moments. *International Economic Review*, 56(2), 331–357.

Heckman, J. J., Stixrud, J., & Urzua, S. (2006). The effects of cognitive and noncognitive abilities on labor market outcomes and social behavior. *Journal of Labor Economics*, 24(3), 411–482.

We sharpen our understanding of the multidimensionality of human capital. We review two papers that showcase the importance of cognitive as well as noncognitive skills for a variety of economic outcomes and objects of interest. But first of all, we start the lecture by briefly reviewing some best practices on how to read a research paper. The slides are available here.

1.4 Static model of educational choice

You can download the slides for this lecture here.

1.4.1 References

Carneiro, P., Hansen K. T., & Heckman J. J. (2003). 2001 Lawrence R. Klein lecture: Estimating distributions of treatment effects with an application to the returns to schooling and measurement of the effects of uncertainty on college choice. *International Economic Review*, 44(2), 361–422.

Carneiro, P., Heckman, J. J., & Vytlacil, E. J. (2011). Estimating marginal returns to education. *American Economic Review*, 101(6), 2754–81.

grmpy (2018). *grmpy: A Python package for the simulation and estimation of the generalized Roy model.* Retrieved from http://doi.org/10.5281/zenodo.1162640

Heckman, J. J., & Vytlacil, E. J. (2007a). Econometric evaluation of social programs, part I: Causal effects, structural models and econometric policy evaluation. In J. J. Heckman and E. E. Leamer (Eds.), *Handbook of econometrics* (Vol. 6B, pp. 4779–4874). Amsterdam, Netherlands: Elsevier Science.

Heckman, J. J., & Vytlacil, E. J. (2007b). Econometric evaluation of social programs, part II: Using the marginal treatment effect to organize alternative economic estimators to evaluate social programs and to forecast their effects in new environments. In J. J. Heckman and E. E. Leamer (Eds.), *Handbook of econometrics* (Vol. 6B, pp. 4779–4874). Amsterdam, Netherlands: Elsevier Science.

We study the economics and econometrics of the generalized Roy model. We discuss alternative parameters of interest and clarify the policy questions they address. We also explore the capabilities of the `grmpy` package. The manuscript Issues in the Econometrics of Policy Evaluation provides an additional introduction to the material discussed in the lecture. We discuss an application of the framework in Estimating Marginal Returns to Education.

1.5 Dynamic model of human capital accumulation

We maintain an set of slides and an accompanying handout on the class of the so-called **Eckstein-Keane-Wolpin** models.

We also study the seminal paper on the career decision of young men in Keane & Wolpin (1997). We explore the capabilities of the `respy` package to estimate the model presented there.

TWO

TUTORIALS

2.1 Tutorial Session

You can download the tutorial session here.

We revisit the material of the course in tutorial. Please prepare for our review session using these questions.

THREE

ITERATIONS

Summer Quarter 2021, Graduate Program at the University of Bonn.

We start on April 14th 2021 and meet Wednesdays between 12:15-15:45 for online lecture using ZOOM.

Lecturer Philipp Eisenhauer

We will conduct all course communications using the bonn-econ-teaching Zulip chat, so please be sure to join us there. To join the Zulip organization, please click on the button below.

3.1 Lecture Plan

Date	Topic
04/14/20	Kickoff: Introduction to the economics of human capital
04/21/20	Returns to schooling
04/28/20	Static model of educational choice
05/05/20	Syntopical reading of Lagakos & al. (2018)
05/12/20	Dynamic model of human capital accumulation
05/19/20	Dies Academicus, office hours
05/26/20	Pentecost holidays
06/02/20	Tutorials

3.2 Lectures

The core lectures are available here.

3.3 Guest lectures

We are lucky to draw on a set of guest lecturers for our different topics.

- segsell on grmpy

Sebastian Gsell will host a tutorial on the *grmpy* package to explore some selected issues in the static model of educational choice.

3.4 Kickoff

- Introduction to the NLSY79

I present an overview on the NLSY79 dataset as we will encounter numerous empirical analysis based on the it throughout the course.

3.5 Syntopical reading

- Reading scientific papers

We discuss the research reported in Lagakos & al. (2018) in detail, trying to deduce some general lessons on how to read scientific papers in general.
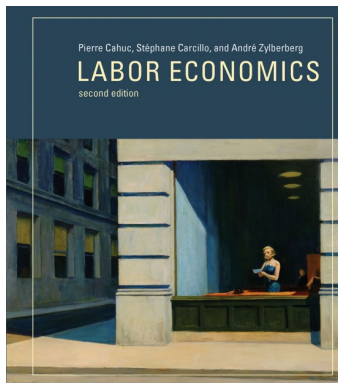
3.6 References

- Lagakos, D., Moll, B., Porzio, T., Qian, N., & Schoellman, T. (2018). Life cycle wage growth across countries. *Journal of Political Economy*, 126(2), 797-849.

BIBLIOGRAPHY

PRIMARY LITERATURE

We use the book Labor Economics by Pierre Cahuc, Stéphane Carcillo and André Zylberberg as well as the paper Investment in Human Capital by Theodore Schultz throughout the course.

For further questions, please do not hesitate to contact us.

5.1 Powered by

BIBLIOGRAPHY

[CCZ04] Pierre Cahuc, Stéphane Carcillo, and André Zylberberg. *Labor Economics*. MIT Press, Cambridge, MA, 2004.

[Sch61] Theodore W Schultz. Investment in human capital. *The American economic review*, 51(1):1–17, 1961.