

WORKSHOP ON PISA DATA ANALYSIS
January 17, 2024
ISEG, University of Lisbon

OBJECTIVES:

This training is for people interested in educational policy and data analysis. It starts with technical description of how surveys like PISA are developed and what are the statistical methods to analyze them properly. It discusses how not to overinterpret PISA results and how to conduct statistical analyses to answer questions related to educational policy and practice. It covers several commonly applied approaches to analyze international large-scale assessment data discussing technicalities and showing examples in Stata. Finally, it goes beyond PISA showing how DCE methods could replace simplistic preference assessments used in PISA and other student assessments.

DESCRIPTION OF TOPICS COVERED:

I part:

- How are PISA data developed?
- Statistical analysis with complex sampling schemes in PISA and other international surveys.
- Statistical analysis of student achievement using plausible values: cross-regressions using cross-sectional data and regression models for time trends in PISA
- Multilevel models with PISA data and two stage sampling.
- Re-scaling PISA contextual and achievement data to further account for measurement and scaling models errors

II part:

- How non-cognitive issues are captured in PISA 2022?
- How to measure issues that are not captured by international assessments? We will present how to use the Discrete Choice Experiment (DCE) methodology to reveal interesting and valuable information about what students feel and think about important aspects of the learning process, particular subjects, curriculum, and teaching methods. Similarly, we will present the utilization of the DCE method to analyze teacher preferences and motivation.
- International assessments, national research, and administrative data – how to use all sources of information to develop evidence-informed policy and practice?

Instructors:

Maciej Jakubowski – University of Warsaw

Tomasz Gajderowicz – University of Warsaw

Time 14:00 – 17:00