

# Ph.D. in “Life Course Research” – Socio-demographic curriculum

Academic Year 2024-2025

## Introduction to the empirical analysis of socio-demographic phenomena (consolidation)

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### Objectives

The course aims to consolidate students' knowledge of how to formulate research questions and test them empirically through applications of the generalized linear model. Methods are presented and discussed through worked examples to give students the basic tools to apply quantitative methods to answer socio-demographic research questions. Students will be introduced to using the Stata software for implementing empirical analyses with the techniques discussed in the lectures.

### Program

#### Week 1

*Monday morning* (Instructor: R. Guetto):

- Theory-driven empirical research: formulating a research hypothesis.
- Definition of the analytical sample, operationalization, and description of variables.

*Monday afternoon* (Instructor: R. Guetto):

- Bivariate associations (cross-tabs, odds ratios, chi-square test, correlation, and simple linear regression).

*Tuesday morning* (Instructor: R. Guetto):

- The logic of multivariate analysis, multiple linear regression.

*Wednesday morning* (Instructor: R. Guetto):

- Introduction to factor analysis, the assumptions of multiple linear regression.

*Thursday morning* (Instructor: R. Guetto):

- Model's specification: non-linearity, interaction effects, and mediation.

*Thursday afternoon: DiSIA Seminar by R. Luijkx:*

## The European Values Study 1981-2026: from face-to-face to self-completion

### Short abstract

The European Values Study (EVS) was first conducted in 1981 and then repeated in 1990, 1999, 2008, and 2017, with the aim of providing researchers with data to investigate whether European individual and social values are changing and to what degree. The EVS is traditionally carried out as a probability-based face-to-face survey that takes around 1 hour to complete. In recent years, large-scale population surveys such as the EVS have been challenged by decreasing response rates and increasing survey costs. In the light of these challenges, six countries that participated in the last wave of the EVS tested the application of self-administered mixed-modes (Denmark, Finland, Germany, Iceland, the Netherlands, and Switzerland).

In this contribution, I will present the implemented mode experiments from the last EVS wave (2017) and sketch the infra-structural challenges to move from face-to-face to self-completion. Special attention will be given to the Dutch situation and the national cooperation between ESS, ISSP, GGS and EVS. It is pivotal for data use in substantive research to make the reasoning behind design changes and country-specific implementations transparent as well as to highlight new research opportunities that will emerge when surveys cooperate and will use probabilistic web panels.

*Friday morning* (Instructor: R. Luijkx):

- Introduction to (binomial) logistic regression

### Week 2

*Monday morning* (Instructor: R. Luijkx):

- Introduction to (multinomial) logistic regression

*Tuesday morning* (Instructor: R. Luijkx):

- Introduction to (ordinal) logistic regression

*Wednesday morning* (Instructor: R. Luijkx):

- Work on assignment

### Suggested literature

Agresti, A. and Finlay, B. (2017) *Statistical Methods for the Social Sciences, fifth edition*, Pearson.

Corbetta, P., Gasperoni, G. and Pisati, M. (2001) *Statistica per la ricerca sociale*, Bologna: Il Mulino.

Treiman, D.J. (2009) *Quantitative Data Analysis. Doing Social Research to Test Ideas*, San Francisco: Jossey-Bass

### Requirements

Levels of measurement of variables, descriptive statistics. Some knowledge of sample surveys, statistical hypothesis testing, and Stata software is helpful.