

Mini Course: Using Surveys and Experiments to Obtain Reliable Estimates of Preferences, Skills, and Other Latent Personal Attributes (PSAs).

Motivation: The use of multi-faceted skills, preferences, and other latent personal attributes (PSAs) has recently proliferated in both empirical economics and in theory. PSAs are key drivers of a myriad of decisions which combine to create an individual's life story. Differences in PSAs, together with constraints and luck, underlie inequalities in outcomes. Knowledge of PSAs is essential for policymakers to design effective public policy. Self-knowledge of PSAs is crucial for individuals to sort into occupations, activities, and relationships which enable them to flourish. However, unobserved PSAs are only noisily revealed by observed behavior.

Learning Objectives: This mini course is intended to introduce students to state-of-the-art experimental, survey, and structural methods which will enable them to obtain reliable estimates of preferences, skills, and other latent personal attributes (PSAs). It is designed to be accessible to students without any prior experience with preference elicitation or estimation. At the end of the course, students will be able to:

- Understand the importance of various forms of decision noise as potential confounders of estimates of PSAs
- Design surveys and experiments which facilitate the identification of latent attributes of interest
- Utilize state-of-the-art reduced-form techniques for mitigating the impact of decision noise
- Implement simple structural models to account for decision noise

Class organization: The class will be organized into four interrelated segments, of roughly equal length, for a combined 4 hours of instruction:

1. The first part will introduce the framework of Heckman, Jagelka, and Kautz (2021) who clarify that any observed decision reflects the performance on a task, which is a function of multiple PSAs and also of effort, which in turn depends on task-specific incentives. It will demonstrate the empirical importance of various types of decision noise (endogenous effort allocation, imperfect self-knowledge, noisy coding of task attributes, etc.) as potential sources of bias in estimates of PSAs based on observed decisions. It will also discuss recent cases where accounting for noise was successfully used to de-bias estimates and yielded novel insights which were previously inaccessible.
2. The second part, based on Dohmen and Jagelka (2024) and others, will illustrate state-of-the-art study design elements (attention-checks, eliciting self-reported answer reliability, multiple measurements, incentives, decision time, etc.) and reduced-form analysis techniques (obviously related instrumental variables, sample exclusion restrictions, reweighting based on proxies for signal/noise ratio, etc.) for obtaining reliable preference estimates.

3. The third part, based on Jagelka (2024) and Belzil and Jagelka (2025) will present structural techniques for extracting signal on preferences from noise in observed decisions. This would include an overview of modeling of the decision-making process with distinct types of noise, taking into account the costs and benefits, for the decision maker, of making a choice in line with their true preferences.
4. The fourth part would be a practical illustration of an application of the covered structural methods based on a simple simulation of the decision-making process driven by a latent attribute of interest in the presence of decision noise.

Reading List:

Belzil, C., & Jagelka, T. (2025). Separating Preferences from Endogenous Effort and Cognitive Noise in Observed Decisions. ECONtribute Discussion Paper No. 350

Dohmen, Thomas, and Tomáš Jagelka. 2024. "Accounting for Individual-Specific Reliability of Self-Assessed Measures of Economic Preferences and Personality Traits." *Journal of Political Economy Microeconomics* 2 (3).

Gillen, Ben, Erik Snowberg, and Leeat Yariv. 2019. "Experimenting with Measurement Error: Techniques with Applications to the Caltech Cohort Study." *Journal of Political Economy* 127 (4): 1826–63.

Heckman, James J, Tomáš Jagelka, and Tim Kautz. 2021. "Some contributions of economics to the study of personality." In *Handbook of Personality: Theory and Research*, edited by O. P. John and R. W. Robins, 853–892. The Guilford Press.

Jagelka, Tomáš. 2024. "Are Economists' Preferences Psychologists' Personality Traits? A Structural Approach." *Journal of Political Economy* 132 (3): 910–970.