

Does the Design of Laboratory Experiments Affect the Results?

Declaring Income versus Declaring Taxes in Tax Compliance Experiments

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Abstract

Laboratory experiments have become a widespread method in research, especially in the analysis of tax compliance. However, there is often concern about their use, in part because of the sensitivity of the results to specific design features of the experiment. Our study examines probably the most important aspect of the design, by the example of a laboratory experiment on tax compliance: How should the dependent variable – participants' tax compliance – be operationalized? We compare the effects of the two most common operationalization types: Participants are instructed to declare their (experimental) gross income, or they are instructed to declare the amount of taxes they pay. In a web-based pilot study ($N = 467$) and a fully incentivized laboratory experiment ($N = 365$), we find that compliance is higher when participants report their tax payment than when they declare their income. We also find that the type of operationalization has significant implications for the effects of the main policy parameters of the economic model of income tax compliance (or the tax, audit, and fine rates); that is, the impact of these variables is stronger when participants declare their taxes than when they declare their income. Our results are highly relevant for interpreting prior and future experimental evidence on tax compliance, and they can explain the sometimes contradicting findings on the impact of the main parameters of the economic model. More broadly, our study demonstrates that the results of laboratory experiments clearly and importantly depend on specific design features, which indicates that more research on operationalization is necessary before generalizing from laboratory experiments to the real world.

Keywords: tax compliance, laboratory experiments, external validity, tax rate, audit probability, fine rate

JEL codes: **B41** Economic Methodology; **C90** Design of Experiments: General; **C91** Design of Experiments: Laboratory, Individual; **H26** Tax Evasion and Avoidance