

# Abstract: Survey design features that matter: A meta-analysis using official statistics surveys of the Netherlands

## **Title:**

Survey design features that matter: A meta-analysis using official statistics surveys of the Netherlands

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## **Relevance & Research Question:**

More and more surveys are being conducted, but response rates are declining. The solution to avoid the missing data problem is to avoid having any. Understanding which factors influence response rates is crucial for improving survey participation and reducing nonresponse bias. This study investigates which features significantly affect response rates and how they can be optimized to improve survey participation?

## **Methods & Data:**

We conducted a multilevel meta-analysis using Statistics Netherlands' data from 38 person population surveys with over 1200 samples. The surveys were fielded over a seven-year period (2018–2024) and had a total sample size of over 7 million people. These surveys range from one-time to recurring studies with frequencies from weekly to biennially. We used 72 factors such as respondent factors (e.g., age, gender, nationality, device use), survey design factors (e.g., year, month, mode, incentive, fieldwork period, number of contacts, topic) and questionnaire factors (e.g., duration, number of block, pages & questions, number of question per question type, number of introduction texts) that potentially have an effect on the response rates.

## **Results:**

Preliminary findings suggest that the data collection mode, type of incentives, survey topic, the number of and types of questions, the device used by the respondent, and age and gender have significant effects on the response rate. Interestingly, the length of the fieldwork, the number of reminders, and the periodicity of the survey show non-significant effects.

## **Added Value:**

This study offers comprehensive insights into improving response rates for official statistics surveys, highlighting effective data collection strategies and identifying survey designs to avoid. Utilizing a wide range of different design features, the study serves as a practical toolbox for national statistical agencies, survey agencies, and survey researchers alike. Notably, it represents the first practical application of the Framework of Survey Behavior, which has also been submitted to this conference.

## **Keywords:**

Response Rate, Meta-Analysis, Multilevel Modelling, Survey Design Features, Framework of Survey Behaviour, Official Statistics, Data Quality, Nonresponse, Population Surveys, Evidence-Based Survey Design, Paradata.