

# Determination of the Threshold in Cutoff Sampling Using Response Burden with an Application to Intrastat\*

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## Abstract

Statistical offices frequently use cutoff sampling to determine which businesses in a population should be surveyed. Examples include business surveys about international trade, production, innovation, ICT usage etc. Cutoff thresholds are typically set in terms of key variables of interest and aim to satisfy a minimum coverage ratio – the share of aggregate values of reporting units. In this paper we propose a simple cost-benefit approach to determination of the sampling cutoff by taking into account the response burden. In line with existing practice, we use the coverage ratio as our measure of accuracy and provide either analytical or numerical solutions to cutoff determination. Using a business survey on response burden of reporting trade flows within the EU (Intrastat), we present an application that illustrates our approach to cutoff determination. An important practical implication is the possibility to set industry-contingent cutoffs.

**Keywords:** accuracy, cost-benefit analysis, reporting costs, social benefits, social welfare function

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