Easing the Burden

Exploring a new design for response burden management within sampling coordination of business surveys

Elise Tengs (ngs@ssb.no), Einar Døvik Stavnes (eds@ssb.no)
Support from Leiv Solheim

Statistisk sentralbyrå
Statistics Norway

Agenda

- Motivation for, and aim of paper
- Sampling coordination system
- Data on response burden
- Analysis
- What did we learn?

"Statistical agencies are to choose the source with regard to quality, timeliness, costs and the **burden on respondents**"

UNITED NATIONS

eurostat

"the **response burden** is spread as widely as possible over survey populations and monitored by the statistical authority"

Aim of paper

1) Explore SSB's sampling coordination system, and existing data on response burden

2) *Can this data be combined in a meaningful way and used in a sampling procedure to reduce response burden?*
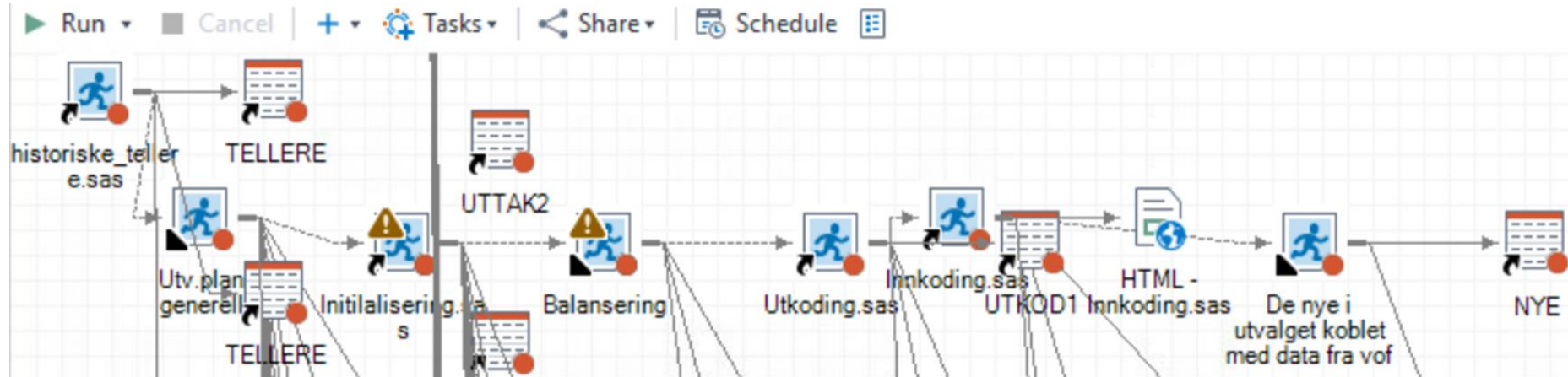
Sampling coordination

Norwegian System for Synchronised Sampling (NORSAMU)

Coordinates the overlap of survey samples

1) Minimal overlap: The more surveys, the less likely to be chosen for the next one.

2) Negative coordination: Controls consecutive number of survey rounds (and quarantine rules)

Response burden = number of surve

Findings

- Most, but not all surveys are included in NORSAMU
- The use and effect of NORSAMU is not monitored
- Difficult to retrieve meaningful information with regards to response burden (number of surveys)

SSB's data on response burden

- Collected through the business survey portal («*Altinn*»)

- Self reported

- Not mandatory

- **Actual response burden**: Time spent preparing for and filling out the questionnaire
  - All surveys
  - Extreme outliers

- **Perceived response burden**: If the questionnaire was easy or difficult to fill out
  - 5 surveys (the largest/ most complex)

Nå følger noen spørsmål om hvor mye tid som ble brukt for å finne fram nødvendig informasjon og fylle ut dette skjemaet.

- Var det nødvendig å samle informasjon fra andre personer eller kilder før spørsmålene i skjemaet kunne besvares?

	Ja	Nei
Hjelp fra andre personer	●	○
Informasjon fra andre kilder	●	○

- Hvor mye tid tror du denne/disse personen(e) brukte til sammen for å hjelpe deg?
  Oppgi timer og minutter denne/disse personen(e) brukte for å hjelpe deg.

  [ ] timer [ ] minutter

- Omtrent hvor lang tid brukte du til å samle inn nødvendig informasjon før spørsmålene kunne besvares?
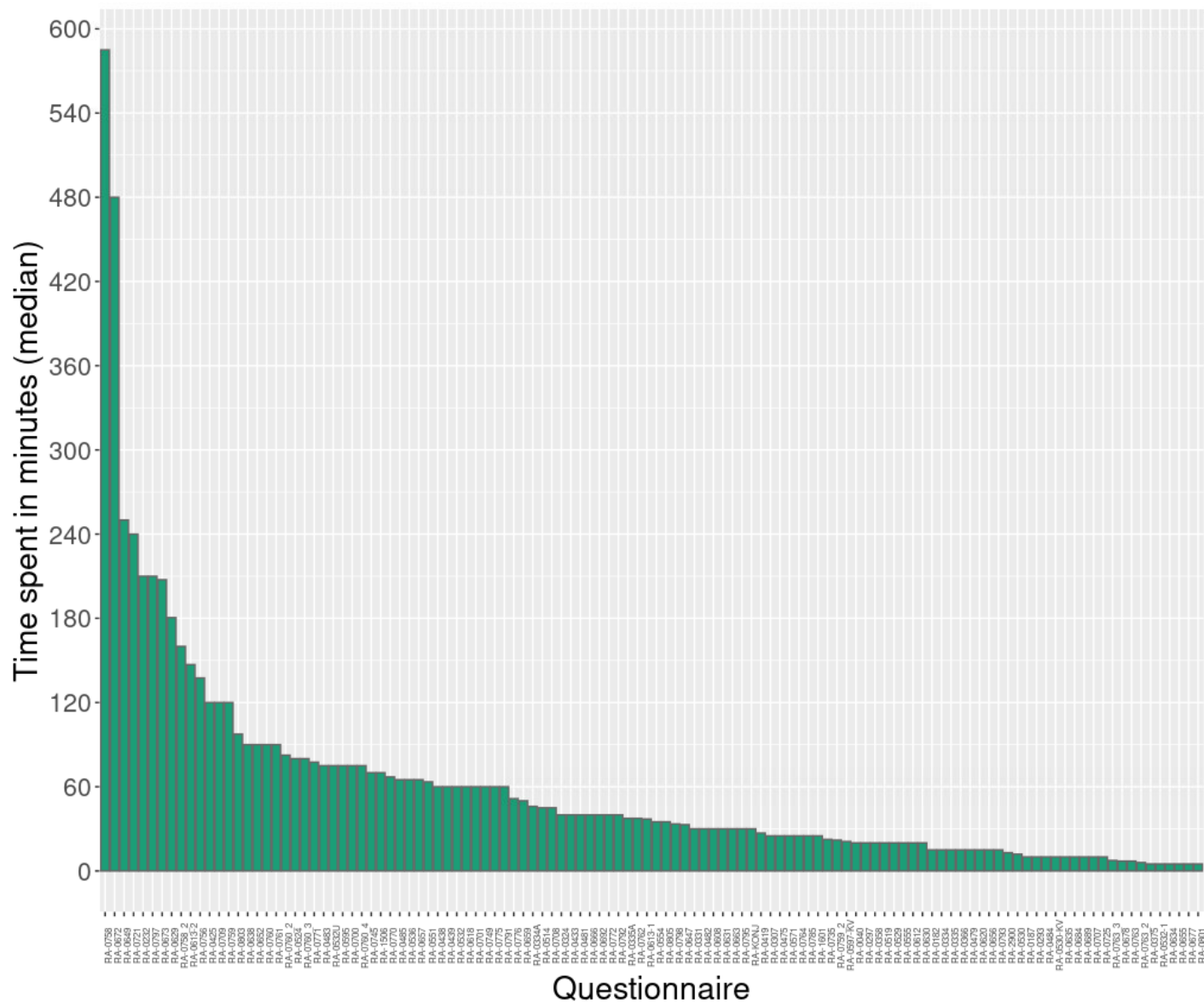 Oppgi timer og minutter du brukte på dette arbeidet.

  [ ] timer [ ] minutter

- Omtrent hvor lang tid brukte du på selve skjemautfyllingen?
  Tid du tidligere har oppgitt at du brukte før skjemaet kunne fylles ut, skal ikke regnes med.
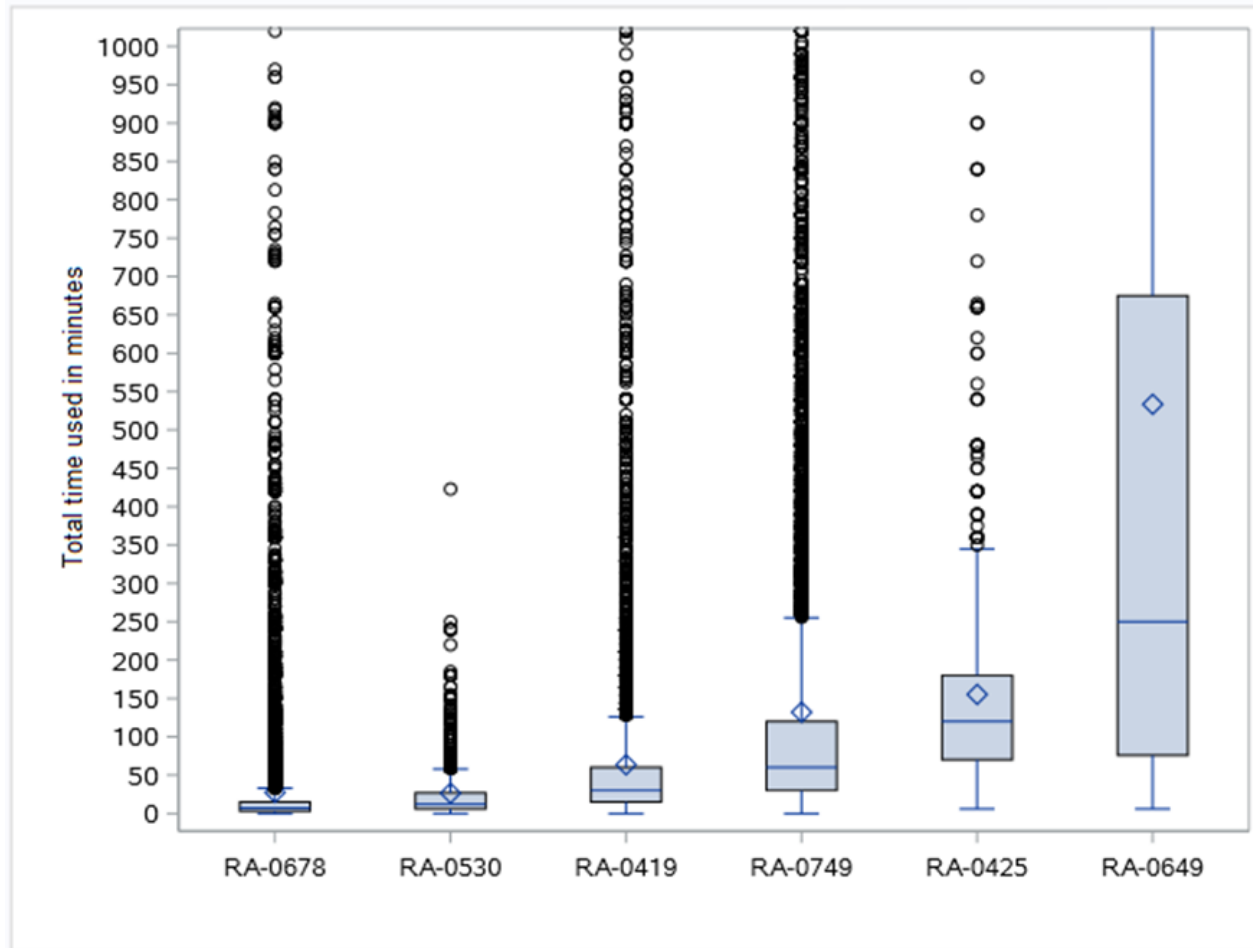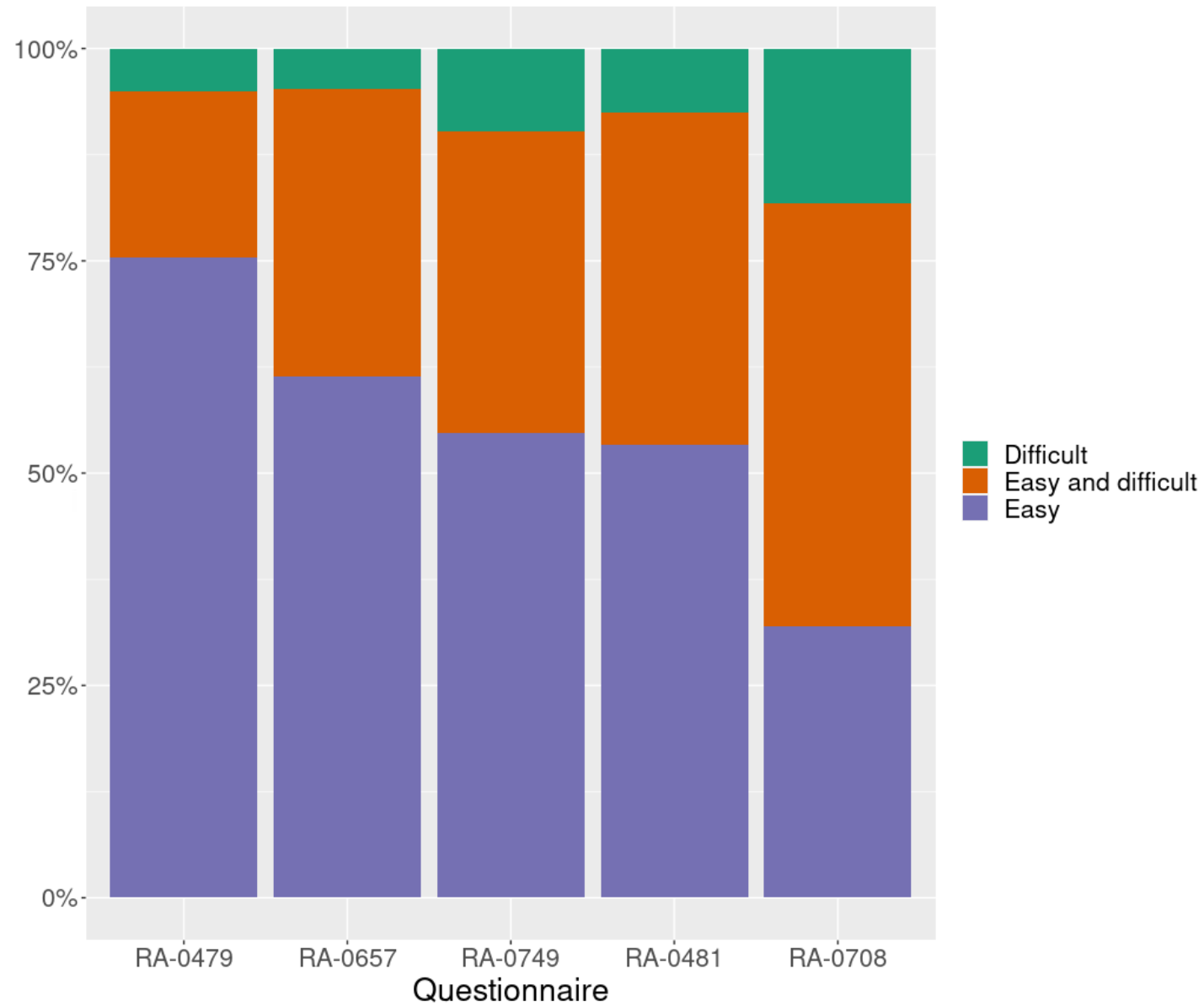
  [ ] timer [ ] minutter

Time spent for each questionnaire

NSM 2022

Time spent (examples)

Response burden

Number of surveys

NORSAMU

Actual response burden

Perceived response burden

# Analysis: Sampling of the Structure Business Survey

- Draw 2245 businesses from a population of 20 037 businesses

- January 2021

- Re-drawing samples and comparing distribution of response burden
  - Total time spent answering surveys for SSB
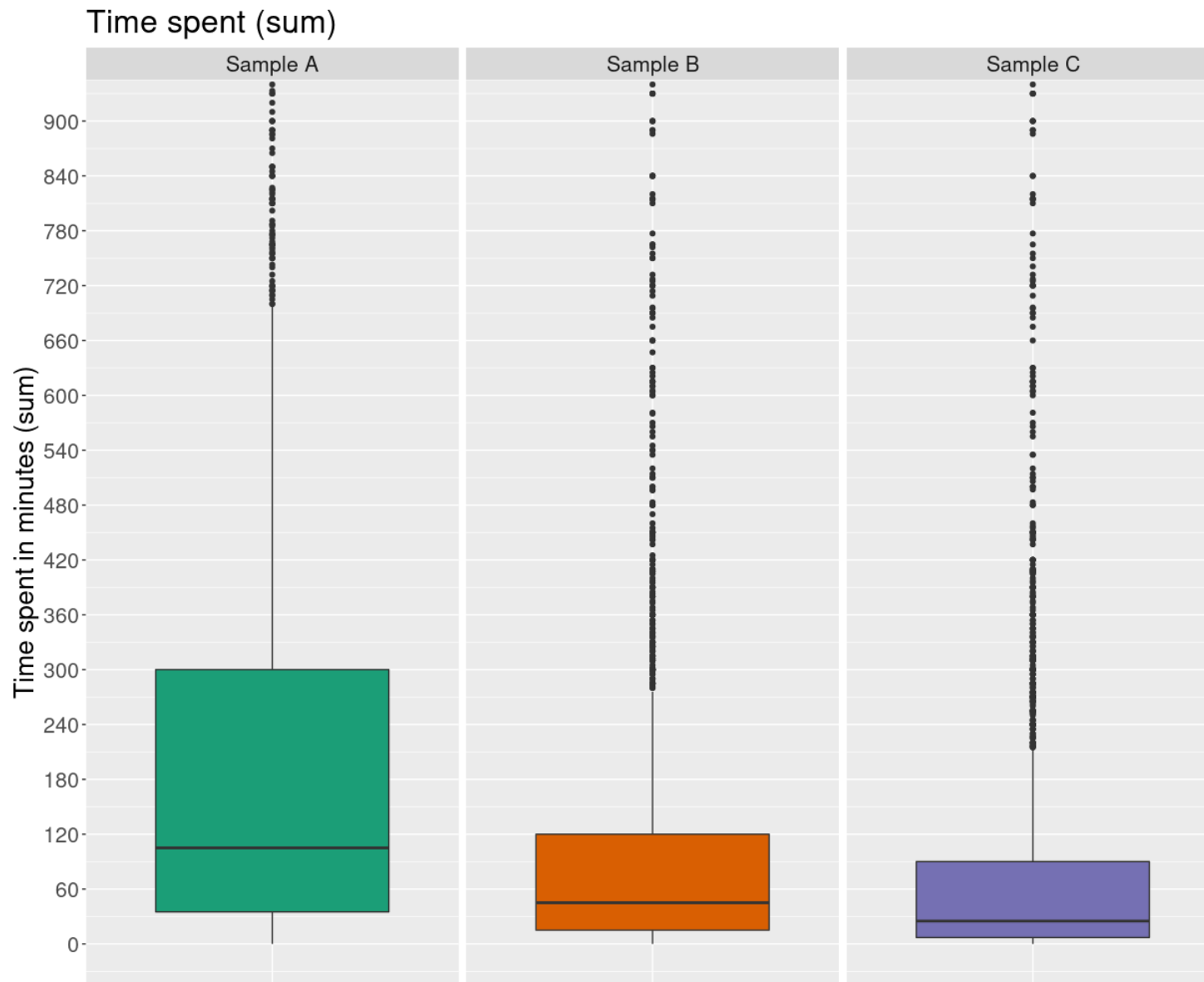 - Total number of survey rounds

Sample A: Simple Random Sampling

Sample B: Sampled based on number of surveys (NORSAMU)

Sample C: Sampled based on number of surveys *and* time spent

Distribution of number of surveys
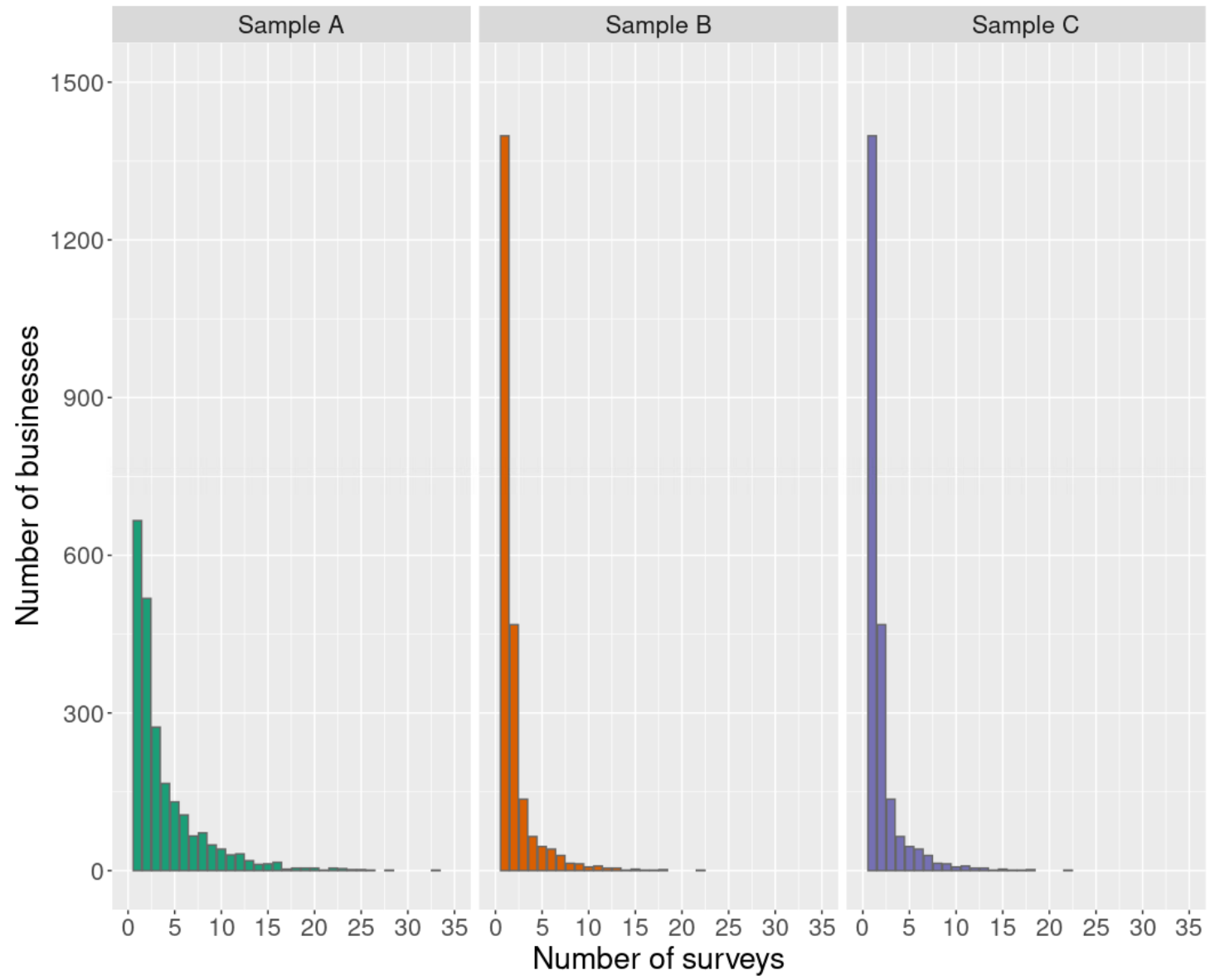
Example from one stratum

	number of surveys	time spent	Sample A	Sample B	Sample C
Unit 1	1	10		Yes	Yes
Unit 2	1	20		Yes	Yes
Unit 3	1	30	Yes	Yes	Yes
Unit 4	1	30		Yes	Yes
Unit 5	1	60			Yes
Unit 6	1	70	Yes	Yes	
Unit 7	1	320			
Unit 8	2	45			
Unit 9	2	170	Yes		
Unit 10	3	80			
Unit 11	3	225	Yes		
Unit 12	4	240			
Unit 13	6	510	Yes		

What did we learn?

➡️ Possible in theory to include «time spent» in NORSAMU. Difficult in practice (for now)

Challenges

- The use and effect of NORSAMU is not explicitly monitored

- Data on time spent has extreme outliers

- Problematic to include perceived response burden

Solutions/ potential

- All largest surveys in SSB use NORSAMU

- All questionnaires include data on time spent

- Important topic = incentive to improve & evaluate!