Effects of adjustments in face-to-face data collection due to the COVID-19 pandemic on survey results

Results of the Labour Force Survey and the Housing Survey

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Overview

- Face to face interviewing in times of COVID-19
- Disentangling the role of selection effects and mode-specific measurement errors
- Results of the Labour Force Survey *
- Conclusion
- Limitations and recommendations

* Results of the Housing Survey: see paper
CAPI fieldwork

Normal situation

Current situation

CAPI in times of COVID-19

- Cancel all CAPI fieldwork.
- If a telephone number is available: CATI
- CAWI
- F2F interview outside and/or at enough distance.
- CAPTI: apply CATI to CAPI-sample
  - Persuade the potential respondent at the doorway, ask for a telephone number, and conduct the interview by telephone.
Conducting the interview by telephone (LFS)

<table>
<thead>
<tr>
<th>LFS households</th>
<th>2020</th>
<th>Face-to-face interviews</th>
<th>CAPTI</th>
<th>Total CAPI response</th>
<th>% CAPI by telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>September</td>
<td>761</td>
<td>93</td>
<td>854</td>
<td>10,9%</td>
</tr>
<tr>
<td></td>
<td>October</td>
<td>580</td>
<td>233</td>
<td>813</td>
<td>28,7%</td>
</tr>
<tr>
<td></td>
<td>November</td>
<td>446</td>
<td>325</td>
<td>771</td>
<td>42,2%</td>
</tr>
<tr>
<td></td>
<td>December</td>
<td>305</td>
<td>209</td>
<td>514</td>
<td>40,7%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2092</td>
<td>860</td>
<td>2952</td>
<td>29,1%</td>
</tr>
</tbody>
</table>
Mode-effects

– Selection effects
  - To adjust for during weighting

– Mode-specific measurement errors
  - May cause more problems
Disentangling the role of selection effects and mode-specific measurement errors

- Preferably: **experiment**
- Alternatively: regression analyses on important target variables
  - **Model 1**: Only includes a variable indicating the mode of response (\(=\) total mode effect)
  - **Model 2**: includes the mode of response and all variables that will also be used during weighting (\(=\) mode-specific measurement error)
Mode-effects

People who responded by telephone were more likely to:

- belong to the employed labour market
- work 28-35 hours a week
- be of age 50-54
- belong to a household having children
- have a higher household income
- have an income from salary
- live in the Southern parts of the Netherlands

In comparison with people who responded face-to-face.
## Logistic regression analyses (LFS)

<table>
<thead>
<tr>
<th></th>
<th>Model 1 a</th>
<th>Model 2 b</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
</tr>
<tr>
<td><strong>Employed labour market</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPTI</td>
<td>1.22 (1.08-1.37)</td>
<td>1.09 (0.93-1.27)</td>
</tr>
<tr>
<td>CAPI face-to-face ref</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Permanent employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPTI</td>
<td>1.14 (1.02-1.27)</td>
<td>1.00 (0.87-1.17)</td>
</tr>
<tr>
<td>CAPI face-to-face ref</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>&gt;28 h/week employed</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPTI</td>
<td>1.12 (1.01-1.24)</td>
<td>1.06 (0.91-1.23)</td>
</tr>
<tr>
<td>CAPI face-to-face ref</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Higher level of education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAPTI</td>
<td>1.14 (1.02-1.28)</td>
<td>1.10 (0.97-1.26)</td>
</tr>
<tr>
<td>CAPI face-to-face ref</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Unadjusted.
b. Adjusted for all variables from the weighting. Through likelihood ratio tests, non-significant variables were removed from the model.
Conclusion

– Mode differences were mainly caused by selection effects and are less likely to be due to mode-specific measurement errors
– Specific groups are more likely to respond by telephone
– Similar results were found in the Housing Survey
Limitations and recommendations

- Few respondents involved in the analysis
- Possible underestimation of percentage conducted by phone
- Only for the variables under study
- On average 30% was conducted by phone
- ‘Covid-effect’ on the total response?
- Experiments are needed
– Mode effects are mainly caused by selection effects and are less likely to be due to mode-specific measurement errors.

– This is reassuring because we can take into account selection effects during weighting.

– Offering the possibility of conducting the interview by phone, enhances the number of response and thereby precision of results.
Facts that matter