Using Monetary incentives in face-to-face surveys:

Are prepaid incentives more effective than promised incentives?

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Introduction

• Declining response rates
e.g. ALLBUS 1994: 55%
2014: 35%
• Respondent incentives are
a means to increase
response rates,
• besides other means, like
increasing the number of
contact attempts,
refusal conversion efforts,
...
Previous Research

• Respondent incentives increase response rates (primarily by reducing the number of refusals)
• Effects stronger in mail than in f2f surveys
• Effects stronger in studies with low response rates
• Monetary incentives work better than in-kind incentives
• **Prepaid** incentives more effective than **promised** incentives

At the same time …

• Vast amount of literature on use of incentives in mail surveys, less evidence for f2f surveys
Incentive experiment in ALLBUS 2010

Promised incentive

- 3.6% points increase in response rate for 10€ promised vs. no incentive
- No difference in response rate between 10€ and 20€ incentive
- Only few and small effects on sample composition

跄 Only moderate effect on response rate, not large enough to stop the trend of decreasing response rates

跄 Open question: Are prepaid incentives a more effective means?
Incentive experiment in ALLBUS 2014

Including both prepaid and promised incentives

Research questions (RQ):

Do prepaid incentives have effects on ...

RQ 1: Cooperation- and response rates?

RQ 2: Sample composition and/or response distributions?

RQ 3: Response quality?

RQ 4: Fieldwork efforts and survey costs?
Design of incentive experiment ALLBUS 2014

- No incentive
- 10€ promised
- 10€ prepaid

**Main phase**

- Sample members: randomly assigned to treatments conditions within PSUs
- Interviewers: working in all treatment conditions
- Promised incentive: announced in advance letter
- Prepaid incentive: sent with advance letter

Data collection period: 2 + 2 months
Results RQ 1: Effect on response rates

• Comparison of response and nonresponse rates by treatment groups

- No significant differences in contact and capability rate

- Significant differences ($p < .05$) in cooperation and response rate
Results RQ 1:
Response rates (%), by treatment groups

Prepaid incentives led to a large increase in the response rate:

+ 14.2% points (vs. control group)
+ 11.4% points (vs. promised inc.)
Results RQ 2: Selective effects of incentives? Effect on sample composition

Logistic regression models on cooperation and response

Independent Variables:
- Frame Variables: sex, age, citizenship, city size, region
- Incentive treatment
- Interactions between incentive treatment and frame variables!

- No significant interactions between sex, age, city size and incentives
- Only the interaction between region and incentive remains significant
  (according to Ai & Norton, 2004)
Results RQ 2: Effect on response distributions

- Comparison of response distributions: Chi² – Tests of 265 items
- Number of items and % of significant differences (p<.05), separately for topical modules:

<table>
<thead>
<tr>
<th>Module</th>
<th># Items</th>
<th>Control / promised</th>
<th>Control / prepaid</th>
<th>promised / prepaid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leisure time and lifestyle</td>
<td>66</td>
<td>6.06%</td>
<td>1.52%</td>
<td>6.06%</td>
</tr>
<tr>
<td>Social Inequality</td>
<td>74</td>
<td>6.76%</td>
<td>4.05%</td>
<td>2.70%</td>
</tr>
<tr>
<td>Health</td>
<td>70</td>
<td>4.29%</td>
<td>4.29%</td>
<td>4.29%</td>
</tr>
<tr>
<td>Demographics / other</td>
<td>55</td>
<td>0.00%</td>
<td>0.00%</td>
<td>5.45%</td>
</tr>
<tr>
<td>All Items</td>
<td>265</td>
<td>4.53%</td>
<td>2.64%</td>
<td>4.53%</td>
</tr>
</tbody>
</table>

➢ No systematic effect on response distributions
Results RQ 3: Effect on response quality

According to the satisficing framework (Krosnick), we calculated for each of 10 item batteries ...

- the proportion of answers in the **middle** category
- the proportion of answers in **extreme** categories
- the proportion of **item nonresponse**
- the proportion of **straightlining** answers

➢ No significant differences, except for INR “Don’t know”

The 10 Item batteries included:
Leisure Time I + II / Music / TV / Social Inequality I+II /
Social Justice / Health I +II
## Results RQ 4: Effect on fieldwork efforts

Total number of **contact attempts** and number of in-person contact attempts per interviews, by treatment group

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th>Promised</th>
<th>Prepaid</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Contact attempts total</td>
<td>4017</td>
<td>13809</td>
<td>4208</td>
</tr>
<tr>
<td>(2) Contact attempts in person</td>
<td>3347</td>
<td>11632</td>
<td>3478</td>
</tr>
<tr>
<td>(3) Interview</td>
<td>321</td>
<td>1244</td>
<td>545</td>
</tr>
<tr>
<td>Ratio (2)/(3)</td>
<td>10,43</td>
<td>9,35</td>
<td>6,38</td>
</tr>
</tbody>
</table>

### Extrapolation for 3500 net cases

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th>Promised</th>
<th>Prepaid</th>
</tr>
</thead>
<tbody>
<tr>
<td>contacts attempts total</td>
<td>43799</td>
<td>38852</td>
<td>27024</td>
</tr>
<tr>
<td>contacts attempts in person</td>
<td>36494</td>
<td>32727</td>
<td>22336</td>
</tr>
<tr>
<td>Gross sample size</td>
<td>14894</td>
<td>12915</td>
<td>8728</td>
</tr>
<tr>
<td>Incentive costs in €</td>
<td>0</td>
<td>35000</td>
<td>87280</td>
</tr>
</tbody>
</table>

-31.7%  
-38.8%

-32.4%  
-41.4%
Results RQ 4: Effect on fieldwork efforts

Speeding up data collection:

Cumulative number of interviews, by day in data collection (sample sizes equally scaled)
Summary

In an experiment in ALLBUS 2014 ...

• Prepaid incentives led to a large increase in the response rate:
  + 14.2%points (compared to control group)
  + 11.4%points (compared to group with a promised incentive)

• Prepaid incentives did not affect sample composition / response distributions in a systematic way

• Prepaid incentives did not affect response quality in a systematic way

• Prepaid incentives helped to reduce fieldwork efforts
Discussion

• Generalizability of results?
  (to surveys with other topics, contact efforts, survey protocols, etc.)

• Are incentives worth the effort?
  (increase in response rates, but no reduction of NR-bias + measurement error)

• Financial issues
  - Most respondents would participate without any incentive
  - Prepaid incentives particularly expensive in surveys with low response rates
  - Waste of tax money?
Discussion

• Practical aspects of using prepaid incentives
  - „Confused/irritated“ target persons
  - How to announce prepaid incentives to target persons
  - Convincing the survey agency

• Further research needed:
  - Optimal size of (prepaid) incentives
  - Mechanism of action: norm of reciprocity? differences between groups? ...
Thank you for your attention!

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Are prepaid more effective than promised incentives?

For f2f surveys: Only few experiments on the effect on response rates

- Pforr, et al. (2015)
- ESS CH (Roberts et al. 2014)
- Scherpenzeel & Toepoel (2012)
- ESS UK (Phelps 2008)
- Castiglioni, et al. (2008)

- Effects on response rates in f2f surveys vary a lot

- Even less evidence concerning effects on sample composition and response quality
Key features of ALLBUS surveys

• Multi-topic survey
• Fielded every 2 years (repeated cross-sections)
• Face-to-face
• Sample of named individuals
• Population: 18yrs and older in private households (in Germany)
• Commercial survey agency
• 3.000 – 3.500 completed interviews
• Average interview length: 70 min
Methods

• All analyses are restricted to the main data collection period (no interviewer changes, no re-issuing of cases, no additional incentive thru re-issuing)

• In all analyses, the geographical clustering of the data is taken into account
# Results RQ 2: Effect on sample composition

<table>
<thead>
<tr>
<th></th>
<th>Cooperation</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( \beta )</td>
</tr>
<tr>
<td>Female (male)</td>
<td>-1.33*</td>
<td>-1.32*</td>
</tr>
<tr>
<td>German (non-German)</td>
<td>-2.21</td>
<td>-2.18</td>
</tr>
<tr>
<td>Western Germany (Eastern Germany)</td>
<td>-0.048</td>
<td>0.321</td>
</tr>
<tr>
<td>Age centered</td>
<td>-0.008***</td>
<td>-0.008***</td>
</tr>
<tr>
<td>Size of community, inhabitants</td>
<td>-0.052*</td>
<td>-0.051*</td>
</tr>
<tr>
<td>10€ promised</td>
<td>0.192*</td>
<td>0.490**</td>
</tr>
<tr>
<td>10€ prepaid</td>
<td>0.791***</td>
<td>1.373***</td>
</tr>
<tr>
<td>10€ promised * Region</td>
<td>-0.362*</td>
<td>-0.284</td>
</tr>
<tr>
<td>10€ prepaid * Region</td>
<td>-0.704**</td>
<td>-0.560**</td>
</tr>
<tr>
<td>constant</td>
<td>-0.204</td>
<td>-0.512*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statistic</th>
<th>( N )</th>
<th>( LL )</th>
<th>( AIC )</th>
<th>( BIC )</th>
<th>Pseudo ( R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5164</td>
<td>-3385</td>
<td>6786</td>
<td>6839</td>
<td>.019</td>
</tr>
<tr>
<td></td>
<td>5164</td>
<td>-3381</td>
<td>6783</td>
<td>6848</td>
<td>.020</td>
</tr>
<tr>
<td></td>
<td>7290</td>
<td>-4231</td>
<td>8479</td>
<td>8534</td>
<td>.015</td>
</tr>
<tr>
<td></td>
<td>7290</td>
<td>-4229</td>
<td>8478</td>
<td>8546</td>
<td>.016</td>
</tr>
</tbody>
</table>
## Results RQ 3: Effect on response quality

<table>
<thead>
<tr>
<th>Quality indicator</th>
<th># items</th>
<th>control Prop. (%)</th>
<th>control SE</th>
<th>promised Prop. (%)</th>
<th>promised SE</th>
<th>prepaid Prop. (%)</th>
<th>prepaid SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>middle cat.</td>
<td>68</td>
<td>17.53</td>
<td>.43</td>
<td>17.30</td>
<td>.43</td>
<td>17.58</td>
<td>.34</td>
</tr>
<tr>
<td>extrem1 cat.</td>
<td>68</td>
<td>37.49</td>
<td>.75</td>
<td>37.36</td>
<td>.46</td>
<td>37.44</td>
<td>.69</td>
</tr>
<tr>
<td>extrem2 cat.</td>
<td>68</td>
<td>40.96</td>
<td>.57</td>
<td>41.20</td>
<td>.31</td>
<td>40.78</td>
<td>.46</td>
</tr>
<tr>
<td>INR hhinc_o</td>
<td>1</td>
<td>24.74</td>
<td>2.93</td>
<td>24.75</td>
<td>2.10</td>
<td>22.80</td>
<td>2.35</td>
</tr>
<tr>
<td>INR hhinc_c</td>
<td>1</td>
<td>12.10</td>
<td>2.25</td>
<td>11.49</td>
<td>1.33</td>
<td>11.03</td>
<td>1.66</td>
</tr>
<tr>
<td>INR DK</td>
<td>27</td>
<td>2.50</td>
<td>.627</td>
<td>*1.36</td>
<td>.222</td>
<td>1.96</td>
<td>.434</td>
</tr>
<tr>
<td>straight1</td>
<td>10</td>
<td>0.0028</td>
<td>.0011</td>
<td>0.0023</td>
<td>.0005</td>
<td>0.003</td>
<td>.0010</td>
</tr>
<tr>
<td>straight2</td>
<td>10</td>
<td>0.0111</td>
<td>.0023</td>
<td>0.0112</td>
<td>.0011</td>
<td>0.013</td>
<td>.0019</td>
</tr>
</tbody>
</table>

* significant difference between control group and promised treatment