Using Monetary incentives in face-to-face surveys:

Are prepaid incentives more effective than promised incentives?

Michael Blohm & Achim Koch
Q2016 - European Conference on Quality in Official Statistics
Madrid, June 3rd

gesis
Leibniz Institute
for the Social Sciences

Member of the
Leibniz Association

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, ...

response rate (%) — mean: index of dissimilarity (7 var.)
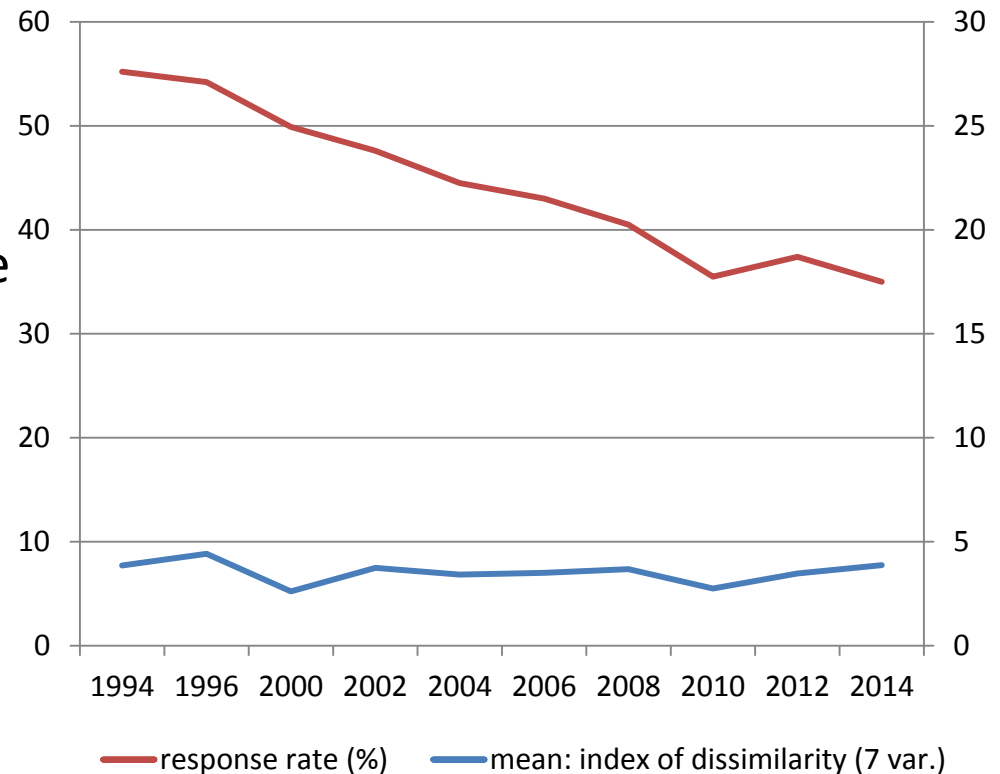
Previous Research

- 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

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

➢ Open question: Are **prepaid** incentives a more effective means?

Incentive experiment in ALLBUS 2014

Including both **prepaid** and **promised** incentives

Research questions (RQ):
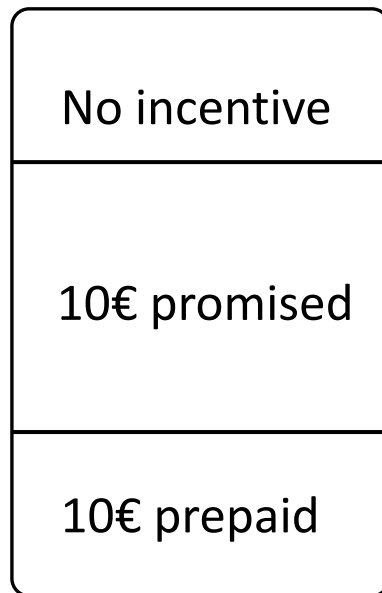
Do prepaid incentives have effects on …

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 →

Data collection period: 2 + 2 months

- 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
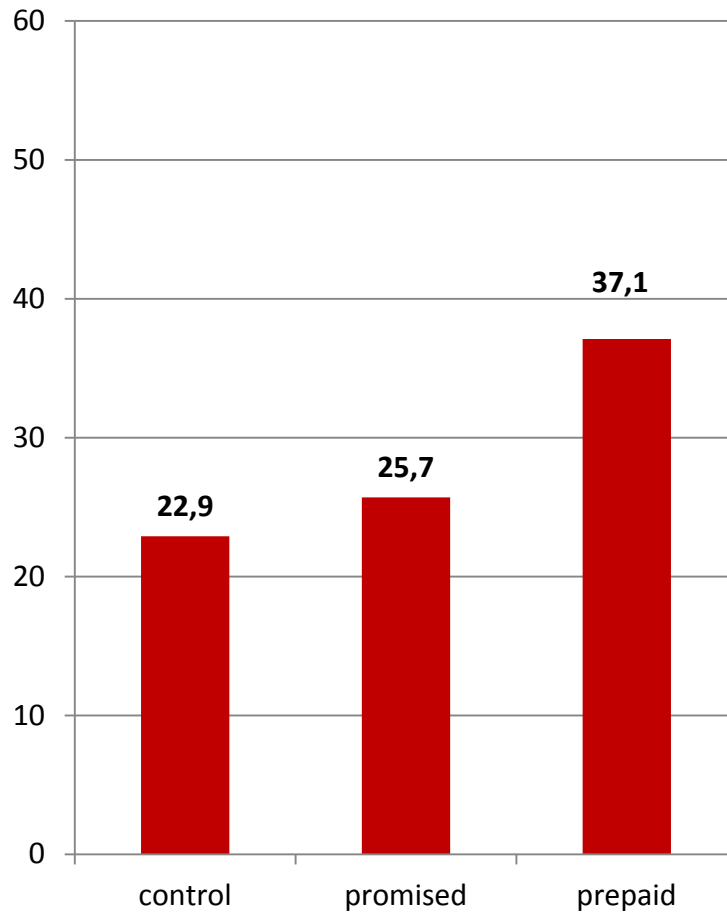
Results RQ 1: Effect on response rates

- 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: Chi^2 – Tests of 265 items
- Number of items and % of significant differences ($p<.05$), separately for topical modules:

Module	# Items	Control / promised	Control / prepaid	promised / prepaid	
Leisure time and lifestyle	66	6.06%	1.52%	6.06%	4.55%
Social Inequality	74	6.76%	4.05%	2.70%	4.50%
Health	70	4.29%	4.29%	4.29%	4.29%
Demographics / other	55	0.00%	0.00%	5.45%	1.82%
All Items	265	4.53%	2.64%	4.53%	3.89%

➢ 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

	Control	Promised	Prepaid
(1) Contact attempts total	4017	13809	4208
(2) Contact attempts in person	3347	11632	3478
(3) Interview	321	1244	545
Ratio (2)/(3)	10,43	9,35	6,38
Extrapolation for 3500 net cases			
contacts attempts total	43799	38852	27024
contacts attempts in person	36494	32727	22336
Gross sample size	14894	12915	8728
Incentive costs in €	0	35000	87280

-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)
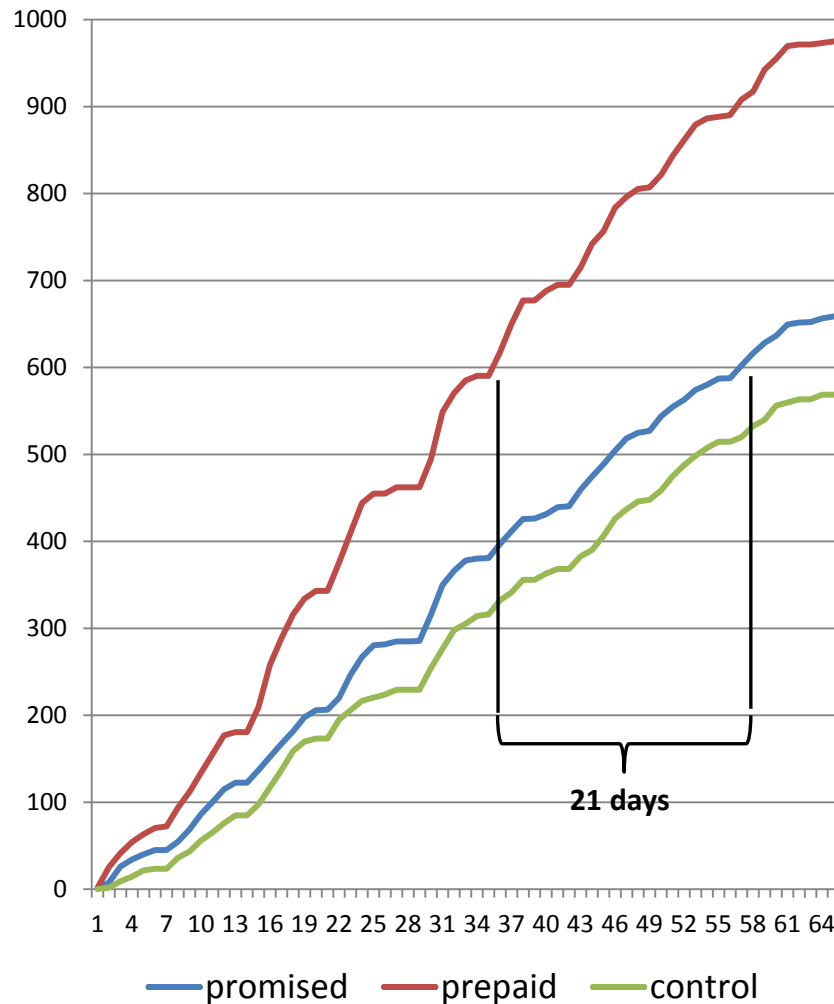
Summary

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
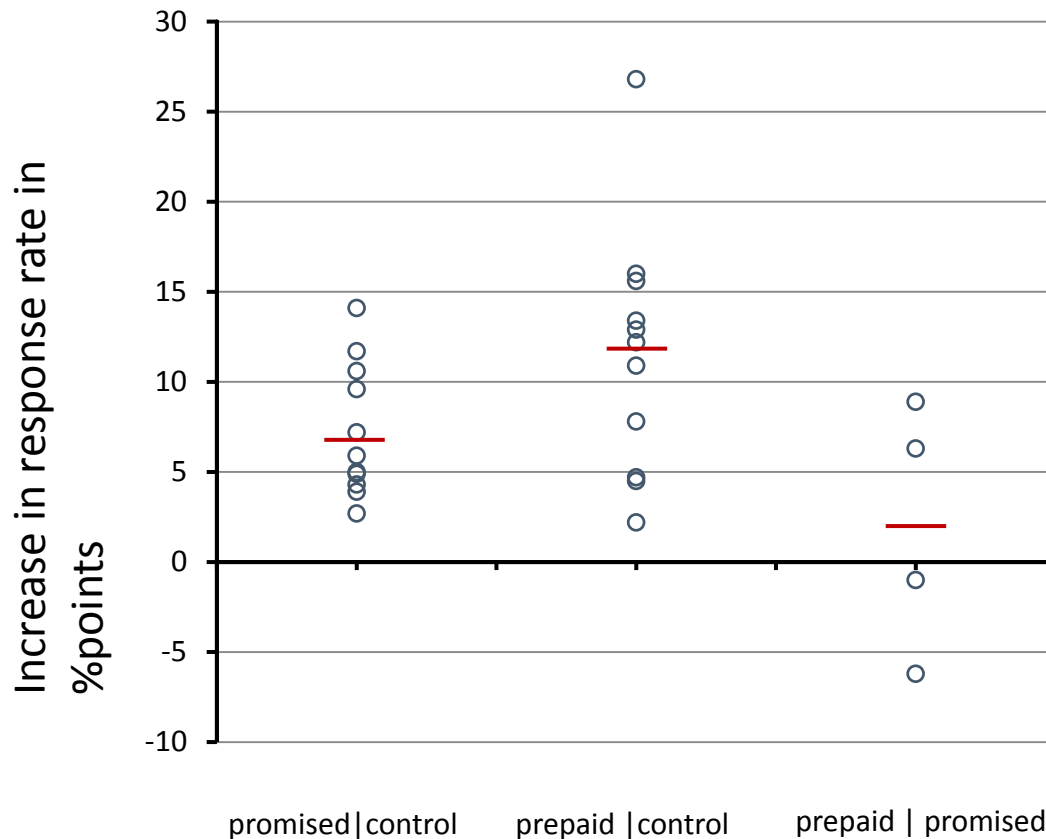   - Convincing the survey agency

- Further research needed:
    - Optimal size of (prepaid) incentives
    - Mechanism of action: norm of reciprocity? differences between groups? …

Thank you for your attention!

michael.blohm@gesis.org

Are prepaid more effective than promised incentives?

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

+ Mercer, et al (2015)
+ 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

	Cooperation		Response	
	ß	ß	ß	ß
Female (*male*)	-,133*	-,132*	-,055	-,055
German (*non-German*)	-,221	-,218	,354**	,357***
Western Germany (*Eastern Germany*)	-,048	,321	-,023	,276
Age *centered*	-,008***	-,008***	-,004**	-,004**
Size of community, inhabitants	-,052*	-,051*	-,069**	-,069**
10€ promised	,192*	,490**	,146	,382**
10€ prepaid	,791***	1,373***	,689***	1,152***
10€ promised * Region		-,362*		-,284
10€ prepaid * Region		-,704**		-,560**
constant	-,204	-,512*	-1,190***	-1,440***
N	5164	5164	7290	7290
LL	-3385	-3381	-4231	-4229
AIC	6786	6783	8479	8478
BIC	6839	6848	8534	8546
Pseudo R^2	.019	.020	.015	.016

Results RQ 3: Effect on response quality

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

* significant difference between control group and promised treatment