

# THE IMPACT OF MONETARY INCENTIVES ON RETENTION RATES IN A WEB/MAIL MIXED-MODE PANEL

## Relevance and theory

Among self-administered survey modes, web surveys have gained popularity because of their cost-effectiveness and immediate results. Nevertheless, mail-only still has the highest response rates, which is especially problematic given the steady decline in response rates over the past few decades (e.g. Sun et al 2020). Many attempts have been made to counter this trend. In particular incentives have been proven to be very successfully (e.g. Goldenberg et al. 2009; Sun et al. 2020, Yu et al. 2017).

The research on the effects of incentives in web/mail mixed-mode surveys is only just developing. Most studies, however, are cross-sectional and only few are panel studies, in which response rates are particularly important (Bretschi et al. 2021, Yu et al. 2017).

We investigate the effects of a prepaid monetary incentive (5 €) on the retention rate in the second wave (T2) of a mixed-mode panel survey and thereby contribute to the question whether monetary incentives can be used to boost retention rates, and whether they work equally in all modes. This can help maximize the effectiveness of modes. In addition, we can use socio-demographic and attitudinal variables from the first wave (T1) to examine whether incentives have a differential impact in certain sub-populations, and if so, help to reduce selectivity.

It is important to emphasize that the survey had two selection stages over time and thus dropout occurred at two points: (1) consenting in T1 to store contact details for T2, and (2) actually responding in T2. The focus of this analysis is on the second selection stage in which prepaid incentives were implemented.

## Hypotheses

H1: Incentives lead to higher response rates.

H2: Incentives lead to a faster response rates.

H3: Incentives lead to lower selectivity regarding

- age,
- migration background,
- education,
- income.

## Data & method

Study in 139 neighborhoods in Cologne and Essen  
Two wave panel survey (2020 & 2021)

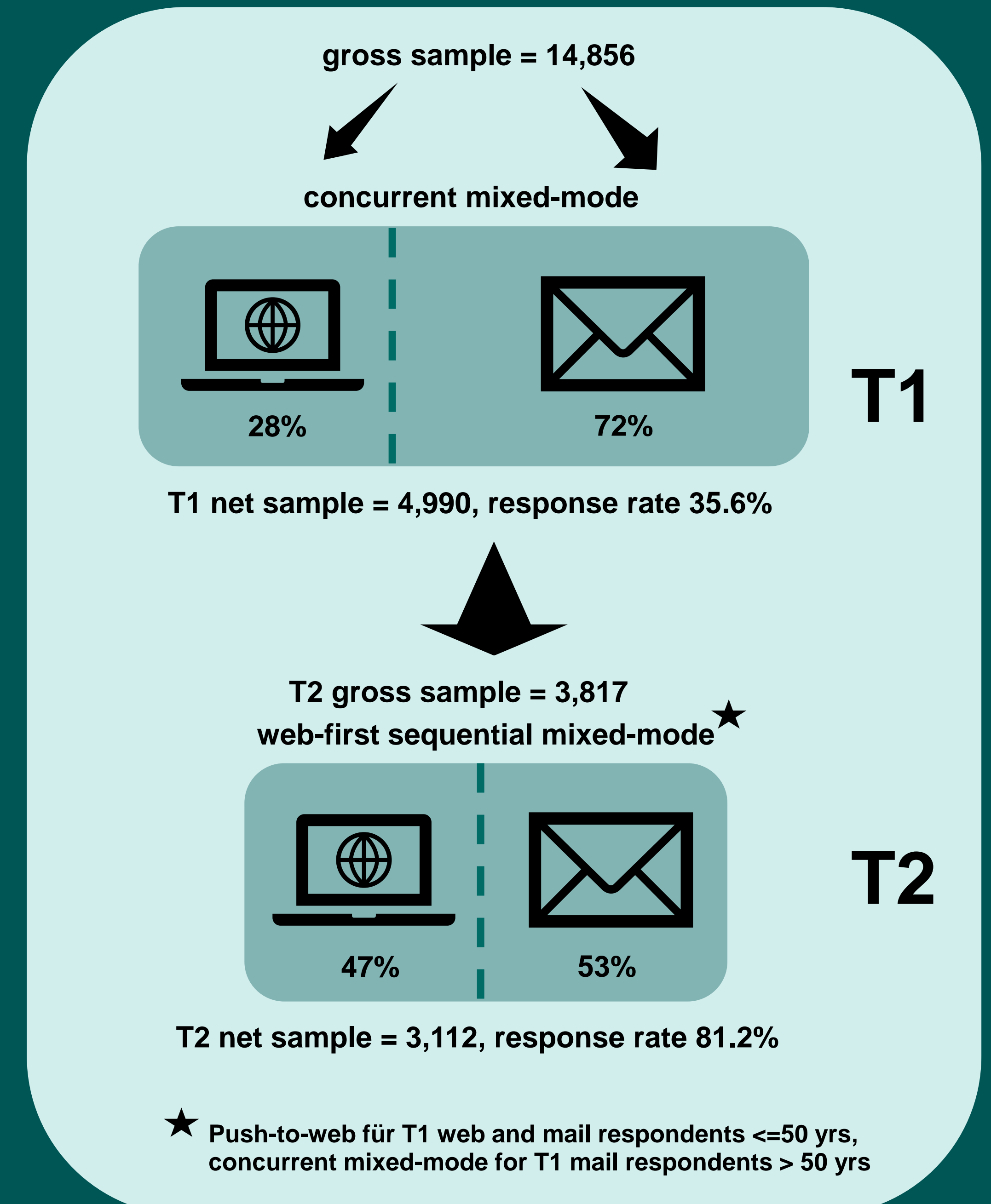
T1: concurrent web/mail mixed-mode design

T2: push-to-web design, except T1 mail resp. >50 yrs.

Randomized control trial: 5 € incentive (control group N= 600)

Core modules T1: socio-demographics, area- and crime related perceptions, victimization, health and personal attitudes, COVID-19

Logistic regression & survival analysis

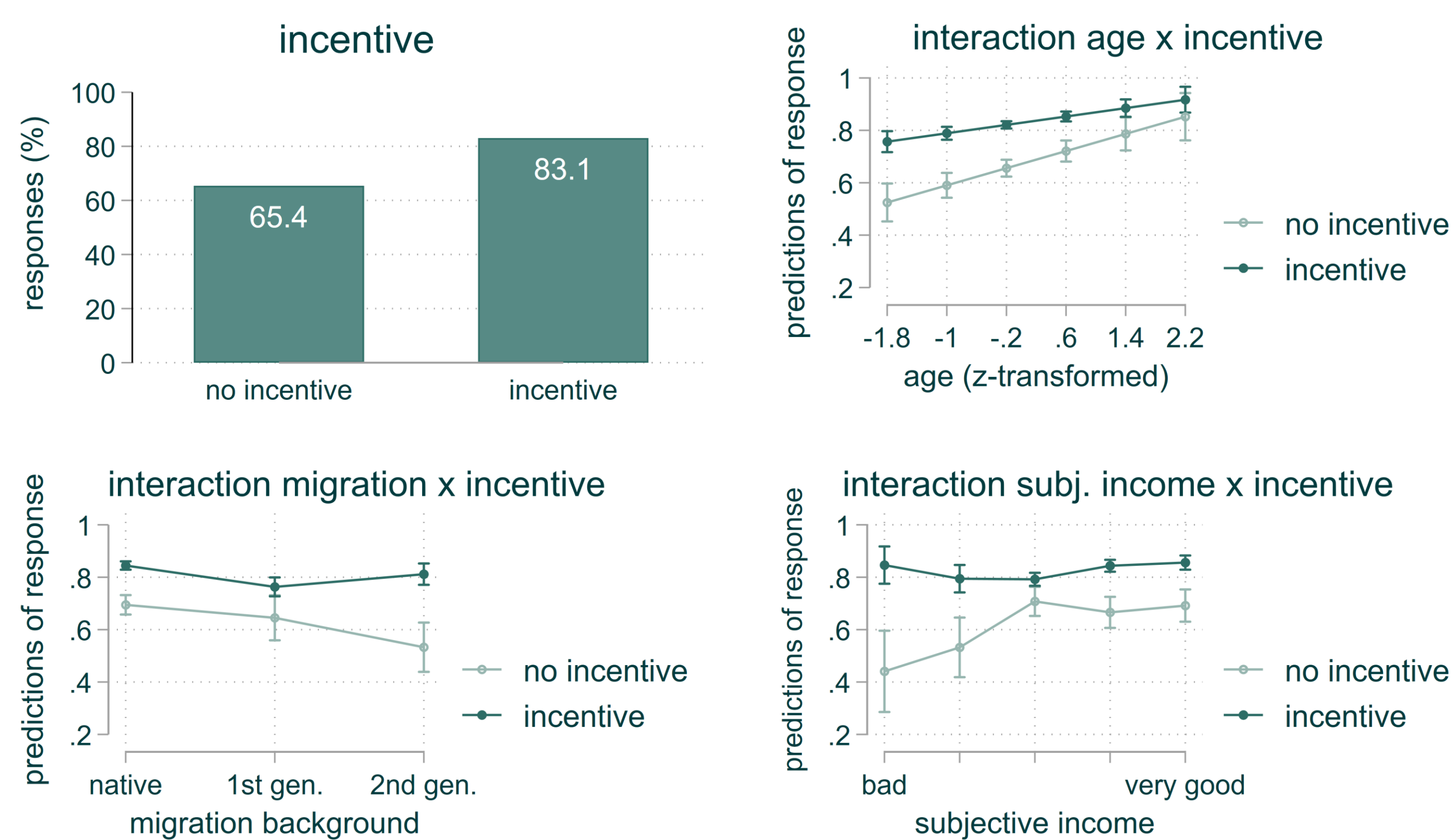


## Selectivity across waves (% in sample)

	T1-net sample	T2-gross sample	T2-net sample
age <35	24.8	23.8	21.0
age >75	12.4	11.0	12.4
male	46.4	46.1	46.1
migrant 1st gen.	19.2	14.7	12.9
migrant 2nd gen.	11.1	11.2	10.2
low educ. degree	21.6	17.8	18.5
low subj. income	4.8	3.9	3.5
very low occup. prestige	7.8	5.8	5.2
welfare recipient	15.1	13.3	11.1
bad self-rated health	4.9	4.5	4.5
very afraid after dark	7.4	6.9	6.7
very low trust	16.6	14.9	13.5

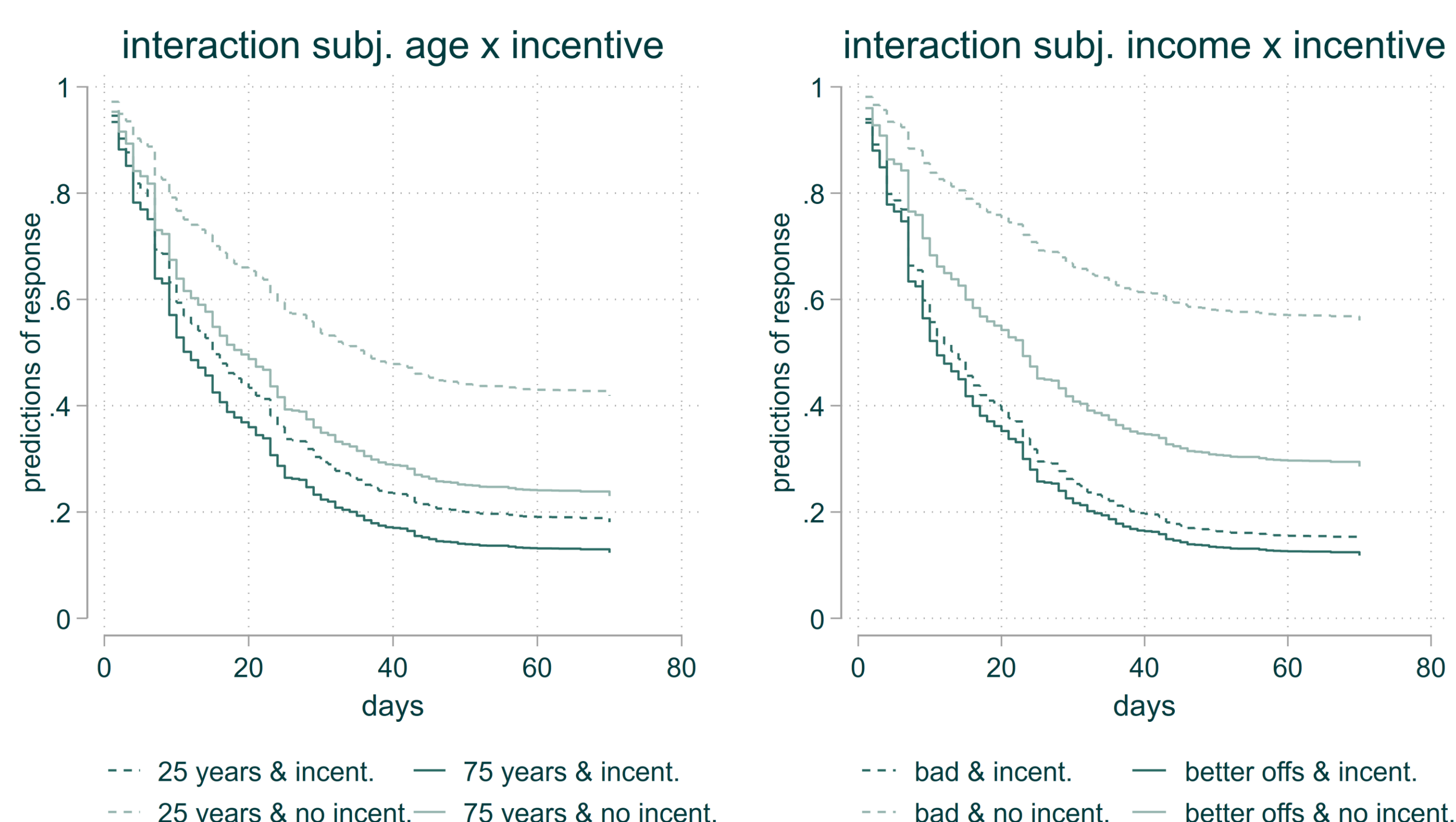
## Incentives work best for young, poor, & 2nd gen. migrants

response rate and predictive margins



## Survival curves for age and subj. income

cox proportional hazard regression



## Conclusion

We investigated whether monetary incentives affect response behavior in panel studies and whether they can reduce social selectivity. The focus of the analysis is on the second selection stage, i.e. the persons who were actually contacted in T2. At this step, no overly selective attrition was found: We could not find selectivity in participation with regard to gender, job status, education, health, trust and neighborhood characteristics, but for age, welfare dependency and migration background.

Consistent with previous studies, we were able to show that incentives could significantly boost the retention rate by 17.7 percent points. Incentives also helped to reduce social selectivity: Incentives worked especially well for younger persons and second generation migrants, and persons with a low subjective income. However, we did not find differences by gender, education, or welfare dependency. Also, the effects of incentives did not vary by survey modes. Our results show that incentives did not only increase the retention rate, but also led to faster responses.

**Incentives are crucial for high retention rates and low selectivity.**

## Literature

Bretschi, David, Ines Schaurer, and Don A. Dillman (2021). An Experimental Comparison of Three Strategies for Converting Mail Respondents in a Probability-Based Mixed-Mode Panel to Internet Respondents. *Journal of Survey Statistics and Methodology*.

Goldenberg, Karen L., David McGrath, and Lucilla Tan (2009). The effects of incentives on the consumer expenditure interview survey. In *JSM proceedings*.

Sun, Hanyu, Jocelyn Newsome, Jennifer McNulty, Kerry Levin, Pat Langetieg, Brenda Schafer, and John Guyton (2020). What Works, What Doesn't? Three Studies Designed to Improve Survey Response. *Field Methods*, 32(3), 235–252.

Yu, Shengchao, Howard E. Alper, Angela-Maithy Nguyen, Robert M. Brackbill, Lennon Turner, Deborah J. Walker, Carey B. Maslow, and Kimberly C. Zweig (2017). The effectiveness of a monetary incentive offer on survey response rates and response completeness in a longitudinal study. *BMC Medical Research Methodology*, 17(1).

