Respondent-centered incentives: Increasing answer provision when it comes to voice answers to open questions

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Introduction I

- New communication channels because of electronic devices
  - *Linking established methods with technological innovations*
- Voice answers to open questions
  - *Using built-in microphones or headsets*
  - *Closeness to daily conversation* (Tourangeau et al. 2000; Revilla et al. 2020)
  - *Rich information due to narrations* (Gavras & Höhne 2022; Gavras et al. 2022)
- Technological requirements of voice answers are met
  - *Even in web surveys with large N*
- General willingness for voice answers
  - *Between 40% and 60%* (Lenzner & Höhne 2022; Revilla et al. 2018)

Introduction II

- Voice answers struggle with high item non-response
  - *Varying between 25% and 60%* (Gavras et al. 2022; Revilla et al. 2020)
- Revilla and Couper (2021) varied voice answer instructions
  - *They found almost no decreasing effect and item non-response was about 40%*
- Revilla and Couper (2023) showed that voice answer provision is higher for …
  - *… respondents using voice input in daily life*
  - *… respondents trusting that their answers are treated confidentially*
- We build on Revilla and Couper (2023) providing extra incentives for voice answers
  - *We focus on respondent groups varying in their likelihood of providing voice answers*
  - *We focus on a push-to-voice recording design*

Building Likelihood Groups

Likelihood groups	Descriptions
Low	Respondents who report not being aware of the existence of voice recording or never using it in their daily life and not completely trusting that their answers are treated confidentially
Medium	Respondents who report not being aware of the existence of voice recording or never using it in their daily life, but completely trusting that their answers are treated confidentially
	Respondents who report using at least sometimes voice recording in their daily life, but not completely trusting that their answers are treated confidentially
High	Respondents who report using voice recording at least sometimes in their daily life and completely trusting that their answers are treated confidentially

Incentives

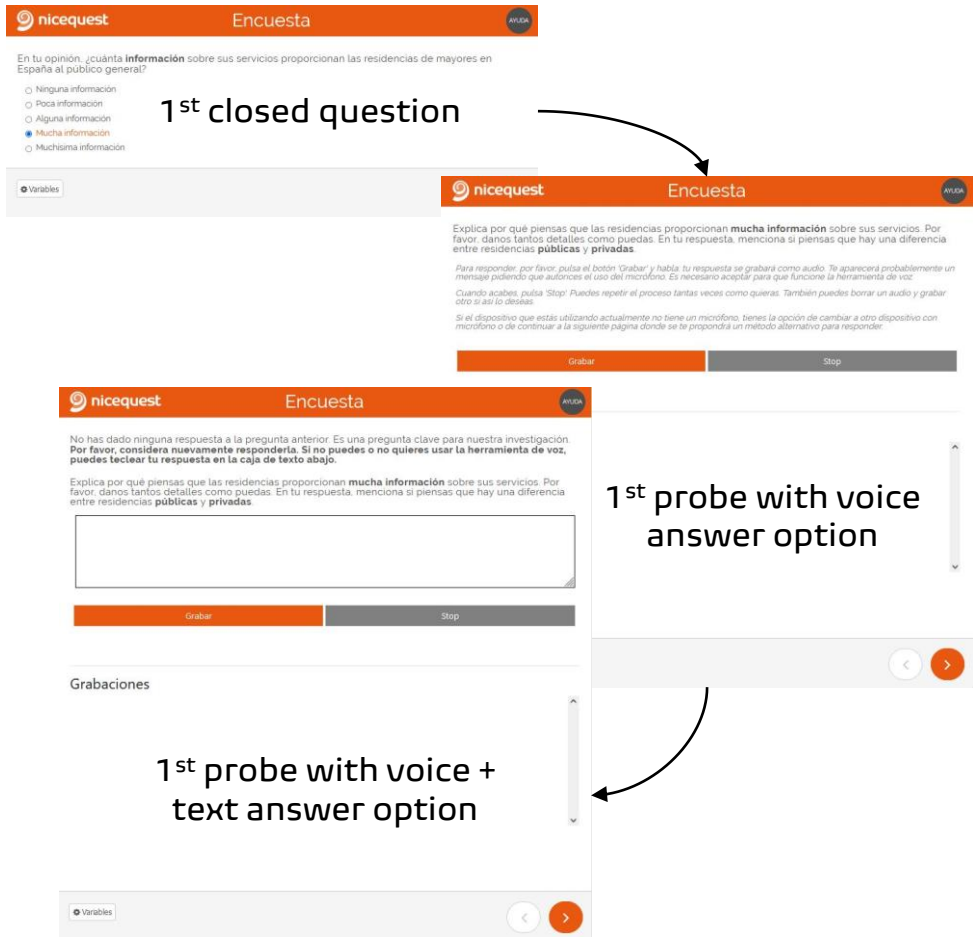
- Providing incentives is an effective way to increase survey participation, answer provision, and data quality (Boulianne 2008)
- Incentives can be conditional or unconditional
  - *Conditional: After survey task (postpaid) and contingent*
  - *Unconditional: Before survey task (pre-paid) and noncontingent*
- Typically, incentives are provided globally on a survey level
  - *Incentivization for the entire survey participation*
- In this study, we provide conditional incentives …
  - *… on a survey level (basis)*
  - *… extra for answering two open questions through voice*

Research Question and Hypotheses

- **RQ:** Can we increase answering through voice by providing extra incentives?
- **H1a:** Extra incentives do not increase answering through voice for the low likelihood group
- **H1b:** Extra incentives increase answering through voice for the medium likelihood group
- **H1c:** Extra incentives do not increase answering through voice for the high likelihood group
- **H2:** Extra incentives for answering through voice do not increase overall answering

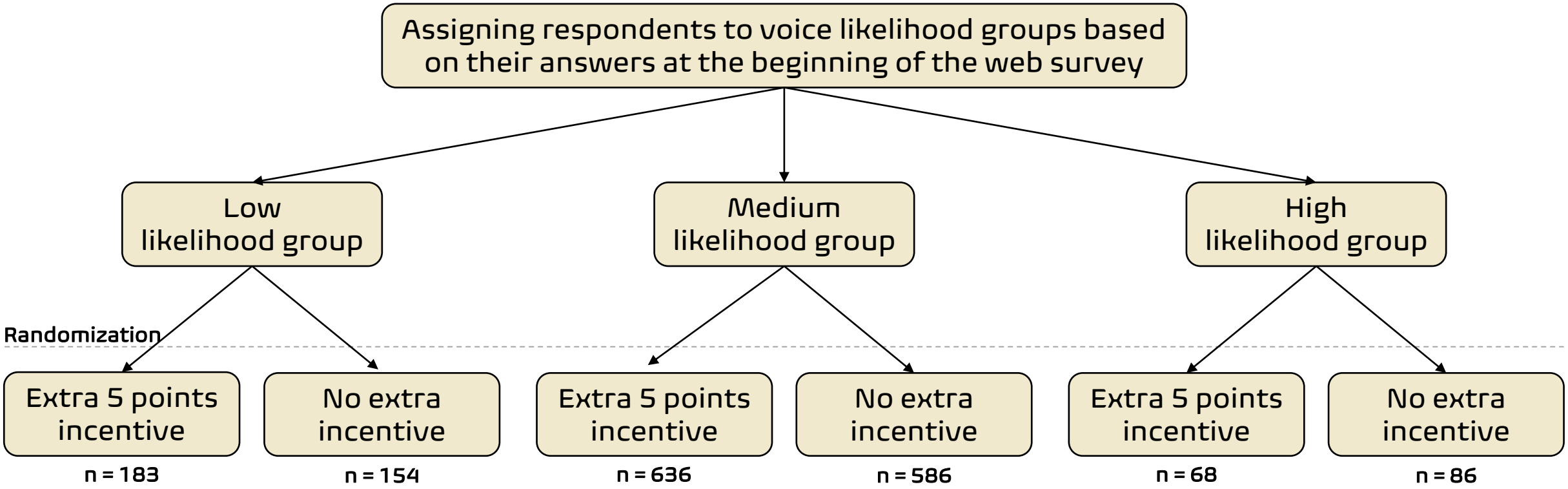
These hypotheses are pre-registered through OSF (see https://osf.io/cxz4s)

Study Design I



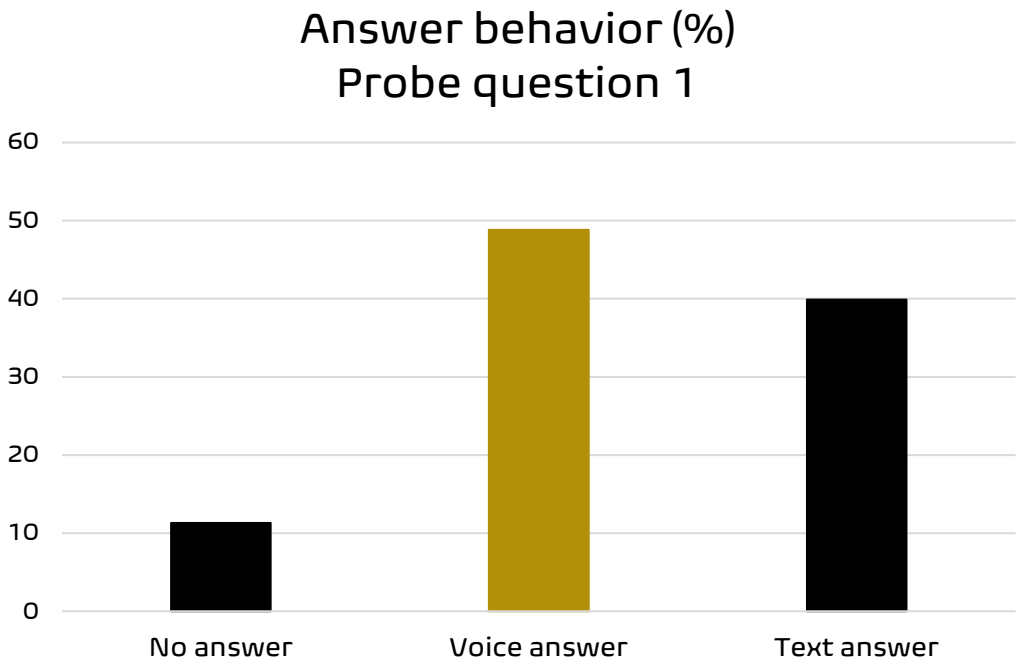
- Web survey lasted 10 min (N = 1,713)
  - *All respondents get a basis incentive of 12 points*
  - *Cross-quotas on gender and age plus education*
- 2 follow-up probes on 2 closed questions
  - *Opinions about nursing homes in Spain*
  - *We used the WebdataVoice tool* (Revilla et al. 2022)
- <-- Example screenshots (PC screen)
  - *If respondents refuse to answer the probe through voice, they receive an additional text answer option*
- Sample characteristics
  - *Mean age (47 years), female (51%), medium education (25%), high education (36%), and smartphone (72%)*

Study Design II

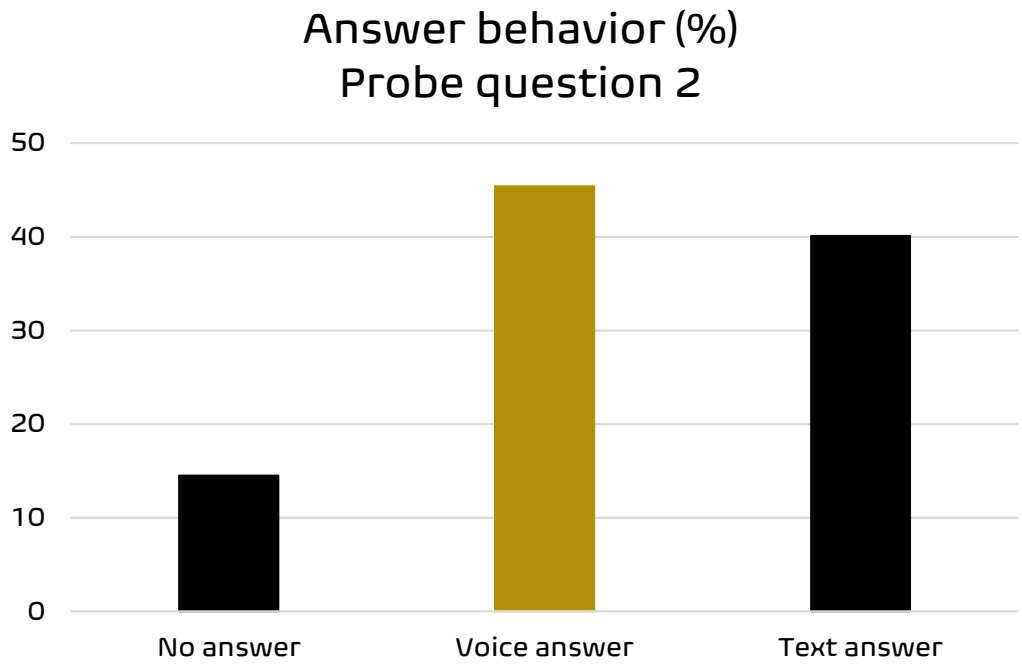


Important: Respondents only receive the extra 5 points if they answer both probes through voice

Results: Answer Behavior

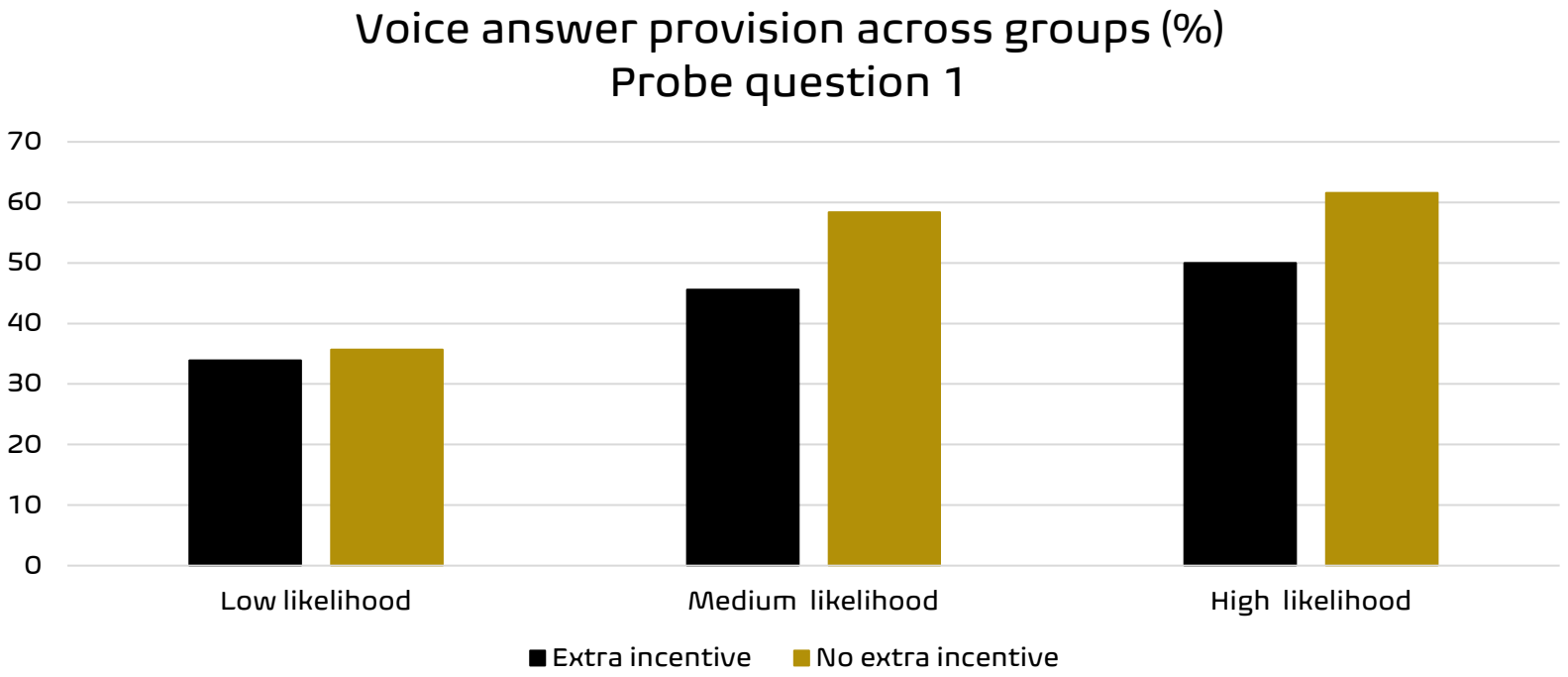


Note. We only consider full survey completes in the analyses.



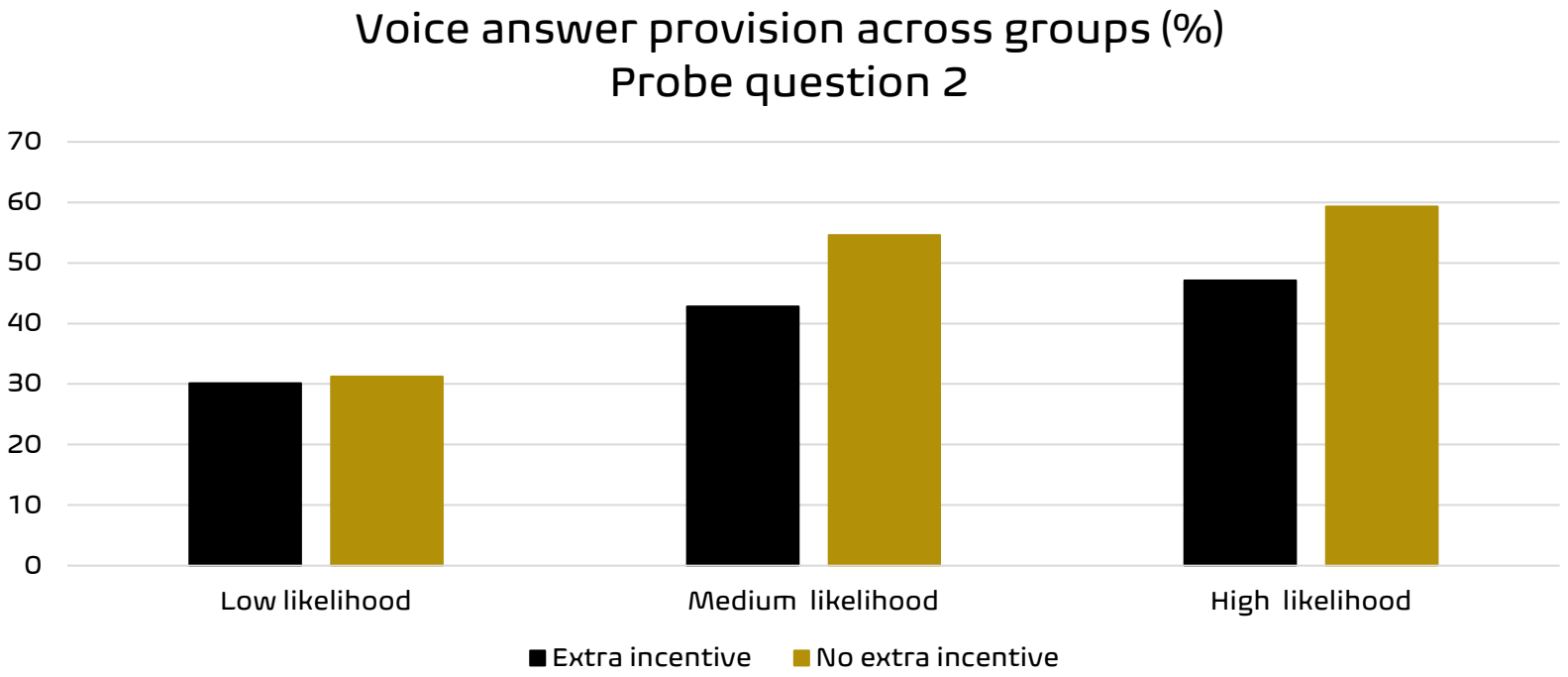
Note. We only consider full survey completes in the analyses.

Results: Hypotheses 1a to 1c



Note. Z-test. We only consider full survey completes in the analyses.

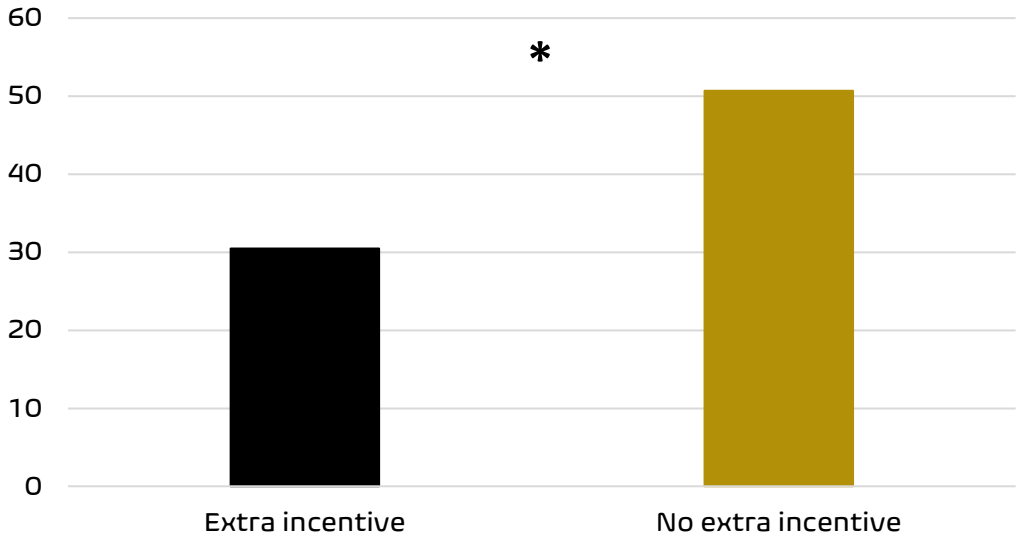
Results: Hypotheses 1a to 1c



Note. Z-test. We only consider full survey completes in the analyses.

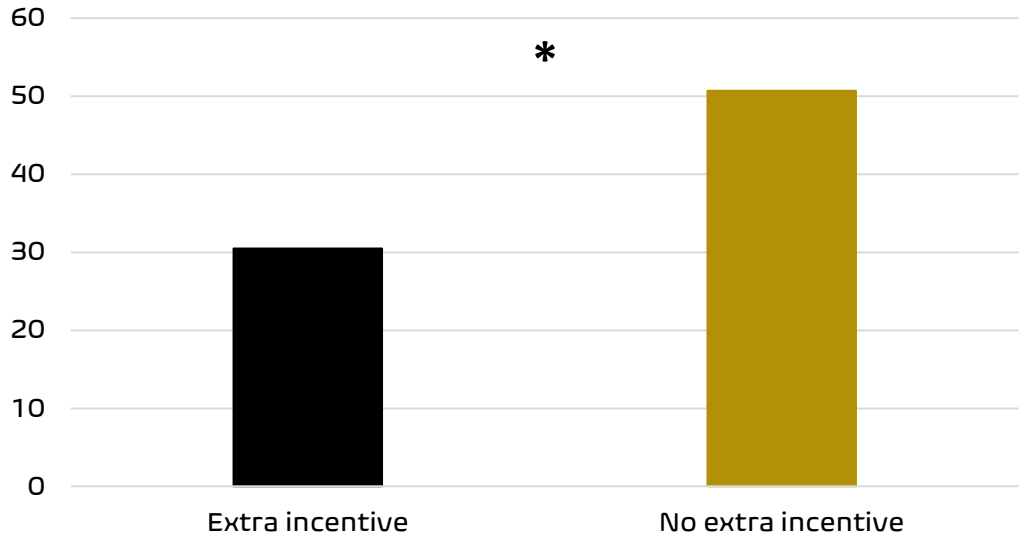
Results: Hypothesis 2

Voice answer provision overall (%)
Probe question 1



Note. Z-test. *p < 0.05. We only consider full survey completes in the analyses.

Voice answer provision overall (%)
Probe question 2



Note. Z-test. *p < 0.05. We only consider full survey completes in the analyses.

Discussion and Conclusion

- We face an imbalance across experimental/likelihood groups
  - *The low and high likelihood groups are under-represented*
- Although we provide voice and text answer options item-nonresponse is ~10%
- We did not find support for our pre-registered hypotheses
  - *Extra incentives do not appear to increase voice answer provision*
  - *Considering respondents that dropped out after answering the two probes*
- Data quality beyond item-nonresponse
  - *Testing our pre-registered hypotheses on text-based quality metrics (e.g., length and topics)*
  - *Testing transcription quality of Automatic Speech Recognition (ASR) systems for voice answers*
- Take home message: It seems that extra incentives do not increase voice answer provision and item-nonresponse remains a concern

Many thanks for your attention!

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Literature

- Boulianne, S. (2008). Incentives. In P.J. Lavrakas (Ed.), Encyclopedia of Survey Research Methods – First Volume (pp. 328–331). Thousand Oaks, CA: Sage.
- Gavras, K., & Höhne, J.K. (2020). Evaluating political parties: Criterion validity of open questions with requests for text and voice answers. International Journal of Social Research Methodology, 25, 135–141.
- Gavras, K., Höhne, J.K., Blom, A., & Schoen, H. (2022). Innovating the collection of open-ended answers: The linguistic and content characteristics of written and oral answers to political attitude questions. Journal of the Royal Statistical Society (Series A) , 185, 872-890.
- Lenzner, T., & Höhne, J.K. (2022). Who is willing to use audio and voice inputs in smartphone surveys, and why? International Journal of Market Research, 64, 594-610.
- Revilla, M., Couper, M. P. (2023). Combining dictation and/or voice recordings with text to answer narrative open-ended survey questions. Paper presented at the Conference of the European Survey Research Association (ESRA) in Milan (Italy): https://www.upf.edu/documents/244683118/246905697/ESRA-Revilla-Couper-Voice.pdf/9f24fc51-b23b-a996-c7fb-54af1f872688?t=1702657915024
- Revilla, M., & Couper, M. P. (2021). Improving the use of voice recording in a smartphone survey. Social Science Computer Review, 39, 1159-1178.
- Revilla, M., Couper, M. P., Bosch, O. J., & Asensio, M. (2020). Testing the use of voice input in a smartphone web survey. Social Science Computer Review, 38, 207–224.
- Revilla, M., Couper, M. P., & Ochoa, C. (2018). Giving respondents voice? The feasibility of voice input for mobile web surveys. Survey Practice, 11, 1–8. https://www.surveypractice.org/article/2713-giving-respondents-voice-the-feasibility-of-voice-input-for-mobile-web-surveys
- Revilla, M., Iglesias, P., Ochoa, C., & Antón, D. (2022). WebdataVoice: a tool for dictation or recording of voice answers in the frame of web surveys. Open Science Framework (OSF): http://doi.org/10.17605/OSF.IO/B2WYZ
- Tourangeau, R., Rips, L.J., & Rasinski, K. (2000). The psychology of survey response. Cambridge, UK: Cambridge University Press.