



DESIGNING RESPONDENT COMMUNICATIONS FOR ENTERPRISE SURVEYS: TRIALS AND TALES FROM AUSTRALIA

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1.0 ABSTRACT

Behavioural insights and human-centred design underpin respondent communications the Australian Bureau of Statistics (ABS) designs and develops. This approach is guided by the ABS' enterprise-level strategic priorities, including to enhance organisational capability, resilience, and adaptability, and to reduce burden on respondents. In doing so, our service offering improves respondent experience and supports respondent engagement with our survey program.

This submission showcases modes and features of communications trialled in enterprise surveys during 2022-23, including the drivers for delivery, the design process, and the outcomes of initial implementation.

Specifically, we share learnings associated with:

1. Authoritative messaging in survey invitation materials for new-to-sample respondents.
2. Proactive reminder card to promote self-initiated response.
3. Late reminder SMS.
4. 'We missed you' email sent following an unanswered outbound call.
5. 'Thank you' paper letter.

The trials demonstrate benefits of placing the respondent at the core of service design, as well as raise critical questions about how to balance respondent preference and statistical integrity.

2.0 INTRODUCTION

Respondents are central to the success of the Australian Bureau of Statistics' (ABS) survey program. Annually, the ABS runs more than thirty statistical collections. Without the willing cooperation of businesses and organisations, generation of our national statistics would be compromised. We couple this knowledge with recognition that our surveys need to be prioritised alongside other business activities, in a context where labour and supply pressures are acute (ABS, 2022, June). With this in mind, we strive to support respondent engagement through delivery of a very good respondent experience.

Traditionally, we focused our energies on growing internal understanding of human behaviour broadly, and theories of survey participation more specifically. Through a team of experts in the fields of behavioural economics, sociology, psychology, and data science we applied behavioural insights to the design of our services and products. Our knowledge of social exchange theory and cognitive heuristics underpinned the development of respondent engagement strategies. Designs or prototypes were often presented to respondents for feedback, via consultation late in the development process, but respondents themselves were not routinely central to the design process.

More recently we have shifted away from solely relying on internal expertise, to also involve our respondents in a respondent-centred development approach. Specifically, our design work now draws primarily on human-centred design tools, coupled with application of behavioural insights. Respondent perspective is now at the heart of the process.

Human-centred design (HCD) recognises the benefit associated with co-designing with users (in our context, the survey respondents), encourages rapid prototyping and iterative testing, and obliges designers to view problems from the perspective of users (Digital Victoria, 2022). HCD invites user involvement in the design of products and services that meet their needs and deliver business value (Smith, 2021; Digital Victoria, 2022). By using HCD, we have invested in research to engage with and better understand the situation of the respondents.

Our application of HCD to enhance statistical data collection is demonstrated through case studies and trials of five innovations associated with a large-scale project to redesign all economic survey correspondence (Meld Studios, 2022 April; Data Collection Design Centre, 2023 May):

1. Authoritative messaging in survey invitation materials for new-to-sample respondents.
2. Proactive reminder card to promote self-initiated response.
3. Late reminder SMS.
4. 'We missed you' email sent following an unanswered outbound call.
5. 'Thank you' paper letter.

Development and implementation of these innovations delivered benefit to the survey program, as well as exposed opportunities to mature ABS' use of HCD and highlighted the complexities associated with balancing respondent preference and statistical integrity.

3.0 INTERVENTIONS

3.1 Authoritative messaging in survey invitation materials for new-to-sample respondents

Research question: Can increased authoritative messaging improve new-to-sample respondents' survey participation?

Most ABS surveys are compulsory to complete; however, new-to-sample respondents often comment that this is unclear, in turn, delaying their survey participation. This motivated us to investigate whether increased authoritative language improves the effectiveness of the data acquisition process with new respondents.

We conducted concept generation and user testing with respondents to explore variations in firmer and authoritative language. The research concluded that respondents expected correspondence to include a clear statement about whether completing an ABS survey is compulsory and they preferred a plain English answer to this question over a detailed legal explanation. These HCD techniques helped us understand the respondents' cognitive processes, and understand that clear and authoritative messaging can inform and influence their survey participation.

To determine how the strengthened authoritative messaging impacts respondents' behaviours, in 2022 two small-scale randomised control trials were conducted over two cycles of a quarterly survey (Data Collection Design Centre, 2022 October; Data Collection Design Centre, 2022 December). The experimental and control groups contained 100-200 respondents each. The compliance model of survey response as articulated by Snijkers, Berkenbosch and Luppens (2007), including Groves,

Cialdini and Couper's (1992) authority compliance principles was referenced and applied. Messaging in approach materials for new-to-sample units was modified to emphasise the legal authority for statistical data collection, and compulsion messaging was strengthened. Changes included removing the word 'survey' and using language such as 'obligation'. For example, 'Complete your survey online' was replaced with 'Complete your obligation online'. Additionally, 'Notice of Selection' was the header used for the experimental approach materials. In sum, only the text (no other design elements, such as formatting) was changed between the control and experimental conditions.

The strengthened authoritative messaging in approach letters and emails did not make a statistically significant difference to response rates or respondent engagement, as measured in the trials. Findings suggest that the experimental compliance messaging had neither a detrimental impact on timely survey participation, nor did it appear to deliver benefit compared to existing materials. There are several ways to interpret the results:

- The compliance messaging tested was not strong enough or clear enough to impact response and engagement by due date.
- The compliance principle of 'liking' coupled with soft use of the 'authority' compliance principle embedded in the existing materials is as effective at driving response as firm compliance messaging alone.
- Optimisation of other elements in correspondence are more likely to drive improvements in response and engagement.

Subsequent prototype and user testing has moved away from focussing on the compulsion messaging alone, and a shift towards a holistic review of the whole suite of correspondence and escalating the authoritative tone in correspondence sent after the due date (see Willimack & Snijkers, 2013 for discussion of escalation). This has tested well with respondents in usability testing, and we continue to work closely with respondents and our policy and legal team to develop and test variations of authoritative messaging as part of a project aiming to enhance the end-to-end respondent journey.

3.2 Proactive reminder card to promote self-initiated response

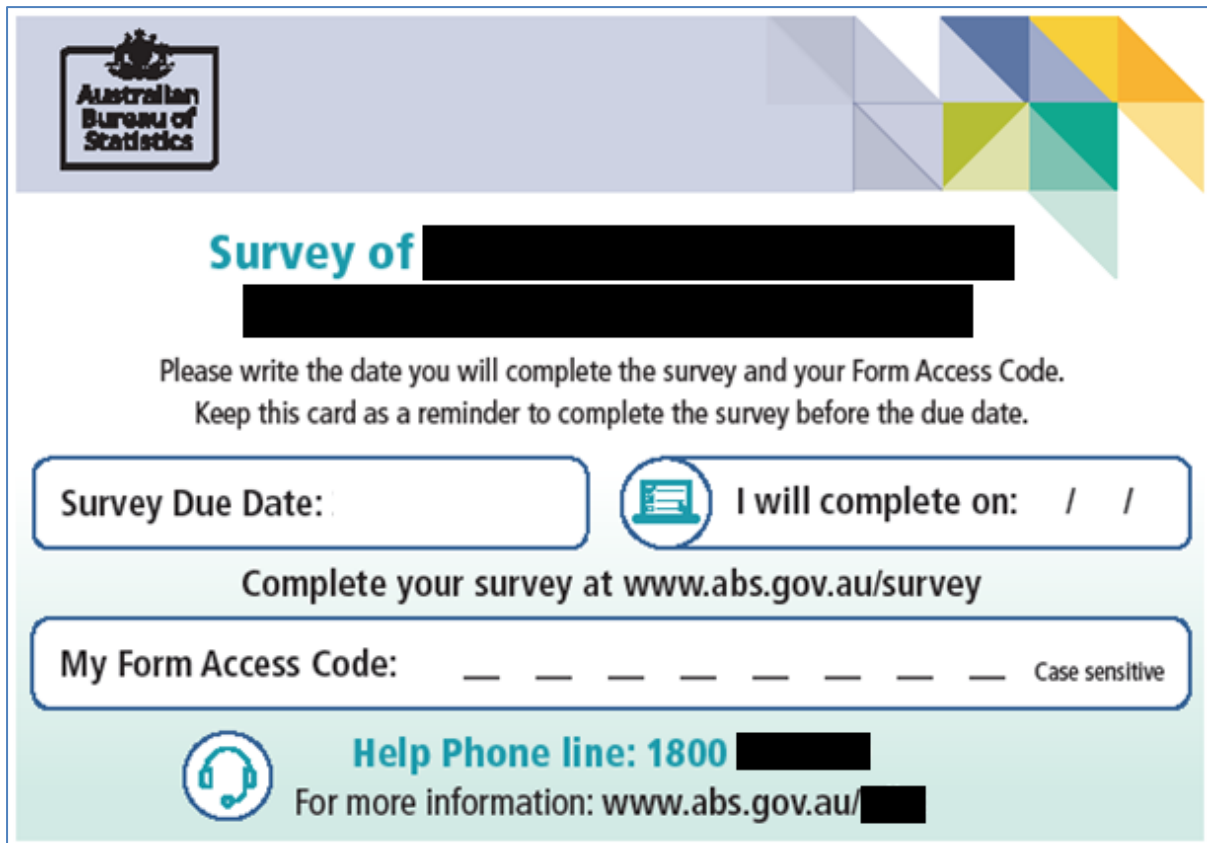
Research question: Can a proactive reminder tool, a 'reminder card', improve survey participation including timely response?

Obtaining timely response, a complete and submitted survey form by the respondents' due date, is an ongoing and growing challenge we face across many collections. Concurrently, from the respondents' perspective, they have competing priorities of which an ABS survey is simply one of many. Respondents requested tailored tools to help them submit their survey on time. Goal-setting theory (Locke & Latham, 2002), the INSPIRE framework (Faulkner et al, 2018), and a study to enhance influenza vaccination rates (Milkman et al, 2011) posited that a goal needs to be set by the acting individual, and their intention needs to be clear and specific.

Inspired by these researchers and by positive reaction from respondents to proactive reminder materials, we randomly selected 500 respondents in a biennial enterprise survey to receive a

reminder postcard in the same envelope as their invitation letter (Data Collection Design Centre, 2023 January). The reminder card contained key pieces of information the respondent needed to complete their survey online: business-as-usual (BAU) due date, blank space for them to handwrite their intended submission date, alphanumeric code to access the web form, URL to complete the survey, URL for frequently asked questions, and help line phone number (see Image 1).

Image 1. Reminder card



Survey of [redacted]

Please write the date you will complete the survey and your Form Access Code.
Keep this card as a reminder to complete the survey before the due date.

Survey Due Date: _____

I will complete on: / /

Complete your survey at www.abs.gov.au/survey

My Form Access Code: _____ Case sensitive

Help Phone line: 1800 [redacted]
For more information: www.abs.gov.au/[redacted]

The treatment group (25.2%, $n = 126$) experienced a significantly greater response rate, by 4.71 percentage points ($p = 0.0158$, Power = 94.09%), by the BAU due date than units in the control group (20.49%, $n = 320$). The significantly different response rate held through for the two weeks that followed the due date. We saw 4.74 percentage points greater response rates one week after the due date ($p = 0.0215$, Power = 92.13%), and 5.39 percentage points greater response rates two weeks after the due date ($p = 0.0127$, Power = 95.08%).

Of the timely responders, most were returning units in both the control group (73.75%, $n = 236$) and in the treatment group (77.78%, $n = 98$). This could indicate that:

- i. familiarity with the survey is beneficial to the respondent's ability and willingness to complete the survey by the due date, and
- ii. the Reminder 1 email and SMS, sent on the day before the BAU due date, continues to significantly boost response rates across a wide range of ABS business surveys.

Of the units that responded by the due date, significantly more of the treatment group responded without any contact attempts than those in the control group (+ 7.58 percentage points, $p = 0.0252$, Power = 88.78%). That is, the reminder card significantly improved true self-initiated response, which directly reduced our follow-up outbound call costs and efforts.

Further trials will help us understand which surveys or types of respondents benefit from the reminder card. For example, this biennial survey contacts individuals who are rarely in other ABS surveys. The infrequent contact with the ABS coupled with the design principles in the reminder card may have contributed to its success. Additionally, this survey sample has a high proportion of returning units (73.79%, $n = 3,043$). Perhaps familiarity with the survey and the novelty of the reminder card helped shape the favourable outcome. It could even be a combination of these and other factors, that only further trials will help us unpick.

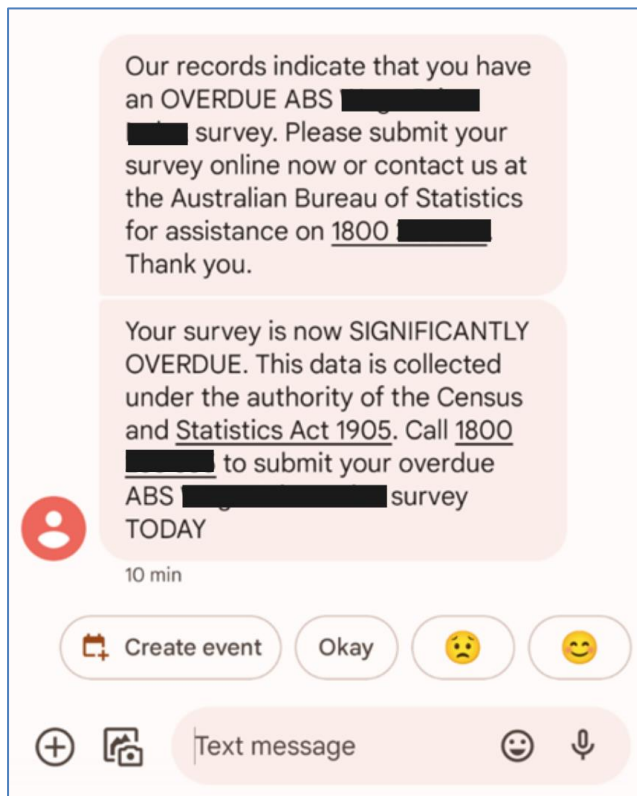
3.3 Late reminder SMS

Research question: Can a late reminder via SMS, after the business-as-usual due date, influence survey response rates?

The ABS is exploring whether a late SMS reminder is an efficient method to improve the response process for enterprise collections. Sending an SMS is identified as an effective form of behavioural intervention, such as improving reporting behaviours among Australian welfare recipients (Copley et al, 2017; Dillon et al, 2021). Much of the existing literature has focused on social surveys as opposed to enterprise surveys. Respondents involved in the review of our correspondence suite appreciated the convenience of SMS communications, but noted that mobile phones are, in the main, personal devices, and advised us to tread cautiously when it came to use of SMS (Data Collection Design Centre, 2023 May). This is consistent with current research into mobile device use within Australia, which suggests that employees with personal mobile devices have at some point used their device for business related purposes (Deloitte Access Economics, 2019).

Much of the existing literature has focused on individual based surveys as opposed to business-based surveys. As such, through a concurrent project we sought respondent perspectives on use of SMS. We coupled this work with a randomised control trial (RCT) and several live trials with the goal of contributing to the literature, building an understanding of how to use SMS communication between a national statistical organisation and survey respondents, specifically in the enterprise survey space (see Image 2). The RCT was conducted within a survey of the Australian building industry, while the live trials were conducted across three cycles of two quarterly Australian employment and wages surveys.

Image 2. Late reminder SMS



The RCT found that SMS as a reminder is an effective means to communicate with businesses once the due date has passed. We observed statistically significant increases in both survey response rate and inbound contacts made by the respondents who received the SMS. Including a 13% response rate for the treatment group and a 5% response rate for the control group. Additionally, in the inbound calls received to the ABS call centre, there was a 5% call rate for the treatment group and a 2% call rate for the control group. Of the calls received from the treatment group, 82% resulted in their data being collected over the phone.

In the live trials, however, we could not directly correlate the response rate increase with the SMS due to it not being conducted under an experimental design. The results of these trials support the need for further investigation.

3.4 'We missed you' email sent following an unanswered outbound call

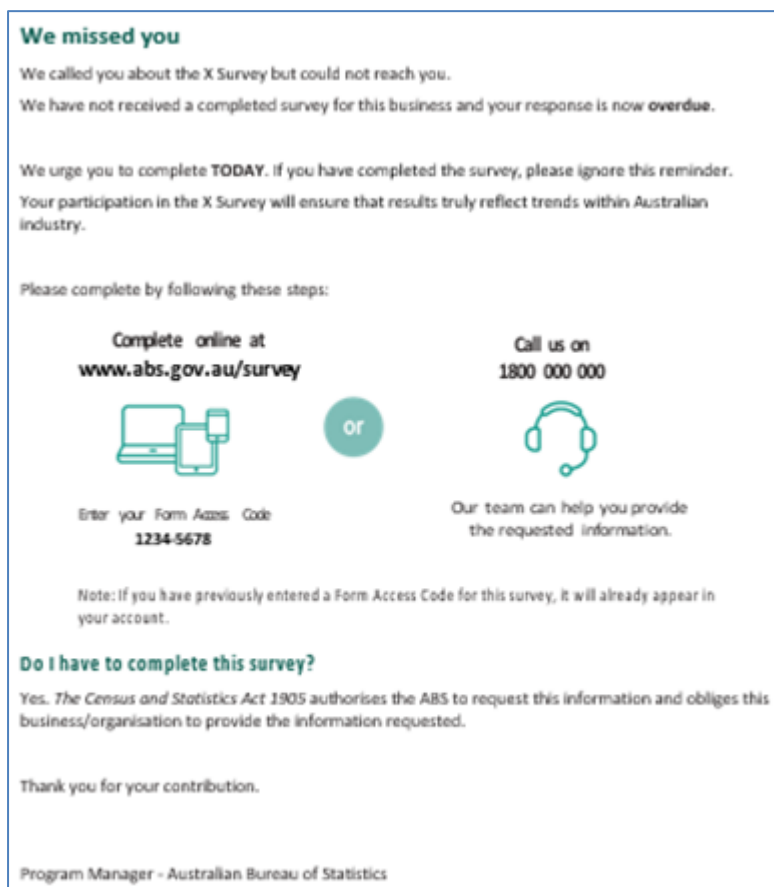
Research question: Can a 'We missed you' email help convert unsuccessful outbound calls into successful contacts?

The December quarter is riddled with seasonal impacts due to the summer and holiday season in Australia. Our outbound calls are answered less frequently, and more voicemail messages are left. However, it is unclear whether respondents know the missed calls are from the ABS. We explored

whether an email tailored to this situation would improve respondent contact efficiency during this season.

To help bridge the gap between the missed call and the successful contact desired, we developed and tested a prototype, and then trialed a 'We missed you' email (see Image 3). Our call centre staff send it to a respondent following an outbound missed call, an unsuccessful contact. Respondents suggested the design concept during idea generation sessions and additional respondents enhanced the design during prototype testing (Data Collection Design Centre, 2023 May).

Image 3. 'We missed you' email



For easy adoption by our call centre staff, it was trialed with all business surveys in the field from December 2022 to January 2023. Although business survey respondents prefer electronic communications, there are challenges with emails, telephone calls and text messages in the current environment due to spam, scams and phishing experiences. Additionally, we experienced operational challenges whereby the 'We missed you' emails were applied inconsistently between call centre staff as it added to their administrative burden.

Although these emails yielded no significant impacts on our usual metrics (e.g. response rates, successful calls to contact), they helped generate a small volume of returned calls and online responses. Furthermore, the call centre staff who did use it provided positive anecdotal feedback. It has since been rolled out for wider and more consistent use, and continued monitoring. We expect to see its impact in less tangible aspects, such as the respondent-ABS relationship.

3.5 'Thank you' paper letter

Research question: Will a 'Thank you' paper letter sent in between cycles help maintain a longitudinal panel?

Many of our cyclical enterprise surveys face longitudinal panel maintenance issues. We are currently exploring whether a 'Thank you' paper letter in between cycles will help us maintain the panel, and in turn improve their future survey participation.

Past ABS research suggests that survey respondents who submit in their first cycle are likely to continue submitting regularly in subsequent cycles (Data Collection Design Centre, 2022, August). However, our analysis across multiple quarterly surveys for multiple cycles, shows that this pattern becomes disrupted after the third cycle of the survey, with respondents' submission behaviours becoming irregular (Data Collection Design Centre, 2022, August).

Literature suggests that positive reinforcement of desired respondent behaviour will lead to respondents repeating the behaviour in future survey cycles (Greenberg & Dillman, 2021). Past cognitive testing indicated that respondents feel their relationship with the ABS is very one-sided. This reduced their motivation to engage with the ABS or to spend time ensuring the data that they submitted was accurate.

In a large HCD project (Meld Studios, 2022), respondents indicated they wanted their efforts to be acknowledged. Additionally, a small ABS study conducted in 2022 suggested that respondents who receive a 'Thank you' letter after submitting a survey in one cycle are more likely to submit again during the next cycle, compared with those who did not receive the 'Thank you' letter (Data Collection Design Centre, 2022). We are now extending this work with a quarterly survey.

The current longitudinal study follows new respondents split into treatment and control groups for five cycles, analysing their submission habits. This study is in the second of five phases, and as expected at this point, there is currently no statistically significant difference in response rates between the groups. At this stage there is no evidence of a detrimental impact of the 'Thank You' letter on the respondent. However, we will continue to monitor this and will have further information in late 2024.

4.0 CONCLUSION

In the context of declining response rates (Australian Bureau of Statistics, 2022 April 27; Luiten, Hox & de Leeuw, 2020; The World Bank, 2020), actively engaging with respondents as assets is accepted as the way forward for ABS data collection. As indicated in the Information Notice of this expert meeting (UNECE, 17 January 2023), there has been a 'paradigm shift that puts the respondents at the centre of the data collection design and management'.

In the past we focused on the symptoms of barriers and looked to external literature, theory, and operational data to help us understand behaviour. Respondent feedback received via various pathways was considered and valued and respondents were consulted and involved in prototype testing, but they were not central to the design of solutions. There was not a two-way conversation, whereby respondents were not invited to help define the problem or involved in idea generation and concept testing. Instead, they were often engaged late in the design process once prototypes had been developed.

The five interventions discussed demonstrate the benefits of placing the respondent at the core of service and product design. By working with them we can understand barriers to response as perceived by respondents. The iterative approach enabled us to evolve and test ideas, ahead of scaled implementation. As such, by the time deliverables land in the field – which not all did – they are more likely to connect with respondent need and therefore yield the desired outcomes.

Recent respondent-focused design and evaluation work has also revealed the benefits of HCD as an approach that enables us to balance respondent preference and statistical integrity, by involving both respondents and ABS staff in the design process. Through this, our requirements are communicated more effectively, and respondents are clearer about their role in the construction of national statistics. We introduced several of the ‘friendlier’ and pro-active communications that respondents requested, and successfully tested the more immediate and urgent messaging to promote compliance late in the survey cycle. Each intervention has the potential to boost data integrity and does so by adhering to respondent-specified modes, content, and timing contact.

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