# Mapping the respondent journey and the design decisions impacting survey response.

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# Abstract

With a rich array of theory and methods to manage response, survey practitioners face the challenge of consolidating varied recommendations into holistic and optimised collection designs that account for various constraints, such as cost, time, technology and subject matter. This paper presents an exploratory framework assisting survey practitioners to explore the tradeoffs and impacts of design decisions. This articulates the survey process from a respondent’s perspective, identifying major touchpoints, channels, and pressure points. This external view is then mapped to the design options and decisions available to practitioners and survey organisations. The mapping between internal and external viewpoints is then enriched by layering existing theory and knowledge from both the literature and ABS’ experimental and observational research. This grounds the map in evidence, providing concrete illustration of the available design scenarios. Applying this framework to ABS surveys decomposes the interdependencies in collection design and statistical production. In turn, this illustrates opportunities to gain response, and to manage tradeoffs within the collection and statistical production process. By contrasting multiple survey designs, the framework helps to summarise and identify common painpoints in gaining response, and illustrates the potential solutions available or that require further innovation. This increased understanding helps individuals to understand their domain in relation to others, and enables consolidation of learnings across organisational silos. Finally, this end-to-end view highlights the influence of structural, organisational factors, helping to inform strategic design decisions, and illustrates opportunities for impactful research and innovation in modern collection designs.

**Introduction**

Survey collection design is complex, requiring balancing multiple perspectives, priorities and requirements to secure response in a cost effective manner.

These include recommendations for specific survey features (e.g. mode and mode sequence, incentives, and burden and form design; Dillman 2014; Yan, Fricker & Tsia, 2020), specific techniques to increase response (such as respondent motivation, the language and structure of a request; Fishbein & Azjen, 2010; Groves, Cialdini & Couper, 1992), which must be considered alongside practical, organisational, policy and legal requirements of the survey organisation, while also considering novel and emerging situations – such as natural disasters, or the current COVID-19 pandemic (e.g. Redelmeier & Shafir, 2020). This introduces a multiplicity of perspectives, priorities, and requirements that, at best, complicates the design process; and in more extreme cases can lead to incompatible or contradictory recommendations that need to be resolved.

To navigate this diverse set of inputs and recommendations, survey practitioners are called on to use holistic approaches to design (e.g. Dillman, Smyth & Christian 2014; Snijkers, 2018) with the intent of improving their surveys collections, and minimisising the disjunctions sometimes seen between theory and practice (Peytchev, 2009).

The need for holistic design is not unique to survey practice. Rather, the broader user experience and service design literature has a range of tools that aim to break down such complexity (Dubberly, 2008), and is widely used across private, public and not-for-profit sectors to enhance service offerings and practices. One common tool is the *alignment map* – a family of diagrams including customer journey maps, experience maps, and service blueprints (Kalbach, 2016). These explicitly aim to depict a given service from the user’s perspective, showing user goals, experiences, process and painpoints; as well as the context culture and events occurring within and around the service. By making these facets explicit, these diagrams enable design and redesign of the services they depict, and enable readers to “see” their part in a larger process that they may never otherwise observe directly. These tools therefore provide a mechanism to bridge organisational and disciplinary boundaries, represent the needs of otherwise out-of-sight individuals (the end-users of a service), and provide common reference materials to drive further improvements of their respective businesses (Kalbach, 2016; Patton, 2014).

Could these tools help survey practitioners design their surveys holistically, by exploring the impacts on the “journey” of responding to a survey? Could this help to show the impacts of different decisions on response rates and costs? And while such diagrams are useful in other sectors, do they help to inform and identify strategic decisions about *survey* infrastructure and overall *statistical* program design, like they do for other sectors?

This paper presents an initial framework based on internal workshops and creation of such alignment maps in a survey design context. Across a range of ABS surveys, variations of these diagrams have helped to communicate across silos; with personnel of varying backgrounds; in projects of aiming to impact, statistical, technological and fieldwork procedures – although all with a view to improving the efficiency and effectiveness of gaining and securing responses from respondents in business and household surveys.

# The framework

This divides a survey into key stages, showing the design decisions and considerations, touchpoints over multiple channels, respondents’ painpoints and organisational opportunities. Attachment 1 shows a representation of the ABS Labour Force Survey using this framework.

**1. Touchpoints:** The most prominent, and important, information is located centrally on the diagram. This shows a flowchart-like depiction of the individual touchpoints and interactions between the survey organisation and respondent. This reveals the specific steps a respondent may take, the relationship between them, and key actions of the survey organisation to enable response at each step. Theoretically, these touchpoints are the interactions and features that do, or do not, encourage response (e.g. Leverage salience theory; Groves, Singer & Corning, 2000; Social Exchange Theory; e.g. Dillman 2014) and therefore represent opportunities to improve aspects of the survey design (see opportunities & improvements, below). By showing actions in their context, this immediately helps to prioritise and support holistic design activities by understanding the antecedents and consequences of a given action.

**2. Time:** Individual touchpoints are placed on the page, left-to-right, to reflect the timing and sequence of a given interaction. These can be grouped in stages that reflect significant events in responding to the survey, which compresses a longer period of time into a relatively small diagram. An alternative is to represent time in a constant scale (e.g. individual days or week of time), which places emphasis on the temporal connections of events, such as the timing of survey requests, duration of survey periods or overlapping survey requests as is frequently the case in business surveys.

**3. Multiple modes/channels:** Contemporary surveys often use multiple channels of contact, and multiple modes of collection, each with certain benefits and costs. The touchpoint-by-time diagram is therefore further divided into separate channels to represent these different mediums, the relationship between the modes, to prompt questions and decisions about their use. For example, constructing this diagram in a workshop environment required participants to engage with whether to offer multiple modes simultaneously or sequentially, prompting discussions about the expected impact on response (as informed by the wider literature, and ABS experimentation), and immediately highlighting the downstream flow-on effects in terms of data availability and publication deadlines. Actions conducted in the office to immediately support fieldwork are also shown to provide context (e.g. generation of lists of nonrespondents, to enable letters to be sent *only* to nonrespondents)

Simply mapping the touchpoints over time and channels, helps to communicate and record the design of the survey. However, additional contextual information can be layered around this diagram to further articulate the design, prompt consideration of the current design or inform further work.

**4. Design Decisions & Considerations:** The survey touchpoints and their content are ultimately a reflection of the myriad decisions made about a survey: it’s title, topic, sample design, approach strategy, mode mix, reference period, deadlines, and so on. Listing these on the diagram explicitly acknowledges these constraints, and contextualises the sequence and logic of touchpoints. Further, these can help to guide later design efforts, prompting consideration of the underlying assumptions and questioning how these might be altered.

**5. Empirical evidence** can be layered onto the touchpoint/flowchart layer of the map, to inform, explain or justify given designs. This can include quantitative information about respondent behaviours such as those gained through experimental research; or qualitative reports to illustrate respondent context and understanding of the task. This brings the framework to life, reflecting respondent understanding, questions and behaviours that are relevant to response and nonresponse. This layer also deliberately separates empirical evidence from internal policy positions to enable discussion about their interaction.

**6. Opportunities and Improvements:** Particular issues and “Painpoints” from the respondent’s perspective can be, either associated with particular touchpoints, or caused by the temporal or conceptual gaps “between” touchpoints – such as cases where nonresponse followup is a significantly time gap from the first contact, which may affect engagement with the survey or introduce sampling concerns. Evidence presented on the touchpoint layer may also frame judgements about what can be improved, and its relative priority.

This framework provides a rich set of information to illustrate the impact of survey designs, and inform decisions about these. This can expand to accommodate a huge range of stages and events in a survey production process, and quickly become overwhelming. This requires a map author to “curate” what is included and important to reflect on a map, and what can be safely excluded. As such, the framework presented in this paper is not fixed, but should be adapted to the needs and pressures facing a survey practitioner. By introducing the various policy and empirical constraints facing a given survey design, this framework helps to prioritise what should be included.

Visual design can support these curation efforts. For example, in Attachment 1, colour is used to show the different perspectives –survey manager in blue, infrastructural concerns in grey. Simple boxes represent key touchpoints (e.g. letters, computer interfaces), and are stacked to show repetition. In layering evidence over the chart, the recommended but not required options are labelled with a blue circle, enclosing quantified impacts where available. This iconography creates a visual language that can be rapidly processed and considered.

While this approach produces compelling diagrams of survey process, it does have limitations. This approach is currently limited to a single survey protocol. Multiple protocols may need to be shown as separate maps, or possibly additional layers to the existing map, Further exploration of ways to reflect cumulative burden or selection in multiple surveys simultaneously (as is common in busines surveys) are yet to be developed.

Viewed within the Total Survey Error framework (Groves & Lyberg, 2010), the current approach focuses on nonresponse error and methods to make and maintain contact with survey respondents. However, issues related to question validity and measurement error are closely related to these behaviours; and the processes used to explain the survey and recruit respondents may frame and alter responses to the questionnaire itself. While this framework is not inherently linked to TSE it could be extended to integrate these interactions between survey organisation and respondent, across both sampling and non-sampling error.

These maps can be produced to document the current state of a collection, or used as a framework to collaboratively develop new collections in workshop environments. In either usage, these maps tend to produce rich diagrams, illustrating the pathway of gaining response and facilitating discussion across functional “silos” about their contributions to gaining response, and enabling holistic approaches to survey design.

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