



## Relationship Indicators

National survey of  
the state of relationships  
in Australia

# Technical Report

This technical report has been prepared to provide further information about the design, data collection and methodological aspects of the Relationship Indicators Report.

This report was prepared with support from the Social Research Centre's Technical Report, created as part of the data collection process. This report was authored by Claire Fisher, Senior Research and Projects Officer at Relationships Australia National. For more information, please contact the National Office on Ph 02 6162 9300.

## Authors

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### Background

The Relationships Indicators Survey was previously run from 1998-2011. In response to the enormous effects of the pandemic and other challenges in recent years, Relationships Australia recognised a shift in Australia and was interested in gaining a better understanding of the state of relationships at a national level. Relationships Australia decided to reinvigorate the project with a renewed focus on research design and method.

### Objectives

While there is a significant body of research exploring relationships, Relationships Australia found that there was no nationally representative data that spoke to the quality or texture of Australian relationships, nor the experience of navigating the positive and negative factors which affect and arise from relationships. Additionally, our scoping review found that there is little research that has captured the broad range of relationships that Australians find themselves in and value, beyond discrete sub-populations such as LGBTIQ+ people or young adults.<sup>1</sup> As a leading provider of universally-accessible relationship services across a variety of sub-populations, Relationships Australia recognised its unique capacity to produce this research.

As such, the Relationship Indicators project sought to:

1. Increase and enhance Australia's understanding of the state of relationships across different sub-populations
2. Develop distinct research indicators to provide evidence of the scale and depth of changes to relationships across time
3. Build a deeper understanding of how people navigate relationships through challenging experiences and during times of collective change or crisis

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<sup>1</sup> For example, the Mission Australia Annual Youth survey or the Say It Out Loud Survey by the Kirby Institute. Additionally, we felt that our work would be a complementary, more sociologically focused companion piece to the upcoming [Australian Study of Health and Relationships](#).



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## Ethics

This survey obtained ethics approval from the University of New England Human Research Ethics Committee (HE22-087) on 9 June 2022. The research was undertaken in accordance with:

- The *Privacy Act* (1988) (Cth) and the Australian Privacy Principles contained therein
- The Privacy (Market and Social Research) Code 2014
- The Australian Market and Social Research Society's Code of Professional Practice
- ISO 20252 standards.

## Methodology

### Survey design

The survey was designed in an exploratory style, as we recognised that significant changes had occurred since the last Relationship Indicators report was released in 2011. In keeping with these changes, we kept very few of the original questions, opting for a variety of newly developed scales, validated tools and some questions to test our own assumptions as service providers.

The survey was developed by the Relationship Indicators Advisory Panel (RIAG). This panel included experts from across the Federation, including people from research, communications and strategic backgrounds. The design was a collaborative and iterative process. RIAG met to co-design the survey across a period of four months. The survey was tested several times throughout this process, including through the process of cognitive interviewing [link].

While we noted that the previous Relationship Indicators had appropriately focused on the partnered relationship, the panel was interested in using this survey to reflect the broad range of relationships that make up the Australian experience and which we encounter in our service provision. In response, Relationships Australia developed a survey that explored the 'most important, meaningful' relationship people have in their lives. This examined the tools people use to navigate these relationships and the wellbeing, mental health and emotional outcomes of these. The survey also explored people's experiences with partnered relationship breakdown and bereavement, as well as other emerging relationship issues. Lastly, the survey focused on people's social identity, by exploring the role group relationships play and the effect these have on other relationships, health outcomes and wellbeing. The questionnaire was then refined in consultation with the Social Research Centre.



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### Cognitive interviewing

Cognitive interviewing is a process of survey question evaluation. It involves watching someone complete the survey to assess how respondents process their thoughts and perceptions when answering questions within the survey. It ensures questions are achieving their intended purpose and improves the quality of evidence produced.

To complete the cognitive interviewing, we engaged the Relationships Australia New South Wales user expert panel. This panel includes a group of current and previous Relationships Australia clients. The interviewing took place online via a video platform and included 5 members of the user expert panel. Respondents were interviewed individually by two members of Relationships Australia research staff. Following the completion of the interviews, the survey was refined to reflect their feedback.

### Survey collection

Following a competitive tender, the Social Research Centre (SRC) was chosen to collect the data, using Life in Australia™. Life in Australia™ is recognised as Australia's most methodologically rigorous online/offline panel. This is because it solely uses probability-based sampling methods and covers both online and offline population. A probability sample is one in which each element of the population has a known, non-zero chance of selection. This means the findings are generalisable to the Australian population.

### Recruitment

Life in Australia™ members were randomly recruited via their landline or mobile phone and provided their contact details so that they could take part in surveys on a regular basis. This means that the population covered by the panel is all Australian adults contactable via either a landline or mobile phone.

Life in Australia™ members receive a small incentive for joining the panel and another incentive for each survey they complete. For full information on recruitment methodology see here.<sup>2</sup>

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<sup>2</sup> A dual-frame random digit dialling (RDD) sample design was employed to undertake recruitment of Life in Australia™ in 2016, with a 30:70 split between the landline RDD sample frame and mobile phone RDD sample frame. For the landline sample, an alternating next / last birthday method was used to randomly select respondents from households where two or more in-scope persons were present. For mobile sample, the phone answerer was the selected respondent. Only one member per household was invited to join the panel.

In May 2018, the panel was refreshed with  $n = 287$  panellists being retired and  $n = 267$  new panellists being recruited. The recruitment methodology used only mobile RDD sample and recruited only online participants who were under 55 years old, to balance the demographics (the age profile of panel members was older than that of the Australian population). The recruitment rate (RECR) for the replenishment was 12.1%. After the refresh, there were  $n = 2,839$  active members of Life in Australia™. For both the recruitment in 2016 and panel refreshment in 2018, the RDD sample was provided by SamplePages.

Between October-December 2019, the panel was refreshed with  $n = 347$  panellists being retired and  $n = 1,810$  new panellists being recruited. This recruitment used a G-NAF (Geocoded National Address File) sample frame and push-to-web methodology. Only online participants were recruited, to balance the demographics (the age profile of panel members was older and more educated than that of the Australian population). The recruitment rate (RECR) for the replenishment was 12.1%. After the refresh, there were  $n = 4,025$  active members of Life in Australia™.

Between November 2020 and January 2021, the panel was refreshed with  $n = 385$  panellists being retired and  $n = 612$  new panellists being recruited. This recruitment used a combination of recruitment methodologies: G-NAF (Geocoded National Address File) sample frame and push-to-web, mobile sample frame IVR (interactive voice response) push-to-web, and mobile sample frame SMS invitation. Only online participants were recruited, to balance the demographics (the age profile of panel members was older and more educated than that of the Australian population). The recruitment rate (RECR) for the replenishment was 3.1%. After the refresh, there were  $n = 4,060$  active members of Life in Australia™.

In April 2021, the panel was refreshed with  $n = 510$  new panellists being recruited. This recruitment used an RDD mobile sample frame with SMS invitation. Only online participants were recruited, to balance the demographics (the age profile of panel members was older and more educated than that of the Australian population). The recruitment rate (RECR) for the replenishment was 3.4%. After the refresh, there were  $n = 4,499$  active members of Life in Australia™.

In August and September 2021, the panel was expanded with  $n = 3,715$  new panellists being recruited. This recruitment used the G-NAF (Geocoded National Address File) sample frame and push-to-web methodology. The recruitment rate (RECR) for the replenishment was 7.7%. After the refresh, there were  $n = 7,645$  active members of Life in Australia™.



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### Contact methodology and survey instrument

A total of 4,282 active panel members were invited to take part in the survey, with a total of 3,140 (73.3%) going on to complete the survey. Of these, 97.3% completed the survey using the online tool, while 2.7% completed the survey over the phone. Participants are invited to complete the survey via email and SMS invitation, with multiple email, SMS or phone call reminders where appropriate. All interviewing was conducted in English only. The survey was conducted over a two-week fieldwork period, from Tuesday 14<sup>th</sup> June 2022 to Monday 27<sup>th</sup> June 2022. The average survey length for those completing the survey was 19.6 minutes.

### Quality control

#### Interviewer briefing

All interviewers and supervisors working on the survey attended a two-hour briefing session. A total of 11 interviewers were briefed on the survey. The briefing included survey context and background, survey procedures and sample management protocols, respondent liaison procedures, strategies to maintain co-operation and an examination of the survey questionnaire, with a focus on the use of pre-coded response lists and item-specific data quality issues. Interviewers also engaged in comprehensive practice interviewing.

#### Fieldwork procedures

The SRC applied quality monitoring techniques applied to this project. Before commencing, the survey was checked for correct skips and sequencing, accessibility on a range of devices and employing 'dummy data' to check the structural integrity of the script.

Throughout the fieldwork, a selection of telephone surveys were validated via remote monitoring, survey de-briefing with interviewers took place, completion times were monitored (for individual questions and the entire survey) and the interview-to-refusal ratio by interviewer was observed.

Additionally, the survey employed randomised code frames and section order. For items using scales, reverse and normal order code frames were displayed. Additionally, the three survey segments were displayed in a randomised order. These techniques were employed to reduce response bias.



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### Demographic sub-populations

The following demographic information was collected by Relationships Australia during the survey:

- Employment status
- Household make-up
- Age of youngest child living at home
- Sexuality
- Disability status
- Carer status
- Presence of long-term health condition/s
- Presence of long-term mental health condition/s
- Poor mental health over the six months preceding the survey
- Remoteness area (postcode)

These details were intended to supplement demographic data already known by the Social Research Centre, up to date as of 30 September 2021, which includes:

- State or territory of residence
- Geographic location (capital city versus rest of state)
- Age group
- Socio-economic index
- Gender
- Language other than English spoken at home
- Number of adults in the household
- Age group by Highest education

Throughout our analysis and reporting on research findings, Relationships Australia used a variety of statistical analyses to explore the role these demographics played. Those with a statistically significant effect were included in final report.

### Weighting

The results of this survey are weighted to match the Australian population.



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The survey design and the use of weighting allows us to confidently apply these findings to the Australian population. The Social Research Centre uses a sophisticated weighting calculation that will be explained in detail.

Weighting is used to balance biases which occur through non-coverage of certain parts of the Australian population. Sample surveys are commonly used to draw conclusions on a larger population. This involves selecting a smaller, representative sub-set of the population and generalising findings to the whole population. Many sample surveys yield subsets that imperfectly cover their target populations despite the best possible sample design and data collection practices. Since some people in the population may not have had an equal chance of selection (for example, those who do not own a telephone would not be selected by the telephone survey), the survey uses weighting to balance these biases present through non-coverage.

Life in Australia™ is weighted using the following approach. Firstly, the base weight is computed for each respondent. This is calculated as the product of two weights:

1. Participant enrolment weight, accounting for the initial chances of selection and subsequent post-stratification to key demographic benchmarks.<sup>3</sup>
2. Participant response propensity weight, estimated from enrolment information available for both respondents and non-respondents to the present wave.<sup>4</sup>

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<sup>3</sup> Design weights for original recruits were derived as the inverse of their probability of selection, based on the approach of Best (2010), and then adjusted to reflect the population distributions for sex, location, age group, highest level of education, household internet access and telephone status. The method for adjusting the design weights was generalised regression (GREG) weighting which uses non-linear optimisation to minimise the distance between the design and adjusted weights, subject to the weights meeting the benchmarks ([Deville and Särndal, 1993](#)). As more panellists were recruited, the method for calculating the panel weights was simplified to use a model-based approach ([Valliant et al., 2000](#); [Elliott and Valliant, 2017](#)). Such methods avoid the increasingly cumbersome calculation of selection probabilities for multiple recruitment rounds involving multiple sampling frames, the increasing complexity of weighting, and the decreasing efficiency of the weights, at the same time as generating weights that align with population totals for a wide range of characteristics.

<sup>4</sup> As is typical for a panel survey, not all members respond to all waves, some withdraw or are retired from the panel and new members are recruited. To limit the impact of such events on the representativeness of estimates made from respondents, enrolment weights were adjusted using propensity scores ([Rosenbaum and Rubin, 1983](#)). To reduce the impact of very low or very high values, the predicted probabilities were collapsed into classes (after [Cochran, 1968](#)), with propensity scores assigned as the mean probability within each class. The base weights were then calculated as the ratio of the enrolment weight to the propensity class score.





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This step is essential in providing the statistical framework necessary for making population inferences from a sample survey.

Secondly, the base weights are adjusted so that they satisfy the latest population benchmarks for several demographic characteristics. These demographic parameters include:

- State or territory of residence
- Geographic location (capital city versus rest of state)
- Gender
- Language other than English spoken at home
- Number of adults in the household
- Age group by Highest education

These variables were chosen based on response propensity and their effect on key survey outcomes. This weighting accounts for non-response bias and ensures that survey estimates are consistent with other research. Benchmarks for these variables were sourced from official Australian Bureau of Statistics sources including the 2016 Census, supplemented by the latest 2021 Demographic Statistics, and the 2017-18 National Health Survey.

Large differences in weights can lead to substantial variances in survey estimates. In response, the Social Research Centre limited these variations using an *efficacy approach*<sup>5</sup> to improve the precision of estimates ([Kish, 1992](#)). The use of constraints in weighting aims to reduce the variance at the same time as limiting increases in the bias. For the Relationship Indicators survey, there were 3140 respondents aged 18+ years and the weighting efficiency was 60.4%, representing an effective base of 1897.

### Missing Values

Regression weighting approaches require that there are no missing values used for weighting. As in most surveys, some Life in Australia™ respondents did not provide answers to all questions. The Social Research Centre applied a statistical model, developed by Stekhoven and Buehlmann, to each item with missing values to impute the most likely value for a respondent, based on their other responses ([2012](#)). As there was generally much less than 5% of values missing for each question, the imputation process is expected to have a negligible impact.

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<sup>5</sup> The impact of setting bounds on the weights is assessed by comparing the weighting efficiency of adjusted weights for different constraints. Bounded weights are generally preferred when their efficiency is close to that of the unbounded weights.



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### Qualitative analysis

The survey included six open-ended questions and seventeen other (specified verbatim) responses. Open-ended questions and back-coding of questions with an 'Other (specify)' option was undertaken by experienced, fully briefed coders from the Social Research Centre. Outputs were validated in accordance with ISO 20252 procedures, using an independent validation approach.

The six open-ended questions were in-house analysed by Relationships Australia's research team. Questions were analysed using qualitative coding software, using an independent validation approach.

### Reporting

This report was prepared by the Relationships Australia National Office, with support from the Relationships Australia Federation. We approached the analysis using grounded theory, exploring patterns in the data and testing research questions which were developed in response to practice, research and evaluation findings from our service provision.

Throughout this report, numbers were rounded to one decimal point to ensure the continued relevance of the confidence intervals [link to limitations]. As such, some percentages may not add up to 100%. Additionally, the use of different analysis and reporting software means the individual figures presented in the graphs and text may differ. When reporting on the data, we recommend rounding the number to the nearest whole.

The data was analysed using a variety of statistical analysis, including linear modelling, regression analysis, factor analysis, pair-wise tests, fisher analysis and others. The data was analysed using R software and is presented using Tableau Cloud software.

### Limitations

This research was developed to provide an insight into the state of relationships in Australia as of June 2022. Estimates made from the survey should be seen as a point-in-time approximation of the population. It may be that if the survey were repeated at a different time, a slightly different subset of persons would take part and give a slightly different set of responses.



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However, because Life in Australia™ solely uses probability-based sampling methods, we can calculate *confidence intervals* and *relative standard errors (RSE)*<sup>6</sup>. Throughout the report, we have used RSE to clarify the confidence to which we make statements or claims. If the RSE was between 25% and 50% a footnote appears next to the estimate that indicates the numbers should be interpreted with caution.

Due to significant changes in survey design and collection methods, findings from previous Relationship Indicators reports should not be used for contrast or comparison. Since 2011, there have been significant developments in public opinion survey development, design and methodology. The use of different survey questions, sample design and analysis mean the surveys are too disparate to make meaningful comparisons.

Relationships Australia is particularly interested in the experiences of Aboriginal and Torres Strait Islander communities and their experiences of relationships. However, we acknowledge the current standardised national survey techniques are unable to accurately capture and reflect the experiences of First Nations Australians. Surveys attempting to do so can be subject to data quality issues due to the relatively small size of the population in comparison to the non-Indigenous population, the dispersion of the population, particularly across remote areas and access issues, for example in internet-based or telephone-based surveys. Additionally, the way in which Indigenous persons are identified in surveys can lead to inaccuracies.<sup>7</sup> As such, despite employing weighting techniques which attempt to correct these selection biases, we do not recommend using the findings of this survey to make inferences about Aboriginal or Torres Strait Islander Australians. In response, Relationships Australia is currently exploring research opportunities to build and strengthen our understanding of these communities and their experiences in relationships, in conjunction with the Relationships Australia Indigenous Network. We look forward to sharing our progress soon.

### References (without digital address):

Best, J. (2010). First-Stage Weights for Overlapping Dual Frame Telephone Surveys. Conference Presentation at the 65th Annual AAPOR's Conference, Chicago, IL, USA, 15 May 2010.

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<sup>6</sup> The "relative standard error" of an estimate expresses the precision of an estimate as a proportion of the estimate itself. The relative standard error indicates how likely it is that an estimate might have occurred by chance, because only a sample of the population was included. Ideally, the ratio of the precision to the estimate should be small (much less than 25%), indicating that the amount of uncertainty is small relative to the estimate. Estimates with RSEs greater than 25% should be used with caution and those with RSEs greater than 50% are considered too unreliable for general use.

<sup>7</sup> Australian Institute of Health and Welfare 2010 [National best practice guidelines for collecting Indigenous status in health data sets](#), Indigenous Justice Clearinghouse 2013 [Conducting research with Indigenous people and communities](#), Australian Human Rights Commission 2006 [A statistical overview of Aboriginal and Torres Strait Islander peoples in Australia](#)