

# Methodological notes

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## Survey administration

Balancing costs and population coverage led us to employ different survey modes across the six countries:

country	mode	completed interviews
Australia	self-administered, Internet	750
China	computer-assisted live interviewers, phone	750
India	in-person interview	908
Indonesia	in-person interview	750
Japan	self-administered, Internet	788
Korea	self-administered, Internet	757

## Sample design

In each country the study aims to make inferences with respect to the resident, adult population of each country.

In Australia, Japan and Korea, on-line respondents were randomly selected for interviewing from panels of adults who have previously agreed to take surveys.

In China, phone interviews were conducted utilizing RDD methods in Beijing, Shanghai, Guangzhou, Chengdu and Wuhan.

In India, in-person interviews were conducted in Bangalore, Ahmedabad, Jaipur, Chennai-Coimbatore, Bhubaneswar, Delhi, Indore, Kolkata, Lucknow, Ludhiana, Mumbai, Patna, Pune and Hyderabad.

In Indonesia, in-person interviews were conducted in Jakarta, Surabaya, Medan, Bandung and Makassar.

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## Stratification and weighting

Quotas were employed to help ensure the representativeness of the samples. Demographic attributes used to specify quotas were:

- **Australia, Japan and Korea:** Gender, age, education and location/region. “Interlocking” quotas were formed from the cross-classification of these demographic variables.
- **China:** interlocking quotas formed from the cross-classification of gender, age and education.
- **Indonesia:** interlocking quotas formed from the cross-classification of gender, age and a measure of socio-economic status based on household income, water source and electricity use.
- **India:** interlocking quotas formed from the cross-classification of gender, age and a measure of socio-economic status based on household income and ownership of durable goods and vehicles.

The data files for each country come equipped with weights, resulting from adjustments made to adjust quotas that are over or under target. Unless otherwise stated, all analyses reported in this report (including all tables and graphs) use weights. The following graph displays the distribution of weights for each of the six countries in the analysis. Note that each country’s weights have mean one, by construction. The weights for

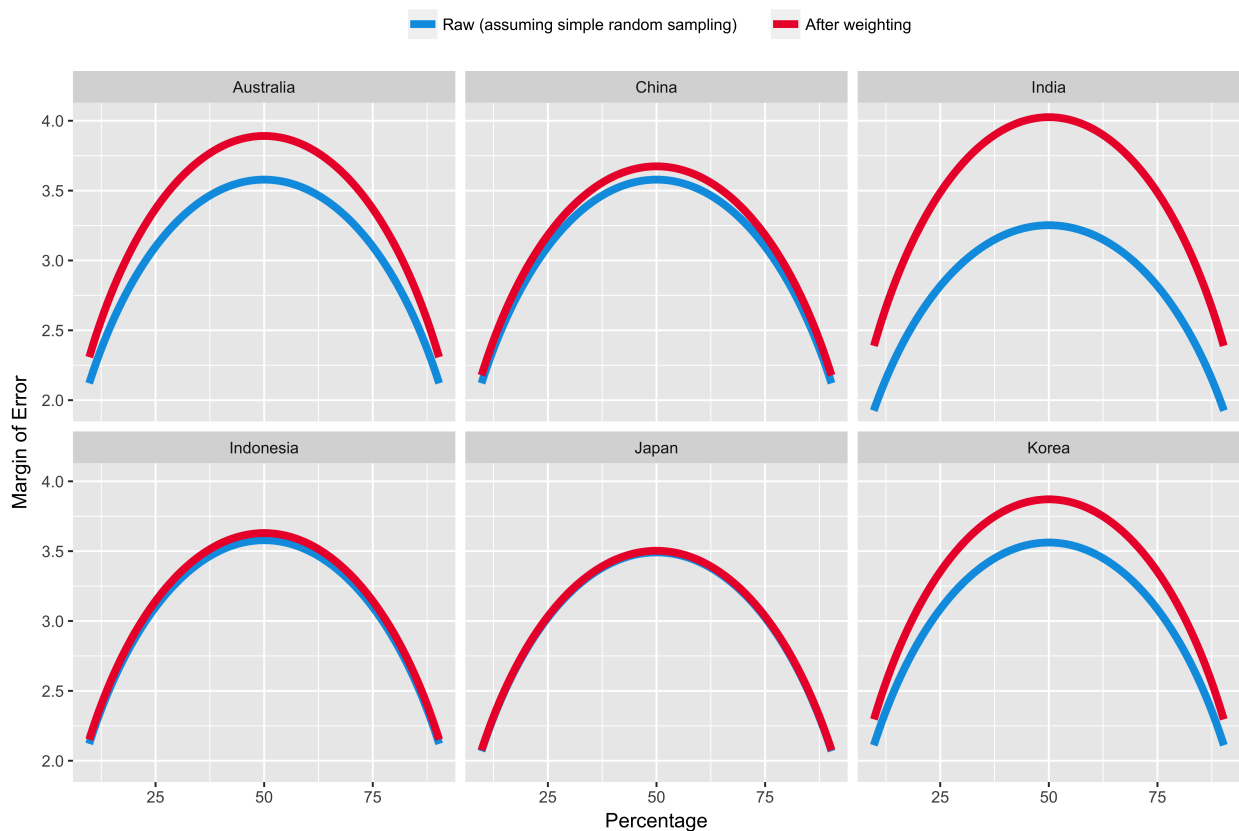
Indonesia, Japan and China have low variance; the weights for India have considerable variation and the weights for Australia also display a moderate degree of variation.

As the variance of the weights increases, the more the raw, unweighted data depart from a unbiased sample of the population. There is a cost to remediating bias via weighting. For data that have been weighted, accompanying margins of error are inflated relative to those that would be obtained had the data been a simple random sample; the “variance inflation factor” is proportional to the variance of the weights; n.b., for a simple random sample, the weights would be all 1.0 (with variance zero, since they are constant) and conventional estimates of sampling variability need no adjustment, nor do the resulting margins of error.

To a reasonable approximation, conventional estimates of sampling variability in each country ought to be inflated by the “variance inflation factor” in the table, below. The nominal sample size is simply the number of completed cases; the “effective sample size” is the equivalent size of a simple random sample with the same sampling variability as that of the weighted data. For India — where the data were weighted considerably — the nominal sample size of 908 generally has the same statistical precision as a simple random sample of size 593.

Country	Variance Inflation	Completed Cases	Effective Sample
Australia	1.18	750	634
China	1.05	750	712
India	1.53	908	593
Indonesia	1.03	750	729
Japan	1.01	788	783
Korea	1.18	757	641

Relative to a simple random sample, margins of error for each of the weighted data sets are inflated by the square root of variance inflation term. The following figure demonstrates the margins of error that accompany an estimated proportion in each country. Sampling variability is always maximized for an estimate of 50%; this follows from the fact that for a simple random sample, the variance of an estimated proportion  $p$  is  $V(p) = p(1 - p)/n$  where  $n$  is the sample size, an expression that is maximized with  $p = .5$ . The use of weighting in these data means that the maximum margin of error in these data is given by the maximum of the red curve for each country.

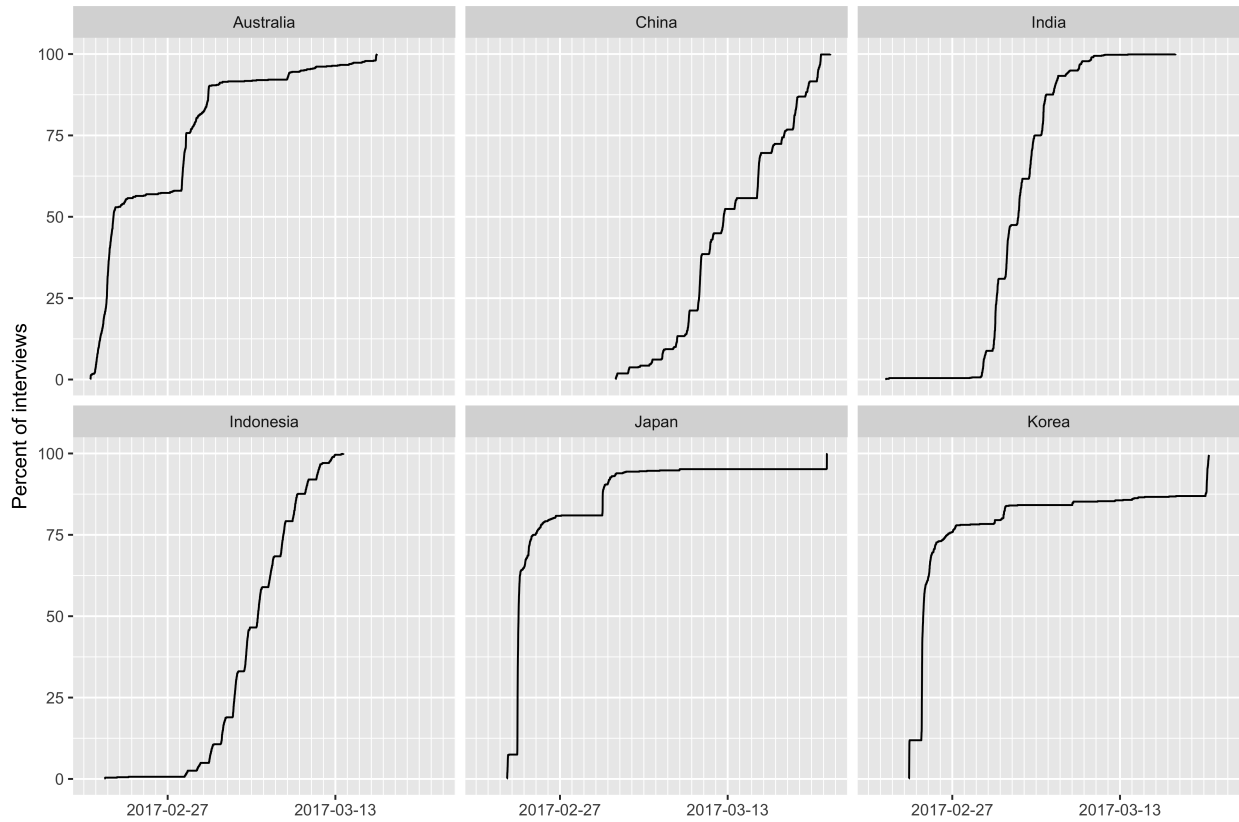


The maximum margins of error, by country, are given in the following table:

Country	Max MOE (percentage points)
Australia	3.9
China	3.7
India	4.0
Indonesia	3.6
Japan	3.5
Korea	3.9

## Field dates

The graph below shows cumulative rates of survey completion for the six countries. The survey was fielded between 21 February 2017 and 22 March 2017. There is good overlap in the field dates across countries, but a clear division between countries utilizing self-completion Internet modes and other modes. Note too that fieldwork in China did not start until 4 March, and concluded on 22 March. Fieldwork started almost at the same time everywhere else.



In Australia, Japan and Korea – where the survey administration mode was self-complete via Internet – the bulk of the cases clear very rapidly and the rates of completion are smoother than for other modes. Phone and in-person interviewing display distinct time of day effects, more so than self-administered surveys. A brief pause in interviewing on-line is apparent as the principal investigators and the survey vendor reviewed the data from an initial, small set of cases. The on-line surveys also display a small uptick in production at the end of the field period; presumably, this results from a “final push” from the survey vendor to close the survey, recruiting and assigning cases to quotas yet to be adequately filed and meeting the contracted target sample size.