

## Appendix: Methodology

The study is based on a probability sample nationally representative telephone survey. Fieldwork was conducted in September 2021 (August 30 – September 9, 2021), among a representative sample of about 1001 Iranians. The margin of error for is about +/- 3.1%. The samples were RDD samples drawn from all landline telephones in Iran. The samples were stratified first by Iranian provinces and then in accordance to settlement size and type. All 31 Iranian provinces were represented in proportions similar to their actual populations, as were rural and urban areas.

| Sept. 2021 survey          | Census<br>(% of Total Population) |       | Achieved Sample<br>(% of Sample) |       | Difference |       |
|----------------------------|-----------------------------------|-------|----------------------------------|-------|------------|-------|
|                            | Urban                             | Rural | Urban                            | Rural | Urban      | Rural |
| Alborz                     | 3.1                               | 0.2   | 3.1                              | 0.1   | 0.0        | -0.1  |
| Ardabil                    | 1.1                               | 0.5   | 1.0                              | 0.4   | -0.1       | -0.1  |
| Bushehr                    | 1.0                               | 0.4   | 1.1                              | 0.4   | 0.1        | 0.0   |
| Chaharmahal and Bakhtiari  | 0.8                               | 0.4   | 0.7                              | 0.4   | -0.1       | 0.0   |
| East Azerbaijan            | 3.5                               | 1.4   | 3.3                              | 0.9   | -0.2       | -0.5  |
| Fars                       | 4.3                               | 1.8   | 4.2                              | 1.8   | -0.1       | 0.0   |
| Gilan                      | 2.0                               | 1.2   | 2.0                              | 1.2   | 0.0        | 0.0   |
| Golestan                   | 1.2                               | 1.1   | 1.3                              | 1.1   | 0.1        | 0.0   |
| Hamedan                    | 1.4                               | 0.8   | 1.4                              | 0.8   | 0.0        | 0.0   |
| Hormozgan                  | 1.2                               | 1.0   | 1.1                              | 1.0   | -0.1       | 0.0   |
| Ilam                       | 0.5                               | 0.2   | 0.5                              | 0.2   | 0.0        | 0.0   |
| Isfahan                    | 5.6                               | 0.8   | 5.7                              | 0.8   | 0.1        | 0.0   |
| Kerman                     | 2.3                               | 1.6   | 2.4                              | 1.6   | 0.1        | 0.0   |
| Kermanshah                 | 1.8                               | 0.6   | 1.8                              | 0.6   | 0.0        | 0.0   |
| Khuzestan                  | 4.4                               | 1.4   | 4.4                              | 1.4   | 0.0        | 0.0   |
| Kohgiluyeh and Boyer-Ahmad | 0.5                               | 0.4   | 0.5                              | 0.4   | 0.0        | 0.0   |
| Kurdistan                  | 1.4                               | 0.6   | 1.4                              | 0.6   | 0.0        | 0.0   |
| Lorestan                   | 1.4                               | 0.8   | 1.4                              | 0.8   | 0.0        | 0.0   |
| Markazi                    | 1.4                               | 0.4   | 1.4                              | 0.4   | 0.0        | 0.0   |
| Mazandaran                 | 2.4                               | 1.7   | 2.4                              | 1.6   | 0.0        | -0.1  |
| North Khorasan             | 0.6                               | 0.5   | 0.6                              | 0.5   | 0.0        | 0.0   |
| Qazvin                     | 1.2                               | 0.4   | 1.2                              | 0.4   | 0.0        | 0.0   |
| Qom                        | 1.5                               | 0.1   | 1.5                              | 0.1   | 0.0        | 0.0   |
| Razavi Khorasan            | 5.9                               | 2.2   | 6.0                              | 2.2   | 0.1        | 0.0   |
| Semnan                     | 0.7                               | 0.2   | 0.7                              | 0.2   | 0.0        | 0.0   |
| Sistan and Baluchestan     | 1.7                               | 1.8   | 1.7                              | 1.2   | 0.0        | -0.6  |
| South Khorasan             | 0.6                               | 0.4   | 0.5                              | 0.4   | -0.1       | 0.0   |
| Tehran                     | 15.6                              | 1.0   | 16.7                             | 1.0   | 1.1        | 0.0   |
| West Azerbaijan            | 2.7                               | 1.4   | 3.0                              | 1.9   | 0.3        | 0.5   |
| Yazd                       | 1.2                               | 0.2   | 1.3                              | 0.2   | 0.1        | 0.0   |
| Zanjan                     | 0.9                               | 0.4   | 0.8                              | 0.4   | -0.1       | 0.0   |
| Total                      | 73.9                              | 25.9  | 75.0                             | 25.0  | 1.1        | -0.9  |

When a residence was reached, an adult was randomly selected from within that household using the random table technique. An initial attempt and three callbacks were made in an effort to complete an interview with the randomly selected respondents. All of the interviews were conducted using computer-assisted telephone interview (CATI). All interviews were monitored in real-time by call-center supervisors.

The AAPOR2 contact rate of this survey was 81%. The AAPOR2 cooperation rate of the survey was 79%. The overall response rate of the survey based on AAPOR2 was 60%.

The analysis provided in this report is based on the unweighted n=1001 sample and, unless specified otherwise, the results are based on the full sample.

### Data Quality Controls:

The quality of the survey data collected by IranPoll was evaluated in several ways:

**First**, we compared the results of this survey with the most recent official census conducted by the Statistical Center of Iran in 2016. As the following tables illustrate some of the findings, in general there is close match between the figure of this survey and those published by the Statistical Center of Iran.

Sex:

| Sept. 2021 survey | Sample | Census | Difference |
|-------------------|--------|--------|------------|
| Male              | 49.1   | 50.7   | -1.6       |
| Female            | 50.9   | 49.3   | +1.6       |

Age:

| Sept. 2021 survey | Sample | Census (% of 18+) | Difference |
|-------------------|--------|-------------------|------------|
| 18 – 24           | 16.2   | 14.9              | 1.3        |
| 25 – 54           | 63.6   | 66.3              | -2.7       |
| 55 +              | 20.2   | 18.8              | 1.4        |

Ethnicity:

| Sept. 2021 survey    | Sample | CIA Factbook | Difference |
|----------------------|--------|--------------|------------|
| Persian              | 49.7   | 61           | -2.0       |
| Mazani/Gilak/Shomali | 9.4    |              |            |
| Turk/Azeri           | 20.1   | 18           | 2.1        |
| Kurd                 | 8.3    | 10           | -1.7       |
| Lur                  | 7.1    | 6            | 1.1        |
| Arab                 | 1.0    | 2            | -1.0       |
| Baluch               | 0.3    | 2            | -1.7       |
| Other                | 4.2    | 1            | 3.2        |

**Second**, we compared the results of this survey with some of the figures that have been published by other credible sources. For example, there was a close match between percentage of respondents who say they follow the news programs of BBC Persian and the viewership estimates that have been provided by BBC Persian itself:

Follow BBC Persian Satellite TV News:

| Sept. 2021 survey | Sample |                                     | BBC Persian's Own Estimates |
|-------------------|--------|-------------------------------------|-----------------------------|
|                   | %      | Approx. Adult Population equivalent |                             |
| Yes               | 19.8   | 11.9 million                        | 13 million                  |
| No                | 79.5   |                                     |                             |
| DK/NA             | 0.7    |                                     |                             |

There was also a close match between the self-reported turnout in Iran's 2021 presidential election of the respondents and those released by Iran's Ministry of Interior. In this survey, as in most election related survey in other countries, we do see a slightly self-reported higher turnout than the actual outcome declared by Iran's ministry of Interior:

Voted in the 2021 presidential election:

| Sept. 2021 survey    | Sample | Official Results | Difference |
|----------------------|--------|------------------|------------|
| Yes                  | 52.9   | 48.9             | +4.0       |
| No                   | 46.3   |                  |            |
| Don't know / Refused | 0.8    |                  |            |

The electoral behavior reported by our sample also accorded well with the election's official results. The table below offers comparisons:

| Sample's self-reported behavior |       | Official results of 2021 presidential election: |       |
|---------------------------------|-------|---|-------|
| Voted on election day           | 52.9% | Voted on election day                           | 48.9% |
| Didn't vote or can't recall     | 47.1  | Did not vote                                    | 51.1% |
| Of those who voted:             |       | Of those who voted:                             |       |
| Voted for Raisi                 | 66.0  | Voted for Raisi                                 | 62.9% |
| Voted for Rezaei                | 12.1  | Voted for Rezaei                                | 12.0  |
| Voted for Hemmati               | 7.9   | Voted for Hemmati                               | 8.5   |
| Voted for Hashemi               | 3.0   | Voted for Hashemi                               | 3.5   |
| Cast an invalid ballot          | 8.9   | Cast an invalid ballot                          | 13.1  |
| Don't know/decline to answer    | 2.1   |   |       |

The act of voting has socially desirable connotations in Iran and most other countries, and so to overreport having gone to the polls is a common phenomenon in most countries where elections are held. In this case, the overreporting is 4.0%. Similarly, there is a frequently observed

tendency in most countries to overreport having voted for the election's winner (here, Raisi), and the overreporting in this case is 3.1%.<sup>3</sup>

For the three losing candidates who were still in the race by election day, the sample's totals accord quite well with official results. For invalid ballots, underreporting the casting of them is to be expected; the underreporting is either 4.2%, or if non-responses are added to this category, 2.1%. Given that the margin of error of the survey as a whole is 3.1%, the survey offers a close match to official election results.

**Next**, we checked for data falsification using Kuriakose & Robbins' "Percent Match" technique.<sup>4</sup> The technique is grounded in a tested assertion that in a 100+ variable survey of more than 100 respondents, fewer than 5% of the respondents should have provided identical answers on more than 85% of the questions. Please note that this survey had 158 variables and 1001 respondents. The Percent Match technique produced a normal distribution, with zero interviews with a maximum percent match of 85%, and less than 2% with a maximum percent match of over 70%. These results very strongly suggest that the likelihood of data falsification in this survey is statistically close to zero.

**Then**, in another attempt to check for falsification and other irregularities, we evaluated the interview length of each respondent and the time each respondent took to answer each question and compared it to the overall average interview length and the average time it took to answer each question. This exercise did not expose any particular irregularity. As expected, in this survey no interview took less than 32 minutes to complete, most interviews as well as individual questions took a similar time to complete, and longer interviews correlated with factors such as age, education, language barriers, and place of the residence of the respondents, such that respondents who were older, less educated, spoke a language other than Farsi, and/or lived in rural areas took longer to answer each question and complete the survey than others:

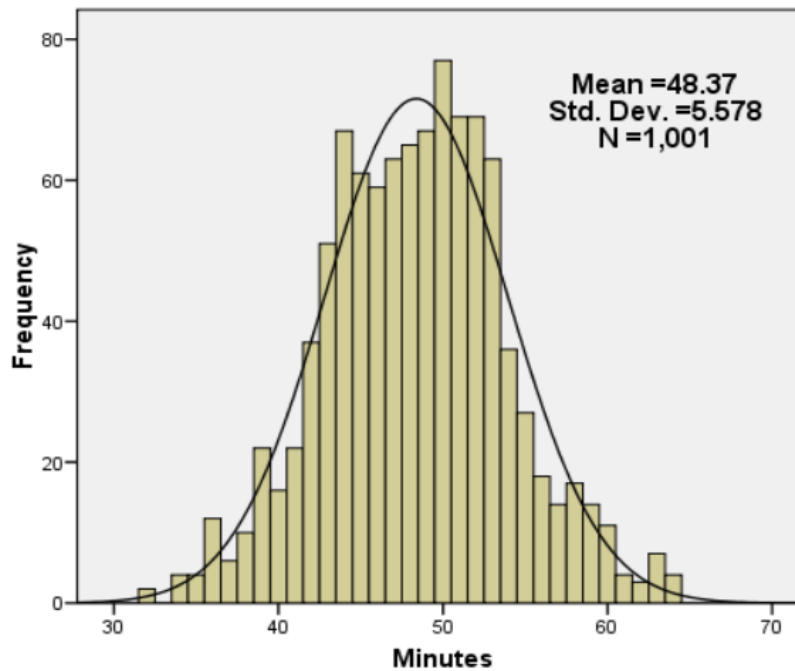
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<sup>3</sup> For more on over-reporting in favor of voting and voting for the winning candidate, read:

- Pascal Sciarini, Andreas C. Goldberg, Turnout Bias in Postelection Surveys: Political Involvement, Survey Participation, and Vote Overreporting, *Journal of Survey Statistics and Methodology*, Volume 4, Issue 1, March 2016, Pages 110–137.
- Allyson L. Holbrook, Jon A. Krosnick, Social desirability bias in voter turnout reports: Tests using the item count technique, *Public Opinion Quarterly*, Volume 74, Issue 1, Spring 2010, Pages 37–67.
- Atkeson, L.R. "Sure, I Voted for the Winner!" Overreport of the Primary Vote for the Party Nominee in the National Election Studies. *Political Behavior* 21, 197–215 (1999).

<sup>4</sup>For more information regarding this method, see: Kuriakose, N., & Robbins, M. (2016). Don't get duped: Fraud through duplication in public opinion surveys. *Statistical Journal of the IAOS*, 32, 283-291.

## Histogram



**Finally**, concerned with the possibility that respondents might have systematically held back their own true opinions and, instead, provided answers in line with positions articulated in Iranian State-owned news media, CISSM conducted an analysis to see what proportion of the sample systematically provided responses that were in line with the stated positions of the Iranian government. The analysis found that in this survey, only 3.1% of the respondents provided answers that are systematically and fully in line with stated positions of the Iranian government, and 96.9% of the respondents provided at least one response that is strongly at odds with positions articulated in Iranian state-owned news media.