



# Methodology for ‘When Parents Can’t Find Summer Child Care, Their Work Suffers’

By Cristina Novoa

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## Summary

This memo describes the methods used to collect and clean survey data for the Center for American Progress analysis “When Parents Can’t Find Summer Child Care, Their Work Suffers.” The survey was conducted in English on Amazon’s Mechanical Turk (MTurk) platform from May 2 to May 13, 2019.

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## About MTurk

MTurk is an online platform owned and operated by Amazon since being created in 2005. Academic and corporate researchers alike use MTurk, leveraging a large pool of available online participants to gather data quickly. In exchange for a small payment, participants—called “workers”—can sign up for short tasks ranging from transcribing audio files to participating in opinion polling and focus groups.<sup>1</sup> In the United States, MTurk has become particularly popular among social scientists seeking to conduct surveys and experiments with large numbers of workers at low costs.<sup>2</sup> Research shows that the quality of MTurk data is comparable to the quality of data collected through more traditional sources such as surveying university students or other internet sampling.<sup>3</sup>

Although MTurk data are high quality and easy to collect, the pool of MTurk workers is not representative of the U.S. population.<sup>4</sup> Compared with the broader U.S. workforce, U.S.-based MTurk workers are younger and better educated. Most MTurk workers use the site to supplement other income sources; workers generally report earning less than the minimum wage.<sup>5</sup> Moreover, MTurk workers self-select tasks; hence, workers who chose to participate in this analysis likely have stronger feelings about summer child care than workers who did not choose to participate. Samples collected through MTurk therefore reflect convenience sampling and the inherent limitations of this form of data collection. (see “Limitations” subsection for more information)

The author paid respondents \$1 each in exchange for taking a 3- to 5-minute survey, choosing this payment level to reflect a \$15 per hour minimum wage and the median pay rate for MTurk tasks.<sup>6</sup>

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## Sample

In order to qualify for the CAP survey, MTurk workers had to confirm that they had at least one child ages 0 to 13. A total of 1,016 participants with a U.S. Internet Protocol (IP) address completed the survey, of which 171 were excluded from the final analysis. These responses were dropped for the following reasons:

1. The respondent indicated in Question 1 that they did not have a child in the target age range, despite affirming this fact in a screening question.
2. Responses were duplicate submissions from the same worker. Every participant has a unique ID called an MTurk ID, which the author used to identify and reject duplicates.
3. The data were of poor quality. (see “Data quality” subsection for more information)

This left a final analytic sample of 845 respondents. Apart from North Dakota and Vermont, the sample represents parents from all U.S. states, as well as American Samoa and Washington, D.C. Demographic characteristics of the final analytic sample resemble the racial demographics of the general population, though there are notable difference in employment and household income. (see Table 1)

TABLE 1

## Demographic characteristics of the analytic sample closely resemble characteristics of the U.S. population

Characteristics of the analytic sample, full sample, and U.S. general population

|   | Analytic sample<br>(n=845) | Full sample<br>(n=1,016) | U.S. general<br>population<br>(n=321,004,407) |
|---|----------------------------|--------------------------|---|
| <b>Race and Hispanic origin</b>                   |                            |                          |   |
| White or Caucasian                                | 71%                        | 70%                      | 76%   |
| Black or African American                         | 14%                        | 17%                      | 14%   |
| Hispanic or Latino                                | 7%                         | 8%                       | 18%   |
| Asian or Asian American                           | 7%                         | 8%                       | 6%  |
| American Indian or Alaska Native                  | 1%                         | 2%                       | 2%  |
| Native Hawaiian or other Pacific Islander         | < 1%                       | 1%                       | < 1%  |
| Other   | < 1%                       | 1%                       | 5%  |
| Missing   | 5%                         | 5%                       |   |
| <b>Employment status</b>                          |                            |                          |   |
| Employed full time (at least 35 hours per week)   | 81%                        | 82%                      | 58%   |
| Employed part time (fewer than 35 hours per week) | 9%                         | 9%                       | 18%   |
| Unemployed  | 4%                         | 4%                       | 24%   |
| Missing   | 5%                         | 5%                       |   |
| <b>Household income</b>                           |                            |                          |   |
| More than \$150,000                               | 3%                         | 3%                       | 12%   |
| \$100,000–\$150,000                               | 9%                         | 9%                       | 14%   |
| \$75,000–\$99,000                                 | 17%                        | 16%                      | 12%   |
| \$50,000–\$74,999                                 | 26%                        | 27%                      | 18%   |
| \$15,000–\$49,999                                 | 36%                        | 36%                      | 32%   |
| Less than \$15,000                                | 4%                         | 4%                       | 12%   |
| Missing   | 6%                         | 6%                       |   |
| <b>Urbanicity</b>                                 |                            |                          |   |
| Rural   | 15%                        | 16%                      | 20%   |
| Suburban  | 40%                        | 40%                      | 55%   |
| Urban   | 39%                        | 40%                      | 25%   |
| Missing   | 5%                         | 5%                       |   |

Note: Percentages may not add to 100 due to rounding. Approximately 5 percent of respondents in the CAP survey—represented in the first two columns—skipped these questions and therefore have missing data. However, because the U.S. Census Bureau takes steps to address missing data problems, the values in these rows are left blank.

Source: Author's analysis of original CAP survey; U.S. Census Bureau American FactFinder, "2013–2017 American Community Survey 5-Year Estimates," available at <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml> (last accessed May 2019).

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## Data quality

The author thoroughly screened and dropped any duplicate or suspect observations to create the final analytic sample of 845 respondents. Suspect observations included observations for which respondents responded to open-ended questions with nonsensical answers or profanity, or for which the respondent frequently selected all available options for questions that allowed multiple responses—for example, Question 7, “What, if any, challenges did you experience? Check all that apply.” Suspect observations also included observations in which the respondent provided inconsistent or illogical answers—for example, if the respondent selected “Not applicable/none of the above” in addition to other barriers in Question 7.

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## Limitations

As explained earlier, MTurk workers differ from the general population in important ways, and analysis of data derived from this platform therefore does not generalize to the entire U.S. population. This reflects sampling bias, a form of bias in which the sample is collected in a way that does not accurately reflect the intended population.<sup>7</sup> Another form of bias present is response bias, or the bias that results from inattentive or untruthful answers to questions. As participants complete MTurk tasks in exchange for payment, some participants are incentivized to finish surveys quickly in order to complete more tasks and maximize their payment. The author addressed this last limitation by thoroughly screening for poor-quality data and conducting a robustness check. This consisted of comparing survey responses from the analytic sample to survey responses from the entire sample that included some suspect or potentially biased answers. Survey responses for both groups were similar.

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## Questionnaire

In addition to demographic questions, the survey took about five minutes for workers to complete and consisted of the following 10 questions about summer child care:

1. I have a child in the following age groups (check all that apply)
  - a. 0-2 years old
  - b. 3-4 years old
  - c. 5-8 years old
  - d. 9-13 years old
  - e. 14+ years old

2. Do you have child care that meets your family's needs lined up for the summer?  
(check one)
  - a. Yes
  - b. No
  - c. Some care, but does not fully meet family's needs
  
3. This summer, my family plans to use \_\_\_\_\_ as child care. (check all that apply)
  - a. Care by parent who is not in the paid labor force
  - b. Care by parent who is currently employed but taking leave
  - c. Care by parent whose job does not require summer hours
  - d. Care by parent who works from home
  - e. Care by relative/friend/neighbor
  - f. Care by nanny/au pair/babysitter
  - g. Day camp
  - h. Sleep-away camp
  - i. Child care center/summer school
  - j. Self care (child will stay home alone)
  - k. Sibling care (child will stay home with older sibling)
  - l. Other (please specify)
  
4. What is the total dollar amount that you anticipate spending on child care between the last day of school and the beginning of the next school year? (free response)
  
5. How difficult is paying for child care for your child/children over the summer?  
(check one)
  - a. Very difficult
  - b. Somewhat difficult
  - c. A little bit difficult
  - d. Not at all difficult
  
6. How difficult is finding child care for your child/children over the summer?  
(check one)
  - a. Very difficult
  - b. Somewhat difficult
  - c. A little bit difficult
  - d. Not at all difficult
  
7. What, if any, challenges did you experience? (check all that apply)
  - a. Cost
  - b. Distance of summer care location to home or work
  - c. Program hours
  - d. Program availability throughout the whole summer
  - e. Lack of available slots/long wait list for programs
  - f. Lack of programs that meet child's needs or interests
  - g. Not applicable/none of the above
  - h. Other (please specify)

8. If you are currently employed, will you make any of the following changes in order to care for your child/children during the summer? (check all that apply)
- a. Work fewer hours per day
  - b. Work fewer days per week
  - c. Use paid time off (i.e. vacation or sick leave)
  - d. Use unpaid time off
  - e. Leave the workforce to care for child/children
  - f. I will not be making any changes
  - g. Not applicable (I am not currently employed)
  - h. Other (please specify)
9. If your child/children's other parent is currently employed, will they make any of the following changes in order to care for your child/children during the summer? (check all that apply)
- a. Work fewer hours per day
  - b. Work fewer days per week
  - c. Use paid time off (i.e. vacation or sick leave)
  - d. Use unpaid time off
  - e. Leave the workforce to care for child/children
  - f. My child/children's other parent is not making any changes
  - g. Not applicable
  - h. Other (please specify)
10. When did you start looking for summer care for your child/children for this summer? (check one)
- a. Before January of this year
  - b. January-February
  - c. March-April
  - d. May
  - e. I have not started looking for child care
  - f. Not applicable

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## Endnotes

- 1 Paul Hitlin, "Research in the Crowdsourcing Age, a Case Study" (Washington: Pew Research Center, 2016), available at <https://www.pewinternet.org/2016/07/11/research-in-the-crowdsourcing-age-a-case-study/>; Ulrich Boser, "A Guide to High-Quality, Online Polls, Surveys, and Focus Groups," The Learning Agency, March 23, 2019, available at <https://www.the-learning-agency.com/insights/a-guide-to-high-quality-online-polls-surveys-and-focus-groups>.
- 2 Hitlin, "Research in the Crowdsourcing Age, a Case Study."
- 3 Michael Buhrmester, Tracy Kwang, and Samuel D. Gosling, "Amazon's Mechanical Turk: A New Source of Inexpensive, Yet High-Quality, Data?," *Perspectives on Psychological Science* 6 (1) (2011): 3–5, available at <https://www.ncbi.nlm.nih.gov/pubmed/26162106?dopt=Abstract>; Tara S. Behrend and others, "The viability of crowdsourcing for survey research," *Behavior Research Methods* 43 (2011): 800–813, available at <https://link.springer.com/article/10.3758%2Fs13428-011-0081-0>.
- 4 Kimberly A. Arditte and others, "The importance of assessing clinical phenomena in Mechanical Turk research," *Psychological Assessment* 28 (6) (2016): 684–691, available at <https://www.ncbi.nlm.nih.gov/pubmed/26302105>.
- 5 Hitlin, "Research in the Crowdsourcing Age, a Case Study."
- 6 Behrend and others, "The viability of crowdsourcing for survey research."
- 7 Katrina Sostek and Brett Slatkin, "How Google Surveys Works" (Mountain View, CA: Google, 2018), available at [http://services.google.com/fh/files/misc/white\\_paper\\_how\\_google\\_surveys\\_works.pdf](http://services.google.com/fh/files/misc/white_paper_how_google_surveys_works.pdf).