
Appendix E: Summary of Response Rate Experience to Date

Establishment Method

Data collection for the O*NET Data Collection Program began in June 2001 and has been in continuous operation since then. Appendix Exhibit E-1 shows our cumulative response rate experience as of December 31, 2020. As indicated, 199,711 establishments and 227,256 employees have responded to the survey request, resulting in an establishment response rate of 72% and an employee response rate of 63%.

Appendix Exhibit E-1.	Establishment Method Data Collection Results
Sampled establishments	360,552
Eligible establishments	277,154
Participating establishments	199,711
Establishment response rate (participating establishments/eligible establishments)	72%
Sampled employees	358,877
Participating employees	227,256
Employee response rate (participating employees/eligible employees)	63%

Comparisons of the O*NET response rates with those of other business surveys are complicated by several unusual design characteristics of the O*NET survey, including the following:

- ***Voluntary rather than mandatory participation.*** The literature indicates that response rates on mandatory surveys are typically higher than those on comparable voluntary surveys (Navarro, King, & Starsinic, 2011; Tulp, Hoy, Kusch, & Cole, 1991; Worden & Hoy, 1992). Because the O*NET survey is voluntary, its response rates would be expected to be lower than those for the average federally mandated survey.
- ***No direct personal contact with the survey respondents by the survey organization conducting the data collection.*** The O*NET requirement of respondent anonymity means that participation at the employee level relies exclusively on the interactions between the establishment's point of contact (POC) and the employee. The survey organization is not able to speak to the employee to respond to questions, motivate responses, or follow up on noncompliance. In their review of establishment mail survey response rates, Paxon, Dillman, and Tarnai (1995) found that establishment surveys featuring anonymous mailings typically have lower response rates (by as

many as 30 percentage points) than surveys featuring direct personal contact with the respondents.

- ***Participation required at three stages of response—establishment level, point of contact level, and employee level.*** The typical establishment survey requires participation at only one or two levels: the establishment level and, in some cases, the POC level. By contrast, three often distinct entities must agree to participate in the O*NET Program: the establishment administration, the POC identified in the screening interview, and the employee who is asked to complete the questionnaire. Because very few surveys incorporate such a design, the survey methods literature is essentially devoid of examples on which to base a reasonable response rate expectation for the O*NET Data Collection Program. However, it is possible to compare O*NET response rates at each stage with other establishment surveys that incorporate these stages either separately or in combination. For example, the O*NET establishment-level response rate can be compared with other mail establishment surveys having only one response stage at the establishment level. In addition, the O*NET employee-level response rate can be compared with the response rate of other establishments' self-conducted employee surveys.

The literature indicates that voluntary business surveys typically experience relatively low response rates. Cycyota and Harrison (2006) analyzed response rate data from 231 surveys of business executives conducted from 1992 to 2003 and found the overall average rate to be 32%. Tarnai & Paxon (2004) obtained a response rate of 48.6% in their survey of 2,626 businesses on survey mode preference; they concluded that the typical establishment survey achieves a response rate of between 40% and 50%. Baruch and Holtom (2008) analyzed the response rates for 463 studies published across 17 first- and second-tier journals in 2000 and 2005. Among the studies examined, 117 of them were organization-level surveys whose average response rate was 35.7%. The 2001 *Survey of Respirator Use in Private Sector Firms*, a voluntary mail survey of 40,002 establishments sponsored by the National Institute of Occupational Safety and Health, used a two-tiered sampling process similar to the one used on O*NET and achieved a business-level response rate of 75.5% (U.S. Department of Labor, 2003).

However, the field of survey work has seen a gradual decline in response rate. This was evidenced by Roger Tourangeau's 2017 presidential address (Tourangeau, 2017, May) to the American Association of Public Opinion Research (AAPOR), in which he remarked that response rates have been falling for more than 30 years and that this trend was the same across the developed world and, within AAPOR's overview of response rates (American Association of Public Opinion Research, n.d.): "Largely due to increasing refusals, response rates across all modes of survey administration have declined, in some cases precipitously." In a recent review of four major, voluntary, establishment-based surveys conducted by BLS, initial unweighted data collection response rates ranged from 64% to 73% in December of 2013 but had declined to a

range 58% to 62.2% by December of 2019. Additionally, by March of 2020, response rates among three of the surveys had fallen an average of 6.6 additional percentage points (Office of Survey Methods Research, 2020) with a low response rate of 51%. In addition, from 2012 through 2017, the Census Bureau’s Advanced Monthly Sales for Retail and Food Services Survey experienced a decline in response rates of more than 20 percentage points; response rates for the Monthly Retail Trade Survey and the Manufacturers’ Shipments, Inventories, and Orders Survey declined more than 10 percentage points (National Academies of Sciences, 2017). By way of comparison, O*NET has also observed a downward trend in establishment response rates over the past years, with rates at 75% for 2012–2014, 68% for 2015–2017, and more recently 55% for 2018–2020.

The above results for establishment surveys, summarized in Appendix Exhibit E-2, suggest that both the O*NET cumulative establishment response rate of 72% and the more recent experience of 55% for 2018–2020 are comparable to those reported for similar surveys and reflective of trends in data collection.

Appendix Exhibit E-2. Studies of Establishment-Level Response Rates

Study	Response Rate
Cycyota & Harrison (2006)	32%
Tarnai & Paxton (2004)	49%
Baruch & Holtom (2008)	36%
Petroni et al. (2004)	66%–87%
W. Davie (2011)	66%–80%
National Institute of Occupational Safety and Health (2003)	76%
ECI (2020)	54%
JOLTS (2020)	51%
O*NET (cumulative)	72%
O*NET (2018–2020)	55%

The O*NET employee response rates can be compared with those of surveys that directly sample employees within an establishment. Because federally sponsored surveys of employees within organizations are rare, the literature on their response rates is sparse. Most surveys of this type are employee satisfaction surveys. For example, one well-documented, government-sponsored survey of employees is the Public Service Employee Survey, administered to about 258,000 employees of the Public Service of Canada and conducted by Statistics Canada in 2008 (Treasury Board of Canada Secretariat, 2009). A questionnaire was delivered to each employee by a government agent who personally requested that the employee complete the questionnaire and return it by mail. Multiple follow-ups of nonrespondents were made by e-mail and interoffice mail to maximize the response rate. No incentive was used, however; because all

sample members were also employees of the organization conducting the survey and could fill out the survey on government time, the use of an incentive was thought to be unnecessary. The final overall response rate for the survey was 66%.

The Office of Personnel Management (OPM) developed the Organizational Assessment Survey (OAS) and has encouraged all federal agencies to survey their employees in order to evaluate organizational performance, benchmark best practices, and align performance with important and measurable outcomes. The experience OPM has had in implementing these surveys in numerous federal agencies provides some evidence of response rates for employee surveys conducted by the U.S. government. The OAS design closely resembles that of the Canadian Public Service Employee Survey. The surveys are self-administered and are conducted by each agency for its own employees. Furthermore, like the Public Service Employee Survey, the OAS request to participate is personalized and made directly to the employee by his or her employer. The features of the design offer a significant advantage over the O*NET survey design, as previously noted.

Although the results of the OAS surveys are not publicly available, an official at OPM was able to provide some general information regarding OAS response rates (C. Simons, personal communication, March 21, 2002). According to OPM, response rates for OAS surveys vary considerably by agency, from 30% to 80%. However, the average response across all agencies is approximately 57%.

The Employee Viewpoint Survey, an annual census administered to hundreds of thousands of full-time federal employees across U.S. government agencies, has yielded response rates ranging from 46% to 50% during the period 2011–2016 (U.S. Office of Personnel Management, 2016).

Additionally, Anseel, Lievens, Schollaert, and Choragwicka (2010), who conducted a meta-analysis of 2,037 surveys in the field of industrial and organizational psychology, management, and marketing from 1995 through 2008, found that surveys implementing many of the response-rate-enhancing features of the O*NET survey had an average response rate of 52%. In a study examining implications of employees' mode preference in completing a survey, Cole, Bedeian, and Feild (2006) sampled 8,598 employees across 50 countries who worked in the manufacturing industry and who varied in age, job tenure, and job functions. The study offered targeted respondents the same survey mode options as are given in O*NET: a paper-and-pencil version or a Web-based option. The overall response rate was 57%.

The above results for employee surveys are summarized in Appendix Exhibit E-3. Again, the data indicate that the O*NET cumulative employee response rate of 63% and the more recent experience of 54% for 2018–2020 are comparable to those of similar surveys.

Appendix Exhibit E-3. Studies of Employee-Level Response Rates

Study	Response Rate
Treasury Board of Canada Secretariat (2009)	66%
OPM (C. Simons, personal communication, 2002)	57%
OPM (2016)	46%–50%
Anseel et al. (2010)	52%
Cole et al. (2006)	57%
O*NET (cumulative)	63%
O*NET (2018–2020)	54%

Occupation Expert Method

The OE Method is a much smaller but still important component of the O*NET Data Collection Program protocol. Appendix Exhibit E-4 shows our cumulative response rate experience with this method as of December 31, 2020. As indicated, 13,809 of 19,463 eligible OEs have participated, for a response rate of 71%. This response rate is higher than the employee response rate for the Establishment Method, likely because of factors such as personalized direct contact, greater total incentive, and generally higher education levels of the eligible population. The OE Method has also seen declines in response rates over the past decade; rates of 75% for 2012–2014 stabilized at around 60-61% for both 2015–2017 and 2018–2020.

Appendix Exhibit E-4. Occupation Expert Method Data Collection Results

Sampled occupation experts	25,901
Eligible occupation experts	19,463
Participating occupation experts	13,809
Occupation expert response rate (participating occupation experts/eligible occupation experts)	71%