APPRENTICE PANEL SURVEY 2022 – TECHNICAL ANNEX – METHODOLOGY

**Participatory approach**

This survey used a participatory approach. This means that a small group of apprentices (those on IfATE’s apprentice panel) were involved throughout the survey design and interpretation process and made many of the key decisions that shaped the project as a whole. This is a contrast to how surveys are typically conducted. In a typical survey project all major design and interpretation decisions are handled by specialist survey researchers and policymakers.

Advocates of participatory approaches argue that better insights are achieved when the group of interest is not limited to a small part of the research process but is instead involved throughout[[1]](#footnote-1). Respondents have domain knowledge and lived experience that even the most conscientious researcher cannot match and can make vital contributions to the design and interpretation of surveys. Participatory methods also help to democratise government research, allowing people the opportunity to influence the research that government conducts about them, and that informs policy that may affect their lives.

Following a participatory approach, the survey was designed and interpreted by members of IfATE’s apprentice panel. The apprentice panel is an advisory group of current apprentices and represents a wide a range of sectors, qualification levels, and personal characteristics. The panel typically meets once per month and provides advice to IfATE on a range of topics from apprentices’ perspectives. Panel members attend with the support of their employers, and panel sessions are conducted during work hours.

**Survey development**

The panel generated thematic areas for the survey over the course of two full-panel sessions, with input from IfATE analytical and policy staff. These thematic areas form the section headings for the report.

A voluntary working group of four panel members was then formed to develop the themes into a survey. This was done over the course of four workshop-style sessions, facilitated by an IfATE social researcher.

The survey was designed to align with the [2021 Apprentice Evaluation Survey (AEvS)](https://educationgovuk.sharepoint.com/sites/DDST/Shared%20Documents/Social%20research/Apprentice%20Panel%20Survey/3.%20Data%20and%20analysis/AP_data_2020.csv), a nationally representative survey of apprentices conducted by the Department for Education (DfE). The apprentice panel survey sought to complement, rather than duplicate the AEvS.

The 2022 apprentice panel survey followed a similar survey in 2020. The 2020 survey had been something of a pilot; it was therefore decided to conduct a major revision of the questions for 2022. As such, only a small number of questions appeared on both surveys. Future editions of the apprentice panel survey may place more emphasis on building a longitudinal dataset for comparison over time.

**Survey distribution and sample**

The survey was hosted online, and fieldwork was launched as part of IfATE’s activities for National Apprenticeship Week 2022. To reach the largest sample possible, the survey was advertised through a range of channels, including IfATE’s social media channels and mailing lists, events, and through panel members’ networks.

Responses were received from a wide range of apprentices, including across personal characteristics such as gender, ethnicity, age, disability status, and sexuality, as well as apprenticeship attributes such as level, occupational route and employer size. See the accompanying data tables (q48 – q62) for a full break down of the characteristics of the sample.

This sampling approach means that the survey results cannot be considered to be representative of the population of apprentices in England, and results should not be generalised beyond the 2,016 apprentices who responded.

**Quantitative data analysis – descriptive summaries**

The analysis shown in the report is primarily descriptive. Notable results are shown in bar charts or quoted within the text of the report. Complete summaries of responses to all questions are reported in the accompanying data tables.

In accordance with disclosure control principles, responses selected by 5 respondents or fewer have been obscured. This has been achieved by combining options with low response rates. So, for example, the summary:

[Agree – 3, Neutral – 5, Disagree – 10]

would be grouped to:

[Agree / Neutral – 8, Disagree – 10].

This approach assures anonymity while still retaining some information (relative to completely redacting low responses, where no information is retained).

**Quantitative data analysis – between groups comparisons**

For comparisons between groups, Fisher’s test was used to test for statistical significance. Fisher’s test was chosen as it is a test with relatively few assumptions, which is valid for all sample sizes.

This research was by nature exploratory – the questions were based around areas the panel thought would be interesting to explore, rather than on explicit, testable hypotheses. The analysis therefore explored a wide range of possible relationships within the data (rather than testing to provide answers to a smaller number of specific research questions).

The survey data was split into outcome variables and grouping variables. Grouping variables were made up of data about the respondent, such as their gender, or the level of their apprenticeship (see Table 1). Outcome questions were made of the remaining categorical questions in the survey – such as the respondents’ reported views on online learning. The relationship between each possible group-outcome pair was tested, resulting in 584 tests in total.

Fisher’s test requires a 2x2 contingency table. Therefore, questions with more than two response options were converted to binary dummy variables for analysis. For Likert-style categorical questions (which make up the majority of the survey), the dummy variables were constructed so that the two “most positive” options (eg, “Strongly agree”, “Agree”) formed the True condition, and the remaining options (eg, “Neither agree nor disagree”, “Disagree”, “Strongly disagree”) made up the False condition.

“Not sure” responses generally were not included in comparative analysis, with a few exceptions where this was judged to be appropriate. An example of such an exception is questions where apprentices were asked if they recalled, or had heard of something, where a “Not sure” response is effectively equivalent to “No” for the purposes of policy design.

For variables with less regular response options, response options were grouped on a case-by-case basis, based on a judgement on which groupings were most likely to produce insights. Low response rates from certain groups meant that it was not possible to give all demographic options the same level of analysis. For example, our comparative gender analysis compares male and female respondents, and does not include those who provided a different description of their gender (eg, non-binary), as the numbers who provided such a response were too low in our sample for a meaningful analysis. Similarly, a limited number from ethnic minority groups (both including and excluding White minorities) meant that ethnicity analysis was grouped into White (including White minorities) vs ethnic minorities (excluding White minorities). More focused research is needed to better understand the experiences of non-binary apprentices, as well as those belonging to less well represented ethnic groups, and other demographic groups not effectively represented by this survey.

Table 1 – Grouping variables

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| --- | --- | --- |
| **Question** | **Group 1 - Responses** | **Group 2 - Responses** |
| Do you consider yourself to have a disability? | Yes | No |
| What is your age? | 16-18, 19 -21 | 22-25, 26-35, 36-45, 46-55, 56-65, 66+ |
| What is your ethnic group? | White (including White minorities) | Ethnic minorities (excluding White minorities) |
| What is your religion? | No religion, Christian | All other religions (see data tables for full list) |
| What best describes your gender? | Female | Male |
| Roughly how many people work at your employer? | 10 or less, 11-50, 51-250 | 251 or more |
| What level is your apprenticeship? | 6, 7 | 2, 3, 4, 5 |
| Which of the following best describes the route or sector your apprenticeship relates to? \* | Business services route group | People services route group, engineering construction and transport route group |
| Which of the following best describes the route or sector your apprenticeship relates to? \* | People services route group | Business services route group, engineering, construction and transport route group |
| Which of the following best describes the route or sector your apprenticeship relates to? \* | Engineering, construction and transport route group | People services route group, business services route group |
| Which of the following best describes your sexual orientation? | Straight / Heterosexual | Bisexual, Gay or Lesbian, Other sexual orientation |
| Which region of England is your apprenticeship based in? | Greater London | All other English regions |
|  |  |  |

\* For the purposes of this analysis, occupational routes were clustered according to IfATE’s internal route groups. These are arranged as follows:

* **Engineering, construction and transport** covers the engineering and manufacturing; construction; and transport and logistics routes.
* **Business services** covers the business and administration; digital; legal, finance and accounting; sales, marketing and procurement; and creative and design routes.
* **People services** covers the agriculture, environmental and animal care; health and science; care; catering and hospitality; education and childcare; hair and beauty; and protective services routes.

Conducting multiple tests increases the chance of Type I errors (eg, using p=0.05 as a threshold for statistical significance, we would expect to see 29 erroneous “significant” results over 584 tests). A correction for multiple tests was applied to mitigate this. A Bonferroni correction was used, resulting in an alpha of around 8.5x10^-5. All group differences quoted in the report are significant at this level.

It should be noted that, given the large number of tests, and the relatively conservative analytical approach (both Fisher’s test and the Bonferroni correction are conservative relative to other equivalent options), this research is likely to be substantially underpowered. However, it was judged that, given the limitations of the sample and the high level of interest in the survey results, a high threshold for reporting of relationships was appropriate.

Due to the small number of matching questions and low emphasis on longitudinal comparison in this survey, formal statistical testing was not conducted for comparisons between the 2020 and 2022 surveys. Future surveys could begin to provide a more complete dataset for formal longitudinal analysis.

**Interpretation**

As part of the overall participatory approach, the panel was involved in the interpretation of the results. To achieve this, four areas of interest from the results were selected for the panel to discuss. The areas selected were:

* Apprenticeship networks
* Remote vs in-person learning
* The employer/training provider relationship
* Commitment statements

Panel members were split into four facilitated groups, each with six to eight participants. Each group was asked to reflect on the results, drawing on their own experiences as apprentices. A note-taker captured their anonymous responses. As these were short conversations with a single notetaker, textual records of the conversations were quite limited. Therefore, these outputs have not been analysed using a formal qualitative analysis approach; instead, informal summaries of the conversations are included in separate “Apprentice panel insights” boxes in the main report. These should be taken as anecdotal flavour or context, rather than robust research results.

The panel also has other opportunities to explore the data. Panel members have access to the full report and are supported to develop recommendations and programmes of action based on the results. These activities are outside the research process itself though, and therefore outside the scope of this report.

1. See for example, Vaughn, L. M., & Jacquez, F. (2020). Participatory Research Methods – Choice Points in the Research Process. Journal of Participatory Research Methods, 1(1). https://doi.org/10.35844/001c.13244 [↑](#footnote-ref-1)