

## Appendix C: Technical Report

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## Methodology

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This section provides an overview of the methodology used for the SME and individuals surveys.

### C.1 Survey design and sample

#### SME

HMRC commissioned the research agency TNS-BMRB to collect survey data from SMEs. Data were collected from a random probability sample of businesses in Great Britain. Businesses were selected at the enterprise level so that the same business was not included more than once in the sample. Data collected prior to 2011 cannot be compared to the more recent waves due to a change in the sample design. In 2014, fieldwork was conducted in two stages. Wave 1 was during October and early November 2014; and Wave 2 during late January and February 2015.

SMEs were included in the survey if they satisfied the European Commission's definition of a small and medium sized enterprise. These are businesses with turnover which is less than or equal to €50 million per annum, or a balance sheet which is less than or equal to €43 million. The total number of employees cannot exceed 250.

The sample of businesses was selected from HMRC's Self Assessment database, NPS database (businesses who registered for class 2 liabilities after 06/04/2011) and the Inter-Departmental Business Register (IDBR) maintained by the Office for National Statistics (ONS). Businesses from the IDBR were selected on the basis of enterprise size, region and industry. SMEs with a turnover of less than £15,000 per annum were not included. Tax agents were also excluded as HMRC has alternative research projects designed to gather their views.

SMEs were not asked if they had ever had contact with HMRC and were thus not excluded from the survey on account of having little or no experience with paying tax. The survey findings may therefore include responses from some SMEs which have had little interaction with HMRC. These respondents are included in the survey in order to measure attitudes across all SMEs, as this may provide information about social norms within this population group.

Respondents were interviewed by telephone. If the respondent indicated that key business decisions were theirs alone, mainly theirs or shared equally with someone else, then they were asked to provide answers to the survey questions on behalf of their business. Respondents may still have different levels of decision-making responsibilities. This is likely to influence the extent to which their responses reflect the business perspective as opposed to their personal views.

Responses were passed to HMRC at the aggregate level only to avoid any possibility that HMRC could identify the respondent from the answers given. The achieved response rate for the 2014 CPS of SME was 45.4%.

#### Individuals

HMRC commissioned the ONS to collect data from individuals using the Opinions and Lifestyle Survey.<sup>1</sup> Interviews were carried out face to face. The individuals included in the survey were drawn at random from the general population and included employees, self-employed and those that were economically inactive. This is consistent with the approach used since 2008, making it possible to test for statistically significant changes between any two years of the survey.

The main fieldwork period, where data was collected from individuals in all employment categories, took place in October 2014. In order to achieve a larger number of self-employed respondents to facilitate

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<sup>1</sup> Further information about the Opinions and Lifestyle Survey can be found at <http://www.ons.gov.uk/ons/about-ons/who-we-are/services/opinions-and-lifestyle-survey/opinions-and-lifestyle-survey--opn-.html>

sub-group analysis, additional booster samples of self-employed individuals were procured by HMRC. The boosters were run on over 6 waves, from July 2014 to February 2015.

The fieldwork period for the Individuals CPS has varied throughout the survey period. **Table B.1** shows the fieldwork timetable since 2008.

Table B.1: Data Collection Periods for the Individuals' Survey

Year	Individuals	Self-employed booster samples
2008	July and August	September to November
2009	July and August	September to November
2010	August and September	October to December
2011-12	September and October*	November to March
2012-13	September	May to March
2013-14	September	April to March
2014-2015	October	July to February

\* An additional module of questions was placed on the survey in October 2011. This explains the discrepancy in base numbers between some questions in 2011.

The sampling frame used was the Royal Mail's Postcode Address File. Each month 67 postal sectors were selected, with the probability of selection proportionate to size. Within each sector 30 addresses were then chosen at random, giving an initial sample of 2,010 addresses each month. Only households which received fewer than 50 items of mail per day were included in the survey. This could include small businesses, so in order to achieve a sample of private individuals only, the ONS screened out enterprises during interviews. One person aged 16 or over was selected at random per household and asked to provide response to the survey questions, based on their personal views alone. The data was collected from a representative sample of individuals from across Great Britain.<sup>2</sup>

In 2014, 976 interviews were achieved during the individuals' wave in October. This represents a response rate of 53%. As the self-employed represent only a portion of respondents taking part in additional waves, it is not possible to calculate a response rate for the self-employed booster sample.

Individuals were not asked if they had ever had contact with HMRC and were therefore not excluded from the survey if they had little or no experience with paying tax. The survey findings therefore include responses from a significant proportion of individuals who may have limited personal experience of the tax system and little or no interaction with HMRC. These respondents are included in the survey in order to measure attitudes across society.

## C.2 Question design

The Personal Finance Research Centre (PFRC) at Bristol University worked with HMRC on question design and testing to assess and improve the survey questions during the development stages of the survey. New questions designed for the SME survey (2011-2013) were cognitively tested by TNS-BMRB.

<sup>2</sup> Excluding the Isles of Scilly and the Scottish Highlands and Islands

## C.3 Weighting and analysis

### SME

Weights were applied to the survey data to match the profile of the sample to that of the SME population by size. Non response weighted were applied to adjust the survey estimates to take into account any differential levels of response by size and sector. Compared to the individuals' survey, the SME survey has a relatively simple design. A single design effect is therefore provided for all survey estimates to adjust the sample size down. In 2014, the design effect due to sample weighting was estimated at 1.36, giving an effective sample size of 748. Design effects were used to adjust standard errors when testing for statistically significant differences between years. Statistical significance testing was based on the weighted estimates, adjusted standard errors and the unadjusted sample size (base). Only differences significant at or above the 95% level of confidence are reported. Respondents who refused to answer questions were excluded from analysis.

### Individuals

The weighting system for the individuals' survey and self-employed booster adjusts survey data for the unequal probability of selection caused by interviewing only one adult per household, and for some types of non-response bias. The latter is achieved by calibrating the sample to population totals based on age, sex and region. Given the complex survey design, standard errors of weighted estimates were adjusted with a design effect. These were calculated for each survey estimate and for each sub-group (employees and self-employed) separately, using a linearised jackknife method of estimation recommended by the ONS. Statistical significance testing was based on the weighted estimates, adjusted standard errors and the unadjusted sample size (base). Only differences significant at or above the 95% level of confidence are reported. Respondents who refused to answer questions are excluded from analysis.