

## Technical Overview Spring 2024, UK

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Official Statistics

This note covers technical information about the Public Attitudes Tracker (PAT) survey completed in Spring 2024. More detailed technical information on the survey series, including details of the new data collection methodology adopted in Autumn 2021 and previous methodologies, is available in the annual [Technical Report](#).

Alongside this Technical Note, we have also provided: [individual topic reports](#) covering results from the survey grouped by theme; [a set of tables showing the time series for questions asked on multiple occasions since Autumn 2021](#); [a set of tables containing crosstabulations for headline questions by gender, age, highest qualification and geography](#), and [questionnaire](#).

## Overview

This report presents a technical overview of the Spring 2024 survey wave conducted by DESNZ. The results from this wave are based on a representative sample of 4,087 adults aged 16 or over in the UK. Data collection ran from 18 March to 22 April 2024.

From Autumn 2021, the PAT survey moved to a 'push-to-web' survey method referred to as Address Based Online Surveying (ABOS). The Spring 2024 wave of the PAT is the tenth wave of the new time series following this change in methodology. Significant changes affecting both survey sample and mode mean that the results from this wave are not directly comparable with results collected via surveys conducted using the previous methodology.

Between Autumn 2021 and Summer 2023, surveys were conducted every quarter, although there was no data collection in Autumn 2023. From Spring 2024, the survey moved to a triannual design with waves conducted every Spring, Summer and Winter.

Earlier waves have been conducted as follows:

- Autumn 2021 (15 September to 17 October 2021)
- Winter 2021 (24 November to 22 December 2021)
- Spring 2022 (24 February to 24 March 2022)
- Summer 2022 (9 June to 7 July 2022)
- Autumn 2022 (1 September to 3 October 2022)
- Winter 2022 (17 November to 19 December 2022)
- Spring 2023 (9 March to 6 April 2023)
- Summer 2023 (9 June to 10 July 2023)
- Winter 2023 (7 November to 11 December 2024)

A summary of the methodology is provided below. Full details of the methodology are provided in the annual [Technical Report](#). The most recent version was published alongside the Summer 2023 results.

## Spring 2024 survey

The Spring 2024 questionnaire covered the following topics:

## DESNZ Public Attitudes Tracker (Winter 2023, UK)

- Net Zero
- Climate change
- Renewables
- Wind farms and solar panel farms
- Fusion energy
- Carbon capture and storage
- Hydrogen energy
- Shale gas
- Small modular reactors
- Nuclear power stations in the local area
- Solar panels in the home
- Heat and energy saving in the home
- Energy costs
- Demographic and classification questions

## Changes to the survey in Spring 2024

A list of changes to the Spring 2024 questionnaire in comparison to previous versions of these questions is provided below. This includes the addition of questions on new topics and some changes to existing questions.

### **New questions:**

- A new set of questions was added on attitudes towards the construction of a nuclear power station in their local area.
  - NUCLOCALSUPP
  - NUCWHYSUPP
  - NUCWHYNO
    - A new code, 'I'm concerned about the disposal of radioactive nuclear waste and decommissioning nuclear power stations', was added from the open text data collected in 'Other reason'.
- A new follow up question was introduced about reasons for opposition to the UK developing fusion technology.
  - WHYOPPFUS
- A new question was introduced about trust in information on new and emerging energy sources.
  - NEWTECHTRUST
    - The following information sources options were included:
      - Newspapers or newspaper websites

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- TV news such as BBC, ITV, Sky, C4
- Social media (e.g., Facebook, Tik Tok, Instagram, Twitter, Reddit)
- TV and radio documentaries
- UK Government
- Scientists/Scientific organisations
- Charities, Environmental or Campaign groups
- Other (please type in) (please specify)
- None of these
- Don't know
- A new demographic variable on self-reported financial hardship was added.
  - FINHARD
    - The following response options were listed in the questionnaire:
      - Living comfortably
      - Doing alright
      - Just about getting by
      - Finding it quite difficult
      - Finding it very difficult
      - Don't know
      - Prefer not to say
    - For reporting purposes these response options were combined to form three summary figures:
      - Finding it fine: 'Living comfortably' and 'Doing alright'
      - Just about getting by: 'Just about getting by'
      - Finding it difficult: 'Finding it quite difficult' and 'Finding it very difficult'
- A new demographic variable on self-reported personal income was added.
  - INCOMEBAND
    - The following response options were listed in the questionnaire:
      - £0-£14,999
      - £15,000-£19,999
      - £20,000-£29,999
      - £30,000-£39,999
      - £40,000-£49,999
      - £50,000-£59,999
      - £60,000-£79,999
      - £80,000-£99,999
      - £100,000-£149,999
      - £150,000 or more
      - Don't know
      - Prefer not to say
    - Based on the distribution of the data, the income bands were combined into four net income bands:
      - £0 - £14,999
      - £15,000 - £29,999
      - £30,000 - 49,999
      - £50,000+

**Adapted questions:**

## DESNZ Public Attitudes Tracker (Winter 2023, UK)

- Minor wording and/or formatting changes.
  - HYDREDKNOW
  - SMRKNOW
- Addition of new codes.
  - SOLWHYNO
    - A new code, 'I'm concerned about the loss in fertile and agricultural land', was added from the open text data collected in 'Other reason'.
  - SOLARENC
    - Two new codes were added: 'A guarantee scheme to cover any faults or damage (for example, a government backed scheme to cover repairs)' and 'Information about trusted, reliable installers'.

### Questions moved from the Autumn wave to Spring 2024:

- FRACKKNOW
- FRACKSUPPORT
- SMRKNOW

Please refer to the [Spring 2024 questionnaire](#) for more details on the actual questions used.

## Survey definitions

In the report, where we refer to 'Awareness' this encompasses all respondents who said they had heard of a particular concept or technology, including those who said 'hardly anything but I've heard of this', 'a little', 'a fair amount' or 'a lot'. 'Knowledge' is confined to those who said that they know 'a fair amount' or 'a lot'.

## Address Based Online Surveying (ABOS) data collection

ABOS is a type of 'push-to-web' survey method.

The basic ABOS design uses a **stratified random sample of addresses** drawn from the Royal Mail's postcode address file. An invitation letter is sent to each selected address, containing username(s) and password(s) plus the URL of the survey website. Sampled individuals can log on using this information and complete the survey online. Once the questionnaire is complete, the specific username and password cannot be used again, ensuring data confidentiality from others with access to this information.

One reminder letter is sent to each sampled address where no response has been achieved by a designated cut-off date.

Paper questionnaires ensure coverage of the offline population and are especially effective with sub-populations that respond to online surveys at lower-than-average levels. However, paper questionnaires have measurement limitations that constrain the design of the online questionnaire and add considerably to overall cost. For the DESNZ PAT, **paper questionnaires are used in a limited and targeted way**, to optimise rather than maximise response.

To ensure the survey was accessible to the offline population, some mailings included paper questionnaire alternatives based on addresses where external data indicated that all residents were aged 65 or over. Paper questionnaires were also available on request.

## Spring 2024 sample design

The sampling was designed to yield a respondent sample that was representative with respect to geography, neighbourhood deprivation level, and age group.

Figure 1 shows the (initially issued) sample structure with respect to the major strata. Higher sampling fractions were applied to the three least populous International Territorial Level (ITL)<sup>1</sup> (NE England, Northern Ireland and Wales) so that the expected number of completed questionnaires was at least 200 in each one.

**Figure 1: Addresses issued by area deprivation and household age structure: Spring 2024**

Expected household age structure	Most deprived	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	Least deprived
All <=35	2,029	1,834	1,385	944	730
Other	4,478	4,302	3,402	4,194	3,816
All >=65	782	664	671	648	607

## Spring 2024 Fieldwork

The data collection took place from 18 March to 22 April 2024.

All resident adults aged 16+ at each sampled address were invited to complete the survey, although for practical reasons the number of logins was limited to up to four adults per household, with more available on request. The number of logins was based on the estimated number of adults living in the household, based on external data. In Spring 2024, the mean number of logins per address was 2.8.

- 17,601 invites were sent out initially and 15,191 reminders were sent in the third week of fieldwork. A further 9,699 invites were sent in the fourth week and 3,186 invites were sent in the fifth week of fieldwork in order to boost the number of responses and to reach the response rate target.
- 318 cases were identified as invalid based on quality assurance checks and were removed from the dataset, representing 7.2% of initially achieved cases.
- The achieved sample size (after data cleaning) was 4,087 individuals, of which 3,543 were completed online and 544 (13%) on paper.
- The household response rate was 10.7% and the estimated individual response rate was 7.7%.
- The average (median) time to complete the survey online was 13 minutes and 53 seconds.

## Spring 2024 Weighting

<sup>1</sup> <https://www.ons.gov.uk/aboutus/whatwedo/programmesandprojects/europeancitystatistics>

## DESNZ Public Attitudes Tracker (Winter 2023, UK)

Weighting was used to compensate for differences in both sampling probability and response probability. The DESNZ PAT weighting matrix includes nine variables (sex, age group, highest educational qualification, working status, ethnic group, internet use, region, housing tenure, and household size). For more detailed information please see the latest published [Technical Report](#). Several of these are intersected with age group to ensure a consistent weighted sample distribution per age group per wave, although most are marginal controls on the sample distribution.

# Further information

## Future updates to these statistics

Results from the Public Attitudes Tracker were published quarterly. However, following the creation of DESNZ, the Autumn 2023 wave was dropped as it mainly included policy areas covered by the former BEIS and which are not within the remit of DESNZ; therefore, resulting in the frequency of the survey shifting from quarterly to triannually. The next release will cover Summer 2024 and is scheduled to be published in October 2024. Note that not all tracker questions are included in each wave.

## Revisions policy

The [Department's statistical revisions policy](#) sets out the revisions policy for these statistics, which has been developed in accordance with the UK Statistics Authority [Code of Practice for Statistics](#).

## Related Statistics

There are various other surveys which seek the general public's opinion on topics related to those covered by the DESNZ Public Attitudes Tracker. These include:

### [Public Attitudes to Science](#)

A collection of studies looking at the UK public's attitudes to science, scientists and science policy.

### [National Travel Attitudes Study \(NTAS\)](#)

The Department for Transport publishes a wide range of reports on the public's attitude to various modes of transport.

### [Transport and Transport Technology: Public Attitudes Tracker](#)

The Department for Transport also publishes an attitudes tracker to monitor trends in public attitudes to and awareness of transport technologies in England.

### [The English Housing Survey](#)

The English Housing Survey is a continuous national survey commissioned by the Department for Levelling up, Housing and Communities (formerly Ministry of Housing, Communities and Local Government). It collects information about people's housing circumstances and the condition and energy efficiency of housing in England.

A wealth of energy statistics, which provide context for the attitude data collected by the PAT are available on the [Statistics at DESNZ](#) website.

## Uses of these statistics

These statistics were commissioned by DESNZ to guide departmental policy, and are also used by other government departments, academics, ministers and the general public. Some examples on the uses of previous waves of the PAT include:

- Monitoring attitudes towards energy sources such as fusion and nuclear by policy makers, the media and local groups to understand how this is changing over time and the reasons why people support or oppose it.
- Understanding public awareness of key DESNZ policies such as the concept of Net Zero.
- Monitoring public attitudes to climate change and government policies associated with this and understanding how concern varies between demographic groups.
- Understanding public acceptability of different renewable energy sources which contribute to the Government's aim to reduce the dependence on fossil fuels.

## User engagement

Users are encouraged to provide comments and feedback on how these statistics are used and how well they meet user needs. Comments on any issues relating to this statistical release are welcomed and should be sent to: [PAT@energysecurity.gov.uk](mailto:PAT@energysecurity.gov.uk)

The Department's statement on [statistical public engagement and data standards](#) sets out the department's commitments on public engagement and data standards as outlined by the [Code of Practice for Statistics](#).

## Pre-release access to statistics

Some ministers and officials receive access to these statistics up to 24 hours before release. Details of the arrangements for doing this and a list of the ministers and officials that receive pre-release access to these statistics can be found in the Department's [statement of compliance](#) with the Pre-Release Access to Official Statistics Order 2008.

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