Data and analysis from Census 2021

Who works in the public sector?

Using the Annual Population Survey to explore the demographics of the people who work in the public sector.

Table of contents

1. Introduction

From librarians to paramedics, to your local headteacher, around 5.4 million people work in the public sector in the UK[1].

The latest Office for National Statistics figures, covering December 2018, showed around one in six employed people worked in services or enterprises controlled by government, worth billions of pounds in staffing costs every year. Sensible management of the workforce will lead to money well-spent.

So, who works in the public sector? What jobs do they do and how does this differ according to ethnicity, disability and sex?

2. There is a diverse mix of jobs in the public sector

There are more than 300 different occupations reported to be in the public sector. These include business and administration roles as diverse as economists, accountants, people working in Human Resources and office managers, as well as teachers, nurses and social workers.

Explore Figure 1 to discover the variety of occupations in the public sector.

Figure 1: There is a wide range of occupations within the public sector

Percentage of public sector workers in individual occupations, UK, January to December 2018

Civil engineers

0.10% of public sector workers
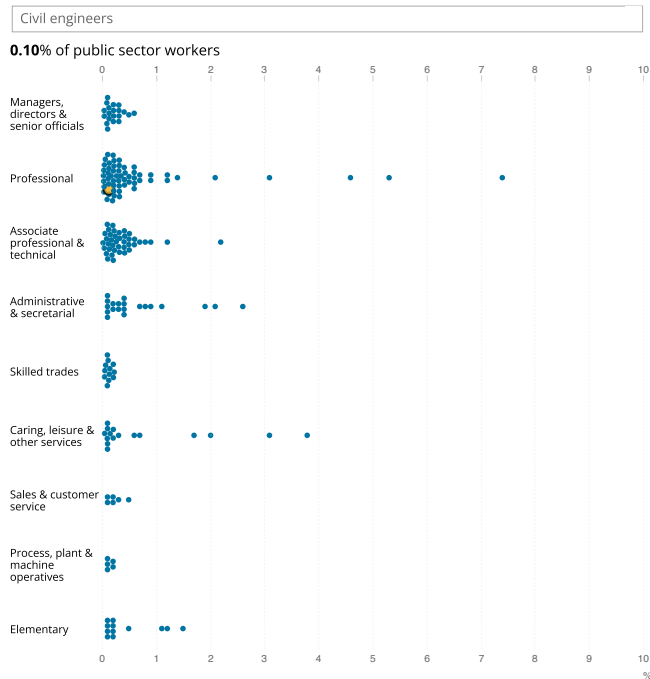
Source: Annual Population Survey

Notes:

1. There is another category, 'Other', that makes up 3.4% of the smaller public sector occupations. This is not included in the chart.

Embed code

Download the data (https://www.ons.gov.uk/visualisations/dvc636/data_download.csv)
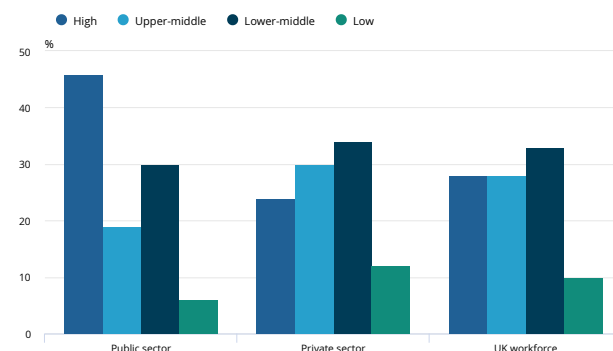
3. Almost half of public sector workers are in high-skill roles

The public sector has a much higher proportion of high-skilled jobs than the private sector.

Almost twice as many public sector employees work in a highly skilled role compared with private sector employees (46% compared with 24% respectively). This is likely to be because large occupations in the public sector such as teachers, doctors and nurses now require at least a degree.

Figure 2: Nearly half of public sector workers are in high-skill roles

Skill level of occupations by workforce sector, UK, January to December 2018

Source: Annual Population Survey – Office for National Statistics

4. Nearly half of public sector workers are in a small group of occupations

While there are a huge range of public sector occupations, most workers are clustered into a relatively small number of areas. Almost half are in specific occupations related to health, education, social work, government, the police, and domestic services. For example, of all public sector workers one-tenth are school teachers and a quarter work in the health and social care sectors.

The rest of this article will consider these largest occupations and who works in them in more detail.

## 5. Workers in the public sector are more likely to be women

More women work in the public sector compared with men; 35% of workers are men and 65% are women, whereas the private sector is made up of 58% men and 42% women.

The majority (70%) of the police force (sergeants and below) are men. More men than women are also found in higher education (52%) and as doctors (54%). Recent data from medical schools show more women than men are enrolling[2], but this change in trend has yet to alter the overall male to female ratio of doctors.

Women represent 95% of school crossing patrols and midday supervisors. Local and national government administrative workers are closest to the public sector average, with 68% of them being women.

Figure 3: More women than men work in the public sector

Sex of workers in public sector occupations, UK, January to December 2018
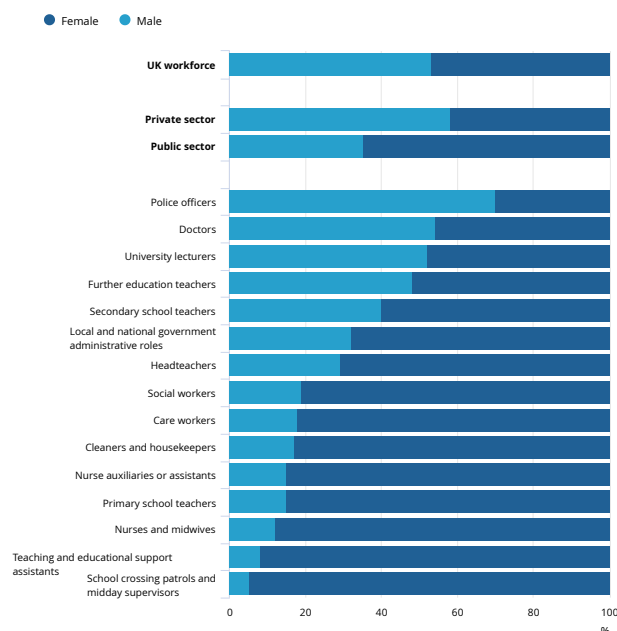
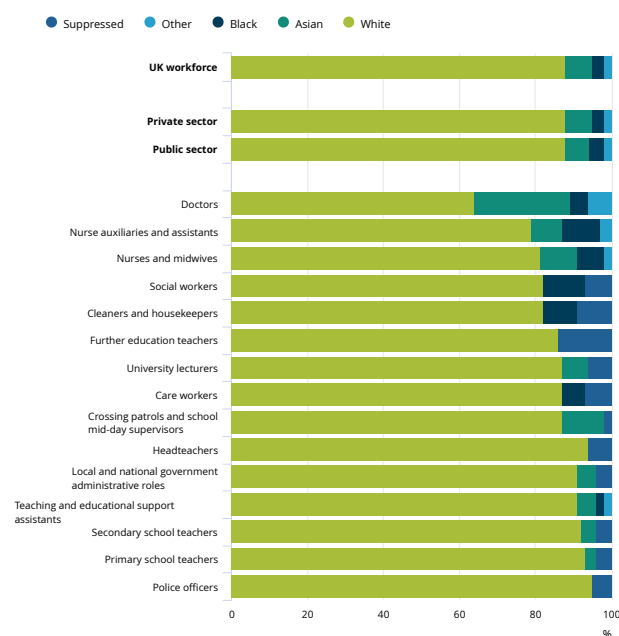**Source: Annual Population Survey – Office for National Statistics**

6. Ethnic diversity in public sector occupations varies considerably

Public and private sectors are split along fairly similar lines when looking at the ethnicity of employees (88% of them say they are white, while 12% report another ethnic background).

But variation can be seen in the largest public sector occupations. The proportion of doctors from minority ethnic backgrounds is three times higher than the UK workforce average (36% compared with 12% respectively), while the proportion of primary school teachers (7%) and police officers (5%) is below average. Social workers and nurse auxiliaries have an above average proportion of workers identifying as having a black ethnic background.

Figure 4: Ethnic diversity in public sector occupations varies considerably

Ethnic background of workers in public sector occupations, UK, January to December 2018

Source: Annual Population Survey – Office for National Statistics

Notes:

1. "White" includes respondents in England, Wales and Scotland identifying themselves as "White-Gypsy or Irish Traveller" and respondents in Scotland identifying themselves as "White-Polish".

2. "Asian" includes respondents in all UK countries identifying themselves as "Indian", "Pakistani", "Bangladeshi", "Chinese" and "Any other Asian background".

3. "Black" includes respondents in all UK countries identifying themselves as "Black/African/Caribbean/Black British".

4. "Other" includes respondents in Northern Ireland identifying themselves as "Irish Traveller" and respondents in all UK countries identifying themselves as "Arab" and as from "Mixed/Multiple ethnic groups".

5. "Suppressed" contains the groups of ethnic backgrounds that we are unable to display for quality reasons for the listed occupations, as there are only small numbers of workers in those groups.

7. People with disabilities are less prevalent in higher skilled roles

Public and private sectors have similar proportions of workers (14% and 13% respectively) who reported having a disability (as defined by the Equalities Act 2010).

But proportions differ when looking more closely at the largest public sector occupations. Fewer people report disabilities in occupations which are more highly skilled (doctors, teachers and police officers). On the other hand, lower-skilled occupations including cleaners, housekeepers, school crossing patrols and midday supervisors have above-average reports of disabilities.

Figure 5: People with disabilities are less prevalent in higher skill occupations

Disability rates of workers in public sector occupations, UK, January to December 2018
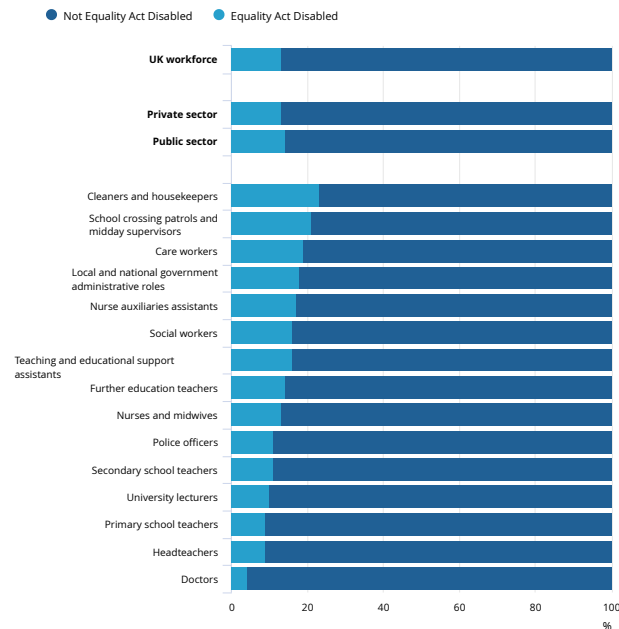
Source: Annual Population Survey, Office for National Statistics

Notes:

1. Disability is self-reported in the APS.

8. How are the occupations defined?

The occupations used in this analysis are based on Standard Occupational Classification 2010 codes (SOC2010). Table 1 shows the occupation label used in this article, SOC2010 code(s) and the SOC2010 title(s).

The occupations selected were the largest occupations in the public sector and 46% of workers were in one of these occupations. The occupation that was one of the largest (3% of workers) was "Other administrative occupations not elsewhere classified". This was not analysed as one of the larger occupations, as it is not a specific occupation.

For more information on SOC2010 codes, please see the SOC2010 volumes (https://www.ons.gov.uk/methodology/classificationsandstandards/standardoccupationalclassificationsoc/soc2010/soc2010volume1structureanddescriptionsofunitgroups).

To avoid duplication, we restricted our analysis to people's main occupation only.

Table 1: Occupation definitions used in this article

SOC2010	SOC2010 title	Occupation label	Size, %
2231, 2232	Nurses (2231), Midwives (2232)	Nurses and midwives	8
6125, 6126	Teaching assistants (6125), Educational support assistants (6126)	Teaching and educational support assistants	5.8
2315	Primary and nursery education teaching professionals	Primary school teachers	5.3
2314	Secondary education teaching professionals	Secondary school teachers	4.6
4112, 4113	National government administrative occupations (4112), Local government administrative occupations (4113)	Local and national government administrative roles	4
6141	Nursing auxiliaries and assistants	Nurses auxiliaries/assistants	3.1
2211	Medical practitioners	Doctors	3.1
3312	Police officers (sergeant and below)	Police officers	2.2
2311	Higher education teaching professionals	University lecturers	2.1
6145	Care workers and home carers	Care workers	1.7
9233	Cleaners and domestics	Cleaners and housekeepers	1.5
2312	Further education teaching professionals	Further education teachers	1.4
2442	Social workers	Social workers	1.2
2317	Senior professionals of educational establishments	Headteachers	1.2
9244	School midday and cross patrol occupations	School crossing patrols and midday supervisors	1.2

9. Data sources

This article uses the Annual Population Survey (APS) (https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/methodologies/annualpopulationsurveyapsqmi) for analysis. The APS is a large household survey of 320,000 respondents across the UK and all the information collected is self-reported. Estimates from the APS differ from the ONS' official Public Sector Employment estimates (PSE). PSE are based on the Quarterly Public Sector Employment Surveys (QPSES), which are completed by local government, the Civil Service and public bodies. The PSE estimates are the recommended source of data to understand the number and proportion of people who work in the public sector.

The APS is used for this article as it provides demographic characteristics of UK workers that are not available from PSE. Also, it provides comparable data between sectors.

However, there are some key differences between the two sources.

The QPSES is completed by government bodies in the public sector who report on their staff level while the APS is self-reported, so based on survey respondents' perceptions of whether they are employed in the public or private sector. The APS tends to overcount public sector employees as people believe they work in the public sector while actually they are contractually employed by the private sector. This over-reporting is likely to be concentrated more in some occupations than others. For example, contractors who are employed by an agency to provide IT support to a hospital could report that they work in the public sector even if they are primarily contracted to a private organisation. There are likely to be instances where people misreport as working in the private sector when in fact they work in the public sector. This could happen when a private organisation has been nationalised and become a public sector organisation. But these instances are likely to be smaller than misreporting in the other direction.

National Accounts definitions are used to define public and private sector in PSE estimates, whereas definitions in the APS are defined by the individual respondents. This means, for example, that while general practitioners would be classified as being in the private sector in PSE as they are technically self-employed, in the APS they could be classed as a public sector occupation based on the respondents' perception of their jobs.

The PSE estimate for the number of people who worked in the public sector in December 2018 was 5.4 million (16% of those in employment) while the 2018 calendar year APS estimate was 6.9 million (22%). PSE estimates should be used to assess the level and proportion of employment in the public sector as well as for breakdowns by sector, industry and region. For demographics of workers, not available from PSE estimates, it is sensible to use the APS.

There are other data sources available to explore characteristics of certain occupations within the public sector. For example, the Department for Education publish detailed statistics on the school workforce in England (https://www.gov.uk/government/collections/statistics-school-workforce) and NHS digital publish detailed statistics on the workforce of the English NHS (https://digital.nhs.uk/data-and-information/areas-of-interest/workforce). Similar statistics are produced by Scottish Government, Welsh Government and Northern Ireland Executive for their respective nations. The data behind these statistics are collected in different ways and are not directly comparable.

Notes:

1. 5.4 million is the ONS's official public sector employment (PSE) estimate. This article uses the Annual Population Survey because it provides demographic characteristics of UK workers that are not available from PSE. For more information, see Section 9: Data Sources (https://publishing.ons.gov.uk/economy/governmentpublicsectorandtaxes/publicspending/articles/whoworksinthepublicsector/2019-06-04#data-sources).
2. Higher Education Statistics Agency

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