Measuring skill and qualification suitability in the UK labour market: user guide

Supporting information for skill and qualification suitability estimates in the UK labour market. Methods used, data strengths, limitations, uses and users.

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1 . Overview

The statistics accompanying this user guide develop new measures of the skills, knowledge and abilities held by different parts of the population based on their current and most recent jobs. Throughout this user guide, we refer to skills, knowledge and abilities as "skills".

This user guide aims to give a better idea of the skills held by the UK population, and the potential for people to work in various occupations, using Annual Population Survey data from 2012, 2017, 2019, 2021, 2022 and 2023. It also presents analysis estimating the degree of "qualification mismatch" in the workforce in England and Wales, using our Census 2021 data, following a statistical method used by the International Labour Organisation.

These statistics provide insight into where skills provision is needed and can therefore help inform decisions on where to target investment at a local level. For example, this may be useful for decisions on adult education or further education provision.

Our accompanying datasets show a range of insights and can be used in different ways for different users.

Users interested in the working-age population across the UK, as well as changes over time, should look at the statistics in our Skills supply estimates: 2012 to 2023 dataset.

- To understand the skills that adults who have worked before should be able to demonstrate, based on their current or most recent job, see statistics on the proportion of population demonstrating skills at different levels in Tables 16 to 22 in our Skills supply estimates: 2012 to 2023 dataset.
- To understand suitability of movement into other jobs, users can see the average number of occupations for which people met the skills requirements in Tables 23 to 31 in our Skills supply estimates: 2012 to 2023 dataset.
- To understand the occupations for which people meet the skills requirements, users should look at the statistics on the number of people meeting each occupation's skills requirements in Tables 7 to 15 in our Skills supply estimates: 2012 to 2023 dataset; Tables 2 to 6 also show these statistics, but excluding occupations in which people are currently employed.

Alongside these measures, we also published skills shortage statistics on 5 November 2024. Users interested in the matching of the skills of the workforce in an area to the demand for jobs in that area, based on online job adverts, should look at the associated Occupational Shortages by International Territorial Level 2 (ITL2) across the UK, 2023 dataset.

Users interested in the suitability of people for their current jobs should focus on the qualification mismatch statistics in our Qualification mismatch estimates in England and Wales: 2021 dataset.

- Users can gain insights into how employed individuals' qualifications are above, below, or match the most common qualifications for each occupation, by referring to tables 1 to 7.
- Users can see how these differ across different parts of the employed population in tables 8 to 13.

Finally, users can understand occupational requirements in two ways. They can do so based on the most common qualifications and based on the important skills required for every occupation according to the Standard Occupation Classification (SOC 2020) in the associated data tables, see Table 1 of our Qualification mismatch estimates in England and Wales: 2021 and Tables 1 and 2 of our Skills supply estimates: 2012 to 2023.

2 . Methods – skill supply and shortages

Data sources

Annual Population Survey

The main data source used for deriving the local skills of the population is the Annual Population Survey (APS). The APS is a large household survey covering the whole of the UK. The APS covers different topic areas including employment, unemployment, health, housing, and education. We use APS data from 2012, 2017, 2019, 2021, 2022 and 2023 as the population source and for identifying people's occupations if employed in up to two jobs, or, if they are out of work but have worked before, how long they have been out of work and their last occupation. We focus on selected time periods over the last decade as changes in the skills composition do not typically change so frequently and include 2019 data from just before the coronavirus (COVID-19) pandemic, as well as the latest three periods (2021, 2022 and 2023). Only 2023 data were used when matching to demand for jobs to give the latest available record. Further information on the APS is given in our Annual population survey (APS) QMI.

O*NET

As the APS does not directly provide any measures of skills, we use the US Bureau of Labor Statistics Occupational Information Network (O*NET) database to map from occupations. We chose this skills taxonomy over others because it is most applicable to the APS. The US market was deemed more comparable to the UK market than other skills frameworks, and there was a manageable total list of skills for a wider range of users. O*NET provides information on the skills, knowledge, generalized work activities and abilities by occupation. For every occupation, each skill is estimated to have a certain importance (1 to 5) relevant to that occupation, as well as the level of proficiency (0 to 7) required to perform tasks associated with it. Each skill level is provided with qualitative descriptors. There are three anchors describing the expected level of that skill associated with the corresponding numeric value, and we refer to the three anchors as a basic, intermediate or advanced level of that skill. Further information on O*NET and the methodology they use is given on the O*NET OnLine website.

Textkernel

To compare the local skills of the population with the demand for jobs, we derived volumes of demand from Textkernel, an online job advert source. More information on this source and how it was used to derive the demand for jobs can be found in our Measuring labour demand volumes across the UK using Textkernel data: user guide.

Assigning skills to the APS population

O*NET uses its own standard occupation classification, based on the US Standard Occupation Classification (SOC). The APS classifies occupation using the UK Standard Occupation Classification (SOC), so these need to be converted to O*NET Standard Occupation Classification (SOC) in order to link UK occupations to skills. This is achieved first by converting UK occupations to the International Standard Classification of Occupations (ISCO-08) using the UK SOC coding index. We then use existing conversions between ISCO-08 and US SOC, and between US SOC and O*NET SOC.

This method was developed as part of an analysis of time spent by UK workers on green tasks and can be found in a published methods article on Developing a method for measuring time spent on green tasks: March 2022.

This method can give multiple O*NET occupations for each UK occupation, for instance because UK occupations may be more generic than O*NET occupations (for example, UK SOC has one category for Further Education Teaching Professional, but O*NET has separate categories for different subjects). Therefore, an average level in each skill is calculated across matched O*NET occupations for each APS respondent, resulting in a single skill level for each respondent.

Skills level for APS respondents

We attach skill levels to APS respondents based on the SOC code for their current main job, second job if they have one, and most recent job if they are not currently working but have worked in the last eight years.

If a respondent has two jobs, we assume they meet the skill requirements for both, meaning we take whichever skill level is higher across the two occupations for each skill. Any skill that has been flagged, by O*NET, as not relevant to an occupation or as a low precision estimate is removed.

We assume an annual depreciation rate of 5 percentage points of the skills distribution, for skills of individuals out of work and assumed to be no longer using them. This is based on academic evidence on skills depreciation, linked here: Time Out of Work and Skill Depreciation.

We then estimate the proportion of people who should be able to demonstrate the skill at each of the basic, intermediate and advanced levels.

Inferring potential occupations

Through the method of mapping O*NET skills to the APS, we have an occupation-skills relationship, which can then be used to assess if APS respondents have the skills required for specific occupations. Within an occupation, for skills rated as 3 or above on the O*NET importance scale we check if a respondent's proficiency level is equal or higher than the requirement for that skill on the 8-point scale (allowing a tolerance of 0.25 points to account for uncertainty). We repeated this process for each important skill, those rated as 3 or above, for that occupation. If the individual has all the skills at the required level, we infer that they can do that occupation.

Matching skills to local demand

Once we have the potential occupations for each individual in the APS dataset, we compare them with data on which occupations are in demand in wider areas. This is usually the International Territorial Level 2 (ITL2), but is also for the whole of the UK.

We identify what proportion of adverts of a specific occupation people in the area could meet the skills requirements for. We do this by comparing the number of adverts for that occupation with the number of people in the same area that meet the skills requirements for that same occupation, excluding people who already work in it.

We identify the proportion of all adverts that people could meet the requirements for, by aggregating up across all the occupations.

In addition, we identify the number of people who can do at least one job advertised in the area. We check the list of occupations for which each person meets the skills requirements (also excluding their current occupation) against the list of occupations in demand in that area. We then count all the people that have a match. We report this as a proportion of the working age population in the area.

We also continue to report how many people meet the skills requirements for each of the occupations in the SOC 2020 classification, that is not their current occupation. We derive this to get a sense of whether the workforce may be able to fill demand. We present this metric for each occupation, as a proportion of all the people who could do at least one additional occupation that is not their current occupation.

We also derive some of these metrics zooming in on the group of healthcare and social care occupations identified of interest by the Department of Health and Social Care (DHSC).

Sensitivity analysis

As part of this analysis, we have made several methodological decisions, which have an impact on the results. This section outlines some of the major decisions and the impact they had on analysis.

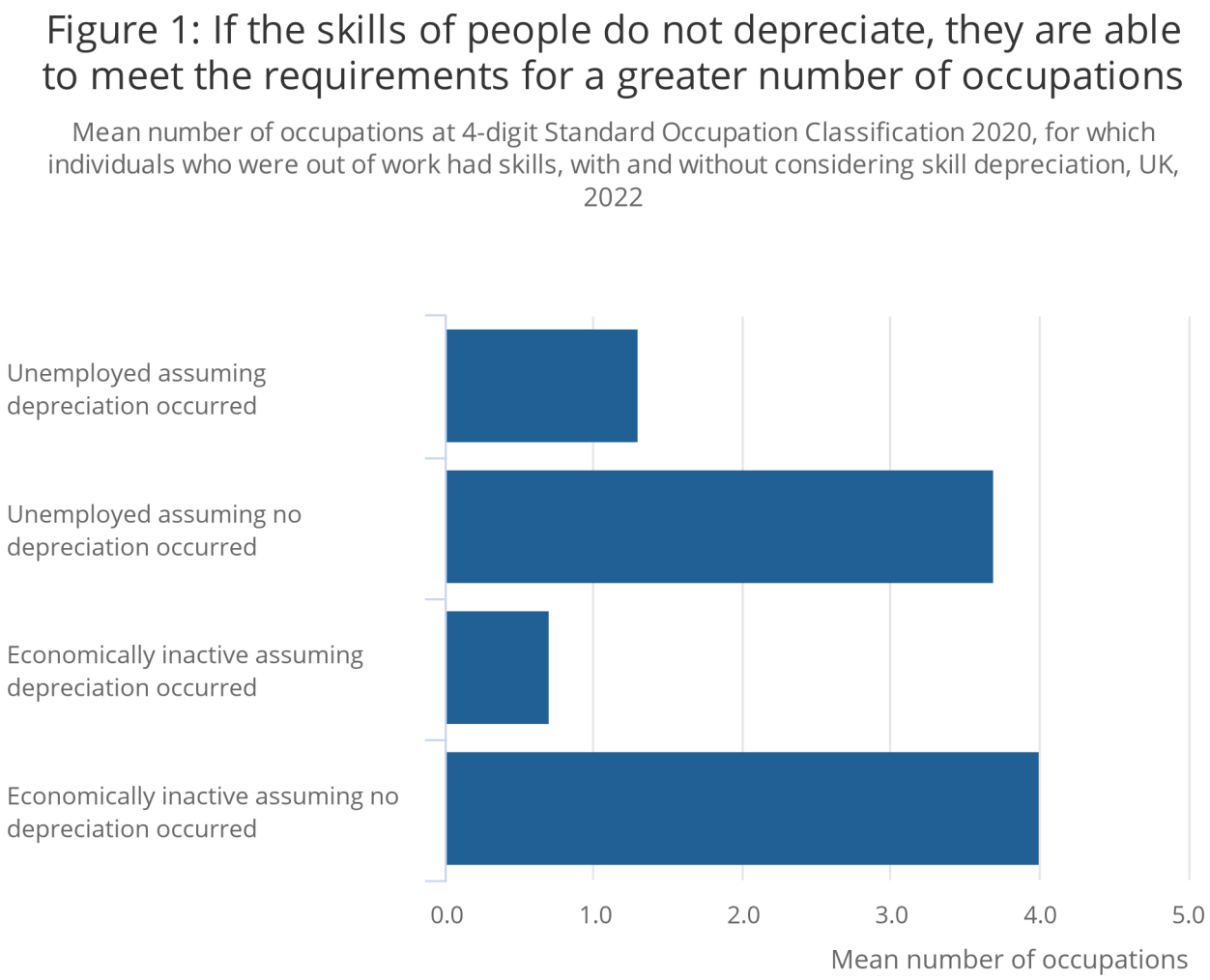
Depreciation

There is evidence that people's skills deteriorate when not used, so for people who are out of work (unemployed and economically inactive) we apply a deprecation factor to their skill levels.

Figure 1 shows the number of occupations that people who are currently out of work have the skills to do, with and without our assumed 5 percentage point annual depreciation down the skills distribution. There is evidence that people's skills do depreciate without being used, so our main estimates assume a 5-percentage-point annual depreciation.

Figure 1: If the skills of people do not depreciate, they are able to meet the requirements for a greater number of occupations

Mean number of occupations at 4-digit Standard Occupation Classification 2020, for which individuals who were out of work had skills, with and without considering skill depreciation, UK, 2022



Source: Annual Population Survey from the Office for National Statistics, Occupational Information Network (O*NET)

Removal of skills obtained outside of work

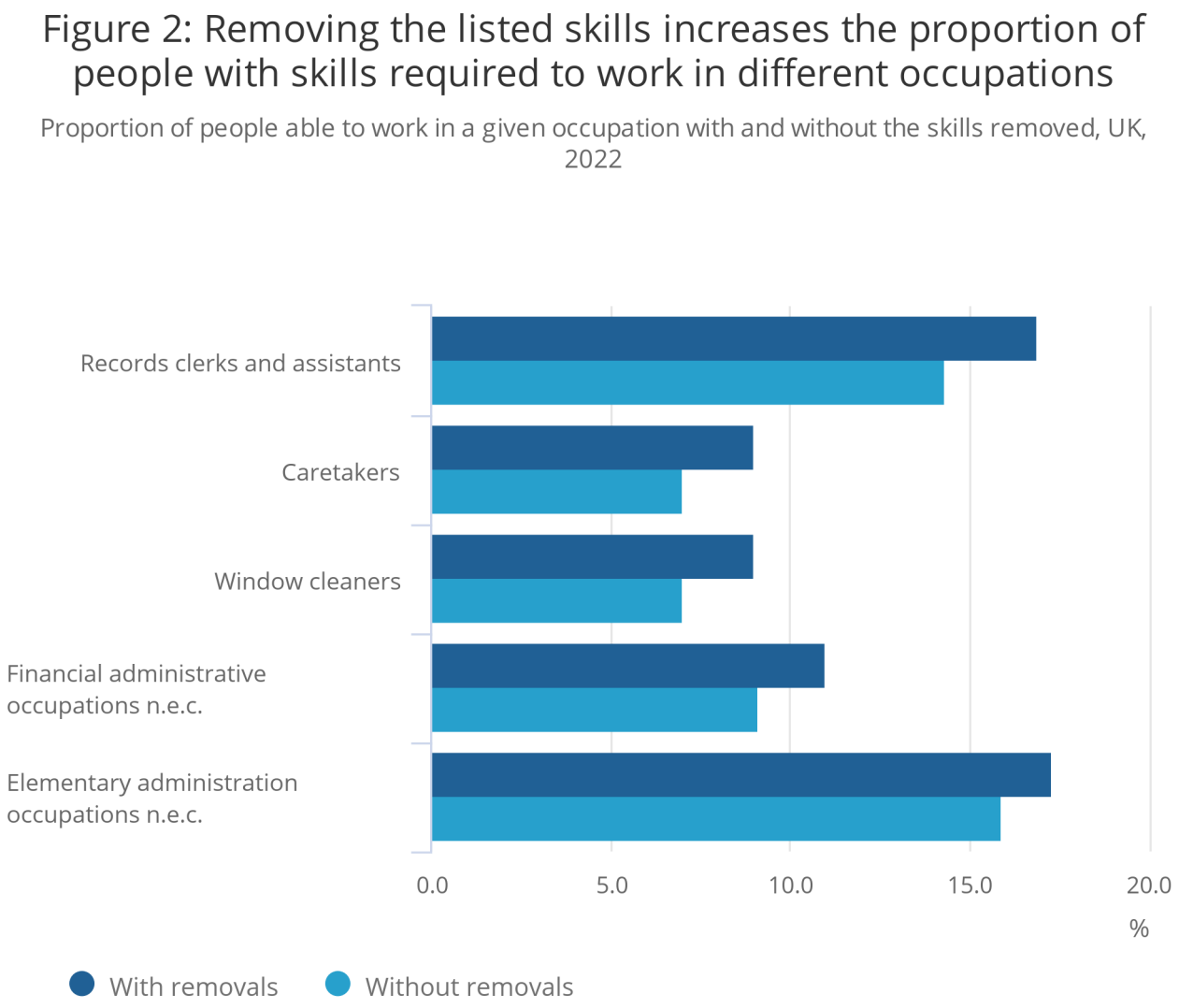
Our method says that a respondent has a given skill based on whether they have needed to demonstrate it for their current or previous occupation. Therefore, we completely remove specific skills that we would expect to be likely, on average, to be obtained outside of work from the analysis. The rationale for this is that while individuals may not have demonstrated these skills in a current or previous occupation, they can still be assumed to have them if needed for a potential new occupation. This may not be true for all of the UK adult population, which is a current limitation of our methodology that may be improved in future based on user feedback. The following list shows the skills we remove from the calculations of which occupations people could potentially do. Figure 2 shows the impact of this.

Element - Skill

- Abilities/Sensory abilities – Near Vision
- Abilities/Physical abilities – Stamina
- Abilities/Physical abilities – Gross Body Coordination
- Abilities/Sensory abilities – Speech Clarity
- Abilities/Physical abilities – Extent Flexibility
- Abilities/Sensory abilities – Visual Colour Discrimination
- Abilities/Sensory abilities – Auditory Attention
- Abilities/Cognitive abilities – Memorization
- Basic Skills/Content – Active Listening
- Abilities/Cognitive abilities – Speed of Closure
- Abilities/Sensory abilities – Far Vision
- Abilities/Cognitive abilities – Number Facility
- Abilities/Physical abilities – Gross Body Equilibrium
- Abilities / Psychomotor Abilities – Response Orientation
- Abilities / Psychomotor Abilities – Rate Control
- Abilities / Cognitive abilities – Information Ordering
- Abilities / Psychomotor Abilities – Reaction Time
- Abilities / Psychomotor Abilities – Wrist Finger Speed
- Generalized Work Activities / Mental Processes – Judging the Qualities of Object, Service and People

Figure 2: Removing the listed skills increases the proportion of people with skills required to work in different occupations

Proportion of people able to work in a given occupation with and without the skills removed, UK, 2022



Source: Annual Population Survey from the Office for National Statistics, Occupational Information Network (O*NET)

Notes:

1. The chart shows the top five occupations where the removals would have had the biggest effect.

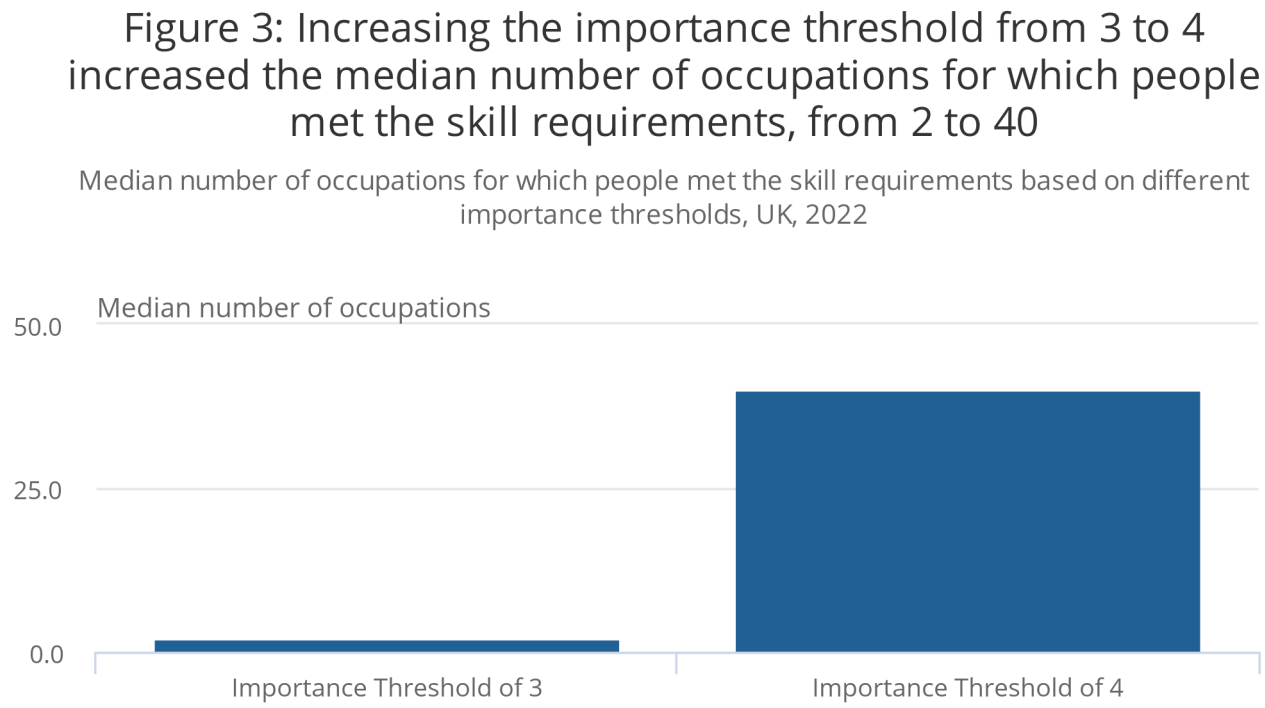
In addition to these skills being removed from the analysis, a further ten skills have been removed from the presentation in our associated data tables. These are due to the estimates judged to not be meaningful given the way such skills are required for occupations. The full list excluded is shown in the associated data tables.

Importance threshold

In our analysis, we determine people's suitability for occupations based on the skill requirements for each specific occupation. Skills deemed not important are excluded from consideration, which means we disregard any skill requirements with an importance rating below 3 for a given occupation. For the sensitivity analysis, we assessed the impact of focusing only on skills with an importance rating of 4 or above, the threshold for deeming a skill as very important. Consequently, each occupation is now associated with a smaller set of skills that are more specifically relevant to that occupation. The results of this methodological change are illustrated in Figure 3.

Figure 3: Increasing the importance threshold from 3 to 4 increased the median number of occupations for which people met the skill requirements, from 2 to 40

Median number of occupations for which people met the skill requirements based on different importance thresholds, UK, 2022



Source: Annual Population Survey from the Office for National Statistics, Occupational Information Network (O*NET)

This change considerably increases the median number of occupations from 2 to 40. This is because individuals are more likely to meet the critical "very important" skill requirements for many jobs, but not the less important ones. For example, a data analyst might possess the critical skill of Analysing Data or Information (rated 4) but lack the less important skill of Customer and Personal Service (rated 3).

3 . Methods – qualification mismatch

Qualification mismatch methods

Qualification mismatch refers to an individual being in an occupation where the average qualification level differs to their own, meaning that they are more qualified than average or less qualified than average for their current occupations. Qualification mismatch can be an indicator of inefficient allocation of labour within the economy. This can have implications for aggregate productivity, for example, workers who are more qualified than average could drive greater productivity in roles that better utilise their skills and qualifications.

To determine the levels of qualification mismatch in England and Wales, we employed a statistical approach outlined by the International Labour Organisation that relies on calculating the mode (the most common) highest qualification level for each occupation using the Standard Occupation Classification (SOC) at the four-digit level. Once the mode of an occupation had been calculated we determined whether each employed person was "less qualified than average", "matched", or "more qualified than average":

- less qualified than average – highest level of qualification was lower than the mode for that occupation
- matched – highest level of qualification was the same as the mode for that occupation
- more qualified than average – highest level of qualification was higher than the mode for that occupation

Data sources

Census 2021 data were used in the qualification mismatch analysis as it provides the most detailed understanding of the entire population, with the same core questions asked to all respondents across England and Wales. It also has all the necessary variables without much manipulation or derivation required.

The Census is undertaken by the Office for National Statistics every 10 years and provides information about all the people and households in England and Wales. The Census asks questions about you, your household, and your home. In doing so, it helps to build a detailed understanding of society in the UK. The variables from Census 2021 used in this analysis are "Highest qualification" and "Occupation". The classification of these variables is the basis of our method to estimate the level of qualification mismatch in England and Wales.

Highest level of qualification

The six highest qualification categories (not including "Other" and "Does not apply") from Census 2021 were aggregated into four categories for this analysis:

- no qualifications
- qualifications below A-level or equivalent (combining Census categories Level 1 and entry level, and Level 2 qualifications)
- A-level or equivalent (combining the Apprenticeship and Level 3 qualification Census categories)
- higher education (Census category Level 4 qualifications and above)

Mode qualification per occupation

To identify occupations in the qualification mismatch analysis, we used SOC 2020 at the four-digit level. SOC is the standard classification used in the UK and has been used for career information to labour market entrants, job matching by employment agencies and the development of government labour market policies. The four-digit level is the most granular level of detail available.

When identifying the most frequent highest level of qualification for some occupations, we found that this did not always align with what might be expected for those occupations. For example, coffee shop workers had a mode highest qualification level of "Higher education", but it would be misleading to suggest that someone with a highest qualification level of "A-level or equivalent" would be "mismatched" or less qualified than average in terms of qualification for that occupation. A review of mode qualifications for all occupations was therefore carried out and manual changes were made to some occupations so that they better reflected the likely qualification level required. The following occupations' required qualification levels were therefore changed from "Higher education" to "A-level and equivalent":

- Leisure and sports managers
- Artists
- Dancers and choreographers
- Musicians
- Sports coaches, instructors and officials
- Fitness and well-being instructors
- Nannies and au pairs
- Sports and leisure assistants
- Leisure and travel service occupations
- Bed and breakfast and guest house owners and proprietors
- Exam invigilators
- Coffee shop workers
- Leisure and theme park attendants

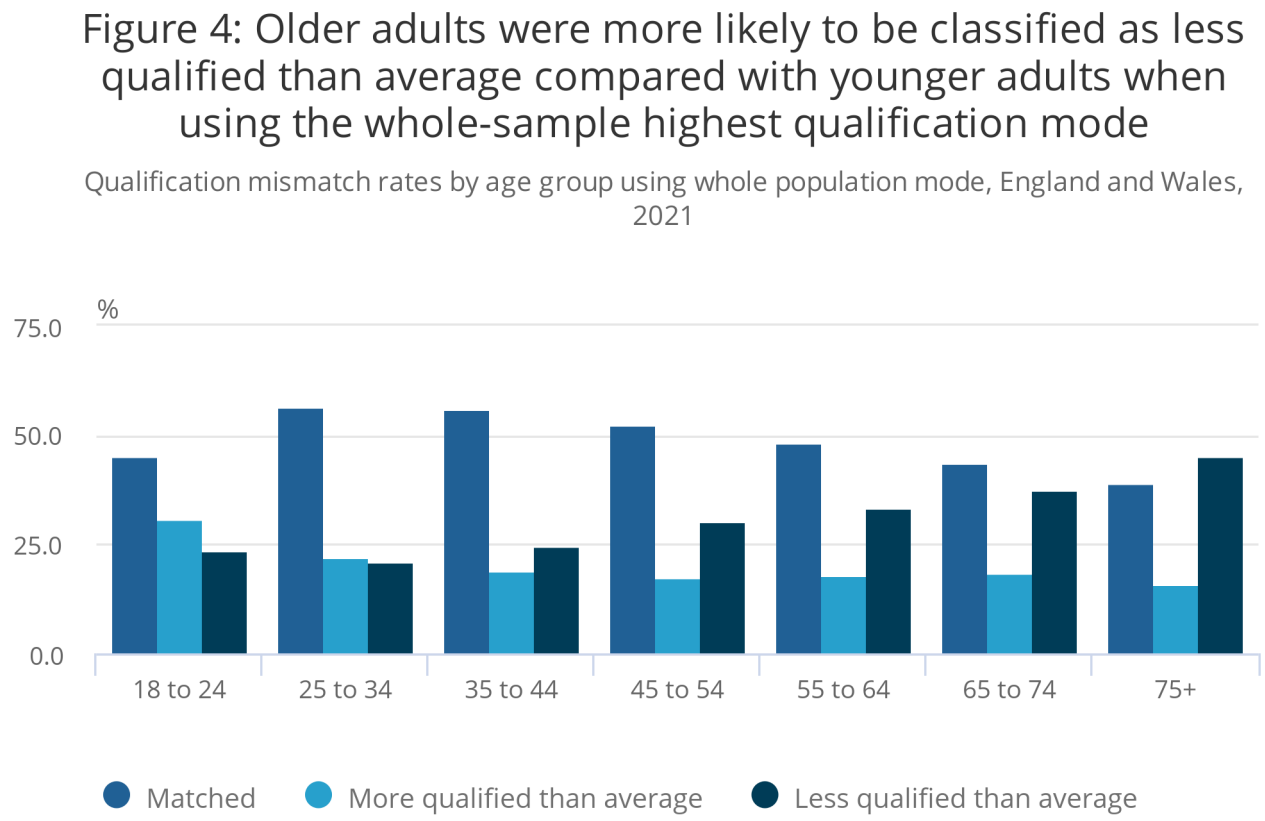
Sensitivity analysis

The qualification mismatch analysis uses the mode for occupations, which may be influenced by a particular age group where the educational requirements for that occupation have changed over time. This may lead to certain age groups being deemed less qualified than average or more qualified than average when they would have been considered matched at the time that they were employed or entered the profession.

To illustrate this, we have included sensitivity analysis that compares the highest level of qualification with the mode qualification for that occupation for the whole population and for that specific age group. Figure 4 shows that, when using the mode for the whole population, people in older age groups were more likely to be classified as "less qualified than average", however, Figure 5 shows that when using age-group-specific modes, the percentage of older age groups classified as "less qualified than average" was lower.

Figure 4: Older adults were more likely to be classified as less qualified than average compared with younger adults when using the whole-sample highest qualification mode

Qualification mismatch rates by age group using whole population mode, England and Wales, 2021



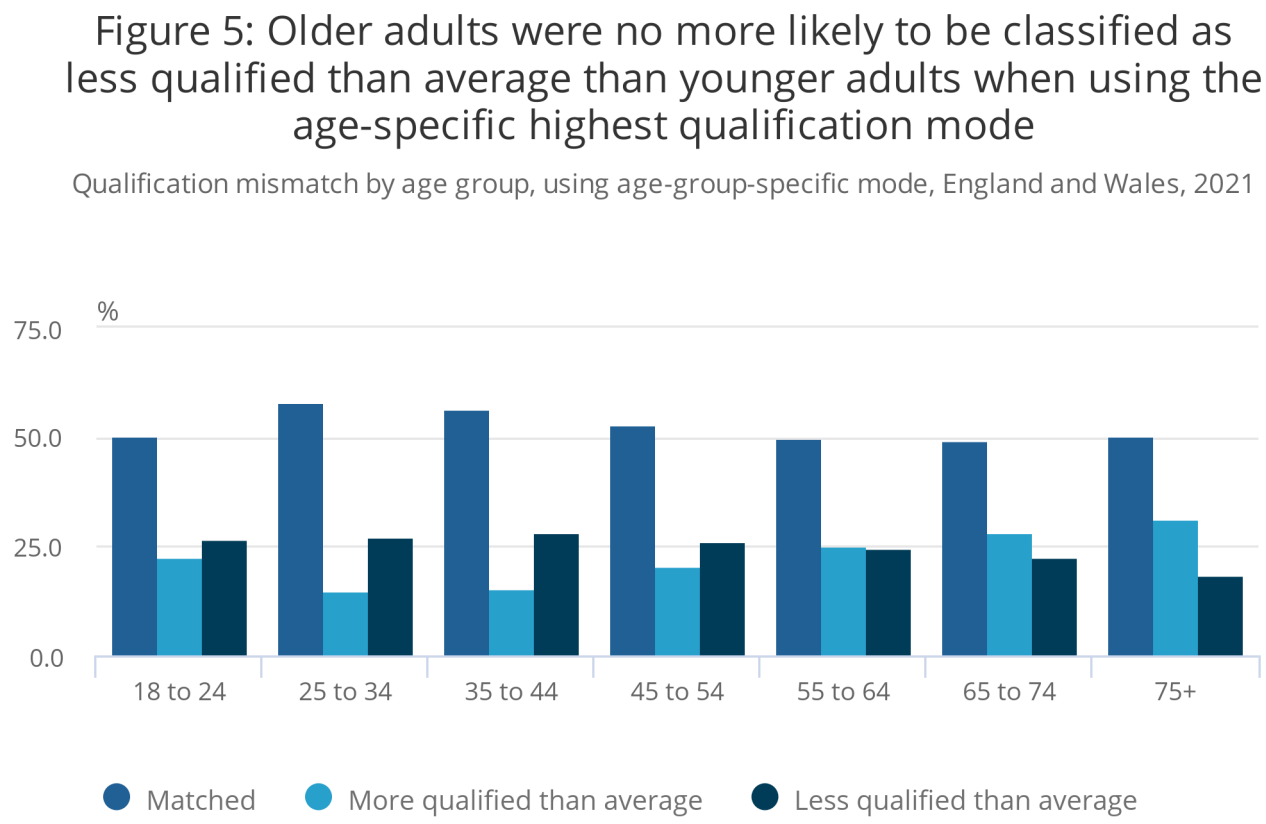
Source: Census 2021 from the Office for National Statistics

Notes:

1. Percentages are based on rounded counts and have been rounded to 1 decimal place, so percentages may not sum to 100%.

Figure 5: Older adults were no more likely to be classified as less qualified than average than younger adults when using the age-specific highest qualification mode

Qualification mismatch by age group, using age-group-specific mode, England and Wales, 2021



Source: Census 2021 from the Office for National Statistics

Notes:

1. Percentages are based on rounded counts and have been rounded to 1 decimal place, so percentages may not sum to 100%.

Another explanation for older age groups displaying higher levels of people being categorised as less qualified than average is that individuals over time would have acquired skills and experience through non-qualification routes that have enabled them to progress or enter an occupation that may not have been possible when they initially entered the labour market.

4 . Data on understanding skill and qualification suitability in the labour market, UK

Skills supply data

Skills supply estimates: 2012 to 2023
Dataset | Released 9 August 2024
These reference tables contain skills supply estimates for the UK between 2012 and 2023. These are official statistics in development.

Qualification mismatch data

Qualification mismatch estimates in England and Wales: 2021
Dataset | Released 9 August 2024
These reference tables contain estimates of qualification mismatch in England and Wales using Census 2021. These are official statistics in development.

Skills shortage data

Occupational Shortages by International Territorial Level 2 (ITL2) across the UK, 2023
Dataset| Released 5 November 2024
These reference tables contain several estimates comparing demand against supply of the workforce and are part of the release 'Which skills are employers seeking in your area?'. These are official statistics in development.

5 . Glossary

Depreciation

The reduction of the competency level of an individual's skills resulting from a period of non-use.

Economic inactivity

In this article, the working-age population (those aged from 16 to 64 years) who are not in employment but do not meet the internationally accepted definition of unemployment, either because they have not been actively seeking work in the last four weeks or are unable to start work in the next two weeks.

Important skills for occupations

Each skill is assigned a degree of importance for each occupation, between 1 and 5, with 1 being least important. O*NET classifies a skill as "Important" to an occupation if it meets the minimum importance rating of 3. This release only considers "Important" skills for the analysis."

Occupational Information Network (O*NET)

A database containing worker attributes and job characteristics for around 1,000 occupations, based on data collected from businesses and workers in the US and covering skills, abilities, knowledge, and other related information.

Out of work

In this article, those aged from 16 to 64 years who are without a job, whether unemployed (meaning they are either actively seeking work in the last four weeks and are available to start work in the next two weeks or have found a job and are waiting to start it in the next two weeks) or economically inactive.

Skill level

The level of skill, knowledge, generalised work activity or ability required or needed to perform an occupation. Each of these has an associated scale, which is used to rate the degree to which it is needed for an occupation. Anchors are provided for each one that we split and report according to basic, intermediate, and advanced levels.

Matched

The highest level of qualification for an individual is the same as the mode highest level qualification for their occupation.

Less qualified than average

The highest level of qualification for an individual is lower than the mode highest level qualification for their occupation.

More qualified than average

The highest level of qualification for an individual is higher than the mode highest level qualification for their occupation.

6 . Strengths and limitations

Skill supply and shortages method

Strengths

For the first time, analysis can be conducted on people's skills and how that relates to the labour market, directly. Skills and knowledge of individuals are related but distinct from the qualifications people obtained, and from the type of job they are in, and this first set of outputs will enable users to see how skills may be distributed across the UK. This could allow comparison to local skills provision, to see what training for different skills is being delivered.

The Annual Population Survey (APS) used in the skills estimates contains information on respondents' current and past occupations. This allows analysis to be conducted on what skills a person may have based on current employment and previous jobs, if currently out of work, accounting for depreciation for time out of work. This results in a closer reflection of the respondent's skill set and level of competency.

Using a separate occupation-based measure for skills supply allows us, for the first time, to compare with a skill demand breakdown to directly estimate potential occupational shortages in regions and demographics of the UK.

This method utilises the entire APS sample for the years 2012, 2017, 2019, 2021, 2022 and 2023 for those who are either currently working or have worked in the last eight years, ensuring a large sample size essential for producing granular estimates at a subnational level. Finally, the O*NET used to derive the skills required for each occupation includes a wide range of skills and occupations, which cover most of the UK labour market.

Limitations

Statistics for certain demographics are less likely to be meaningful because of the assumption that occupations provide meaningful information on people's skills and qualifications. Demographics like younger age groups may not have had as long to find suitable occupations aligning with their skills and qualifications and may appear to demonstrate lower skill levels and be more likely to show as being overqualified. However, this means that their suitability for other jobs is less accurate and should be used with caution. Also, skills analysis requires people to have had an occupation in the past eight years so it ignores parts of the population who have never had a job or have been out of work for more than eight years, which may disproportionately affect some demographics.

Additionally, in estimating potential skills, our current methods assume a person's occupation history is equivalent to them demonstrating the main skills required for those occupations. However, data from the Employer's Skills Survey (GOV.UK) showed that around 5.7% of workers were not fully proficient in their jobs in 2022, demonstrating a skills gap. Relatedly, we also do not currently account for other sources of skills, such as through education, unpaid work, volunteering, or skills developed as part of other day-to-day activities.

Future developments of the methodology might incorporate skills acquired from some of these additional sources, such as education, for a more accurate representation of the population's skills. This will require information on which qualifications enable which skills to be developed. This development could improve statistics on less well represented parts of the population, such as those straight out of education and just entering the labour market, as well as those who have never worked.

We also do not account for skills developed or used by currently employed respondents in their previous occupations, or beyond their last occupation for those out of work. However, this is largely mitigated because the current job is the main source of skills for many people, given that the average length of time in work for those in employment in the UK was 10 years in 2022 (as shown in Employment by job tenure intervals on the OECD website). Future developments may look to model a longer employment history to infer earlier skills, which may improve estimates for older parts of the population.

Because the skills analysis relies on the O*NET database, we are assuming skills required for UK occupations are similar to corresponding US occupations. It is also sensitive to the choice of mapping between UK occupations and O*NET occupations. In addition, O*NET is based on survey data and so has uncertainty measures that are not incorporated into this analysis.

Skills information for the following occupations is not included in O*NET, as these occupations are not currently surveyed:

- Elected officers and representatives
- Officers in armed forces
- Senior officers in fire, ambulance, prison and related services
- Garage managers and proprietors
- Business, research and administrative professionals NEC
- Travel agency managers and proprietors
- Paramedics
- NCOs and other ranks
- Teaching assistants
- Educational support assistants
- Street cleaners

Limitations relating to the O*NET might be resolved in future developments of the methodology by using a UK-specific skills taxonomy. In addition, manual adjustments to the original relationship between skills and the Standard Occupation Classification (SOC) may be applied to include more occupations, and other skills, which can be informed by expertise from users.

All the limitations in getting to a holistic measure of the local skills of the population mean that comparing against demand in the area may underreport the ability of the workforce to meet those needs. There are other sources of skills we have not accounted for, so when comparing against the demand for jobs in the area, we may not capture all the potential opportunities people can fill. Similarly, in order to determine if someone meets the skills requirements for a job, we check if they meet all the important skills criteria. However, sometimes when people are hired they do not have to already be able to demonstrate all the criteria.

It is also important to recognise that even if people meet the skills requirements for the occupations that are being advertised in that area, there are lots of reasons that people may not take it, such as:

- they may not meet other eligibility criteria such as formal qualifications and professional accreditation
- it may not align with their career goals
- it may not fit with their lifestyle such as possible working hours or working around family commitments
- it may be a reduction in salary
- they may not easily be able to make it to the work location because of transport challenges

Qualification mismatch

Strengths

Census 2021 data used in the qualification mismatch analysis provides the most detailed picture of the entire population, with the same core questions asked to all respondents across England and Wales in 2021. There is less margin for error than with surveys based on a sample of the population, because the whole population is included. Census 2021 also has a wealth of variables, enabling easy analysis of different breakdowns (for example, demographic and geographical) without needing to link to other data sources. The main advantage of the statistical approach used in the analysis over other methods is its ease of application, especially considering that Census already has all the required variables.

Limitations

For the qualification mismatch analysis, Census 2021 only covers England and Wales and findings will not necessarily generalise to Northern Ireland or Scotland. The highest qualification variable in Census 2021 did not identify the level or type of apprenticeship, so all apprenticeships were grouped together. However, apprenticeships can vary in length, complexity, and skills learnt. Care must be taken when interpreting this aspect of the classifications, as traditional trade and craft apprenticeships are not equivalent to modern apprenticeships (introduced in 1993) and existed prior to the development of modern qualification frameworks. Apprenticeships have been grouped with "A-level and equivalent" category for highest level of qualification in this analysis (see methods section for further information).

The Census also arguably provides less accurate variables than other education data sources, as an individual in a household may be answering on behalf of others.

Changing the mode highest qualification level for a number of occupations from "Higher education" to "A-level and equivalent" was done where it was felt that the occupation in question would not require higher education in the form of a degree or equivalent in practice, it is important to note however that this was subjective.

A further limitation is that some occupations within the SOC classifications will contain a range of different levels of work, with varying associated levels of qualification, which the modal approach does not capture. Additionally, educational attainment does not encompass all skills such as experience, on-the-job training, non-exam-based learning and some vocational qualifications. These are drawbacks of using a modal approach and in future it may be beneficial to undertake the analysis also looking at type of qualification and subject matter rather than just the average qualification level for that occupation.

7 . Related links

Understanding skill and qualification suitability in the labour market, UK: August 2024
Headline release | Released 09 August 2024
Subnational and demographic differences in the working age and employed population's skills and qualification suitability to different occupations, with potential gaps and shortages. These are official statistics in development.

Which skills are employers seeking in your area?
Article | Released 5 November 2024
Subnational differences in the occupations being asked for by employers, and the ability for relevant populations to meet those skills requirements. These are official statistics in development.

Labour demand volumes by Standard Occupation Classification (SOC 2020), UK
Data only release | Released 24 June 2024
These tables contain the number of online job adverts according to Textkernel, split by local authority and occupation (SOC 2020).

Human capital stocks estimates in the UK – Office for National Statistics (ons.gov.uk)
Bulletin | Released 19 March 2024
National and regional estimates of human capital stock in the UK from 2004 to 2022. Includes full and employed human capital estimates for each year.

Human capital workplan – Office for National Statistics (ons.gov.uk)
Workplan article | Released 29 October 2018
Plans to improve and expand upon the current human capital estimates.

8 . Cite this methodology

Office for National Statistics (ONS), updated 5 November 2024, ONS website, methodology, Measuring skill and qualification suitability in the UK labour market: user guide