Revised employment and skills projections for The Skills Imperative 2035

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Summary

Earlier in The Skills Imperative 2035 programme, we produced occupational employment projections and estimates of the skills which will be required by occupation in 2035. These projections relied on data from the Labour Force Survey (LFS) up to 2021. Unfortunately, in July 2022 the Office for National Statistics (ONS) announced that they had made errors coding 2021 occupational data in the LFS. Subsequently, ONS published corrected data in the summer of 2023. These errors affect both the occupational employment projections (Wilson *et al.*, 2022) and the skills projections (Dickerson *et al.*, 2023) that we published for The Skills Imperative 2035 in 2022-23. They do not affect our projections of employment by industry because the ONS error concerned the coding of *occupational* data in the LFS.

Consequently, we have produced *revised* employment and skills projections using the corrected LFS data for 2021 and have compared our **new** results to our **old** results to determine the impact of the coding errors on the findings we originally reported. The effect of the errors on our overall employment projections is fairly minimal. However, the errors do affect the scale of change projected in each occupation's share of UK employment, and the degree to which the change in share differs between the new and old projections varies by occupational group.

The errors also have a very modest effect on the rank order of the skills projected to be most intensively utilised across the labour market in 2035. Readers are advised to use the revised occupational employment figures and tables published [here](#) (Wilson *et al.,* 2024b) and the revised skills projection figures and tables published [here](#) (Dickerson and Rossi, 2024b), rather than those in the original reports, particularly when referencing them in reports and public presentations. We hope that this note provides reassurance about the reliability of the conclusions drawn in our original suite of papers.

1   Background context

The Skills Imperative 2035 is centred on the premise that the global economy is changing and new technologies, coupled with major demographic and environmental changes, will continue to disrupt the labour market in the coming decades. These drivers of change will impact on the jobs that will exist in the future and the skills that will be needed to do them, but the extent to which this will happen is not well understood. The Skills Imperative 2035 programme is addressing this knowledge gap. To this end, earlier in the programme, we produced and published employment projections (Wilson *et al.*, 2022) and skills projections (Dickerson *et al.*, 2023) for 2035.

Our employment projections (for the UK and each nation and region) are underpinned by a multi-sectoral dynamic model projecting changes in the industrial composition of the economy, which was produced for the programme by Cambridge Econometrics. This captures the effects of the changing pattern of demands for commodities by consumers and companies on the occupational structure of employment. The University of Warwick Institute for Employment Research (IER) then projected changes in the occupational structure of employment within each industry and combined these with the projected levels of industrial employment (Wilson *et al.*, 2022). This captures technological and organisational changes affecting how goods and services are produced and provided. The University of Sheffield then combined these employment projections with occupational skills projections in order to generate estimates of the overall utilisation of each skill across the labour market in 2035 (Dickerson *et al.*, 2023).

To produce the occupational employment projections, Warwick IER relied on data from the LFS. This data played an important role in estimating the occupational structure in the base year. Unfortunately, in July 2022 the ONS announced that they made previously made errors coding occupational data in the LFS for 2021 (ONS, 2022a). They subsequently published corrected data for 2021 in summer 2023 (ONS, 2023). Following these corrections, ONS stated that the LFS data collected post-October 2022 were unaffected, all significantly impacted SOC codes having been recoded.

These LFS coding errors affect the employment and skills projections published earlier in The Skills Imperative 2035, which utilised LFS data from 2021. The ONS said, when they published the revised data, that they expected the error to have only affected the records of people in a limited number of occupations, and that the impact on estimates of the size of broader occupations and groups of occupations in the Standard Occupational Classification (SOC)1 would be minimal (ONS, 2022b). However, the corrected data differed more

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[1] The Standard Occupational Classification (SOC) is a common classification of occupational information for the UK. For more details, see https://www.ons.gov.uk/methodology/classificationsandstandards/standardoccupationalclassificationsoc.

substantially from the originally published data than anticipated, including estimates of the size of broader groups of occupations, as shown in

Figure 1 below.

Figure 1 Percentage differences between the new and old Baseline scenario in the estimated size of occupational groups, at the 1-digit SOC2020 level, in 2021 (%)
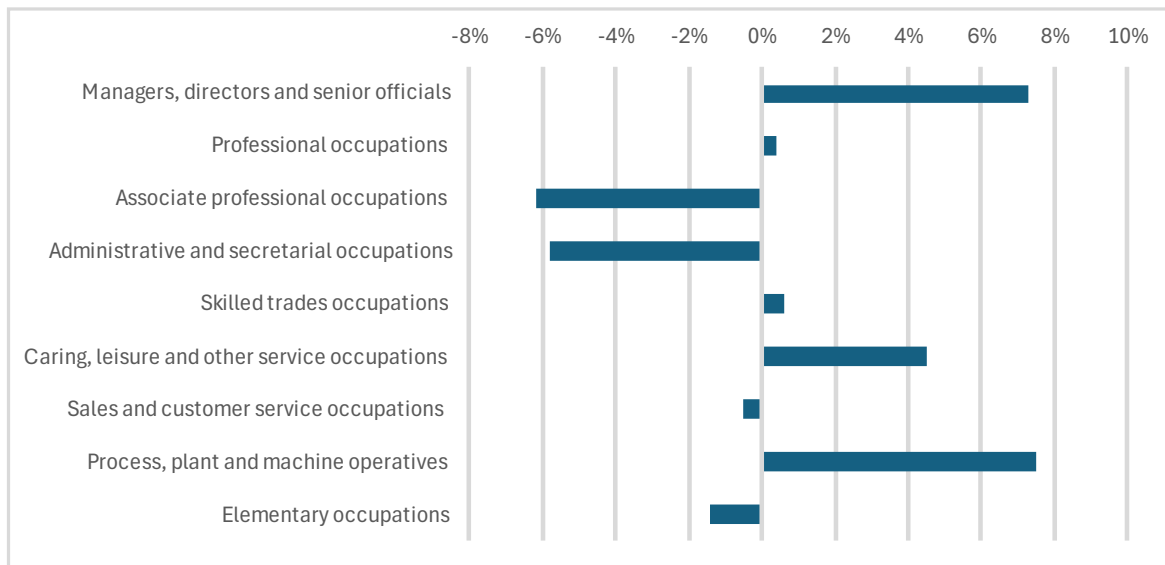
Source: IER estimates from SI35 Original and SI35 Corrected.

Consequently, we have produced revised employment and skills projections using the corrected LFS data for 2021. We have compared our new results to our old results to determine the impact of the error on the detailed estimates we originally published of the shape and composition of the future labour market (Wilson *et al.*, 2022) and our analysis of the demand for skills in the labour market in 2035 (Dickerson *et al.*, 2023). Summarising these revisions, we have produced a report comparing our revised employment projections to our original employment projections (Wilson *et al.*, 2024), and a further report comparing our revised skills projections to our original skills projections (Dickerson and Rossi, 2024). We have not updated and re-published our original reports due to resource constraints. However, we have produced two documents with revised versions of all of the figures and tables in the original employment projections (Wilson *et al.,* 2024b) and the original skills projections (Dickerson and Rossi, 2024b) that were affected by the ONS coding errors in the LFS. Readers are advised to use these revised figures and tables rather than those in the original reports, especially when referencing them in reports and public presentations.

2 The impact of the LFS coding error on our employment projections

The impacts of the coding errors in the 2021 LFS data published by ONS on our employment projections are fairly modest. The LFS coding error affects our projections of employment by occupation, not our projections of employment by industry. However, the errors do affect the scale of change projected in each occupation's share of UK employment, and the degree to which the change in share differs between the new and old projections varies by occupational group. Figure 2 below illustrates that, when comparing the change in UK employment share for the 26 sub-major group occupations (2021-2035) in our revised employment projections relative to the original projections, we find:

- The projected change in UK employment share for most sub-major group occupations is fairly similar in the new and original projections.

- Where our original projections indicated a sub-major group occupation was going to experience a decline in its UK employment share, this remained the case in the new projections. Similarly, where we had projected an occupation would grow its share of employment, this remained the case when using the corrected LFS data, with the exception being 91 'Elementary trades and related occupations'.

- The four sub-major group occupations that we originally projected would experience the largest decline in their employment share remain the same in the revised projections. These are: 41 'Administrative occupations', 42 'Secretarial and related occupations', 71 'Sales occupations' and 92 'Elementary administration and service occupations'.

- However, where we had originally projected fairly large increases in employment shares for sub-major groups 21 'Science, research, engineering and technology professionals' and 32 'Health and social care associate professionals', our revised projections indicate that the growth in employment share for these occupations will be substantially smaller than originally anticipated.

Figure 2 Differences between revised and original projections in anticipated changes in employment share between 2021 and 2035 at the SOC2020 2-digit level (%)
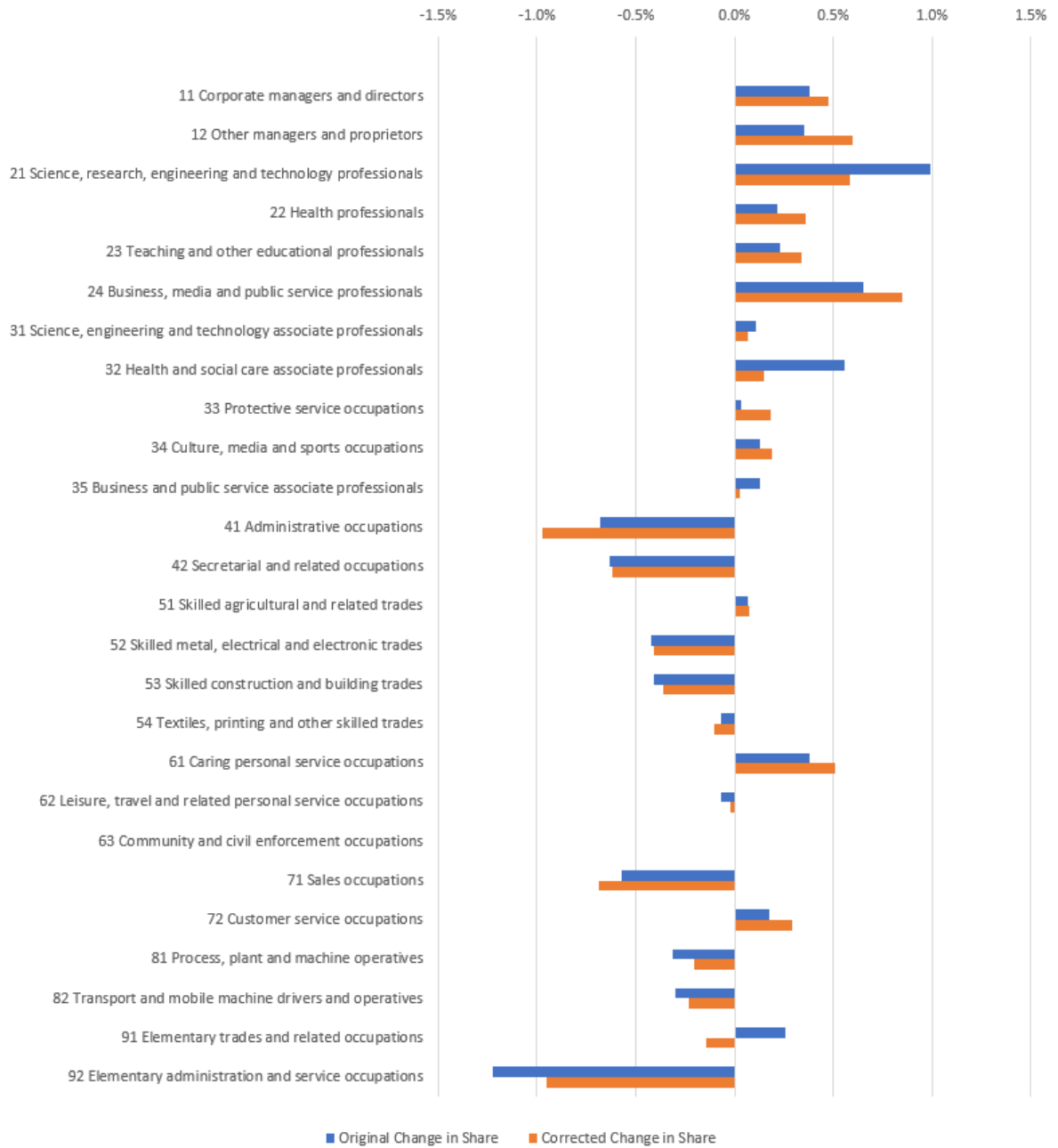
3   The impact of the LFS coding error on our skills projections

Our original skills projections involved producing estimates of 'skills demands' in 2035 by combining detailed projections of the skills that will be used in the jobs of the future with our employment projections. In particular, we identified which skills are likely to be used most intensively in employment in 2035 – which we refer to as the 'Essential Employment Skills'.

These were:

- Collaboration

- Communication

- Creative thinking

- Information literacy

- Organising, planning and prioritising

- Problem solving and decision making.

The impact of the ONS coding error in the 2021 LFS data on the 'Essential Employment Skills' we identified was modest. In summary:

- The Top 20 skills originally identified are broadly unaffected in the revised projections. The skills that were projected to be used most intensively in employment in 2035 are not overly affected.

- The most noticeable change is that Organizing, Planning, and Prioritizing Work and Establishing and Maintaining Interpersonal Relationships which were ranked 2nd and 3rd respectively in the distribution in 2035 in the original projections have swapped position in the ranking when using the revised projections.

- The only other significant change is that Thinking Creatively is no longer in the Top 20 skills – it was ranked 20th with the original projections but it now just outside the Top 20. This does not have a significant effect on the rationale for selecting Creative Thinking as one of our six 'essential employment skills' given this selection was also based on an earlier literature review for The Skills Imperative 2035, which suggested Creative Thinking was heavily mentioned in the existing literature.

The justification for our selection of six 'essential employment skills' is thus largely unaffected by the LFS error and our analysis of skills requirements.

We hope that this note provides reassurance about the conclusions drawn in our original suite of papers. For more information, please email l.bocock@nfer.ac.uk.

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