

Analysis of the Points Based System

Revised UK shortage occupation
list for Tier 2 comprising jobs
skilled to NQF level 4 and above

Migration Advisory Committee

March 2011



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Chapter 1: Introduction

1.1 The Migration Advisory Committee

1.1 The Migration Advisory Committee (MAC) is a non-departmental public body comprised of economists and migration experts that provides transparent, independent and evidence-based advice to the Government on migration issues. The questions we address are determined by the Government.

1.2 Previously we have provided advice on the design of Tiers 1 and 2 of the Points Based System (PBS) for managed migration from outside the European Economic Area (EEA), the shortage occupation lists used under Tier 2, and transitional labour market access for citizens of new European Union (EU) accession states. In November 2010, we advised on the first annual limits on Tiers 1 and 2 of the PBS (Migration Advisory Committee, 2010a).

1.2 Our task

1.3 In December 2010, the Government asked the MAC to provide advice in relation to the minimum skill requirement for occupations and job titles under Tier 2. Specifically, the Government has asked that we answer the following two questions:

1. “What Standard Occupational Classification (SOC) codes should be considered as graduate level occupations for the purposes of Tier 2 of the Points Based System?”; and
2. “How should the current Shortage Occupation Lists for the UK and Scotland be revised to remove jobs below graduate level?”

1.4 We responded to the first question in a separate report published on 7 February 2011 (Migration Advisory Committee, 2011). The Government announced its intention to accept the advice in that report in UK Border Agency (2011). In this report we respond to the second of the above questions.

1.5 In the commissioning letter setting out the Government’s questions to us, the Minister for Immigration stated that “*the relevant indicator of ‘graduate-level’ for this purpose should be NVQ level 4, the next step up from the current minimum threshold of NVQ 3.*” In our report identifying occupations skilled to NVQ level 4 and above (Migration Advisory Committee, 2011) we took National Qualifications Framework level 4 and above (NQF4+) as the relevant benchmark. Although we

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- took that level as given for our main analysis, we discussed further the issue of qualification levels and equivalence.
- 1.6 Both the list of occupations skilled to NQF4+ in Migration Advisory Committee (2011), and our recommended revised shortage occupation lists in this report are based on Standard Occupational Classification (SOC) 2000. We do not use the updated SOC 2010 classification published by the Office for National Statistics (ONS) in June 2010. This is because the datasets used for our work are not yet available in SOC 2010 format. We believe, as discussed in Migration Advisory Committee (2011), that a revised list of NQF4+ occupations should be produced once the relevant datasets become available.
- 1.7 The Government's letter also asked that we identify an appropriate benchmark to enable individuals in non-NQF4+ shortage occupations who operate at a skill level equivalent to NQF4+ to continue to qualify for Tier 2, but said that this should not undermine the policy intention that the minimum skill level within all Tier 2 routes should be raised to NQF4+.
- 1.8 The request requires us to review whether the job titles on the current shortage occupation lists for the UK and Scotland are skilled to NQF4+. UK Border Agency (2011) implies that the following conditions apply to such job titles under Tier 2:
- If it **is** in an occupation skilled to NQF4+, it will continue to qualify for the shortage occupation, intra-company transfer and Resident Labour Market Test (RLMT) routes.
 - If it **is not** within an NQF4+ occupation but **is** itself (in part or full) equivalent to NQF4+, it (in part or full) remains on the shortage occupation lists and continues to qualify for the shortage occupation route only.
 - If it **is not** within an NQF4+ occupation and also **is not** itself equivalent to NQF4+, it is removed from the lists, and does not qualify for any Tier 2 routes.
- 1.9 This requires that we assess whether there are any job titles on the current shortage occupation lists that:
- sit within 4-digit SOC occupations that are skilled below NQF4+; but
 - are, in part or full, skilled to at least that level.
- 1.10 Some related issues that were not within our remit for either this report or Migration Advisory Committee (2011) were whether:
- individual job titles not on the current shortage occupation lists for the UK and Scotland might be skilled to NQF4+ despite sitting within an occupation not skilled to that level;
 - there are current labour shortages in the occupations and job titles on the shortage occupation lists that it is sensible to fill using non-EEA migrants; or
 - occupations and job titles skilled to NQF4+ not currently on the shortage occupation lists should be added to them.

1.3 Policy context

- 1.11 On 19 July 2010, the Government introduced interim limits on out-of-country applications for Tier 1 (General) and in-country and out-of-country applications under the RLMT and shortage occupation routes of Tier 2.
- 1.12 Following a commission from the Home Secretary, on 18 November 2010 we published our report on the first annual limits on PBS Tiers 1 and 2 for 2011/12 and supporting policies (Migration Advisory Committee, 2010a). In that report we set out the required limits on Tiers 1 and 2, based on assumptions on matters including the coverage of the limits, the underlying objective for net migration and the role of work-related migration in achieving that objective. We also set out potential policies to improve selection of the migrants who have the most to contribute to the UK. We suggested that, in line with the general objective of improved selectivity, consideration could be given to raising the minimum skill level for the RLMT, shortage occupation and intra-company transfer routes of Tier 2.
- 1.13 On 23 November 2010, the Home Secretary outlined a policy package for the PBS that will be introduced alongside the first annual limits on non-EEA migration in April 2011. She announced that the RLMT and shortage occupation routes will be subject to an annual limit of 20,700 places for out-of-country applicants in the year from April 2011. This limit will not apply to in-country applications from individuals already in the UK, dependants of Tier 2 migrants, or applications relating to jobs attracting a salary of more than

£150,000. The intra-company transfer, sportsperson and minister of religion routes will also be excluded from this annual limit.

- 1.14 On 16 February 2011, the UK Border Agency published a statement of proposed changes to Tier 2 (UK Border Agency, 2011). From April 2011 the minimum skill level for applications under Tier 2 of the PBS will be raised to one corresponding to what it described as 'graduate-level' occupations. The Government said that it will use the list of occupations assessed as NQF4+ and above developed in our earlier report (Migration Advisory Committee, 2011) and that the shortage occupation list will be amended to remove those job titles not found to be skilled to NQF4+ in this report.

1.4 What we did

- 1.15 The timescales for this work did not allow for a formal call for evidence, but we took steps to ensure that our corporate partners were aware that we were undertaking this work and we considered any written submissions we received. Throughout this report where we refer to either 'corporate partners' or just 'partners' we mean all parties with an interest in our work or its outcomes, so private and public sector employers, trade unions, representative bodies and private individuals are included within this term. We also approached, in particular, partners who we believed were likely to have an interest in job titles most 'at risk' of not meeting the NQF4+ criteria for inclusion on an amended shortage occupation list.

1.16 We wrote to over 1,000 corporate partners. We received around 50 written responses. In addition to considering these written submissions, we also sought the views of our partners through discussions and events. We met with around 30 corporate partners at various events and meetings. We have considered the information we received during these discussions when forming the recommendations in this report.

1.5 Structure of the report

1.17 Migration Advisory Committee (2011) detailed our consideration of how to produce a list of NQF4+ occupations identified by their SOC 2000 codes and provided such a list. In Chapter 2, we use this list to identify those job titles on the shortage occupation lists that fall within NQF4+ level occupations. We then consider methods of assessing the skill level of job titles in occupations that are not, as a whole, skilled to NQF4+.

1.18 In Chapter 3, based on our own analysis and the evidence provided by our corporate partners, we consider whether each of the job titles in those non-NQF4+ occupations on the shortage occupation lists can be defined as skilled to NQF4+ in their entirety or in part.

1.19 Chapter 4 sets out our conclusions and recommended revisions to the shortage occupation lists. We use the shortage occupation lists as presently published by the Government for this purpose.

1.6 Thank you

1.20 We recognise that our corporate partners have had only limited time to provide us with input related to the issues discussed in this report. We would like to thank all individuals and organisations that engaged with us.

1.21 A list of those partners who corresponded with us on this issue and those who met with us (and who did not request anonymity) is supplied as Annex A to this report.

Chapter 2: Methodology

2.1 Introduction

2.1 As discussed in Chapter 1, we have been asked by the Government to identify those job titles on the current shortage occupation lists that are skilled to National Qualification Framework level 4 or above (NQF4+), in order that those job titles not skilled to that level may be removed. This chapter discusses our approach to this task.

2.2 Occupations are categorised according to the most detailed (4-digit) level of the Standard Occupational Classification (SOC) 2000, which divides the UK labour market into 353 separate occupations. In total, 38 occupations are represented on the current shortage occupation lists:

- One 4-digit SOC 2000 occupation (SOC 2125 - chemical engineers) is represented in full on the UK shortage occupation list.
- 37 occupations are represented in part on the UK and Scotland shortage occupation lists, in the form of specific job titles that are embedded within the broader occupation.

2.3 Our approach to considering job titles for removal from the shortage

occupation lists on the basis that the skill level is below NQF4+ has proceeded in several stages. **Stage 1** consisted of identifying which occupations we needed to consider for this report:

- We identified 121 occupations as skilled to NQF4+. This was the subject of our report Migration Advisory Committee (2011).
- Next, we considered which of the 38 occupations on the current shortage occupation list are not on the list of the 121 NQF4+ occupations. There were 12 such occupations.

2.4 For this report, we have considered only those job titles in those 12 occupations not skilled to NQF4+ for removal from the list. Those occupations are the focus of Chapter 3 of this report. They are all on the UK shortage occupation list, which also applies to Scotland, meaning that no separate consideration of the Scotland shortage occupation list was required. Unless otherwise stated, subsequent references to the shortage occupation list in this report are to the current UK list.

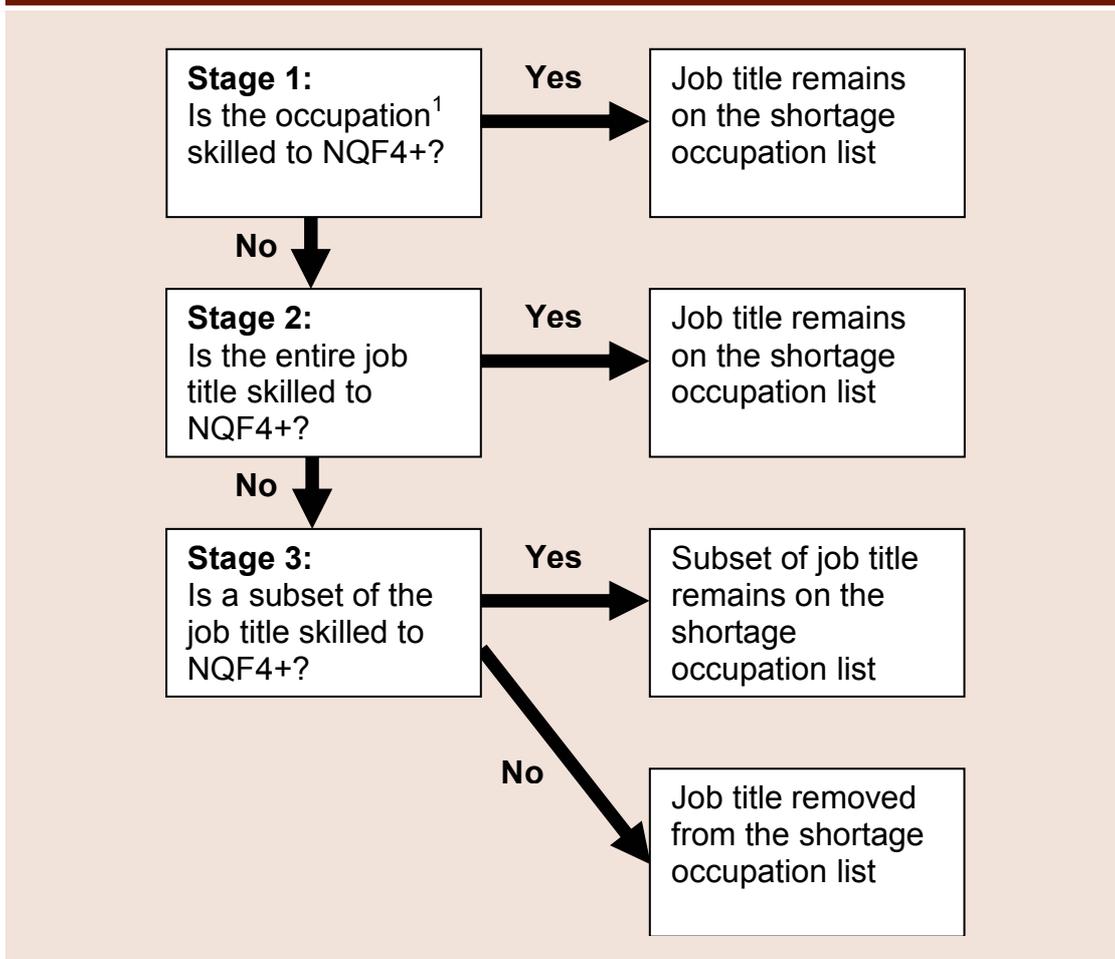
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2.5 When considering each individual job title (or group of closely related job titles) within the 12 occupations in turn, we first considered the job title as a whole. This was **stage 2** of our analysis. In some cases, information we have received from our partners has been sufficient to enable us to define the entire job title as skilled to NQF4+. In such cases, we recommend that the job title remains on the shortage occupation list in its current form.

2.6 If a whole job title is not judged to be skilled to NQF4+, the variation in skill

within a job title may mean that a subset of it is skilled to that level. In **stage 3** of our analysis we have considered whether a defined NQF4+ subset of the job title should remain on the shortage occupation list. If, alternatively, information received did not demonstrate that any identifiable subset of the job title was skilled to NQF4+ we state that the job title should be removed from the shortage occupation list in its entirety. The above approach is illustrated in Box 2.1.

Box 2.1: Process to identify job titles on the UK shortage occupation list skilled to NQF level 4 and above



Note: (1) defined at the 4-digit SOC 2000 level

- 2.7 The remainder of this chapter discusses our methodological approach in more detail:
- In section 2.2 we briefly rehearse the methodology used in stage 1, set out previously in more detail in Migration Advisory Committee (2011), to identify the 12 occupations skilled to below NQF4+. We list the job titles associated with those occupations that are on the current UK shortage occupation list.
 - In section 2.3 we discuss how, in stage 2, we assessed the level of skill of job titles as a whole.
 - In section 2.4 we discuss how, in stage 3, we identified and defined skilled subsets of particular job titles.
 - In section 2.5 we offer some concluding remarks.

2.2 Stage 1: Occupations skilled to NQF level 4 and above

- 2.8 In Migration Advisory Committee (2011) we presented our

methodology to identify occupations skilled to NQF4+. In this section we briefly outline the top-down element of the methodology that, ultimately, provided the basis for our recommended list. We also discuss the results generated by this approach in terms of the occupations identified as skilled to NQF4+.

- 2.9 Our top-down methodology, and the resulting list of occupations skilled to NQF4+, was conducted at the 4-digit SOC 2000 level.
- 2.10 To identify occupations skilled to NQF4+, we used three top-down indicators of skill. We used analysis to identify a threshold value for each. An occupation was deemed to have passed as skilled to NQF4+ on an individual indicator if the value of that indicator for the occupation lay at, or above, the threshold value. Details of the three top-down indicators are given in Table 2.1

Table 2.1: Our three top-down indicators to identify occupations skilled to NQF level 4 and above

Indicator	Definition	Data source	Threshold value
Earnings	Median hourly earnings of full-time employees	Annual Survey of Hours and Earnings (2010)	£13.40
Qualifications	Proportion of working-age, full-time employees qualified to NQF4+	Labour Force Survey (2007 Q4 – 2010 Q3)	41 per cent
SOC skill level	4-tier skill level hierarchy	Office for National Statistics	SOC level 4

Note: The full list of occupations and job titles on the current shortage occupation list is available at: www.ukba.homeoffice.gov.uk/sitecontent/documents/workingintheuk/shortageoccupationlist.pdf

- 2.11 For an occupation to be considered skilled to NQF4+ it had to pass on at least two out of the three top-down indicators. According to our approach, 121 of the 353 4-digit SOC occupations were skilled to NQF4+. The 121 occupations covered 39 per cent of all working-age, full-time employees in the UK labour market.
- 2.12 Of the 38 occupations that cover the job titles on the current shortage occupation list, 26 were identified as being skilled to NQF4+. Therefore, for the purposes of this report, all of the job titles on the current shortage occupation list that are associated with these 26 occupations are considered skilled to NQF4+. This is consistent with the practice we adopted in our previous reviews of the shortage occupation lists (Migration Advisory Committee 2008, 2009a, 2009b and 2010b). We assumed that if a job title was in a sufficiently skilled occupation (previously, the required level of skill was NQF level 3 or above (NQF3+)) for Tier 2 of the Points Based System (PBS), the job title itself was sufficiently skilled.
- 2.13 In the next section we focus on the remaining job titles on the current shortage occupation list, listed in Table 2.2.
- 2.3 Stage 2: Job titles skilled to NQF level 4 and above**
- 2.14 In this section we describe our approach to assessing whether the job titles listed in Table 2.2 are skilled to NQF4+. In those cases where our assessment is that the job title as a whole is not skilled to NQF4+, we have considered whether a subset of the job title is sufficiently skilled, described in section 2.4.
- 2.15 As described above, our approach to analysing the skill level of occupations used national-level top-down data sources. Equivalent data are not available for individual job titles, meaning we are more reliant on bottom-up information provided by our partners. Our guiding principle has nonetheless been to assess individual job titles in a manner that is consistent with our top-down approach to analysing occupations, and to use equivalent indicators of skill where possible. This is supplemented by consideration of additional indicators of skill that may be particularly pertinent at the detailed job title level.
- 2.16 Of the three top-down indicators of skill discussed in section 2.2, the SOC skill level indicator cannot be disaggregated further than the occupational level, and therefore we have not used this indicator when assessing job titles. There is, however, bottom-up evidence available on earnings and the qualifications of the workforce, as well as qualification requirements, in certain job titles. If available, we used information on earnings and qualifications when assessing job titles. In addition, we used two bottom-up indicators of skill. Therefore, our four bottom-up indicators of skill, discussed in more detail in turn below, are:
- **pay** data;
 - information on **qualifications**;
 - evidence related to **on-the-job training or experience**; and
 - information on **innate ability** requirements.

Table 2.2: Job titles on the current UK shortage occupation list embedded within occupations not skilled to NQF level 4 and above

SOC	Occupation title	Job title(s)
3113	Engineering technicians	Commissioning engineer
3119	Science and engineering technicians not elsewhere classified (n.e.c.)	Production controller in the electricity generation industry
3434	Photographer and audio-visual equipment operators	Roles within visual effects and 2D/3D computer animation for film, television or video games: animation supervisor; animator; computer graphics supervisor; technical director; CG supervisor; modeller; rigging supervisor; rigger; matte painter; texture artist; compositing artist; producer; production manager; editor; R&D tools; R&D software; software engineer; system engineer
5215	Welding trades	High integrity pipe welder
5223	Metal working production and maintenance fitters	Licensed and military certifying engineer/inspector technician; airframe fitter
5243	Line repairers and cable jointers	Overhead linesworker within the electricity transmission and distribution industry
5249	Electrical/electronic engineers n.e.c.	Site supervisor within the electricity transmission and distribution industry
5431	Butchers, meat cutters	Skilled meat boner; skilled meat trimmer
5434	Chefs, cooks	Skilled chef
6115	Care assistants and home carers	Skilled senior care worker
6139	Animal care occupations n.e.c.	Skilled work rider
9119	Fishing and agriculture-related occupations n.e.c.	Skilled sheep shearer

Note: The full list of occupations and job titles on the current shortage occupation list is available at: www.ukba.homeoffice.gov.uk/sitecontent/documents/workingintheuk/shortageoccupationlist.pdf

2.17 We assess bottom-up information on **pay** alongside our top-down data in two ways:

- If typical (e.g. median) pay in the job title is lower than that in the occupation as a whole (which is necessarily skilled below NQF4+ according to our top-down analysis), then that is an indication that the job title is likely not to be skilled to NQF4+.
- In our top-down analysis of occupations discussed in section 2.2, we required hourly pay in an occupation to exceed the threshold value of £13.40 for it to pass as skilled on that indicator.

Therefore, if typical pay in a job title is £13.40 per hour or more we regard that as a good indication that the job title is likely to be skilled to NQF4+.

2.18 Although the above approach is useful in terms of making broad comparisons between pay in a job title and the wider occupation or labour market, we have remained aware that such comparisons can only be broadly indicative, for three reasons. First, bottom-up earnings data will typically not apply to exactly the same time period or be collected or produced in the same manner as information in the Annual Survey of Hours and

Earnings (ASHE) 2010, which provided the basis for the £13.40 figure. For instance, the ASHE data we use are for full-time workers only, while some bottom-up data may also relate to part-time workers. Tier 2 migrants are not permitted to work part-time.

2.19 Second, we have sometimes needed to convert bottom-up information on annual earnings into hourly equivalents, in order to make direct comparisons to our £13.40 benchmark. The rule of thumb we have used to do this is to divide annual earnings by 2,109 in order to estimate an hourly equivalent. This is the ratio between mean annual pay of full-time employees (£32,178) and equivalent mean hourly pay (£15.26) in the ASHE 2010. We recognise that this ratio may vary across occupations, depending on the degree to which bonus payments contribute to annual remuneration, and variation in the average number of hours worked per year.

2.20 Third, while we believe that pay is a good indicator of skill in an occupation it is, as discussed elsewhere in this chapter, by no means a perfect or all-encompassing one. For instance, hourly pay in public sector jobs may not always reflect the skill level of those jobs. Funding constraints may act to compress pay, and pay may be viewed as only one aspect of a wider reward package that has historically encapsulated other factors, such as pensions, job satisfaction and perceived job security. Similar arguments apply to some private sector jobs too.

2.21 It is partly for these reasons that, as in our analysis of occupations in

Migration Advisory Committee (2011), we consider other indicators of skill at the job title level too. We believe that a similar approach to that we used in relation to earnings can also be applied to information on qualifications. There are three ways in which information on **qualifications** is relevant:

- If the proportion qualified to NQF4+ in the job title is lower than that in the occupation as a whole (again, noting the occupation is skilled below NQF4), that is an indication that the job title may not be skilled to NQF4+.
- If the proportion qualified to NQF4+ in the job title is lower than the top-down threshold value of 41 per cent qualified, then that is an additional indication that the job title is not skilled to NQF4+.
- If there is a statutory or other formal requirement to be qualified to NQF4+ in order to be employed in a job, that is a strong indication that the job is skilled to NQF4+.

2.22 The information in relation to the remaining indicators of skill, **on-the-job training or experience** and **innate ability**, is more difficult to assess as these indicators are harder to measure consistently. In Chapter 3 we nonetheless consider such information on a case-by-case basis.

2.23 In our top-down analysis, we recognised that there is no single perfect measure of skill. We believe the same applies to our assessment of job titles.

Additionally, the extent to which each of these indicators reflects skill is likely to vary between jobs. For example, as discussed above, earnings are not always a good indicator of skill in public sector dominated occupations. There are also some occupations (e.g. chefs) where experience is viewed as more important than formal qualifications, while in other occupations (e.g. some in engineering) qualifications are an essential pre-requisite. Therefore, where necessary, we considered how relevant each of the measures discussed above is to the job title under consideration.

- 2.24 Where job titles were found not to be skilled to NQF4+, we next considered whether any subsets of the job title may be skilled to that level.

2.4 Stage 3: Subsets of job titles skilled to NQF level 4 and above

- 2.25 In Chapter 3, to identify subsets of job titles skilled to NQF4+, we have used the same indicators of skill discussed in section 2.3. Where we believed there was evidence that a significant sufficiently skilled subset existed, we considered how to define it:

- If the skilled subset can be satisfactorily defined by its description, it is recommended that a fully described job title is placed on the shortage occupation list. For example, in Chapter 3 we consider whether such a distinction, in terms of skill level, can be drawn between overhead linesworkers who work on high voltage lines and those who work on lower voltage lines.

- In cases where a fully described job title alone is not sufficient to define the skilled subset, we consider the use of additional or alternative benchmarks for identifying the NQF4+ subset of the job title. These include minimum salary, qualifications and experience criteria.

- 2.26 Therefore, we have defined each NQF4+ subset either by fully describing the skilled subset of the job title, through the use of alternative benchmarks (for example, setting an earnings threshold), or through a combination of these two approaches.

- 2.27 Below, we describe our previous approach to defining NQF3+ subsets of job titles. We then discuss the approach adopted in this report.

Previous approach to defining subsets skilled to NQF level 3 and above

- 2.28 In Migration Advisory Committee (2008) we received evidence that subsets of several job titles were skilled to NQF3+, and therefore recommended that these subsets be placed on the shortage occupation list, despite the broader occupation not being skilled to NQF3+. This required us to define how a NQF3+ subset of a job title could be identified.
- 2.29 Within an occupation, pay will usually be positively related to the level of skill. On the basis that the most skilled individuals will typically be the most highly paid, we recommended using a minimum pay threshold in the form of a point

on the pay distribution for the occupation (eg. skilled chefs).

2.30 To identify this appropriate point in the pay distribution we first referred to either bottom-up evidence provided by our partners, or top-down analysis of the Labour Force Survey (LFS), on the proportion of an occupation that is skilled to NQF3+. We then considered whether there was likely to be a broad equivalence between the proportion qualified to NQF3+ within the occupation and the number of jobs at NQF3+, even if not all of the most highly qualified individuals are in the most highly skilled jobs. The validity of assuming equivalence between the percentage qualified to a particular skill level and the percentage of jobs skilled to that level was discussed in Migration Advisory Committee (2011). Last, we calculated the point on the pay distribution, using the ASHE or another suitable data source, corresponding to the proportion identified as skilled to NQF3+ in that occupation.

2.31 We have used this approach for various subsets of job titles in past reviews of the shortage occupation list to identify NQF3+ jobs with a pay threshold. In some cases, however, we received evidence that pay alone was not necessarily the best measure of skill in that occupation. For example, to identify a NQF3+ senior care worker job, in Migration Advisory Committee (2009a), we included additional requirements alongside a pay threshold relating to qualifications and supervisory responsibility.

Revised approach to defining subsets skilled to NQF level 4 and above

2.32 We believe that, in general, the most highly skilled people within an occupation will be the most highly paid. Pay should also be easy to measure, as information on earnings must be submitted as part of the Tier 2 application. Additionally, it applies directly to the UK job the migrant is entering into, which avoids problems in trying to distinguish between the skills held by the migrant and the skill requirement for the job, given Tier 2 eligibility depends on the latter.

2.33 In principle, qualifications held by an individual migrant could be used as an indicator of skill level of the job. In practice, migrants are likely to hold foreign qualifications, which are often difficult to match to the National Qualifications Framework (NQF). An individual may also hold a high level of qualification which is not relevant to, or required for, the job they are doing.

2.34 The distributions of on-the-job training, experience and innate ability across an occupation are hard to measure consistently and reliably, meaning it is not generally possible to set appropriate threshold values based on these indicators.

2.35 Thus, although we do not rule out using other measures in principle when suitable evidence is available, we believe that in most cases the best criterion for defining NQF4+ subsets of job titles, when job title alone is not sufficient, is a pay threshold. We therefore need to

consider how the appropriate pay threshold should be chosen.

Using pay thresholds to identify NQF4+ jobs

- 2.36 It is important to treat occupations and job titles equally as the measure of skill, set at NQF4+, is the same. As such, the starting point for setting any pay benchmark should be the top-down earnings threshold used in Migration Advisory Committee (2011) to identify occupations skilled to NQF4+. This pay threshold was found to be £13.40 per hour. It was derived by ranking the distribution of median hourly earnings of occupations, and choosing a threshold that resulted in 38 per cent of the full-time working-age employed workforce being selected. Thirty-eight per cent was the target figure since 38 per cent of full-time working-age employees were found to be skilled to NQF4+, according to analysis of the Labour Force Survey (LFS) in Migration Advisory Committee (2011). It seems sensible, therefore, to use £13.40 as a starting point in setting a pay threshold for subsets of job titles within occupations not deemed to be skilled to NQF4+.
- 2.37 Another approach would be, in line with Migration Advisory Committee (2008), to identify a point on the pay distribution for the occupation using evidence on the proportion qualified to NQF4+. Setting thresholds in this way has the benefit of accounting for the circumstances of the occupation in question. However, this approach would lead to lower thresholds for occupations that employ low paid labour. To the extent that use of relatively low paid migrant workers is contributing towards compressing the pay distribution, the pay at any point on that distribution may under-represent the true skill level of the job. It is worth noting that setting a low pay threshold for such an occupation may reinforce this effect and perpetuate a cycle of dependence on low paid migrant labour.
- 2.38 Alternatively, one could also use evidence on qualifications to identify a percentile point as before, but then apply this to the pay distribution for the labour market as a whole, rather than the occupation. But, this would mean that job titles in occupations with low proportions qualified to NQF4+ would face a higher pay threshold than those in occupations with high proportions qualified. To the extent that low levels of highly qualified workers are correlated with low levels of pay across occupations, this would lead to higher earnings thresholds, in absolute terms, for job titles in low paying occupations than high paying ones. This seems counter-intuitive.
- 2.39 Table 2.3 provides the thresholds that result from using the two approaches above. In each case, we estimated the proportion qualified to NQF4+, and calculated the associated level of earnings in the occupation (i.e. if 10 per cent are qualified to NQF4+, we took the 90th percentile of the earnings distribution for that occupation). We also calculated the associated level of earnings in the labour market as a whole (i.e. if 10 per cent are qualified to NQF4+, we took the 90th percentile of the earnings distribution in the entire labour market).

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Table 2.3: The proportion of individuals qualified to NQF4+ by occupation and the associated percentile hourly pay

SOC	Occupation title	Per cent qualified to NQF4+	Percentile hourly pay (£) in occupation	Percentile hourly pay (£) in whole labour market
3113	Engineering technicians	35	16.66	15.75
3119	Science and engineering technicians not elsewhere classified (n.e.c.)	41	12.45	14.33
3434	Photographer and audio-visual equipment operators	47	12.23	13.27
5215	Welding trades	3	> 15.5 ⁽¹⁾	40.52 ⁽²⁾
5223	Metal working production and maintenance fitters	15	17.79	23.30
5243	Line repairers and cable jointers	4	> 18.43 ⁽¹⁾	36.54 ⁽²⁾
5249	Electrical/electronic engineers n.e.c.	25	14.33	18.49
5431	Butchers, meat cutters	2	> 11.54 ⁽¹⁾	46.51 ⁽²⁾
5434	Chefs, cooks	8	12.34 ⁽²⁾	28.43 ⁽²⁾
6115	Care assistants and home carers	15	11.42	23.30
6139	Animal care occupations n.e.c.	27	9.19	17.89
9119	Fishing and agriculture-related occupations n.e.c.	5	> 10.82 ⁽¹⁾	33.75 ⁽²⁾

Note: The per cent qualified to NQF4+ is calculated from the Labour Force Survey. The percentile hourly pay is estimated from the 2010 Annual Survey of Hours and Earnings and is for full-time employees only. Hourly pay figures were estimated as the percentiles for each occupation corresponding to (100% minus the per cent qualified to NQF4+). The published ASHE tables include hourly pay estimates for the 10, 20, 25, 30, 40, 50, 60, 70, 75, 80, 90th percentiles for most occupations. Where the desired percentile did not match the published deciles in ASHE 2010, an average was calculated.

(1) Data were not available, due to small sample sizes, for these occupations at the 4-digit level. Instead the 90th percentile hourly pay for the corresponding 3-digit occupational category is reported. Therefore, since the desired percentile for these occupations were higher than the 90th percentile, these figures are likely to represent a lower bound for each of these occupations.

(2) Hourly pay data for each of the 90 to 99th percentiles were obtained upon request from the ONS for the whole labour market and for some occupations, where the sample size was large enough. These figures are therefore not an average.

Source: ASHE (2010)

2.40 The lower end of this range could not in practice be lower than approximately £9.48 per hour, as UK Border Agency (2011) announced that from the 1 April 2011 a minimum salary requirement of £20,000 per year will apply to Tier 2 General. To convert this annual salary requirement into an hourly equivalent

we have applied the rule of thumb described earlier in this chapter, which divides the annual figure of £20,000 by 2109 to reach the hourly equivalent of £9.48.

2.41 In principle, we could have used the figures in Table 2.3 to help identify salary thresholds for job titles in

Chapter 3. However, some of the implied ranges presented are very wide and the basis on which we would pick a point at either end of, or within, those ranges is not self-evident. Further, for reasons discussed above, the lower ends of some of the ranges are too low and the higher ends too high. Nevertheless, we present the information above for completeness.

2.5 Conclusions

- 2.42 In this chapter we briefly outlined the approach we used in Migration Advisory Committee (2011) to identify occupations skilled to NQF4+. We have considered all of the job titles on the current shortage occupation list that are associated with such occupations to be skilled to NQF4+.
- 2.43 We have also described our approach to identifying and defining job titles, or subsets thereof, in non-NQF4+ occupations as skilled to NQF4+. In Chapter 3 we use this approach, along with information we received from our partners during this and past reviews, to determine what amendments need to be made to the shortage occupation list on this basis.

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Analysis of specific jobs in occupations below NQF level 4

3.1 Introduction

3.1 It is the Government's intention that the minimum skill level for Tier 2 of the Points Based System (PBS) be raised to National Qualifications Framework Level 4 or above (NQF4+). Table 2.2 in Chapter 2 presents the job titles on the current shortage occupation list that are not in Standard Occupational Classification (SOC) occupations skilled to NQF4+ on the basis of our top-down analysis. Our present task is to examine those job titles in order to establish whether they, or subsets of them, are skilled to NQF4+. In Chapter 2 we discussed our methodological approach. This chapter sets out our consideration of those job titles.

3.2 Communication with our corporate partners

3.2 The timescale for this report did not allow for a formal call for evidence, but we did take steps to ensure that our corporate partners were aware that we were undertaking this work and were able to feed in relevant information. We considered all written submissions we received. We also approached, in particular, partners who we believed were likely to have an interest in those job titles

that were on the current UK shortage occupation list and would fall within non-NQF4+ occupations according to our preliminary top-down analysis.

3.3 We wrote to over 1,000 corporate partners and received around 50 written submissions. In addition to considering these written submissions, we also sought the views of our partners through discussions and events. We met with around 30 partners at various events and meetings. In forming the recommendations we make in this report we took account of all the information we received. We also considered information received during our past reviews of the UK and Scotland shortage occupation lists where appropriate, albeit bearing in mind that not all of that information would be fully up-to-date.

3.3 Analysis of specific job titles

3.4 In this section we consider the information we received from partners relating to specific job titles currently on the shortage occupation list. All job titles currently on the list have previously been found to be skilled to National Qualification Framework level 3 or above (NQF3+). We received some

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information relating to job titles within occupations which our top-down analysis identified as being skilled to NQF4+, such as nurses and social workers. But as explained in Chapter 2, we only consider job

titles in occupations skilled below NQF4+ here. We outline the information we received and our recommendation for each individual job title below.

Commissioning engineer

Box 3.1: Top-down skilled data for Standard Occupational Classification 2000 (SOC 2000) 3113 - Engineering technicians

Occupation is not skilled to NQF level 4 or above

The following job title within this occupation is included on the current shortage occupation list: commissioning engineer

Indicator	Value	Indicator	Value
SOC skill level classification	3	Median hourly pay for all full-time employees	£15.34
Percentage of full-time employees with NQF4+ qualifications	36		
Occupation previously found to be skilled to NQF level 3 or above?	Yes	Estimated level of full-time employment	64,000
Tier 2 CoS used for the shortage occupation route, 2010	16		

Note: Employment estimates are rounded to the nearest thousand. Certificates of Sponsorship (CoS) used relate to circumstances where a migrant application that corresponds to the certificate has been submitted but not necessarily approved. These data are management information collected by the UK Border Agency but not routinely published. These data have been made available to the MAC to support the analysis for this report and are neither National Statistics nor quality assured to National Statistics standards and are, therefore, presented for research purposes only.
 Source: MAC Analysis; Labour Force Survey, Q4 2007 to Q3 2010; Annual Survey of Hours and Earnings, 2010; UK Border Agency Management Information, 2010

3.5 The job title commissioning engineer sits within the 4-digit Standard Occupational Classification (SOC) 2000 code 3113 (engineering technicians) which, as a whole, is below NQF4+. We reviewed the job title for the shortage occupation list in autumn 2009 and recommended that it be included on the list.

3.6 We met with Energy & Utilities Skills (EU Skills), the Sector Skills Council (SSC) for the gas, power, waste management and water industries during the process of writing this report. They explained to us that as

new connection, refurbishment and renewal activities within the electricity transmission and distribution industry are completed, it is the role of the commissioning engineer to sign off the work.

3.7 EU Skills said that commissioning engineers require a Higher National Certificate (HNC) or a degree (level not specified) in electrical engineering, both of which are well above NQF level 4, plus three years' substation commissioning experience. We also heard that a commissioning engineer's salary is

typically in the range of £35,000 to £45,000 per year.

3.8 Using the rule of thumb for annual pay discussed in Chapter 2, the hourly equivalent appears to be above the median for all employees within this occupation, indicating the job title is more skilled than the occupation as a whole. Furthermore, it is comfortably above the top-down NQF4+ threshold of £13.40 per hour, also discussed in Chapter 2.

3.9 Overall, information on both qualifications and pay suggests the job is at NQF4+. We therefore recommend that the job title commissioning engineer is retained on the shortage occupation list.

Production controller in the electricity generation industry

Box 3.2: Top-down skilled data for SOC 2000 3119 - Science and engineering technicians not elsewhere classified

Occupation is not skilled to NQF level 4 or above

The following job title within this occupation is included on the current shortage occupation list: production controller in the electricity generation industry.

Indicator	Value	Indicator	Value
SOC skill level classification	3	Median hourly pay for all full-time employees	£11.61
Percentage of full-time employees with NQF4+ qualifications	41*		
Occupation previously found to be skilled to NQF level 3 or above?	Yes	Estimated level of full-time employment	33,000
Tier 2 CoS used for the shortage occupation route, 2010	0		

Notes: Employment estimates are rounded to the nearest thousand. Certificates of Sponsorship (CoS) used relate to circumstances where a migrant application that corresponds to the certificate has been submitted but not necessarily approved. These data are management information collected by the UK Border Agency but not routinely published. These data have been made available to the MAC to support the analysis for this report and are neither National Statistics nor quality assured to National Statistics standards and are, therefore, presented for research purposes only.

Source: MAC Analysis; Labour Force Survey, Q4 2007 to Q3 2010; Annual Survey of Hours and Earnings, 2010; UK Border Agency Management Information, 2010

3.10 Production controller in the electricity generation industry is a job title that falls within the occupation 3119 (science and engineering technicians not elsewhere classified) which, as a whole, is not skilled to NQF4+. A production controller is required to coordinate the activities of a power

plant's control room and external operations so that production requirements are met.

3.11 When we met with EU Skills they referred us to evidence they previously submitted in relation to this job title for our autumn 2009 review of the shortage occupation list (Migration Advisory Committee,

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- 2009b). We were told that production controllers require a HNC in an engineering discipline, plus five years' experience.
- 3.12 We also understand that the salary range for this job title is typically £30,000 to £38,000, above the median for the occupation as a whole and above the NQF4+ threshold identified in our top-down analysis.
- 3.13 As with commissioning engineer, on the basis of information on both qualifications and earnings, we find that this job title is skilled to NQF4+ and therefore recommend that production controller in the electricity generation industry remains on the shortage occupation list.

Roles within visual effects and 2D/3D computer animation for film, television or video games

Box 3.3: Top-down skilled data for SOC 2000 3434 - Photographers and audio-visual equipment operators

Occupation is not skilled to NQF level 4 or above

The following job titles within this occupation are included on the current shortage occupation list: roles within visual effects and 2D/3D computer animation for film, television or video games: animation supervisor, animator, computer graphics supervisor, technical director, CG supervisor, modeller, rigging supervisor, rigger, matte painter, texture artist, compositing artist, producer, production manager, editor, R&D tools, R&D software, software engineer, system engineer.

Indicator	Value	Indicator	Value
SOC skill level classification	3	Median hourly pay for all full-time employees	£11.60
Percentage of full-time employees with NQF4+ qualifications	47		
Occupation previously found to be skilled to NQF level 3 or above?	Yes	Estimated level of full-time employment	24,000
Tier 2 CoS used for the shortage occupation route, 2010	144		

Note: Employment estimates are rounded to the nearest thousand. Certificates of Sponsorship (CoS) used relate to circumstances where a migrant application that corresponds to the certificate has been submitted but not necessarily approved. These data are management information collected by the UK Border Agency but not routinely published. These data have been made available to the MAC to support the analysis for this report and are neither National Statistics nor quality assured to National Statistics standards and are, therefore, presented for research purposes only.

Source: MAC Analysis; Labour Force Survey, Q4 2007 to Q3 2010; Annual Survey of Hours and Earnings, 2010; UK Border Agency Management Information, 2010

- 3.14 Roles within visual effects and 2D/3D computer animation for film, television or video games are classified within occupation 3434 (photographers and audio-visual equipment operators). In our spring 2009 review of the shortage occupation list we recommended that these roles be included on the list. Although skilled to NQF3+, we found that this SOC code was not skilled to NQF4+. However, the industry has told us that visual effects (VFX) job titles are a small

niche within this SOC code, and some could potentially be classified under occupations other than photographers and audio-visual equipment operators.

- 3.15 For the purposes of this work, we received information from Skillset, the SSC for the creative industries, reiterating evidence it submitted to us in January 2009, in which they argued that roles within visual effects and 2D/3D computer animation for film, television or video games are mostly skilled to NQF4+.
- 3.16 We were told that levels of educational attainment in the visual effects sector are high. Skillset informed us that its 2008 creative media workforce survey found that 92 per cent of the visual effects sector's workforce has a degree (level not specified). We also heard that over half hold a degree in a specialist media-related subject, and one third has a postgraduate degree in a specialist media-based subject. Results from the equivalent 2010 survey were not available at the time of writing this report. A different study (Livingstone and Hope, 2011) found that 77 per cent of employees in the visual effects sector had at least a degree-level qualification (e.g. bachelor's), and 33 per cent had a post-graduate qualification.

"All of the games industry jobs listed are required to be of graduate level (NVQ level 4) or above. Whilst occasionally we do see applications from overseas applicants who do not have formal qualifications but have an outstanding portfolio, this is not common and the norm therefore is formal qualifications (graduate level/NVQ level 4 and above)."

Information received from TIGA

- 3.17 In terms of earnings, Skillset told us that the UK Screen Association Employer Consultation 2010 found that the mean annual income of Tier 2 workers employed by the four largest effects companies in the UK is currently £56,000. Data from the UK Screen Association suggest mean starting salaries in VFX roles on the shortage occupation list are in the region of £41,000, although this figure is skewed upwards by the senior and supervisory roles included on the list. Management information data from Certificates of Sponsorship (CoS) issued under Tier 2 of the PBS (reported in Migration Advisory Committee (2010a)) are consistent with these estimates: the mean annual salary for jobs filled via the shortage occupation route under the appropriate 2-digit occupational grouping (in which these roles are the only shortage occupation) was approximately £50,000.
- 3.18 On the basis of their high levels of qualifications and earnings, and the fact that data for the relevant SOC code is probably not highly representative of these specific job titles, we believe there is sufficient basis to conclude that roles within visual effects and 2D/3D computer animation for film, television or video

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games currently on the shortage occupation list are skilled to NQF4+.

3.19 We therefore recommend that the job titles within visual effects and 2D/3D computer animation for film, television or video games remain on the shortage occupation list.

3.20 There are good reasons to believe that the job titles listed in Box 3.3 are all skilled to NQF4+. Therefore a salary threshold is not necessary in order to identify which individual jobs are at NQF4+, and we do not recommend one is used for that purpose. Nevertheless, we recognise that a number of highly specialised job titles are listed and it would be unrealistic to expect the UK Border Agency to have detailed knowledge of what each of them involves. Therefore as a safeguard to ensure Certificates of

Sponsorship (CoS) are issued only for appropriate jobs within this industry it may be appropriate to specify a minimum salary for these job titles in the relevant UK Border Agency code of practice. Codes of practice are published on the UK Border Agency website and are intended, in part, to prevent undercutting of UK workers by migrants.

3.21 We will address the issue of these job titles appearing under the occupation for photographers and audio-visual equipment operators and the possible desirability of them being identified under other codes if, in the future, we are asked to carry out a full review of the shortage occupation lists.

High integrity pipe welder

Box 3.4: Top-down skilled data for SOC 2000 5215 - Welding trades

Occupation is not skilled to NQF level 4 or above

The following job title within this occupation is included on the current shortage occupation list: high integrity pipe welder.

Indicator	Value	Indicator	Value
SOC skill level classification	3	Median hourly pay for all full-time employees	£10.58
Percentage of full-time employees with NQF4+ qualifications	3		
Occupation previously found to be skilled to NQF level 3 or above?	Yes	Estimated level of full-time employment	69,000
Tier 2 CoS used for the shortage occupation route, 2010	8		

Note: Employment estimates are rounded to the nearest thousand. Certificates of Sponsorship (CoS) used relate to circumstances where a migrant application that corresponds to the certificate has been submitted but not necessarily approved. These data are management information collected by the UK Border Agency but not routinely published. These data have been made available to the MAC to support the analysis for this report and are neither National Statistics nor quality assured to National Statistics standards and are, therefore, presented for research purposes only.

Source: MAC Analysis; Labour Force Survey, Q4 2007 to Q3 2010; Annual Survey of Hours and Earnings, 2010; UK Border Agency Management Information, 2010

- 3.22 The job title high integrity pipe welder relates to a specialist sub-group of the occupation 5215 (welding trades). The occupation is not skilled to NQF4+.
- 3.23 High integrity pipe welders are required to be competent in welding various 'high alloy' and other materials, which have specific welding characteristics. They work within specified safety standards in sometimes hazardous environments, where they must take account of the high pressure and / or high temperature of the pipe's content, as well as having an understanding of the potential hazards.
- 3.24 We first considered this job title in our autumn 2008 report and recommended then that it be included on the shortage occupation list. When we reviewed it again in autumn 2009, we recommended that high integrity pipe welders with at least three years' experience be retained on the shortage occupation list.
- 3.25 For this report, we received information from the Engineering Construction Industry Training Board (ECITB) confirming that high integrity pipe welders are not qualified to NQF4+.
- 3.26 The occupation as a whole did not meet the required threshold against any of our top-down indicators of skill at NQF4+; only 3 per cent of the full-time workforce is qualified to NQF4+ (compared to a threshold of 41 per cent) and median hourly earnings are £10.58 (compared to a threshold of £13.40). On this basis we would have required strong evidence that some high integrity pipe welders are in jobs at a substantially higher skill level than the occupation as a whole to conclude that those jobs may be skilled to NQF4+. We have not seen such evidence. Therefore, we recommend that this job title is removed from the shortage occupation list.

Licensed and military certifying engineer / inspector technician and airframe fitter

Box 3.5: Top-down skilled data for SOC 2000 5223 - Metal working production and maintenance fitters

Occupation is not skilled to NQF level 4 or above			
The following job titles within this occupation are included on the current shortage occupation list: licensed and military certifying engineer/inspector technician and airframe fitter.			
Indicator	Value	Indicator	Value
SOC skill level classification	3	Median hourly pay for all full-time employees	£12.79
Percentage of full-time employees with NQF4+ qualifications	15		
Occupation previously found to be skilled to NQF level 3 or above?	Yes	Estimated level of full-time employment	187,000
Tier 2 CoS used for the shortage occupation route, 2010	26		
<p>Note: Employment estimates are rounded to the nearest thousand. Certificates of Sponsorship (CoS) used relate to circumstances where a migrant application that corresponds to the certificate has been submitted but not necessarily approved. These data are management information collected by the UK Border Agency but not routinely published. These data have been made available to the MAC to support the analysis for this report and are neither National Statistics nor quality assured to National Statistics standards and are, therefore, presented for research purposes only.</p> <p>Source: MAC Analysis; Labour Force Survey, Q4 2007 to Q3 2010; Annual Survey of Hours and Earnings, 2010; UK Border Agency Management Information, 2010</p>			

3.27 In autumn 2009, we recommended the inclusion of two job titles, licensed and military certifying engineer / inspector technician and airframe fitter, on the shortage occupation list as a subset of the occupation 5233 (metal working production and maintenance fitters). We understand that in the SOC 2010 classification, licensed and military certifying engineer / inspector technician has been renamed as aircraft technician and has also been re-categorised to SOC 3113 (engineering technician). Our analysis in Migration Advisory Committee (2011) found SOC 3113 to be below NQF4+ within SOC 2000, although the two classifications are not fully comparable.

3.28 We were told that licensed and military certifying engineer/inspector technicians work as part of aircraft teams that perform specialist tasks to deliver aircraft projects on time, with the appropriate quality assurance, and within budget. In addition, they are required to supervise and sign off the work carried out by airframe fitters in accordance with regulatory documents.

3.29 Airframe fitters carry out tasks including fault diagnosis and the recording and interpretation of technical data using specialist hand tools. They work under the direction and control of a licensed and military certifying engineer / inspector technician.

3.30 Our top-down analysis indicates that the occupation metal working production and maintenance fitter is not skilled to NQF4+. However, the aerospace sector has reiterated the argument they put to us in previous evidence that its workforce is more qualified than that within engineering as a whole. Both Marshall Aerospace and Aeropeople Ltd told us that, for the aerospace sector, 34 per cent of employees have a higher education diploma (e.g. a HNC or HND), degree (e.g. bachelor's or above) or equivalent qualifications. We heard that the regulations within the aerospace sector require recognised industry-wide qualifications of National Vocational Qualification (NVQ) level 3 and Business and Technology Education Council (BTEC) National or above. On their own, the levels of qualification are above those of the occupation as a whole but still below the thresholds identified in our top-down analysis.

3.31 Specifically regarding aircraft technicians, including licensed and military certifying engineer / inspector technicians, the sector told us that in addition to NQF3+ qualifications these jobs require further accredited aircraft training in accordance with the requirements of the UK Civil Aviation Authority (the European Aviation Safety Agency). We also understand that aircraft technicians are required to have at least two years' compulsory on-the-job training, which together with the necessary qualifications can be considered as equivalent to NQF level 4.

3.32 In terms of earnings, we received information that licensed and military

certifying engineer / inspector technicians are currently paid £14.25 per hour, which is higher than the median hourly pay for full-time employees within this occupation, indicating that this job title is more skilled than the occupation as a whole. It is also above our hourly earnings threshold for a skilled occupation of £13.40.

3.33 With regard to the job title airframe fitter, Marshall Aerospace and Aeropeople Ltd both confirmed they are unable to provide information to indicate that the role is skilled to NQF4+.

“Having considered carefully the criteria, we felt that we could only justify the Licensed and Military certifying engineer/inspector technician meeting the criteria for the equivalent of level 4.”

Information received from Marshall Aerospace and Aeropeople Ltd

3.34 In conclusion, we believe we have sufficient information to conclude that the job title licensed and military certifying engineer / inspector technician is skilled to NQF4+, on the basis of required on-the-job training and experience as well as pay. Therefore we recommend that it remains on the shortage occupation list. We will address the issue of its renaming and re-categorisation in relation to SOC 2010 if we are asked to review the shortage occupation lists in the future.

3.35 We also recommend that the job title airframe fitter is removed from the shortage occupation list.

Overhead linesworker in the electricity transmission and distribution industry

Box 3.6: Top-down skilled data for SOC 2000 5243 - Lines repairers and cable jointers

Occupation is not skilled to NQF level 4 or above			
The following job title within this occupation is included on the current shortage occupation list: overhead linesworker within the electricity transmission and distribution industry.			
Indicator	Value	Indicator	Value
SOC skill level classification	3	Median hourly pay for all full-time employees	£14.93
Percentage of full-time employees with NQF4+ qualifications	4		
Occupation previously found to be skilled to NQF level 3 or above?	Yes	Estimated level of full-time employment	12,000
Tier 2 CoS used for the shortage occupation route, 2010	65		
<p>Note: Employment estimates are rounded to the nearest thousand. Certificates of Sponsorship (CoS) used relate to circumstances where a migrant application that corresponds to the certificate has been submitted but not necessarily approved. These data are management information collected by the UK Border Agency but not routinely published. These data have been made available to the MAC to support the analysis for this report and are neither National Statistics nor quality assured to National Statistics standards and are, therefore, presented for research purposes only.</p> <p>Source: MAC Analysis; Labour Force Survey, Q4 2007 to Q3 2010; Annual Survey of Hours and Earnings, 2010; UK Border Agency Management Information, 2010</p>			

- 3.36 The job title overhead linesworker is a subset of the SOC code 5243 (lines repairers and cable jointers), which is not skilled to NQF4+. We first reviewed this job title in autumn 2008 and did so again in autumn 2009.
- 3.37 We received information from the responsible SSC, EU Skills, that overhead linesworkers either work on high-voltage lines that carry 275,000 or 400,000 volts, or low-voltage lines that carry below 275,000 volts.
- 3.38 When we reviewed this job title in autumn 2009 we received evidence that overhead linesworkers who work on high-voltage lines require a City and Guilds qualification in electrical supply, equivalent to NQF level 3, plus two years' minimum experience of working with 275,000 or 400,000 volts systems and also four years' site experience in a contracting company, carrying out refitting and refurbishment work as part of a team, if not on a structured linesworker development programme.
- 3.39 We were also told that the salary range for a high-voltage overhead linesworker is typically £28,000 to £35,000. In hourly equivalent terms, using our rule of thumb discussed in Chapter 2, this range is roughly in line with the median salary for this occupation as a whole, which is not skilled to NQF4+. It is, however, in large part above our top-down hourly salary threshold for NQF4+ occupations of £13.40.

- 3.40 In addition, we heard that a high-voltage overhead linesworker is often required to perform a supervisory role. For example, they usually have responsibility for the work and supervision of junior linesworkers and trainees and may be required to lead earthing parties and authorise safety documentation.
- 3.41 Balfour Beatty Utility Solutions, a UK-based infrastructure and support services company with clients including the National Grid, Network Rail, the Highway Agency and the National Health Service (NHS), confirmed that the majority of its overhead linesworkers work on high-voltage lines. We were told that there are no training companies that train people to be overhead linesworkers. This is done by contractors. Balfour Beatty Utility Solutions explained that whilst the formal qualification level for high-voltage overhead linesworkers is below NQF4+, the on-the-job training they receive and their experience makes them highly-skilled individuals and this, they said, is reflected in their remuneration.

“The operatives involved are highly skilled and their skill set is required worldwide.”

Information received from Balfour Beatty Utility Solutions

- 3.42 A low-voltage overhead linesworker works on lines that carry up to 132,000 volts. We were told that the role requires a NVQ level 3 qualification in electricity distribution and transmission engineering plus two years’ post-training experience. We also received information that

the salary range for a low-voltage overhead linesworker is typically £19,000 to £25,000, which is both equivalent to a salary below our NQF4+ occupation threshold of £13.40 per hour, and below the average for the occupation as a whole.

- 3.43 On the basis of evidence on pay, on-the-job training and experience required we recommend that overhead linesworkers who work on high-voltage lines carrying at least 275,000 volts remain on the shortage occupation list.
- 3.44 We have not seen sufficient information to conclude that low-voltage overhead linesworkers are skilled to NQF4+ and therefore recommend that the job title is removed from the shortage occupation list.

Site supervisor in the electricity transmission and distribution industry

Box 3.7: Top-down skilled data for SOC 2000 5249 – Electrical / electronics engineers not elsewhere classified

Occupation is not skilled to NQF level 4 or above

The following job title in this occupation is included on the current shortage occupation list: site supervisor in the electricity transmission and distribution industry.

Indicator	Value	Indicator	Value
SOC skill level classification	3	Median hourly pay for all full-time employees	£12.31
Percentage of full-time employees with NQF4+ qualifications	25		
Occupation previously found to be skilled to NQF level 3 or above?	Yes	Estimated level of full-time employment	74,000
Tier 2 CoS used for the shortage occupation route, 2010	0		

Note: Employment estimates are rounded to the nearest thousand. Certificates of Sponsorship (CoS) used relate to circumstances where a migrant application that corresponds to the certificate has been submitted but not necessarily approved. These data are management information collected by the UK Border Agency but not routinely published. These data have been made available to the MAC to support the analysis for this report and are neither National Statistics nor quality assured to National Statistics standards and are, therefore, presented for research purposes only.
 Source: MAC Analysis; Labour Force Survey, Q4 2007 to Q3 2010; Annual Survey of Hours and Earnings, 2010; UK Border Agency Management Information, 2010

3.45 The job title site supervisor in the electricity transmission and distribution industry is a subset of the SOC code 5249 (electrical / electronics engineers not elsewhere classified), which is not skilled to NQF4+. We first reviewed this job title in autumn 2009. A site supervisor supervises the day-to-day activities on nominated contracts to ensure that profit and service objectives are met. They supervise and co-ordinate all on-site activities, ensuring materials, sub-contractors and plant availability, and also ensure compliance with all statutory and company procedures.

3.46 In our autumn 2009 review of the shortage occupation list, we were told that site supervisors in the electricity transmission and

distribution industry require an Engineering Construction Industry Training Board supervisory management qualification or Institution of Occupational Safety and Health (IOSH) Safety Management (or equivalent) qualification, plus three years' post-training experience on an electrical construction site. We were told that this training and experience was equivalent to NQF level 3.

3.47 We were also told that the salary range for a site supervisor in the electricity transmission and distribution industry is typically £25,000 to £32,000 which, when converted to an hourly equivalent, is mostly above the median for the occupation as a whole. Some, but not all, of the salary range passes

our equivalent top-down threshold for earnings.

- 3.48 In terms of demonstrating NQF4+ equivalence, the evidence on pay is equivocal. The evidence on qualifications and required training and experience suggests the job is not at NQF4+. When we met with

EU Skills, they agreed that there is not sufficient evidence to support a case for considering site supervisors in the electricity transmission and distribution industry as skilled to NQF4+. We therefore recommend that the job title be removed from the shortage occupation list.

Skilled meat boner and skilled meat trimmer

Box 3.8: Top-down skilled data for SOC 2000 5431 - Butchers, meat cutters

Occupation is not skilled to NQF level 4 or above

The following job titles within this occupation are included on the current shortage occupation list: skilled meat boner and skilled meat trimmer.

Indicator	Value	Indicator	Value
SOC skill level classification	3	Median hourly pay for all full-time employees	£7.65
Percentage of full-time employees with NQF4+ qualifications	2		
Occupation previously found to be skilled to NQF level 3 or above?	No	Estimated level of full-time employment	21,000
Tier 2 CoS used for the shortage occupation route, 2010	85		

Note: Employment estimates are rounded to the nearest thousand. Certificates of Sponsorship (CoS) used relate to circumstances where a migrant application that corresponds to the certificate has been submitted but not necessarily approved. These data are management information collected by the UK Border Agency but not routinely published. These data have been made available to the MAC to support the analysis for this report and are neither National Statistics nor quality assured to National Statistics standards and are, therefore, presented for research purposes only.
Source: MAC Analysis; Labour Force Survey, Q4 2007 to Q3 2010; Annual Survey of Hours and Earnings, 2010; UK Border Agency Management Information, 2010

- 3.49 The job titles meat boner and meat trimmer are within the occupation 5431 (butchers and meat cutters). In autumn 2009 we reviewed the occupation and found that it was not skilled to NQF3+. However, the evidence we received from our corporate partners showed that subsets of the job titles meat boner and meat trimmer were skilled to NQF3+. We, therefore, were able to recommend that the job titles skilled meat boner and skilled meat trimmer, defined as those with pay

of at least £9 per hour, should be added to the shortage occupation list.

- 3.50 Median hourly full-time pay for the occupation is £7.65. When we reviewed these job titles in autumn 2009 we found that salary levels are a little above the median for the occupation, which was a reason for distinguishing these jobs using a minimum pay benchmark of £9.00 per hour. However, this is a long way short of our threshold for an

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NQF4+ occupation of £13.40 per hour. In addition, only 2 per cent of the occupation’s workforce has NQF4+ qualifications, although we note that the job titles are only a small part of the occupation.

3.51 Improve, the Sector Skills Council for the food processing sector, told us that neither meat boners nor meat trimmers are skilled to NQF4+.

3.52 There was no evidential basis for concluding that these job titles, or subsets of them, are skilled to NQF4+. We therefore recommend that the job titles skilled meat boner and skilled meat trimmer are removed from the shortage occupation list.

“Within the Improve footprint, butchers and meat cutters (SOC Code 5431) currently feature on the Tier 2 shortage occupation list. Both occupations require NVQ level 2 skills to be competent in these roles and level 3 skills for specialist meat and poultry skills. These occupations do not require graduate level skills.”

Information received from Improve Limited

Skilled chef

Box 3.9: Top-down skilled data for SOC 2000 5434 - Chefs, cooks			
Occupation is not skilled to NQF level 4 or above			
The following job title within this occupation is included on the current shortage occupation list: skilled chef.			
Indicator	Value	Indicator	Value
SOC skill level classification	3	Median hourly pay for all full-time employees	£7.67
Percentage of full-time employees with NQF4+ qualifications	8		
Occupation previously found to be skilled to NQF level 3 or above?	No	Estimated level of full-time employment	167,000
Tier 2 CoS used for the shortage occupation route, 2010	2,779		
<p>Note: Employment estimates are rounded to the nearest thousand. Certificates of Sponsorship (CoS) used relate to circumstances where a migrant application that corresponds to the certificate has been submitted but not necessarily approved. These data are management information collected by the UK Border Agency but not routinely published. These data have been made available to the MAC to support the analysis for this report and are neither National Statistics nor quality assured to National Statistics standards and are, therefore, presented for research purposes only.</p> <p>Source: MAC Analysis; Labour Force Survey, Q4 2007 to Q3 2010; Annual Survey of Hours and Earnings, 2010; UK Border Agency Management Information, 2010</p>			

3.53 Skilled chef is a job title within the occupation 5434 (chefs, cooks). We initially reviewed the occupation in Migration Advisory Committee

(2008) and found that, as a whole, it was not skilled to NQF3+. However, there was evidence that some chefs were skilled to NQF3+. Therefore, in

Migration Advisory Committee (2008) we recommended that skilled chefs paid £8.10 per hour and above be added to the shortage occupation list. The threshold was updated to £8.45 in Migration Advisory Committee (2009a). In Migration Advisory Committee (2009b) we added a requirement that a worker should have at least three years' relevant experience.

3.54 For this report we met and received information from a number of partners in relation to chefs. As explained in Migration Advisory Committee (2011) some partners suggested to us that the whole occupation is skilled to NQF4+. Given that we had already previously indicated that only a proportion of chef jobs were skilled to NQF3+ we would actually expect the proportion of jobs skilled to NQF4+ to be lower than the corresponding proportion at NQF3+.

3.55 We received evidence from People 1st, the SSC that covers the hospitality sector. They told us that there are 273,200 people working as chefs across the UK and the profile of these roles, and the skills required, vary enormously. Our top-down indicators show that around 8 per cent of full-time employees within the occupation hold an NQF4+ qualification. However, People 1st told us that not all those working at NQF4+ will necessarily have an equivalent formal qualification. We must also assume that not all of those who hold an NQF4+ qualification will be working at an equivalent level of skill.

3.56 Previous reviews have revealed that experience and on-the-job training are important factors for these roles.

Skill levels within chef roles depend on a number of factors, including the type of cuisine (e.g. Asian, Oriental, Anglo-European); and the style of service (e.g. professional cookery, quick service). Hierarchy can also indicate skill: executive chefs and head chefs manage or have overall responsibility for the kitchen and food preparation areas. Sous chefs work below this level, and chefs de partie below that.

3.57 People 1st stated that NQF4+ jobs tend to be concentrated in 'professional cookery'. This comprises restaurants requiring a wide range of culinary skills, knowledge, and focus on cooking food from scratch. The mix of NQF3+ and NQF4+ chef jobs would depend on individual establishments, but we were told that executive, head and sous chefs within professional cookery would be working at a level of skill equivalent to NQF4+. We note that some chef de partie positions in top-end restaurants and in specialist chef roles might involve some specific NQF4+ skills, but overall we were told the role is skilled to NQF3+. We also note with interest that as the skill level rises chefs tend to move into more of a management role and, therefore, executive and head chefs working at NQF4+ often do not cook, or at least spend less time cooking than NQF3+ chefs.

3.58 We see a case that, if appropriately defined, some executive, head and sous chef jobs are skilled to NQF4+. We therefore turn to how to best define such positions.

“The range of chef roles and the difficulties of objectively assessing their skills on paper is notoriously difficult and whilst rates of pay do not necessarily reflect the skill of a chef, we acknowledge that it is the best available objective measure.”

Information received from People 1st

- 3.59 Given that we were told that NQF4+ chef roles would tend to be focused in ‘professional cookery’ we believe that chef roles in fast food and standard fare outlets are not skilled to NQF4+.
- 3.60 Working at NQF4+ clearly requires considerable experience. In information submitted to us it has been suggested that chefs working at this level would have five to eight years’ experience. We therefore believe that the previous relevant experience requirement should rise to a minimum of five years.
- 3.61 Additionally, we maintain the view that salary is a good measure of relative skill level within the restaurant sector, because of the competitive nature of the product and labour markets. The sector consists of small outlets, many independently owned, that compete for both customers and staff. Barriers to entry and exit (i.e. opening a new restaurant or closing an existing one) are low and prices are free to adjust to changing market conditions. The quality of the cuisine for which the chef is responsible is easily observed by both the employer and customers. In these market conditions a restaurant employing a highly-skilled chef will be able to charge more for its food and the salary of the chef should typically reflect that.
- 3.62 Therefore, we recommend a salary threshold to identify NQF4+ chefs, which requires that we identify the appropriate level. In Migration Advisory Committee (2011) we set £13.40 as the minimum hourly pay benchmark for NQF4+ occupations. This equates to an annual salary of £28,260. This was calculated by looking at median salaries in occupations covering the top 38 per cent of full-time working-age employees, which was the proportion qualified (and, so we assumed, skilled) to NQF4+.
- 3.63 Furthermore, in the context of limits on Tier 2, where one migrant may effectively displace another, it is important that there is a level playing field across job titles. It is notable that we would not expect any of the other job titles that we identify as NQF4+ in this report to typically pay significantly below £28,260 per annum. Therefore, our starting point is that setting a pay threshold for subsets of job titles at £28,260 per year would be reasonable. We use an annual rather than an hourly rate because Tier 2 of the PBS requires individuals to be in full-time employment.
- 3.64 The above figures match quite closely to some of the salaries paid to more highly skilled chefs, particularly those in the most senior positions. People 1st told us that UK salaries for head and executive chefs, taken from averages of those advertised online by Reed Recruitment, were around £29,800. For sous chefs the figure was approximately £22,700. The Embassy of Japan told us that a large majority of high-quality Japanese restaurants in London pay highly-skilled chefs £15 per hour

(equivalent to around £32,000 per annum), while others pay similar chefs £10 to £14 per hour.

- 3.65 Nevertheless, are there reasons to deviate from the £13.40 per hour benchmark in the case of NQF4+ chefs? Only 8 per cent of full-time employees in the occupation are qualified to NQF4+. Assuming that this equates to the proportion skilled to that level, taking the corresponding 92nd percentile of the earnings distribution from the Annual Survey of Hours and Earnings (ASHE) 2010 would lead to a salary threshold of £12.34 per hour. However, we have expressed concerns previously (Migration Advisory Committee, 2009b) that wages in this occupation have been historically compressed through access to underpaid migrant labour. As such, £12.34 per hour may not represent the value of an NQF4+ chef.
- 3.66 Industry representatives proposed some alternative potential methods for identifying skilled chefs, including factors such as number of covers in the restaurant and turnover, on the basis that larger restaurants may employ more skilled chefs. Our concern with such measures is that some fine dining establishments may be relatively small, while others offering lower quality output may nonetheless have a large number of covers and high turnover. There is also a danger that such a measure would discriminate against new restaurants in favour of those with an entrenched market position.
- 3.67 On balance, we do not see sufficiently strong reason to deviate from our default position. We recommend £28,260 as appropriate
- minimum annual pay for a chef working at NQF4+. In addition the individual should have at least 5 years' experience working in a role of at least equivalent status to the one they are entering and the job should not be in a fast food or standard fare outlet.
- 3.68 We also considered adding an additional criterion that the job must be at executive chef, head chef or sous chef level. However, such a stipulation would completely exclude even the most highly skilled specialist chefs.
- 3.69 Our remit for this report is to identify what subset of the job title chef is skilled to NQF4+, and we have done that. Below we offer some brief observations on matters not within that narrow remit, but closely related to it, which the Government may consider if it so wishes.
- 3.70 First, we wish to be clear that we do not at all treat lightly claims that changes of the nature outlined above have implications for businesses and livelihoods. We acknowledge that a lower pay threshold (based on, for instance, pay of £12.34 per hour) would play a role in helping the ethnic catering industry to adapt more gradually to changes in immigration policy.
- 3.71 On the other hand, a lower pay threshold would do less to break the long-term cycle of over-dependence on migrant labour in this sector. Furthermore, as we set out in Migration Advisory Committee (2009b), there appears to be a belief among some of our ethnic hospitality partners that the sector must always remain at its present size or grow, but never shrink. We do not share

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this view. Less use of migrant labour would raise pay and relative prices and result in a smaller, more robust ethnic restaurant sector. The dynamic nature of this industry means that as some restaurants close others will, to a large extent, open up to replace them even if the balance of cuisines on offer changes over time.

note that the salary for this role is commensurate with that typically paid to the most senior chefs, and employers using the shortage occupation route to fill specialist chef roles should be rigorously monitored, with a view to striking them off the Tier 2 sponsors register if they are found to be abusing the rules of the system.

3.72 The Independent Inspector of the UK Border Agency (2011) reported that UK Border Agency caseworkers have encountered examples of workers applying as skilled chefs where staff did not believe they fulfilled the relevant criteria to do the jobs. Possibly due to such concerns, we are aware that in the past the UK Border Agency has used criteria to define which skilled chefs can enter under the shortage occupation route, including the number of covers in a restaurant and matters relating to workforce hierarchy. On consideration of skill alone, we believe the criteria set out above are sufficient to define an NQF4+ chef post. We have not been asked to review whether there is still a shortage of labour in this occupation that should be filled using labour from outside the European Economic Area. A later review of that issue could lead to us recommending different or additional criteria, if we decide that chefs should continue to be represented on the shortage occupation list at all.

3.73 In the meantime, as with all of the job titles discussed in this chapter, the UK Border Agency is free to consider supplementing what we recommend here with additional criteria on the basis of enforcement and operational need. Specifically, the UK Border Agency will want to

Skilled senior care worker

Box 3.10: Top-down skilled data for SOC 2000 6115 - Care assistants and home carers

Occupation is not skilled to NQF level 4 or above

The following job title within this occupation is included on the current shortage occupation list: skilled senior care worker.

Indicator	Value	Indicator	Value
SOC skill level classification	2	Median hourly pay for all full-time employees	£8.03
Percentage of full-time employees with NQF4+ qualifications	15		
Occupation previously found to be skilled to NQF level 3 or above?	No	Estimated level of full-time employment	399,000
Tier 2 CoS used for the shortage occupation route, 2010	2,315		

Note: Employment estimates are rounded to the nearest thousand. Certificates of Sponsorship (CoS) used relate to circumstances where a migrant application that corresponds to the certificate has been submitted but not necessarily approved. These data are management information collected by the UK Border Agency but not routinely published. These data have been made available to the MAC to support the analysis for this report and are neither National Statistics nor quality assured to National Statistics standards and are, therefore, presented for research purposes only.

Source: MAC Analysis; Labour Force Survey, Q4 2007 to Q3 2010; Annual Survey of Hours and Earnings, 2010; UK Border Agency Management Information, 2010

- 3.74 Senior care worker is a job title within the occupation SOC code 6115 (care assistants and home carers). We first reviewed the occupation in Migration Advisory Committee (2008). Although the occupation as a whole was not skilled to NQF3+, we found evidence indicating that some senior care workers were working at a level of skill equivalent to NQF3+. We recommended that skilled senior care workers should be defined as those where there was a requirement for a relevant qualification at NQF3+ (as in the case of Scotland and Wales) or those earning £8.80 per hour.
- 3.75 When reviewing this job title again for Migration Advisory Committee (2009a) we refined this to
- 3.76 recommend a pay level of £7.80 per hour, but with a number of other requirements as outlined in Chapter 2.
- 3.76 In recommending a pay level of £7.80 per hour in 2009 we used the Labour Force Survey, taking the median earnings of care assistants and home carers qualified to NQF level 2 or above and 2 or more years' experience in the same job, up-rated using the most recent earnings growth figures. In Box 3.10 above, the median hourly pay for the whole occupation is £8.03 taken from the ASHE. These hourly rates are all well below our top-down NQF4+ threshold of £13.40, and data from the 2010 ASHE, obtained upon request from the ONS, show that only 6 per cent of full-time

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- employees in this occupation earn this amount.
- 3.77 In Migration Advisory Committee (2008) we found that only 32 per cent of workers in this occupation had an NQF3+ qualification. Box 3.10 shows that 15 per cent of full-time employees have an NQF4+ qualification.
- 3.78 During our work for this report we met with representatives from the care sector. We also received information from a number of partners. Some partners were clear that senior care workers were working at NQF level 3 and below and that only the managers of care homes were skilled to NQF4+.
- 3.79 Other partners argued that the difference in salary between those who have an NQF level 1 qualification and those with higher qualification levels is so small that there is no incentive to attain higher qualifications, despite the work being at a higher level. However, this gives rise to the question of why, if some jobs are much more highly skilled than others, this is not reflected in substantially higher pay for the more highly-skilled jobs. We do recognise that pay in the sector is heavily constrained by limited local authority funding, but that does not in itself prevent the more skilled jobs being, at least, relatively more highly paid.
- 3.80 Many partners argue the need for these workers to have well-developed skills not based on qualifications (for example, characteristics such as empathy and consideration). However, we did not receive any objective evidence to show that these 'softer' skill requirements routinely meet NQF4+, nor that they substantially exceed the requirements for certain less tangible skills that will exist in many other occupations.
- 3.81 We were told that care homes and care agencies will often be run by workers with NQF4+ qualifications. These will fall under the SOC code 1185 for residential and day care managers, an occupation which we have already found to be skilled to NQF4+ in MAC (2011). We are also aware that nursing homes will employ registered nurses, who work at a level of skill equivalent to NQF4+. We saw no firm evidence that there are any roles within this occupation above senior care worker.
- 3.82 We heard that in Scotland the Scottish Social Services Council began registering 'supervisors' in care homes for adults in October 2007. They are all required to be registered by 30 March 2012. A worker can register with a level 3 Scottish National Vocational Qualification (S/NVQ) in Health and Social Care with an additional lower-level supervisory or management qualification. A level 3 S/NVQ is equivalent to NQF level 3. Alternatively, they may register with an S/NVQ level 4 (equivalent to NQF level 4) in Health and Social Care. However, although they are able to register with an S/NVQ level 4 qualification, holding one is not a requirement for the job and we find no evidence to suggest that the role of supervisor in Scotland is any different to that of senior care worker in the rest of the UK and therefore it is not skilled to NQF4+.

3.83 We have not seen sufficient evidence, on the basis of either pay levels, qualifications held by the workforce, qualification requirements or skill requirements that a significant and definable proportion of senior care worker posts are at a NQF4+ level of skill. We therefore recommend that senior care workers are removed from the shortage occupation list.

3.84 A number of partners expressed concerns over the implications of removing senior care workers from the shortage occupation list. It was suggested that this will intensify current shortages within the sector. We have not formally reviewed the issue of labour shortage in this occupation for this review, but we do recognise these concerns. Many

care homes are heavily dependent on public funding and we recognised in Migration Advisory Committee (2009a) that financial constraints affect pay in this sector. It is nevertheless true that filling such labour shortage using migration from outside the European Economic Area would contradict the Government's intention of restricting Tier 2 to NQF4+ jobs and occupations only. It follows that shortages will need to be addressed through other means. Further efforts will be needed to attract, retain and up-skill resident workers. Increased pay is one potentially important lever, but public funding will be limited during the current period of fiscal restraint.

Skilled work rider

Box 3.11: Top-down skilled data for SOC 2000 6139 - Animal care occupations not elsewhere classified

Occupation is not skilled to NQF level 4 or above

The following job title within this occupation is included on the current shortage occupation list: skilled work rider.

Indicator	Value	Indicator	Value
SOC skill level classification	2	Median hourly pay for all full-time employees	£7.47
Percentage of full-time employees with NQF4+ qualifications	27		
Occupation previously found to be skilled to NQF level 3 or above?	No	Estimated level of full-time employment	16,000
Tier 2 CoS used for the shortage occupation route, 2010	19		

Note: Employment estimates are rounded to the nearest thousand. Certificates of Sponsorship (CoS) used relate to circumstances where a migrant application that corresponds to the certificate has been submitted but not necessarily approved. These data are management information collected by the UK Border Agency but not routinely published. These data have been made available to the MAC to support the analysis for this report and are neither National Statistics nor quality assured to National Statistics standards and are, therefore, presented for research purposes only.

Source: MAC Analysis; Labour Force Survey, Q4 2007 to Q3 2010; Annual Survey of Hours and Earnings, 2010; UK Border Agency Management Information, 2010

Box 3.12: Top down skilled data for 5119 - Agricultural and fishing trades not elsewhere classified

Occupation is not skilled to NQF level 4 or above

Indicator	Value	Indicator	Value
SOC skill level classification	3	Median hourly pay for all employees	£9.13
Percentage of full-time employees with NQF4+ qualifications	15		
Occupation previously found to be skilled to NQF level 3 or above?	No	Estimated level of full-time employment	13,000
Tier 2 CoS used for the shortage occupation route, 2010	171		

Note: Employment estimates are rounded to the nearest thousand. Certificates of Sponsorship (CoS) used relate to circumstances where a migrant application that corresponds to the certificate has been submitted but not necessarily approved. These data are management information collected by the UK Border Agency but not routinely published. These data have been made available to the MAC to support the analysis for this report and are neither National Statistics nor quality assured to National Statistics standards and are, therefore, presented for research purposes only.
 Source: MAC Analysis; Labour Force Survey, Q4 2007 to Q3 2010; Annual Survey of Hours and Earnings, 2010; UK Border Agency Management Information, 2010

3.85 In our previous reviews of the shortage occupation list we have classified the job title skilled work rider within the occupation 6139 for animal care occupations not elsewhere classified. However, the UK Border Agency use 5119 for agricultural and fishing trades not elsewhere classified. The job title work rider could fall under either. Hence we present top-down data relating to both SOC codes above. In neither case does the occupation pass any top-down skill indicators for NQF4+.

3.86 Work riders ride thoroughbred horses at exercise. They are required to inform the trainer about the individual horse's health, fitness, aptitude and characteristics, so the trainer is able to make the right judgment about the appropriate racing programme for the horse to maximise its potential. They have to exercise the horses without causing

injury or undue stress, to ensure they are in top physical condition prior to racing.

3.87 We reviewed the job title for the shortage occupation list in Migration Advisory Committee (2008) and again in Migration Advisory Committee (2009b). Work riders currently qualify for the shortage occupation list subject to:

- the individual having at least three years' relevant paid experience (with work responsibilities covering those acquired in a level 3 NVQ in Horse Care and Management or Racehorse Care and Management); and
- the trainer having submitted a registration form to the British Horseracing Authority (BHA) for the individual.

- 3.88 We received information from the National Trainers Federation (NTF) and the BHA regarding skilled work riders. We also received information from the Thoroughbred Breeders' Association; however, this information related to job titles not on the current shortage occupation list and, therefore, outside the scope of this review.
- 3.89 The NTF told us that the awarding body for vocational qualifications in the horseracing industry, the British Horseracing Education and Standards Trust (BHEST), currently has an NVQ level 3 standard. However, they told us that the experience required to ride thoroughbred racehorses in training is equivalent to level 4.
- 3.90 The NTF argued that this is particularly the case when work riders are working with a horse in the final stages of race preparation when they are ridden at racing pace in groups of two or more ('upsides') to simulate race conditions. They also made the case for work riders 'riding away' young horses when they are first 'broken in' and also for riders who are required to handle and ride horses of a nervous or highly-strung disposition. The BHA also made similar points.
- 3.91 Nevertheless, pay is low. There is a memorandum of agreement between the NTF and the National Association of Stable Staff and this currently sets a minimum rate of £270.22 per 40-hour week (£6.75 per hour). This is for Grade A Racing and where staff have completed seven years' continuous service in racing or have completed five years' continuous service and achieved the NVQ level 3. Grade B, C and D minimum rates are lower.
- 3.92 The argument was put to us that work riders have a degree of innate ability. They are also required to be light in weight and indeed there are animal welfare implications if this is not the case. It was suggested that riders who have previously been licensed jockeys in other countries would possess skills at NQF4+. However, we have not seen verifiable evidence to support this, and neither have we seen evidence that these workers would routinely come to the UK to carry out more highly skilled work at NQF4+.
- 3.93 We accept that, invariably, as with most job titles, there will be people working at differing skill levels as each individual situation demands. However, pay is very low when compared with our NQF4+ threshold of £13.40. We are not sufficiently convinced that significant numbers of work riders are working routinely at a level of skill equivalent to NQF4+, and that it would be operationally feasible to identify any small number that may be doing so. We therefore recommend that this job title is removed from the shortage occupation list.

"Although a basic level 3 work rider would be able to work the more straightforward horses, it is a fact that only with years of experience and working at a higher level could a rider manage the more challenging horses."

Information received from the British Horseracing Authority

Skilled sheep shearer

Box 3.13: Top-down skilled data for SOC 2000 9119 - Fishing and agriculture related occupations not elsewhere classified			
Occupation is not skilled to NQF level 4 or above			
The following job title within this occupation is included on the current shortage occupation list: skilled sheep shearer.			
Indicator	Value	Indicator	Value
SOC skill level classification	1	Median hourly pay for all full-time employees	£7.04
Percentage of full-time employees with NQF4+ qualifications	5		
Occupation previously found to be skilled to NQF level 3 or above?	No	Estimated level of full-time employment	15,000
Tier 2 CoS used for the shortage occupation route, 2010	26		
<p>Note: Employment estimates are rounded to the nearest thousand. Certificates of Sponsorship (CoS) used relate to circumstances where a migrant application that corresponds to the certificate has been submitted but not necessarily approved. These data are management information collected by the UK Border Agency but not routinely published. These data have been made available to the MAC to support the analysis for this report and are neither National Statistics nor quality assured to National Statistics standards and are, therefore, presented for research purposes only.</p> <p>Source: MAC Analysis; Labour Force Survey, Q4 2007 to Q3 2010; Annual Survey of Hours and Earnings, 2010; UK Border Agency Management Information, 2010</p>			

3.94 Skilled sheep shearer is a job title within the occupation 9119 (fishing and agriculture-related occupations not elsewhere classified). In two of our previous reports, Migration Advisory Committee (2008) and Migration Advisory Committee (2009b), we were told that skilled sheep shearers needed a British Wool Marketing Board bronze medal (or equivalent) or above. We understand this is rated as equivalent to an NQF level 3 qualification. We also accepted that the previous NQF3+ skill criterion was met by virtue of the manual dexterity and experience required. We find no reason to believe that sheep shearers are skilled to NQF4+ and therefore recommend this job is removed from the shortage occupation list.

4.1 Introduction

4.1 Based on the analysis and evidence described in Chapter 3 for individual job titles, we present in this chapter the revised list of shortage occupations for the UK that would result from full acceptance of our recommendations. We then conclude with a discussion of next steps.

4.2 Recommended revised shortage occupation lists for the UK and Scotland

4.2 Before providing the full recommended shortage occupation lists for the UK and Scotland, we outline the key changes following our revision of the skill level of these job titles. From the information we received from partners, we conclude that the following job titles currently on the UK shortage occupation list (with corresponding Standard Occupational Classification (SOC) 2000 codes) should be **removed** on the basis that they are below the new NQF4+ skill level requirement for Tier 2 of the PBS:

- High integrity pipe welder (5215);
- Airframe fitters (5223);

- Site supervisor within the electricity transmission and distribution industry (5249);
- Skilled meat boner and skilled meat trimmer (5431);
- Skilled senior care worker (6115);
- Skilled work rider (6139); and
- Skilled sheep shearer (9119).

4.3 The following job titles, that sit within non-NQF4+ occupations, should **remain** on the shortage occupation list as there is sufficient information to conclude that they are skilled to NQF4+:

- Commissioning engineer (3113);
- Production controller in the electricity generation industry (3119);
- Roles within visual effects and 2D/3D computer animation for film, television or video games (3434); and
- Licensed and military certifying engineer/inspector technician (5223).

4.4 The following job titles on the shortage occupation list should be **amended**:

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- Overhead linesworker in the electricity transmission and distribution industry (5243): Restricted to overhead linesworkers working on high voltage lines that carry at least 275,000 volts.
- Skilled chefs (5434): Restricted to chefs skilled to NQF4+ with a minimum of 5 years previous experience in a role of at least equivalent status to the one they are entering. The job should not be in a fast food or standard fare outlet. Skilled chefs should also be paid a minimum of £28,260 per year after deductions for accommodation, meals, etc.

4.5 We estimated in Migration Advisory Committee (2009b) that the current shortage occupation list covered fewer than 500,000 employees, or less than 2 per cent of the UK labour market. The recommendations in this report, if accepted, will reduce that coverage to approximately 230,000, or less than 1 per cent of the UK labour market. This estimate relates to the number of people (migrants and non-migrants) currently working in these occupations and job titles. It does not indicate potential flows of migrants into job titles and occupations on the list, nor the number of vacancies currently available.

4.6 Tier 2 has three main routes: the Resident Labour Market (RLMT) route, the shortage occupation route and the intra-company transfer route. We have used historical data to examine the proportion of applications via the shortage occupation route for occupations and job titles skilled to NQF4+. We

looked at the volumes of Certificates of Sponsorship (CoS) used under Tier 2 in 2010 in relation to the occupations and job titles that are recommended to remain on the shortage occupation list. These calculations are similar to those presented in Migration Advisory Committee (2011) and are not forecasts of future flows. Restricting the shortage occupation list to NQF4+ occupations and job titles is only one of a range of policies and external factors that will influence future flows.

4.7 The data used are management information from the UK Border Agency's sponsor management system and do not equal migrant applications, as it is not possible to tell from the data whether the corresponding migrant's application is approved or refused. For occupations such as chefs, where a proportion remains on the shortage occupation lists, but some would now fail to qualify, assumptions regarding the percentage of the occupation covered by the shortage list have been made based on the best available data and bottom-up evidence. These assumptions are based on historical data and may not hold for future flows because, for example, some employers may increase rates of pay in response to policy changes.

4.8 Table 4.1 presents both the estimates made in Migration Advisory Committee (2011) of the share of flows in SOC 4-digit occupations skilled to NQF4+, and revised estimates based on the proportion that are either in job titles or occupations that are skilled to NQF4+, identified in this report.

Table 4.1: Certificates of Sponsorship used (in-country and out-of-country applications) and estimated proportion skilled to NQF level 4 and above (NQF4+), 2010

	Certificates of sponsorship used	Percentage in 4-digit occupations and job titles skilled to NQF4+		
		4-digit occupations at NQF4+ only	Job titles at NQF4+ only	4-digit occupations and job titles at NQF4+
Shortage occupation list	8,400	31	4	35
Tier 2 Total	62,400	84	1	85

Notes: The estimates assume approximately 5 per cent of SOC 5434 (chefs, cooks) meet the £13.40 pay threshold (examination of the salary distribution suggests salaries at the upper end of this occupation under Tier 2 are similar to that of the UK labour market). On the basis of bottom-up evidence, 50 per cent of SOC 5223 (metal working production and maintenance fitters) and 20 per cent of SOC 5243 (line repairers and cable jointers) are assumed to be at NQF level 4 and above (NQF4+). Certificates of Sponsorship used relate to circumstances where a migrant application that corresponds to the certificate has been submitted but not necessarily approved. Figures are rounded to the nearest 100. The small number of applications where an occupation is not stated are excluded from the calculated reduction. These data are management information collected by the UK Border Agency but not routinely published. These data have been made available to the MAC to support the analysis for this report and are neither National Statistics nor quality assured to National Statistics standards and are, therefore, presented for research purposes only.

Source: UK Border Agency Management Information data, 2010

- 4.9 Table 4.1 shows that 31 per cent of CoS issued under the shortage occupation route in 2010 were in 4-digit SOC occupations skilled to NQF4+, as identified in Migration Advisory Committee (2011). Job titles skilled to NQF4+ within occupations that were not identified as skilled to that level as a whole cover a further 4 per cent of CoS used in 2010. The total is therefore 35 per cent. Overall, job titles identified as skilled to NQF4+ in this report account for only 1 per cent of Tier 2 jobs in 2010. Combining the recommendations made in Migration Advisory Committee (2011) and this report, 85 per cent of CoS used in 2010 would still qualify for Tier 2 and 15 per cent would not.
- 4.10 Table 4.2 presents the revised recommended list of shortage occupations for the UK.

Analysis of the Points Based System: Revised UK shortage occupation list for Tier 2 comprising jobs skilled to NQF level 4 and above

Table 4.2: Recommended UK shortage occupation list for Tier 2 of the Points Based System, March 2011

Occupation title and SOC code (see notes 1, 2 and 3)	Job titles included on the shortage occupation list	Other information on skill levels
Production, works and maintenance managers (1121)	ONLY the following job title within this occupation: project manager within the electricity transmission and distribution industry.	
Managers in mining and energy (1123)	ONLY the following job titles within this occupation: site manager, station manager, shift/group leader within the electricity transmission and distribution and the electricity generation industries.	
Biological scientists and biochemists (2112)	ONLY the following job titles within this occupation: cardiac physiologist, clinical neurophysiologist, clinical vascular scientist, respiratory physiologist and sleep physiologist.	
Physicists, geologists and meteorologists (2113)	ONLY the following job titles within this occupation: engineering geologist, hydro geologist, geophysicist, geoscientist, geophysical specialist, engineering geophysicist, engineering geomorphologist, nuclear medicine scientist and radiotherapy physicist. Also staff working in diagnostic radiology (including magnetic resonance imaging).	
Civil engineers (2121)	ONLY the following job titles within this occupation: geotechnical engineer, geotechnical design engineer, geotechnical specialist, reservoir panel engineer, rock mechanics engineer, soil mechanics engineer, geomechanics engineer, tunnelling engineer, petroleum engineer, geoenvironmental engineer, contaminated land engineer, drilling engineer, completions engineer, fluids engineer, reservoir engineer, status resource engineer, offshore and subsea engineer, control and instrument engineer, process safety engineer, planning drilling engineer, subsurface engineer and project civil engineer in the electricity generation industry.	

Table 4.2: Recommended UK shortage occupation list for Tier 2 of the Points Based System, March 2011 (*continued*)

Occupation title and SOC code (see notes 1, 2 and 3)	Job titles included on the shortage occupation list	Other information on skill levels
Mechanical engineers (2122)	ONLY the following job titles within this occupation: mechanical engineer in the electricity transmission and distribution and the electricity generation industries.	
Electrical engineers (2123)	ONLY the following job titles within this occupation: electrical engineer in the oil and gas industry, power system engineer, control engineer, protection engineer, project control engineer, control and instrumentation engineer, assistant engineer, and electrical engineer within the electricity transmission and distribution industry.	
Chemical engineers (2125)	ALL job titles within this occupation.	
Design and development engineers (2126)	ONLY the following job title within this occupation: design engineer within the electricity transmission and distribution industry.	
Production and process engineers (2127)	ONLY the following job title within this occupation: plant process engineer within the electricity generation industry.	
Planning and quality control engineers (2128)	ONLY the following job titles within this occupation: planning/development engineer, and quality, health, safety and environment engineers within the electricity transmission and distribution industry.	
Engineering professionals n.e.c. (2129)	ONLY the following job titles within this occupation: project engineer, and proposals engineer within the electricity transmission and distribution industry.	

Analysis of the Points Based System: Revised UK shortage occupation list for Tier 2 comprising jobs skilled to NQF level 4 and above

Table 4.2: Recommended UK shortage occupation list for Tier 2 of the Points Based System, March 2011 (continued)

Occupation title and SOC code (see notes 1, 2 and 3)	Job titles included on the shortage occupation list	Other information on skill levels
Medical practitioners (2211)	<p>ONLY the following job titles within this occupation:</p> <p>Consultants within the following specialties: audiological medicine, genitourinary medicine, haematology, medical microbiology and virology, neurology, nuclear medicine, obstetrics and gynaecology, occupational medicine and paediatric surgery.</p> <p>Consultants within the following specialties of psychiatry: forensic psychiatry, general psychiatry, learning disabilities psychiatry and old age psychiatry.</p> <p>Also non-consultant, non-training, medical staff posts in the following specialties: anaesthetics, paediatrics and general medicine specialties delivering acute care services (intensive care medicine, general internal medicine (acute), emergency medicine, general surgery, obstetrics and gynaecology, and trauma and orthopaedic surgery).</p> <p>Also ST4-level trainees in paediatrics.</p>	
Pharmacists/ pharmacologists (2213)	<p>ONLY the following jobs in this occupation: pre-registration pharmacist working in the NHS or hospitals registered pharmacist working in the NHS or hospitals.</p>	
Dental practitioners (2215)	<p>ONLY the following job title within this occupation: consultant in paediatric dentistry.</p>	
Veterinarians (2216)	<p>ONLY the following job title within this occupation: veterinary surgeon.</p>	
Secondary education teaching professionals (2314)	<p>ONLY the following job title within this occupation: secondary education teacher within the subjects of maths or science.</p>	

Table 4.2: Recommended UK shortage occupation list for Tier 2 of the Points Based System, March 2011 (*continued*)

Occupation title and SOC code (see notes 1, 2 and 3)	Job titles included on the shortage occupation list	Other information on skill levels
Special needs education teaching professionals (2316)	ONLY the following job title within this occupation: all teaching posts in special schools.	
Social workers (2442)	ONLY the following job title within this occupation: social worker working in children's and family services.	
Engineering technicians (3113)	ONLY the following job title within this occupation: commissioning engineer.	
Science and engineering technicians n.e.c. (3119)	ONLY the following job title within this occupation: production controller in the electricity generation industry.	
Nurses (3211)	ONLY the following job titles within this occupation: specialist nurse working in operating theatres, operating department practitioner and specialist nurse working in neonatal intensive care units.	
Medical radiographers (3214)	ONLY the following job titles within this occupation: HPC-registered diagnostic radiographer, HPC-registered therapeutic radiographer and sonographer.	
Medical and dental technicians (3218)	ONLY the following job titles within this occupation: nuclear medicine technologist and radiotherapy technologist.	
Speech and language therapists (3223)	ONLY the following job title within this occupation: speech and language therapist (Agenda for Change bands 7+ or their independent sector equivalents).	
Therapists n.e.c. (3229)	ONLY the following job title within this occupation: HPC-registered orthoptist.	

Analysis of the Points Based System: Revised UK shortage occupation list for Tier 2 comprising jobs skilled to NQF level 4 and above

Table 4.2: Recommended UK shortage occupation list for Tier 2 of the Points Based System, March 2011 (continued)

Occupation title and SOC code (see notes 1, 2 and 3)	Job titles included on the shortage occupation list	Other information on skill levels
Dancers and choreographers (3414)	ONLY the following job titles within this occupation: skilled (to level NQF4+) classical ballet dancer and skilled contemporary dancer.	For this job to be skilled (to level NQF4+), classical ballet dancers must meet the standard required by internationally recognised UK ballet companies (e.g. Birmingham Royal Ballet, English National Ballet, Northern Ballet Theatre, the Royal Ballet and Scottish Ballet). For operational purposes, the type of factor to be taken into account may include whether the company has: performed, or has been invited to perform, at venues of the calibre of the Royal Opera House, Sadler's Wells or the Barbican, either in the UK or overseas; attracts dancers and / or choreographers and other artists from other countries; and is endorsed as being internationally recognised by a UK industry body such as the Arts Councils (of England, Scotland and/or Wales).

Table 4.2: Recommended UK shortage occupation list for Tier 2 of the Points Based System, March 2011 (*continued*)

Occupation title and SOC code (see notes 1, 2 and 3)	Job titles included on the shortage occupation list	Other information on skill levels
Musicians (3415)	ONLY the following job title in this occupation: skilled (to NQF level 4+) orchestral musicians who meet the standard required by internationally recognised companies (e.g. London Symphony Orchestra, London Philharmonic Orchestra, Philharmonia Orchestra, and Royal Philharmonic Orchestra).	For this job, the orchestral musicians who are leaders or principals must meet the standard required by internationally recognised UK orchestras (including London Symphony Orchestra, London Philharmonic Orchestra, Philharmonia Orchestra and Royal Philharmonic Orchestra).
Photographers and audio-visual equipment operators (3434)	ONLY the following job titles within this occupation: roles within visual effects and 2D/3D computer animation for film, television or video games: animation supervisor, animator, computer graphics supervisor, technical director, CG supervisor, modeller, rigging supervisor, rigger, matte painter, texture artist, compositing artist, producer, production manager, editor, R&D tools, R&D software, software engineer and system engineer.	
Metal working production and maintenance fitters (5223)	ONLY the following job title within this occupation: licensed and military certifying engineer/inspector technician.	
Line repairers and cable jointers (5243)	ONLY the following job title within this occupation: overhead linesworker within the electricity transmission and distribution industry skilled to NQF level 4+.	Skilled to NQF level 4+ requires that the job involves working on high voltage lines that carry at least 275,000 volts.

Analysis of the Points Based System: Revised UK shortage occupation list for Tier 2 comprising jobs skilled to NQF level 4 and above

Table 4.2: Recommended UK shortage occupation list for Tier 2 of the Points Based System, March 2011 (continued)

Occupation title and SOC code (see notes 1, 2 and 3)	Job titles included on the shortage occupation list	Other information on skill levels
Chefs, cooks (5434)	ONLY the following job title within this occupation: chefs skilled to NQF level 4+.	Skilled to NQF level 4+ requires that the individual is earning at least £28,260 per year after deductions for accommodation, meals, etc; has five years of relevant experience in a role of at least equivalent status to the one they are entering; and that the job should not be in a fast food or standard fare outlet.

Notes:

- (1) SOC codes relate to the Standard Occupational Classification (SOC) 2000.
- (2) n.e.c. stands for 'not elsewhere classified'.
- (3) For official job descriptions relating to four-digit occupations in SOC 2000, see www.statistics.gov.uk/methods_quality/ns_sec/downloads/SOC2000_Vol1_V5.pdf.

4.11 Table 4.3 shows the recommended shortage occupation list for Scotland. This list has not changed.

Table 4.3: Recommended Scotland shortage occupation list for Tier 2 of the Points Based System, March 2011

Occupation title and SOC code (see notes 1 and 2)	Job titles included on the shortage occupation list	Other information on skill levels
Medical practitioners (2211)	ONLY the following job title within this occupation: consultant radiologist.	

Notes:

- (1) SOC codes relate to the Standard Occupational Classification (SOC) 2000.
- (2) For official job descriptions relating to four-digit occupations in SOC 2000, see www.statistics.gov.uk/methods_quality/ns_sec/downloads/SOC2000_Vol1_V5.pdf.

4.3 Conclusions and next steps

- 4.12 It is for the Government to decide whether and when to accept our recommendations. As announced in UK Border Agency (2011), published on February 16, the Government will respond to our recommendations before the introduction of the first annual limit on 6 April.
- 4.13 As discussed in Migration Advisory Committee (2011), we do not believe that the required skill level for occupations will change rapidly over time. For that reason, we did not fully review our original 2008 list of occupations skilled to National Qualifications Framework level 3 or above (Migration Advisory Committee, 2008) in our subsequent shortage occupation reviews in Migration Advisory Committee (2009a, 2009b and 2010c). Nevertheless, over the longer term, the skill requirements for occupations can change, new evidence may come to light, and we may identify ways of refining our methodology. Therefore, the results of periodic reviews of the full list of NQF4+ occupations and job titles should be reflected in the shortage occupation lists for the UK and Scotland.
- 4.14 As requested by the Government, in this instance we have reviewed the shortage occupation list only to remove jobs not skilled to NQF4+. We have not considered whether labour shortages remain or whether it is still sensible to fill these jobs with migrants from outside the European Economic Area (EEA). Nor have we taken evidence on whether new occupations and jobs skilled to NQF4+ should be added to the shortage occupation list. We recommend that the UK and Scotland shortage occupation lists are subject to a full review in due course and would be content, if commissioned by the Government, to carry out such work.
- 4.15 In our most recent report on shortage occupations published in March 2010 (Migration Advisory Committee, 2010b) we recommended that all registered and pre-registration pharmacists within the pharmacists / pharmacologists occupation (SOC 2213) be added to the UK shortage occupation list, replacing registered pharmacists working in the NHS or hospitals (including such pre-registration pharmacists). We also recommended that orchestral musicians (within SOC 3415) included on the list be more narrowly defined by specifying only those orchestral musicians who are orchestra leaders or principals and who meet the standard required by internationally recognised UK orchestras for inclusion on the UK shortage occupation list. The Government has not yet signalled whether it accepts these recommendations. We have therefore not included these revisions within the shortage occupation list that we considered. Both occupations were found in Migration Advisory Committee (2011) to be skilled to NQF level 4. If the Government decided to accept our previous advice, Table 4.2 would need to be amended accordingly.

Analysis of the Points Based System: Revised UK shortage occupation list for Tier 2 comprising jobs skilled to NQF level 4 and above

Annex A: Consultation

A.1 List of organisations that submitted evidence

Alliance of Sector Skills Council
Scotland

Balfour Beatty Utility Solutions
Limited

Bangladesh Caterers Association UK

British Horseracing Authority

Brooklands Nursing Homes

Cogent

Cwm Taf Local Health Board

Dearson Winyard International on
behalf of Airbus Operations

Deloitte

Department of Health

e2e linkers

EDF Energy

Embassy of Japan

Engineering Construction Industry
Training Board

Equality South West

General Healthcare Group

Ground Forum

Improve Ltd

Institution of Chemical Engineers

Jem Ltd

JETRO London

KIKU Restaurant

Lantra

London Borough of Hackney
Council

Marketing Standard Limited

Marshall Aerospace

Microsoft

Misato Japanese Restaurant

M W Kellogg Limited

NASUWT

National Campaign for the Arts
endorsed by The Society of London
Theatre & the Theatrical
Management Association

National Farmers Union

National Recruitment Scheme for
NHS Pre-Registration Trainee
Pharmacists (England & Wales)

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National Trainers Federation	British Hospitality Association
Nursing & Midwifery Council	BT
Oil & Gas UK	Department of Business, Innovation and Skills
People 1st	Department of Health
Peter Horada & Co Solicitors on behalf of Kiku Restaurant Limited	Embassy of Japan
PricewaterhouseCoopers Legal LLP	Energy & Utility Skills Limited
Rolls-Royce	English Community Care Association
Royal College of Nursing	Fernandes Vaz
Saki Bar & Food Emporium	Fragomen
Scottish Social Services Council	General Electric
Semta	Greater London Authority
Skillset	Marshall Aerospace
Skills for Care and Development	Masala World
Skills Funding Agency	People 1st
Southwark Council	Recruitment and Employment Confederation
The University of Sheffield	Registered Nursing Home Association
Thoroughbred Breeders' Association	Royal Garden Hotel, Kensington
TIGA	Scottish Social Services Council
UMU Restaurant	Semta
Unison	Skills for Care
Visallogic	Skills for Care and Development
A.2 List of individuals / organisations met with	Unilever
ADS Group Limited	Visallogic
Balfour Beatty	
Bangladesh Caterer's Association	

Abbreviations

ASHE	Annual Survey of Hours and Earnings
BHA	British Horseracing Authority
BHEST	British Horseracing Education and Standards Trust
BTEC	Business and Technology Education Council
CG	Computer graphics
CoS	Certificates of Sponsorship
ECITB	Engineering Construction Industry Training Board
EEA	European Economic Area
EU	European Union
HNC	Higher National Certificate
IOSH	Institution of Occupational Safety and Health
LFS	Labour Force Survey
MAC	Migration Advisory Committee
n.e.c.	Not elsewhere classified
NESTA	National Endowment for Science, Technology and the Arts
NHS	National Health Service
NTF	National Trainers Federation
NQF	National Qualifications Framework
NVQ	National Vocational Qualification

Analysis of the Points Based System: Revised UK shortage occupation list for Tier 2 comprising jobs skilled to NQF level 4 and above

ONS	Office for National Statistics
PBS	Points Based System
R&D	Research and Development
RLMT	Resident Labour Market Test
S/NVQ	Scottish National Vocational Qualification
SOC	Standard occupational classification
SSC	Sector Skills Council
UK	United Kingdom
VFX	Visual effects

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