

The background features a light-colored dotted grid pattern. Overlaid on this are several thick, curved lines in various colors: green, orange, blue, and purple. These lines originate from circular nodes at the bottom and curve upwards and to the right. The lines are semi-transparent, allowing the grid to be seen through them.

Working Futures 2004-2014 Sectoral Report

Working Futures 2004-2014:

SECTORAL REPORT

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PREFACE AND ACKNOWLEDGEMENTS

The authors are grateful to the Sector Skills Development Agency (SSDA) and the Learning and Skills Council (LSC) for funding this research. Special thanks are due to the project Steering Group, comprising Lesley Giles (SSDA), Richard Garret (SSDA), Joyce Findlater (LSC), Nathan Dodd (LSC), Mark Deas (EEDA, on behalf of the RDAs) Geoffrey Shoesmith (DfES), Gary Clarkson (DfES) and Lauren Sadler (Cogent SSC, representing the Sector Skills Councils).

The production of the *Working Futures* projections and reports has been a team effort involving a large number of people. Rachel Bevan, Geoff Briscoe, Andrew Holden and Peter Millar all made important contributions to the data processing and analysis.

The *Working Futures* projections are presented at a number of different spatial and industrial levels. There are two types of industrial definitions employed:

- **Sectoral definitions:** These use 6, 14 or 27 sectors defined by Standard Industrial Classification (SIC) codes. They preserve the traditional manufacturing, services and public sector groupings of industrial activity and are hierarchically related, with 6 sectors being a more aggregated grouping of 14 sectors and so on. The 27 sector grouping has been adopted by the SSDA in their Sector Skills Matrix database and hence these are referred to as the Sector Matrix Industries (SMI).
- **Sector Skills Council (SSC) definitions:** These employ SIC code groupings that most closely match the SSCs 'footprints'. These definitions are a 'best fit' to each SSC's core business sectors in that they specify the core SIC codes that are undisputed and do not overlap with any other SSC. The extent to which this is an exact fit to the SSC varies between SSCs. In some cases, the use of the core SIC codes excludes certain elements of the SSC footprint because they are included in other areas. SSCs can provide further in-depth analysis of skills and future employment requirements within their sector. Annex A1 of this report includes a comprehensive description of the sectoral coverage of each SSC.

This report presents detailed results for the SSC definitions. The results should be interpreted as being indicative of likely trends given a continuation of past patterns, rather than precise forecasts of what will inevitably happen. They should be regarded as a robust benchmark for debate and should be used in conjunction with a variety of other sources of labour market information and intelligence (LMI).

The opinions expressed in this report are those of the authors and do not necessarily reflect the views of the SSDA, the LSC, DfES, RDAs nor of any of the individual SSCs.

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Working Futures 2004-2014: SECTORAL REPORT

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SUMMARY

Working Futures 2004-2014 has been commissioned by the Sector Skills Development Agency (SSDA) to provide a sound statistical foundation for the deliberations of a number of its key partners across the skills arena about the future demand for skills. These partners include the Learning and Skills Council (LSC) and its associated Local Learning and Skills Councils (LLSCs), HM Treasury (HMT), Department for Education and Skills (DfES), Regional Development Agencies (RDAs), as well as partners across the UK such as the Scottish Executive, Welsh Assembly Government and the Department for Employment and Lifelong Learning in Northern Ireland. *Working Futures 2004-2014* has been compiled by Warwick Institute for Employment Research (IER).

Working Futures 2004-2014 updates and extends the previous *Working Futures* projections for 2002 to 2012 which were also compiled by IER and published in 2003. *Working Futures 2004-2014* supersedes these previous projections.

Working Futures 2004-2014 presents historic and future employment projections for the period 2004 to 2014 separately for men and women by employment status - full-time employment, part-time employment and self-employment. Occupational projections are also available by the nine major and 25 sub-major groups of the SOC2000 occupational classification. All of the *Working Futures 2004-2014* employment projections are available for a number of different spatial and sectoral aggregations. The level of disaggregation available makes *Working Futures* the most detailed set of employment projections ever produced for the UK.

The *Working Futures 2004-2014* projections are based on the forecasts from the Cambridge Econometrics (CE) regional multi-sectoral dynamic macroeconomic model (RMDM). This provides the general economic scenario. The employment and output forecasts from this model are combined with additional models developed by IER to generate the occupational projections.

This volume - the *Sectoral Report* - is the third of four substantive reports in the *Working Futures* series. It summarises the projections by gender, employment status and occupation for the Skills for Business' network of employer-led Sector Skills Councils (SSCs). The other three substantive volumes in the *Working Futures 2004-2014* series are the *National Report*, the *Spatial Report* and the *Qualifications Report*

- The *National Report* presents an overview of the projections for the UK and summarises the main developments over the recent past and the forecasts for the next decade.
- The *Spatial Report* presents projections for the nine English regions and the three other countries of the UK, as well as some summary information for the 47 English Local Learning and Skills Councils (LLSCs).
- The *Qualifications Report* presents information on the supply and demand for individuals with different qualifications as defined by the five levels of the National Qualifications Framework (NQF).

A total of 24 SSCs have already been licensed and another is currently 'in development'. The remaining industrial sectors are the responsibility of the SSDA, and *Working Futures 2004-2014* also presents projections for these workers, disaggregated into three further groups according to their primary industrial activity.

As well as reporting forecasts of the net change in employment by gender, status and occupation over the next 10 years, the *Working Futures 2004-2014* projections include estimates of the scale of 'replacement demand' which takes into account the need to replace those who will leave their jobs because of retirement or other reasons. Total requirement for recruitment over the forecast period is therefore the sum of these replacement demands and any net change in employment. Replacement demands for the next decade are typically five to 10 times greater than any forecast structural increase or decline in employment in any SSC. Thus, even SSCs which are predicted to experience

net falls in employment will have positive recruitment needs in order to replace the workers who will retire over the next 10 years.

This report describes the structure and composition of total employment in the UK over the last 20 years and reports estimates for the overall changes in employment during the next decade. It then presents the first estimates of total employment in each of the SSCs, disaggregated by gender and employment status, together with some comparative analysis of their relative size and structure, and the anticipated changes in employment over the period 2004-2014. Finally, a detailed description of the scope and sectoral coverage of each SSC, together with estimates of their historic, current and future employment patterns and trends are documented.

It is important to appreciate that the purpose of the *Working Futures 2004-2014* projections is not to make precise forecasts of employment *levels*. Rather, the aim is to provide policy analysts and others interested in future trends in the structure and composition of employment in the UK with useful information about the general nature of *changing employment patterns* and their implications for skill requirements. All of the *Working Futures 2004-2014* projections should therefore be regarded as indicative, rather than being precise predictions of the magnitude of any changes. Indeed, the focus on industrial and spatial disaggregation at the level of detail provided in *Working Futures 2004-2014* pushes the available data to the limits for which it was originally collected. The projections should therefore not be regarded as more precise than the general statements in the text.

1. INTRODUCTION

1.1 Background

Working Futures 2004-2014 presents a new set of detailed and comprehensive employment projections by sector and region for the UK for the 10 year period 2004 to 2014. The projections have been commissioned by the Sector Skills Development Agency (SSDA) to provide a sound statistical foundation for the deliberations of a number of its key partners across the skills arena about the future demand for skills. These partners include the Sector Skills Councils (SSCs), HM Treasury (HMT), Regional Development Agencies (RDAs) and Local Learning and Skills Councils (LLSCs), as well as other UK Government departments and executive agencies such as the Scottish Executive, Welsh Assembly Government and the Department for Employment and Lifelong Learning in Northern Ireland.

Working Futures 2004-2014 updates and extends the previous *Working Futures* projections for 2002 to 2012 which were also compiled by IER and were published in 2003. *Working Futures 2004-2014* supersedes these previous projections.

The *Working Futures 2004-2014* employment projections are available for a number of spatial and sectoral aggregations. The geographies include the four countries of the UK, the nine English Regional Development Agencies (RDAs) and the 47 English Local Learning and Skills Council (LLSCs) areas. The sectoral classifications include broad sectors (a 6-fold categorisation), the 27 SSDA Sector Matrix Industries (SMIs) and, for the first time, the newly established Sector Skills Councils (SSCs). For all spatial and sectoral aggregations, employment projections are available separately for men and women by employment status (full-time employment, part-time employment and self-employment) giving six employment types in total. Occupational projections are also available using the SOC2000 classification by the nine major groups and the 25 sub-major groups.

This volume - the *Sectoral Report* - is the second of three reports in the *Working Futures 2004-2014* series. The other two substantive volumes are the *National Report* and the *Spatial Report*:

- The *National Report* presents an overview of the projections for the UK and summarises the main developments over the recent past and the forecasts for the next decade. Included in the *National Report* is a discussion of the macroeconomic context for the projections, a presentation of sectoral employment prospects at a broad level (using the 6-fold classification), a description of changing occupational structures and, finally, detailed projections for each of 27 industries corresponding to the SSDA's SMIs.
- The *Spatial Report* presents detailed projections for the nine English RDAs and the three other countries of the UK, as well as some summary information for the 47 English LLSCs.
- This *Sectoral Report* volume presents the projections customised more closely to the newly formed Sector Skills Councils. At the time of writing, a total of 24 SSCs have been licensed, and another SSC is currently 'in development' and expected to complete the formal licensing process soon. There are, in addition, a number of industrial sectors which are not covered by any of the formally constituted SSCs and are the responsibility of the SSDA. These have been classified into three further pseudo-SSCs according to the area of industrial specialisation.

Each volume is designed to be self-contained and thus can be read separately. In addition, there is a *Technical Report on Sources and Methods* which contains details of the modelling, methodology and procedures as well as details of the data sources utilised.

1.2 Rationale

There is an on-going concern amongst Government within the skills policy arena to ensure that the UK has the appropriate skills base both now and in the future in order to sustain economic growth and to compete internationally. This requires keeping abreast of the continual changes in the economy and considering their implications for future skills demand and skills provision. While nobody can predict the future with certainty, most people can and do make plans for the future and in

doing so adopt assumptions about what it might be like. The rationale behind the Working Futures projections is that it is better to attempt to examine future skills demand using a single, multisectoral, economy-wide model that is comprehensive, methodical, consistent and transparent rather than to rely on numerous individuals to develop their own views independently.

Working Futures has at its core an input-output model which implies that changes in one area of the economy are balanced by changes in other areas. Consequently, the results provide a consistent and systematic benchmark view for on-going debate and policy deliberations and the planning of future provision which reflects how individual sector developments 'fit together' into the overall economy-wide picture. As well as forecasts for the growth and decline in spatial and sectoral employment, the *Working Futures* projections also include changes in occupational employment and replacement demands which take into account the recruitment needed in order to replace those who leave employment (due to retirement, child bearing and caring and the like). Different partners can therefore use the forecasts to form the basis of their deliberations and agree the most appropriate policy actions based on a consistent underlying set of employment projections. This is not to say that the view presented here is the only possible outcome. Indeed, individual partners will still develop their own tailored forecasts, and in fact a number of the SSCs already provide greater contextualisation as explained in Section 1.5 below. However, the real value of the *Working Futures 2004-2014* projections are that they provide a common basis and starting point for understanding skill needs, based on a transparent, specific set of macroeconomic assumptions and economic relationships affecting the whole economy and its structure. As such the analysis is grounded in an understanding of the key economic factors operating in the economy and serve to act as an objective economy-wide, explanatory tool to examine the changing patterns of skills demand.

As well as macroeconomic factors, the model also explicitly deals with other important issues such as sub-contracting and technological changes that have been another important feature of much recent structural change. *Working Futures* therefore sets out a carefully considered view of what the future might look like, if past patterns of behaviour and performance are continued. However, it is not intended to be prescriptive. Particular sectors and groups may prefer alternative scenarios but the results presented here necessarily raise questions about how such alternatives might be achieved given the various interrelationships between sectors. Indeed, this is a fundamental objective of developing the projections presented here.

1.3 General approach

The demand for labour is a derived demand. It depends critically on developments in the markets for goods and services and the technologies used to produce them. Therefore, in order to assess the prospects for the changing pattern of demand for skills and for employment, it is essential to ground the analysis on a foundation and understanding of the key economic factors influencing the economy and its structure. To do this a fully-specified macroeconomic model is required.

The *Working Futures 2004-2014* projections are based on the forecasts from the Cambridge Econometrics (CE) regional multi-sectoral dynamic macroeconomic model (RMDM). This provides the general economic scenario. The employment and output forecasts are combined with occupational employment and replacement demand models developed by IER to generate the occupational projections.

RMDM solves as a single system in which macroeconomic results are built up from the more detailed results at sectoral and regional levels. The long-term growth rate for the economy therefore reflects the expected performance of individual industries. This includes their rates of productivity growth and the changing demand for their output (including their international trade performance). The CE RMDM model is a combination of orthodox time-series econometric relationships and cross-sectional input-output relationships. Aggregate demand is modelled in a Keynesian manner, with a consumption function and investment equations. However the model also includes equations for average earnings by industry and region. Other aspects of the supply side come in through the export and import equations, in which capacity utilisation affects trade performance. The detailed set

of industry-level employment equations allow relative wage rates and interest rates to affect employment and therefore industry-level productivity growth.

The use of a macroeconomic model built around a full input-output matrix provides a sound foundation for assessing industrial employment prospects. In particular, it deals explicitly with such important issues as subcontracting and technological changes that have been a feature of much recent structural change. These phenomena are dealt with in the model by changes in the pattern of purchases by one industry from another, as reflected in the input-output matrix and by the technical relationship between sectoral output and employment. Further information about the model employed is given in the separate *Technical Report*.

In order to meet the needs of the SSDA and SSCs as well as the LSC and its local arms, the LLSCs, the *Working Futures* series presents projections at a much more detailed level than provided in previous employment forecasts. The equations within RMDM operate at the level of 41 industries defined by reference to the availability of data on input-output flows. In order to generate results at a more detailed industry level in order to provide a mapping to the individual SSCs requires a slightly different approach since many of the data required are not available at sufficiently detailed level. At the industry level, all the 2-digit categories of the 2003 Standard Industrial Classification (SIC2003) have been distinguished, as well as some other, more detailed categories, resulting in 67 industrial categories in total. Similarly, separate results have been developed at an individual LLSC level since RMDM does not use this detailed spatial disaggregation. Together, these two extensions result in the most detailed and extensive set of employment projections ever produced for the UK.

The results presented here should be regarded as indicative of general trends and orders of magnitude rather than precise forecasts of what will necessarily happen. That is, they are not intended to be prescriptive but rather to indicate the most likely future given a continuation of past patterns of behaviour and performance (a so-called BAU or Business-As-Usual forecast). If policies and patterns of behaviour are changed then alternative futures might be realised. The results are intended to provide a useful benchmark for debate and policy deliberations about underlying employment trends. Indeed, they should be regarded as a starting point for debate and, in particular, they should be used in conjunction with a variety of other sources of spatial or sectoral labour market information/intelligence (LMI) and in consultation with individuals who possess particular spatial or sectoral expertise.

The focus on industrial and spatial disaggregation at the level of detail provided in *Working Futures 2004-2014* pushes the available data to the limits for which it was originally collected. The projections should therefore not be regarded as more precise than the general statements in the text. It is important to appreciate that the purpose of the projections is not to make precise forecasts of employment *levels*. Rather, the aim is to provide policy analysts and other labour market participants with useful information about the general nature of *changing employment patterns* and their implications for skill requirements.

1.4 Occupational employment projections and replacement demands

The *Working Futures* series of reports provide detailed projections of occupational employment levels. The occupational model is built around a series of employment matrices distinguishing 67 industries based on SIC2003 and 25 sub-major occupational groups based on the SOC2000 occupational classification. Details of the methods used to generate these projections are given in the *Technical Report*. The occupational projections are developed using largely extrapolative methods based on data from the Census of Population (CoP) and the Labour Force Survey (LFS). Changes in occupational employment levels between years are also analysed to show changes due to replacement demand (RD). This takes into account the need to replace those who leave their jobs because of retirement or other reasons. These replacement demands need to be added to any structural change or so-called expansion demand or decline (ED) that is projected, in order to obtain an estimate of the total requirement (TR) for recruitment over the forecast period. The RD estimates

are based on quite limited data on age structures and flow rates from the LFS. They should again be regarded as indicative rather than precise indications of the level of replacement demands.

1.5 Comparisons with alternative forecasts

The *Working Futures 2004-2014* projections for individual SSCs presented below are developed from more detailed projections based on (mainly 2-digit) Standard Industrial Classification (SIC) categories as explained in detail in Annex A, Section A2.1. The *Working Futures* projections can be compared with alternative forecasts since a number of established SSCs - including SEMTA, ConstructionSkills and e-skills UK - already produce their own projections. Thus, for these three SSCs, a detailed comparison of the two sets of projections was undertaken, with the emphasis on developing a qualitative comparison of the two sets of forecasts in each case. This was done by holding a series of bilateral meetings early in 2005 with the individual SSCs to compare the different approaches and results. These meetings included discussions about methodological differences and modelling assumptions, as well as variations in data and classifications used. The principal aim was to investigate why the *Working Futures* projections might differ from those produced by the SSCs themselves.

These discussions highlighted a number of key areas and reasons for differences. These include: definitions; sectoral and occupational coverage; geographical coverage; period covered; data sources used; vintage of forecast and data inputs used; models and approaches adopted; underlying assumptions (including macroeconomic, sectoral prospects (output and productivity), changing occupational mix and replacement demands). In each case, a short report has been prepared representing our common understanding of the main differences between the *Working Futures* projections and those of the SSCs, and the reasons that these differences arise. The content of these reports have been agreed with three SSCs concerned and are contained in the relevant sub-sections for SEMTA, ConstructionSkills and e-skills UK in Chapter 3 below, and also in the *National Report*.

2. OVERVIEW

This chapter first examines the overall picture of employment structure and composition in the UK. Historic trends are presented together with an assessment of how employment is predicted to change over the next decade. Against this background, some summary comparative measures of the scale, scope and composition of employment for each of the SSCs is presented. These are the first descriptive statistics to be reported for SSCs compiled on a consistent basis.

2.1 Employment trends and projections for the UK

This sub-section describes the employment trends and patterns for the whole of the UK. Historic patterns and future projections are presented. The purpose of this sub-section is to set the scene for the individual SSC results in the subsequent sub-section and for the detailed SSC findings presented in chapter 3 of this volume.

The historic trends and future projections for employment by gender and status are illustrated in Figure 2.1 and Figure 2.2 respectively, and are also presented in Table 2.1 at 5-year intervals. As can be seen, the trend for an increasing number in employment over the last two decades is expected to continue, albeit at a somewhat slower rate. Approximately 1.3 million new jobs are expected to be created across the whole of the UK over the next 10 years. The composition of employment by gender is fairly static, with 53% of jobs held by men and 47% by women, and this is not expected to change over the next decade. However, in contrast, the composition by status continues to demonstrate an increasing number and share of part-time jobs in total employment. The changing shares by status and gender are illustrated in Figures 2.5. Increasingly, these new part-time jobs are being taken up by men, and it is this phenomenon which has reversed the historic decline in the share of employment which is male – men are now expected to fill almost half of the new jobs created over the next decade as shown in Figure 2.6.

The trends in the occupational composition of employment by SOC2000 major groups is shown in Figure 2.3, with detailed statistics presented in Table 2.2. The increasing skill-bias is evident, with increasing numbers and shares in higher level occupations - trends which are projected to continue - and a continued fall in the absolute numbers and shares working in more elementary occupations.

Finally, figures for the extent of replacement demand (RD) by SOC2000 major group are shown in Table 2.3 and illustrated in Figure 2.7. While four occupational groups are expected to see a net decline over the next 10 years - namely Administrative, Clerical and Secretarial, Skills Trades, Transport and Machine Operatives and Elementary Occupations - replacement demand in all four of these occupational groups is large enough that the total requirement for recruitment to these occupational groups is still positive. The scale of replacement demand in aggregate over the next decade is equivalent to approximately one third of all those currently in employment and, in aggregate, is almost eight times greater than the scale of aggregate expansion demand.

2.2 Comparative employment trends and projections for SSCs

Historic and future employment levels by SSC are presented in Table 2.4. Using the SIC2003 4-digit sectoral definitions to define the SSCs reveals that, in 2004, the largest comprise several million workers while the smallest are around 500,000 workers. However, it should be noted that the SIC codes used to define the individual SSCs are a 'best fit' of each SSC's core business sectors, and the degree to which this is an exact fit differs between SSCs. In some cases the use of the core SIC codes excludes certain elements of an SSC's remit because these elements are included in the coverage of other SSCs.

Table 2.5 and Table 2.6 record the estimated changes in employment in levels and shares for 5-year intervals for the last decade and the projections for the next decade. For most SSCs, the anticipated scale of employment changes are rather smaller than those experienced over the last 10 years as can be clearly seen in Table 2.6. However, the continuing decline in the UK clothing and textile sector is

reflected in the more substantial decline predicted in Skillfast-UK, especially over the next 5 years, and the continued introduction of new technology and telecommunications is anticipated to affect employment in e-Skills UK, especially towards the latter half of the next decade.

The composition of employment by gender differs markedly between the SSCs as shown in Figure 2.8 and Figure 2.9. Currently, more than 80% of those in employment are male in SEMTA, ConstructionSkills, SummitSkills and GoSkills. In contrast, more than 60% of jobs are held by women in Skillsmart Retail, Skills for Health, and Skills for Care and Development.

Similarly, Figure 2.11 and Figure 2.12 illustrate the differences in employment composition by employment status. In 2004, only around 40% of all jobs are held by full-time employees in Lantra, Skillsmart Retail, People 1st, Asset Skills, Skills for Care and Development and Skills Active. This contrasts with Cogent, Proskills UK, Improve Ltd, SEMTA, Energy and Utility Skills and Skills for Justice in which more than 80% of jobs are held by full-time employees. Self-employment is prevalent in relatively few SSCs – as a share, it comprises around 40% of employment in Lantra, ConstructionSkills, SummitSkills, Skillset and Creative and Cultural Skills. Few other SSCs have more than 10% of total employment as self-employed.

Finally, the scale of expansion demand (ED) and replacement demand (RD) over the next decade across the SSCs is shown in Figure 2.12 and reported in Table 2.7 (changes in employment for the period 2004-2014) and Table 2.8 (shares as a proportion of employment in 2004). All SSCs have a positive total requirement (or recruitment) for the next decade, even those which are expected to have substantial net falls in employment over the period. Thus, even Skillfast and Lantra which are anticipated to experience a fall in total employment of 18% and 14% respectively over the next decade have positive total requirements of 15% and 20% respectively. That is, employers in these two SSCs will still need to recruit numbers equivalent to around 1-in-5 or 1-in-6 of their current workforce. At the other end of the scale, e-Skills UK and Skillset will need to recruit substantial numbers over the next decade – total requirement in these two SSCs exceeds 50% of their current employment levels.

This brief comparative review has illustrated the very different compositions of the SSCs, and the rather extreme changes that are anticipated for the next decade for some SSCs. The next chapter presents comprehensive information for each individual SSC so that the detailed nature of these expected changes can be seen. Of course, this relies on official sources of information. The SSCs are specialists in their sector and can provide further analysis and deeper and richer labour market intelligence on their particular sector.

Table 2.1: Employment levels and shares by status and gender: 1994-2014

total UK									
<i>Employment by gender</i>	<i>Employment status</i>								
	000s				%				
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	5,949	5,752	1,022	12,723	22	21	4	48	
Male	10,163	1,178	2,711	14,052	38	4	10	52	
Total employment	16,111	6,931	3,733	26,775	60	26	14	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	6,487	5,920	1,017	13,423	23	21	4	47	
Male	10,980	1,672	2,598	15,249	38	6	9	53	
Total employment	17,466	7,591	3,615	28,672	61	26	13	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	6,680	6,232	1,073	13,985	22	21	4	46	
Male	11,244	2,071	2,800	16,115	37	7	9	54	
Total employment	17,924	8,302	3,873	30,099	60	28	13	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	6,834	6,460	1,006	14,301	22	21	3	47	
Male	11,461	2,232	2,710	16,404	37	7	9	53	
Total employment	18,295	8,692	3,717	30,705	60	28	12	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	6,993	6,707	950	14,650	22	21	3	47	
Male	11,688	2,435	2,627	16,749	37	8	8	53	
Total employment	18,681	9,142	3,577	31,399	59	29	11	100	

Table 2.2: Composition of employment by occupation: 1994-2014

total UK					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	3,629	4,143	4,609	4,906	5,227
2. Professional Occupations	2,673	3,118	3,539	3,876	4,236
3. Associate Professional & Tech.	3,218	3,772	4,302	4,521	4,758
4. Administrative, Clerical and Sec.	3,954	3,910	3,790	3,627	3,463
5. Skilled Trades Occupations	3,642	3,596	3,433	3,355	3,283
6. Personal Service Occupations	1,509	1,874	2,244	2,449	2,668
7. Sales & Customer Service Occs.	1,872	2,147	2,412	2,594	2,788
8. Machine & Transport Operatives	2,597	2,523	2,367	2,307	2,249
9. Elementary Occupations	3,681	3,588	3,403	3,070	2,728
Total employment	26,775	28,672	30,099	30,705	31,399
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	14	14	15	16	17
2. Professional Occupations	10	11	12	13	13
3. Associate Professional & Tech.	12	13	14	15	15
4. Administrative, Clerical and Sec.	15	14	13	12	11
5. Skilled Trades Occupations	14	13	11	11	10
6. Personal Service Occupations	6	7	7	8	8
7. Sales & Customer Service Occs.	7	7	8	8	9
8. Machine & Transport Operatives	10	9	8	8	7
9. Elementary Occupations	14	13	11	10	9
Total employment	100	100	100	100	100

Table 2.3: Replacement demand by occupation: 2004-2014

total UK				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	4,609	617	1,670	2,287
2. Professional Occupations	3,539	697	1,309	2,006
3. Associate Professional & Tech.	4,302	457	1,444	1,901
4. Administrative, Clerical and Sec.	3,790	-326	1,523	1,197
5. Skilled Trades Occupations	3,433	-150	1,134	984
6. Personal Service Occupations	2,244	424	900	1,325
7. Sales & Customer Service Occs.	2,412	375	851	1,227
8. Machine & Transport Operatives	2,367	-118	827	709
9. Elementary Occupations	3,403	-675	1,233	558
Total employment	30,099	1,300	10,894	12,194
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	15	13	36	50
2. Professional Occupations	12	20	37	57
3. Associate Professional & Tech.	14	11	34	44
4. Administrative, Clerical and Sec.	13	-9	40	32
5. Skilled Trades Occupations	11	-4	33	29
6. Personal Service Occupations	7	19	40	59
7. Sales & Customer Service Occs.	8	16	35	51
8. Machine & Transport Operatives	8	-5	35	30
9. Elementary Occupations	11	-20	36	16
Total employment	100	4	36	41

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Table 2.4: Employment levels by SSC: 1994-2014

total UK					
SSC	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
Lantra	602	537	451	421	387
Cogent	544	583	517	498	471
Proskills UK	527	517	445	418	390
Improve Ltd	494	524	471	449	426
Skillfast-UK	569	489	319	276	262
SEMTA	1,714	1,809	1,443	1,374	1,293
Energy & Utility Skills	370	346	324	319	314
ConstructionSkills	1,769	1,784	2,073	2,057	2,056
SummitSkills	385	389	451	439	430
Automotive Skills	669	644	619	609	607
Skillsmart Retail	2,679	2,815	3,095	3,215	3,351
People 1st	1,736	1,974	2,186	2,272	2,351
GoSkills	644	643	674	665	668
Skills for Logistics	663	761	800	786	791
Financial Services	1,074	1,119	1,162	1,190	1,194
Asset Skills	688	877	1,005	1,054	1,132
e-skills UK	499	742	875	950	1,080
Central Government	1,105	1,063	1,166	1,164	1,147
Skills for Justice	356	317	369	363	353
Lifelong Learning UK	798	884	965	997	1,025
Skills for Health	1,733	1,814	2,047	2,165	2,250
Care and Development	982	1,013	1,140	1,202	1,246
Skillset	174	214	240	262	287
Creative and Cultural	311	343	389	420	448
SkillsActive	275	298	352	368	391
Non-SSC1: Primary	661	688	612	600	579
Non-SSC2: Wholesale etc	1,047	1,178	1,121	1,150	1,194
Non-SSC3: Services	3,710	4,306	4,788	5,019	5,278
Total employment	26,775	28,672	30,099	30,705	31,399

Table 2.5: Employment changes (000s) by SSC: 1994-2014

SSC	<i>Employment changes (000s)</i>			
	1994-1999	1999-2004	2004-2009	2009-2014
total UK				
Lantra	-65	-86	-30	-34
Cogent	40	-66	-19	-27
Proskills UK	-10	-72	-27	-28
Improve Ltd	30	-53	-22	-23
Skillfast-UK	-80	-170	-43	-15
SEMTA	95	-366	-69	-81
Energy & Utility Skills	-24	-22	-5	-5
ConstructionSkills	15	289	-16	0
SummitSkills	5	61	-11	-9
Automotive Skills	-25	-24	-10	-3
Skillsmart Retail	136	280	119	136
People 1st	238	212	86	78
GoSkills	-1	30	-9	3
Skills for Logistics	98	39	-13	5
Financial Services	46	42	29	3
Asset Skills	189	128	48	79
e-skills UK	243	133	76	130
Central Government	-42	103	-3	-17
Skills for Justice	-39	53	-6	-10
Lifelong Learning UK	86	81	31	28
Skills for Health	81	232	118	85
Care and Development	32	126	63	43
Skillset	40	26	22	24
Creative and Cultural	32	46	31	27
SkillsActive	23	54	16	23
Non-SSC1: Primary	27	-76	-12	-21
Non-SSC2: Wholesale etc	131	-57	29	45
Non-SSC3: Services	596	482	231	258
Total employment	1,898	1,427	605	695

Table 2.6: Employment changes (%) by SSC: 1994-2014

SSC	Percentage changes (%)			
	1994-1999	1999-2004	2004-2009	2009-2014
total UK				
Lantra	-11	-16	-7	-8
Cogent	7	-11	-4	-5
Proskills UK	-2	-14	-6	-7
Improve Ltd	6	-10	-5	-5
Skillfast-UK	-14	-35	-13	-5
SEMTA	6	-20	-5	-6
Energy & Utility Skills	-7	-6	-1	-2
ConstructionSkills	1	16	-1	0
SummitSkills	1	16	-3	-2
Automotive Skills	-4	-4	-2	0
Skillsmart Retail	5	10	4	4
People 1st	14	11	4	3
GoSkills	0	5	-1	0
Skills for Logistics	15	5	-2	1
Financial Services	4	4	2	0
Asset Skills	27	15	5	7
e-skills UK	49	18	9	14
Central Government	-4	10	0	-1
Skills for Justice	-11	17	-2	-3
Lifelong Learning UK	11	9	3	3
Skills for Health	5	13	6	4
Care and Development	3	12	5	4
Skillset	23	12	9	9
Creative and Cultural	10	13	8	6
SkillsActive	8	18	5	6
Non-SSC1: Primary	4	-11	-2	-3
Non-SSC2: Wholesale etc	13	-5	3	4
Non-SSC3: Services	16	11	5	5
Total employment	7	5	2	2

Table 2.7: Replacement demand (000s) by SSC: 2004-2014

total UK	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
SSC				
Lantra	451	-64	168	104
Cogent	517	-46	176	130
Proskills UK	445	-55	149	94
Improve Ltd	471	-45	163	118
Skillfast-UK	321	-58	114	55
SEMTA	1,443	-150	474	324
Energy and Utilities	322	-9	105	96
ConstructionSkills	2,074	-17	673	656
SummitSkills	450	-21	145	124
Automotive Skills	619	-13	202	189
Skillsmart Retail	3,095	255	1,159	1,414
People 1st	2,186	164	840	1,004
GoSkills	674	-6	226	220
Skills for Logistics	800	-8	267	259
Financial Services	1,162	32	425	457
Asset Skills	1,005	127	365	492
e-skills	875	205	303	508
Central Government	1,166	-19	416	397
Skills for Justice	369	-16	125	109
Lifelong Learning	965	59	385	445
Skills for Health	2,047	203	805	1,008
Care and Development	1,140	106	456	562
Skillset	240	46	86	132
Creative and Cultural	389	58	143	201
SkillsActive	352	39	130	169
Non-SSC1: Primary	612	-33	211	178
Non-SSC2: Wholesale etc	1,121	74	379	453
Non-SSC3: Services	4,788	489	1,806	2,295
Total employment	30,099	1,300	10,894	12,194

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Table 2.8: Replacement demand (%) by SSC: 2004-2014

total UK	Percentages (%)				
	SSC	2004	changes 2004-2014		
		shares	ED	RD	TR
Lantra	1	-14	37	23	
Cogent	2	-9	34	25	
Proskills UK	1	-12	33	21	
Improve Ltd	2	-10	35	25	
Skillfast-UK	1	-18	35	17	
SEMTA	5	-10	33	22	
Energy and Utilities	1	-3	32	30	
ConstructionSkills	7	-1	32	32	
SummitSkills	1	-5	32	28	
Automotive Skills	2	-2	33	31	
Skillsmart Retail	10	8	37	46	
People 1st	7	8	38	46	
GoSkills	2	-1	34	33	
Skills for Logistics	3	-1	33	32	
Financial Services	4	3	37	39	
Asset Skills	3	13	36	49	
e-skills	3	23	35	58	
Central Government	4	-2	36	34	
Skills for Justice	1	-4	34	29	
Lifelong Learning	3	6	40	46	
Skills for Health	7	10	39	49	
Care and Development	4	9	40	49	
Skillset	1	19	36	55	
Creative and Cultural	1	15	37	52	
SkillsActive	1	11	37	48	
Non-SSC1: Primary	2	-5	34	29	
Non-SSC2: Wholesale etc	4	7	34	40	
Non-SSC3: Services	16	10	38	48	
Total employment	100	4	36	41	

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 2.1: Employment by gender: 1984-2014

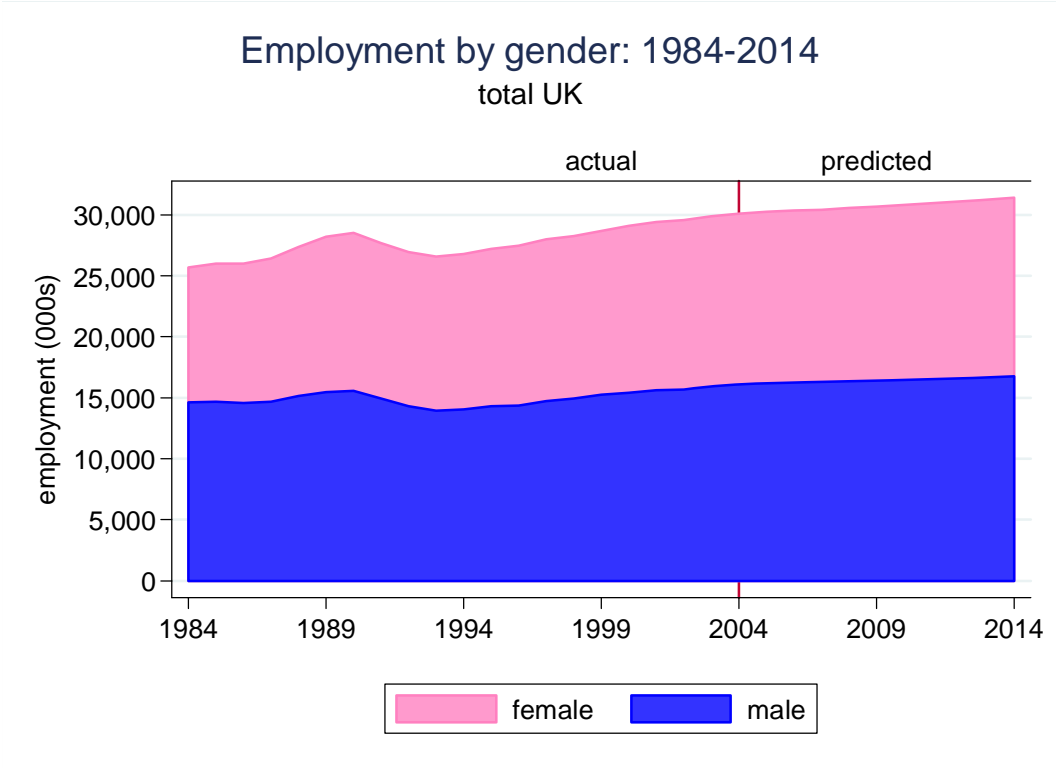


Figure 2.2: Employment by status: 1984-2014

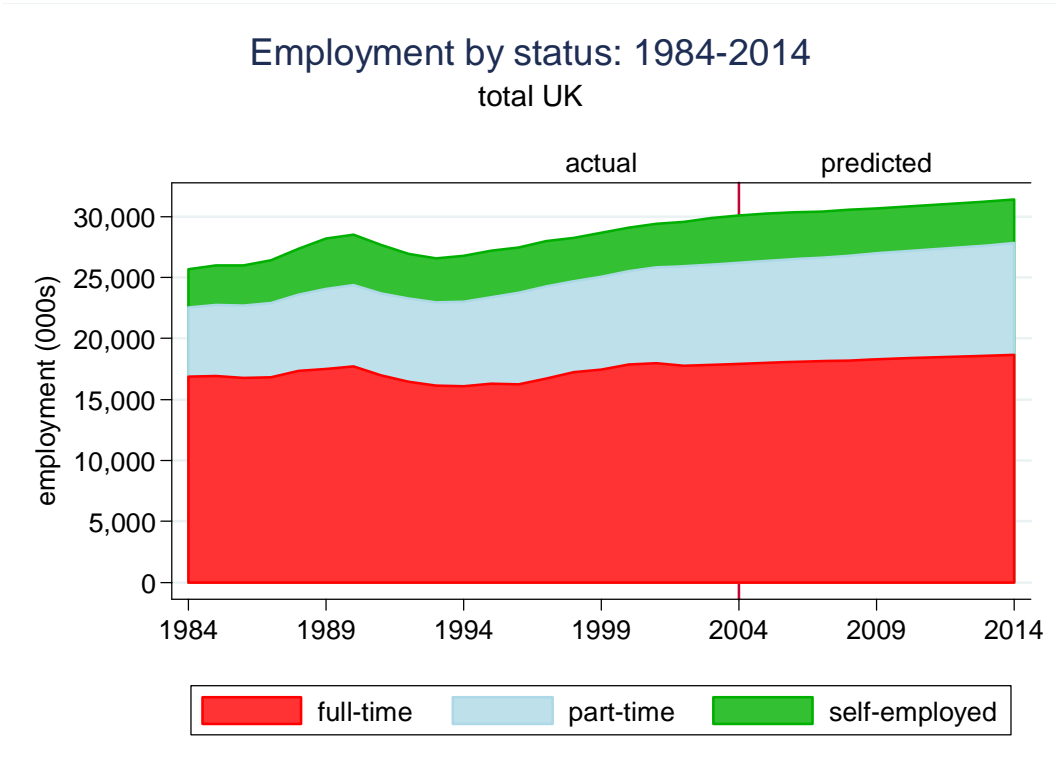


Figure 2.3: Occupational composition: 1994-2014

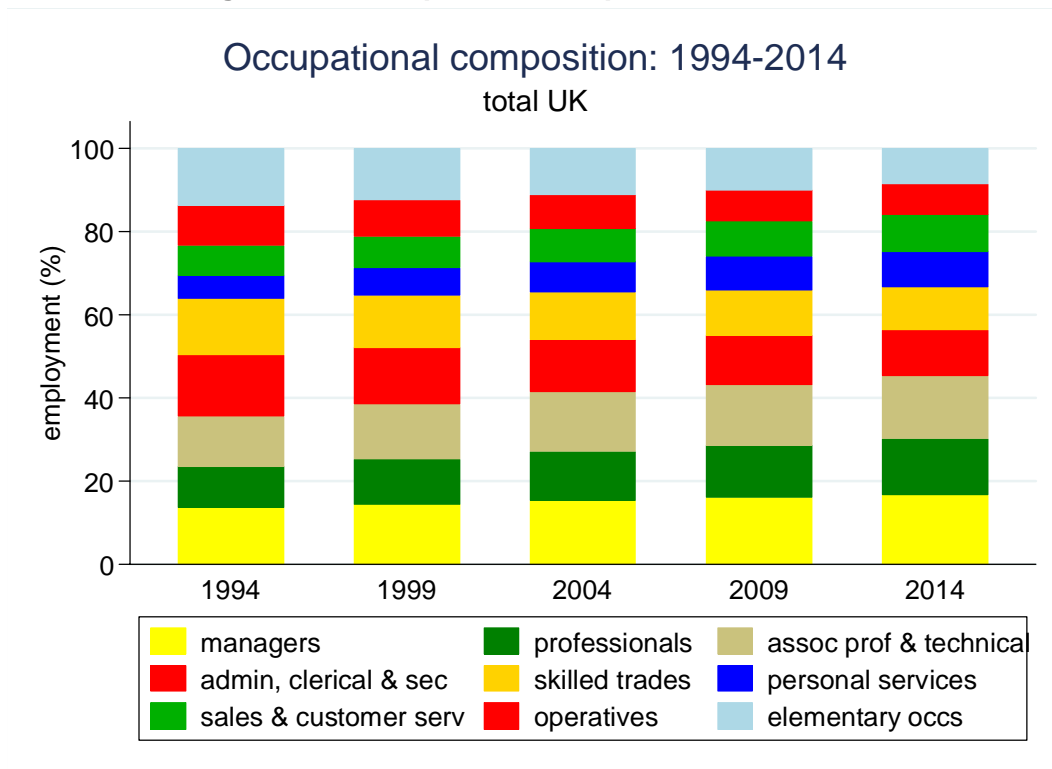


Figure 2.4: Employment levels by status and gender: 1994-2014

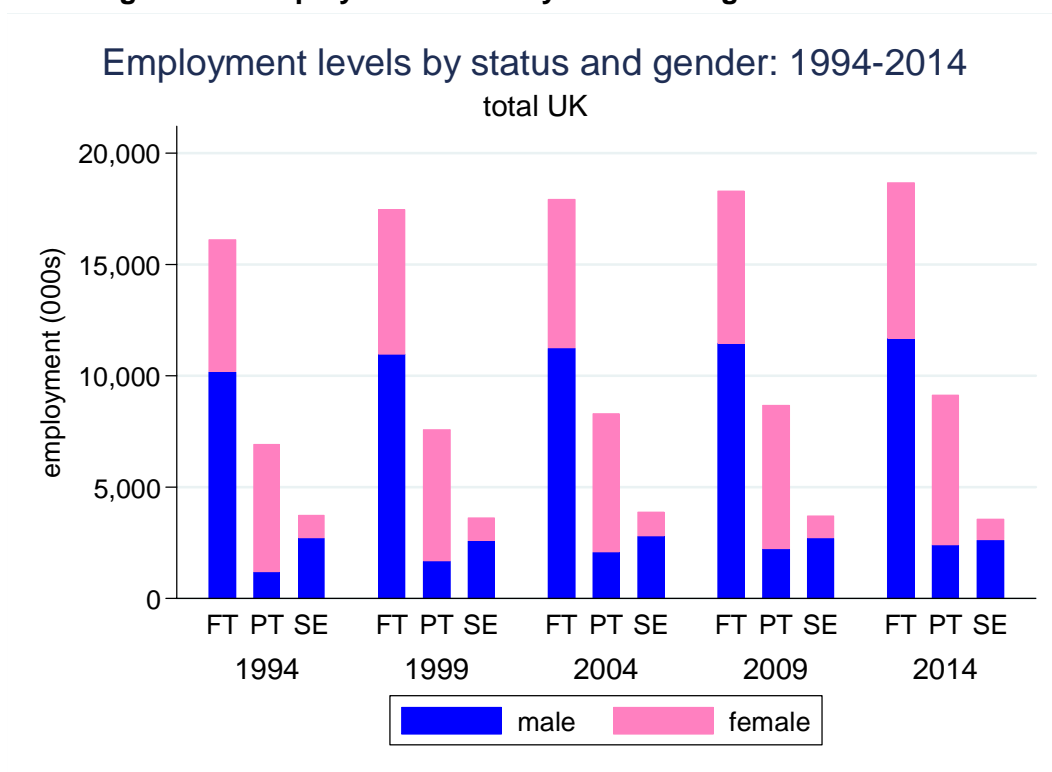


Figure 2.5: Employment shares by status and gender: 1994-2014

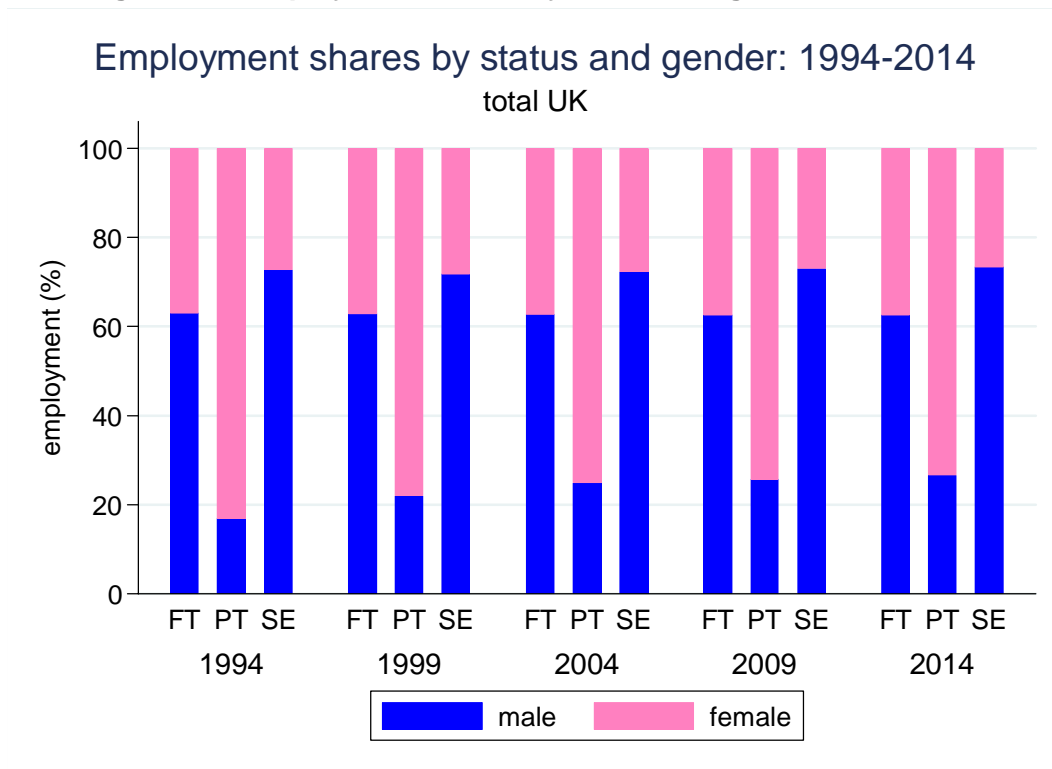


Figure 2.6: Employment changes by status and gender: 1984-2014

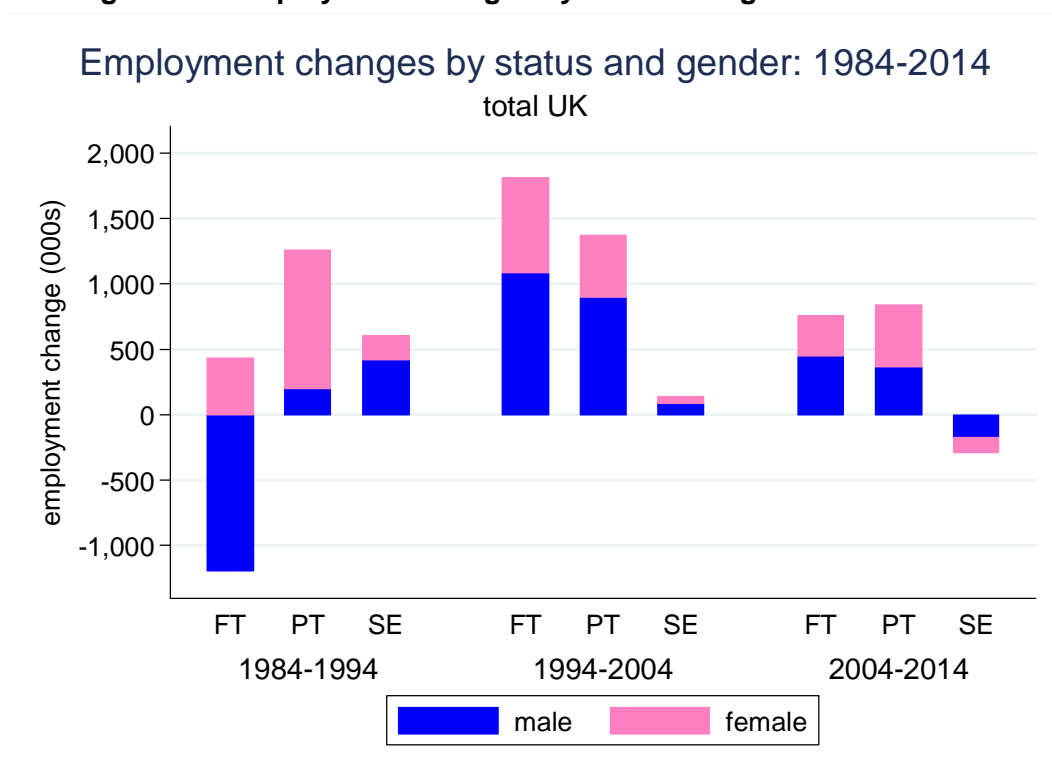


Figure 2.7: Total requirement by SOC2000 major group: 2004-2014

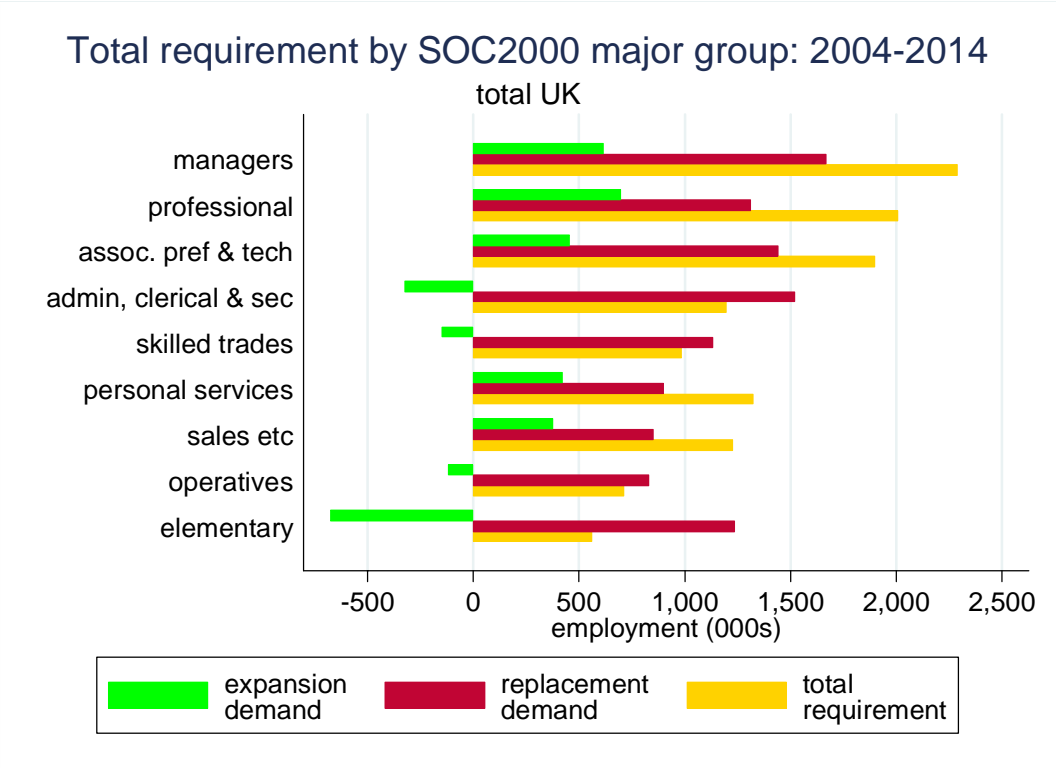


Figure 2.8: SSC employment levels by gender: 2004

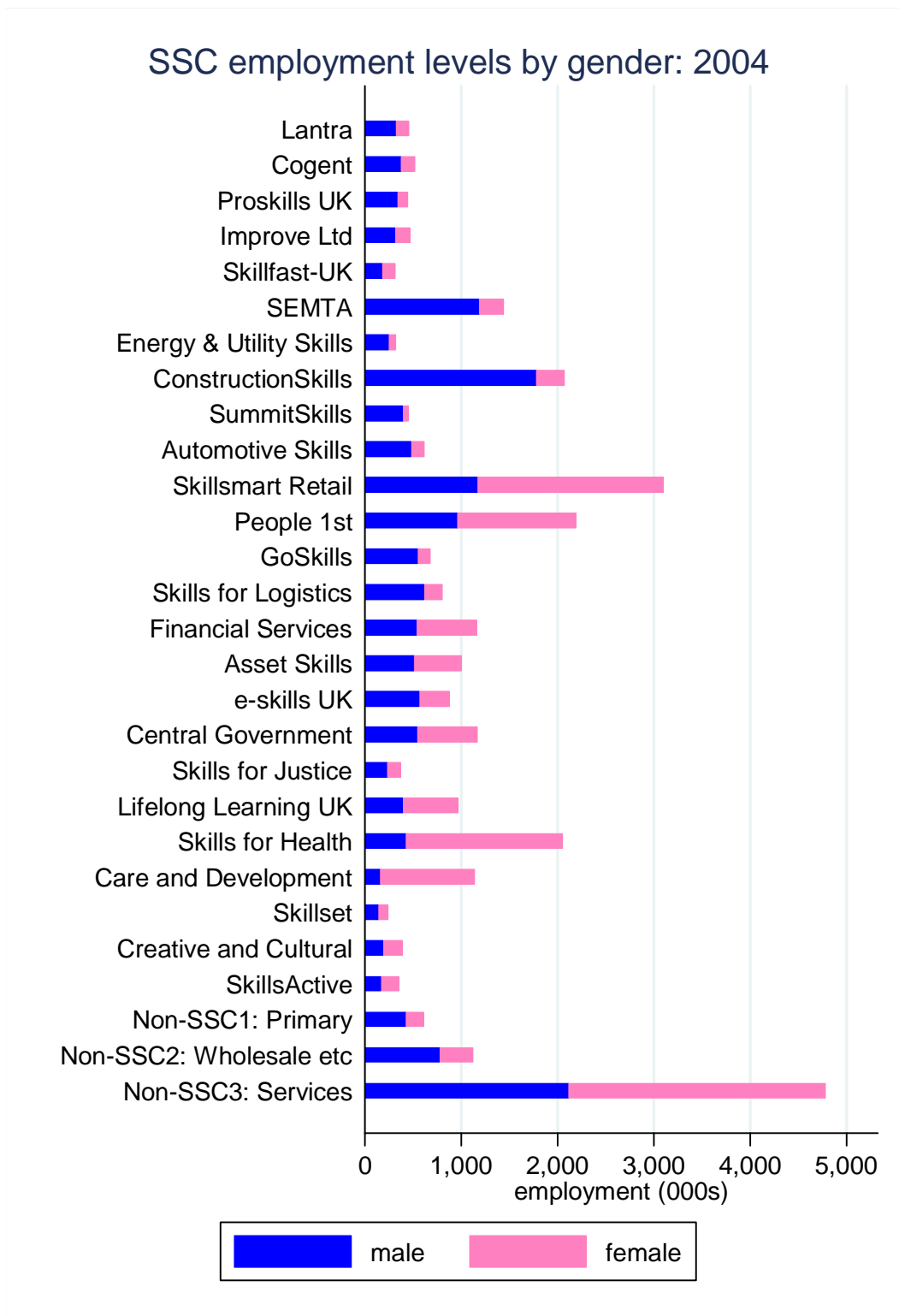


Figure 2.9: SSC employment shares by gender: 2004

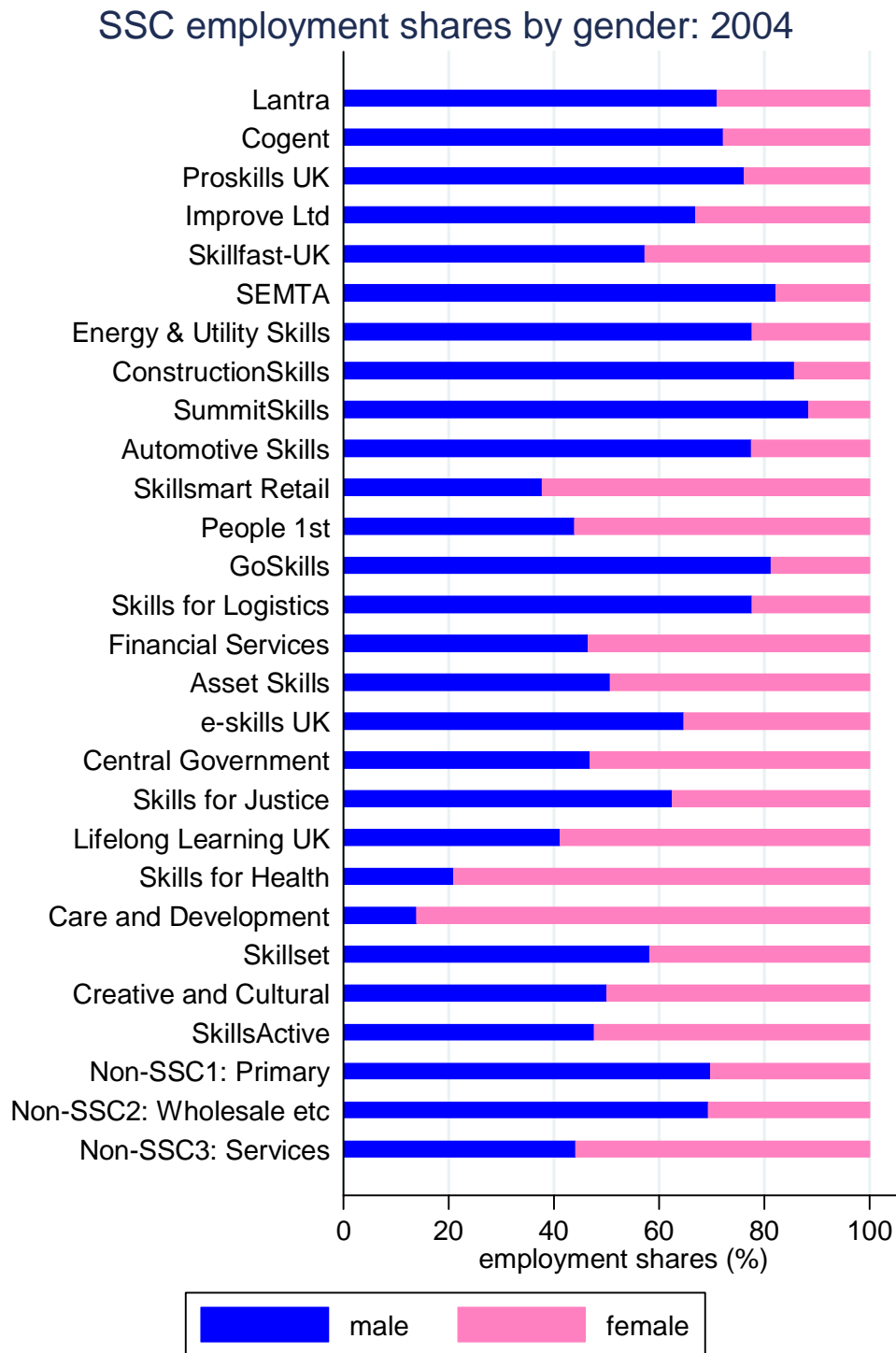


Figure 2.10: SSC employment levels by status: 2004

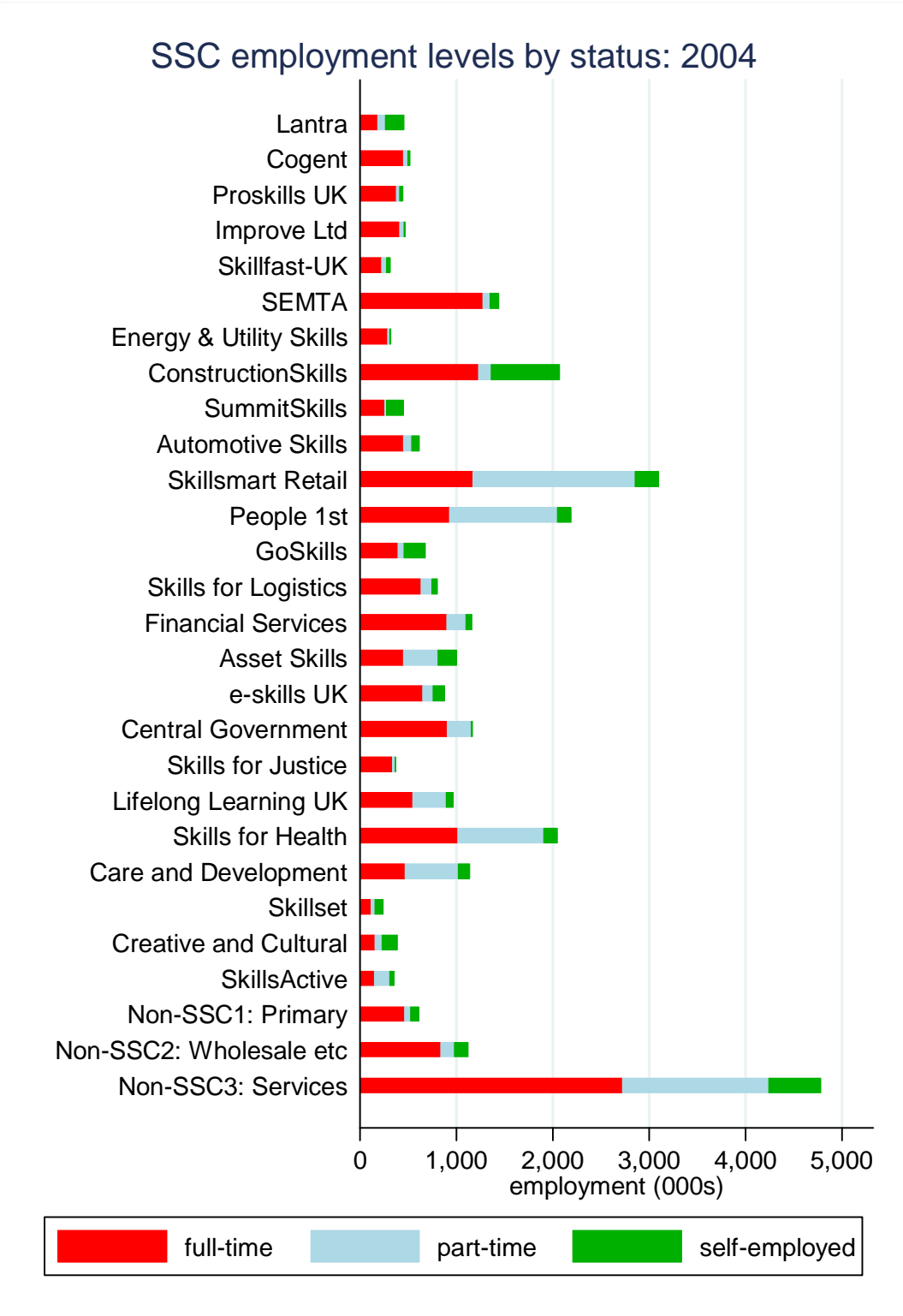


Figure 2.11: SSC employment shares by status: 2004

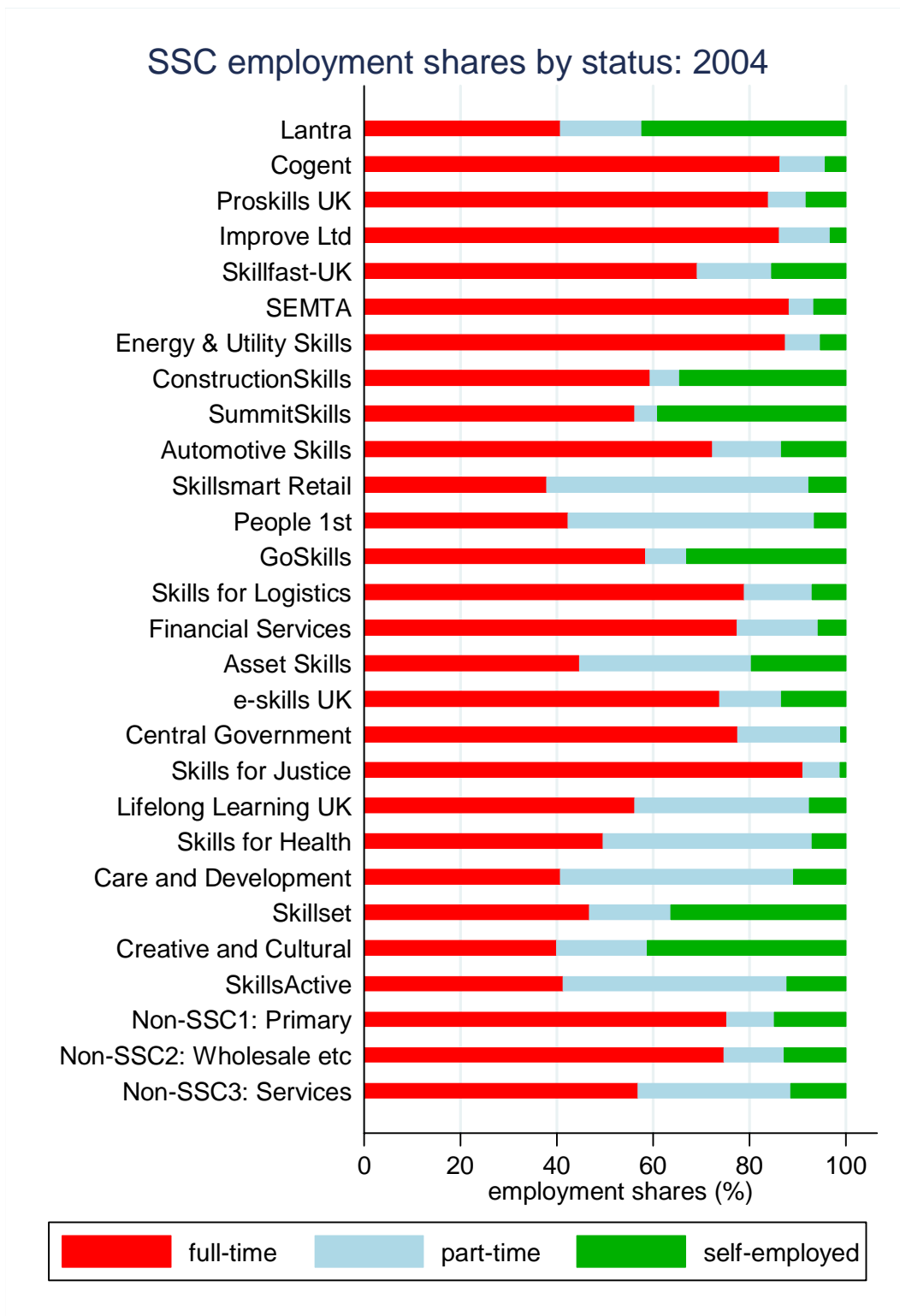
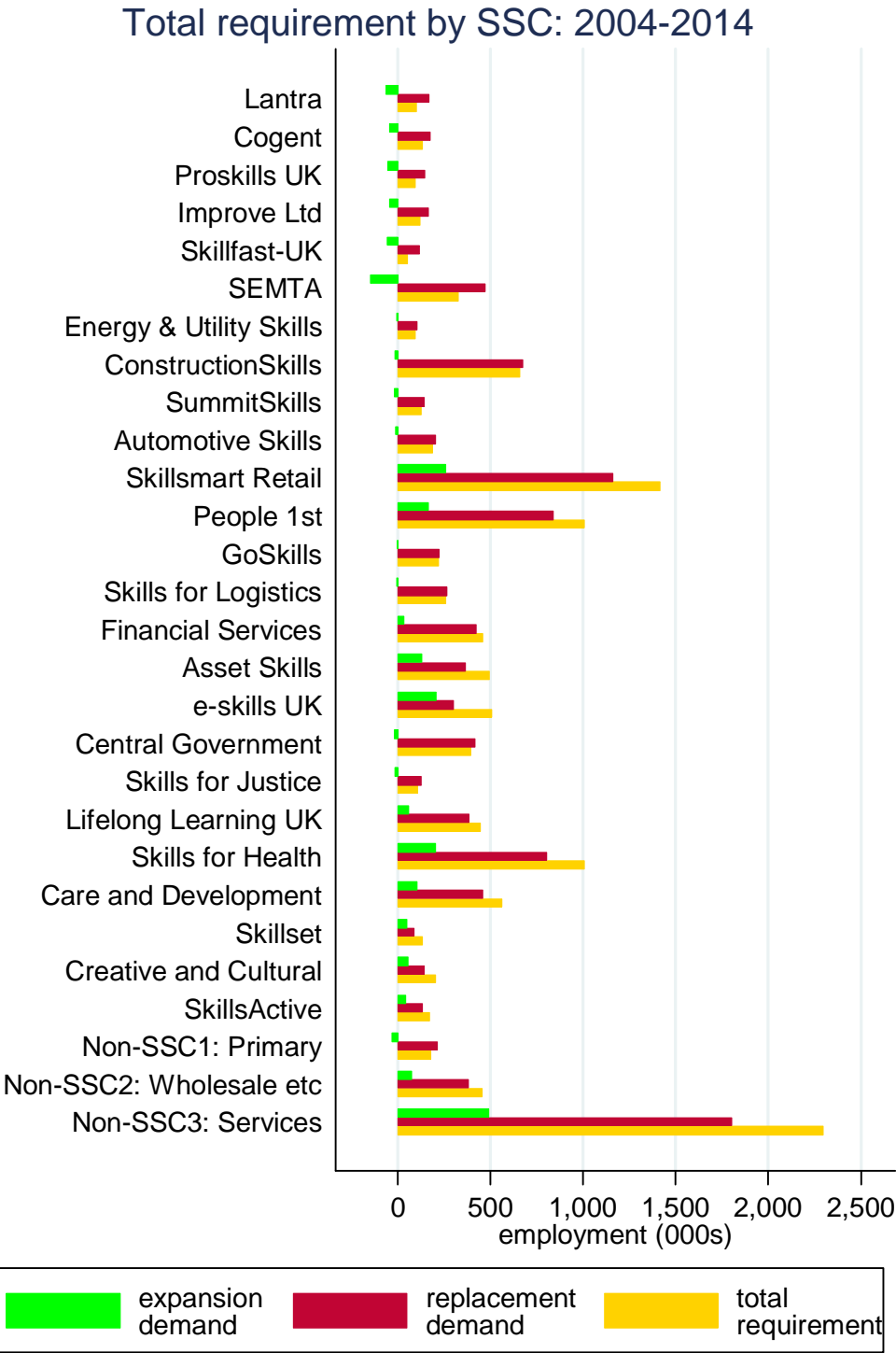


Figure 2.12: Total requirement by SSC: 2004-2014



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3. FORECASTS FOR INDIVIDUAL SECTOR SKILLS COUNCILS

This chapter presents detailed estimates for each of the 24 established SSCs, an SSC in development (Central Government) and the three groups of industries identified in the previous chapter which are covered by the SSDA. In total, there are therefore 28 SSC/Non-SSC (groups of) industries. For each SSC and Non-SSC group, an identical and consistent set of information is presented as follows:

- Sector definition and sector coverage: describing the scope and remit of SSC X in terms of its industrial footprint;
- A brief commentary on any distinctive features of the employment composition of the SSC by gender, status and occupation, together with a summary of the projected changes forecast for the next decade, including the implications for replacement demands and total requirements (the sum of expansion demand and replacement demand);
- Table 3.X.1: Employment by status (full-time, part-time and self-employment) and gender (male, female) at 5 year intervals from 1994 to 2014 in levels (000s in employment) and shares (% of total employment);
- Table 3.X.2: Composition of employment by occupation at 5 year intervals from 1994 to 2014 for the nine SOC2000 major groups, in levels (000s in employment) and shares (% of total employment);
- Table 3.X.3: Expansion demand (ED), replacement demand (RD) and total requirement (TR) for the nine SOC2000 major groups for the period 2004-2014, in levels (employment in 000s) and percentage changes (% of 2004 employment level);
- Figure 3.X.1: Employment by gender (male, female) for 1984 to 2014;
- Figure 3.X.2: Employment by status (full-time employment, part-time employment and self-employment) for 1984 to 2014;
- Figure 3.X.3: Composition of employment by occupation at 5 year intervals from 1994 to 2014 for the nine SOC2000 major groups, in shares of total employment;
- Figure 3.X.4: Employment levels (000s in employment) by status and gender at 5 year intervals from 1994 to 2014;
- Figure 3.X.5: Employment shares by gender for each status at 5 year intervals from 1994 to 2014;
- Figure 3.X.6: Employment changes in 000s by status and gender for the decades 1984 to 1994, 1994 to 2004 and 2004 to 2014;
- Figure 3.X.7: Expansion demand (ED), replacement demand (RD) and total requirement (TR) for the nine SOC2000 major groups for the period 2004-2014, in levels (employment in 000s);

3.1 Lantra

Web: www.lantra.co.uk

Sector description:

Environmental and land-based industries.

SIC codes: 01, 02, 05.02, 85.2, 92.53

Sector coverage:

Agricultural livestock and crops, animal care, animal technology, aquaculture, environmental conservation, equine, farriery, fencing, floristry, forestry and timber processing game conservation, land-based engineering, landscaping, productive horticulture, veterinary nursing.

Commentary:

Employment composition by gender and status

- Lantra faces a continuing decline in total employment, with a further 15% of jobs anticipated to be lost from the sector over the next 10 years. However, this continuing decline is somewhat slower than experienced over the last two decades.
- The decline in employment will be mainly among male, full-time employees, although the number in self-employment will also continue to fall.
- Despite this projected fall in self-employment, Lantra will continue to have one of the highest shares of workers in self-employment with more than 40% of all in employment registered as self-employed.

Occupational composition of employment

- Almost two-thirds of workers in Lantra are either in Skilled Trades Occupations or Elementary Occupations.
- Most of the forecast decline in total employment for this SSC will be amongst those employed in Elementary Occupations.
- As a result, there will be a continuing shift in the share of total employment from Elementary Occupations to Skills Trades Occupations. This probably reflects the changing technological nature of employment in the sector.

Expansion demand, replacement demand and total requirement 2004-2014

- While employment continues to decline over the next decade, the total requirement in this sector is positive for all occupational groups with the exception of Elementary Occupations.
- Employment equivalent to 1-in-5 of the current workforce will need to be recruited to the sector over the next 10 years.
- Around 70% of new recruits, equivalent to 73,000 workers, will need to be in Skilled Trades Occupations.

Table 3.1.1: Employment levels and shares by status and gender: 1994-2014

SSC: Lantra									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	55	48	54	157	9	8	9	26	
Male	181	46	218	445	30	8	36	74	
Total employment	236	94	272	602	39	16	45	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	68	49	39	155	13	9	7	29	
Male	184	43	155	382	34	8	29	71	
Total employment	252	91	194	537	47	17	36	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	56	45	30	131	12	10	7	29	
Male	128	31	161	321	28	7	36	71	
Total employment	184	77	191	451	41	17	42	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	63	49	22	134	15	12	5	32	
Male	106	25	157	287	25	6	37	68	
Total employment	169	74	178	421	40	18	42	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	67	50	15	132	17	13	4	34	
Male	84	23	148	255	22	6	38	66	
Total employment	151	74	162	387	39	19	42	100	

Table 3.1.2: Composition of employment by occupation: 1994-2014

SSC: Lantra					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	68	50	41	40	38
2. Professional Occupations	11	11	10	11	11
3. Associate Professional & Tech.	20	21	20	21	21
4. Administrative, Clerical and Sec.	22	19	14	13	11
5. Skilled Trades Occupations	221	187	173	175	174
6. Personal Service Occupations	37	45	43	41	43
7. Sales & Customer Service Occs.	5	5	4	4	4
8. Machine & Transport Operatives	50	43	30	25	20
9. Elementary Occupations	168	156	116	91	64
Total employment	602	537	451	421	387
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	11	9	9	10	10
2. Professional Occupations	2	2	2	3	3
3. Associate Professional & Tech.	3	4	4	5	5
4. Administrative, Clerical and Sec.	4	4	3	3	3
5. Skilled Trades Occupations	37	35	38	42	45
6. Personal Service Occupations	6	8	9	10	11
7. Sales & Customer Service Occs.	1	1	1	1	1
8. Machine & Transport Operatives	8	8	7	6	5
9. Elementary Occupations	28	29	26	22	17
Total employment	100	100	100	100	100

Table 3.1.3: Replacement demand by occupation: 2004-2014

SSC: Lantra				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	41	-4	16	12
2. Professional Occupations	10	1	4	4
3. Associate Professional & Tech.	20	1	7	8
4. Administrative, Clerical and Sec.	14	-2	6	3
5. Skilled Trades Occupations	173	1	72	73
6. Personal Service Occupations	43	0	16	16
7. Sales & Customer Service Occs.	4	0	1	2
8. Machine & Transport Operatives	30	-9	10	0
9. Elementary Occupations	116	-52	36	-15
Total employment	451	-64	168	104
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	9	-9	38	29
2. Professional Occupations	2	7	35	42
3. Associate Professional & Tech.	4	3	36	38
4. Administrative, Clerical and Sec.	3	-17	42	25
5. Skilled Trades Occupations	38	1	42	42
6. Personal Service Occupations	9	1	36	37
7. Sales & Customer Service Occs.	1	7	34	41
8. Machine & Transport Operatives	7	-32	33	2
9. Elementary Occupations	26	-45	31	-13
Total employment	100	-14	37	23

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.1.1: Employment by gender: 1984-2014

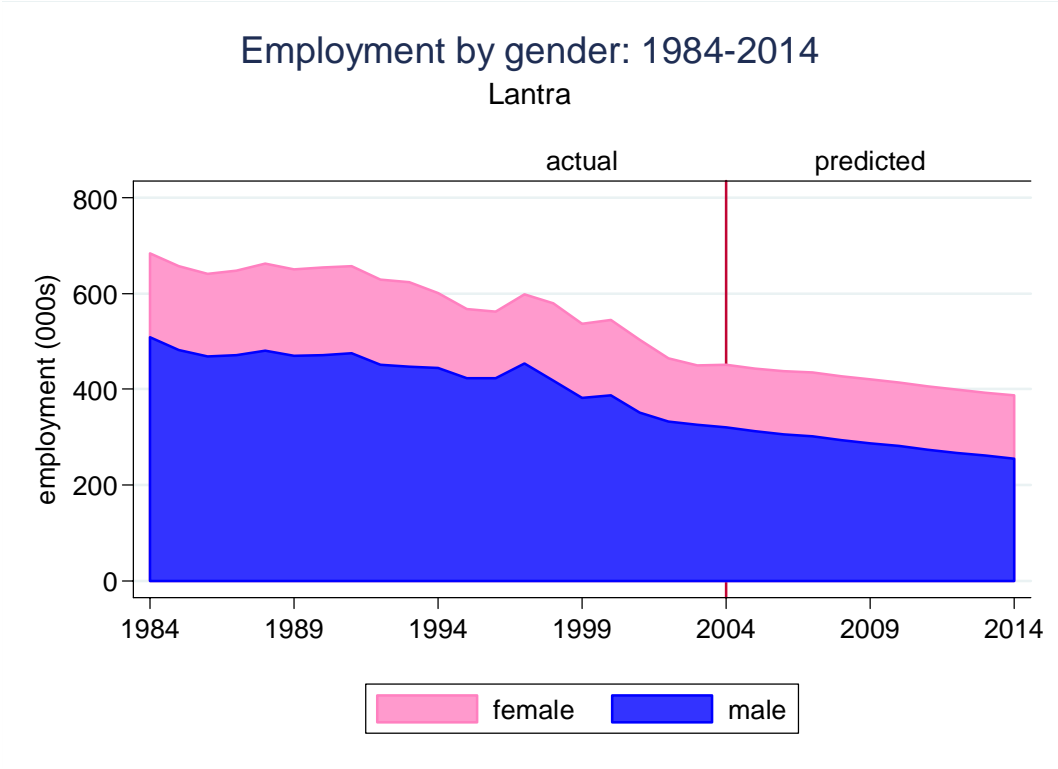


Figure 3.1.2: Employment by status: 1984-2014

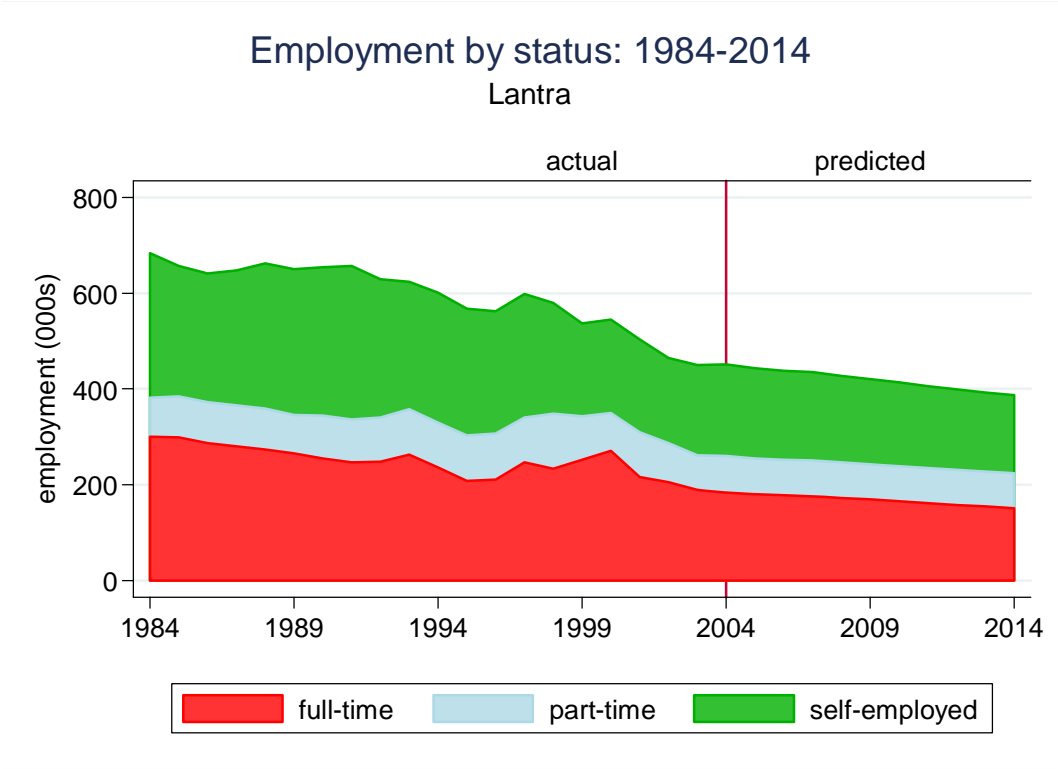


Figure 3.1.3: Occupational composition: 1994-2014

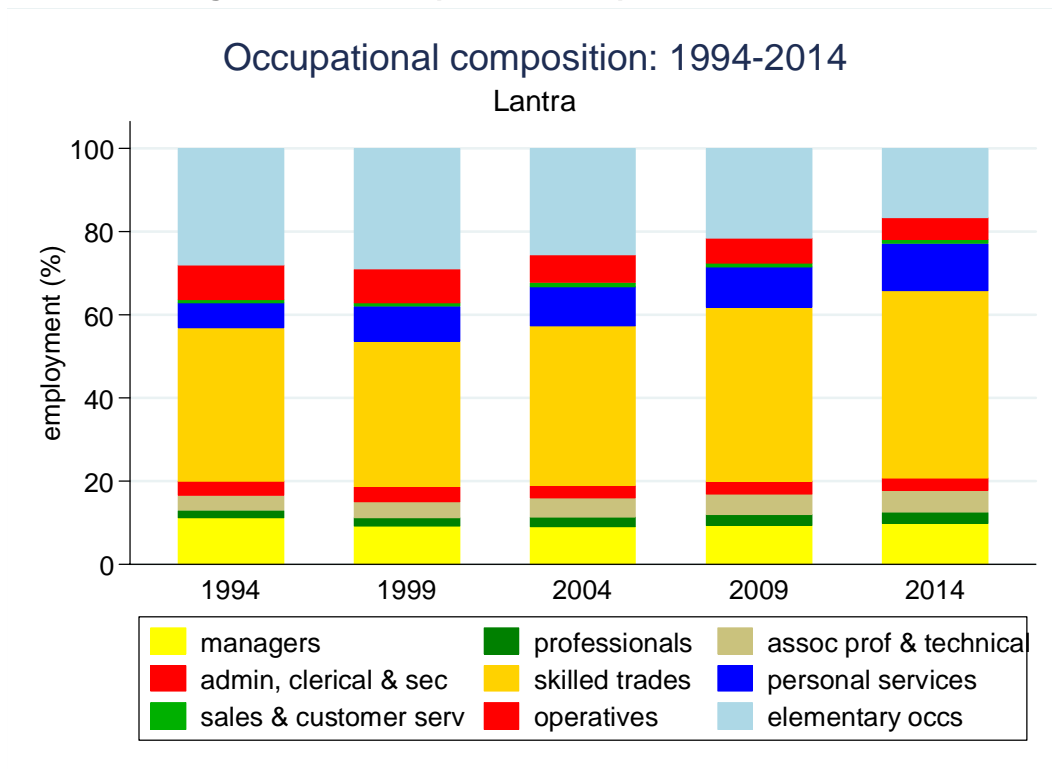


Figure 3.1.4: Employment levels by status and gender: 1994-2014

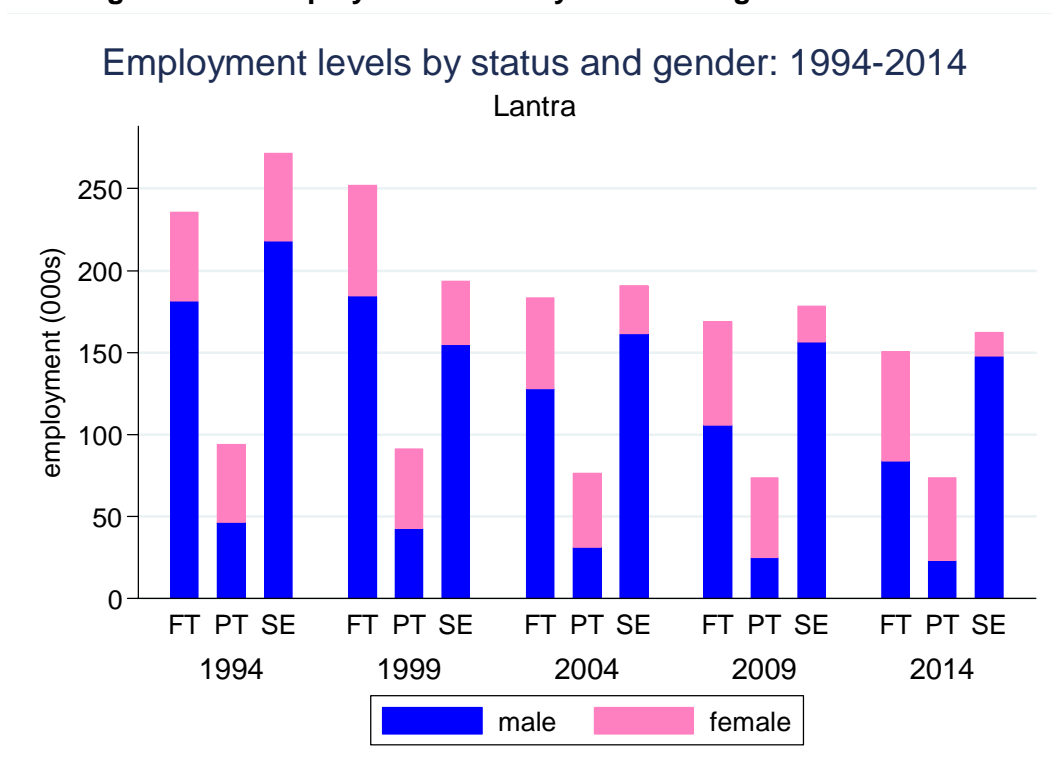


Figure 3.1.5: Employment shares by status and gender: 1994-2014

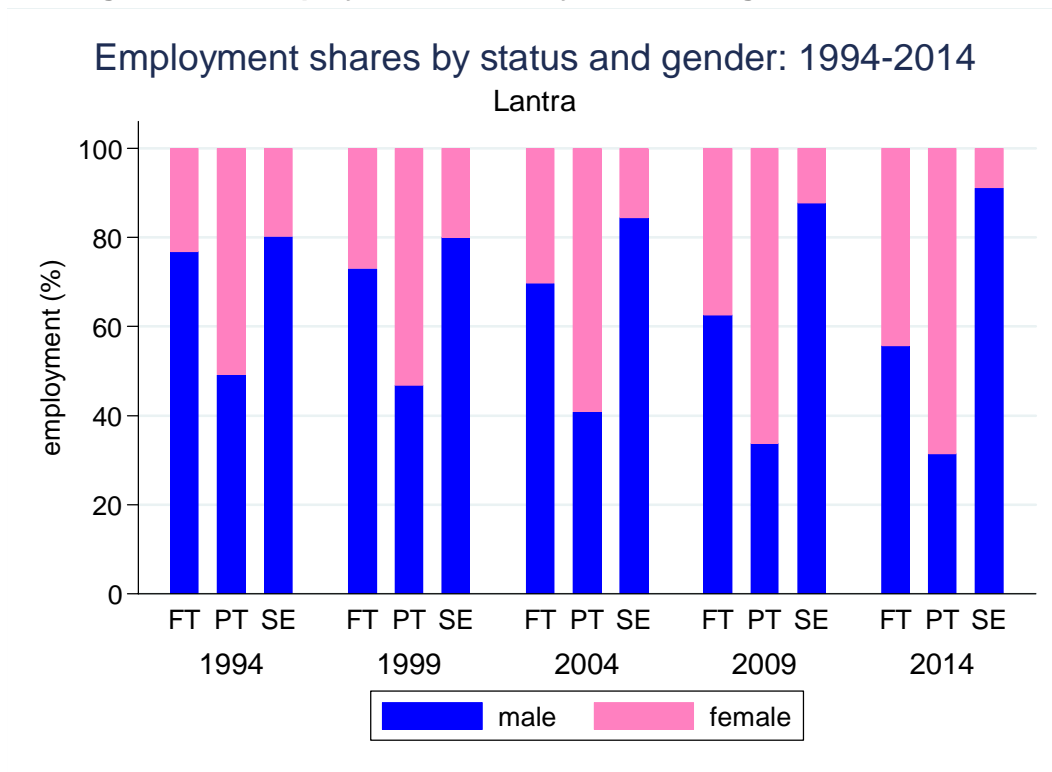


Figure 3.1.6: Employment changes by status and gender: 1984-2014

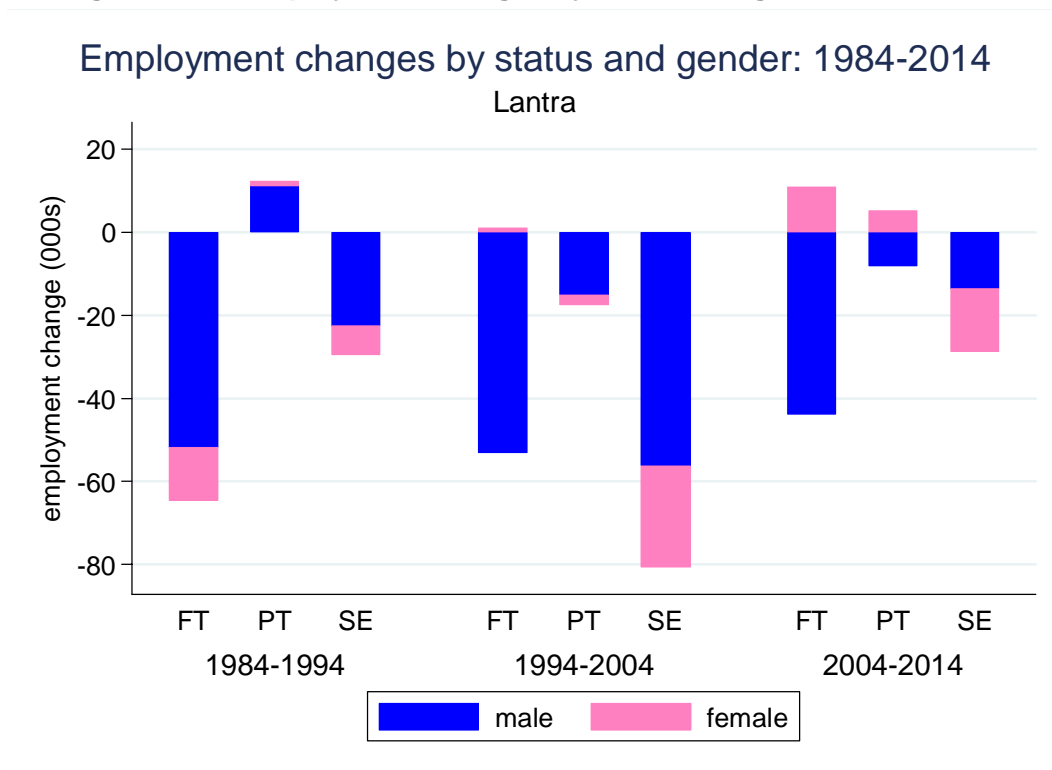
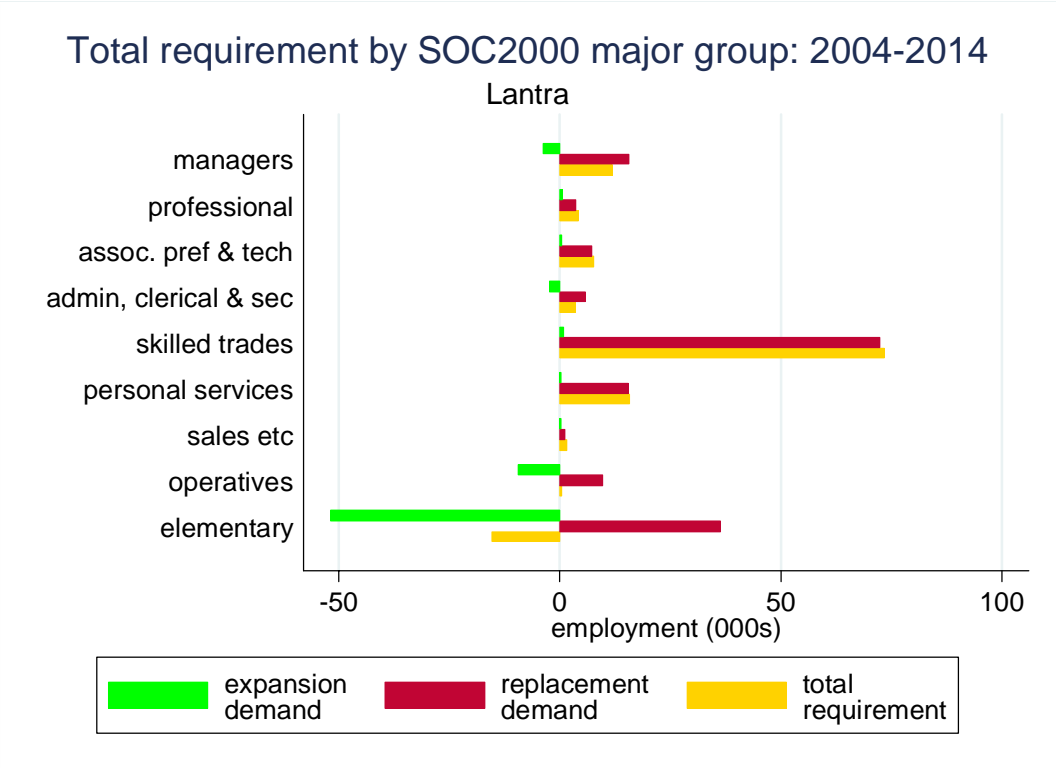


Figure 3.1.7: Total requirement by SOC2000 major group: 2004-2014



3.2 Cogent

Web: www.cogent-ssc.com

Sector description:

Chemicals, nuclear, oil and gas, petroleum and polymer industries

SIC codes: 11, 23, 24.11-24.2, 24.41-24.63, 24.65, 24.66, 25.13-25.24, 50.5

Sector coverage:

Oil and gas exploration and extraction, chemicals manufacturing and processing, petroleum refining, blending, storage and distribution, forecourt operations, oil fired heating services, manufacture of aviation fuels, bitumen, inks, polymer and nuclear industries.

Commentary:

Employment composition by gender and status

- The Cogent workforce is dominated by full-time employment. In 2004, 86% of workers are employed full-time.
- This share is set to decline slightly over the next decade as employment in the sector falls. Indeed, all of the forecast fall in employment over the next 10 years is projected to be amongst full-time workers.

Occupational composition of employment

- Cogent SSC has a relatively high share of Machine & Transport Operatives, comprising more than one fifth of total employment in the sector in 2004.

Expansion demand, replacement demand and total requirement 2004-2014

- In common with most of the SSCs which are based in primary and manufacturing industries, employment in Cogent SSC is expected to decline gradually over the next 10 years.
- The decline in total employment is especially marked amongst the Elementary Occupations, where employment is expected to decline by one third over the next 10 years. This fall is exactly matched by the replacement demand for Elementary Occupation workers, such that the total requirement for this occupational group is zero over the period to 2014.
- All other occupational have positive total requirements over the next 10 years. However, different occupational groups face rather different prospects – from a 15% net decline in and Machine & Transport Operatives, to an increase in Personal Service Occupations and Sales & Customer Service Occupations employment of 13% and 14% respectively.

Table 3.2.1: Employment levels and shares by status and gender: 1994-2014

SSC: Cogent									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	102	24	5	132	19	4	1	24	
Male	383	7	22	412	70	1	4	76	
Total employment	485	31	27	544	89	6	5	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	114	32	5	150	19	6	1	26	
Male	405	12	16	433	69	2	3	74	
Total employment	519	44	20	583	89	8	3	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	106	33	4	144	21	6	1	28	
Male	340	16	18	373	66	3	3	72	
Total employment	446	49	22	517	86	9	4	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	104	34	4	143	21	7	1	29	
Male	318	20	16	355	64	4	3	71	
Total employment	422	55	21	498	85	11	4	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	99	35	5	138	21	7	1	29	
Male	293	24	15	333	62	5	3	71	
Total employment	392	59	20	471	83	13	4	100	

Table 3.2.2: Composition of employment by occupation: 1994-2014

SSC: Cogent					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	69	77	73	74	74
2. Professional Occupations	41	45	42	42	41
3. Associate Professional & Tech.	55	62	60	59	59
4. Administrative, Clerical and Sec.	51	53	47	44	42
5. Skilled Trades Occupations	86	87	69	64	60
6. Personal Service Occupations	9	12	12	14	14
7. Sales & Customer Service Occs.	19	31	33	35	37
8. Machine & Transport Operatives	139	142	119	112	101
9. Elementary Occupations	74	75	63	54	42
Total employment	544	583	517	498	471
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	13	13	14	15	16
2. Professional Occupations	8	8	8	8	9
3. Associate Professional & Tech.	10	11	12	12	12
4. Administrative, Clerical and Sec.	9	9	9	9	9
5. Skilled Trades Occupations	16	15	13	13	13
6. Personal Service Occupations	2	2	2	3	3
7. Sales & Customer Service Occs.	4	5	6	7	8
8. Machine & Transport Operatives	26	24	23	22	22
9. Elementary Occupations	14	13	12	11	9
Total employment	100	100	100	100	100

Table 3.2.3: Replacement demand by occupation: 2004-2014

SSC: Cogent				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	73	2	25	26
2. Professional Occupations	42	0	13	13
3. Associate Professional & Tech.	60	-1	19	18
4. Administrative, Clerical and Sec.	47	-5	19	14
5. Skilled Trades Occupations	69	-9	23	14
6. Personal Service Occupations	12	2	5	6
7. Sales & Customer Service Occs.	33	5	11	15
8. Machine & Transport Operatives	119	-18	42	24
9. Elementary Occupations	63	-21	21	0
Total employment	517	-46	176	130
<i>Percentages (%)</i>				
SOC2000 Major groups	2004 changes 2004-2014			
	shares	ED	RD	TR
1. Managers & Senior Officials	14	2	34	36
2. Professional Occupations	8	-1	32	31
3. Associate Professional & Tech.	12	-1	31	30
4. Administrative, Clerical and Sec.	9	-11	40	29
5. Skilled Trades Occupations	13	-13	33	20
6. Personal Service Occupations	2	13	39	52
7. Sales & Customer Service Occs.	6	14	32	46
8. Machine & Transport Operatives	23	-15	35	20
9. Elementary Occupations	12	-33	33	0
Total employment	100	-9	34	25

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.2.1: Employment by gender: 1984-2014

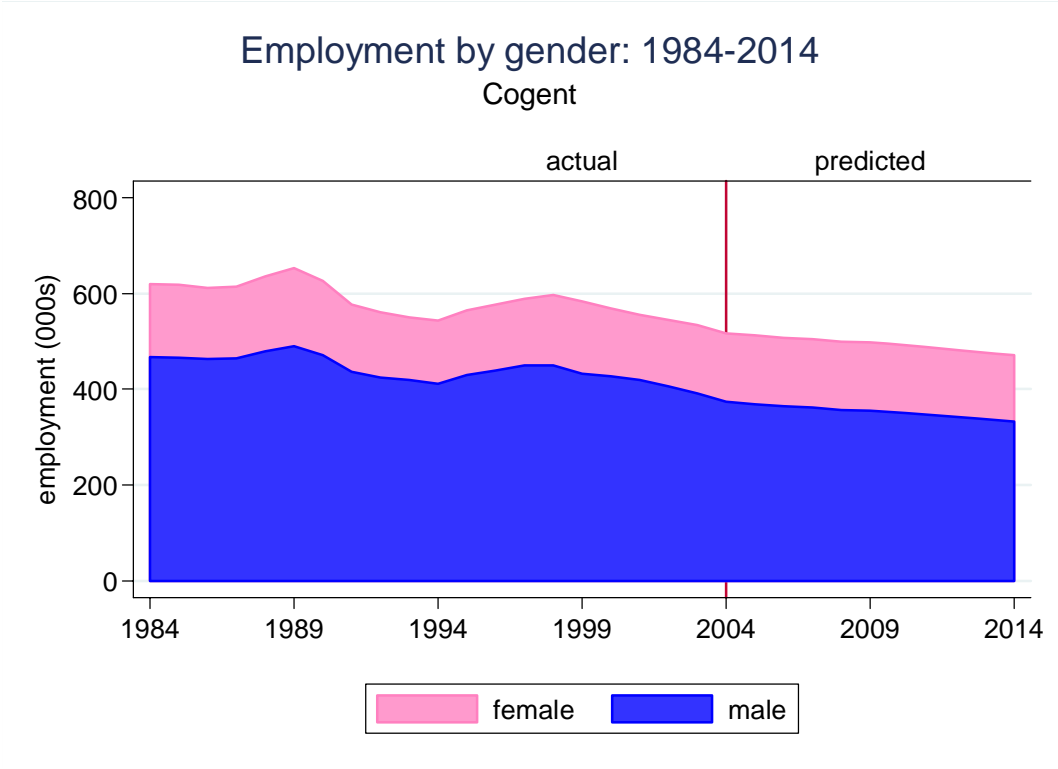


Figure 3.2.2: Employment by status: 1984-2014

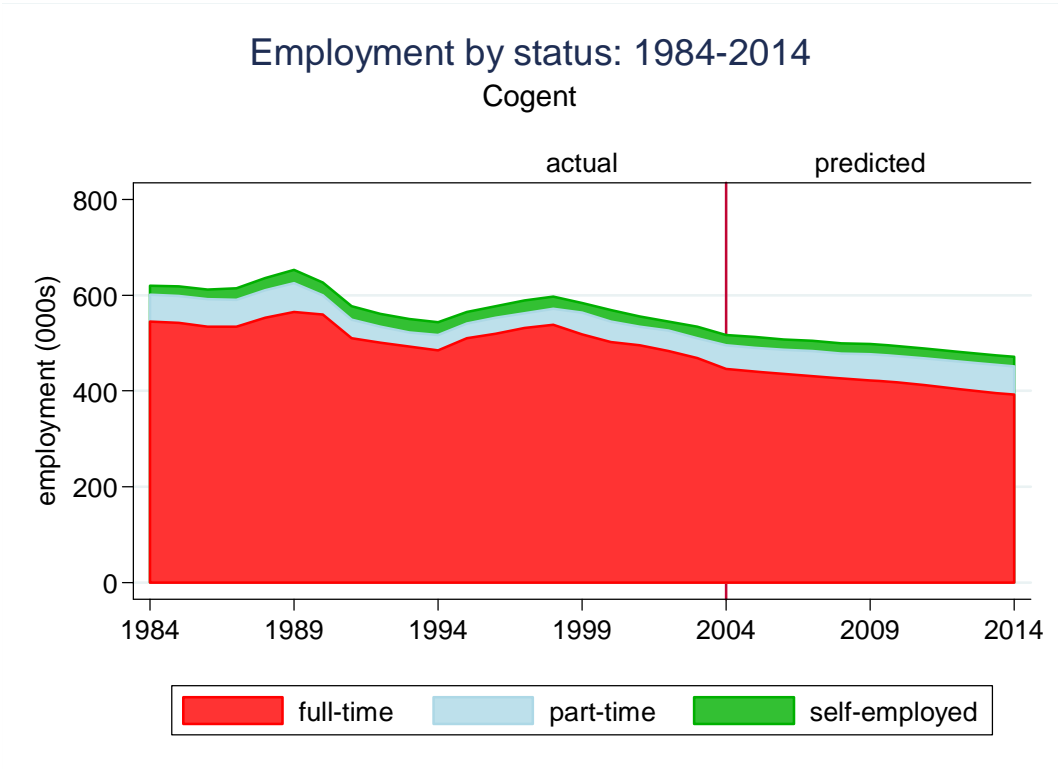


Figure 3.2.3: Occupational composition: 1994-2014

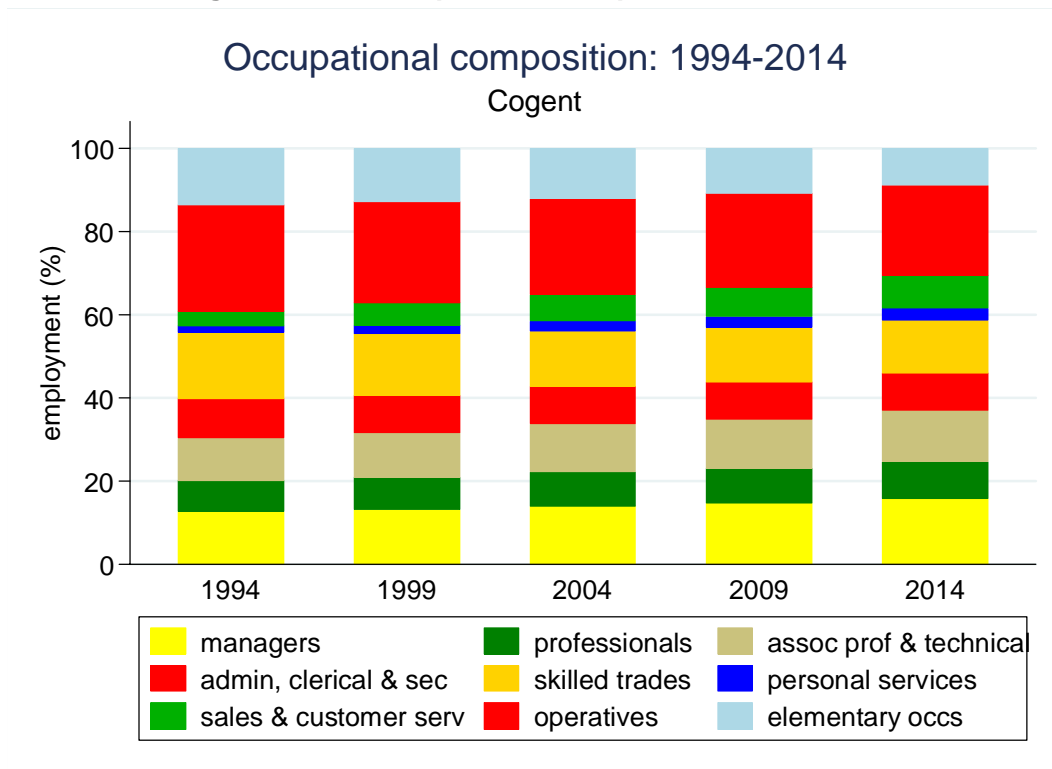


Figure 3.2.4: Employment levels by status and gender: 1994-2014

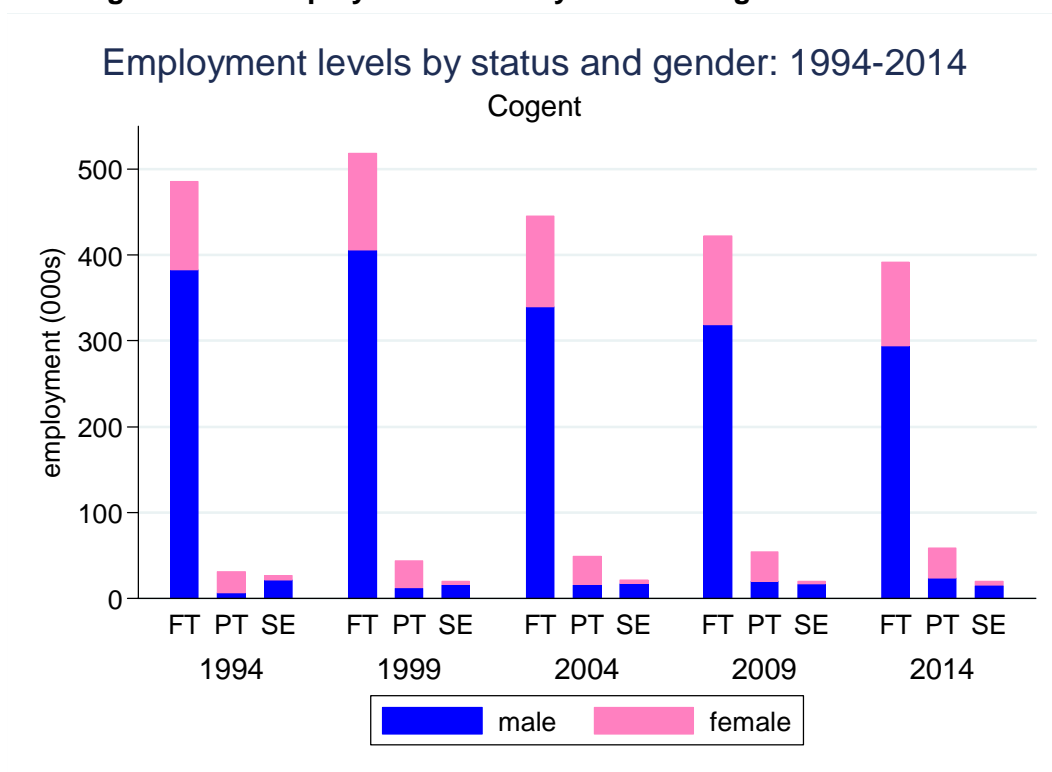


Figure 3.2.5: Employment shares by status and gender: 1994-2014

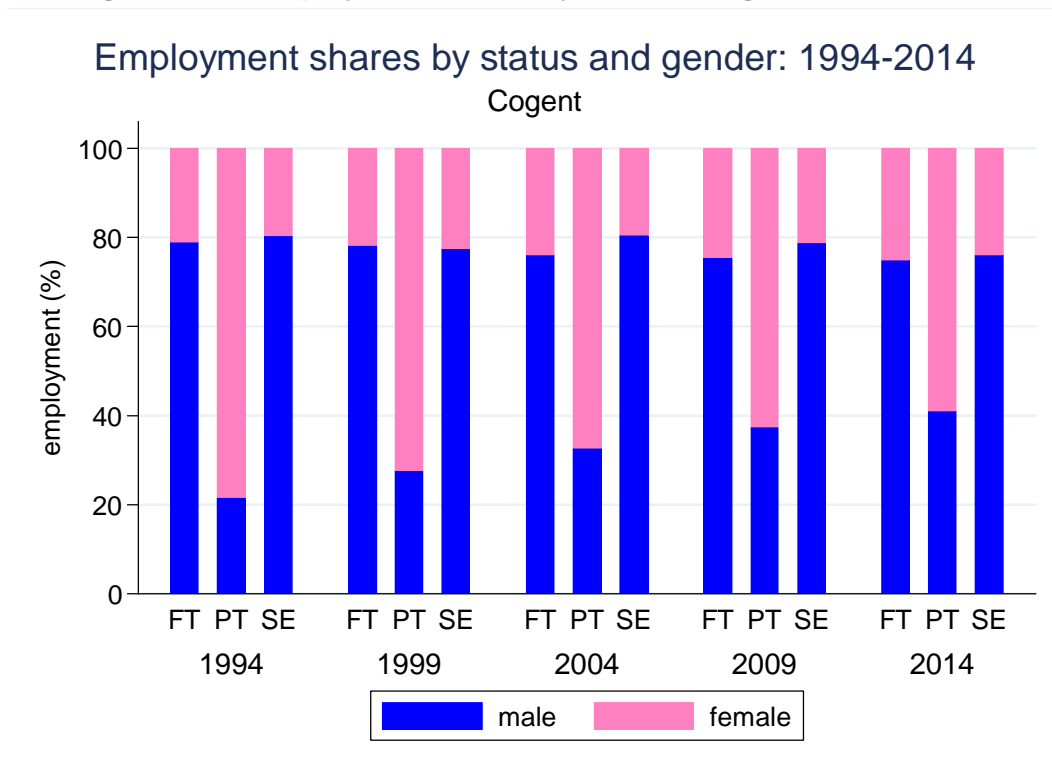


Figure 3.2.6: Employment changes by status and gender: 1984-2014

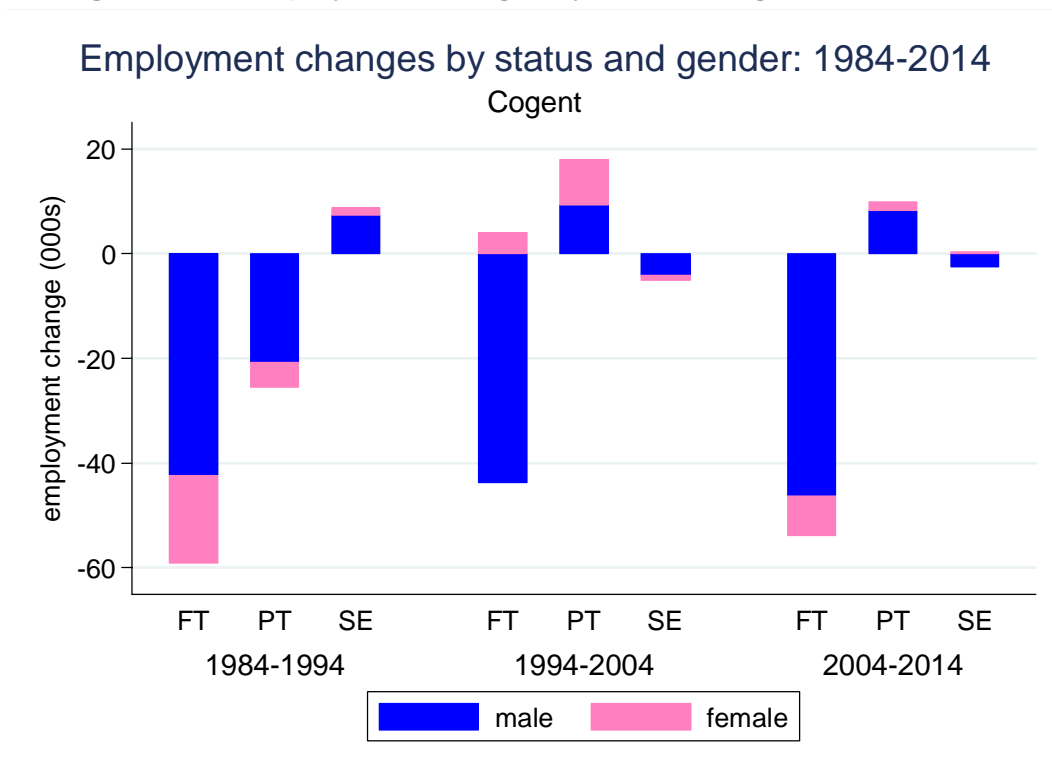
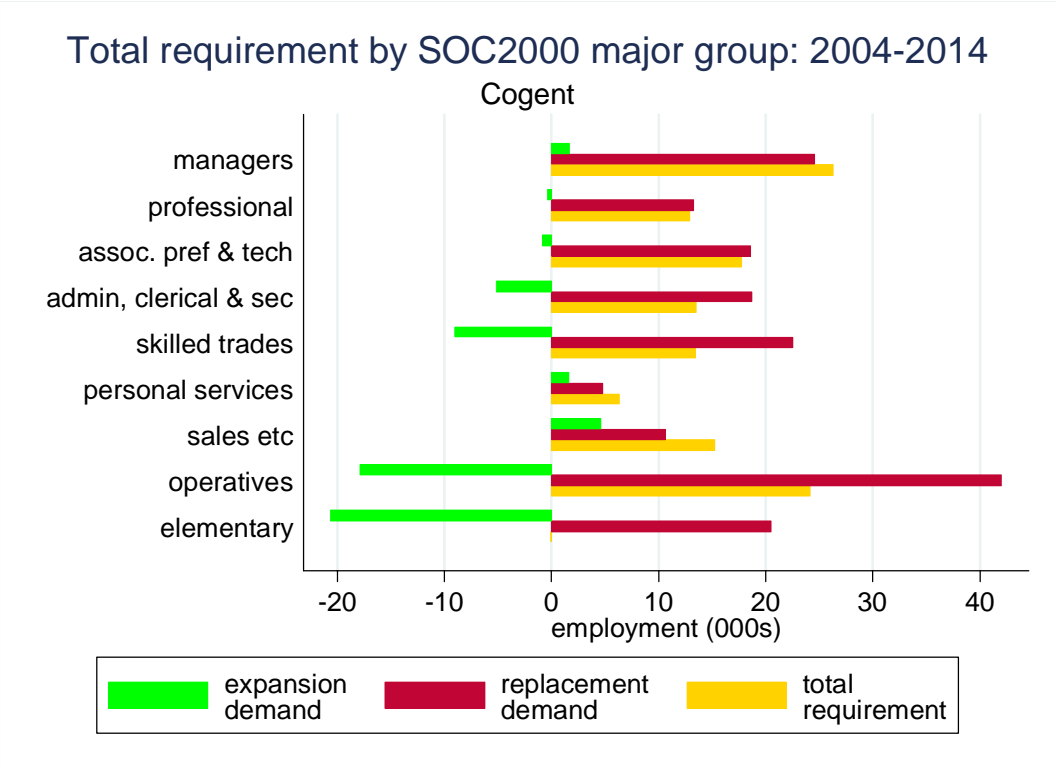


Figure 3.2.7: Total requirement by SOC2000 major group: 2004-2014



3.3 Proskills UK

Web: www.proskills.co.uk

Sector description:

Process and manufacturing of extractives, coatings, refractories, building products, paper and print.

SIC codes: 10, 12-14, 21, 22.2, 24.3, 26.1, 26.26, 26.4-26.8, 40.3

Sector coverage:

The sector covers all employers and employees engaged in the process and manufacturing of building products, refractories, glass, glass products, paint, coatings, print, printed packaging, extractive and mineral processing.

Commentary:

Employment composition by gender and status

- The Proskills UK workforce is predominately full-time employees. In 2004, 84% of all in employment are in full-time employment, and this share is set to remain at this level despite falling overall employment forecast for the next decade.

Occupational composition of employment

- Employment is disproportionately concentrated in Skills Trades Occupations and Machine & Transport Operatives occupational groups. Together these account for 40% of employment in 2004, more than twice the average share across all sectors.

Expansion demand, replacement demand and total requirement 2004-2014

- Over the next 10 years, employment covered by Proskills UK SSC is set to decline by around 12%.
- This decrease is concentrated amongst the lower occupational groups; the share of employment held by Managers & Senior Officials, Professional Occupations and Associate Professional & Technical Occupations is expected to remain constant, or to increase slightly. All other occupational groups are expected to decline.
- The biggest expected falls in employment are amongst Elementary Occupations - 40% of these jobs are anticipated to disappear by 2014. The total requirement for this occupational group over the next 10 years is actually negative.

Table 3.3.1: Employment levels and shares by status and gender: 1994-2014

SSC: Proskills UK									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	92	40	12	144	18	8	2	27	
Male	344	10	29	383	65	2	5	73	
Total employment	436	50	40	527	83	10	8	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	89	30	10	129	17	6	2	25	
Male	351	10	27	388	68	2	5	75	
Total employment	440	40	37	517	85	8	7	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	72	25	9	106	16	6	2	24	
Male	301	10	27	339	68	2	6	76	
Total employment	373	35	37	445	84	8	8	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	62	15	10	88	15	4	2	21	
Male	292	9	29	330	70	2	7	79	
Total employment	354	24	40	418	85	6	9	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	51	12	11	74	13	3	3	19	
Male	278	8	30	316	71	2	8	81	
Total employment	329	20	41	390	84	5	11	100	

Table 3.3.2: Composition of employment by occupation: 1994-2014

SSC: Proskills UK					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	63	71	68	71	71
2. Professional Occupations	21	23	21	22	22
3. Associate Professional & Tech.	60	68	67	70	72
4. Administrative, Clerical and Sec.	60	53	42	35	29
5. Skilled Trades Occupations	110	102	80	73	67
6. Personal Service Occupations	9	10	9	9	8
7. Sales & Customer Service Occs.	13	14	13	12	11
8. Machine & Transport Operatives	119	111	92	87	80
9. Elementary Occupations	71	64	51	41	31
Total employment	527	517	445	418	390
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	12	14	15	17	18
2. Professional Occupations	4	4	5	5	6
3. Associate Professional & Tech.	11	13	15	17	18
4. Administrative, Clerical and Sec.	11	10	10	8	7
5. Skilled Trades Occupations	21	20	18	17	17
6. Personal Service Occupations	2	2	2	2	2
7. Sales & Customer Service Occs.	3	3	3	3	3
8. Machine & Transport Operatives	23	21	21	21	21
9. Elementary Occupations	13	12	11	10	8
Total employment	100	100	100	100	100

Table 3.3.3: Replacement demand by occupation: 2004-2014

SSC: Proskills UK				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	68	3	23	26
2. Professional Occupations	21	1	7	7
3. Associate Professional & Tech.	67	4	21	25
4. Administrative, Clerical and Sec.	42	-14	16	2
5. Skilled Trades Occupations	80	-13	26	13
6. Personal Service Occupations	9	-1	4	2
7. Sales & Customer Service Occs.	13	-2	4	2
8. Machine & Transport Operatives	92	-12	31	19
9. Elementary Occupations	51	-20	16	-4
Total employment	445	-55	149	94
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	15	4	34	38
2. Professional Occupations	5	3	32	35
3. Associate Professional & Tech.	15	6	32	38
4. Administrative, Clerical and Sec.	10	-32	38	6
5. Skilled Trades Occupations	18	-16	33	16
6. Personal Service Occupations	2	-13	39	26
7. Sales & Customer Service Occs.	3	-19	33	14
8. Machine & Transport Operatives	21	-13	34	21
9. Elementary Occupations	11	-40	32	-8
Total employment	100	-12	33	21

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.3.1: Employment by gender: 1984-2014

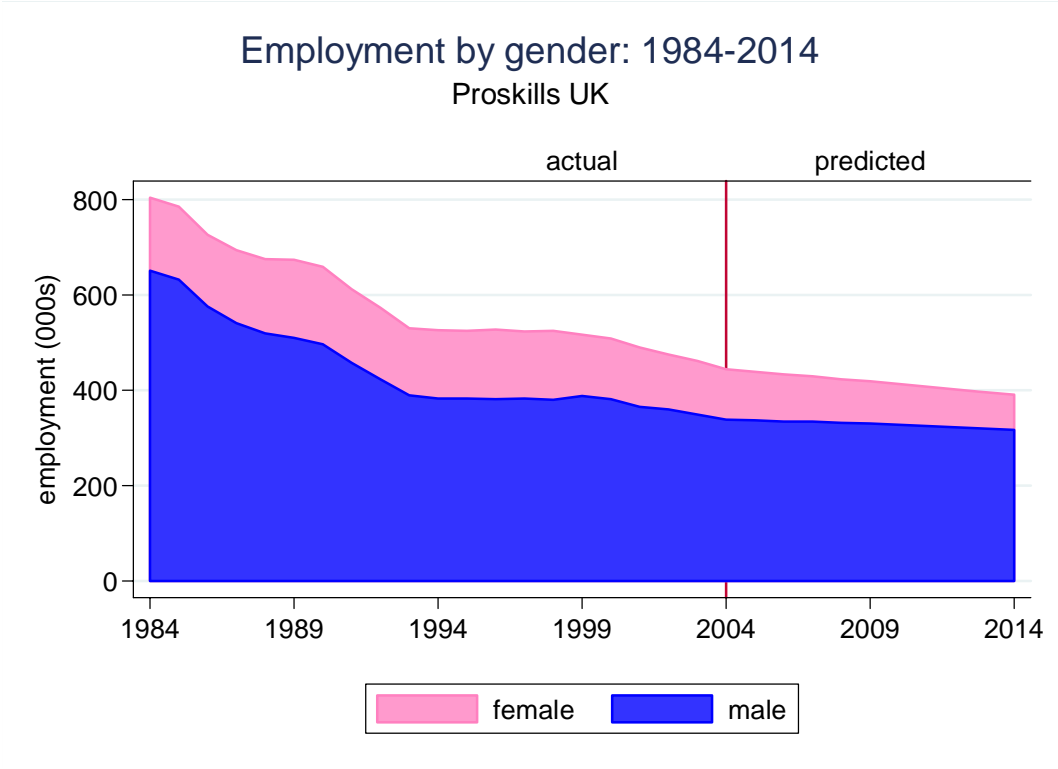


Figure 3.3.2: Employment by status: 1984-2014

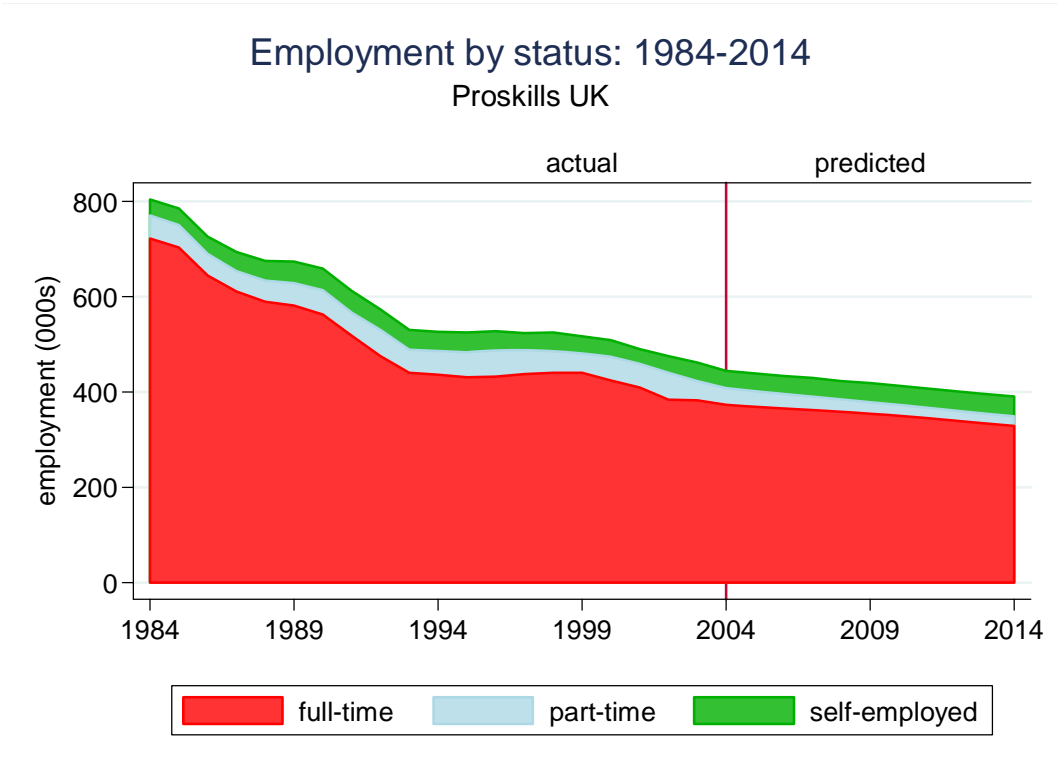


Figure 3.3.3: Occupational composition: 1994-2014

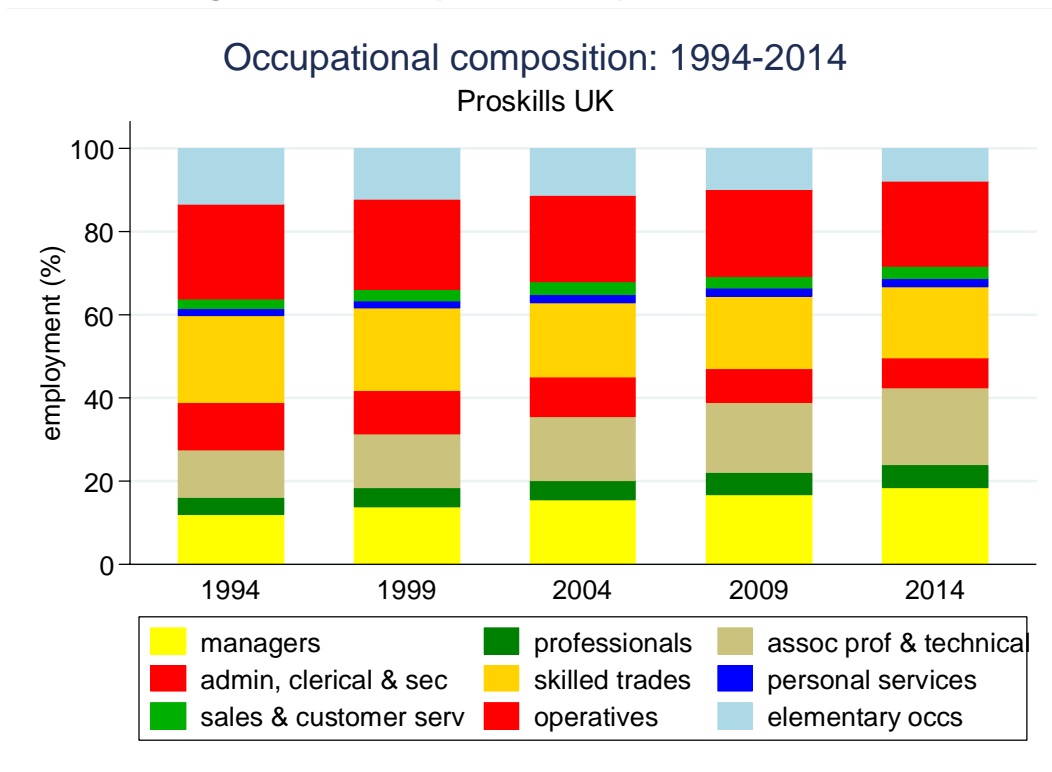


Figure 3.3.4: Employment levels by status and gender: 1994-2014

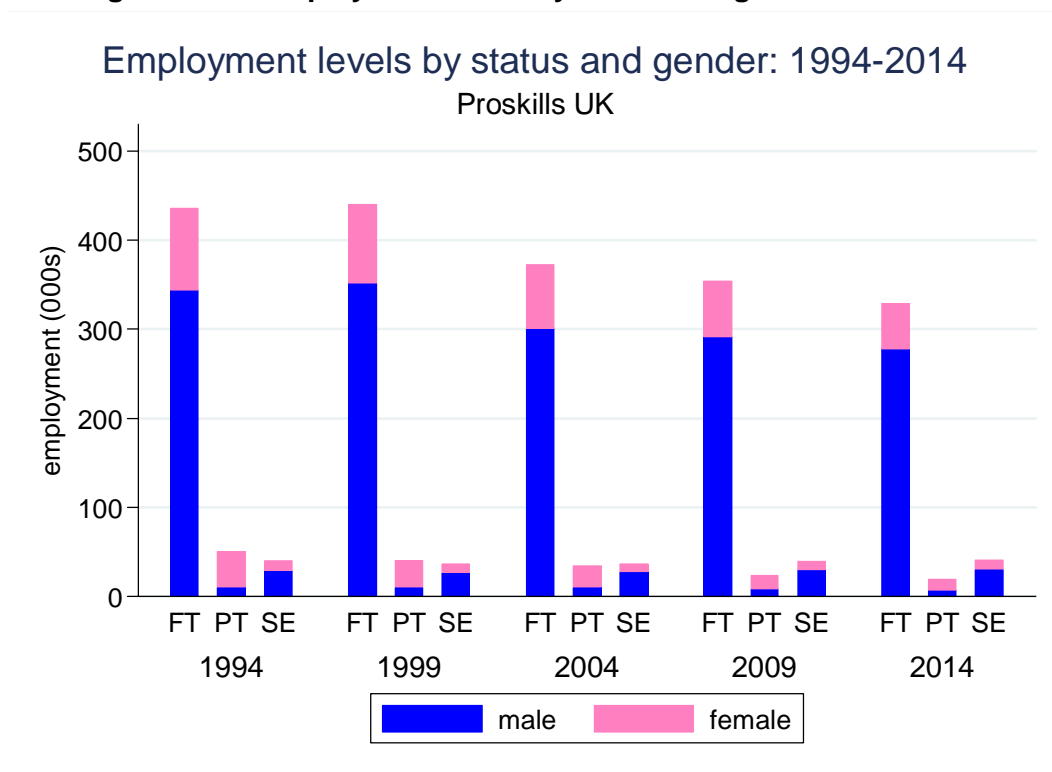


Figure 3.3.5: Employment shares by status and gender: 1994-2014

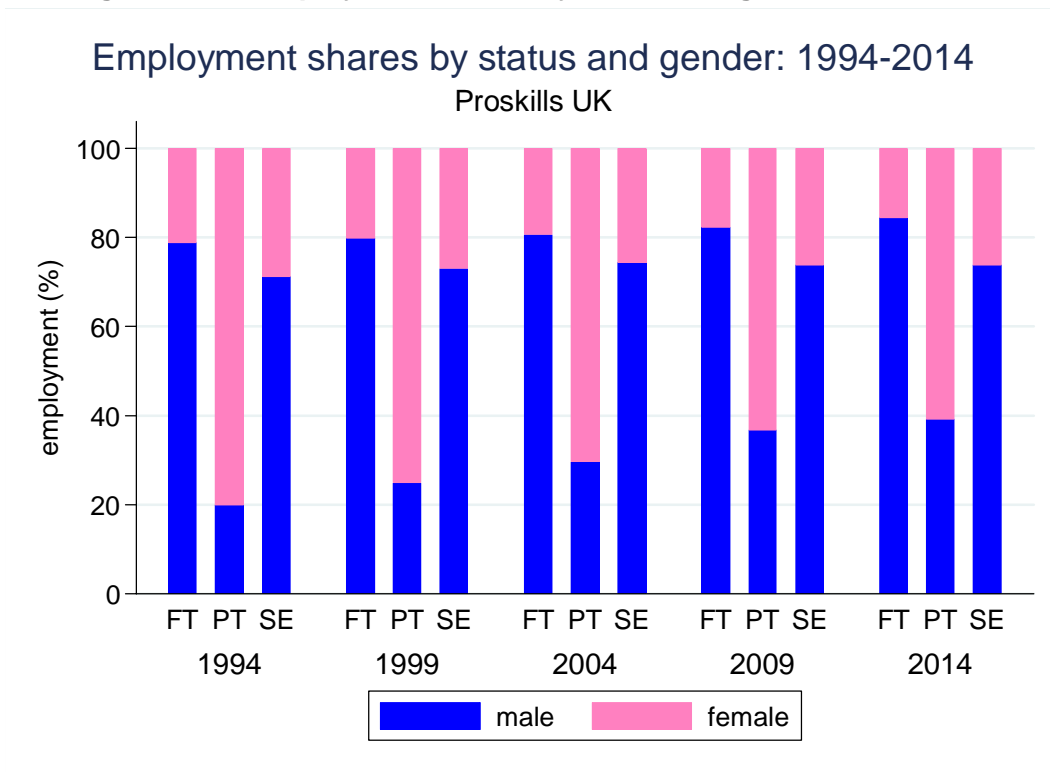


Figure 3.3.6: Employment changes by status and gender: 1984-2014

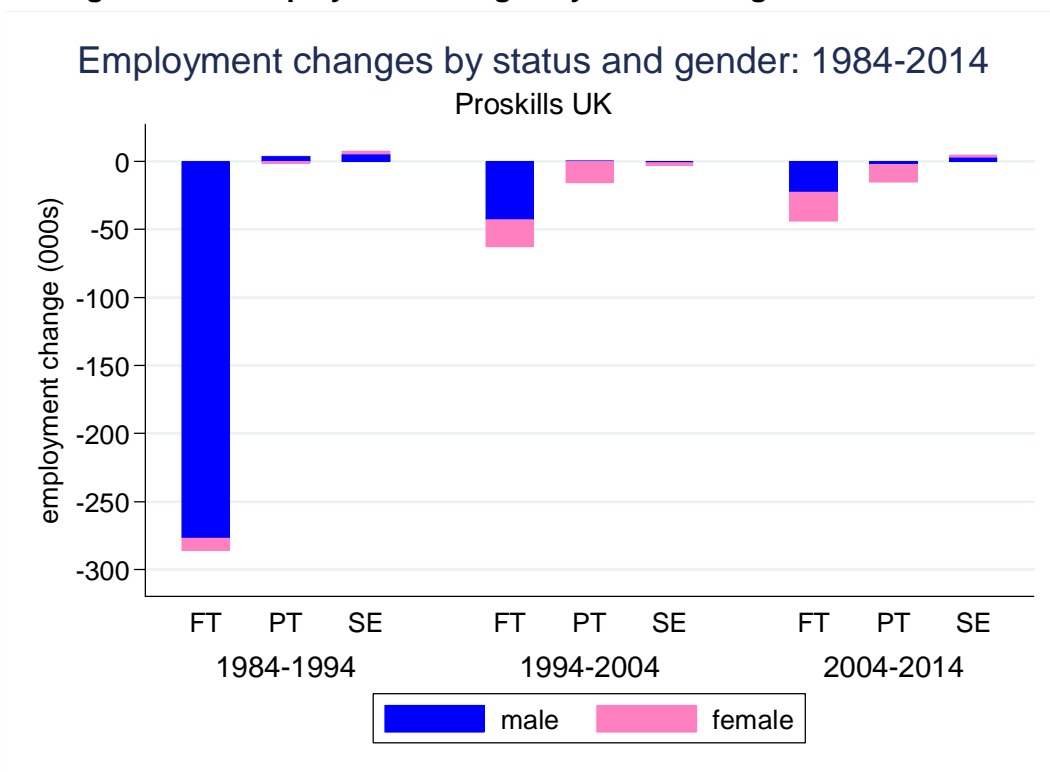
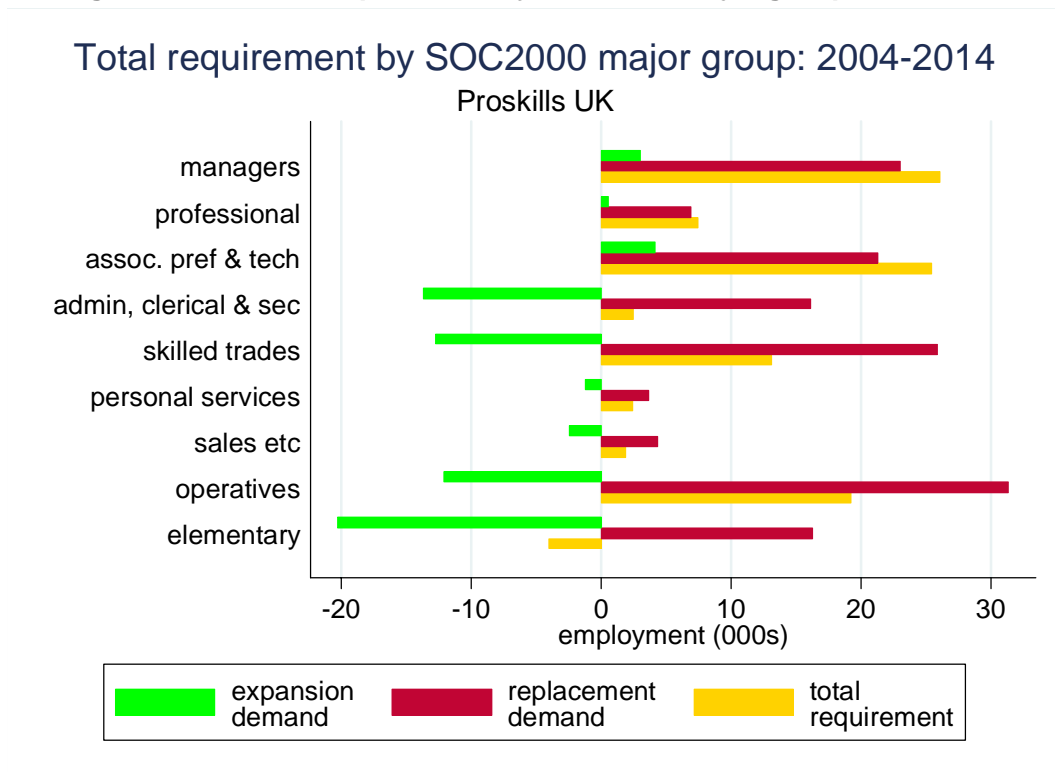


Figure 3.3.7: Total requirement by SOC2000 major group: 2004-2014



3.4 Improve Ltd

Web: www.improveltd.co.uk

Sector description:

Food and drink manufacturing and processing.

SIC codes: 15.11-15.91, 15.93-15.98, 51.38

Sector coverage:

Improve Ltd SSC represents employers operating in all sectors of the food and drink manufacturing and processing industry including sea fishing, craft bakery, meat and poultry, dairy and general food and drink.

Commentary:

Employment composition by gender and status

- Workers covered by Improve Ltd SSC are mainly full-time employees. In 2004, 86% are full-time. In contrast to the national patterns, the share of full-time jobs is actually increasing in the industries covered by this SSC. By 2014, more than 90% of workers are forecast to be in full-time employment in this sector.
- Part-time employment is becoming less and less common, and self-employment is very uncommon in this sector – only around 3% of all in employment in 2004 are self-employed.

Occupational composition of employment

- Three occupational groups dominate employment in this sector: Skilled Trades Occupations, Machine & Transport Operatives and Elementary Occupations. Together these groups account for 56% of total employment in 2004 and this compares with 30% across the whole economy for these three occupational groups.

Expansion demand, replacement demand and total requirement 2004-2014

- Total employment in this sector is forecast to fall by about 10% over the next 10 years, by about 45,000 workers. Half of this decrease will be amongst Elementary Occupations.
- The expanding numbers of Managers & Senior Officials, and Professional Occupations both generate high total requirements for these two occupational groups over the next decade. Recruitment equivalent to almost 50% of current employment levels will be required to meet this demand.

Table 3.4.1: Employment levels and shares by status and gender: 1994-2014

SSC: Improve Ltd									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	122	98	8	227	25	20	2	46	
Male	238	16	12	267	48	3	2	54	
Total employment	360	114	20	494	73	23	4	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	132	53	3	189	25	10	1	36	
Male	312	13	11	336	60	2	2	64	
Total employment	445	66	14	524	85	13	3	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	115	38	3	156	24	8	1	33	
Male	291	12	12	315	62	3	3	67	
Total employment	406	50	15	471	86	11	3	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	106	8	1	115	24	2	0	26	
Male	319	5	10	334	71	1	2	74	
Total employment	425	13	11	449	95	3	2	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	90	6	0	96	21	1	0	23	
Male	319	4	7	330	75	1	2	77	
Total employment	409	9	8	426	96	2	2	100	

Table 3.4.2: Composition of employment by occupation: 1994-2014

SSC: Improve Ltd					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	47	62	63	68	71
2. Professional Occupations	14	18	18	19	20
3. Associate Professional & Tech.	33	41	40	40	40
4. Administrative, Clerical and Sec.	52	47	40	31	29
5. Skilled Trades Occupations	83	86	70	68	63
6. Personal Service Occupations	4	4	4	4	4
7. Sales & Customer Service Occs.	37	40	40	32	32
8. Machine & Transport Operatives	130	138	122	122	116
9. Elementary Occupations	92	88	74	64	50
Total employment	494	524	471	449	426
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	10	12	13	15	17
2. Professional Occupations	3	3	4	4	5
3. Associate Professional & Tech.	7	8	8	9	9
4. Administrative, Clerical and Sec.	11	9	9	7	7
5. Skilled Trades Occupations	17	16	15	15	15
6. Personal Service Occupations	1	1	1	1	1
7. Sales & Customer Service Occs.	7	8	8	7	8
8. Machine & Transport Operatives	26	26	26	27	27
9. Elementary Occupations	19	17	16	14	12
Total employment	100	100	100	100	100

Table 3.4.3: Replacement demand by occupation: 2004-2014

SSC: Improve Ltd				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	62	9	22	30
2. Professional Occupations	18	2	6	8
3. Associate Professional & Tech.	40	0	13	13
4. Administrative, Clerical and Sec.	40	-11	16	4
5. Skilled Trades Occupations	70	-7	23	16
6. Personal Service Occupations	4	0	2	1
7. Sales & Customer Service Occs.	40	-7	12	5
8. Machine & Transport Operatives	122	-6	44	38
9. Elementary Occupations	74	-24	26	2
Total employment	471	-45	163	118
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	13	14	34	49
2. Professional Occupations	4	13	33	46
3. Associate Professional & Tech.	8	0	32	32
4. Administrative, Clerical and Sec.	9	-28	39	11
5. Skilled Trades Occupations	15	-10	32	23
6. Personal Service Occupations	1	-7	39	33
7. Sales & Customer Service Occs.	8	-19	31	12
8. Machine & Transport Operatives	26	-5	36	31
9. Elementary Occupations	16	-32	34	2
Total employment	100	-10	35	25

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.4.1: Employment by gender: 1984-2014

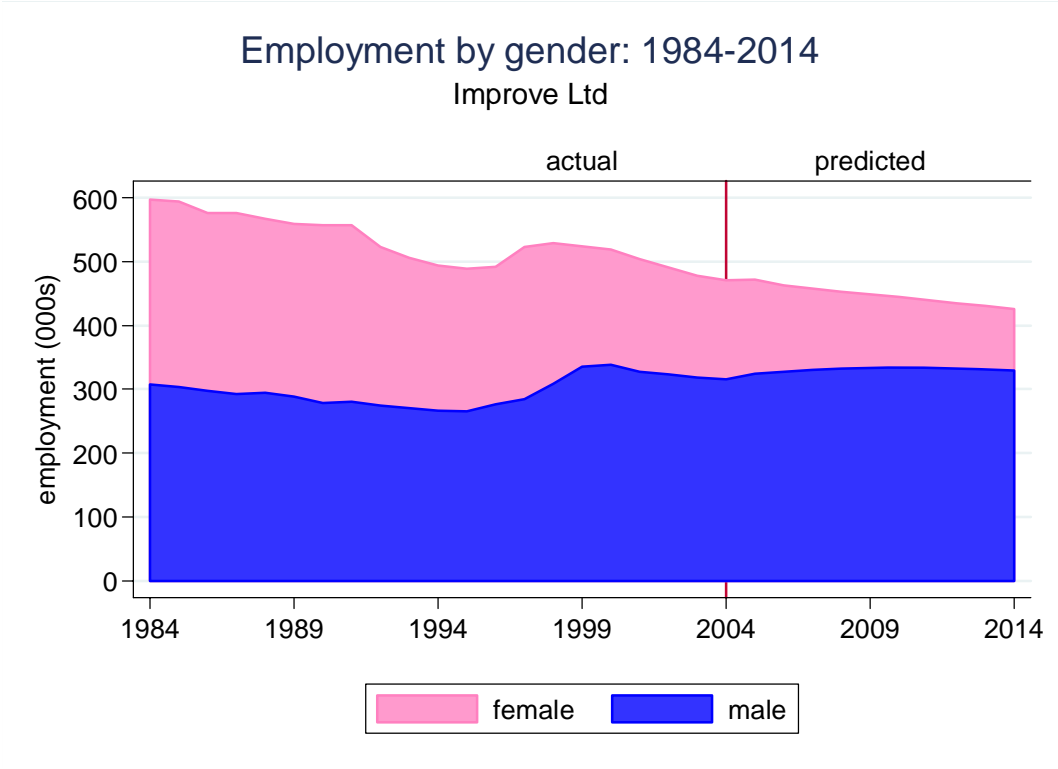


Figure 3.4.2: Employment by status: 1984-2014

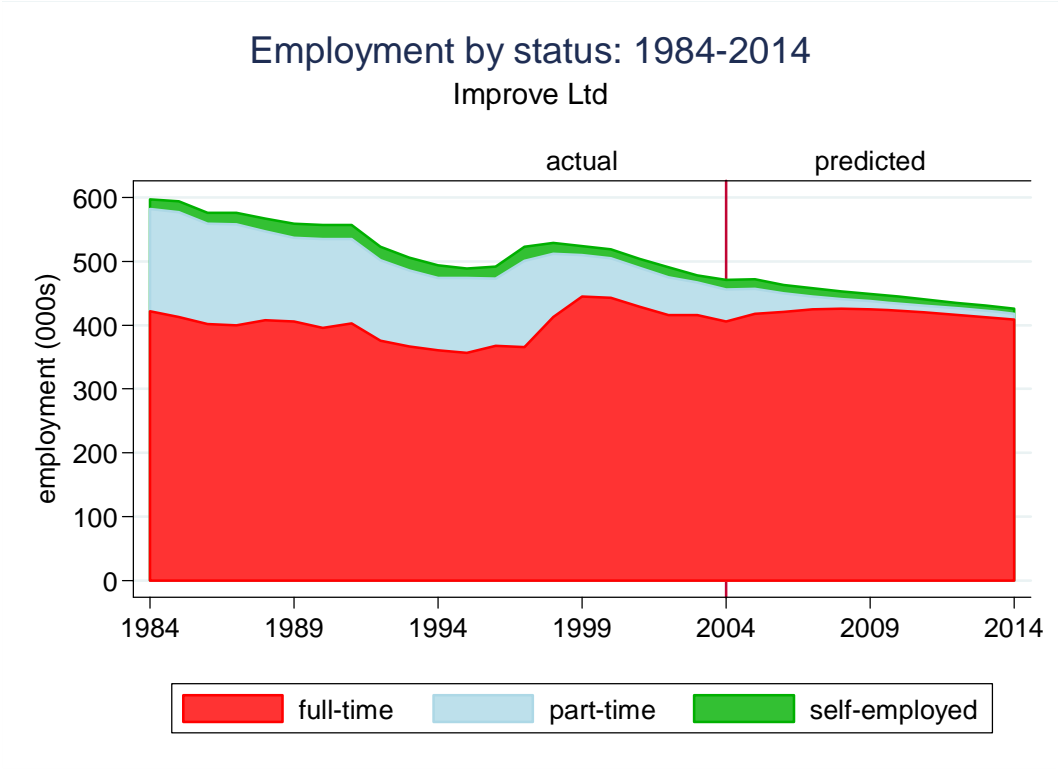


Figure 3.4.3: Occupational composition: 1994-2014

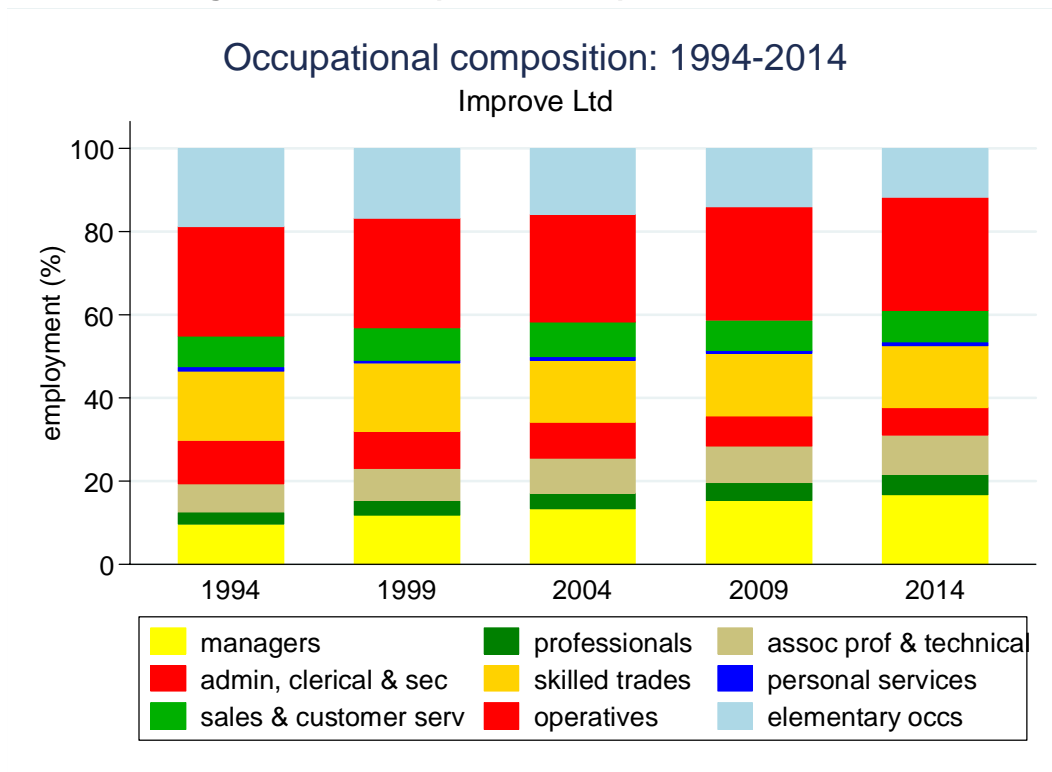


Figure 3.4.4: Employment levels by status and gender: 1994-2014

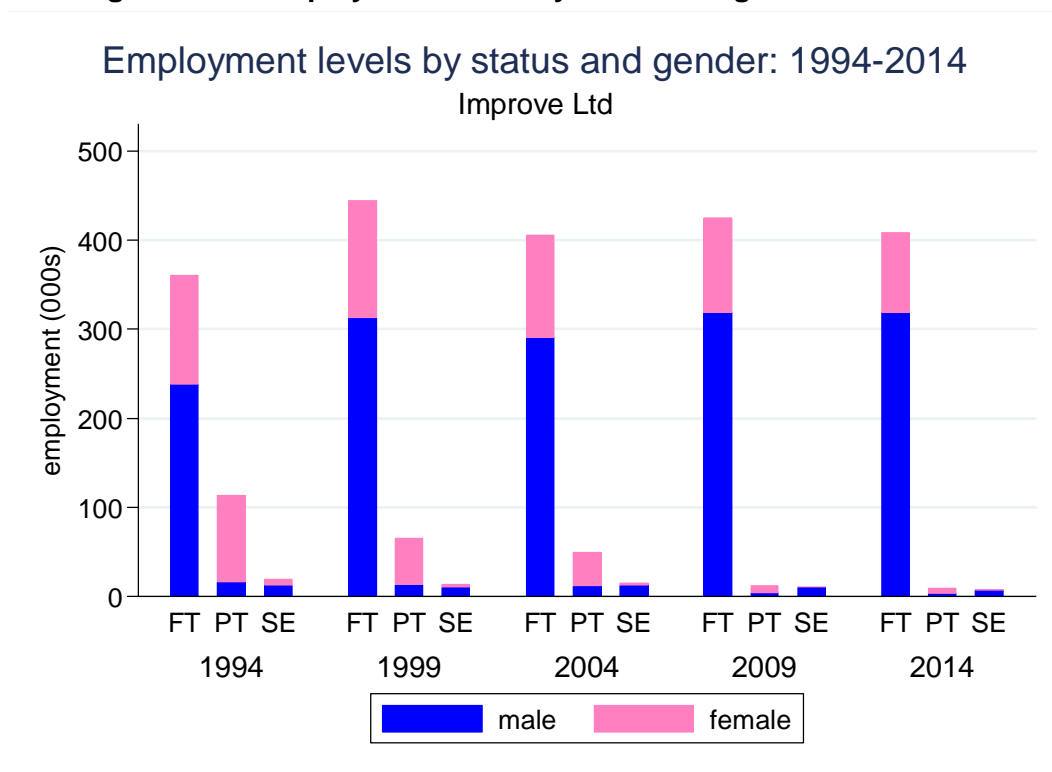


Figure 3.4.5: Employment shares by status and gender: 1994-2014

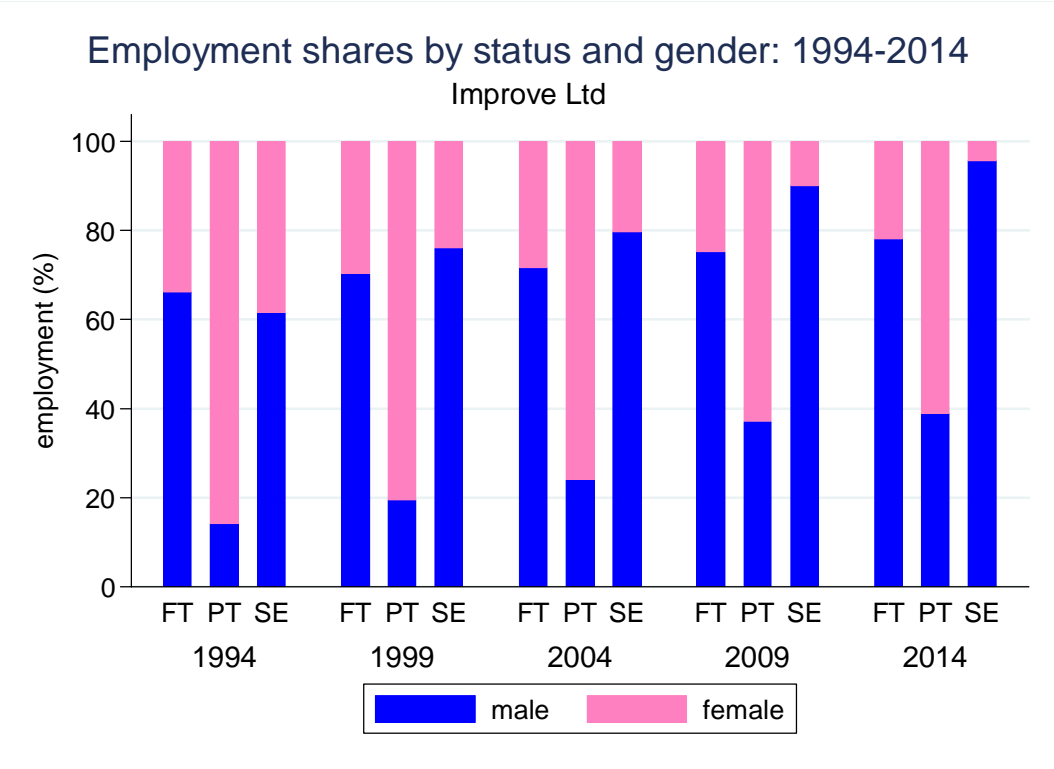


Figure 3.4.6: Employment changes by status and gender: 1984-2014

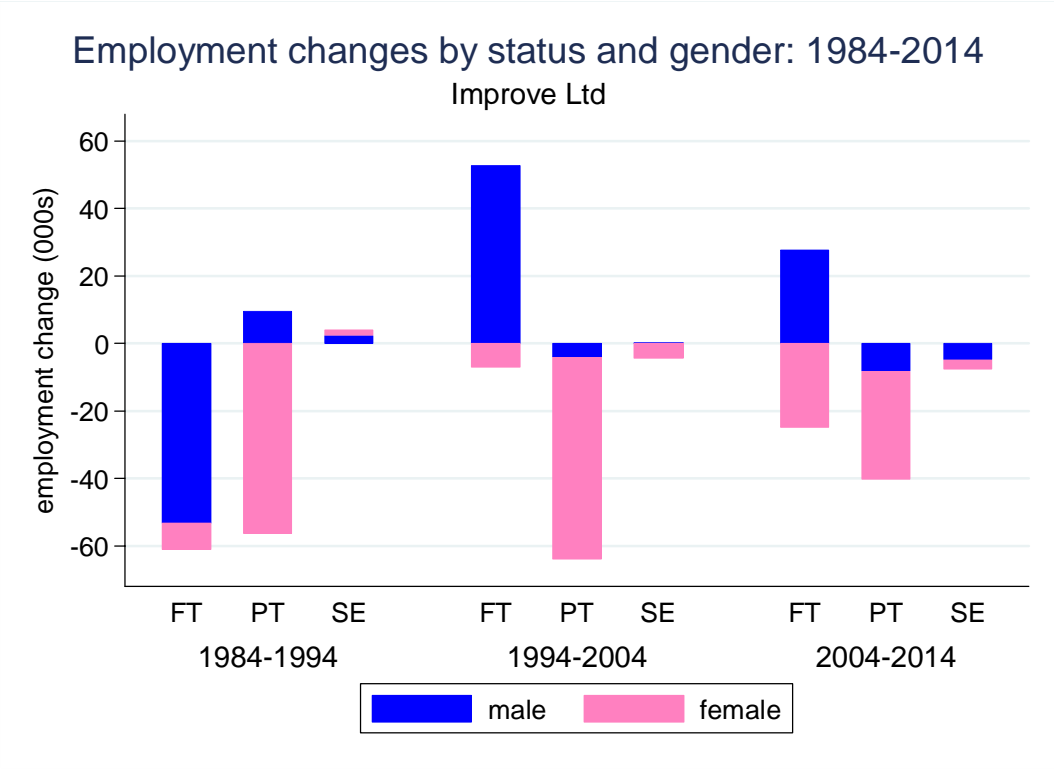
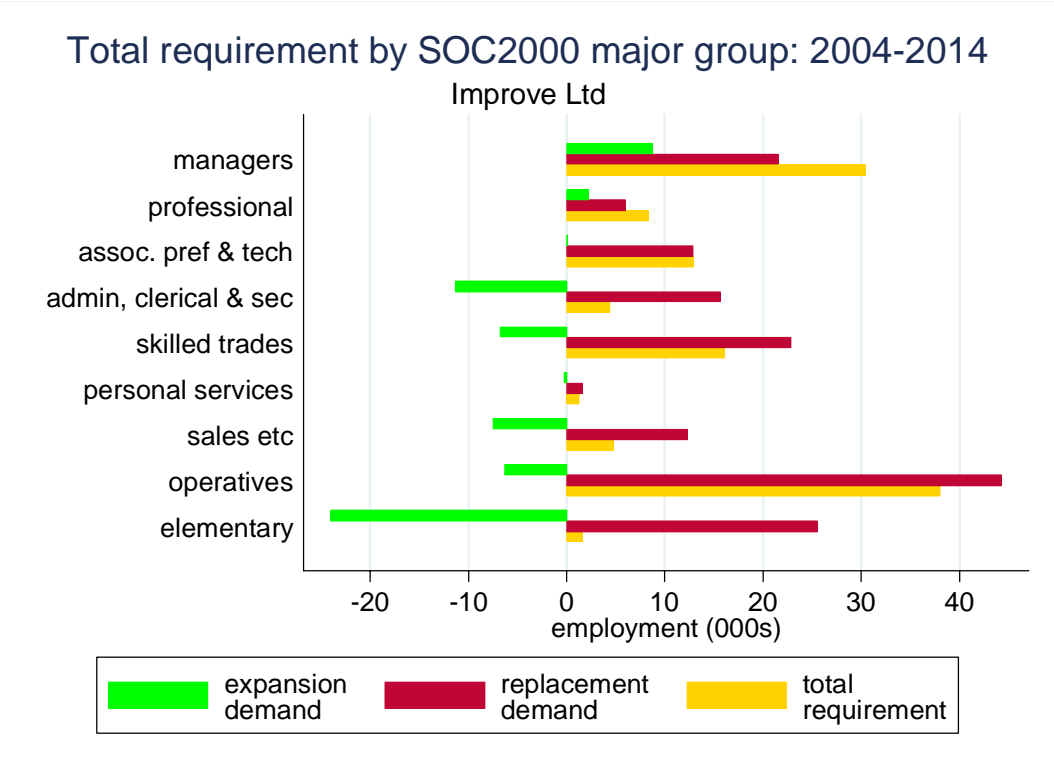


Figure 3.4.7: Total requirement by SOC2000 major group: 2004-2014



3.5 Skillfast-UK

Web: www.skillfast-uk.org

Sector description:

Apparel, footwear and textile industry.

SIC codes: 17-19, 24.7, 51.16, 51.24, 51.41, 51.42, 52.71, 93.01

Sector coverage:

Apparel, footwear, textiles, leather, man-made fibres and related businesses.

Commentary:

Employment composition by gender and status

- Skillfast-UK is already one of the smallest SSCs as defined by its core SIC footprint and more than half of all full-time jobs have been lost from this sector over the last 10 years.
- Employment is expected to decline still further over the next 10 years. However, this decline will be rather less rapid than the decrease in employment experienced over the last decade in which more than 40% of employment was lost from this sector.
- Despite this, Skillfast UK is still forecast to lose employment more rapidly than any other SSC.

Occupational composition of employment

- In common with most of manufacturing industry, employment in this sector is disproportionately concentrated amongst Machine & Transport Operatives and Elementary Occupations.
- These occupational groups account for more than one third of employment in the sector in 2004 although this share is set to fall to less than one quarter over the next 10 years.

Expansion demand, replacement demand and total requirement 2004-2014

- While the sector continues to decline, the total requirement is still forecast to be positive for the next decade, albeit this SSC has the lowest total requirement ratio of all SSCs. Recruitment equivalent to less than 1-in-5 of current employment is required over the next 10 years.
- Almost half of all Machine & Transport Operatives jobs in this sector are expected to disappear by 2014, and this accounts for half of all anticipated job loss over the decade.

Table 3.5.1: Employment levels and shares by status and gender: 1994-2014

SSC: Skillfast-UK									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	289	55	28	372	51	10	5	65	
Male	160	9	28	196	28	2	5	35	
Total employment	449	64	56	569	79	11	10	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	163	48	20	231	33	10	4	47	
Male	212	15	30	258	43	3	6	53	
Total employment	375	63	51	489	77	13	10	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	83	34	20	136	26	11	6	43	
Male	138	16	29	183	43	5	9	57	
Total employment	220	49	49	319	69	15	15	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	46	26	16	89	17	10	6	32	
Male	142	15	30	188	51	5	11	68	
Total employment	188	41	47	276	68	15	17	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	35	24	14	72	13	9	5	28	
Male	146	14	29	189	56	5	11	72	
Total employment	181	37	43	262	69	14	16	100	

Table 3.5.2: Composition of employment by occupation: 1994-2014

SSC: Skillfast-UK					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	65	76	54	52	52
2. Professional Occupations	15	18	15	16	18
3. Associate Professional & Tech.	38	43	35	35	36
4. Administrative, Clerical and Sec.	47	36	24	17	15
5. Skilled Trades Occupations	77	66	38	34	31
6. Personal Service Occupations	18	18	16	17	16
7. Sales & Customer Service Occs.	22	31	28	28	29
8. Machine & Transport Operatives	214	140	70	48	41
9. Elementary Occupations	74	61	38	30	24
Total employment	569	489	319	276	262
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	11	16	17	19	20
2. Professional Occupations	3	4	5	6	7
3. Associate Professional & Tech.	7	9	11	13	14
4. Administrative, Clerical and Sec.	8	7	7	6	6
5. Skilled Trades Occupations	13	14	12	12	12
6. Personal Service Occupations	3	4	5	6	6
7. Sales & Customer Service Occs.	4	6	9	10	11
8. Machine & Transport Operatives	38	29	22	17	15
9. Elementary Occupations	13	12	12	11	9
Total employment	100	100	100	100	100

Table 3.5.3: Replacement demand by occupation: 2004-2014

SSC: Skillfast-UK				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	55	-2	19	17
2. Professional Occupations	15	3	5	8
3. Associate Professional & Tech.	36	0	12	12
4. Administrative, Clerical and Sec.	24	-9	9	0
5. Skilled Trades Occupations	39	-7	13	6
6. Personal Service Occupations	16	0	6	6
7. Sales & Customer Service Occs.	28	1	10	10
8. Machine & Transport Operatives	70	-30	26	-3
9. Elementary Occupations	38	-14	13	0
Total employment	321	-58	114	55
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	17	-4	35	31
2. Professional Occupations	5	18	34	52
3. Associate Professional & Tech.	11	0	33	33
4. Administrative, Clerical and Sec.	7	-38	40	2
5. Skilled Trades Occupations	12	-19	33	15
6. Personal Service Occupations	5	-3	40	37
7. Sales & Customer Service Occs.	9	3	34	36
8. Machine & Transport Operatives	22	-42	37	-5
9. Elementary Occupations	12	-36	35	-1
Total employment	100	-18	35	17

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.5.1: Employment by gender: 1984-2014

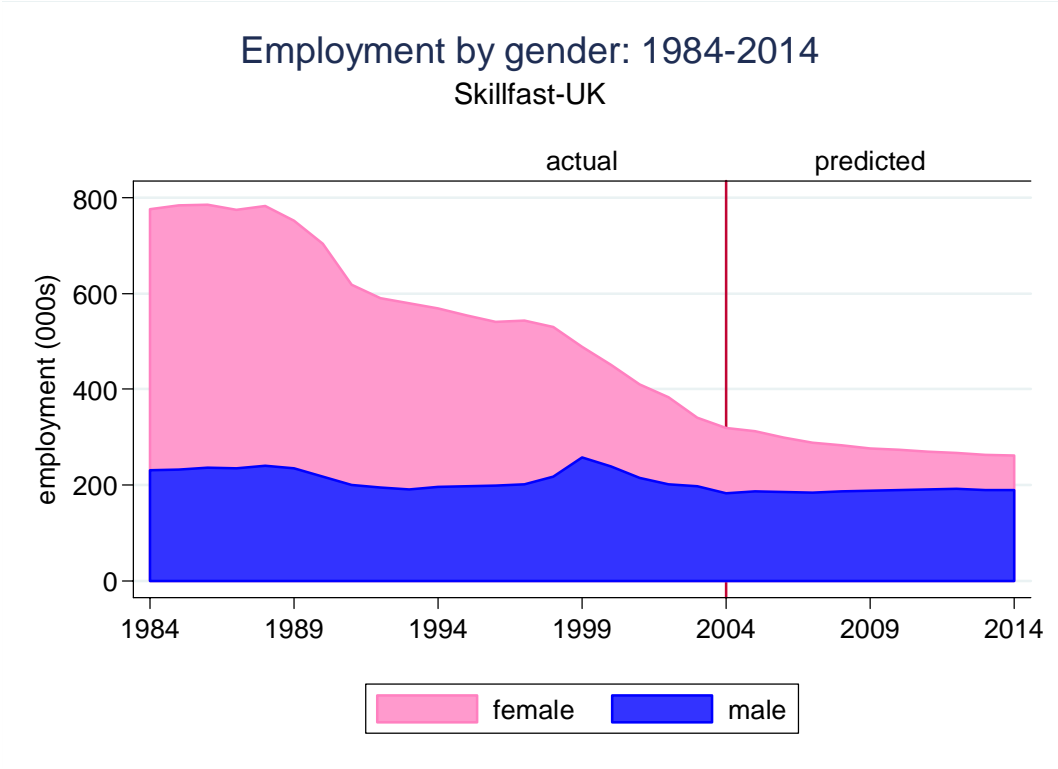


Figure 3.5.2: Employment by status: 1984-2014

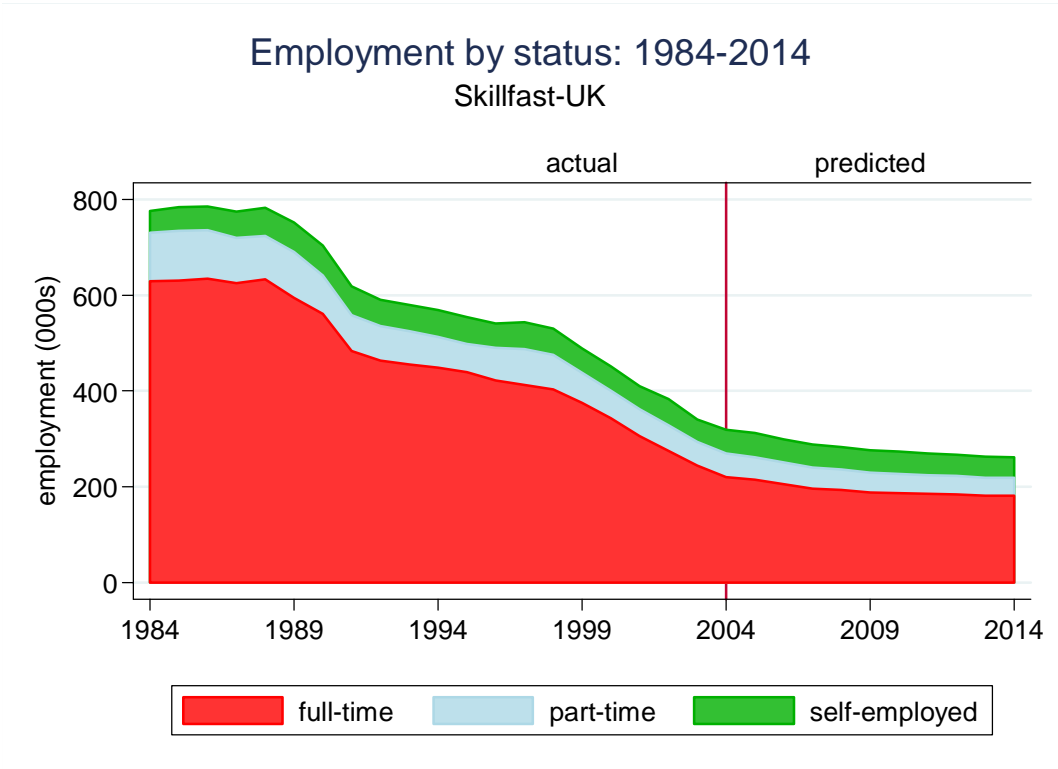


Figure 3.5.3: Occupational composition: 1994-2014

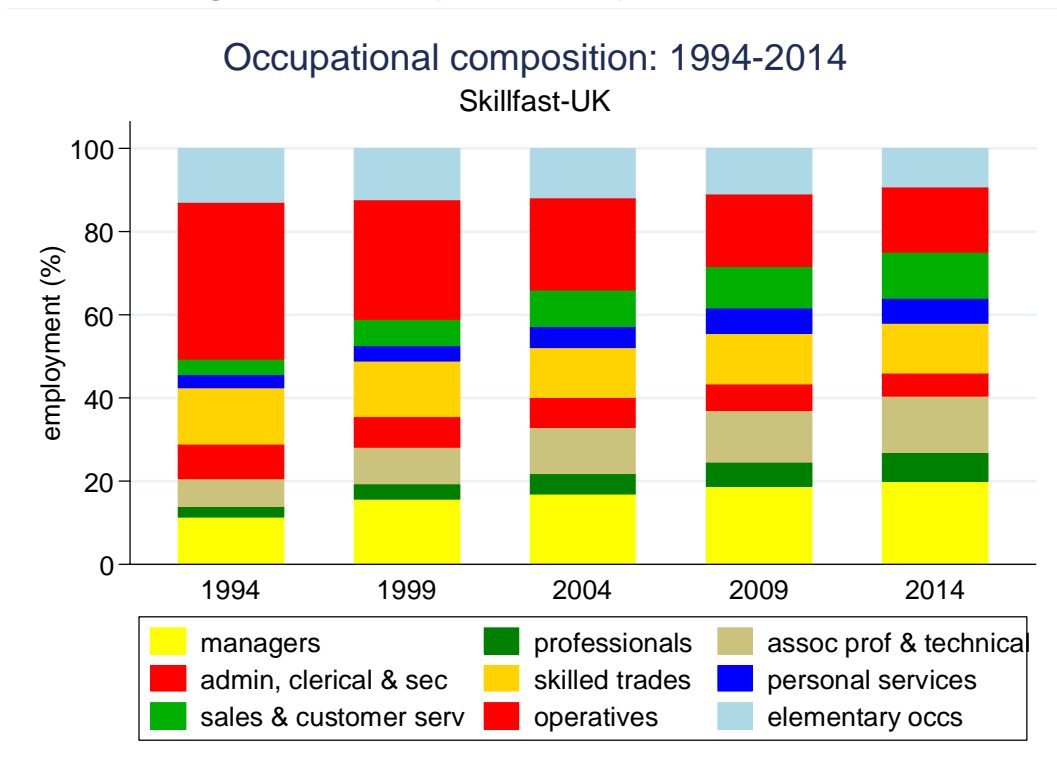


Figure 3.5.4: Employment levels by status and gender: 1994-2014

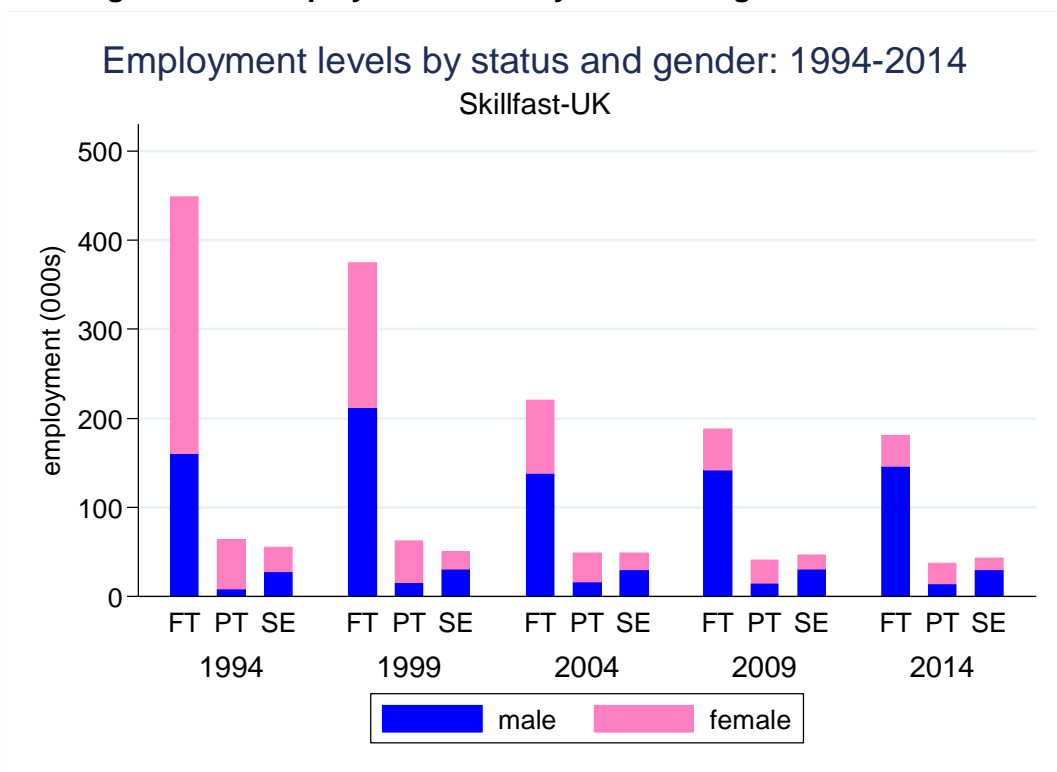


Figure 3.5.5: Employment shares by status and gender: 1994-2014

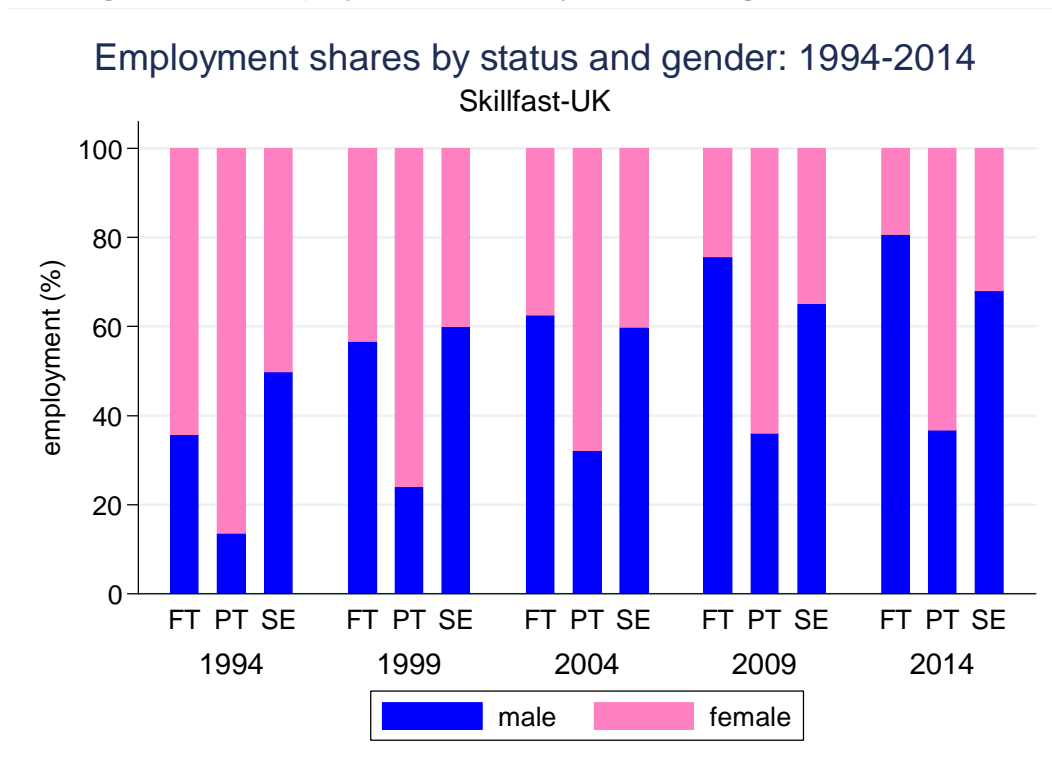


Figure 3.5.6: Employment changes by status and gender: 1984-2014

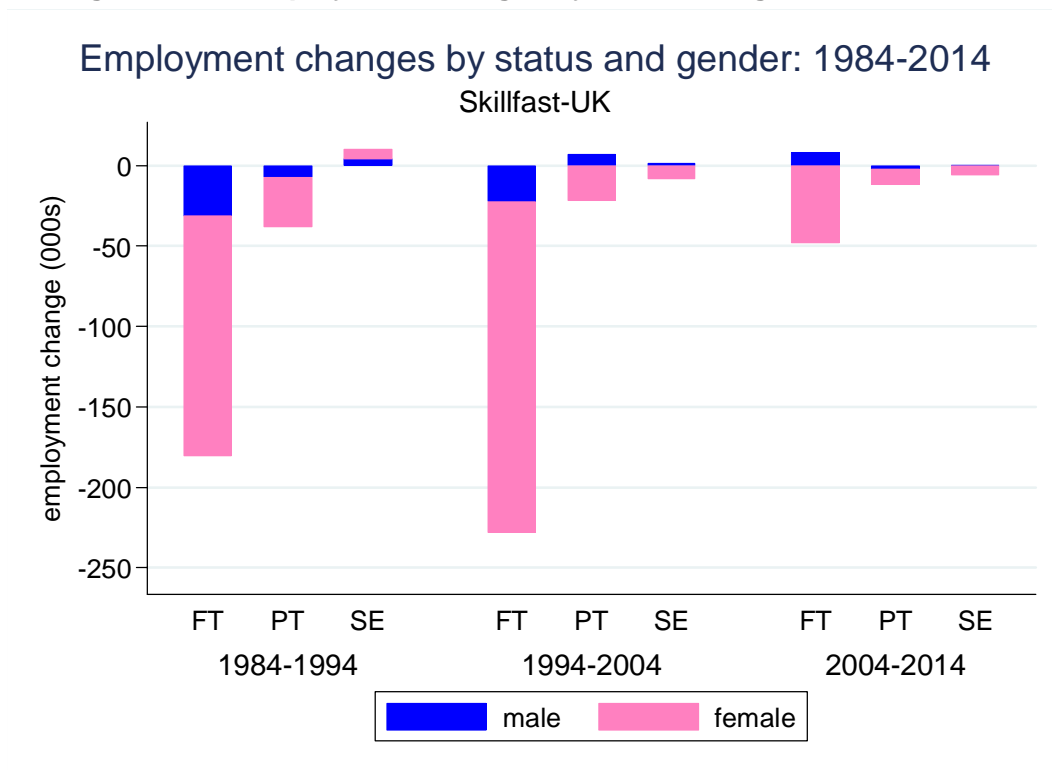
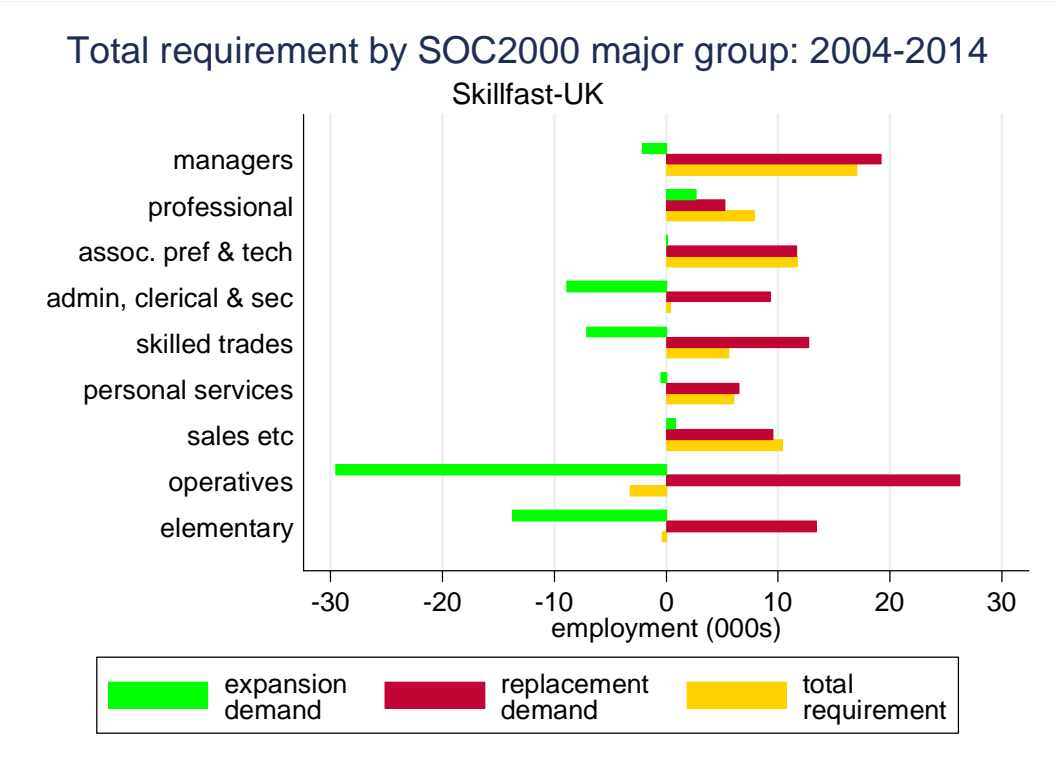


Figure 3.5.7: Total requirement by SOC2000 major group: 2004-2014



3.6 SEMTA

Web: www.semta.org.uk

Sector description:

Science, engineering and manufacturing technologies.

SIC codes: 25.11, 25.12, 27.4-28.3, 28.5-28.7, 29-35

(NB: SEMTA also covers science sectors which are not exclusively defined by SIC.)

Sector coverage:

Basic metal manufacture, metal products, mechanical equipment, electronics, electrical equipment, motor vehicles, aerospace, other transport equipment. Building and repairing of ships, boats, railway and tramway locomotives, and rolling stock, motorcycles, bicycles, pharmacy, forensic science, meteorology, parts of the pharmaceutical industry, biotechnology, genetics, nanotechnology and part of the packaging industry.

Commentary:

Employment composition by gender and status

- SEMTA's coverage reflects the continuing decline in manufacturing employment in the UK. Currently, total employment is around 1.4 million workers, but this is 20% lower than only 5 years ago. The *Working Futures* estimates suggest that more than one third of a million workers have been lost from this sector since 1999.
- Total employment for this SSC is expected to decline still further over the next 10 years, although a slower rate than experienced over the last 5 years.
- Employment in this sector is predominantly male and full-time: over 80% are male, and almost 90% are full-time workers – fewer than 1-in-5 are female, and part-time employment and self-employment are both extremely uncommon.

Occupational composition of employment

- Skills Trades Occupations, Machine & Transport Operatives and Elementary Occupations together currently account for 56% of employment. This is almost double their average share in the economy as a whole.

Expansion demand, replacement demand and total requirement 2004-2014

- Another 150,000 jobs are expected to be lost from the sector over the next decade, half of which will be amongst the Skilled Trades Occupations.
- Despite the general decline across the sector, total requirement is still positive for all occupational groups with the exception of Elementary Occupations where the net loss in jobs over the next 10 years just outweighs the replacement demand requirement.

Comparison with alternative forecasts: SEMTA

In the case of SEMTA, the underlying data and model framework are essentially the same as used in *Working Futures*. Despite this, the results obtained when developing future scenarios can look rather different. This reflects both different underlying assumptions used to develop the future scenarios as well as different vintages of data used, etc.

SEMTA have produced employment projections for eight detailed sectors. In some cases, these projections form the core of the view of the future underlying the published *Sector Skills Agreements* (eg for Electronics). In others, they have been a smaller part of developing an agreed view of future prospects. For example, in both the Aerospace and Automotive sectors, the forecast presented in *Working Futures 2002-2012* (which formed the starting point for the SEMTA projections) were thought to be unduly pessimistic. The *Working Futures* results are predicated on a continuation of past patterns of behaviour and performance. If companies are able to improve their performance, then more optimistic outcomes may be achievable. In the case of Aerospace, much hangs on the success of the new Airbus project. For the Automotive sector, the recent experience of Rover highlights the difficulties of breaking away from historic patterns and trends.

The other area of scepticism regarding the benchmark *Working Futures* projections concerned the scale of replacement demand estimates. For many of the detailed sectoral and occupational categories covered, the estimated scale of replacement needs is insufficient to outweigh the projected negative expansion demands. This results in a negative total requirement, yet those companies that do survive still need to retain, recruit and train new staff. Unless those released from the companies that are closing down can be retained in the industry, the implication is that new entrants will need to be suitably educated and trained to fill these gaps. The benchmark projections of replacement demands presented may therefore underestimate the scale of training needs.

The latest SEMTA assessments for each of the sectors it covers can be found under the *Sector Skills Agreements* link at: <http://www.semta.org.uk/>

Comparison of *Working Futures* projections with those from SEMTA

Criterion	<i>Working Futures</i>	SEMTA
1. Definition of sector	The SSC covers SIC2003 categories 25.11, 25.12, 27.4-28.3, 28.5-28.7, 29-35	SEMTA's most recent projections are based on 8 SIC industries, covering SIC2003 categories 27-34. These are presented as part of SEMTA's various <i>Sector Skills Agreements</i> documents
2. Occupational definitions	SOC2000, 25 sub-major groups	SOC2000, 25 sub-major groups
3. Geographical coverage	UK, constituent countries and regions, and 47 LLSCs	UK plus constituent countries and regions
4. Source of sectoral employment data	Employee estimates based on ABI2003 data and self-employment from the LFS (both adjusted to match ONS estimates as published in <i>Labour Market Trends</i>)	Similar, but based primarily on the <i>Working Futures 2002-2012</i> database which uses ABI2001.
5. Source of occupational structural data	2001 CoP and LFS constrained to match sectoral totals	Similar.
6. Base year and forecast horizon	2004-2014	2002-2012
7. Source of output projections	Multi-sectoral macroeconomic model (CE MDM C51F8A Forecast)	Linked to CE MDM C41 Forecast
8. Sectoral employment model	Econometric analysis linked to output and factor prices	Similar, with facility to develop customised scenarios
9. Macro scenario	GDP growth 2004-14: 2.5% <i>per annum</i>	GDP growth 2002-12: 0.5% <i>per annum</i>
10. Output growth assumptions (SIC)	2004-14: ranges from 1-2.5% <i>per annum</i> depending on the sector	Range of alternative scenarios for a number of sub-sectors
11. Productivity model	Implicit in employment equations	Similar methods; facility to customise
12. Productivity (output per person employed)	2004-14: ranges from 2-3.5% <i>per annum</i> depending on the sector (n/a for SSC <i>per se</i>)	
13. Overall employment projections (SSC)	2004 base level: 1.45 million 2004-14: losses ranging from 1-1.5% <i>per annum</i> depending on the sector. Overall loss of c. 20,000 <i>per annum</i>	2002 base level: 1.69 million 2002-2012: losses of 2% <i>per annum</i> Overall rate of job losses around 35,000 <i>per annum</i> . Some more optimistic alternative scenarios
14. Occupational model	Econometric equations mainly driven by time trends in occupational employment shares, plus trend extrapolations	Similar methods; facility to customise trends
15. Key features of occupational change projected	Job losses focussed amongst skilled trades, operatives and elementary occupations. Some modest growth amongst managerial, professional and associate professional groups	Similar, but with more emphasis on some higher level skill needs in some alternative scenarios.
16. Replacement demand	Driven by age structure by occupation and flow rates (data from LFS); mainly focussed on retirements	Similar methods; facility to customise trends. Concerns that the implication of negative total requirements in some cases underestimates training needs in some sectors
17. Key features of replacement demand results	Similar picture to 15. Main replacements demands are for skilled trades and operatives despite projected job losses	Similar, but with more emphasis on some higher level skill needs in some alternative scenarios, and an emphasis on the need to still replace those leaving even when overall total requirements are negative

Table 3.6.1: Employment levels and shares by status and gender: 1994-2014

SSC: SEMTA									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	234	52	12	298	14	3	1	17	
Male	1,320	11	85	1,416	77	1	5	83	
Total employment	1,554	63	97	1,714	91	4	6	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	299	65	14	378	17	4	1	21	
Male	1,330	19	82	1,431	74	1	5	79	
Total employment	1,628	85	96	1,809	90	5	5	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	194	53	11	258	13	4	1	18	
Male	1,079	21	85	1,185	75	1	6	82	
Total employment	1,273	74	96	1,443	88	5	7	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	191	64	12	267	14	5	1	19	
Male	988	25	94	1,107	72	2	7	81	
Total employment	1,179	89	106	1,374	86	6	8	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	188	73	14	275	15	6	1	21	
Male	889	28	101	1,018	69	2	8	79	
Total employment	1,076	101	115	1,293	83	8	9	100	

Table 3.6.2: Composition of employment by occupation: 1994-2014

SSC: SEMTA					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	195	222	194	195	196
2. Professional Occupations	133	150	127	127	127
3. Associate Professional & Tech.	151	177	152	151	151
4. Administrative, Clerical and Sec.	136	162	113	113	113
5. Skilled Trades Occupations	513	493	376	339	307
6. Personal Service Occupations	17	22	18	20	20
7. Sales & Customer Service Occs.	23	31	28	32	37
8. Machine & Transport Operatives	367	368	289	272	250
9. Elementary Occupations	181	184	145	125	91
Total employment	1,714	1,809	1,443	1,374	1,293
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	11	12	13	14	15
2. Professional Occupations	8	8	9	9	10
3. Associate Professional & Tech.	9	10	11	11	12
4. Administrative, Clerical and Sec.	8	9	8	8	9
5. Skilled Trades Occupations	30	27	26	25	24
6. Personal Service Occupations	1	1	1	1	2
7. Sales & Customer Service Occs.	1	2	2	2	3
8. Machine & Transport Operatives	21	20	20	20	19
9. Elementary Occupations	11	10	10	9	7
Total employment	100	100	100	100	100

Table 3.6.3: Replacement demand by occupation: 2004-2014

SSC: SEMTA				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	194	2	65	66
2. Professional Occupations	127	0	39	39
3. Associate Professional & Tech.	152	-1	45	44
4. Administrative, Clerical and Sec.	113	0	44	45
5. Skilled Trades Occupations	376	-69	119	50
6. Personal Service Occupations	18	2	7	9
7. Sales & Customer Service Occs.	28	9	9	18
8. Machine & Transport Operatives	289	-39	101	62
9. Elementary Occupations	145	-54	46	-9
Total employment	1,443	-150	474	324
<i>Percentages (%)</i>				
SOC2000 Major groups	2004 changes 2004-2014			
	shares	ED	RD	TR
1. Managers & Senior Officials	13	1	33	34
2. Professional Occupations	9	0	30	31
3. Associate Professional & Tech.	11	-1	30	29
4. Administrative, Clerical and Sec.	8	0	39	40
5. Skilled Trades Occupations	26	-18	32	13
6. Personal Service Occupations	1	12	38	50
7. Sales & Customer Service Occs.	2	33	31	64
8. Machine & Transport Operatives	20	-14	35	21
9. Elementary Occupations	10	-37	31	-6
Total employment	100	-10	33	22

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.6.1: Employment by gender: 1984-2014

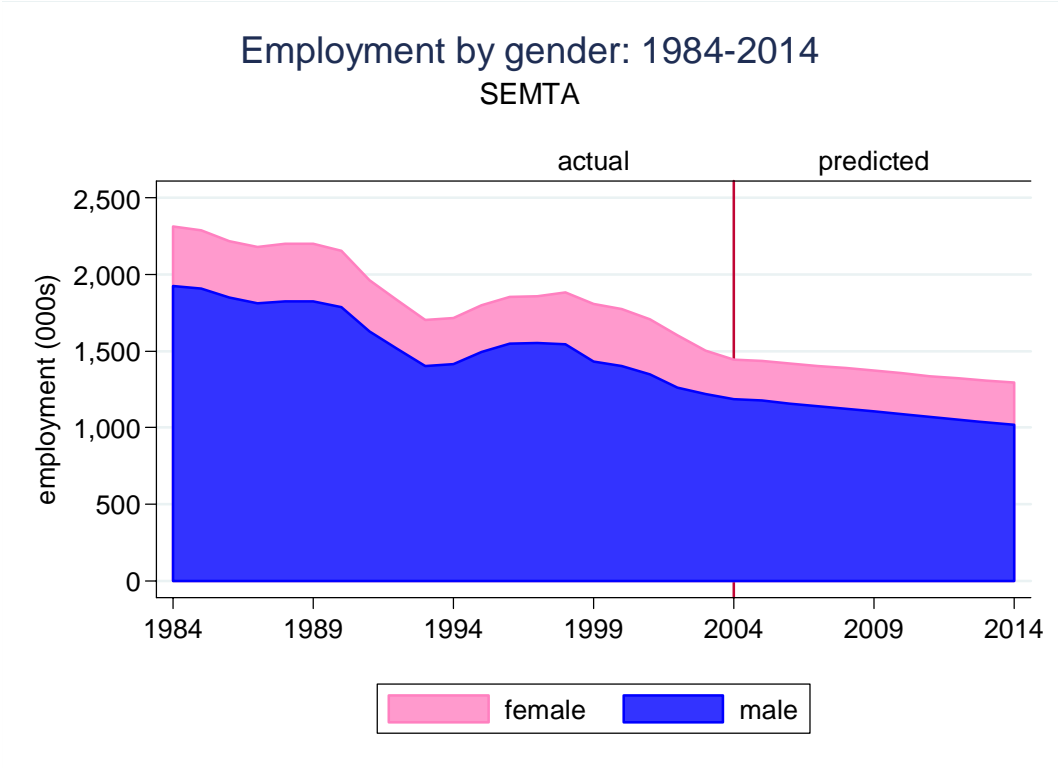


Figure 3.6.2: Employment by status: 1984-2014

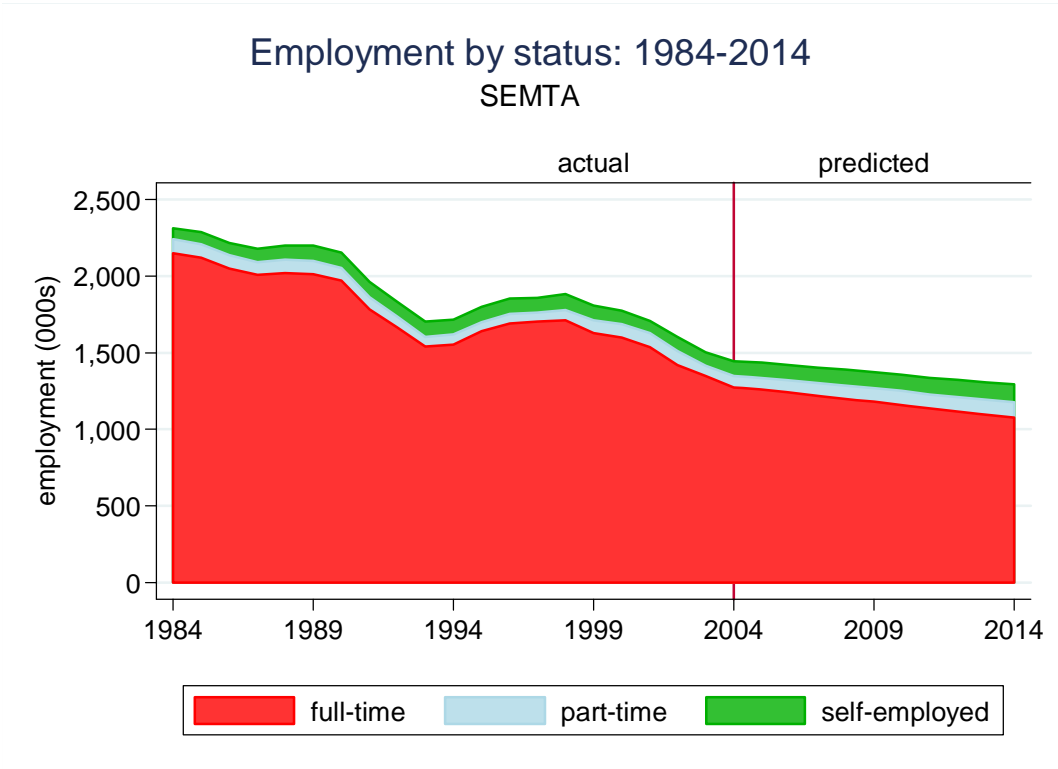


Figure 3.6.3: Occupational composition: 1994-2014

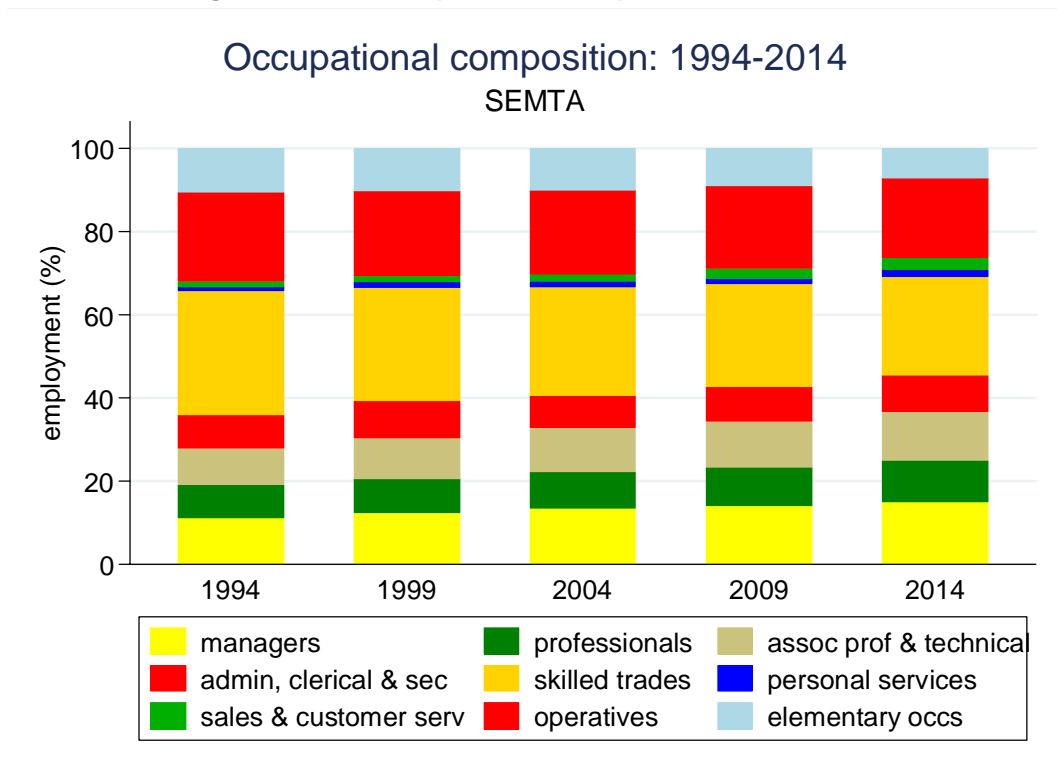


Figure 3.6.4: Employment levels by status and gender: 1994-2014

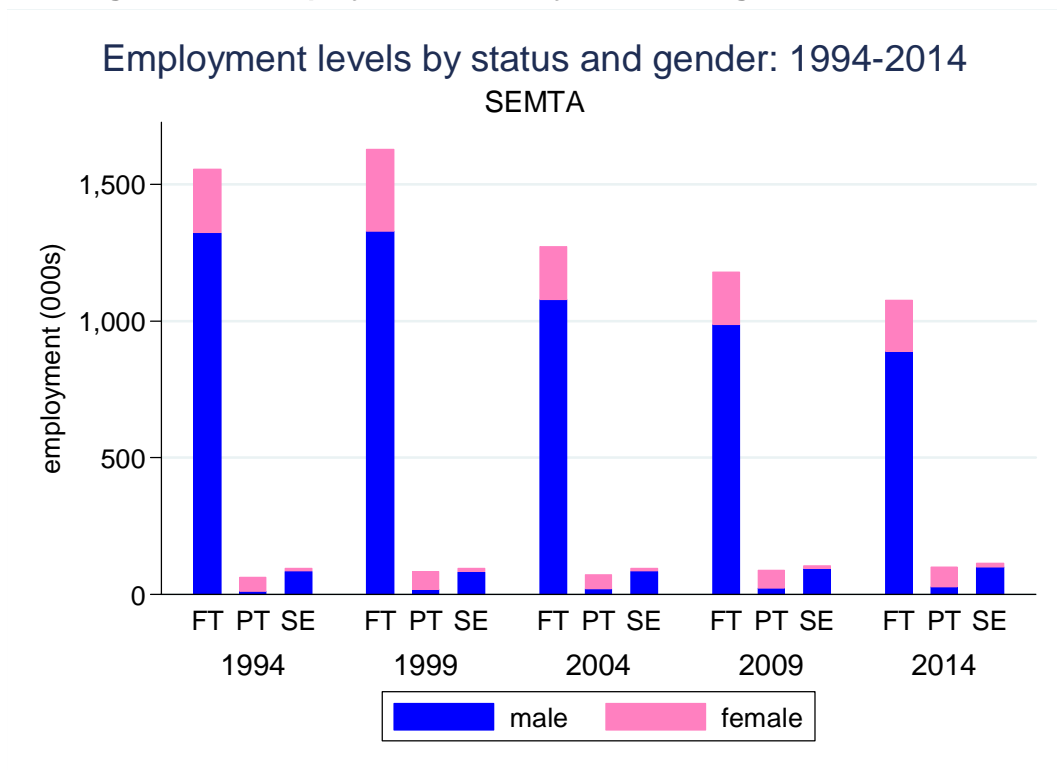


Figure 3.6.5: Employment shares by status and gender: 1994-2014

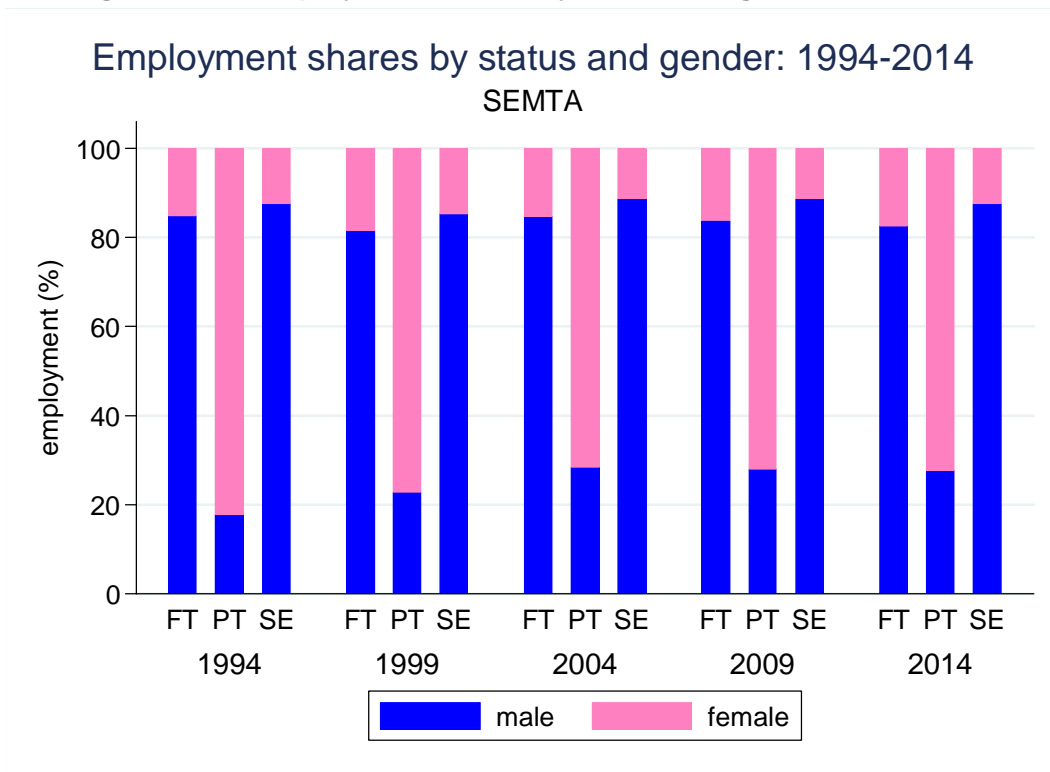


Figure 3.6.6: Employment changes by status and gender: 1984-2014

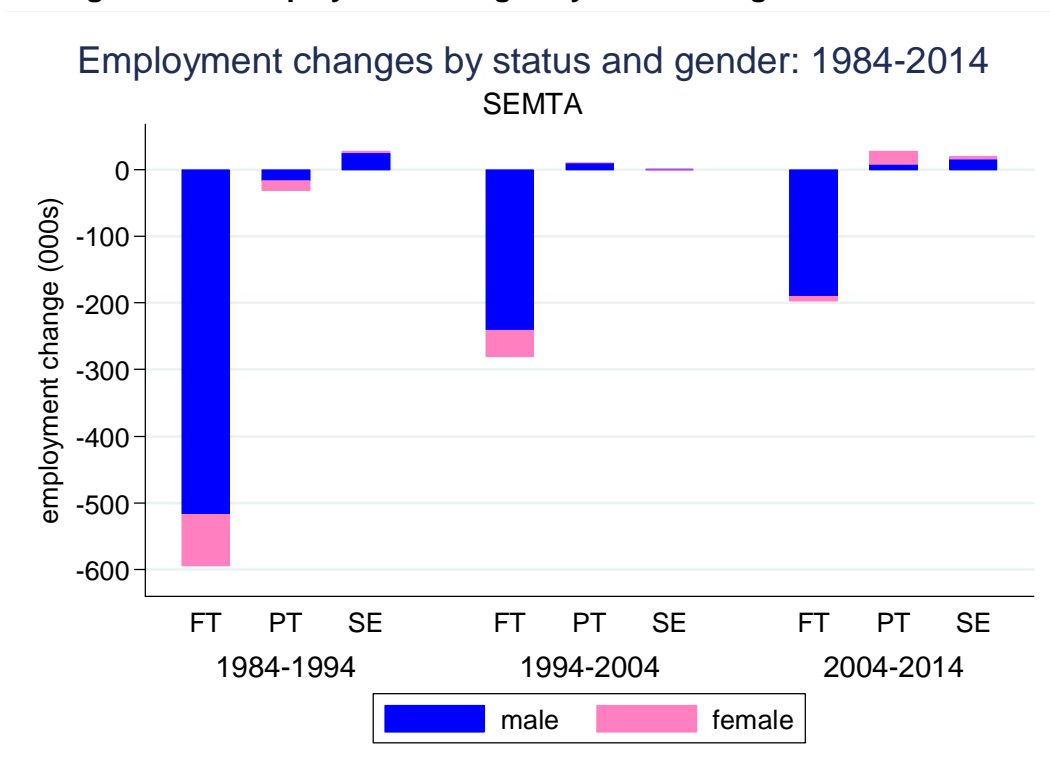
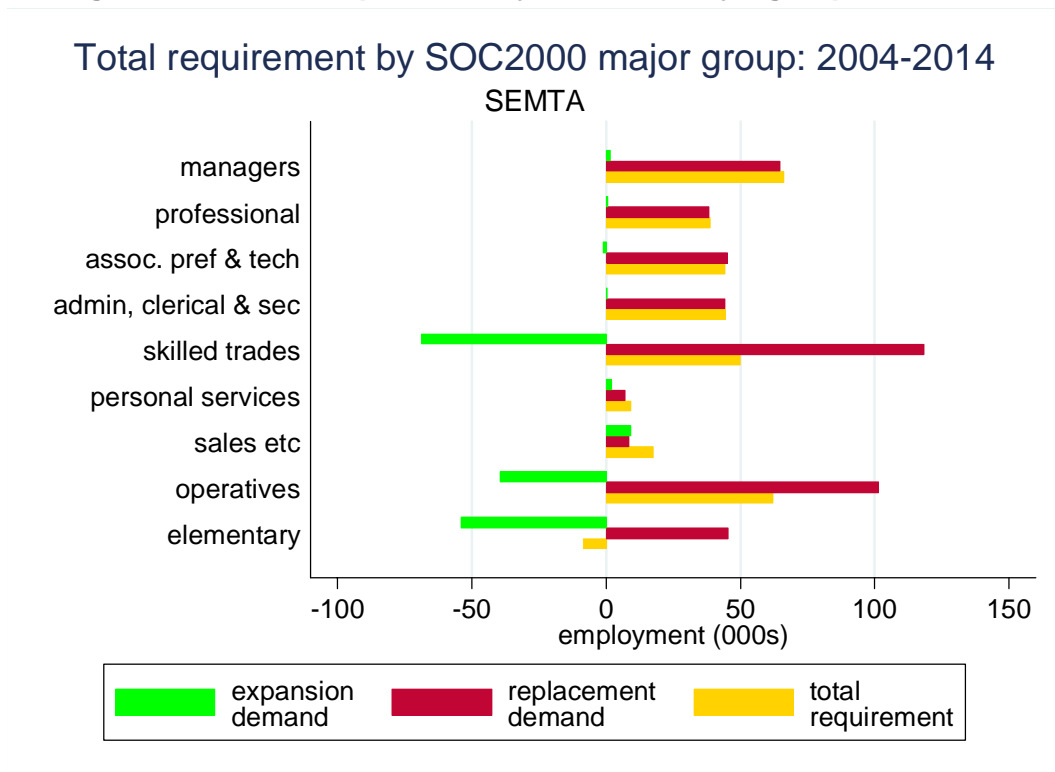


Figure 3.6.7: Total requirement by SOC2000 major group: 2004-2014



3.7 Energy & Utility Skills

Web: www.euskills.co.uk

Sector description:

Electricity, gas, waste management and water industries

SIC codes: 37, 40.1, 40.2, 41, 51.54, 51.55, 60.3, 90

Sector coverage:

The industries comprising Energy & Utility Skills form the top tier of the UK's energy and utility supply pyramid representing all facets of the creation and delivery of electricity, fuel for heat, water, the removal of waste water and the waste management sector. Energy & Utility Skills also has an interest in gas fitters who are covered by Summitskills SSC.

Commentary:

Employment composition by gender and status

- Energy & Utility Skills is one of the smaller SSCs, with its core business sector SIC footprint covering around 325,000 workers in 2004.
- Total employment in this sector is expected to remain fairly stable over the next decade.
- Employment in the sector is dominated by male, full-time workers: almost 80% are male and almost 90% are full-time workers.

Occupational composition of employment

- The occupational profile of this sector is similar to that of the economy as a whole.
- The transitions expected in the occupational distribution of employment over the next decade are also similar to those expected across the whole workforce, with a decline in Administrative, Clerical & Secretarial Occupations and in Elementary Occupations being especially marked.

Expansion demand, replacement demand and total requirement 2004-2014

- Total requirement is positive for all occupational groups over the next 10 years, with replacement demands dominating by a factor of 10-to-1 the recruitment requirements in this sector.

Table 3.7.1: Employment levels and shares by status and gender: 1994-2014

SSC: Energy & Utility Skills									
<i>Employment by gender</i>	<i>Employment status</i>								
	000s				%				
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	59	15	2	76	16	4	1	20	
Male	273	6	16	295	74	2	4	80	
Total employment	332	21	18	370	90	6	5	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	64	21	2	88	19	6	1	25	
Male	231	13	15	259	67	4	4	75	
Total employment	295	34	17	346	85	10	5	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	53	18	2	72	16	5	1	22	
Male	231	6	15	252	71	2	5	78	
Total employment	283	24	17	324	87	7	5	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	46	18	1	65	14	6	0	20	
Male	232	6	16	254	73	2	5	80	
Total employment	278	24	17	319	87	8	5	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	40	19	1	60	13	6	0	19	
Male	231	7	17	254	73	2	5	81	
Total employment	271	25	18	314	86	8	6	100	

Table 3.7.2: Composition of employment by occupation: 1994-2014

SSC: Energy & Utility Skills					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	49	46	47	48	50
2. Professional Occupations	31	28	28	27	27
3. Associate Professional & Tech.	48	52	52	50	47
4. Administrative, Clerical and Sec.	52	46	36	31	28
5. Skilled Trades Occupations	73	55	50	51	52
6. Personal Service Occupations	9	10	10	10	10
7. Sales & Customer Service Occs.	23	29	30	32	34
8. Machine & Transport Operatives	39	32	30	32	33
9. Elementary Occupations	47	47	42	38	34
Total employment	370	346	324	319	314
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	13	13	14	15	16
2. Professional Occupations	8	8	9	9	9
3. Associate Professional & Tech.	13	15	16	16	15
4. Administrative, Clerical and Sec.	14	13	11	10	9
5. Skilled Trades Occupations	20	16	16	16	16
6. Personal Service Occupations	2	3	3	3	3
7. Sales & Customer Service Occs.	6	8	9	10	11
8. Machine & Transport Operatives	10	9	9	10	10
9. Elementary Occupations	13	13	13	12	11
Total employment	100	100	100	100	100

Table 3.7.3: Replacement demand by occupation: 2004-2014

SSC: Energy & Utility Skills				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	46	3	16	19
2. Professional Occupations	28	-1	9	8
3. Associate Professional & Tech.	51	-5	14	10
4. Administrative, Clerical and Sec.	36	-8	13	5
5. Skilled Trades Occupations	50	1	16	17
6. Personal Service Occupations	10	0	4	4
7. Sales & Customer Service Occs.	29	5	9	14
8. Machine & Transport Operatives	30	2	10	13
9. Elementary Occupations	41	-7	13	6
Total employment	322	-9	105	96
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	14	7	34	41
2. Professional Occupations	9	-3	31	28
3. Associate Professional & Tech.	16	-9	28	19
4. Administrative, Clerical and Sec.	11	-23	37	15
5. Skilled Trades Occupations	16	3	32	34
6. Personal Service Occupations	3	4	39	43
7. Sales & Customer Service Occs.	9	15	32	47
8. Machine & Transport Operatives	9	8	34	42
9. Elementary Occupations	13	-17	32	14
Total employment	100	-3	32	30

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.7.1: Employment by gender: 1984-2014

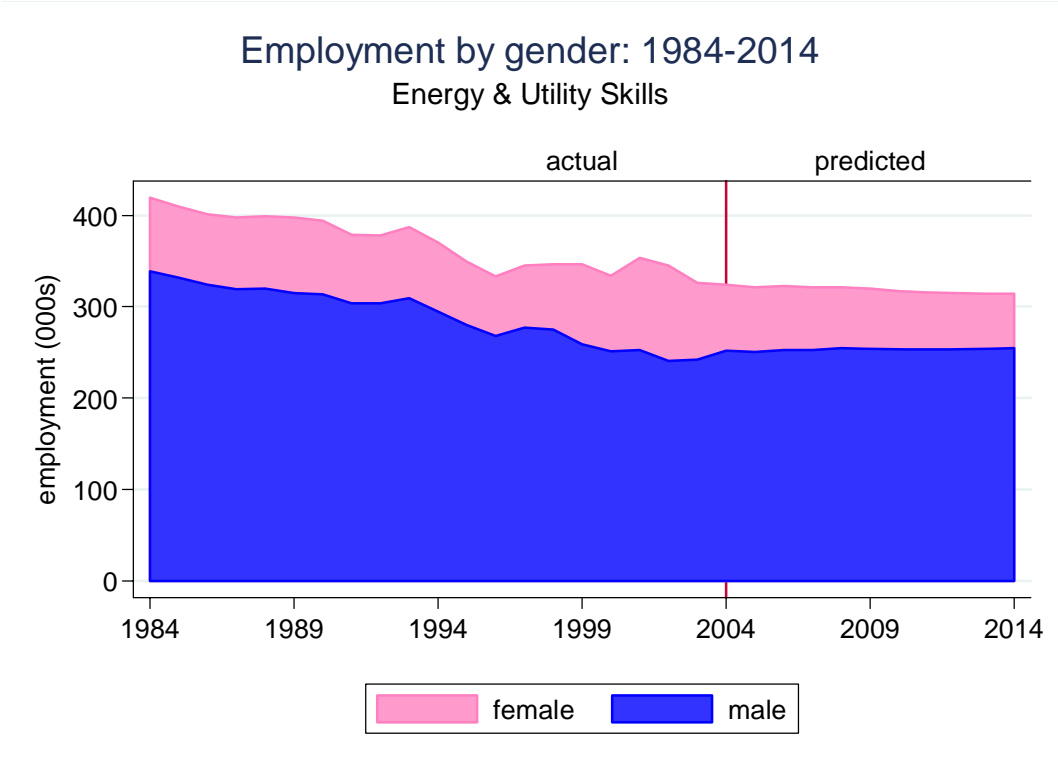


Figure 3.7.2: Employment by status: 1984-2014

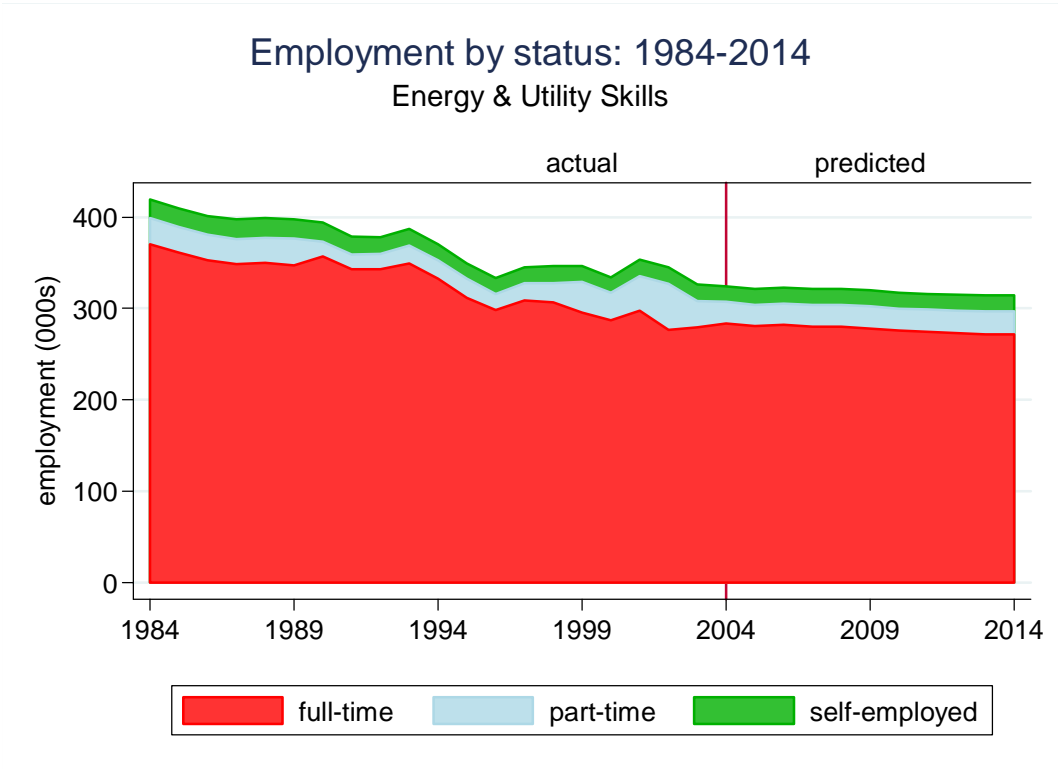


Figure 3.7.3: Occupational composition: 1994-2014

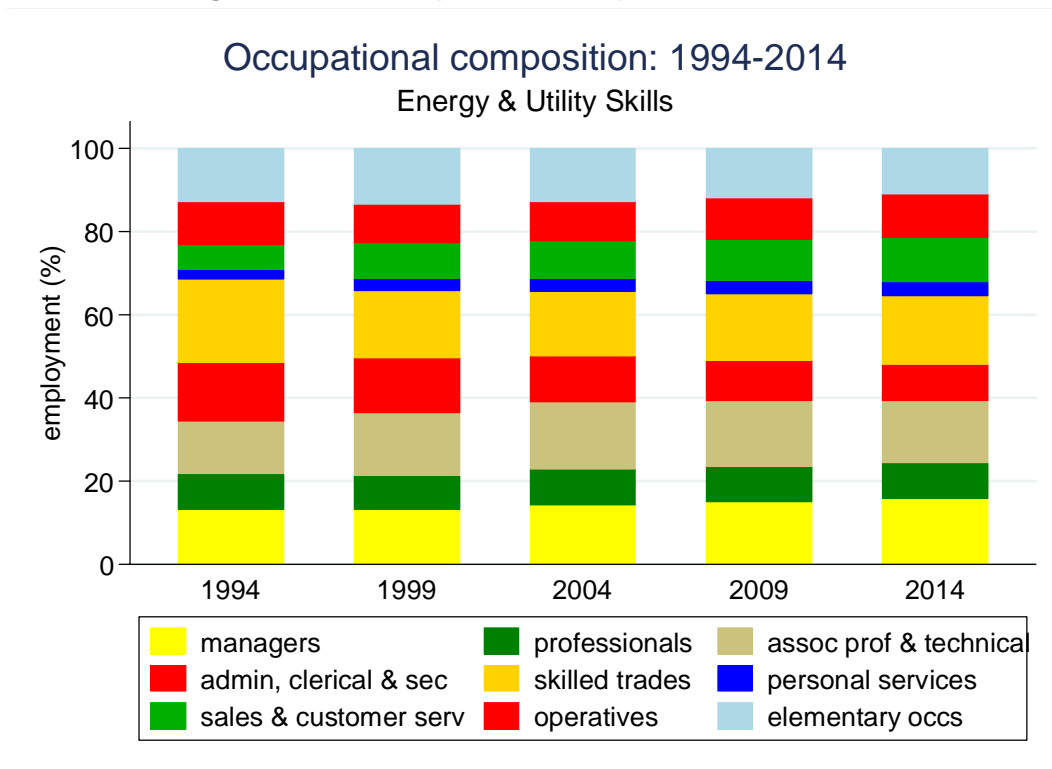


Figure 3.7.4: Employment levels by status and gender: 1994-2014

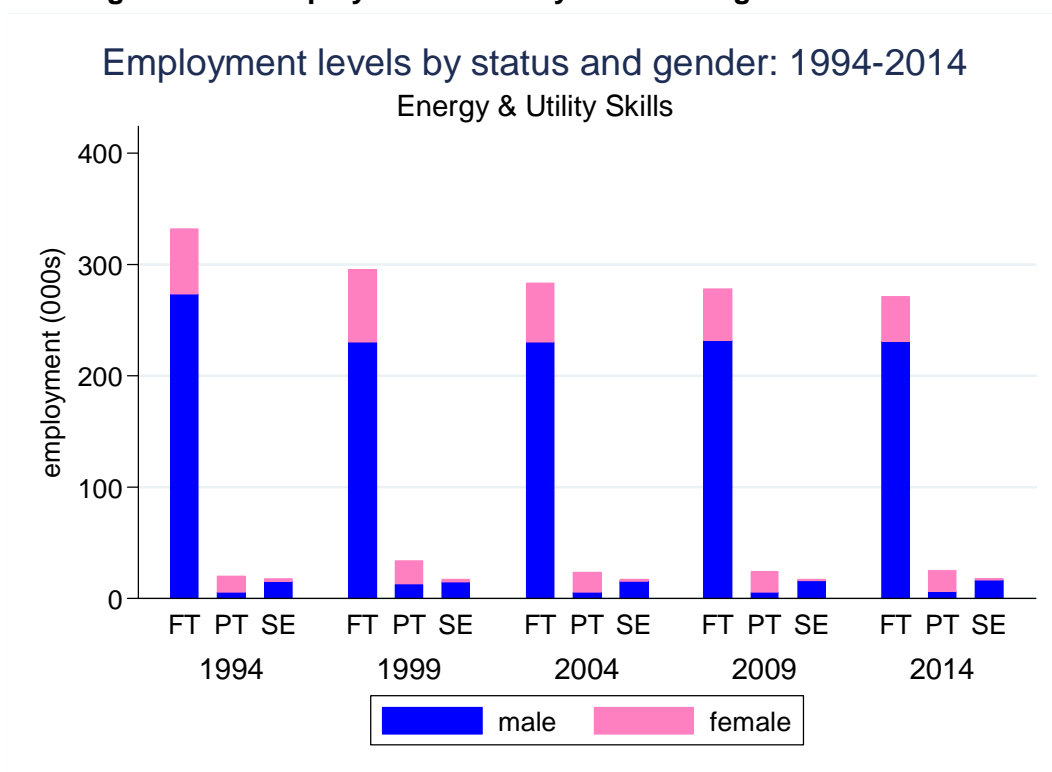


Figure 3.7.5: Employment shares by status and gender: 1994-2014

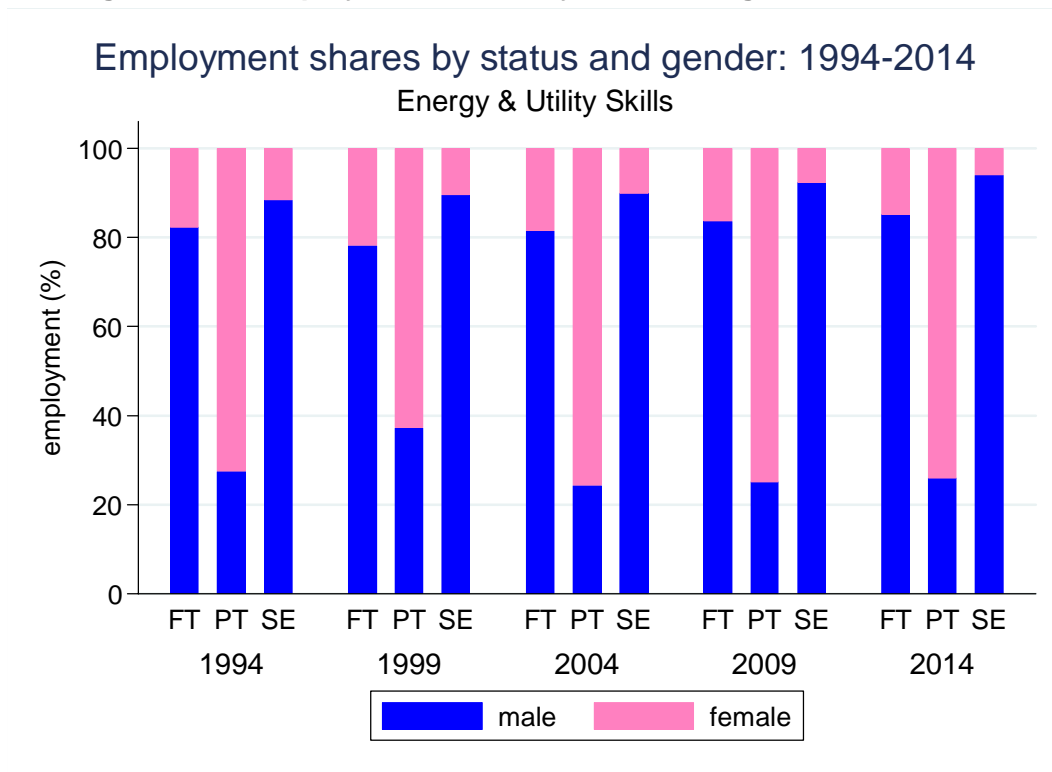


Figure 3.7.6: Employment changes by status and gender: 1984-2014

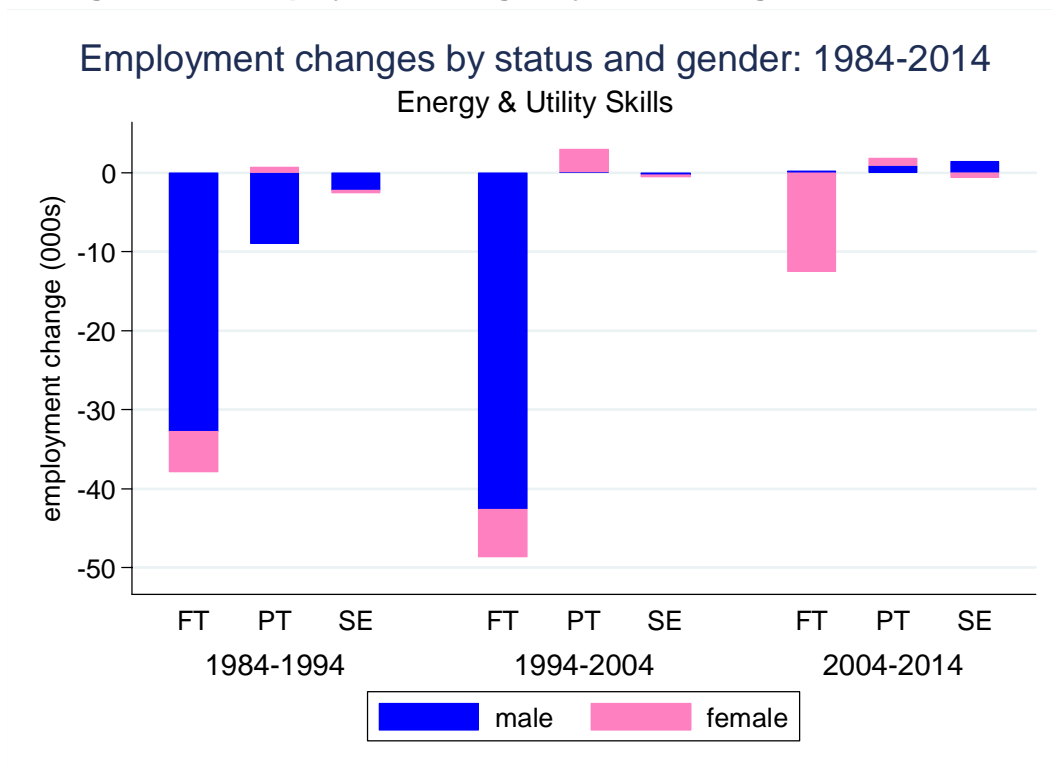
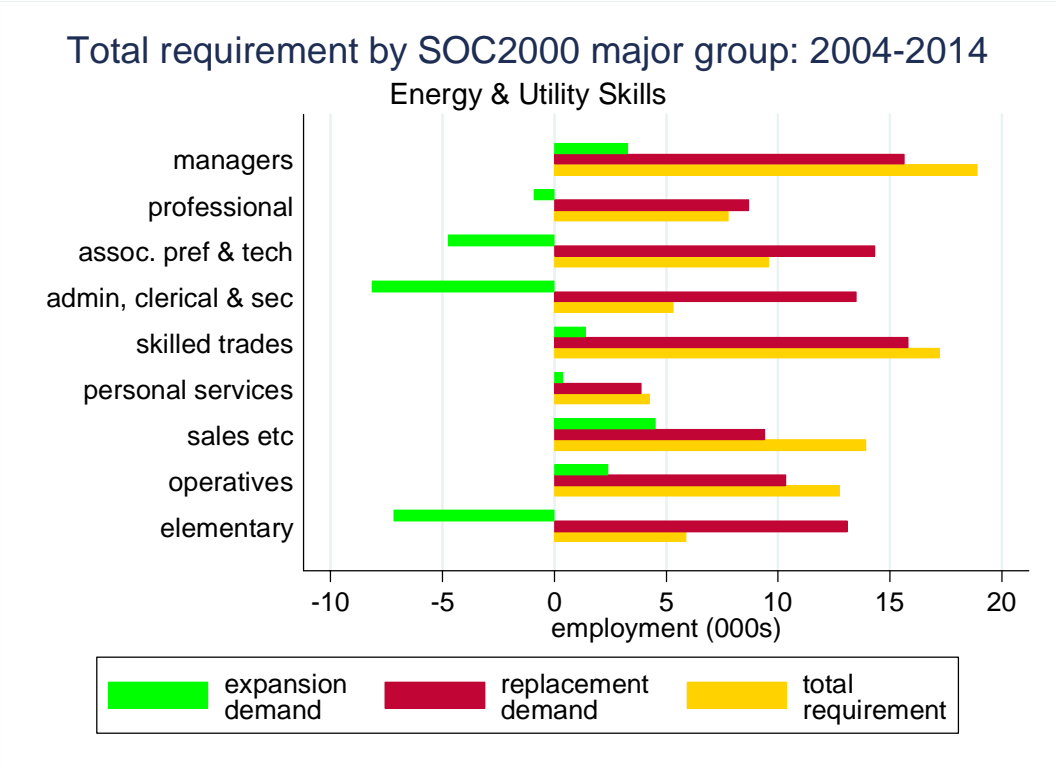


Figure 3.7.7: Total requirement by SOC2000 major group: 2004-2014



3.8 ConstructionSkills

Web: www.constructionskills.net/

Sector description:

Development and maintenance of the built environment.

SIC codes: 45.1, 45.2, 45.32, 45.34, 45.4, 45.5, 71.32, 74.2

Sector coverage:

ConstructionSkills covers a wide range of sectors in the development and maintenance of the built environment. It includes: housebuilding (public and private); infrastructure (roads, railways and utilities); non-residential building in the private sector (schools and colleges, hospitals, offices); industrial building by the private sector (factories, warehouses); commercial building by the private sector (offices, shops, entertainment, health and education); architects. In addition the sector covers repair and maintenance work in all sectors. As well as work performed by construction contractors, the sector covers the renting of construction machinery and professional and design work in consultancies (engineering, architecture and surveying). It does not cover those doing construction work in other sectors, for example, public administration, real estate or building engineering services (plumbing and electrical contracting).

Commentary:

Employment composition by gender and status

- ConstructionSkills is one of the largest SSCs, covering more than 2 million workers, or about 7% of total employment. After its recent rapid growth, total employment covered by this SSC is anticipated to remain fairly static over the next 10 years.
- ConstructionSkills, together with SummitSkills, are the most male-dominated SSCs, with well-over 80% of all those in employment in the sector being men.
- Similarly, these two closely related SSCs have very high shares of self-employment. In 2004, more than 35% of workers covered by ConstructionSkills are self-employed.

Occupational composition of employment

- Skilled Trades Occupations dominate the occupational distribution of employment – almost 2-in-5 workers in ConstructionSkills in 2004 are in this occupational group.

Expansion demand, replacement demand and total requirement 2004-2014

- Because of the dominance of Skilled Trades Occupations in total employment, the total requirement for this occupational group is large – almost one quarter of a million new recruits will be needed in this occupational class over the next 10 years.
- Proportionately, recruitment amongst Managers & Senior Officials, Professionals and Associate Professional & Technical Occupations is also set to be strong over the next 10 years.

Comparison with alternative forecasts: ConstructionSkills

ConstructionSkills have produced some very detailed occupational projections as part of their *Sector Skills Agreement* and the related *Skills Needs Assessment*. These form part of a large, multifaceted programme of research which can be accessed at <http://www.constructionskills.net/>. The quantitative employment projections are based on a model linked to the Experian macroeconomic model. The underlying employment data and model framework are based primarily on LFS data, although various other sources are also used. As a consequence there are a number of differences when compared to *Working Futures*. These differences not only reflect differences in data sources and models but also different underlying assumptions used to develop the future scenarios.

The key differences in terms of the final outcomes are related to:

- different views of the overall prospects for output growth in the sector – *Working Futures 2004-2014* adopts a more pessimistic view of the overall prospects for demand for the sector's output - around 1% *per annum* lower than in the SSC's projections;
- different views of developments in productivity growth – *Working Futures 2004-2014* assumes a faster rate of productivity growth by around 1% *per annum*;
- some relatively minor differences in emphasis on changing skill patterns within total employment;
- different views about replacement needs.

Despite these differences, the overall implications for the need to cover changes in demand plus replace those leaving the workforce are not very different, although there are, of course, many detailed differences in emphasis.

Comparison of *Working Futures* projections with those from ConstructionSkills

Criterion	<i>Working Futures</i>	ConstructionSkills
1. Definition of sector	SIC2003 categories 45.1, 45.2, 45.32, 45.34, 45.4, 45.5, 71.32, 74.2	As in <i>Working Futures</i> but there is also some recognition of the need to go beyond the narrow SIC footprint for some purposes
2. Occupational definitions	SOC2000, 25 sub-major groups	Detailed focus on 22 aggregated occupational groups, consisting of specific 4 digit SOC2000 occupations
3. Geographical coverage	UK, constituent countries and regions, and 47 LLSCs	UK, with limited regional coverage (headline occupational figures only)
4. Source of sectoral employment data	Employee estimates based on ABI2003 data and self employment from the LFS (both adjusted to match ONS estimates as published in <i>Labour Market Trends</i>)	Predominantly based on the LFS Census used to focus on geographical detail
5. Source of occupational structural data	2001 CoP and LFS (constrained to match sectoral totals)	LFS and ConstructionSkills' triennial Survey on Employment by Occupation
6. Base year and forecast horizon	2004-2014	2004-08
7. Source of output projections	Multi-sectoral macroeconomic model (CE MDM C51F8A Forecast)	Experian macro model and other sector specific views
8. Sectoral employment model	Econometric analysis linked to output and factor prices	Econometric analysis; top-down, shift share methods for regions
9. Macro scenario	GDP growth 2004-14: 2.5% <i>per annum</i>	GDP growth 2004-08: 2.5% <i>per annum</i>
10. Output growth assumptions (SIC)	2004-14: 1-2% <i>per annum</i> (not available for the SSC <i>per se</i>)	2004-08: 2.3% <i>per annum</i>
11. Productivity model	Implicit in employment equations	Implicit in employment equations. Productivity forecasts are derived from research undertaken by Reading University
12. Productivity (output per person employed)	2004-14: around 2 % <i>per annum</i> (n/a for the SSC <i>per se</i>)	Around 1% <i>per annum</i>
13. Overall employment projections (SSC)	Base level 2004: 2.1 million 2004-14: decline of 9,000 (c. 0.5%) <i>per annum</i>	Base level (SIC) 2004, 2,039,000 2004-08: growth of 34,000 (c. 1.3 %) <i>per annum</i>
14. Occupational model	Econometric equations mainly driven by time trends in occupational employment shares, plus trend extrapolations	Shift-share and extrapolative methods modified using other evidence and expert opinion
15. Key features of occupational change projected	Job losses, especially for admin and clerical, semi skilled operatives and elementary occupations. Modest growth in managerial, professional and associate professional occupations	Growth for almost all occupational categories other than clerical and plasterers
16. Replacement demand	Driven by age structure by occupation and flow rates (data from LFS); mainly focussed on retirements	Sectoral focus; gross separations; focus on 'training needs' (the view is that people do not retire from construction but move into other areas of employment)
17. Key features of replacement demand results	Total replacement needs of around 70,000 <i>per annum</i> for all occupations but especially skilled trades	Total replacement demands of around 50,000 <i>per annum</i> covering all occupations but especially skilled trades

Table 3.8.1: Employment levels and shares by status and gender: 1994-2014

SSC: ConstructionSkills									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
	FT	PT	SE	Total	FT	PT	SE	Total	
1994									
Female	187	64	20	272	11	4	1	15	
Male	806	15	675	1,497	46	1	38	85	
Total employment	994	79	696	1,769	56	4	39	100	
1999									
Female	146	106	19	271	8	6	1	15	
Male	897	35	581	1,513	50	2	33	85	
Total employment	1,043	141	600	1,784	58	8	34	100	
2004									
Female	180	90	25	295	9	4	1	14	
Male	1,049	38	691	1,778	51	2	33	86	
Total employment	1,229	127	716	2,073	59	6	35	100	
2009									
Female	181	91	25	297	9	4	1	14	
Male	1,054	44	661	1,759	51	2	32	86	
Total employment	1,236	135	686	2,057	60	7	33	100	
2014									
Female	183	93	25	301	9	5	1	15	
Male	1,068	51	636	1,755	52	2	31	85	
Total employment	1,251	144	661	2,056	61	7	32	100	

Table 3.8.2: Composition of employment by occupation: 1994-2014

SSC: ConstructionSkills					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	211	230	296	309	327
2. Professional Occupations	124	129	161	169	183
3. Associate Professional & Tech.	131	142	182	190	201
4. Administrative, Clerical and Sec.	196	183	185	175	163
5. Skilled Trades Occupations	722	718	813	805	800
6. Personal Service Occupations	15	17	19	18	22
7. Sales & Customer Service Occs.	24	29	37	41	45
8. Machine & Transport Operatives	181	175	204	196	189
9. Elementary Occupations	164	161	176	154	126
Total employment	1,769	1,784	2,073	2,057	2,056
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	12	13	14	15	16
2. Professional Occupations	7	7	8	8	9
3. Associate Professional & Tech.	7	8	9	9	10
4. Administrative, Clerical and Sec.	11	10	9	8	8
5. Skilled Trades Occupations	41	40	39	39	39
6. Personal Service Occupations	1	1	1	1	1
7. Sales & Customer Service Occs.	1	2	2	2	2
8. Machine & Transport Operatives	10	10	10	10	9
9. Elementary Occupations	9	9	9	7	6
Total employment	100	100	100	100	100

Table 3.8.3: Replacement demand by occupation: 2004-2014

SSC: ConstructionSkills				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	296	31	100	130
2. Professional Occupations	161	22	50	72
3. Associate Professional & Tech.	182	20	56	75
4. Administrative, Clerical and Sec.	186	-22	74	52
5. Skilled Trades Occupations	813	-14	254	240
6. Personal Service Occupations	19	3	7	10
7. Sales & Customer Service Occs.	37	9	12	20
8. Machine & Transport Operatives	204	-15	67	52
9. Elementary Occupations	176	-50	54	4
Total employment	2,074	-17	673	656
<i>Percentages (%)</i>				
SOC2000 Major groups	2004 changes 2004-2014			
	shares	ED	RD	TR
1. Managers & Senior Officials	14	10	34	44
2. Professional Occupations	8	13	31	45
3. Associate Professional & Tech.	9	11	31	41
4. Administrative, Clerical and Sec.	9	-12	40	28
5. Skilled Trades Occupations	39	-2	31	30
6. Personal Service Occupations	1	16	39	55
7. Sales & Customer Service Occs.	2	23	32	55
8. Machine & Transport Operatives	10	-7	33	25
9. Elementary Occupations	9	-28	30	2
Total employment	100	-1	32	32

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.8.1: Employment by gender: 1984-2014

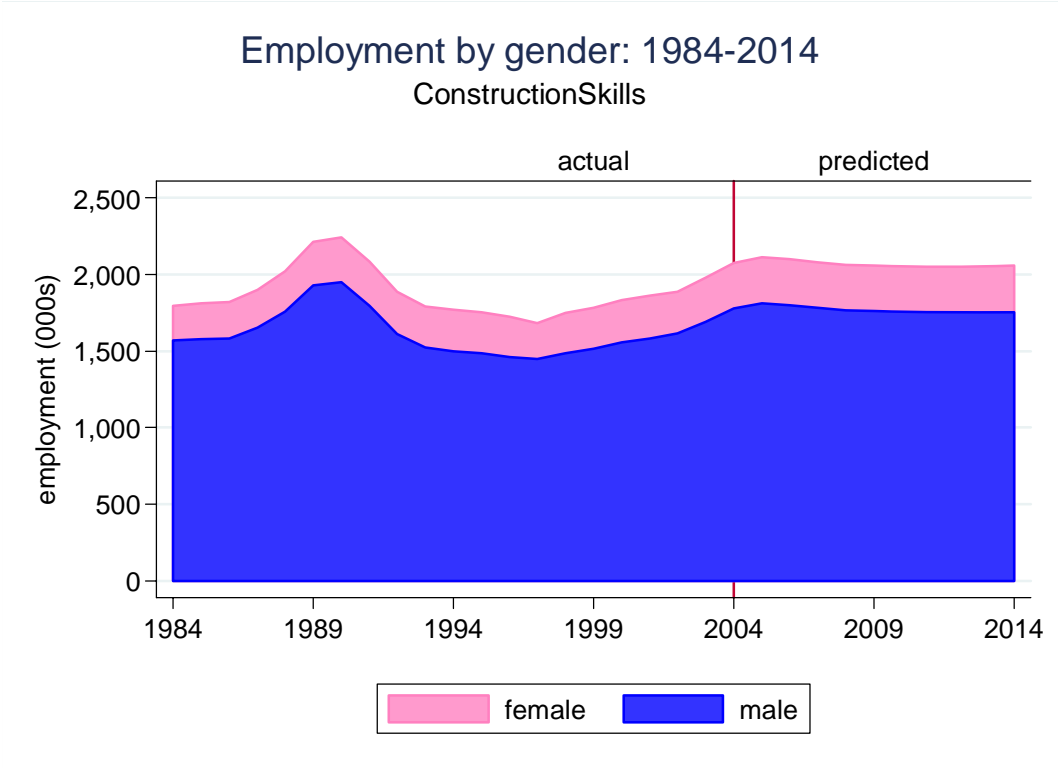


Figure 3.8.2: Employment by status: 1984-2014

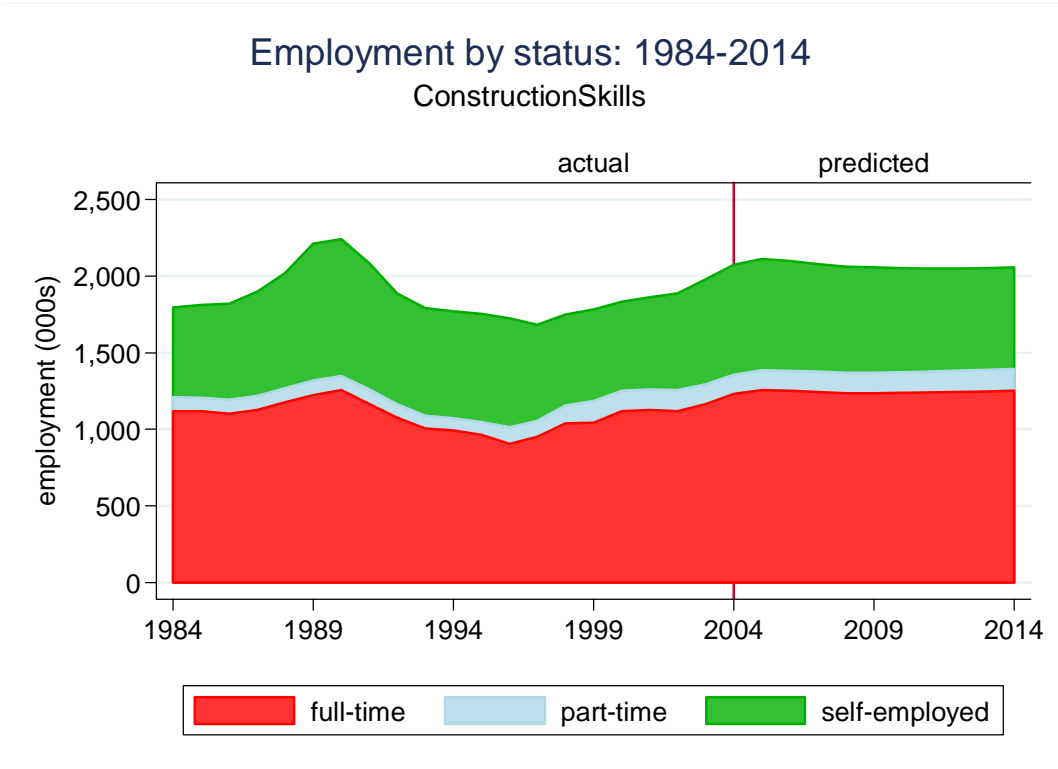


Figure 3.8.3: Occupational composition: 1994-2014

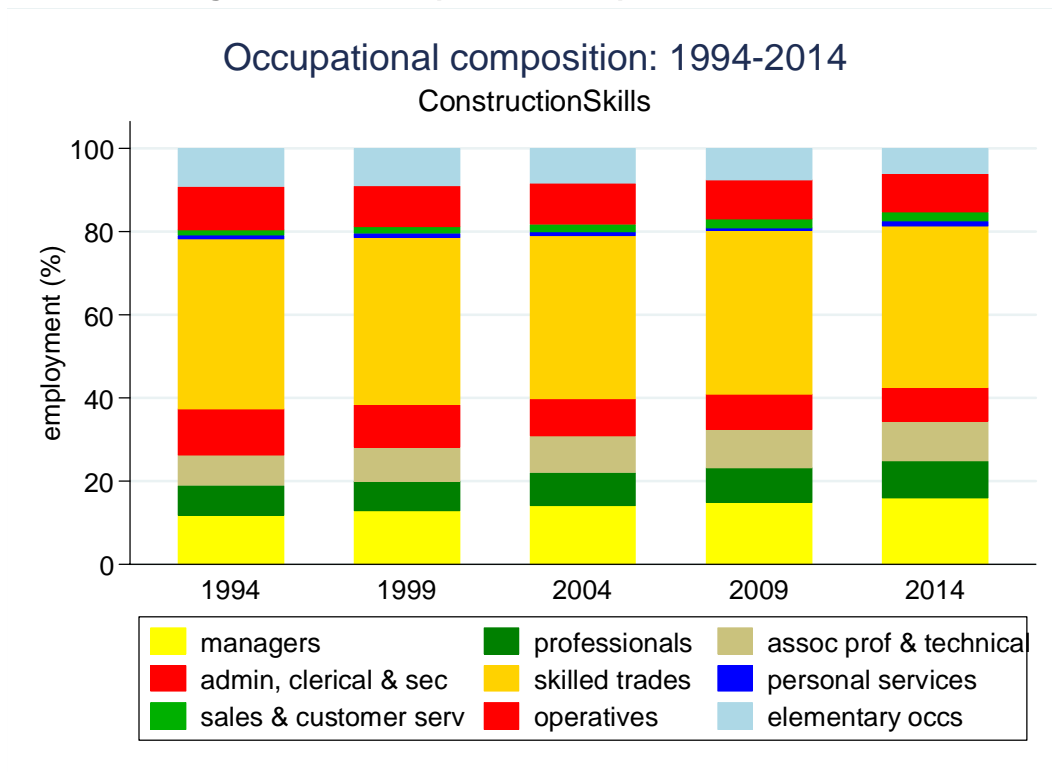


Figure 3.8.4: Employment levels by status and gender: 1994-2014

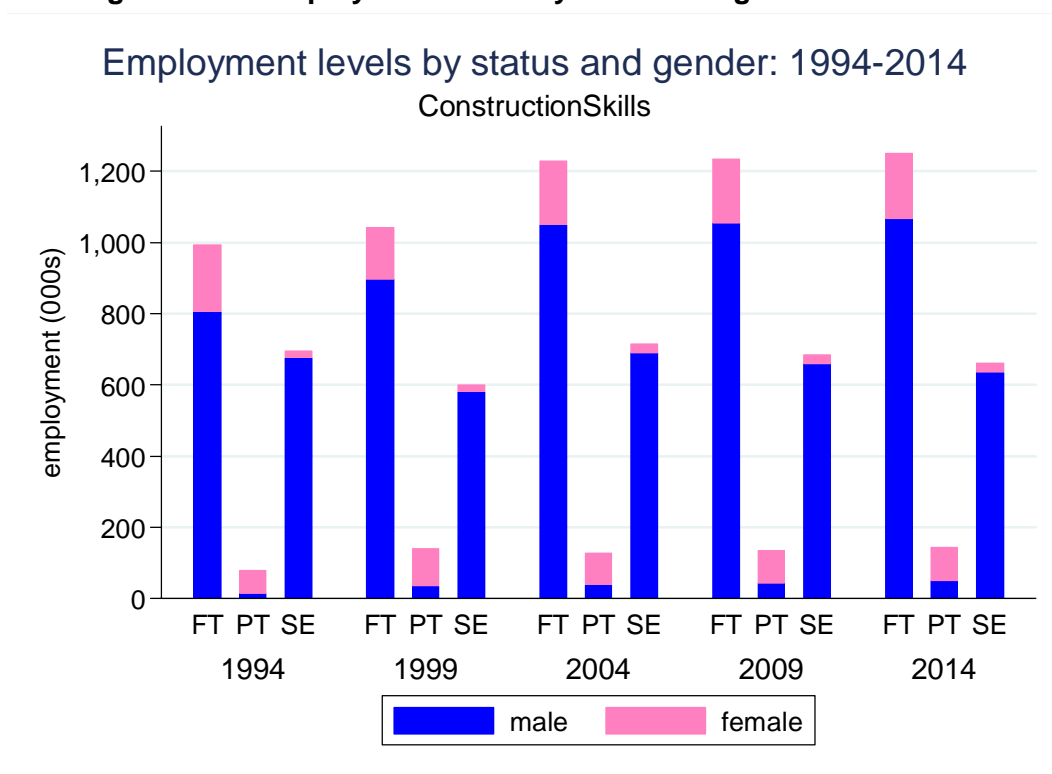


Figure 3.8.5: Employment shares by status and gender: 1994-2014

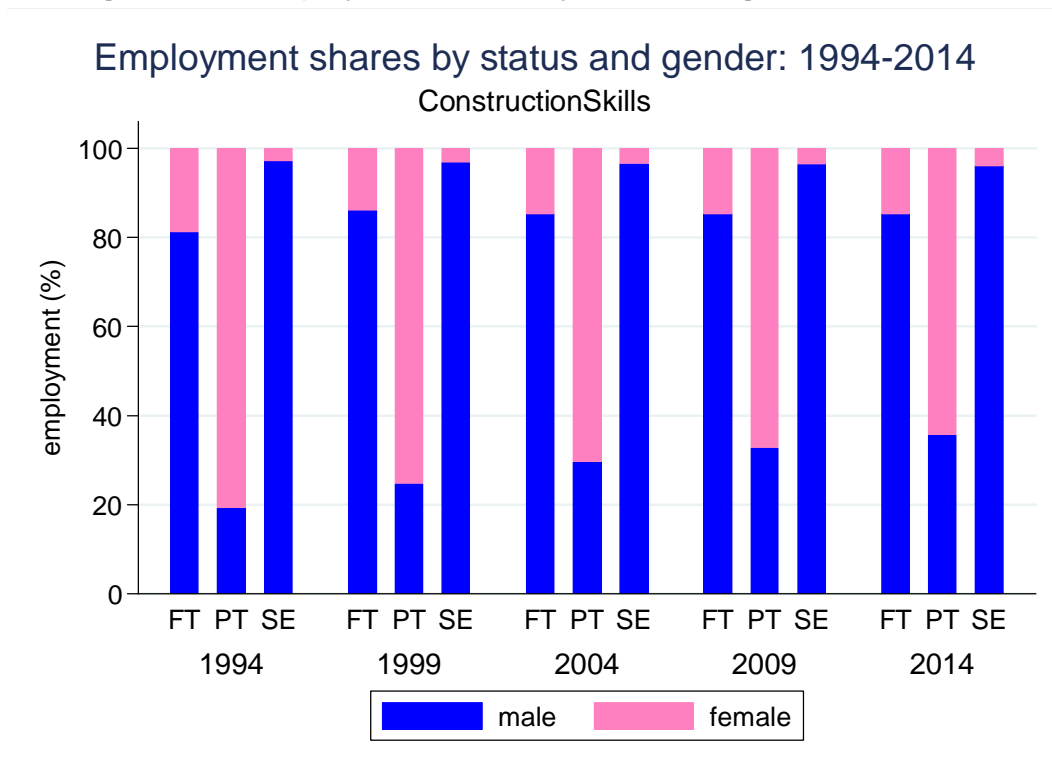


Figure 3.8.6: Employment changes by status and gender: 1984-2014

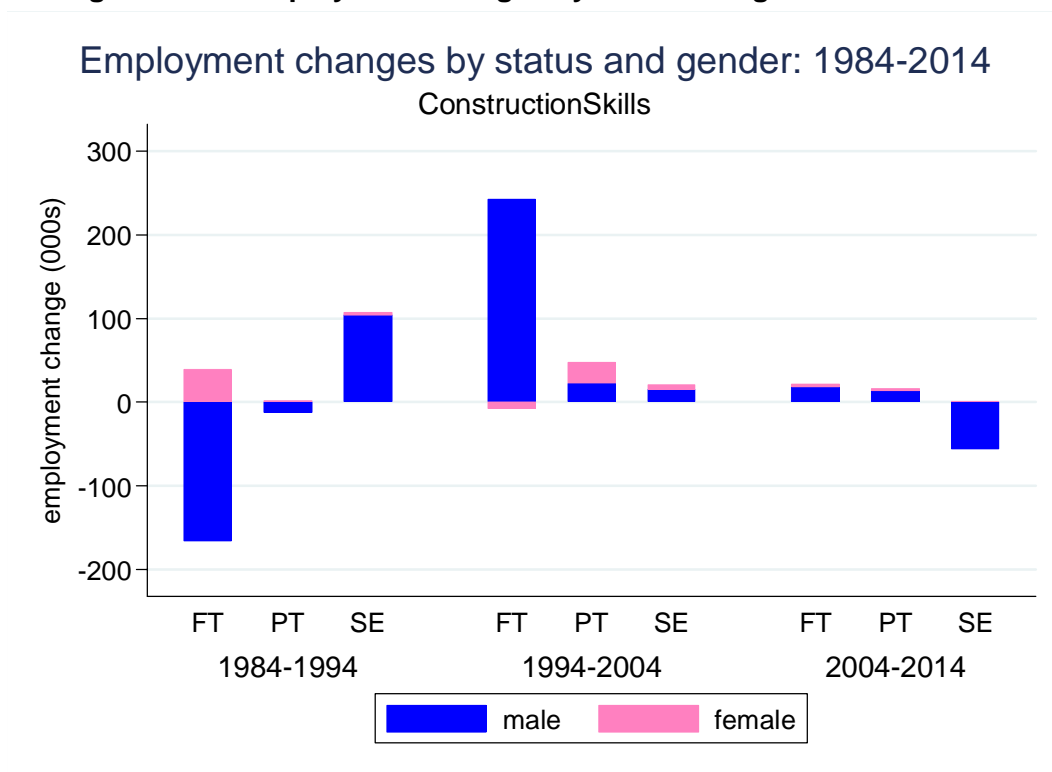
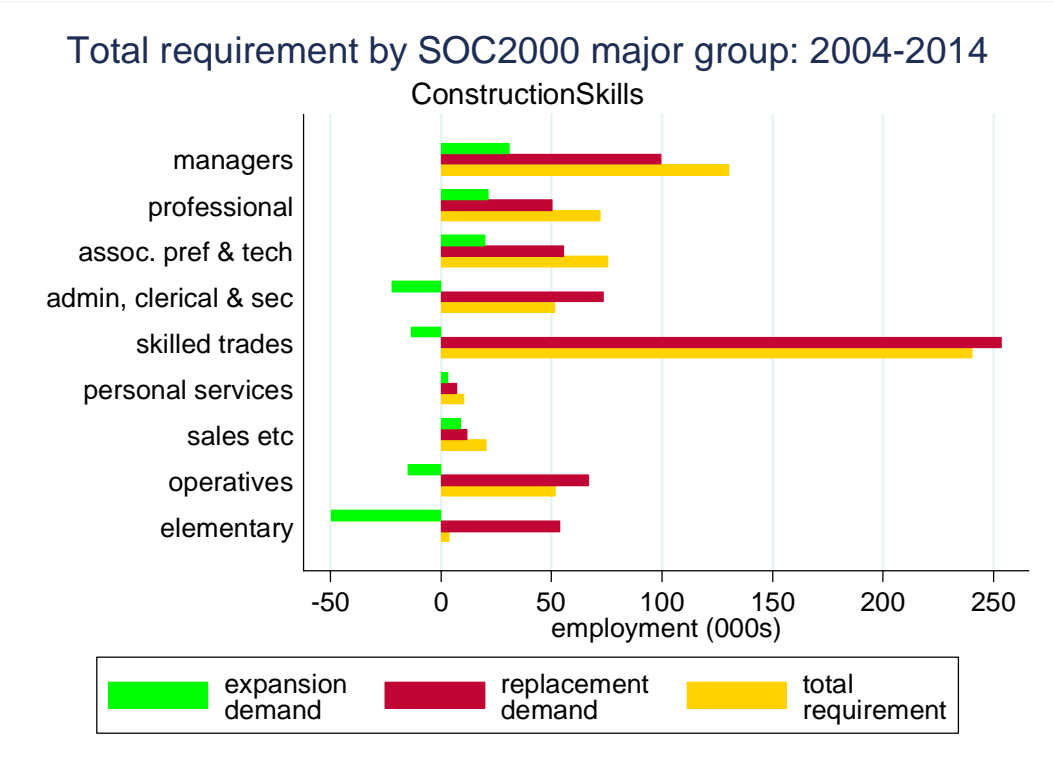


Figure 3.8.7: Total requirement by SOC2000 major group: 2004-2014



3.9 SummitSkills

Web: www.summitskills.org.uk

Sector description:

Building services engineering (electro-technical, heating, ventilation, air conditioning, refrigeration and plumbing).

SIC codes: 45.31, 45.33, 52.72

Sector coverage:

Electro-technical, heating, ventilation, air conditioning, refrigeration and plumbing industries.

Commentary:

Employment composition by gender and status

- SummitSkills, together with ConstructionSkills, are the most male-dominated SSCs, with well-over 80% of all those in employment in the sector being men.
- Similarly, these two closely related SSCs have very high shares of self-employment. In 2004, almost 40% of workers covered by SummitSkills are self-employed.

Occupational composition of employment

- As would be expected, SummitSkills has a high proportion of workers in Skilled Trades Occupations – 46% of employment in 2004.
- Another 20% of employment is amongst Machine & Transport Operatives and Elementary Occupations.

Expansion demand, replacement demand and total requirement 2004-2014

- Total employment in SummitSkills is projected to remain fairly constant over the next decade, although small net decreases are forecast amongst the Machine & Transport Operatives and Elementary Occupations.
- Total requirements are positive for all except for Elementary Occupations.

Table 3.9.1: Employment levels and shares by status and gender: 1994-2014

SSC: SummitSkills									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	31	13	5	49	8	3	1	13	
Male	162	3	171	336	42	1	45	87	
Total employment	192	16	176	385	50	4	46	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	23	20	4	48	6	5	1	12	
Male	192	6	144	342	49	1	37	88	
Total employment	215	26	148	389	55	7	38	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	30	16	5	52	7	4	1	12	
Male	222	5	171	399	49	1	38	88	
Total employment	253	22	176	451	56	5	39	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	31	17	5	52	7	4	1	12	
Male	220	6	161	387	50	1	37	88	
Total employment	250	23	166	439	57	5	38	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	31	17	5	53	7	4	1	12	
Male	218	7	152	377	51	2	35	88	
Total employment	249	24	157	430	58	6	37	100	

Table 3.9.2: Composition of employment by occupation: 1994-2014

SSC: SummitSkills					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	43	49	63	64	66
2. Professional Occupations	17	19	24	24	25
3. Associate Professional & Tech.	18	20	26	27	27
4. Administrative, Clerical and Sec.	33	32	32	30	27
5. Skilled Trades Occupations	183	183	207	204	202
6. Personal Service Occupations	2	2	2	2	3
7. Sales & Customer Service Occs.	6	7	8	8	9
8. Machine & Transport Operatives	44	42	49	47	44
9. Elementary Occupations	37	37	40	34	27
Total employment	385	389	451	439	430
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	11	12	14	14	15
2. Professional Occupations	5	5	5	5	6
3. Associate Professional & Tech.	5	5	6	6	6
4. Administrative, Clerical and Sec.	9	8	7	7	6
5. Skilled Trades Occupations	48	47	46	46	47
6. Personal Service Occupations	0	0	0	1	1
7. Sales & Customer Service Occs.	2	2	2	2	2
8. Machine & Transport Operatives	11	11	11	11	10
9. Elementary Occupations	10	9	9	8	6
Total employment	100	100	100	100	100

Table 3.9.3: Replacement demand by occupation: 2004-2014

SSC: SummitSkills				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	62	3	21	24
2. Professional Occupations	24	1	7	8
3. Associate Professional & Tech.	26	1	8	9
4. Administrative, Clerical and Sec.	32	-5	13	8
5. Skilled Trades Occupations	207	-4	64	60
6. Personal Service Occupations	2	0	1	1
7. Sales & Customer Service Occs.	8	1	3	4
8. Machine & Transport Operatives	49	-5	16	11
9. Elementary Occupations	40	-13	12	-1
Total employment	450	-21	145	124
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	14	5	33	39
2. Professional Occupations	5	5	30	36
3. Associate Professional & Tech.	6	3	31	34
4. Administrative, Clerical and Sec.	7	-14	40	26
5. Skilled Trades Occupations	46	-2	31	29
6. Personal Service Occupations	0	15	39	54
7. Sales & Customer Service Occs.	2	12	34	45
8. Machine & Transport Operatives	11	-10	33	22
9. Elementary Occupations	9	-32	30	-3
Total employment	100	-5	32	28

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.9.1: Employment by gender: 1984-2014

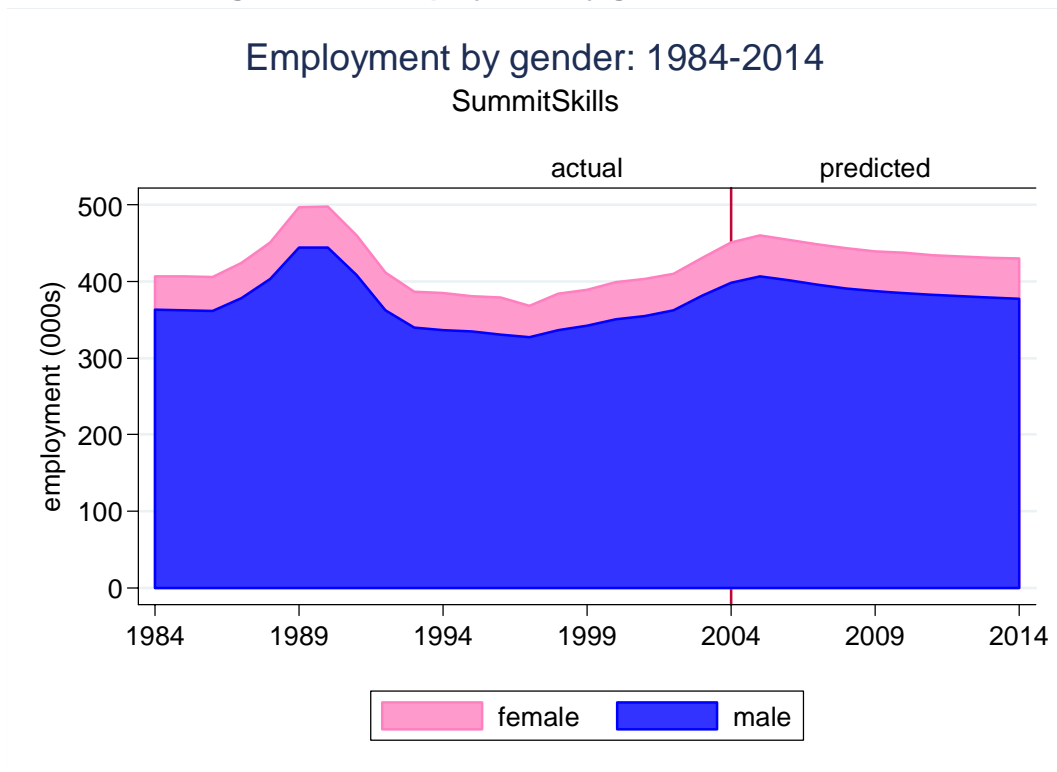


Figure 3.9.2: Employment by status: 1984-2014

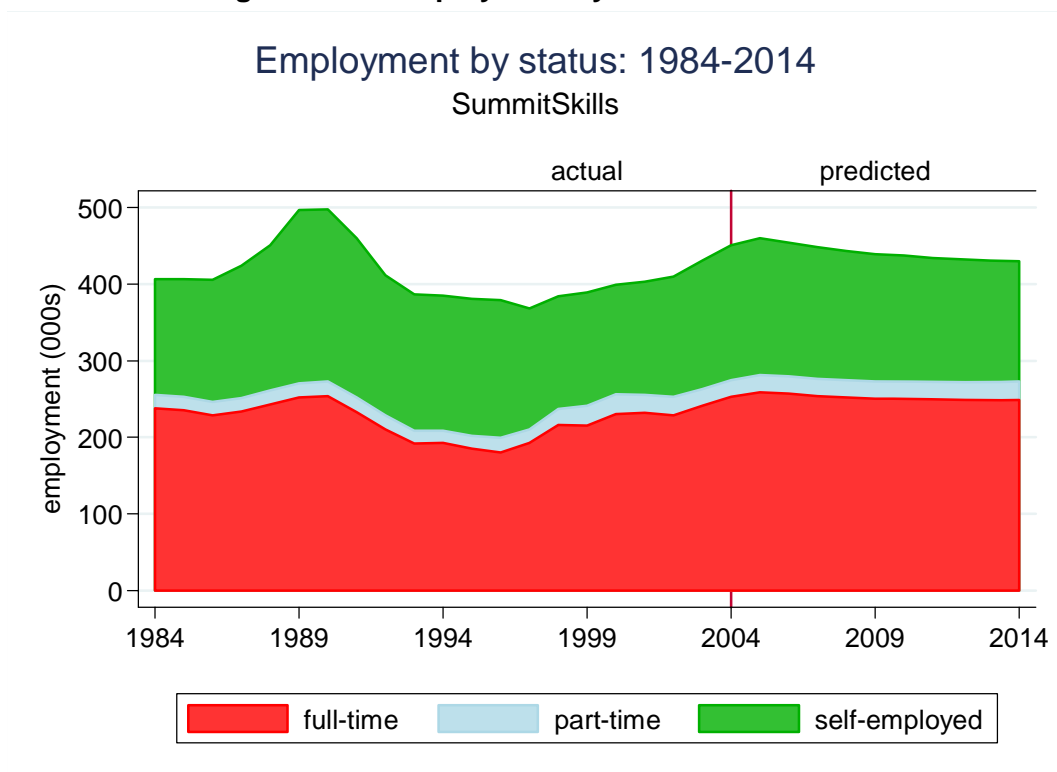


Figure 3.9.3: Occupational composition: 1994-2014

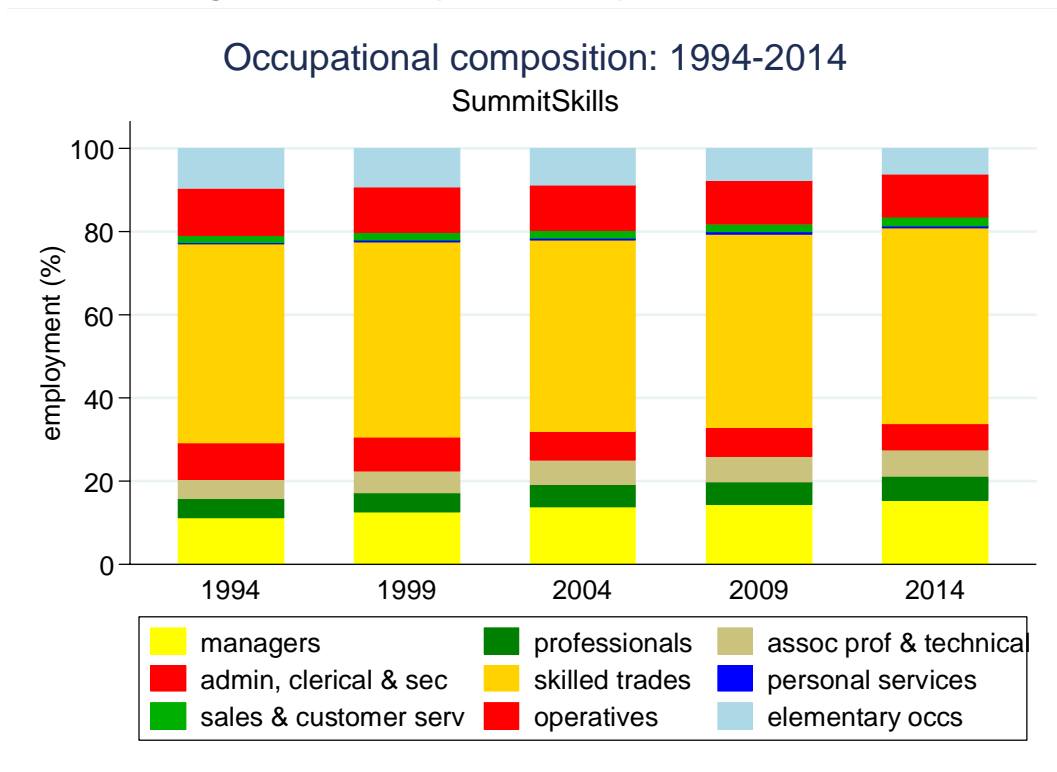


Figure 3.9.4: Employment levels by status and gender: 1994-2014

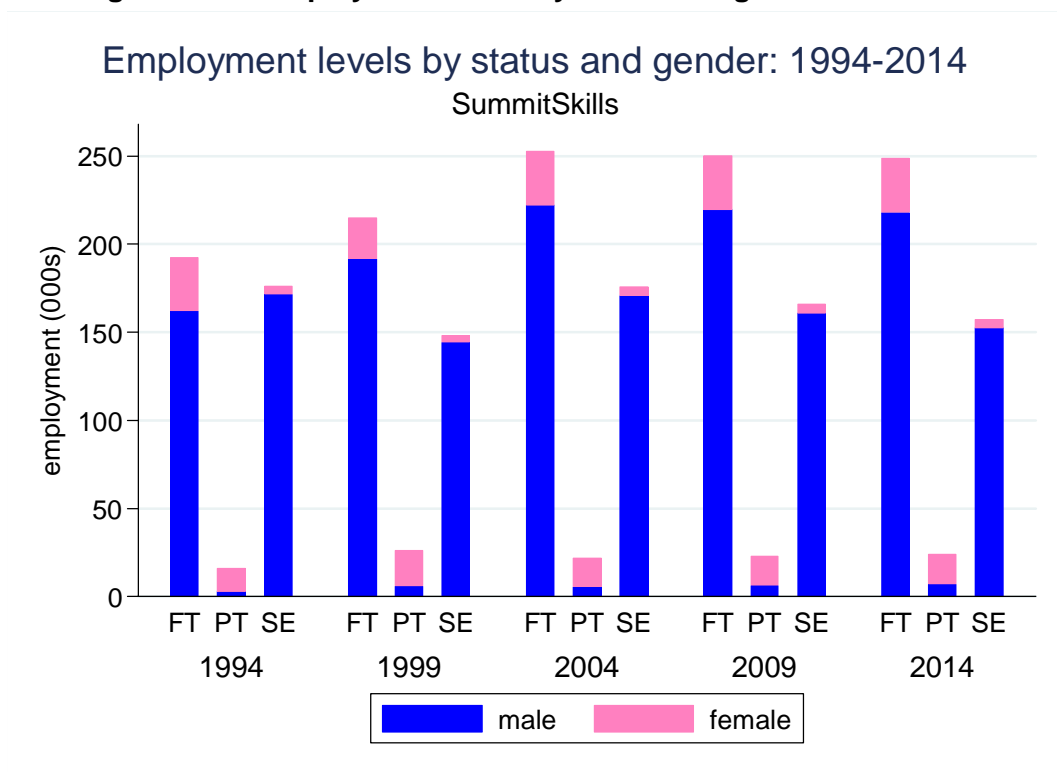


Figure 3.9.5: Employment shares by status and gender: 1994-2014

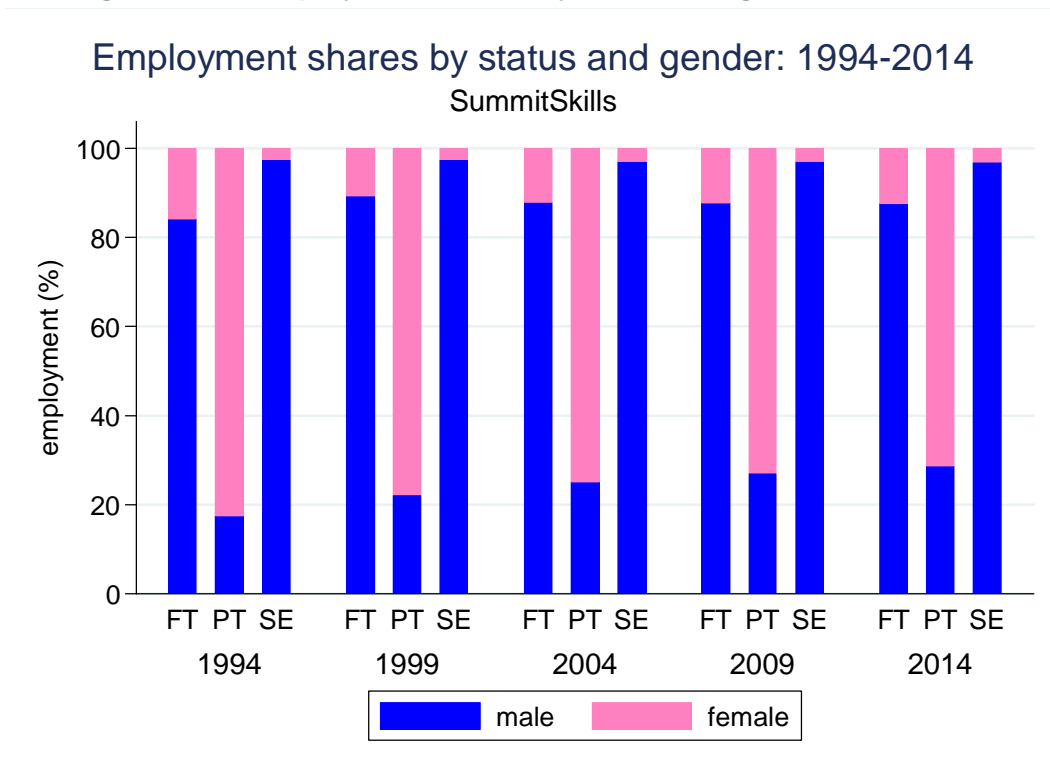


Figure 3.9.6: Employment changes by status and gender: 1984-2014

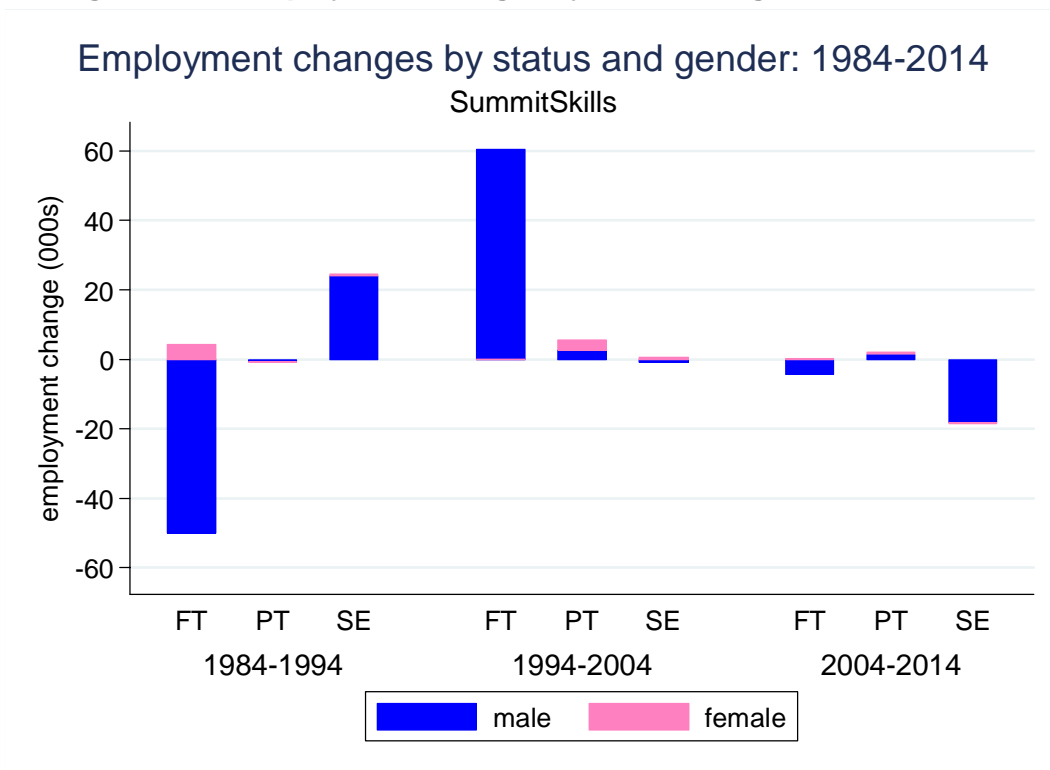
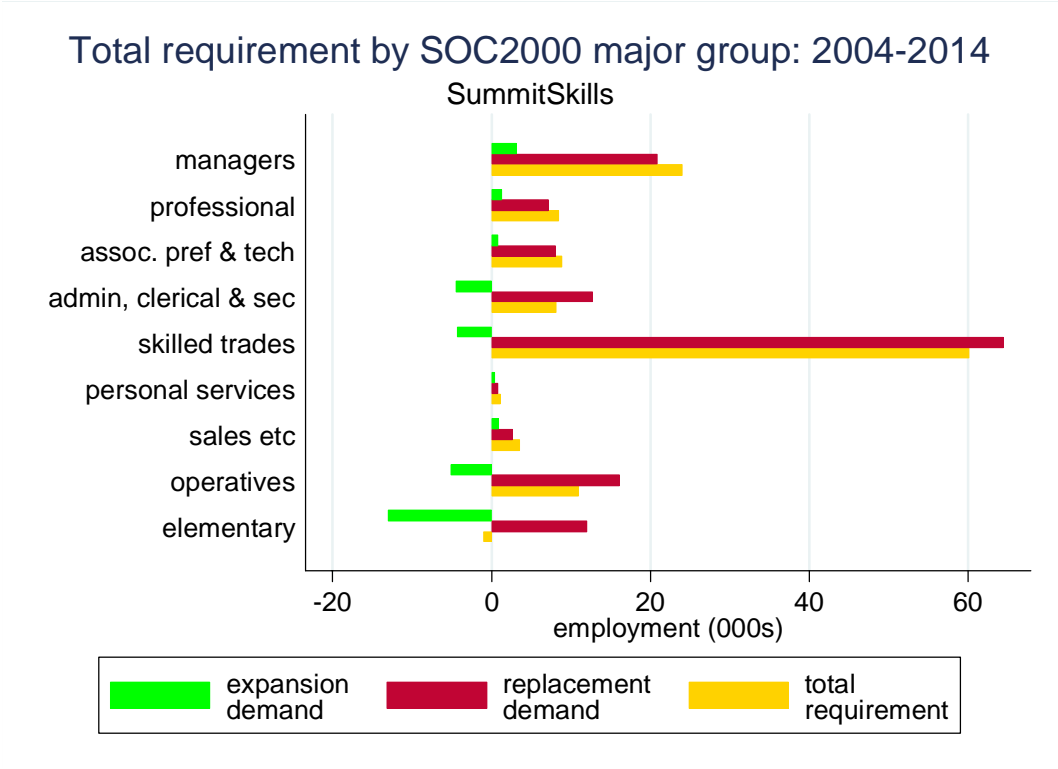


Figure 3.9.7: Total requirement by SOC2000 major group: 2004-2014



3.10 Automotive Skills

Web: www.automotiveskills.org.uk

Sector description:

The retail motor industry.

SIC codes: 50.1-50.4, 71.1

Sector coverage:

All businesses and people involved in the sales, maintenance and repair of new and used vehicles including passenger cars, motorcycles, commercial vehicles, light and heavy trucks and specialist vehicles throughout the UK. It comprises: providers of servicing, maintenance, repair and valeting services, bodyshops (repairers, rebuilders and refinishers), vehicle inspection and MOT testing, specialist sellers and fitters of parts, accessories, and motor fuels, vehicle rental, leasing and fleet management and insurance, roadside assistance and recovery.

Commentary:

Employment composition by gender and status

- Total employment in this sector is set to remain at around 600,000 for the next decade.
- Around 80% of employment is male, and three-quarters of total employment is employed full-time.

Occupational composition of employment

- This sector has a high proportion of workers in Sales & Customer Service Occupations – almost one quarter of all workers is classified as being in this occupational group in 2004.
- There is also a high share of Managers & Senior Officials – this probably reflects the high proportion of small independent traders in this sector.

Expansion demand, replacement demand and total requirement 2004-2014

- Total requirements are positive for all occupational groups.
- In absolute terms, total requirement is high in Sales & Customer Service Occupations which will require 60,000 new recruits over the next 10 years, representing 50% of current employment in this occupational group.

Table 3.10.1: Employment levels and shares by status and gender: 1994-2014

SSC: Automotive Skills									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	42	17	13	73	6	3	2	11	
Male	481	15	101	596	72	2	15	89	
Total employment	522	33	114	669	78	5	17	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	85	51	9	145	13	8	1	22	
Male	383	32	84	499	60	5	13	78	
Total employment	468	83	93	644	73	13	14	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	78	51	9	139	13	8	1	22	
Male	369	37	74	480	60	6	12	78	
Total employment	448	89	83	619	72	14	13	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	75	48	5	129	12	8	1	21	
Male	375	42	64	481	62	7	10	79	
Total employment	450	91	69	609	74	15	11	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	73	46	2	120	12	8	0	20	
Male	383	50	54	486	63	8	9	80	
Total employment	455	95	56	607	75	16	9	100	

Table 3.10.2: Composition of employment by occupation: 1994-2014

SSC: Automotive Skills					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	175	142	134	129	126
2. Professional Occupations	25	23	23	23	23
3. Associate Professional & Tech.	59	55	55	54	54
4. Administrative, Clerical and Sec.	33	41	36	32	30
5. Skilled Trades Occupations	124	98	84	78	73
6. Personal Service Occupations	19	22	23	24	25
7. Sales & Customer Service Occs.	93	140	149	157	165
8. Machine & Transport Operatives	71	57	53	54	57
9. Elementary Occupations	70	66	63	58	54
Total employment	669	644	619	609	607
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	26	22	22	21	21
2. Professional Occupations	4	4	4	4	4
3. Associate Professional & Tech.	9	9	9	9	9
4. Administrative, Clerical and Sec.	5	6	6	5	5
5. Skilled Trades Occupations	19	15	14	13	12
6. Personal Service Occupations	3	3	4	4	4
7. Sales & Customer Service Occs.	14	22	24	26	27
8. Machine & Transport Operatives	11	9	9	9	9
9. Elementary Occupations	10	10	10	10	9
Total employment	100	100	100	100	100

Table 3.10.3: Replacement demand by occupation: 2004-2014

SSC: Automotive Skills				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	134	-8	46	38
2. Professional Occupations	23	1	7	8
3. Associate Professional & Tech.	55	-1	17	16
4. Administrative, Clerical and Sec.	36	-7	14	7
5. Skilled Trades Occupations	84	-11	27	15
6. Personal Service Occupations	23	2	9	11
7. Sales & Customer Service Occs.	149	16	45	61
8. Machine & Transport Operatives	53	4	18	22
9. Elementary Occupations	63	-9	20	11
Total employment	619	-13	202	189
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	22	-6	34	28
2. Professional Occupations	4	2	32	35
3. Associate Professional & Tech.	9	-2	31	29
4. Administrative, Clerical and Sec.	6	-19	37	19
5. Skilled Trades Occupations	14	-14	32	18
6. Personal Service Occupations	4	10	40	50
7. Sales & Customer Service Occs.	24	11	30	41
8. Machine & Transport Operatives	9	8	34	42
9. Elementary Occupations	10	-14	31	18
Total employment	100	-2	33	31

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.10.1: Employment by gender: 1984-2014

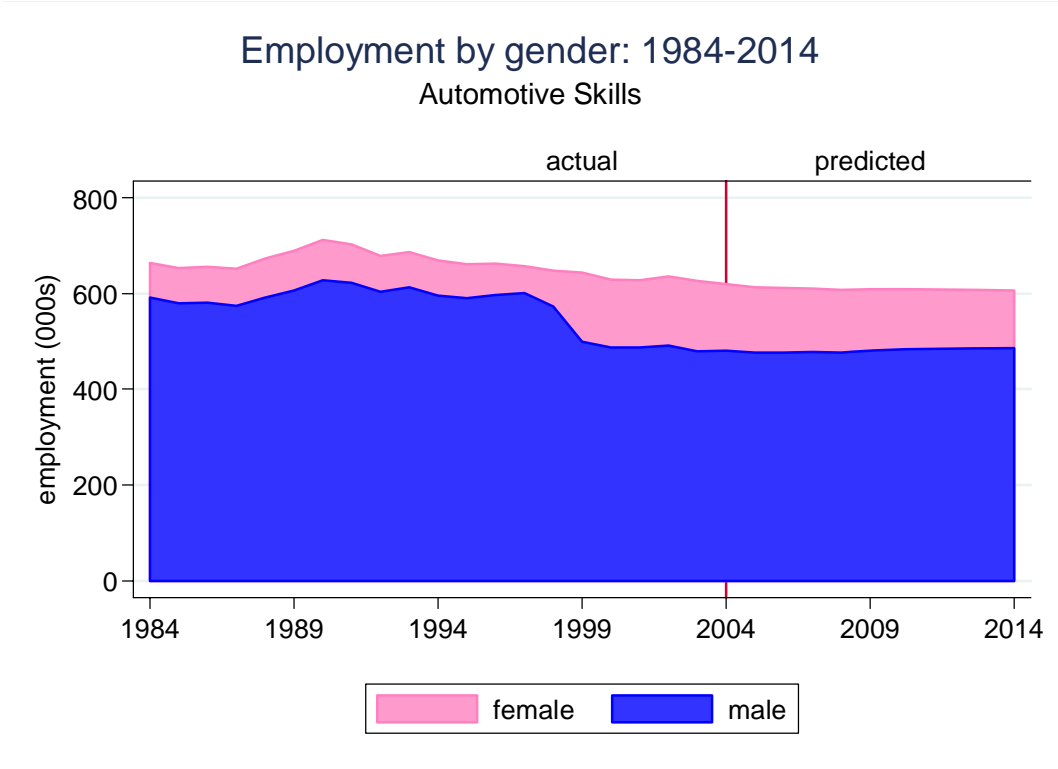


Figure 3.10.2: Employment by status: 1984-2014

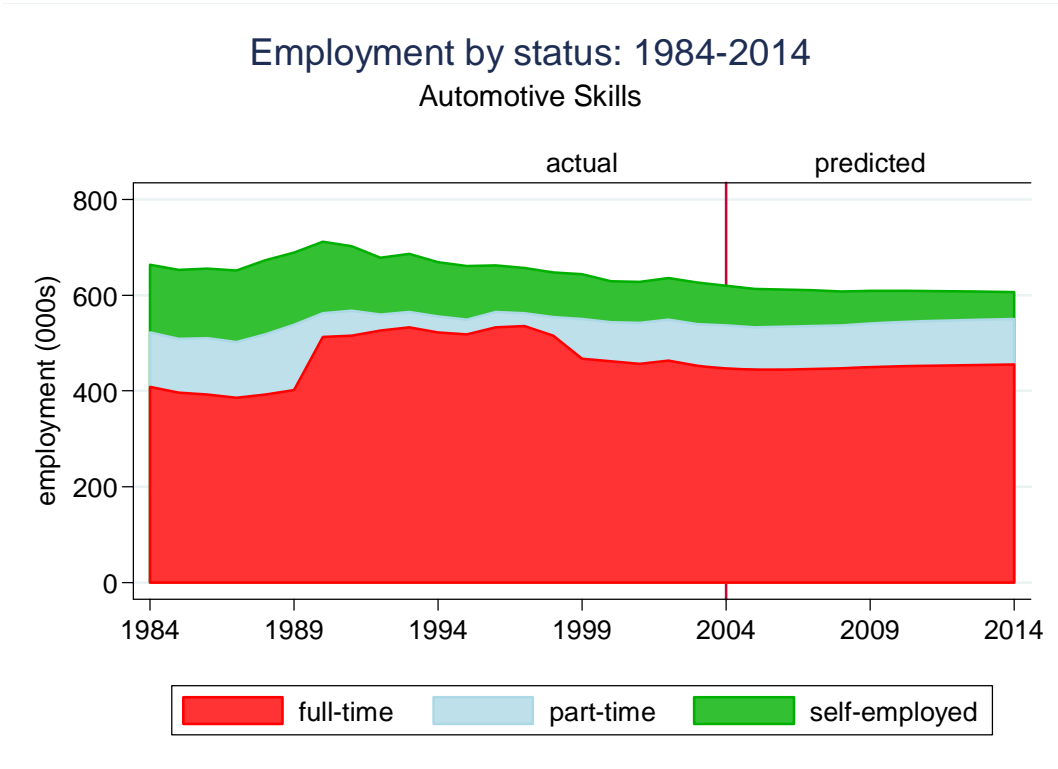


Figure 3.10.3: Occupational composition: 1994-2014

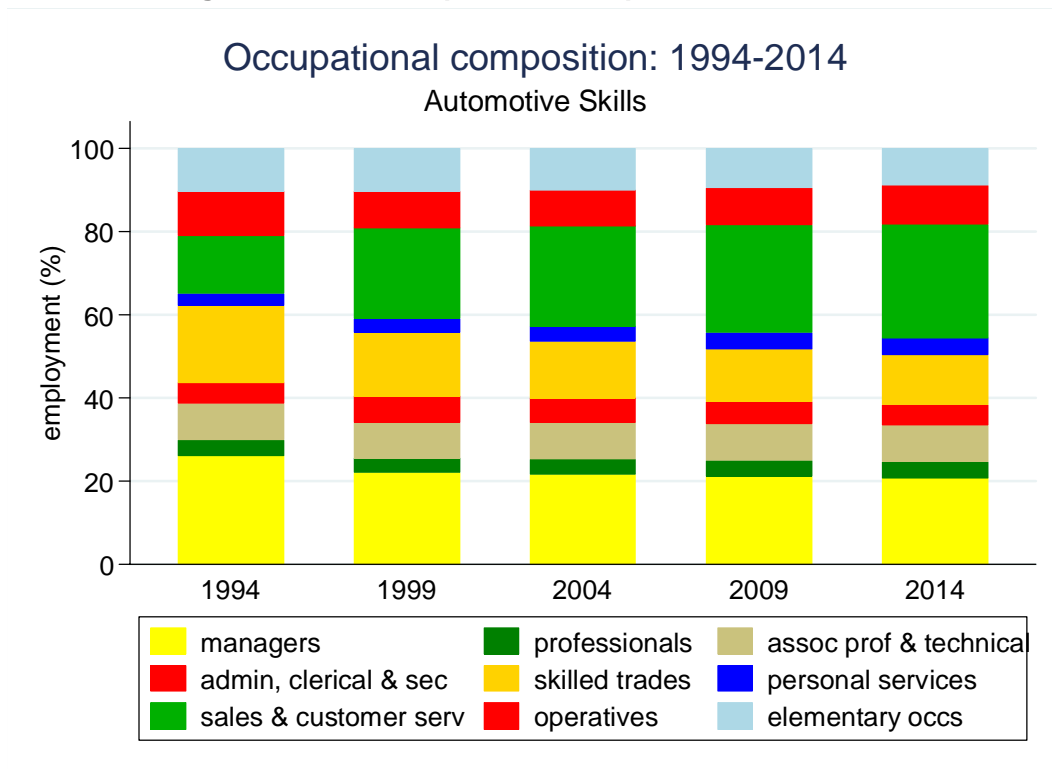


Figure 3.10.4: Employment levels by status and gender: 1994-2014

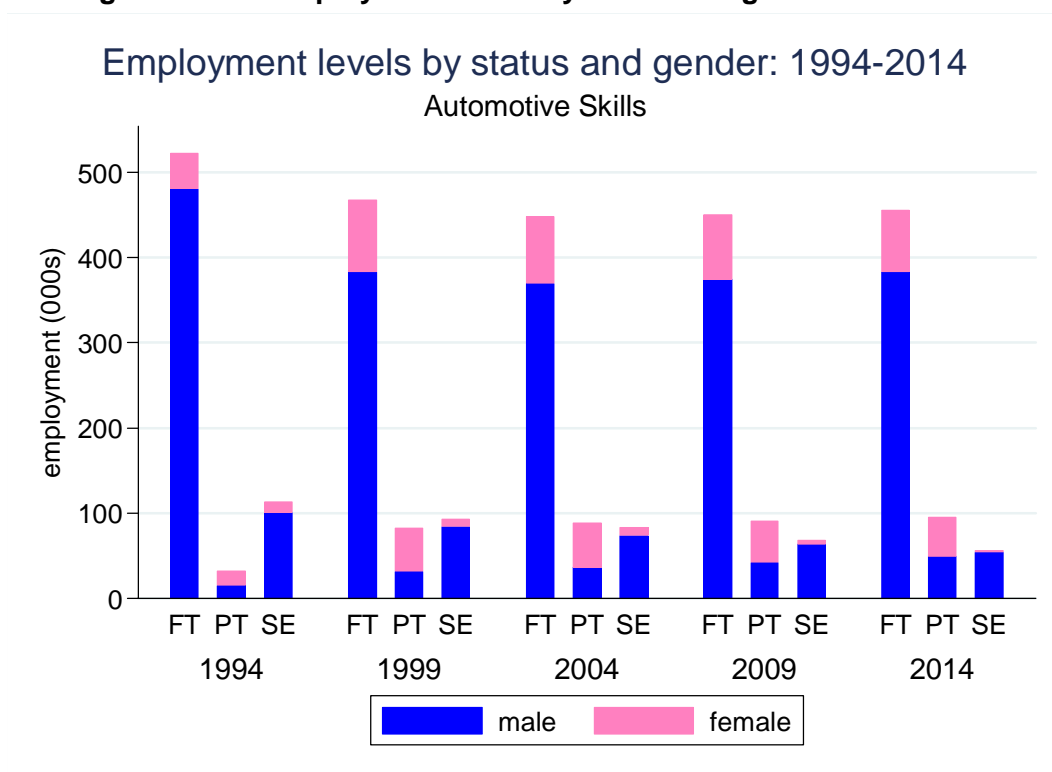


Figure 3.10.5: Employment shares by status and gender: 1994-2014

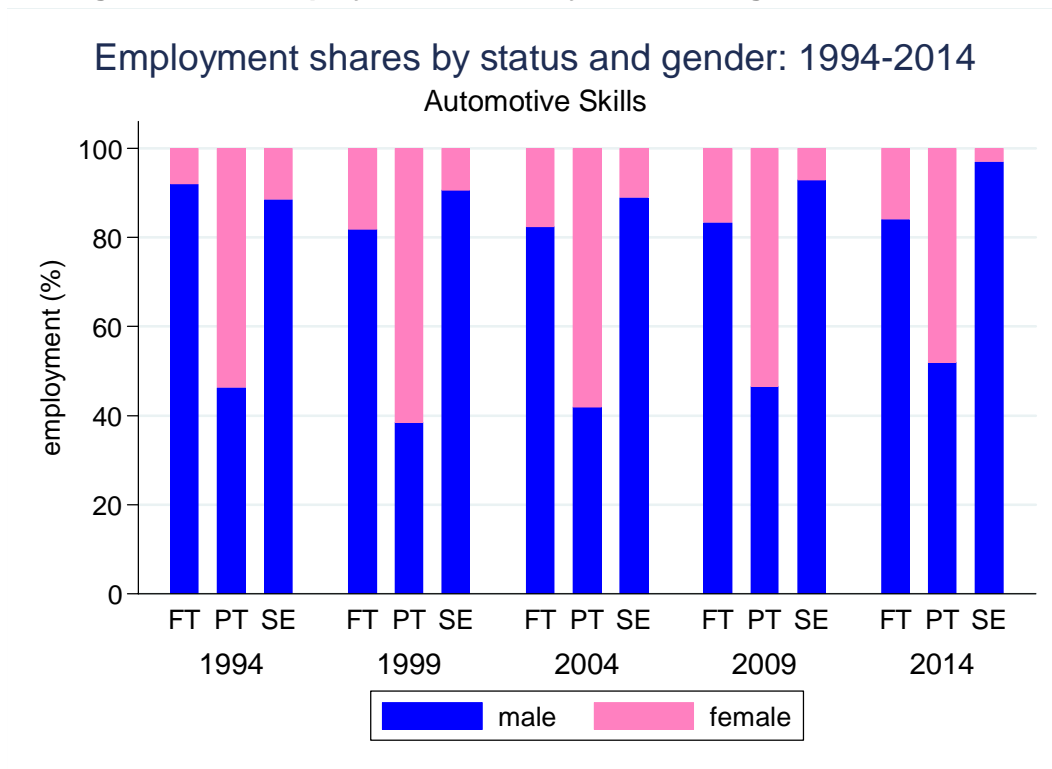


Figure 3.10.6: Employment changes by status and gender: 1984-2014

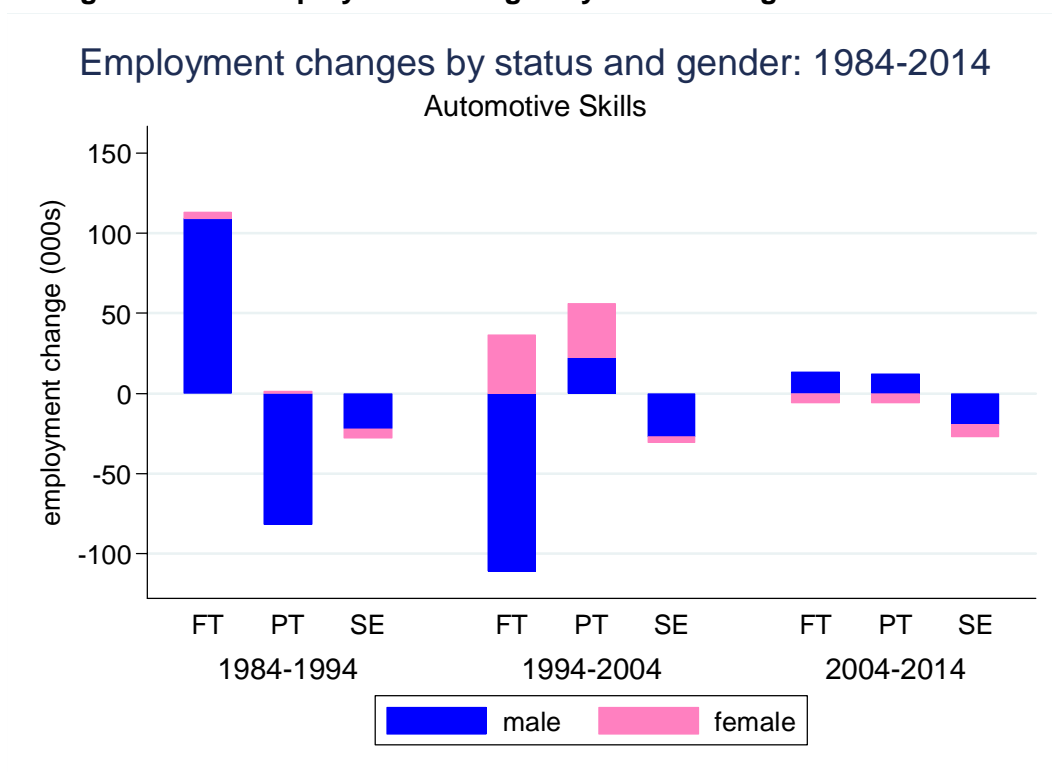
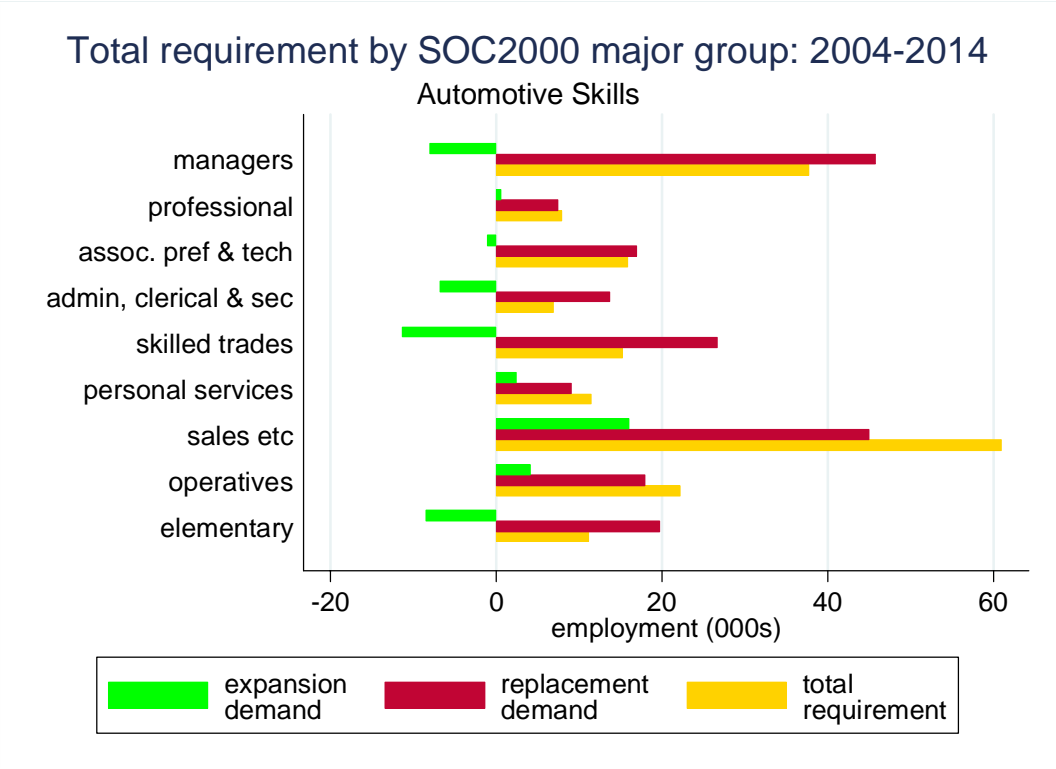


Figure 3.10.7: Total requirement by SOC2000 major group: 2004-2014



3.11 Skillsmart Retail

Web: www.skillsmartretail.com

Sector description:

Retail.

SIC codes: 52.1-52.6

Sector coverage:

Retail.

Commentary:

Employment composition by gender and status

- Skillsmart Retail is the largest of the 25 SSCs, and currently covers more than 3 million workers, representing more than 10% of total employment.
- Skillsmart Retail has the highest proportion of part-time workers amongst all SSCs. In 2004, almost 55% are employed part-time, and this proportion is set to increase still further over the next decade.
- Women working part-time make up 40% of total employment in the sector.

Occupational composition of employment

- As would be expected, Sales & Customer Service Occupations dominate the occupational distribution of employment. In 2004, 36% of all workers are in this occupational group.

Expansion demand, replacement demand and total requirement 2004-2014

- Employment is expected to grow by 8% over the next 10 years, representing a net increase of more than 250,000 new jobs. In absolute terms, this is the biggest employment expansion predicted of all SSCs.
- Much of the net increase is in part-time employment, although it is anticipated that there will be some small increases in full-time employment and decreases in self-employment over the next decade.
- Total requirement is positive in all occupations. Over the next 10 years, 1.4 million new recruits will be required in this sector.
- This includes a requirement for more than 550,000 new workers in Sales & Customer Service Occupations, but also almost 300,000 new Managers & Senior Officials.

Table 3.11.1: Employment levels and shares by status and gender: 1994-2014

SSC: Skillsmart Retail									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	467	1,327	141	1,936	17	50	5	72	
Male	347	236	160	743	13	9	6	28	
Total employment	814	1,564	302	2,679	30	58	11	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	545	1,148	112	1,805	19	41	4	64	
Male	560	306	145	1,010	20	11	5	36	
Total employment	1,105	1,453	257	2,815	39	52	9	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	567	1,248	113	1,927	18	40	4	62	
Male	606	435	127	1,168	20	14	4	38	
Total employment	1,173	1,683	240	3,095	38	54	8	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	572	1,303	108	1,983	18	41	3	62	
Male	637	494	101	1,232	20	15	3	38	
Total employment	1,209	1,797	209	3,215	38	56	7	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	578	1,366	104	2,047	17	41	3	61	
Male	671	560	72	1,304	20	17	2	39	
Total employment	1,249	1,926	176	3,351	37	57	5	100	

Table 3.11.2: Composition of employment by occupation: 1994-2014

SSC: Skillsmart Retail					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	357	446	510	558	614
2. Professional Occupations	49	68	80	89	103
3. Associate Professional & Tech.	169	213	256	275	305
4. Administrative, Clerical and Sec.	372	325	320	296	280
5. Skilled Trades Occupations	208	243	246	245	246
6. Personal Service Occupations	62	67	82	105	117
7. Sales & Customer Service Occs.	1,024	989	1,125	1,190	1,253
8. Machine & Transport Operatives	139	161	173	177	181
9. Elementary Occupations	299	303	303	280	253
Total employment	2,679	2,815	3,095	3,215	3,351
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	13	16	16	17	18
2. Professional Occupations	2	2	3	3	3
3. Associate Professional & Tech.	6	8	8	9	9
4. Administrative, Clerical and Sec.	14	12	10	9	8
5. Skilled Trades Occupations	8	9	8	8	7
6. Personal Service Occupations	2	2	3	3	4
7. Sales & Customer Service Occs.	38	35	36	37	37
8. Machine & Transport Operatives	5	6	6	6	5
9. Elementary Occupations	11	11	10	9	8
Total employment	100	100	100	100	100

Table 3.11.3: Replacement demand by occupation: 2004-2014

SSC: Skillsmart Retail				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	510	104	190	295
2. Professional Occupations	80	23	28	51
3. Associate Professional & Tech.	256	49	90	139
4. Administrative, Clerical and Sec.	320	-40	133	92
5. Skilled Trades Occupations	246	0	83	83
6. Personal Service Occupations	82	35	34	69
7. Sales & Customer Service Occs.	1,125	128	425	552
8. Machine & Transport Operatives	173	8	62	69
9. Elementary Occupations	303	-51	115	64
Total employment	3,095	255	1,159	1,414
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	16	20	37	58
2. Professional Occupations	3	29	35	64
3. Associate Professional & Tech.	8	19	35	54
4. Administrative, Clerical and Sec.	10	-13	41	29
5. Skilled Trades Occupations	8	0	34	34
6. Personal Service Occupations	3	43	41	84
7. Sales & Customer Service Occs.	36	11	38	49
8. Machine & Transport Operatives	6	4	36	40
9. Elementary Occupations	10	-17	38	21
Total employment	100	8	37	46

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.11.1: Employment by gender: 1984-2014

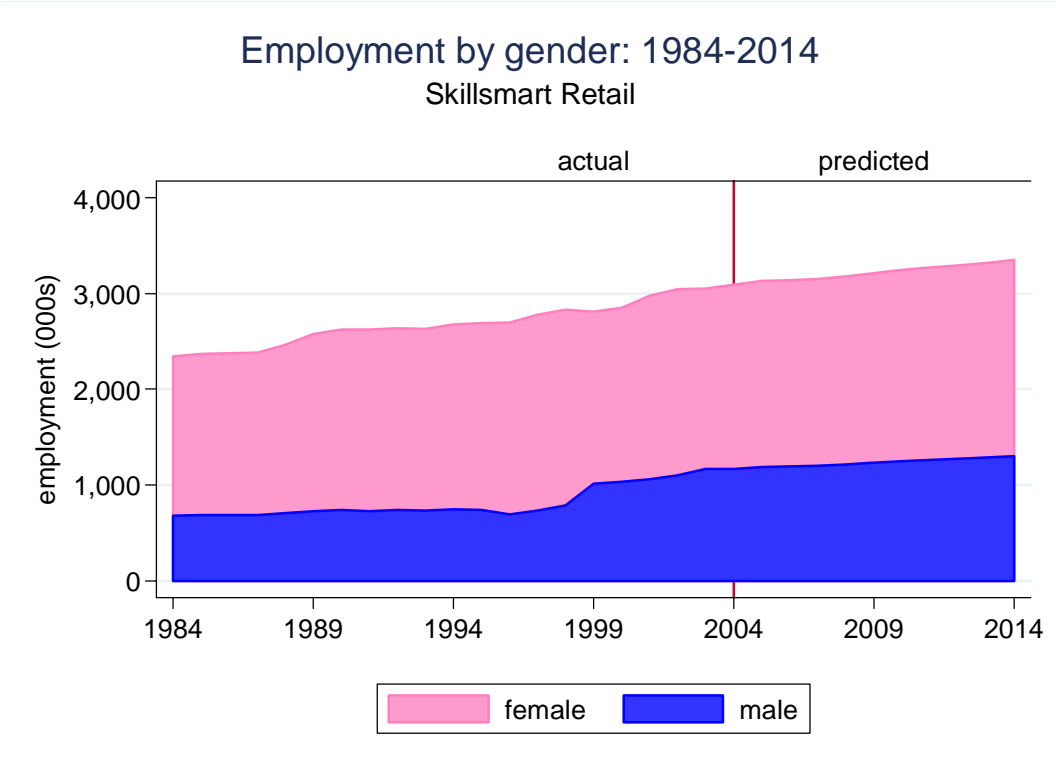


Figure 3.11.2: Employment by status: 1984-2014

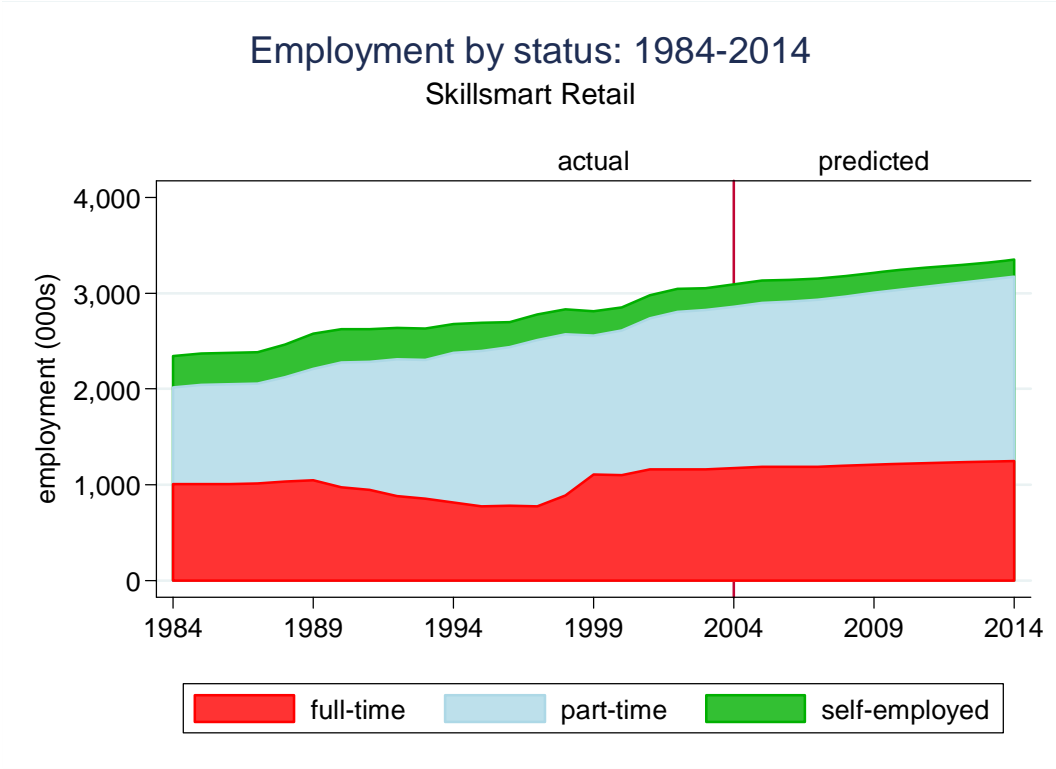


Figure 3.11.3: Occupational composition: 1994-2014

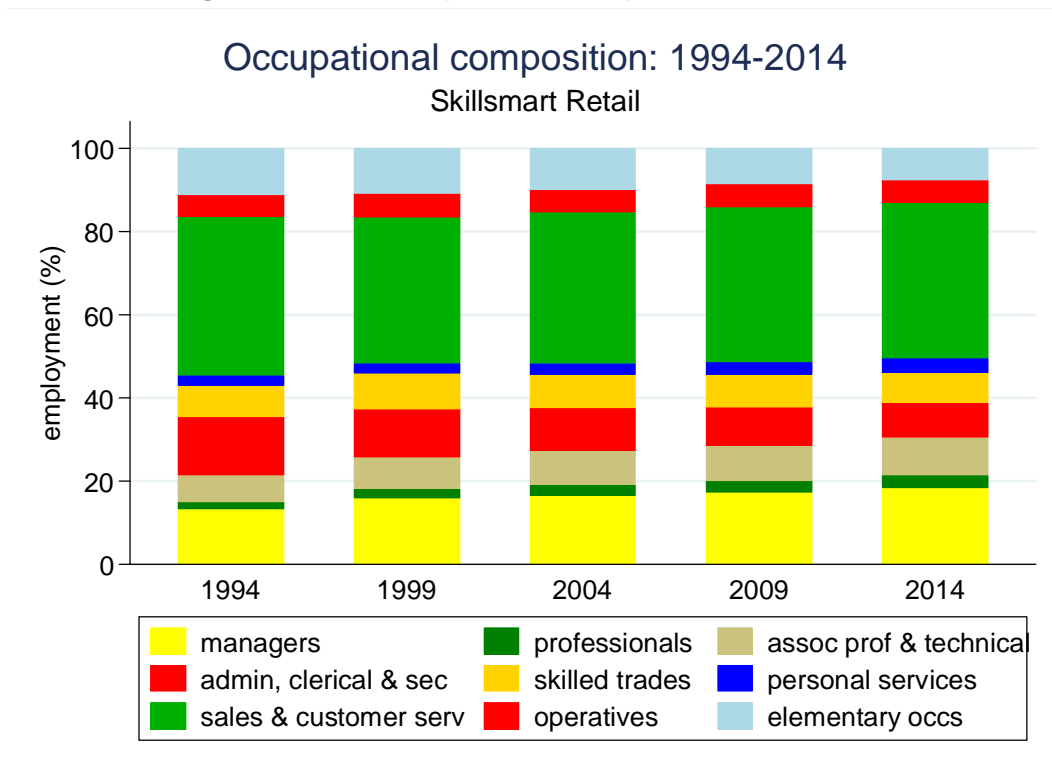


Figure 3.11.4: Employment levels by status and gender: 1994-2014

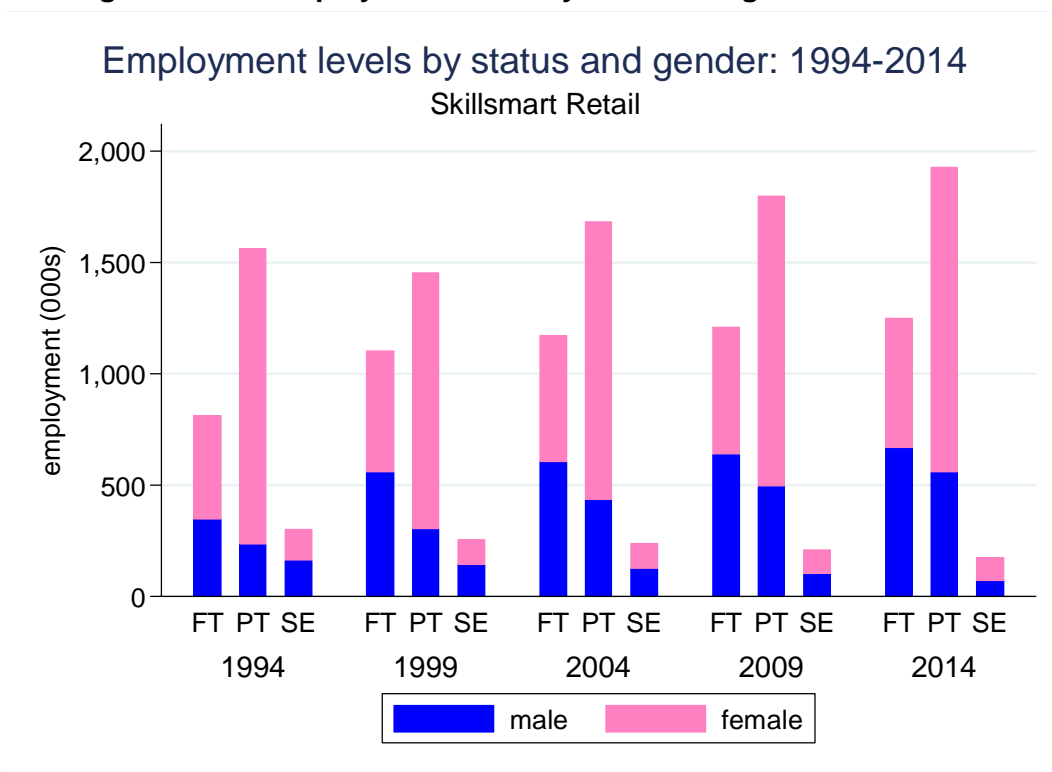


Figure 3.11.5: Employment shares by status and gender: 1994-2014

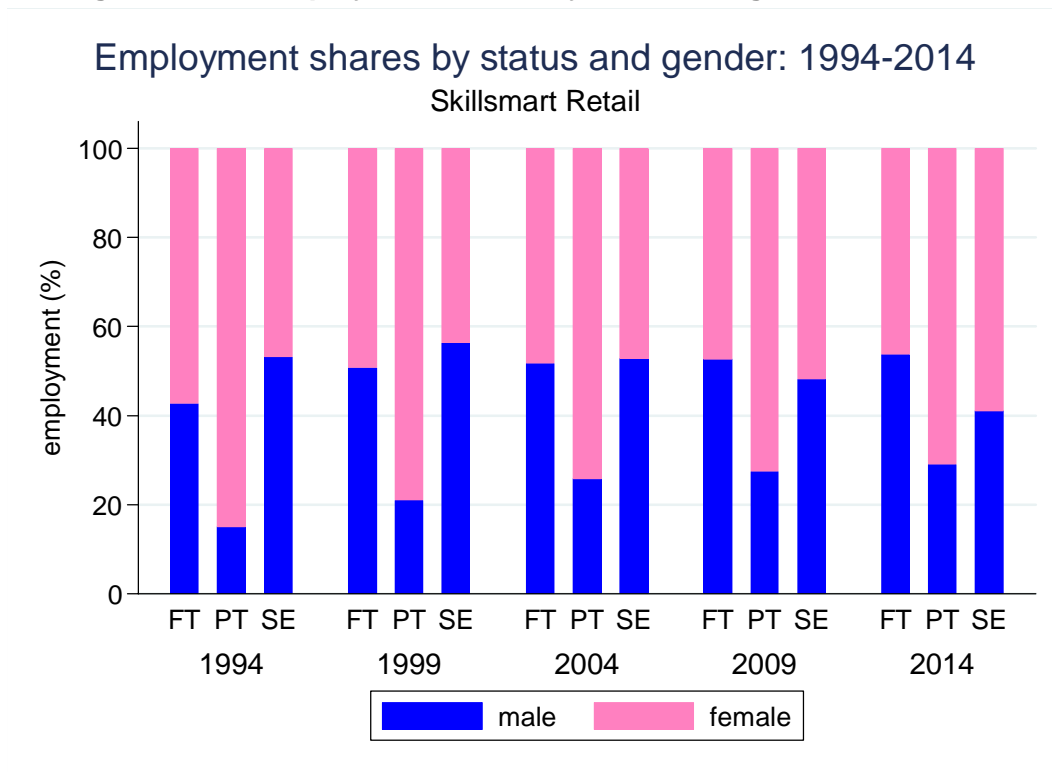


Figure 3.11.6: Employment changes by status and gender: 1984-2014

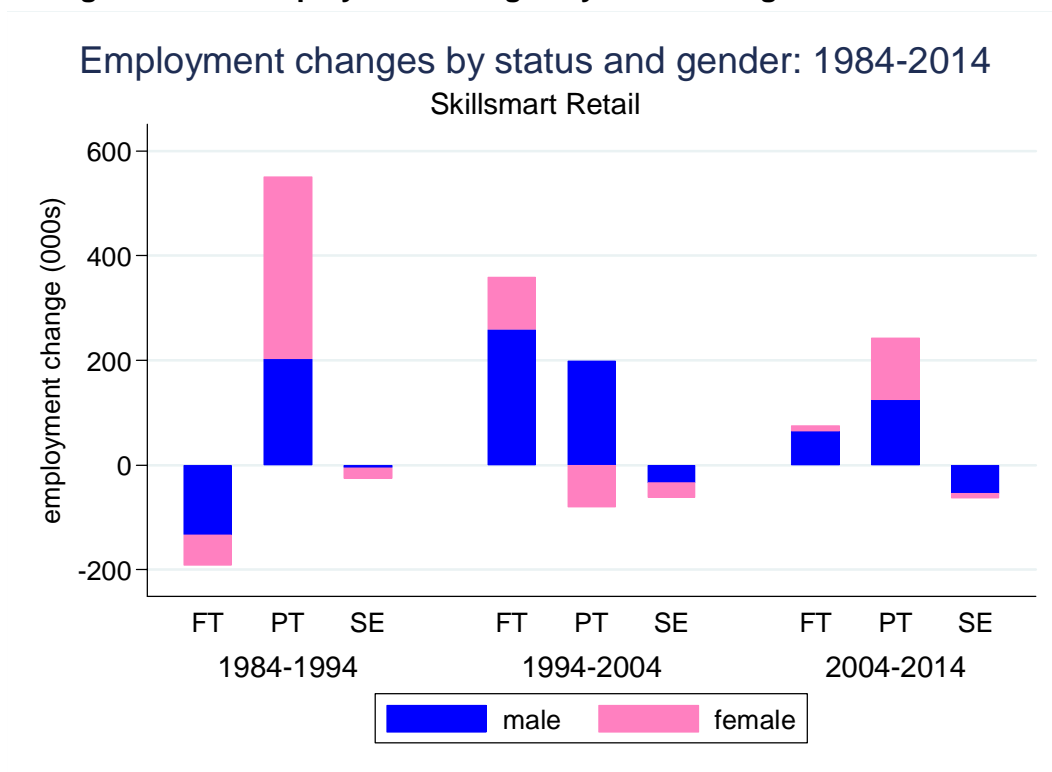
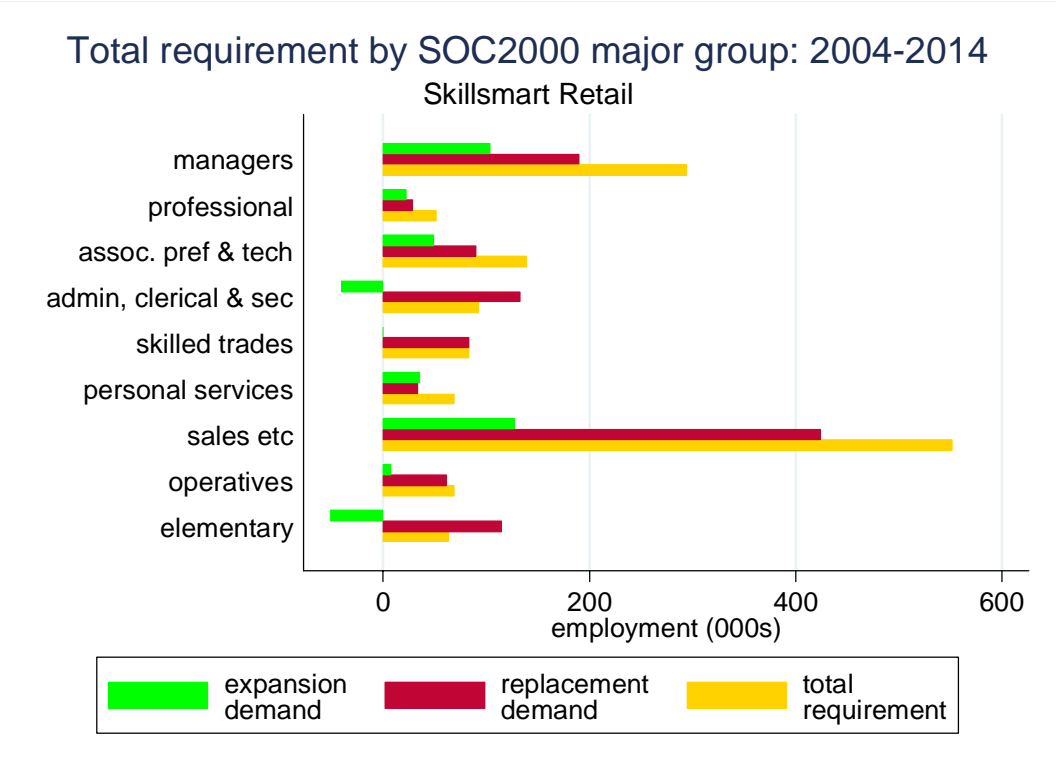


Figure 3.11.7: Total requirement by SOC2000 major group: 2004-2014



3.12 People 1st

Web: www.people1st.co.uk

Sector description:

Hospitality, leisure, travel and tourism.

SIC codes: 55.1, 55.21, 55.23, 55.3-55.5, 63.3, 92.33, 92.71

Sector coverage:

Hotels, restaurants, pubs, bars and nightclubs, contract food service providers, membership clubs, events, gambling, travel services, tourist services, visitor attractions, youth hostels, holiday parks, self-catering accommodation, hospitality services.

Commentary:

Employment composition by gender and status

- People 1st currently covers almost 2.2 million workers, or around 7% of total employment, which makes it one of the largest SSCs. It grew by some 450,000 workers over the last 10 years.
- Just over 50% of all workers are employed part-time.
- Self-employment is comparatively uncommon – only 7% of workers in 2004 are self-employed, and this share is projected to decline over the next decade.

Occupational composition of employment

- More than one third of employment covered by People 1st in 2004 is in Elementary Occupations.
- Another 27% of employment is classified as Managers & Senior Officials. This reflects the small size of many People 1st workplaces.
- Together with Skilled Trades Occupations which represent another 10% of employment, these three occupational groups account for more than 7 of every 10 workers in the sector.

Expansion demand, replacement demand and total requirement 2004-2014

- Future employment growth is expected to be rather slower than that experienced in the recent past, although the sector is still expected to expand by more than 150,000 new jobs in the next decade.
- Total requirement is 1 million new recruits to the sector over the next 10 years, with 260,000 in Managerial Occupations and 280,000 in Elementary Occupations.

Table 3.12.1: Employment levels and shares by status and gender: 1994-2014

SSC: People 1st									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	346	737	87	1,170	20	42	5	67	
Male	253	212	101	566	15	12	6	33	
Total employment	599	949	188	1,736	35	55	11	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	391	711	68	1,171	20	36	3	59	
Male	425	303	76	804	22	15	4	41	
Total employment	817	1,014	143	1,974	41	51	7	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	446	716	66	1,228	20	33	3	56	
Male	479	404	76	958	22	18	3	44	
Total employment	924	1,120	143	2,186	42	51	7	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	494	718	44	1,256	22	32	2	55	
Male	541	420	55	1,016	24	19	2	45	
Total employment	1,035	1,138	99	2,272	46	50	4	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	543	714	27	1,283	23	30	1	55	
Male	602	434	32	1,067	26	18	1	45	
Total employment	1,145	1,147	59	2,351	49	49	3	100	

Table 3.12.2: Composition of employment by occupation: 1994-2014

SSC: People 1st					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	413	523	597	619	638
2. Professional Occupations	28	36	44	51	61
3. Associate Professional & Tech.	79	111	140	156	172
4. Administrative, Clerical and Sec.	150	160	174	176	183
5. Skilled Trades Occupations	186	210	220	222	222
6. Personal Service Occupations	76	88	108	132	152
7. Sales & Customer Service Occs.	76	91	114	129	143
8. Machine & Transport Operatives	41	49	56	60	63
9. Elementary Occupations	687	706	734	726	715
Total employment	1,736	1,974	2,186	2,272	2,351
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	24	26	27	27	27
2. Professional Occupations	2	2	2	2	3
3. Associate Professional & Tech.	5	6	6	7	7
4. Administrative, Clerical and Sec.	9	8	8	8	8
5. Skilled Trades Occupations	11	11	10	10	9
6. Personal Service Occupations	4	4	5	6	6
7. Sales & Customer Service Occs.	4	5	5	6	6
8. Machine & Transport Operatives	2	2	3	3	3
9. Elementary Occupations	40	36	34	32	30
Total employment	100	100	100	100	100

Table 3.12.3: Replacement demand by occupation: 2004-2014

SSC: People 1st				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	597	41	222	263
2. Professional Occupations	44	17	16	33
3. Associate Professional & Tech.	140	32	47	79
4. Administrative, Clerical and Sec.	174	9	71	80
5. Skilled Trades Occupations	220	2	82	85
6. Personal Service Occupations	108	45	44	89
7. Sales & Customer Service Occs.	114	30	42	71
8. Machine & Transport Operatives	56	7	20	27
9. Elementary Occupations	734	-19	296	277
Total employment	2,186	164	840	1,004
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	27	7	37	44
2. Professional Occupations	2	38	36	74
3. Associate Professional & Tech.	6	23	33	56
4. Administrative, Clerical and Sec.	8	5	41	46
5. Skilled Trades Occupations	10	1	38	39
6. Personal Service Occupations	5	42	41	82
7. Sales & Customer Service Occs.	5	26	37	63
8. Machine & Transport Operatives	3	12	36	48
9. Elementary Occupations	34	-3	40	38
Total employment	100	8	38	46

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.12.1: Employment by gender: 1984-2014

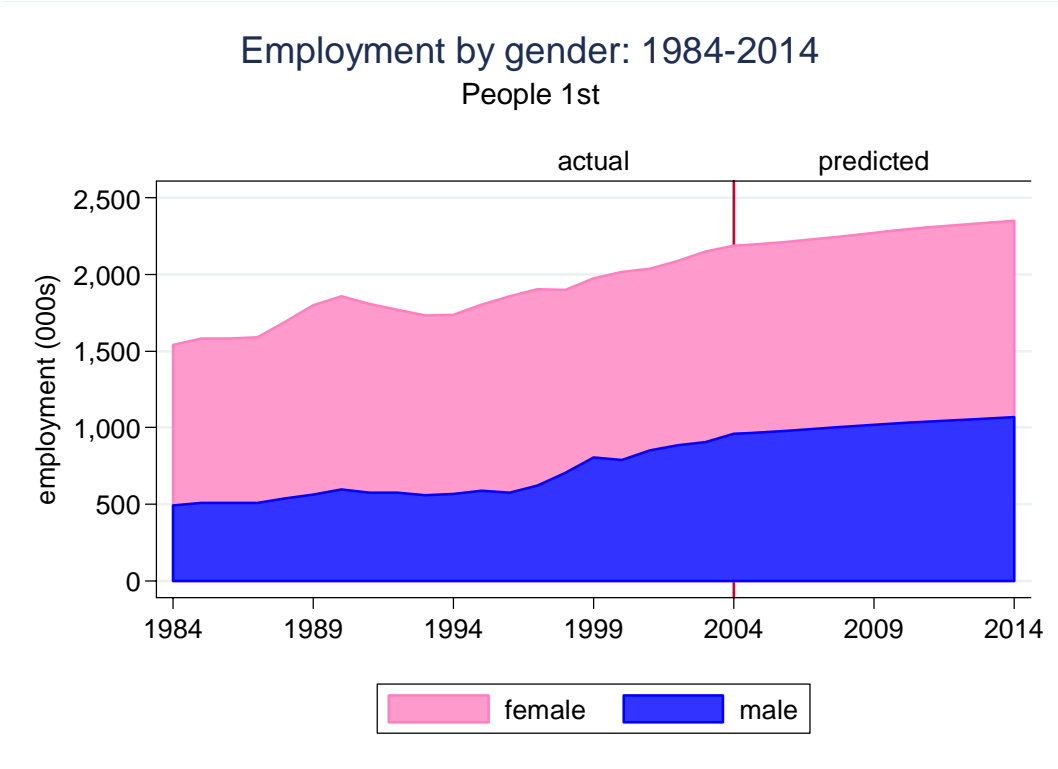


Figure 3.12.2: Employment by status: 1984-2014

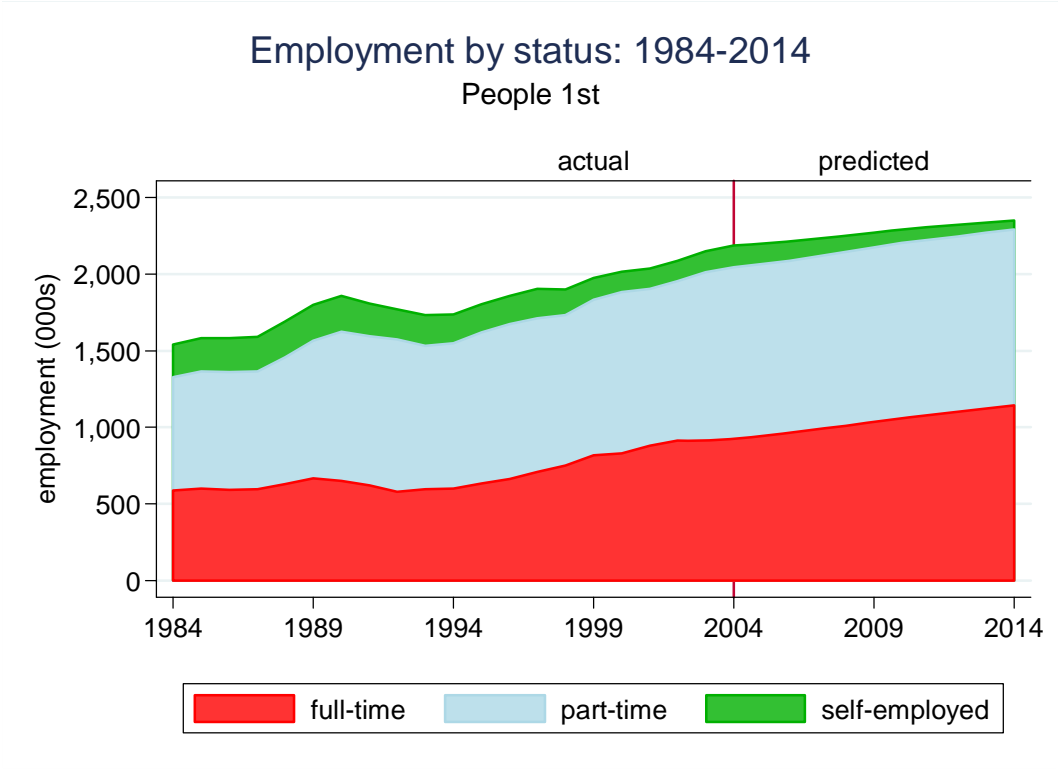


Figure 3.12.3: Occupational composition: 1994-2014

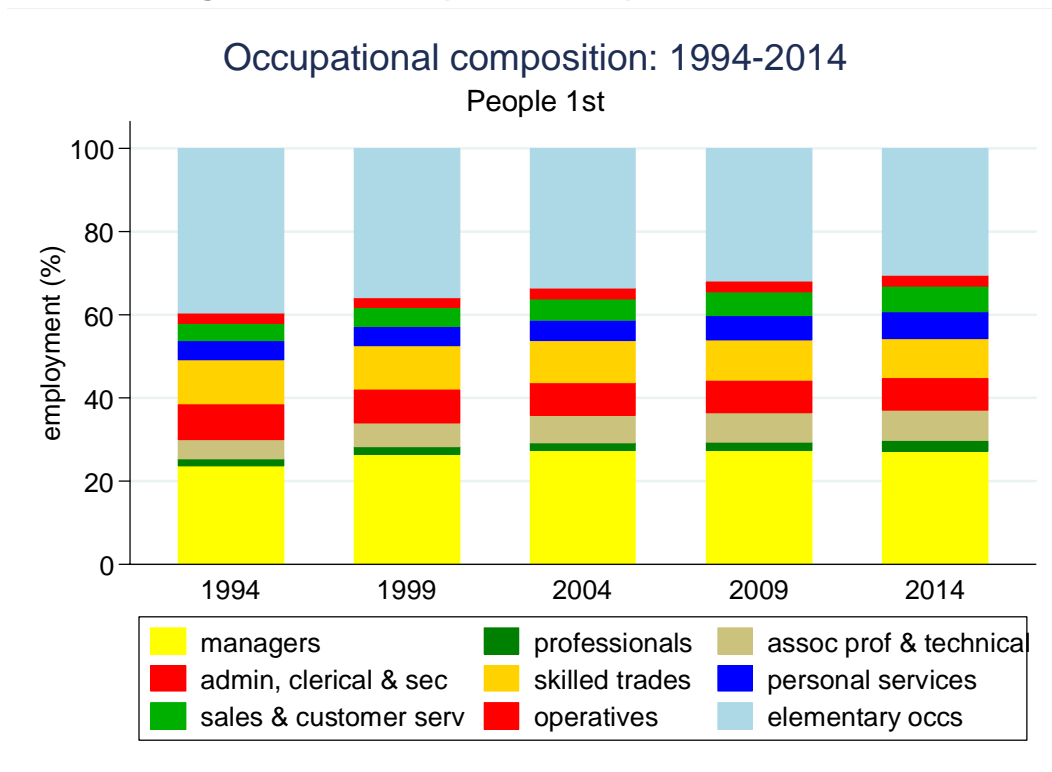


Figure 3.12.4: Employment levels by status and gender: 1994-2014

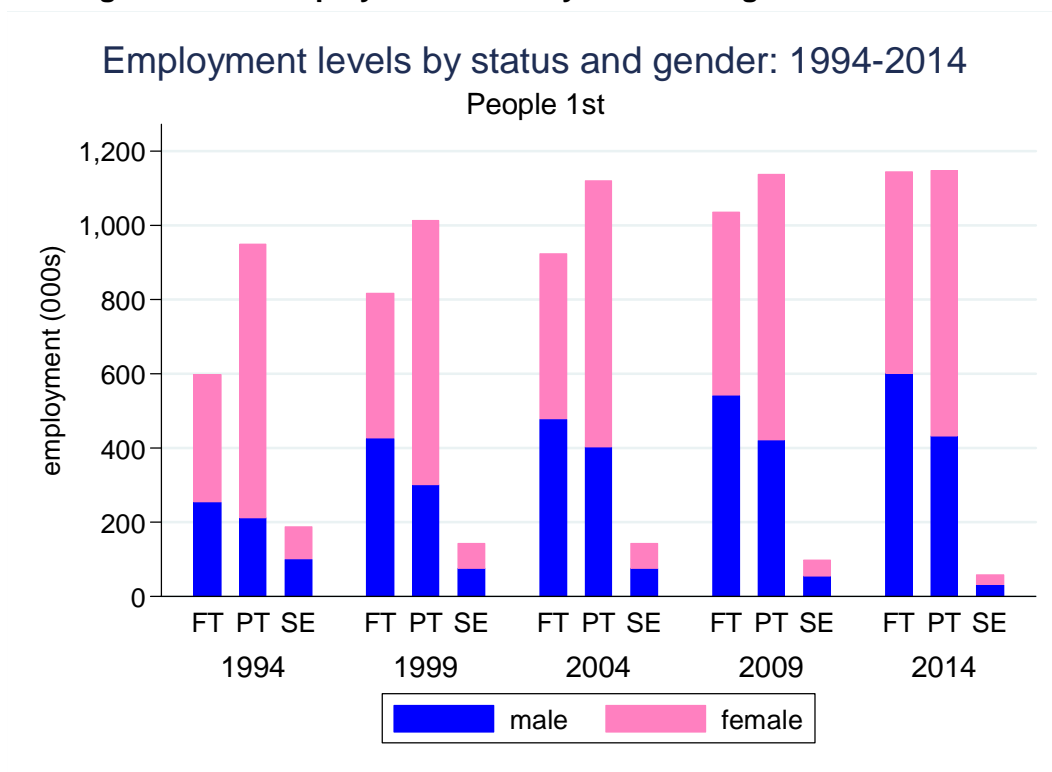


Figure 3.12.5: Employment shares by status and gender: 1994-2014

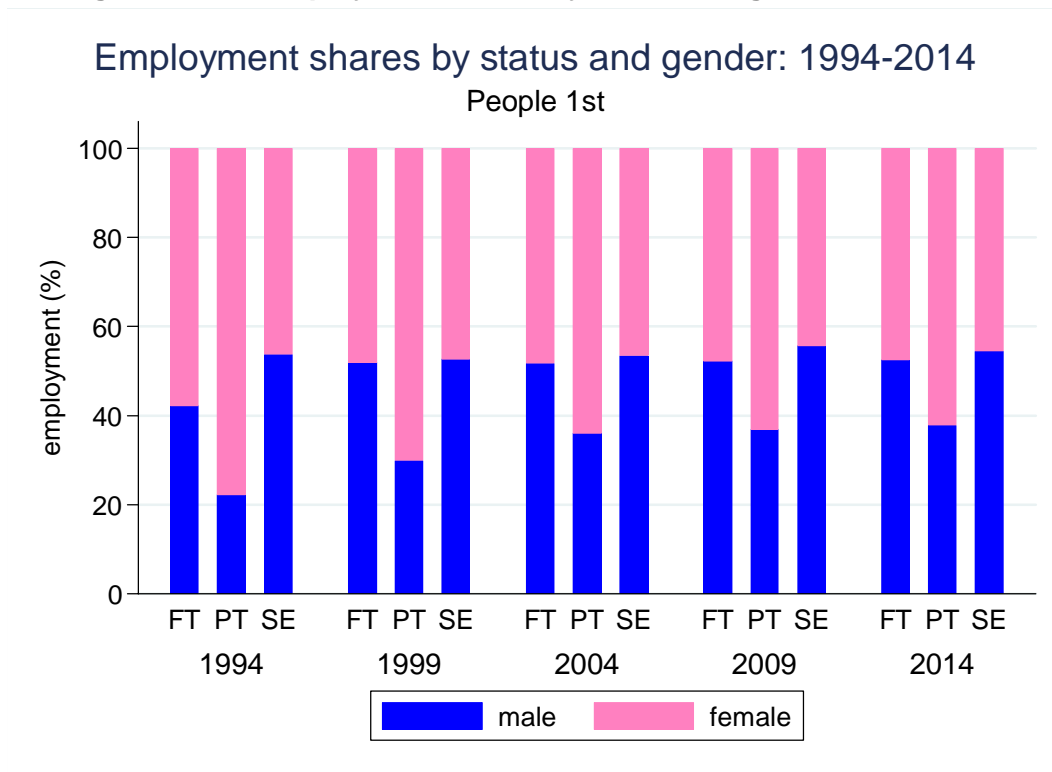


Figure 3.12.6: Employment changes by status and gender: 1984-2014

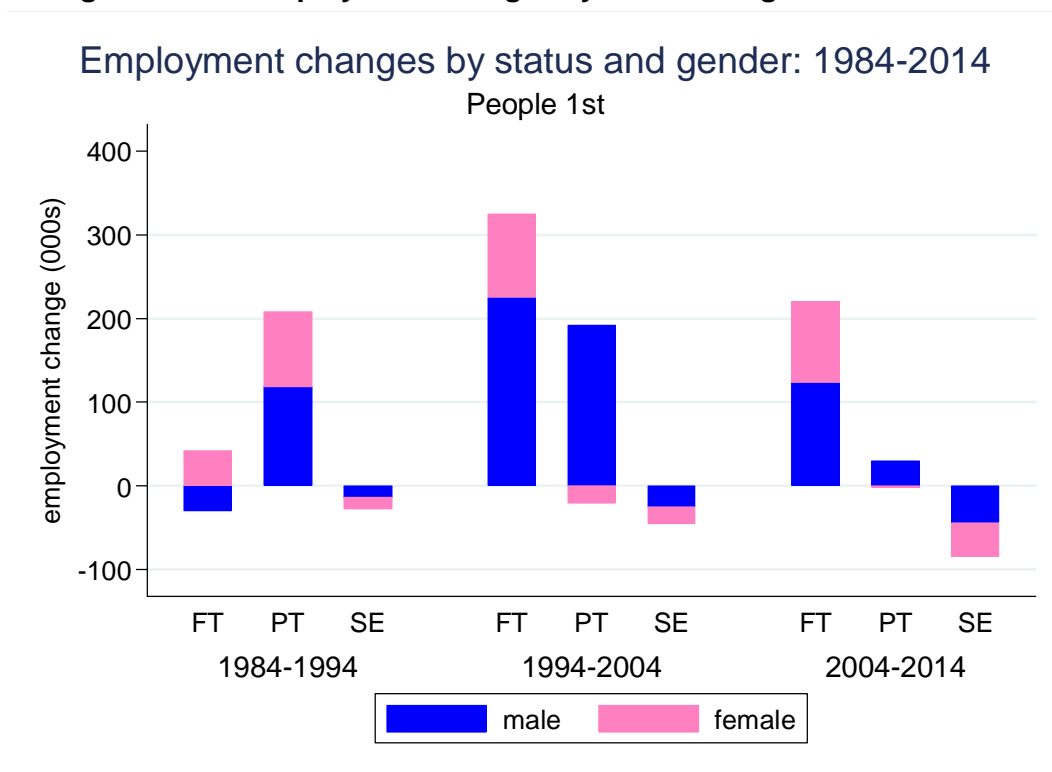
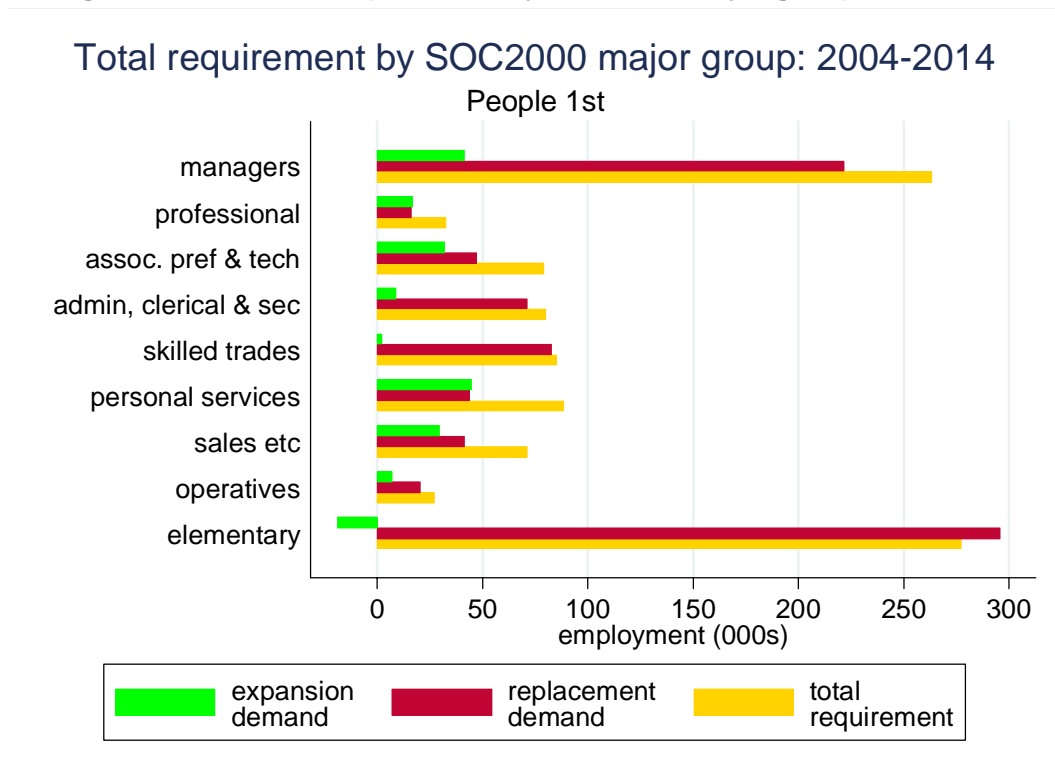


Figure 3.12.7: Total requirement by SOC2000 major group: 2004-2014



3.13 GoSkills

Web: www.goskills.org

Sector description:

Passenger transport.

SIC codes: 60.1, 60.21-60.23, 61, 62.1, 62.2, 63.2, 80.41

Sector coverage:

Aviation (airports, operators and ground services), chauffeurs, coaches both scheduled and non-scheduled, community bus services, driving instructors, private hire vehicles, scheduled bus services, taxis, trams, and transport planners. GoSkills is in discussions with car parking, bus lane and congestion charge enforcement interests over the possible inclusion of car parking within their scope and also talking to leading trade bodies in the merchant navy and ports industries.

Commentary:

Employment composition by gender and status

- GoSkills has one of the highest shares of male employment amongst all the SSCs – currently, more than 4-in-5 of all workers covered by GoSkills are male.
- A high proportion of GoSkills workers are in self-employment; in 2004, around one third of all GoSkills workers are registered as self-employed.

Occupational composition of employment

- Nearly 3-in-10 workers in this sector are classified as Machine & Transport Operatives reflecting the nature of much of the employment in this sector.

Expansion demand, replacement demand and total requirement 2004-2014

- Employment is projected to be fairly static over the next decade in this sector, but full-time employee jobs will be replaced by part-time employment, and male jobs will be replaced by female employment. These trends are similar to those expected amongst employment covered by Skills for Logistics.
- Part-time employment is predicted to expand from 9% of employment to 14% over the next 10 years, while female workers are anticipated to increase their share from 19% to 27% of employment by 2014.
- Total requirements are positive for all occupational groups since replacement demands dominate small net changes in each occupational group.

Table 3.13.1: Employment levels and shares by status and gender: 1994-2014

SSC: GoSkills									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
	FT	PT	SE	Total	FT	PT	SE	Total	
1994									
Female	63	8	17	88	10	1	3	14	
Male	391	8	158	557	61	1	25	86	
Total employment	453	16	175	644	70	3	27	100	
1999									
Female	80	25	21	125	12	4	3	19	
Male	319	21	178	518	50	3	28	81	
Total employment	399	46	198	643	62	7	31	100	
2004									
Female	74	30	22	126	11	4	3	19	
Male	320	27	200	548	48	4	30	81	
Total employment	394	57	222	674	58	9	33	100	
2009									
Female	87	41	23	151	13	6	4	23	
Male	282	35	197	514	42	5	30	77	
Total employment	369	76	220	665	56	11	33	100	
2014									
Female	101	52	25	178	15	8	4	27	
Male	250	44	196	490	37	7	29	73	
Total employment	351	96	222	668	53	14	33	100	

Table 3.13.2: Composition of employment by occupation: 1994-2014

SSC: GoSkills					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	52	58	67	72	79
2. Professional Occupations	38	42	48	50	53
3. Associate Professional & Tech.	55	62	68	70	73
4. Administrative, Clerical and Sec.	73	79	79	83	90
5. Skilled Trades Occupations	105	91	86	75	66
6. Personal Service Occupations	20	22	24	29	28
7. Sales & Customer Service Occs.	10	15	17	21	26
8. Machine & Transport Operatives	196	185	194	185	179
9. Elementary Occupations	95	89	90	81	74
Total employment	644	643	674	665	668
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	8	9	10	11	12
2. Professional Occupations	6	7	7	7	8
3. Associate Professional & Tech.	9	10	10	10	11
4. Administrative, Clerical and Sec.	11	12	12	12	13
5. Skilled Trades Occupations	16	14	13	11	10
6. Personal Service Occupations	3	3	4	4	4
7. Sales & Customer Service Occs.	2	2	3	3	4
8. Machine & Transport Operatives	30	29	29	28	27
9. Elementary Occupations	15	14	13	12	11
Total employment	100	100	100	100	100

Table 3.13.3: Replacement demand by occupation: 2004-2014

SSC: GoSkills				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	67	12	23	35
2. Professional Occupations	48	5	17	22
3. Associate Professional & Tech.	68	6	20	26
4. Administrative, Clerical and Sec.	79	10	30	40
5. Skilled Trades Occupations	86	-20	27	7
6. Personal Service Occupations	24	4	9	14
7. Sales & Customer Service Occs.	17	9	5	14
8. Machine & Transport Operatives	194	-15	67	52
9. Elementary Occupations	90	-16	28	11
Total employment	674	-6	226	220
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	10	18	34	52
2. Professional Occupations	7	10	35	45
3. Associate Professional & Tech.	10	8	30	39
4. Administrative, Clerical and Sec.	12	13	37	50
5. Skilled Trades Occupations	13	-23	31	8
6. Personal Service Occupations	4	19	39	57
7. Sales & Customer Service Occs.	3	50	31	81
8. Machine & Transport Operatives	29	-8	35	27
9. Elementary Occupations	13	-18	31	13
Total employment	100	-1	34	33

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.13.1: Employment by gender: 1984-2014

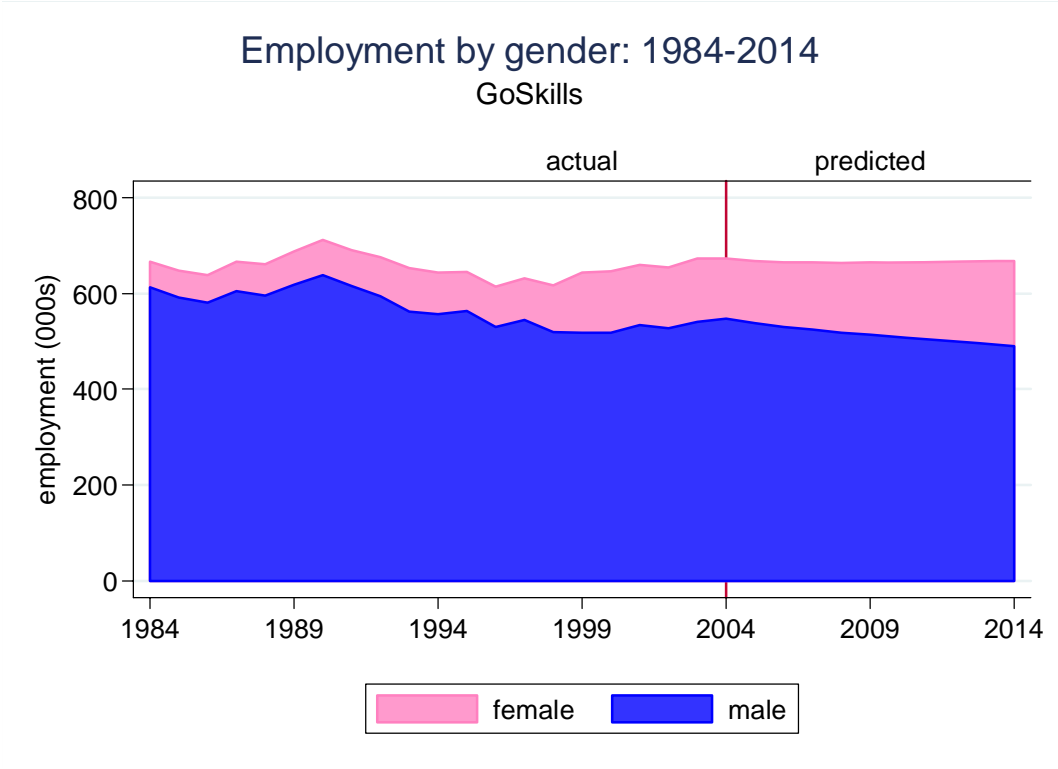


Figure 3.13.2: Employment by status: 1984-2014

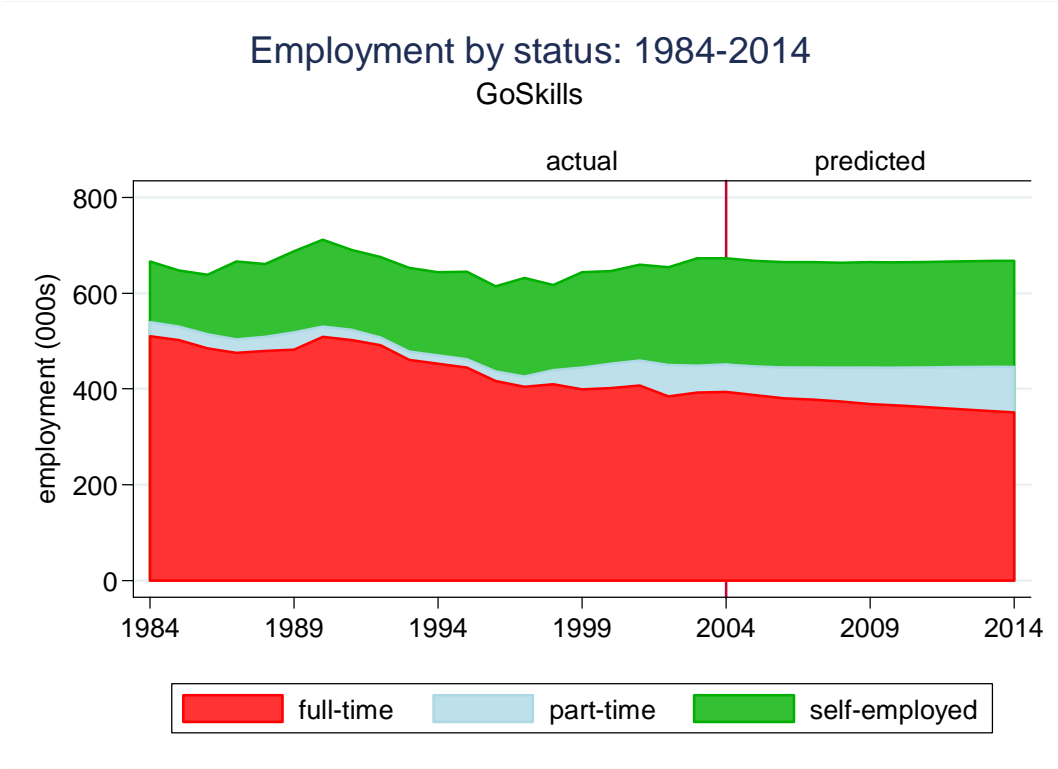


Figure 3.13.3: Occupational composition: 1994-2014

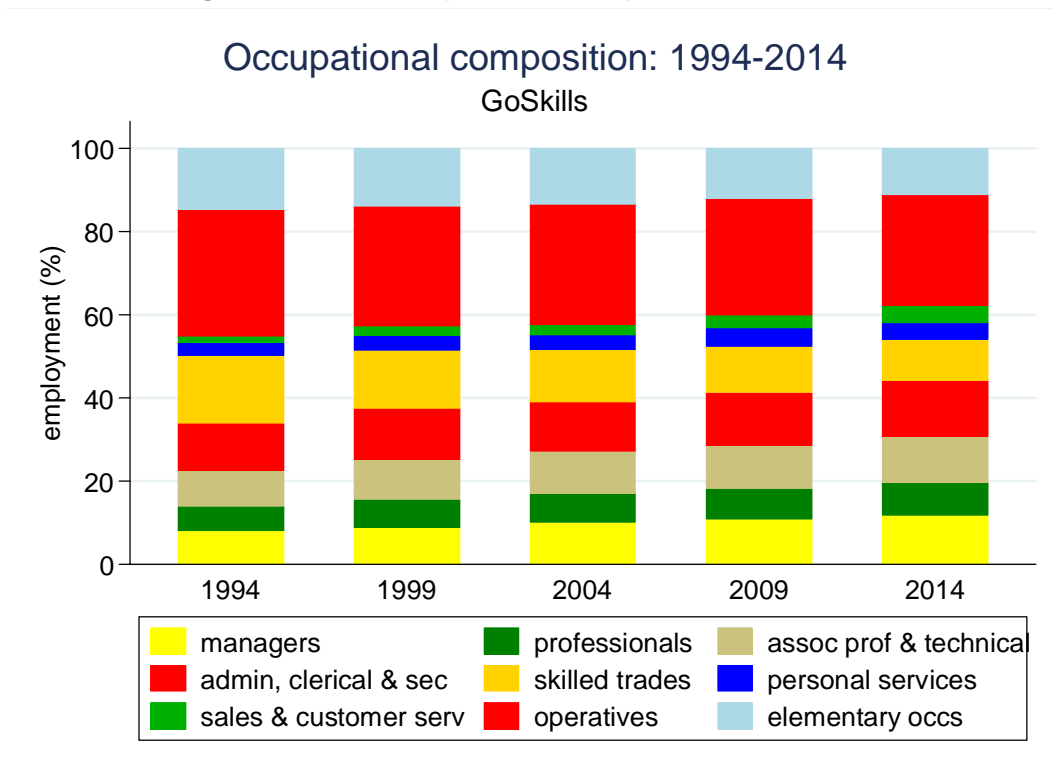


Figure 3.13.4: Employment levels by status and gender: 1994-2014

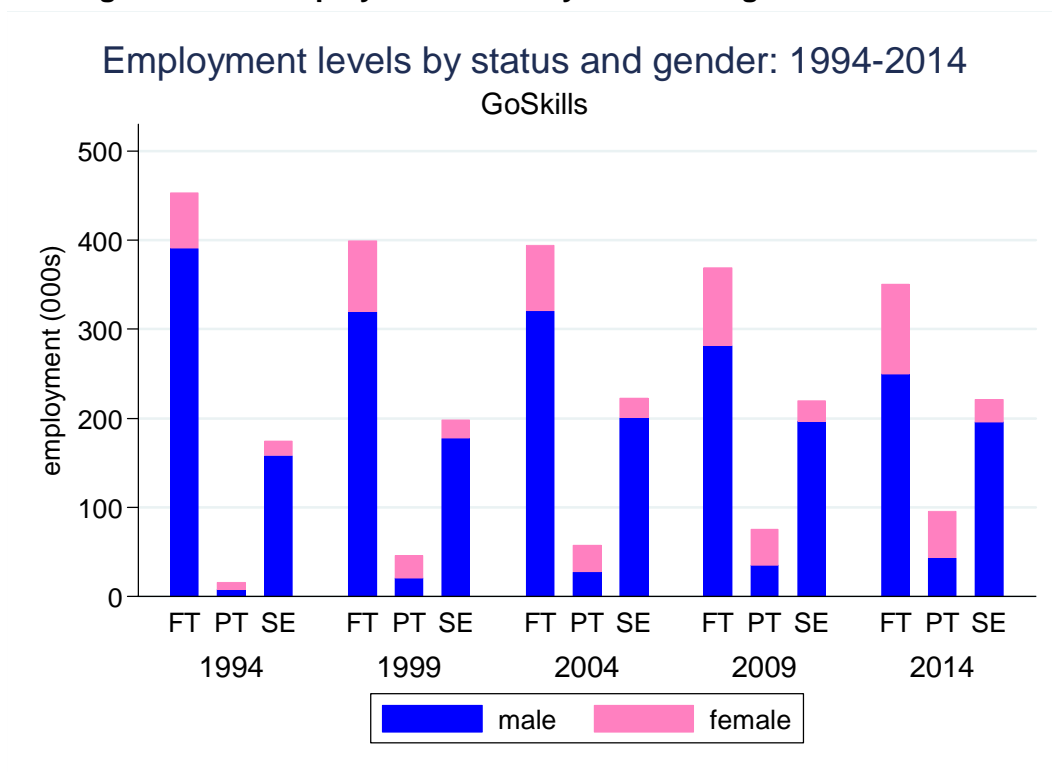


Figure 3.13.5: Employment shares by status and gender: 1994-2014

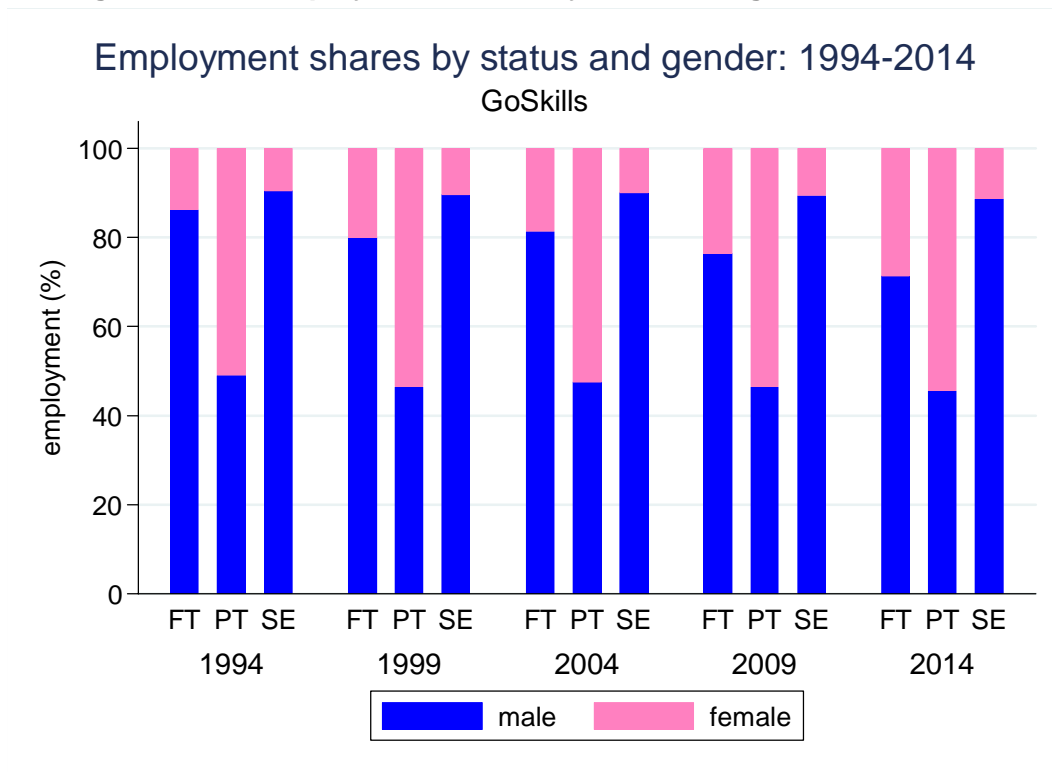


Figure 3.13.6: Employment changes by status and gender: 1984-2014

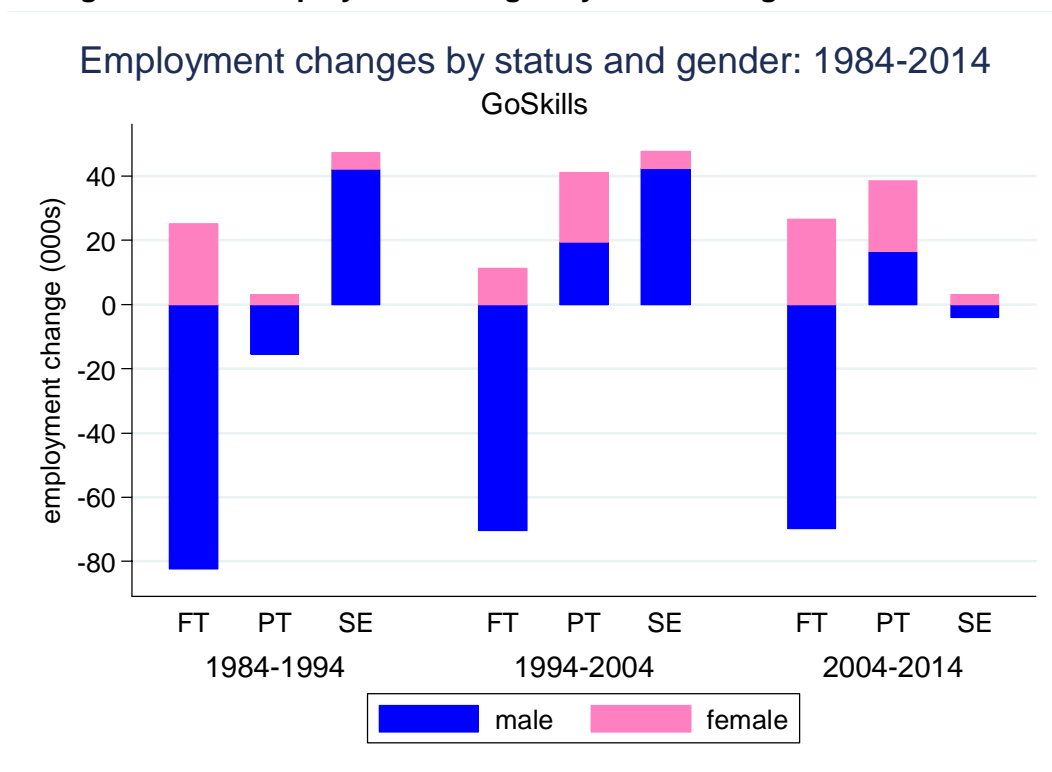
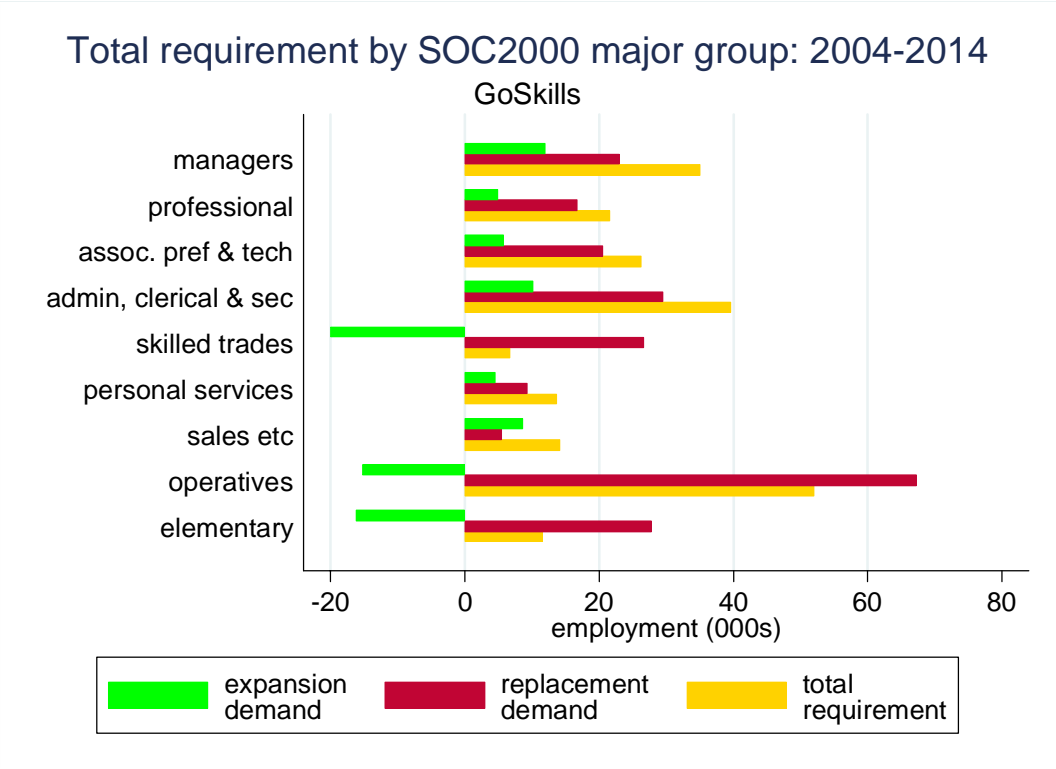


Figure 3.13.7: Total requirement by SOC2000 major group: 2004-2014



3.14 Skills for Logistics

Web: www.skillsforlogistics.org

Sector description:

Freight logistics industry.

SIC codes: 60.24, 63.1, 63.4, 64.1

Sector coverage:

Freight transport by road, storage and warehousing, activities of other transport agencies, courier services, air freight (other scheduled air transport), rail freight (other transport via railways), freight inland sea and coastal water transport.

Commentary:

Employment composition by gender and status

- Almost 80% of workers covered by Skills for Logistics are male, similar to GoSkills in this respect.
- However, in contrast to GoSkills, self-employment is comparatively uncommon amongst the workers covered by this SSC - only about 7% of workers are self-employed.

Occupational composition of employment

- Around one quarter of workers in this sector are classified as Machine & Transport Operatives.

Expansion demand, replacement demand and total requirement 2004-2014

- Total employment in this sector is expected to remain at about 800,000 workers over the next decade.
- The composition of employment is expected to change however, with an increasing share of part-time jobs (and a corresponding decreasing share of full-time jobs), and an increasing share of jobs held by women (with a decreasing share of jobs held by men). These trends are similar to those forecast for the GoSkills sector.
- It is projected that part-time employment will increase from 14% to 20% of total employment in this sector by 2014, while women will increase their share of employment from 22% to 30% over the same period.
- Total requirement is in excess of 250,000 new recruits to this sector over the next 10 years.

Table 3.14.1: Employment levels and shares by status and gender: 1994-2014

SSC: Skills for Logistics									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
	FT	PT	SE	Total	FT	PT	SE	Total	
1994									
Female	65	27	6	98	10	4	1	15	
Male	497	30	39	565	75	4	6	85	
Total employment	562	57	44	663	85	9	7	100	
1999									
Female	100	59	8	166	13	8	1	22	
Male	496	56	42	594	65	7	6	78	
Total employment	596	114	50	761	78	15	7	100	
2004									
Female	118	53	8	179	15	7	1	22	
Male	513	60	48	621	64	7	6	78	
Total employment	631	113	56	800	79	14	7	100	
2009									
Female	134	64	8	205	17	8	1	26	
Male	467	70	45	581	59	9	6	74	
Total employment	600	134	52	786	76	17	7	100	
2014									
Female	154	74	8	235	19	9	1	30	
Male	433	80	43	556	55	10	5	70	
Total employment	586	155	51	791	74	20	6	100	

Table 3.14.2: Composition of employment by occupation: 1994-2014

SSC: Skills for Logistics					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	59	69	84	89	99
2. Professional Occupations	28	31	38	39	42
3. Associate Professional & Tech.	42	50	60	61	63
4. Administrative, Clerical and Sec.	94	129	133	136	145
5. Skilled Trades Occupations	110	111	103	89	78
6. Personal Service Occupations	15	22	27	33	34
7. Sales & Customer Service Occs.	15	25	31	37	44
8. Machine & Transport Operatives	187	200	204	198	196
9. Elementary Occupations	112	122	121	105	91
Total employment	663	761	800	786	791
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	9	9	11	11	12
2. Professional Occupations	4	4	5	5	5
3. Associate Professional & Tech.	6	7	7	8	8
4. Administrative, Clerical and Sec.	14	17	17	17	18
5. Skilled Trades Occupations	17	15	13	11	10
6. Personal Service Occupations	2	3	3	4	4
7. Sales & Customer Service Occs.	2	3	4	5	6
8. Machine & Transport Operatives	28	26	26	25	25
9. Elementary Occupations	17	16	15	13	11
Total employment	100	100	100	100	100

Table 3.14.3: Replacement demand by occupation: 2004-2014

SSC: Skills for Logistics				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	84	14	29	43
2. Professional Occupations	38	4	11	15
3. Associate Professional & Tech.	60	3	18	21
4. Administrative, Clerical and Sec.	133	13	50	63
5. Skilled Trades Occupations	103	-25	32	7
6. Personal Service Occupations	27	7	10	17
7. Sales & Customer Service Occs.	31	13	10	23
8. Machine & Transport Operatives	204	-8	70	62
9. Elementary Occupations	121	-30	37	8
Total employment	800	-8	267	259
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	11	17	34	51
2. Professional Occupations	5	10	30	40
3. Associate Professional & Tech.	7	5	30	36
4. Administrative, Clerical and Sec.	17	10	38	47
5. Skilled Trades Occupations	13	-24	31	7
6. Personal Service Occupations	3	28	38	66
7. Sales & Customer Service Occs.	4	42	31	73
8. Machine & Transport Operatives	26	-4	34	30
9. Elementary Occupations	15	-25	31	6
Total employment	100	-1	33	32

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.14.1: Employment by gender: 1984-2014

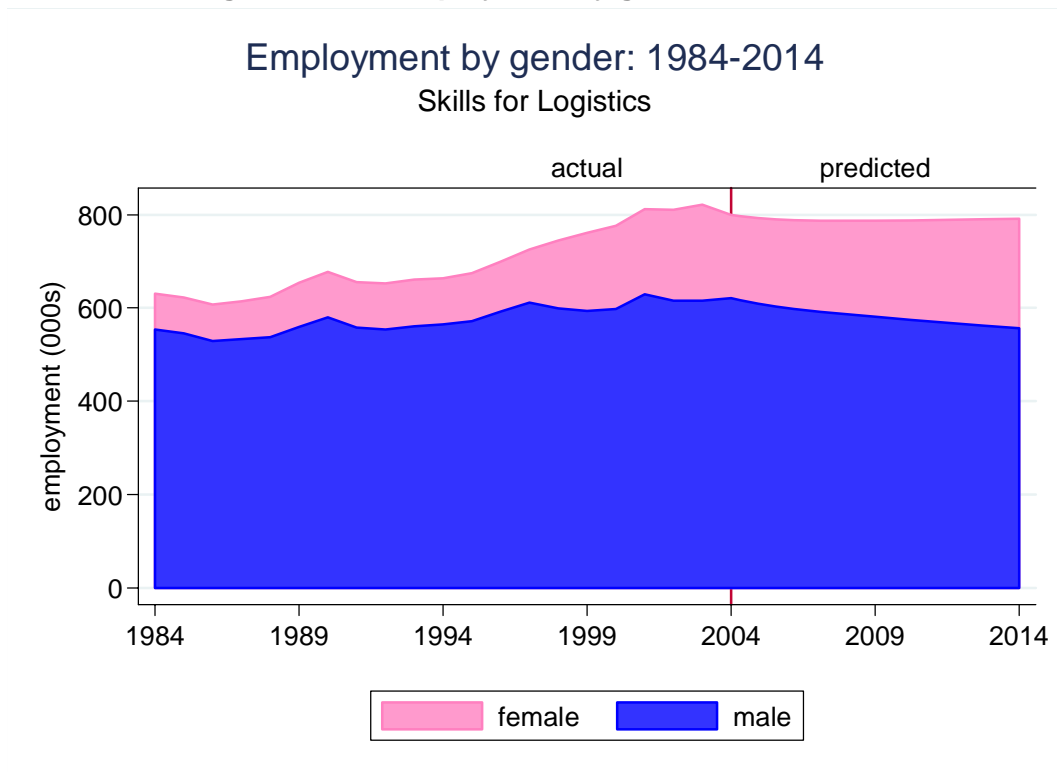


Figure 3.14.2: Employment by status: 1984-2014

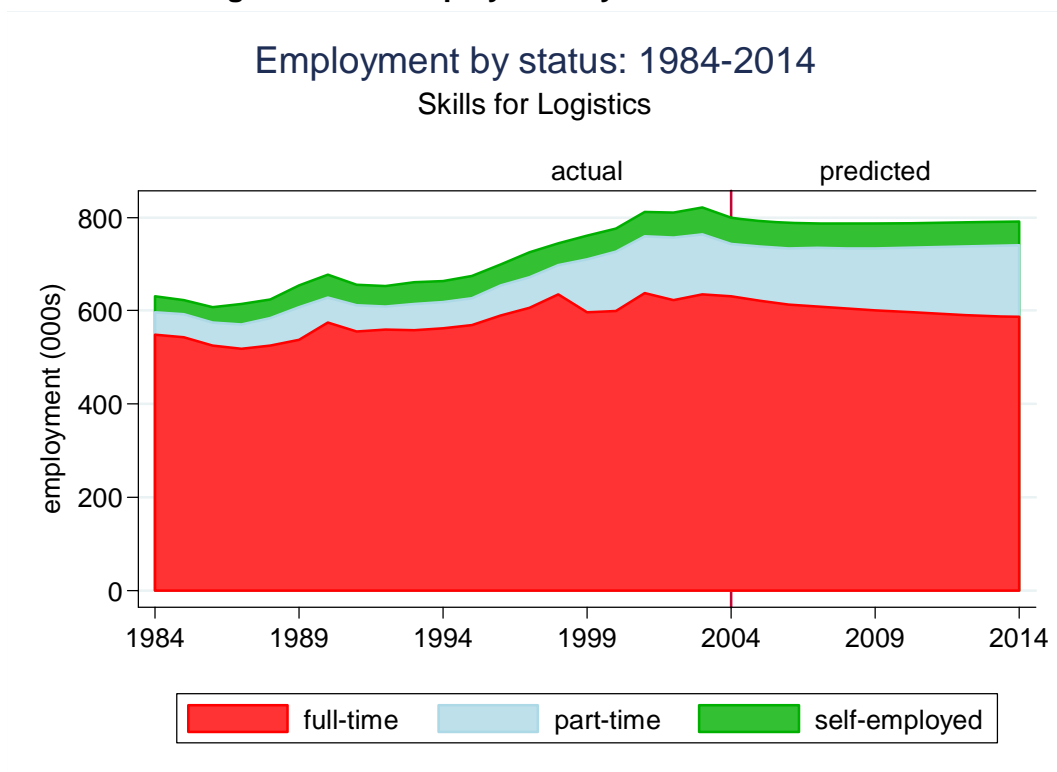


Figure 3.14.3: Occupational composition: 1994-2014

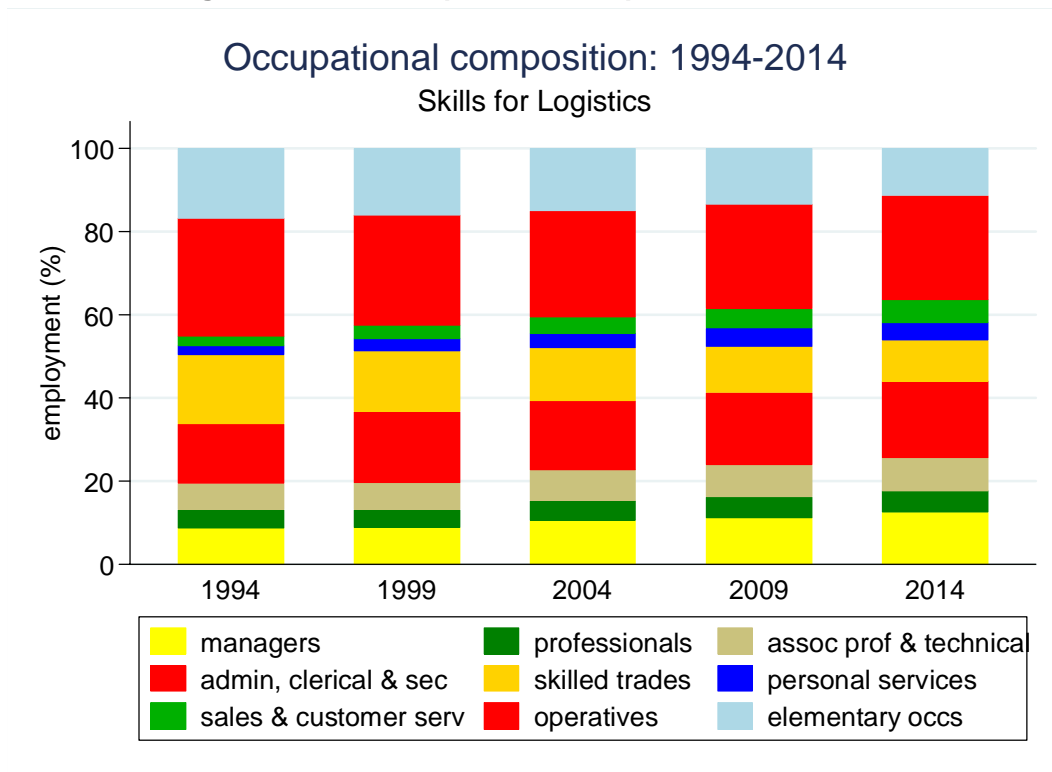


Figure 3.14.4: Employment levels by status and gender: 1994-2014

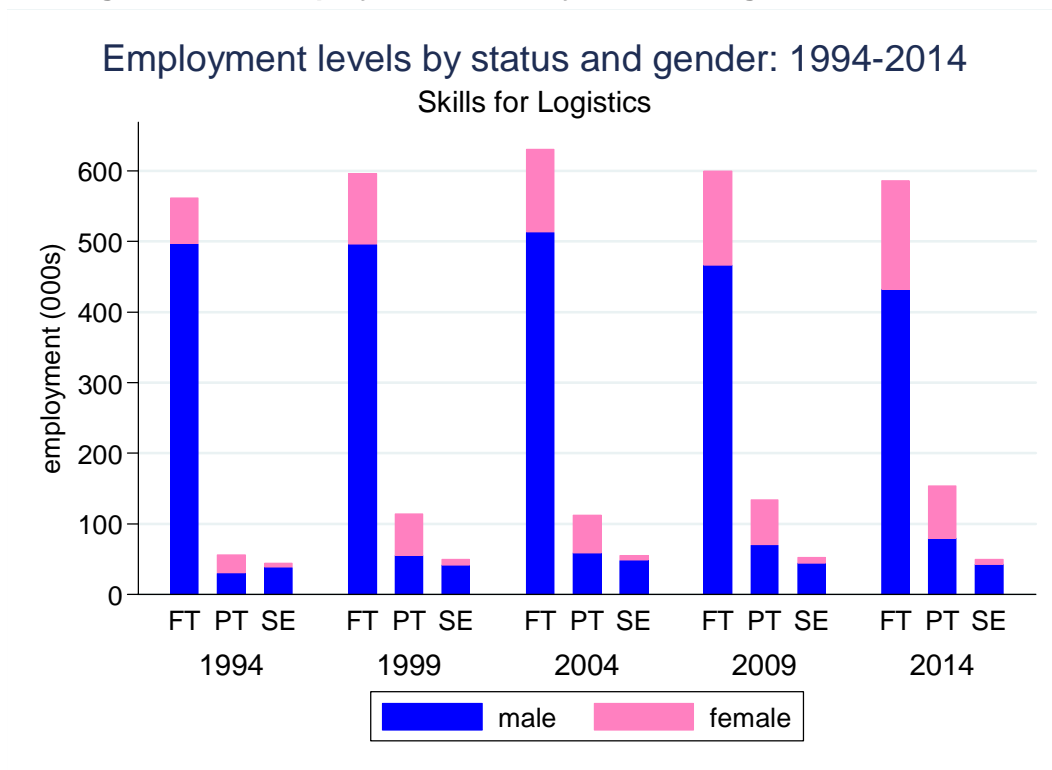


Figure 3.14.5: Employment shares by status and gender: 1994-2014

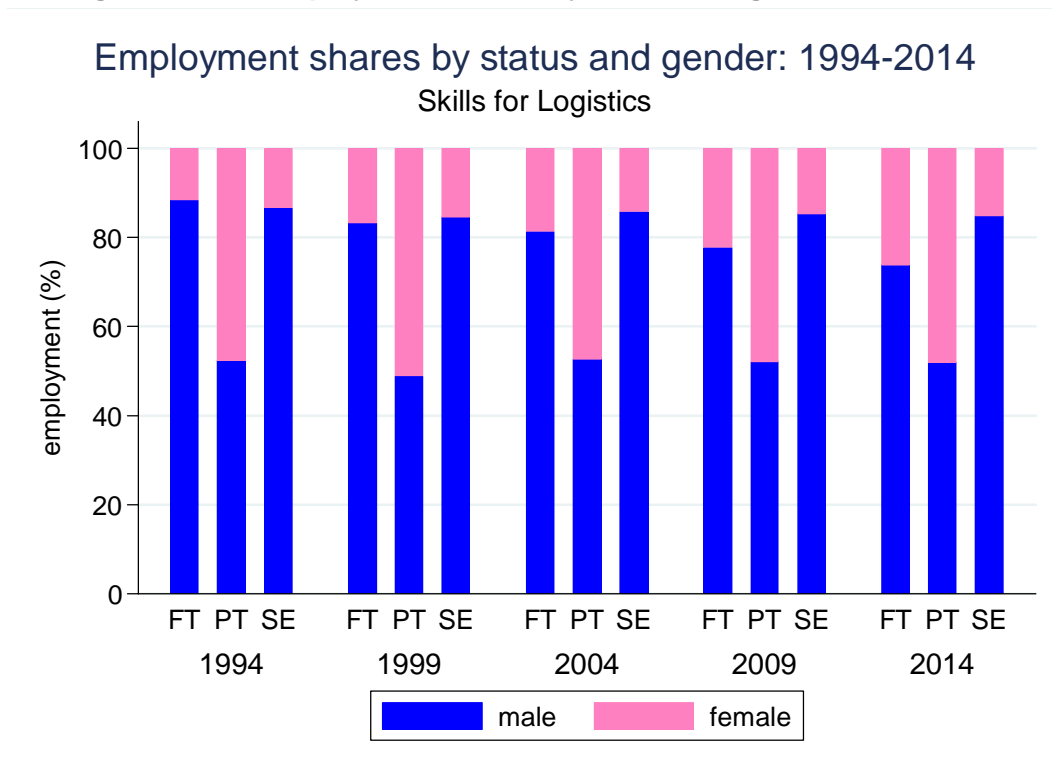


Figure 3.14.6: Employment changes by status and gender: 1984-2014

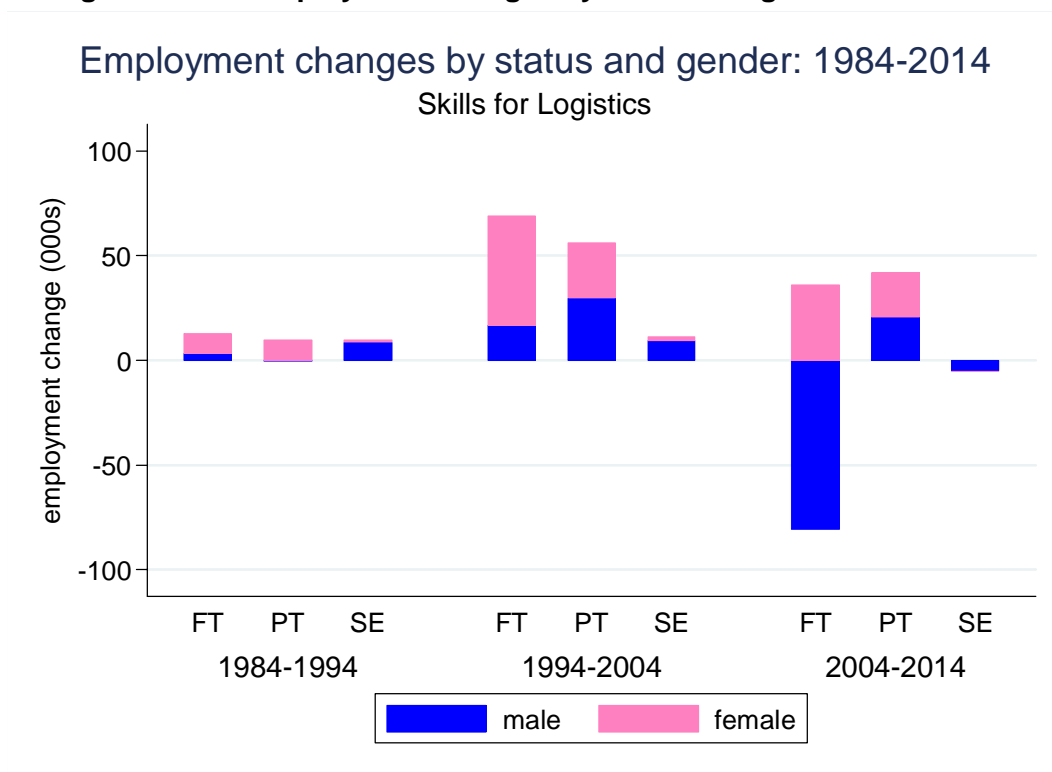
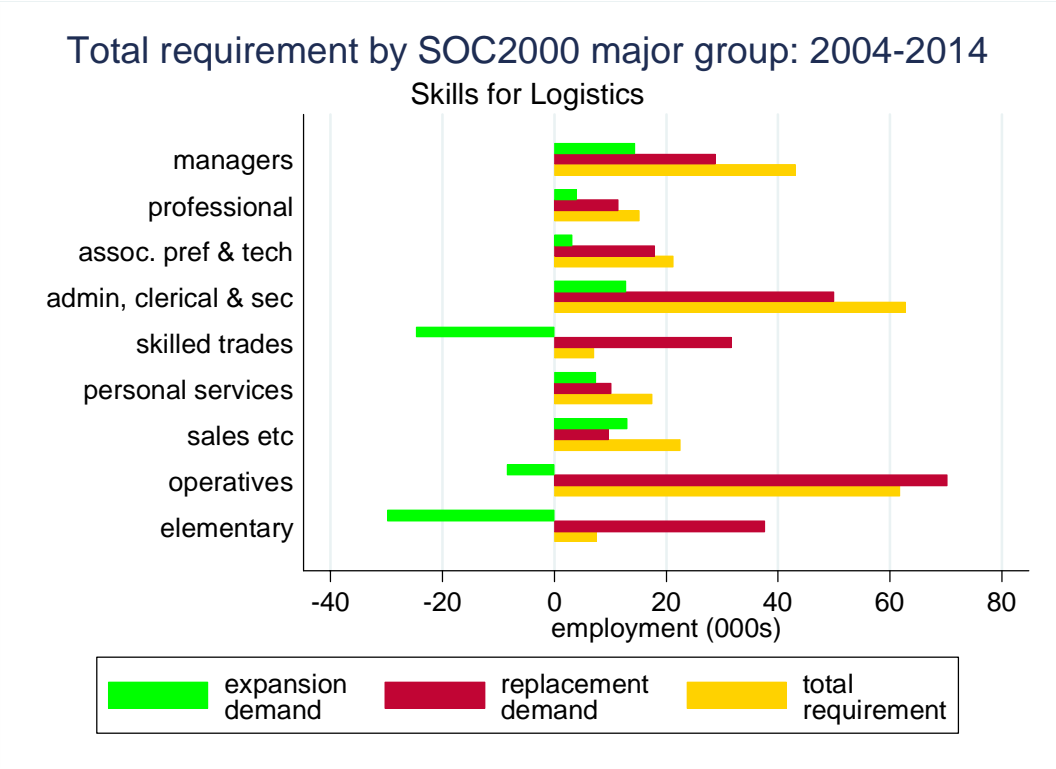


Figure 3.14.7: Total requirement by SOC2000 major group: 2004-2014



3.15 Financial Services Skills Council

Web: www.fssc.org.uk

Sector description:

Financial services industry.

SIC codes: 65-67

Sector coverage:

Banks, retail and wholesale, building societies, leasing, investment and unit trusts and venture capital, life insurance, non-life insurance, insurance brokers, administration of financial markets, pension funding, Independent Financial Advisers, unit trust companies, fund managers, asset managers, stockbrokers, actuaries, loss adjustors, stockbrokers, fund management.

Commentary:

Employment composition by gender and status

- The Financial Services Skills Council covers approximately 1.2 million workers. Total employment in this sector is expected to remain fairly constant over the next 10 years.
- The gender and status shares of employment are also expected to remain fairly constant over the next decade.

Occupational composition of employment

- Employment in this sector is dominated by Administrative, Clerical & Secretarial Occupations, with 45% of all jobs classified to this occupational group in 2004, corresponding to more than 500,000 workers.

Expansion demand, replacement demand and total requirement 2004-2014

- While there is anticipated to be little net change in employment in this sector over the next 10 years, replacement demands are such that total recruitment will exceed 450,000 workers in the period to 2014.
- This includes 80,000 Managers & Senior Officials, and over 100,000 Professionals and Associate Professional & Technical workers.

Table 3.15.1: Employment levels and shares by status and gender: 1994-2014

SSC: Financial Services Skills									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
	FT	PT	SE	Total	FT	PT	SE	Total	
1994									
Female	485	90	12	587	45	8	1	55	
Male	439	6	40	486	41	1	4	45	
Total employment	924	97	52	1,074	86	9	5	100	
1999									
Female	441	115	14	571	39	10	1	51	
Male	498	17	33	549	45	2	3	49	
Total employment	940	133	47	1,119	84	12	4	100	
2004									
Female	435	164	22	621	37	14	2	53	
Male	464	32	45	541	40	3	4	47	
Total employment	899	196	67	1,162	77	17	6	100	
2009									
Female	443	176	24	643	37	15	2	54	
Male	490	14	43	547	41	1	4	46	
Total employment	932	191	67	1,190	78	16	6	100	
2014									
Female	438	182	26	646	37	15	2	54	
Male	502	6	40	548	42	0	3	46	
Total employment	940	188	66	1,194	79	16	6	100	

Table 3.15.2: Composition of employment by occupation: 1994-2014

SSC: Financial Services Skills Council					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	145	159	165	177	186
2. Professional Occupations	72	84	90	100	110
3. Associate Professional & Tech.	123	137	144	150	155
4. Administrative, Clerical and Sec.	532	514	526	521	492
5. Skilled Trades Occupations	34	36	34	34	32
6. Personal Service Occupations	15	16	16	15	18
7. Sales & Customer Service Occs.	71	84	100	112	123
8. Machine & Transport Operatives	22	24	22	22	21
9. Elementary Occupations	60	66	65	62	58
Total employment	1,074	1,119	1,162	1,190	1,194
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	14	14	14	15	16
2. Professional Occupations	7	7	8	8	9
3. Associate Professional & Tech.	11	12	12	13	13
4. Administrative, Clerical and Sec.	50	46	45	44	41
5. Skilled Trades Occupations	3	3	3	3	3
6. Personal Service Occupations	1	1	1	1	1
7. Sales & Customer Service Occs.	7	8	9	9	10
8. Machine & Transport Operatives	2	2	2	2	2
9. Elementary Occupations	6	6	6	5	5
Total employment	100	100	100	100	100

Table 3.15.3: Replacement demand by occupation: 2004-2014

SSC: Financial Services Skills Council				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	165	21	58	79
2. Professional Occupations	90	19	30	50
3. Associate Professional & Tech.	144	11	46	58
4. Administrative, Clerical and Sec.	526	-33	207	173
5. Skilled Trades Occupations	34	-2	12	10
6. Personal Service Occupations	16	1	6	8
7. Sales & Customer Service Occs.	100	23	34	57
8. Machine & Transport Operatives	22	-1	8	6
9. Elementary Occupations	65	-7	24	17
Total employment	1,162	32	425	457
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	14	12	35	48
2. Professional Occupations	8	21	34	55
3. Associate Professional & Tech.	12	8	32	40
4. Administrative, Clerical and Sec.	45	-6	39	33
5. Skilled Trades Occupations	3	-5	35	29
6. Personal Service Occupations	1	7	39	46
7. Sales & Customer Service Occs.	9	24	34	57
8. Machine & Transport Operatives	2	-6	35	29
9. Elementary Occupations	6	-11	37	26
Total employment	100	3	37	39

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.15.1: Employment by gender: 1984-2014

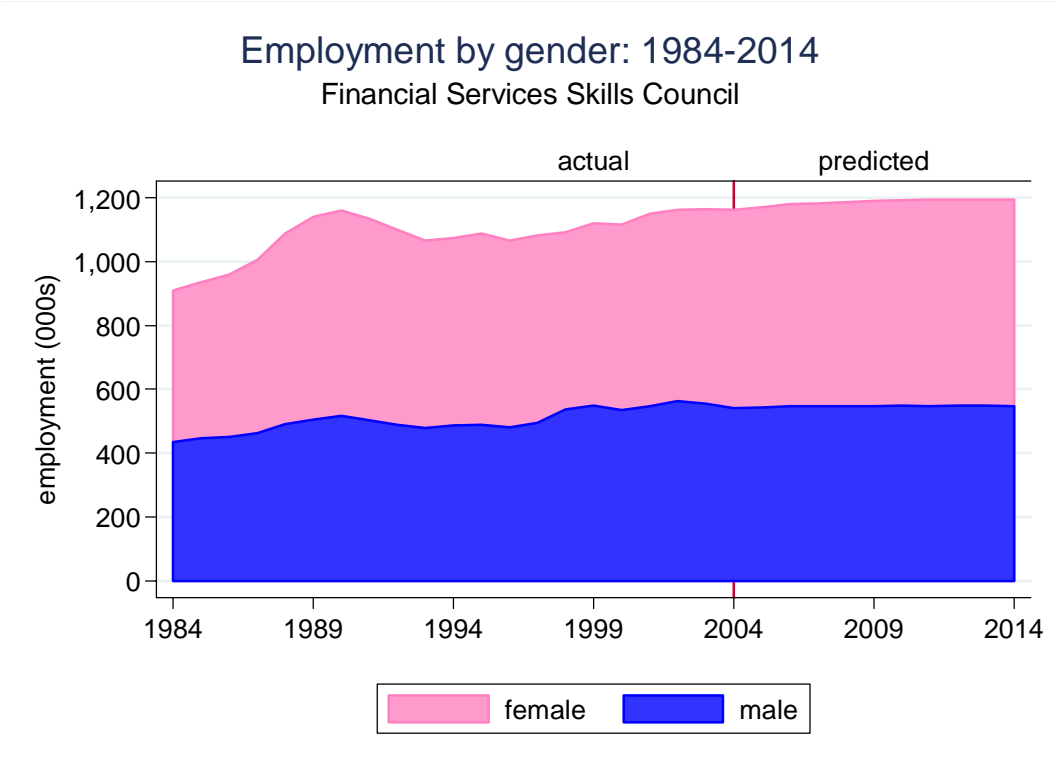


Figure 3.15.2: Employment by status: 1984-2014

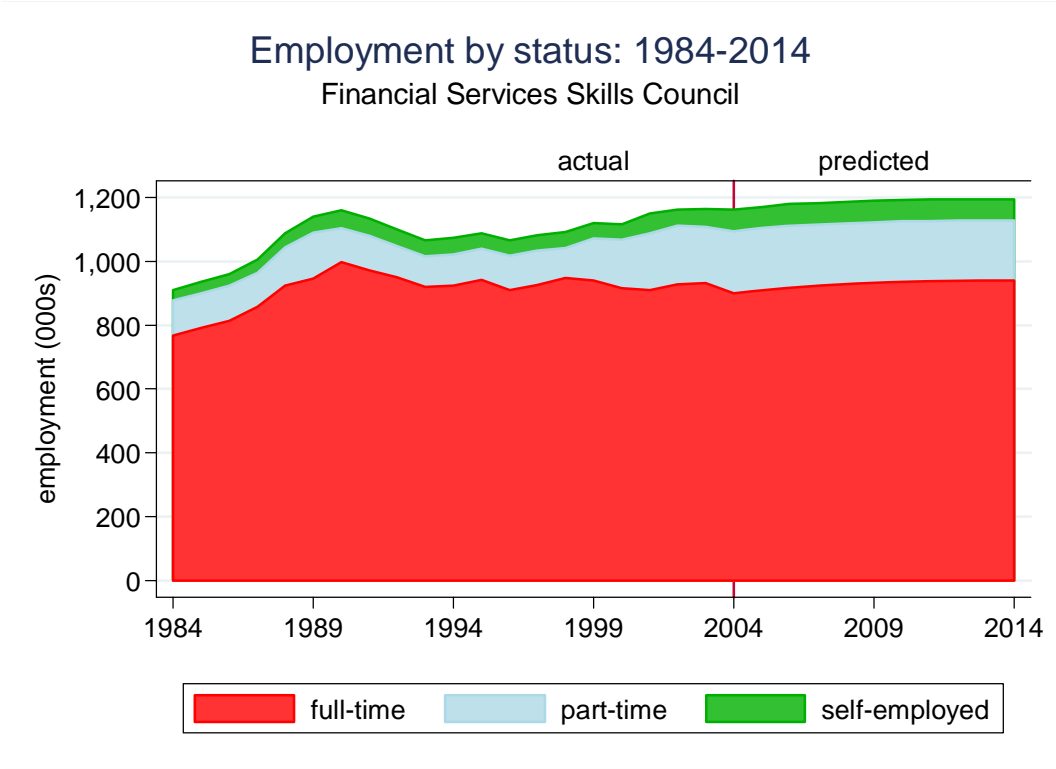


Figure 3.15.3: Occupational composition: 1994-2014

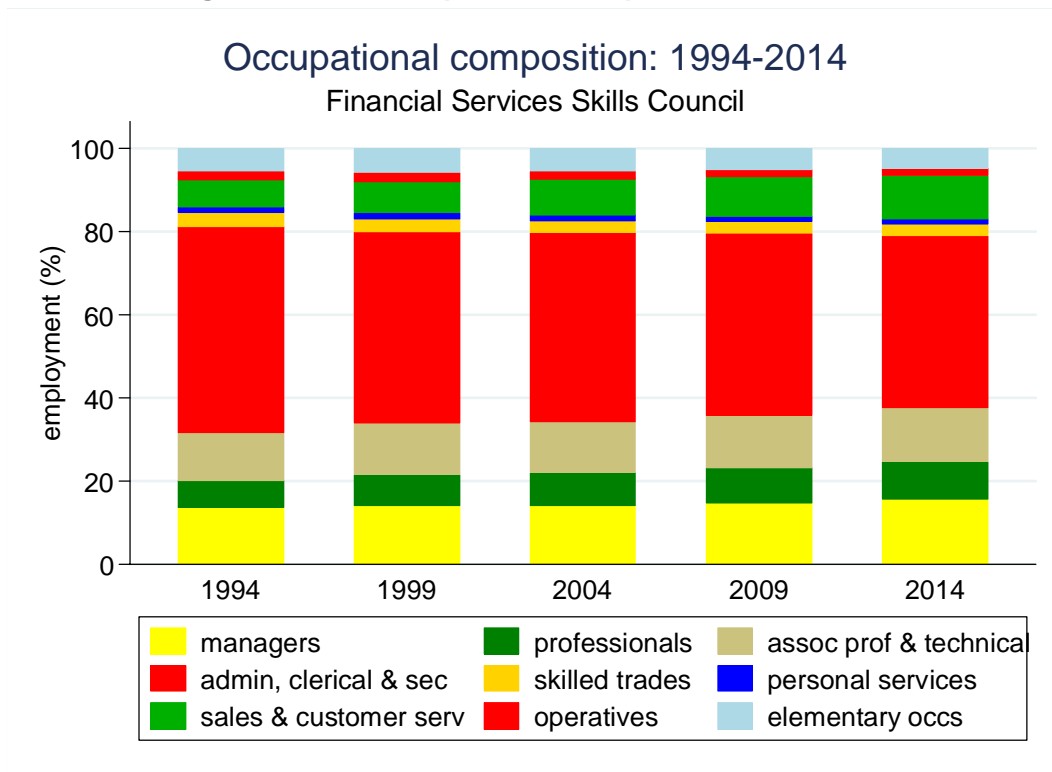


Figure 3.15.4: Employment levels by status and gender: 1994-2014

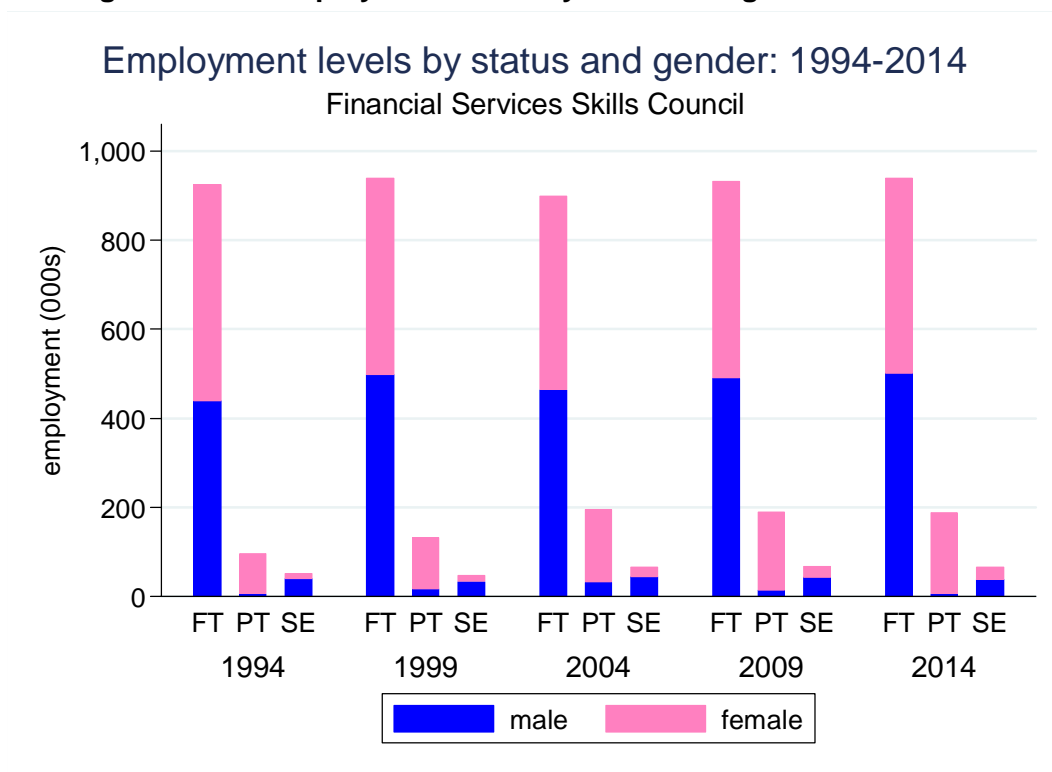


Figure 3.15.5: Employment shares by status and gender: 1994-2014

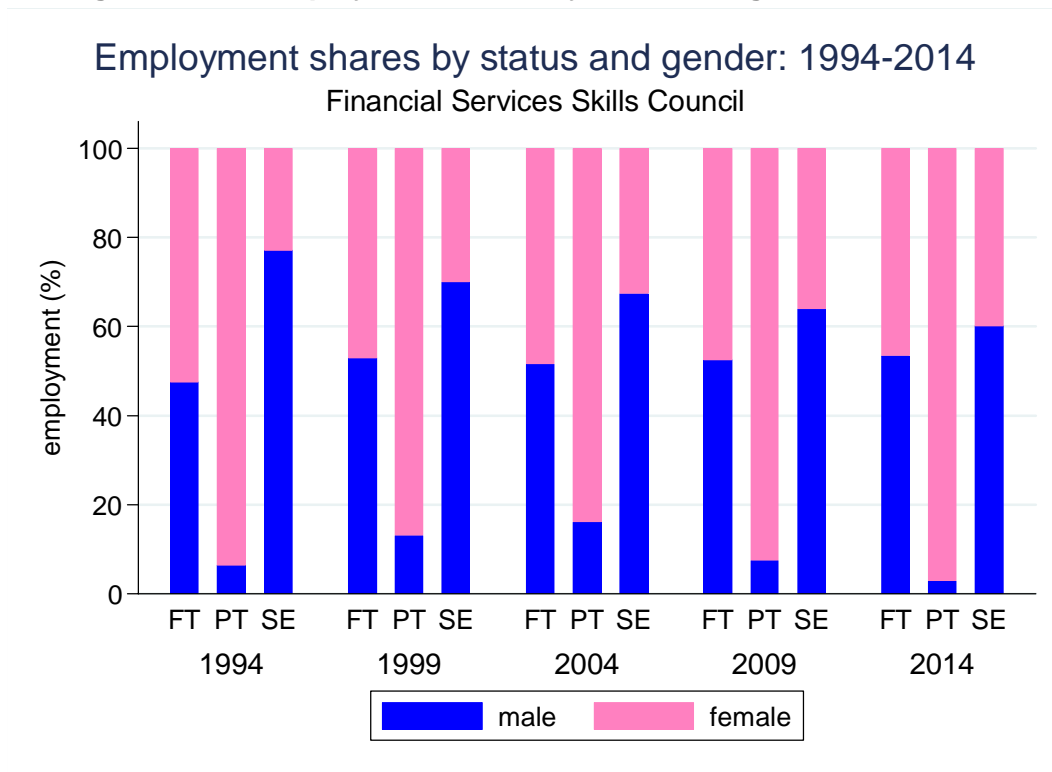


Figure 3.15.6: Employment changes by status and gender: 1984-2014

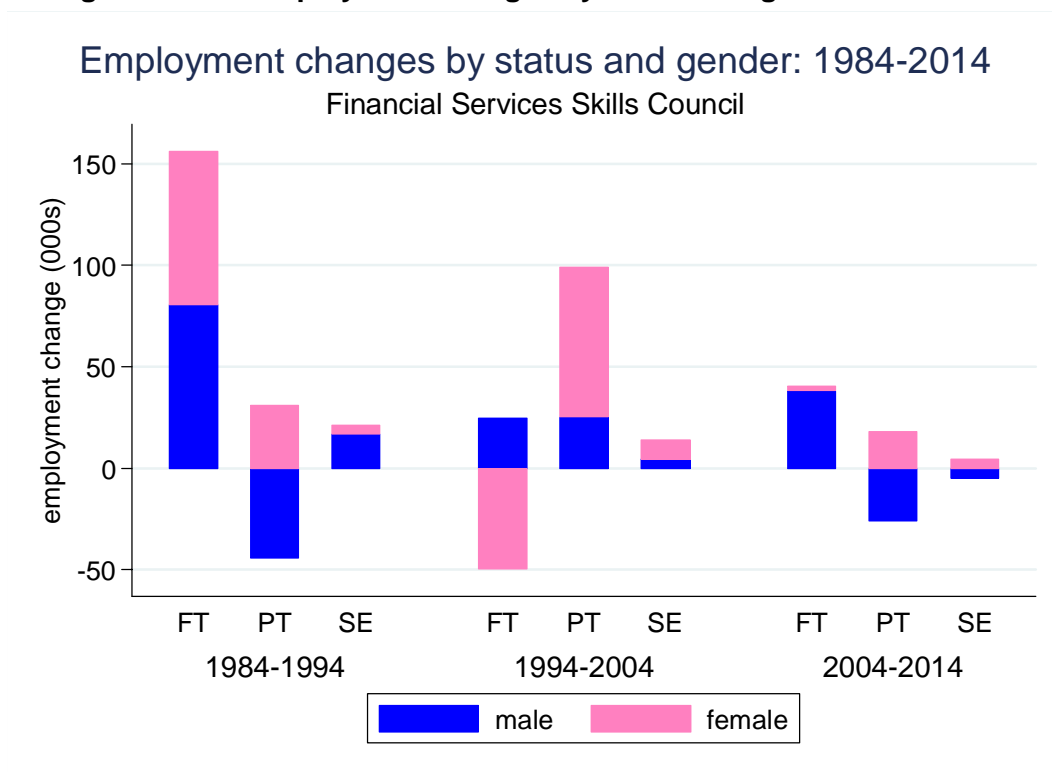
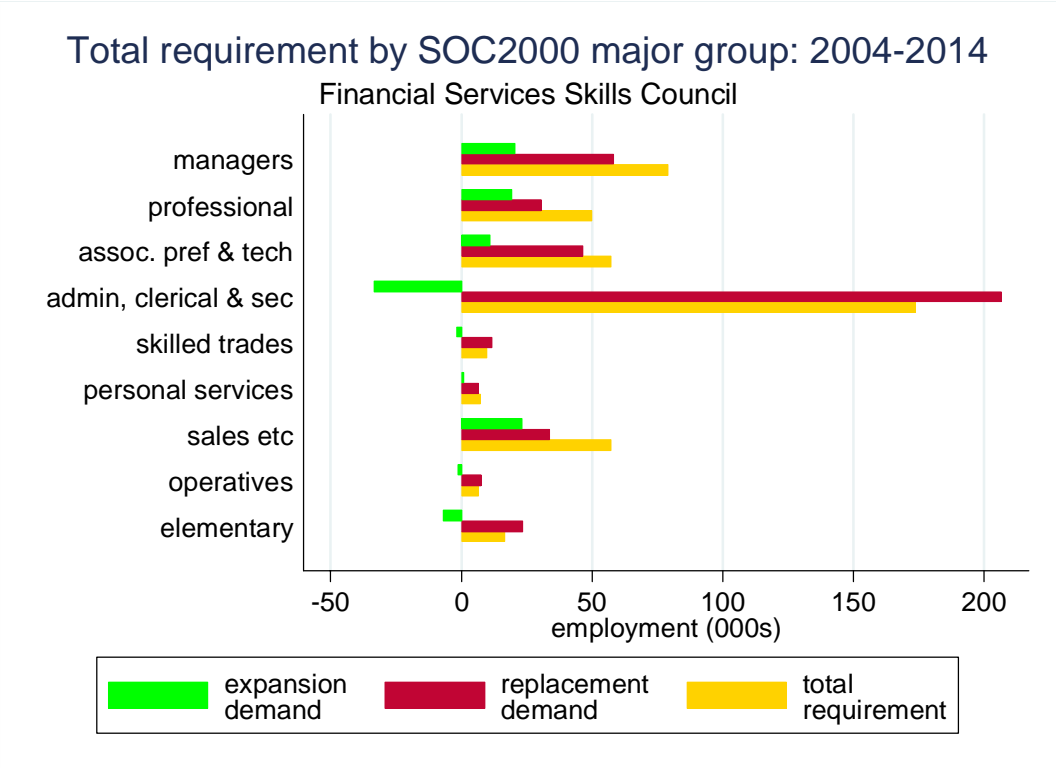


Figure 3.15.7: Total requirement by SOC2000 major group: 2004-2014



3.16 Asset Skills

Web: www.assetskills.org

Sector description:

Property, housing, cleaning and facilities management.

SIC codes: 70, 74.7

(NB: Facilities Management as an industry is included in SIC 70, but it is also an occupation employed across many industries and so is not fully represented through this SIC code. Some social housing management activity also falls within SIC 8531 (Social work activities with accommodation) which is included in SSC Skills for Care and Development.)

Sector coverage:

All businesses and people involved in the maintenance and development of the built environment, including some surveyors; property managers; residential estate agents; caretakers; facilities management professionals; cleaners; town planners; letting agents and local authorities and social housing managers.

Commentary:

Employment composition by gender and status

- Total employment covered by this SSC has expanded rapidly over the last 10 years, increasing by almost 50%, or more than 300,000 new workers. Total employment now exceeds 1 million workers.
- Future trends are for continuing growth in employment in this sector, albeit at a rather slower rate.
- Less than half of all jobs in this sector are full-time; part-time employment accounts for 36% of jobs, and self-employment another 20%. These shares are expected to remain fairly constant over the next 10 years.

Occupational composition of employment

- Employment in this sector is concentrated in the first four occupational groups, which together comprise almost 70% of total employment in 2004 (as compared to their overall share of 54% in the whole economy). This reflects the nature of employment in this largely 'white-collar' sector.

Expansion demand, replacement demand and total requirement 2004-2014

- Employment is anticipated to increase by 13% over the next 10 years, with growth in almost all occupational groups.
- Total requirement for the next 10 years is almost 500,000 workers, representing almost 50% of current employment levels.

Table 3.16.1: Employment levels and shares by status and gender: 1994-2014

SSC: Asset Skills									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	144	202	41	387	21	29	6	56	
Male	158	43	100	300	23	6	15	44	
Total employment	302	245	141	688	44	36	20	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	157	268	47	473	18	31	5	54	
Male	212	71	122	404	24	8	14	46	
Total employment	369	339	169	877	42	39	19	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	179	259	57	496	18	26	6	49	
Male	270	99	140	509	27	10	14	51	
Total employment	449	359	197	1,005	45	36	20	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	182	264	59	505	17	25	6	48	
Male	284	112	153	548	27	11	15	52	
Total employment	466	375	212	1,054	44	36	20	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	192	271	63	526	17	24	6	46	
Male	307	129	170	607	27	11	15	54	
Total employment	499	400	233	1,132	44	35	21	100	

Table 3.16.2: Composition of employment by occupation: 1994-2014

SSC: Asset Skills					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	111	144	175	185	198
2. Professional Occupations	84	112	137	146	159
3. Associate Professional & Tech.	111	153	192	206	227
4. Administrative, Clerical and Sec.	177	194	189	183	180
5. Skilled Trades Occupations	32	40	43	45	49
6. Personal Service Occupations	56	92	116	134	154
7. Sales & Customer Service Occs.	24	35	43	51	59
8. Machine & Transport Operatives	24	29	34	36	39
9. Elementary Occupations	69	78	74	67	67
Total employment	688	877	1,005	1,054	1,132
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	16	16	17	18	17
2. Professional Occupations	12	13	14	14	14
3. Associate Professional & Tech.	16	17	19	20	20
4. Administrative, Clerical and Sec.	26	22	19	17	16
5. Skilled Trades Occupations	5	5	4	4	4
6. Personal Service Occupations	8	10	12	13	14
7. Sales & Customer Service Occs.	3	4	4	5	5
8. Machine & Transport Operatives	3	3	3	3	3
9. Elementary Occupations	10	9	7	6	6
Total employment	100	100	100	100	100

Table 3.16.3: Replacement demand by occupation: 2004-2014

SSC: Asset Skills				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	175	23	64	87
2. Professional Occupations	137	22	45	66
3. Associate Professional & Tech.	192	35	62	96
4. Administrative, Clerical and Sec.	189	-9	78	69
5. Skilled Trades Occupations	43	6	14	20
6. Personal Service Occupations	116	37	47	84
7. Sales & Customer Service Occs.	43	16	15	31
8. Machine & Transport Operatives	34	5	12	17
9. Elementary Occupations	74	-7	28	21
Total employment	1,005	127	365	492
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	17	13	37	50
2. Professional Occupations	14	16	33	48
3. Associate Professional & Tech.	19	18	32	50
4. Administrative, Clerical and Sec.	19	-5	41	36
5. Skilled Trades Occupations	4	13	33	46
6. Personal Service Occupations	12	32	40	72
7. Sales & Customer Service Occs.	4	36	34	70
8. Machine & Transport Operatives	3	15	36	51
9. Elementary Occupations	7	-9	37	28
Total employment	100	13	36	49

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.16.1: Employment by gender: 1984-2014

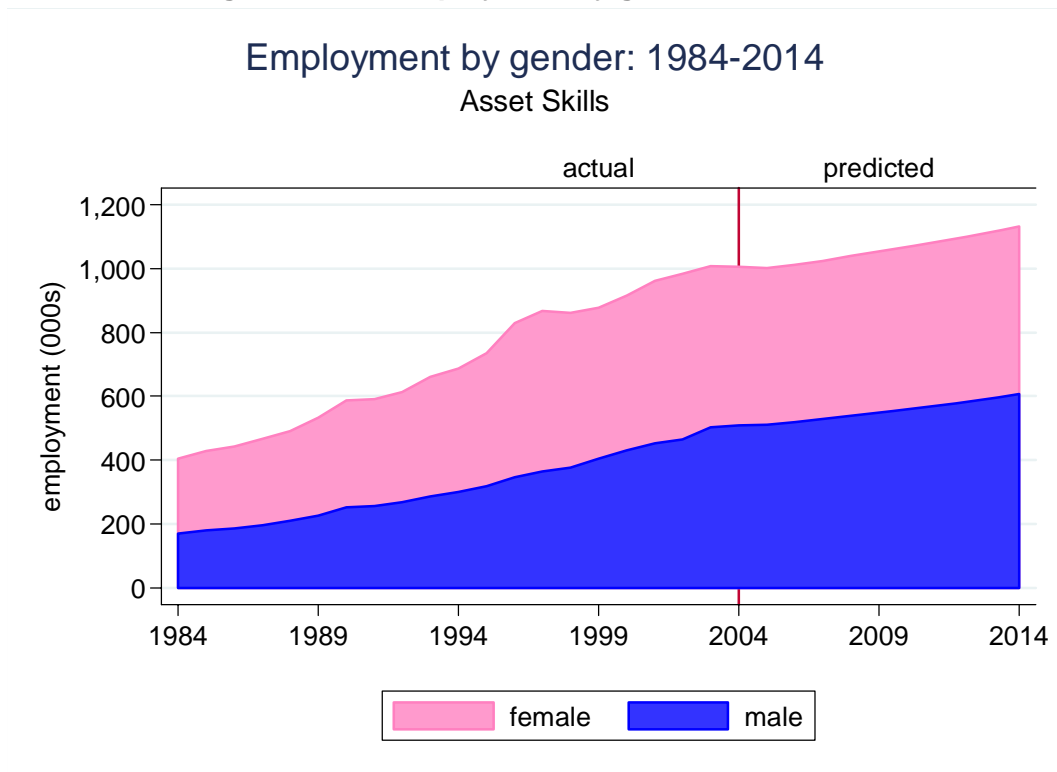


Figure 3.16.2: Employment by status: 1984-2014

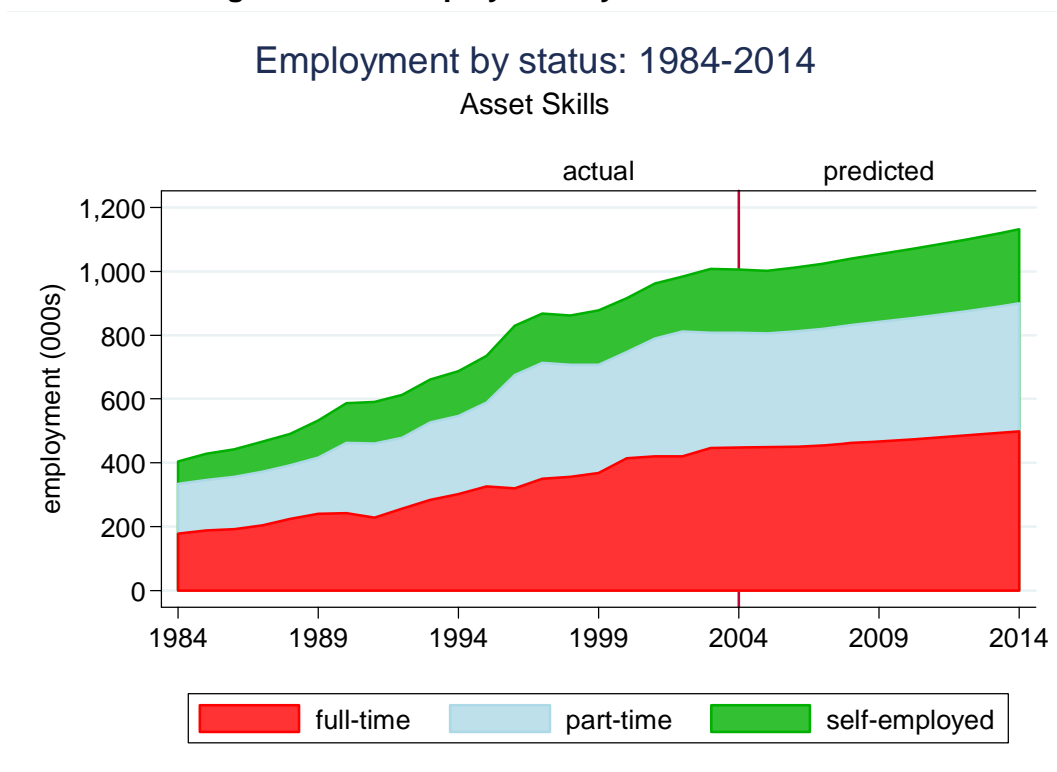


Figure 3.16.3: Occupational composition: 1994-2014

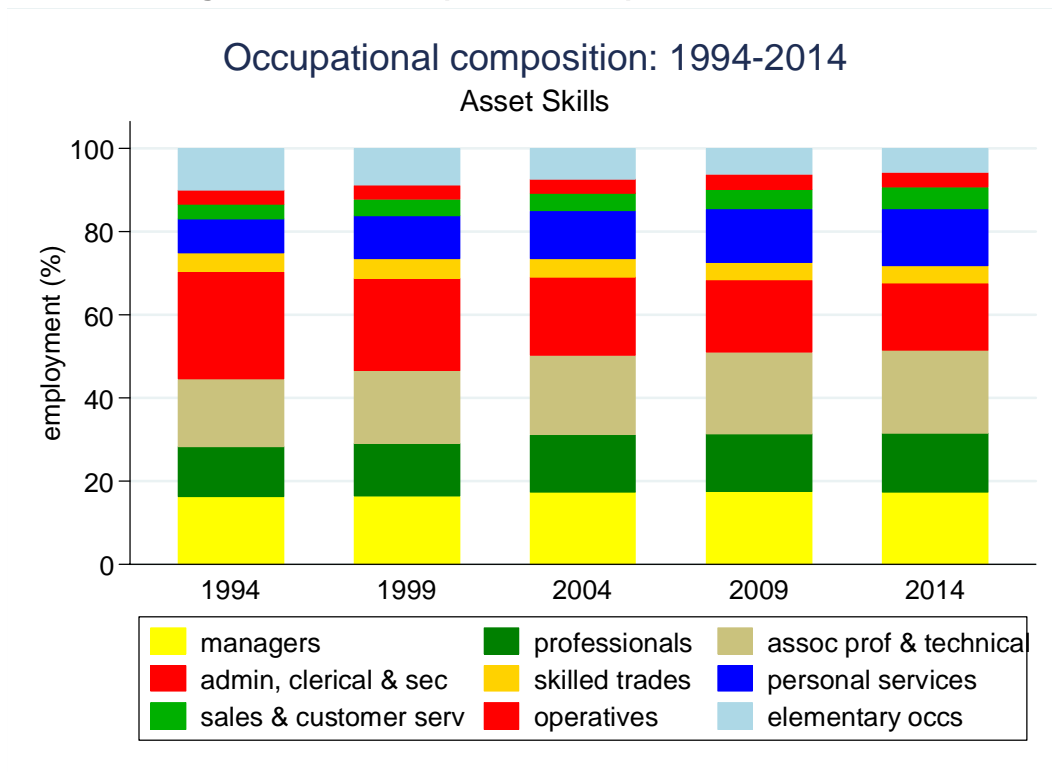


Figure 3.16.4: Employment levels by status and gender: 1994-2014

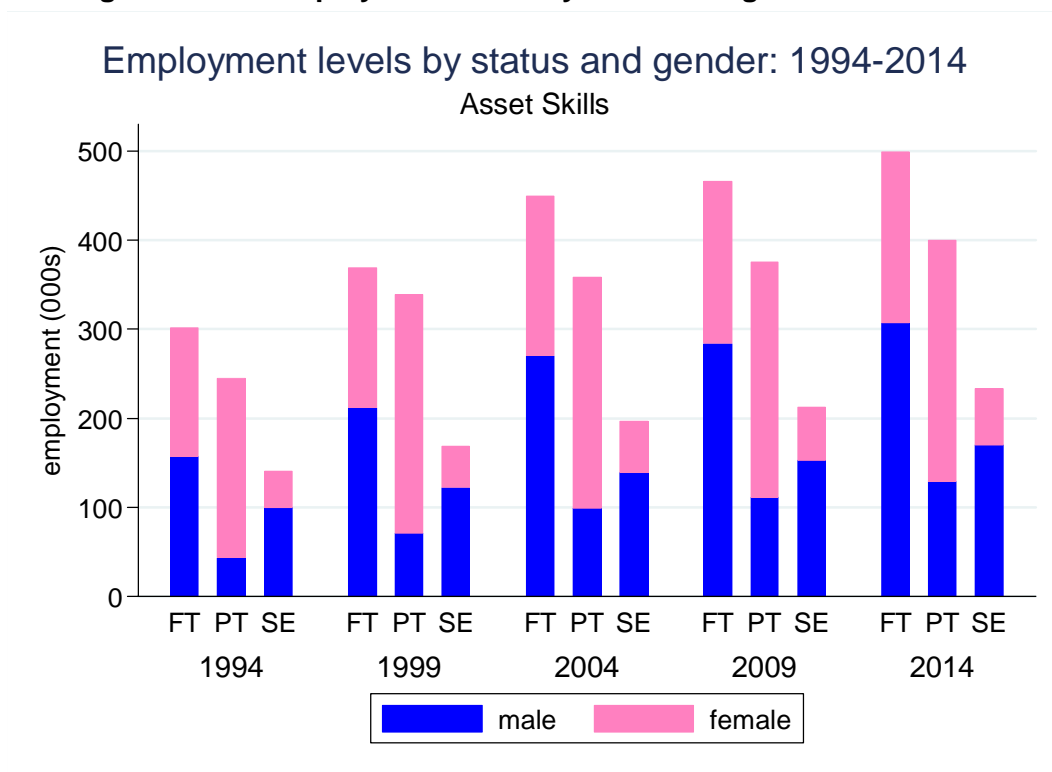


Figure 3.16.5: Employment shares by status and gender: 1994-2014

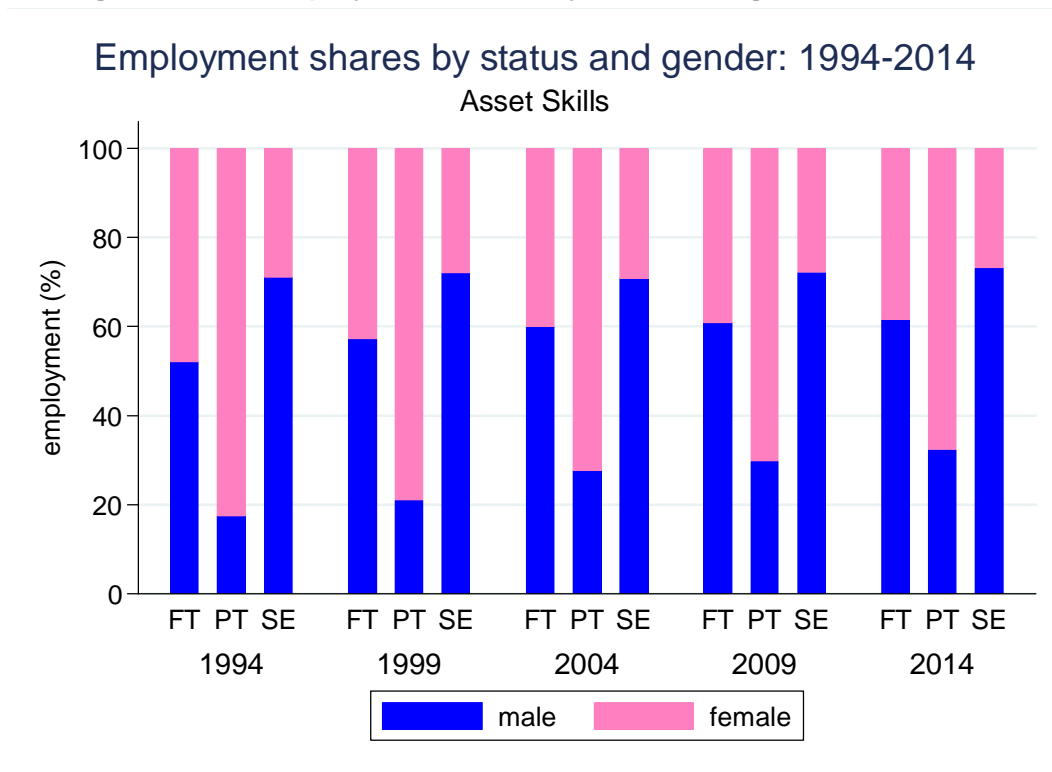


Figure 3.16.6: Employment changes by status and gender: 1984-2014

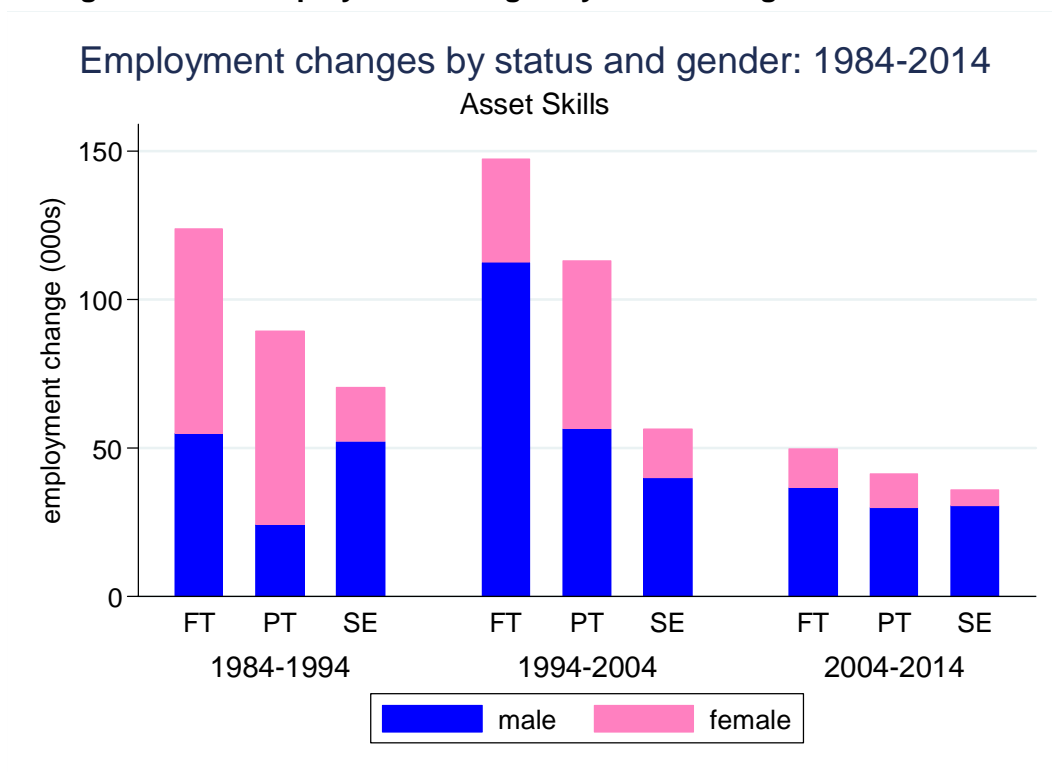
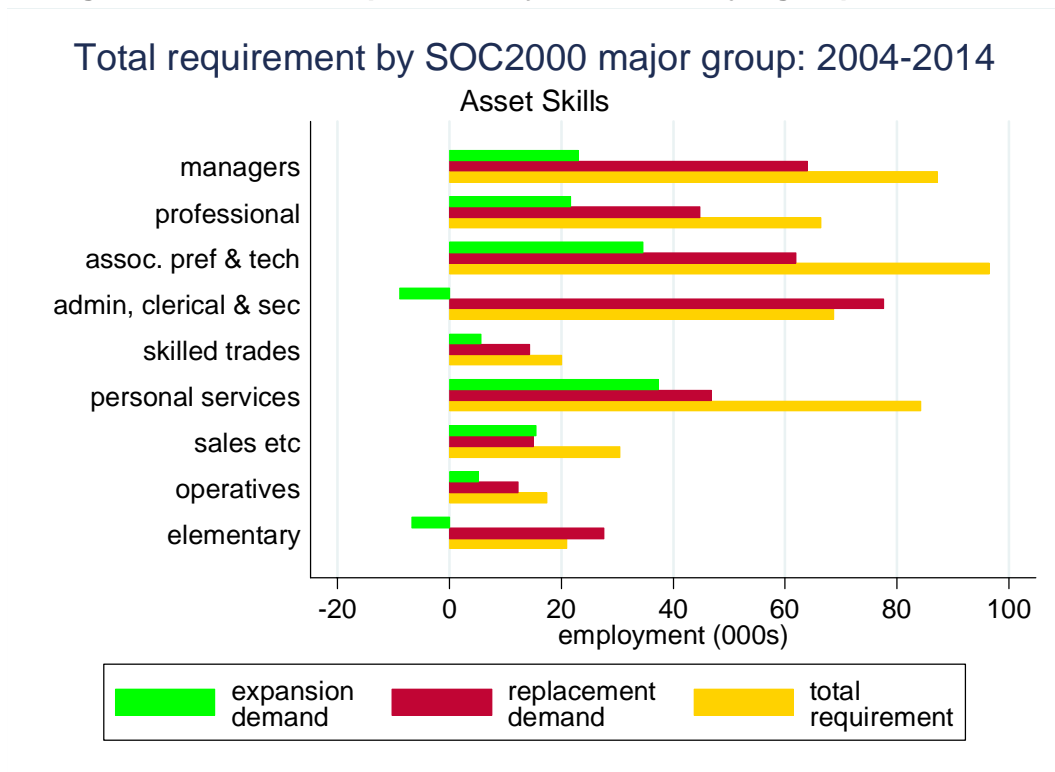


Figure 3.16.7: Total requirement by SOC2000 major group: 2004-2014



3.17 e-skills UK

Web: www.e-skills.com

Sector description:

Information technology, telecommunications and contact centres.

SIC codes: 22.33, 64.2, 72, 74.86

(NB: e-skills UK also covers IT and telecoms professionals across all industries.)

Sector coverage:

Information technology, telecommunications and contact centres.

Commentary:

Employment composition by gender and status

- In terms of its rate of expansion of employment, e-skills UK was the most rapidly growing SSC over the last decade, and it set to be the most rapidly growing SSC over the next decade.
- In 1994, this sector represented around 0.5 million workers. By 2014, more than 1 million workers will be covered by this SSC.

Occupational composition of employment

- Employment in this sector is concentrated in the first four occupational groups, which together comprise almost 70% of total employment in 2004.

Expansion demand, replacement demand and total requirement 2004-2014

- Employment is expected to increase by more than 20% in the next 10 years, representing more than 200,000 new jobs.
- As a consequence, the total requirement in this sector is proportionally greater than in any other SSC. In total, recruitment equivalent to almost 3-in-5 of the current workforce will be required over the next decade, with 500,000 new appointments to the sector required to meet demand.
- Total requirements are strongly positive for all occupational groups – reflecting strong expansion demand for most groups.

Comparison with alternative forecasts: e-skills UK

e-skills UK have produced detailed projections as part of their *Sector Skills Agreement for IT* and the related *Skills Needs Assessment* for which further details can be accessed via the e-skills UK website <http://www.e-skills.com/>. These two documents are part of a large, multifaceted programme of research. The quantitative employment projections are based on a model linked to the Experian macroeconomic model. The underlying employment data and model framework are based on LFS and other data. Reflecting its concerns with IT skills needs across all sectors, the projections use both an industry and an occupational 'footprint'. To facilitate comparison here, the e-skills UK results are in some cases (eg for output and productivity trends) compared with just the *Computing services* industry from the *Working Futures* projections, although there are parts of other sectors that also form part of the SSC's overall industry footprint.

There are a number of differences compared to *Working Futures*. These differences not only reflect differences in data sources and models but also different underlying assumptions used to develop the future scenarios. However, in broad terms, the two sets of projections paint a similar picture - rapid future employment growth with particular emphasis on higher level occupations. The detailed emphasis varies depending upon the focus (SIC versus SOC footprint; the most appropriate way of measuring replacement needs, etc). One clear message that emerges from this particular comparison is the need for some SSCs to focus in much greater occupational detail than the 25 SOC sub-major groups. The more detailed occupational projections presented as a part of the *Working Futures Qualifications Report* provide some more general results in this area which may be of interest to other SSCs.

Comparison of *Working Futures* projections with those from e-skills UK

Criterion	<i>Working Futures</i>	e-skills UK
1. Definition of sector	SIC2003 categories 22.33, 64.2, 72, 74.86 The comparisons of output and productivity trends below focus upon SIC72 Computing services	Similar, but including SIC2003, 30.02. However the SSC recognises the need to go beyond SIC based footprints and to also use an alternative footprint based on occupational codes
2. Occupational definitions	SOC 2000, 25 sub-major groups	Similar, but also focussing upon more detailed IT specific occupations
3. Geographical coverage	UK, constituent countries and regions, and 47 LLSCs	UK plus some regional coverage (not all published)
4. Source of sectoral employment data	Employee estimates based on ABI2003 data and self employment from the LFS (both adjusted to match ONS estimates as published in <i>Labour Market Trends</i>)	Similar, but based on ABI2002 Census data are used to focus on geographical detail
5. Source of occupational structural data	2001 CoP and LFS (constrained to match sectoral totals)	Similar
6. Base year and forecast horizon	2004-2014	2002-2014 (<i>IT Insights: Employment Forecasts, 2004</i>).
7. Source of output projections	Multi-sectoral macroeconomic model (CE MDM C51F8A Forecast)	Experian macro model
8. Sectoral employment model	Econometric analysis linked to output and factor prices	Econometric analysis; shift share methods
9. Macro scenario	GDP growth 2004-14: 2.5% <i>per annum</i>	GDP growth 2002-14: 2.5% <i>per annum</i>
10. Output growth assumptions (SIC)	2004-14: 6% <i>per annum</i> (Computing services only)	Alternative scenarios used but the results for the SSC are not explicit
11. Productivity model	Implicit in employment equations	Similar
12. Productivity (output per person employed)	2004-14: 3-4% <i>per annum</i> (Computing services only)	Not explicit
13. Overall employment projections (SSC)	2004 level: 550,000 (Computing services only) 2004-14: growth of 16,000 (c. 2.5%) <i>per annum</i>	SIC footprint: level 630,000; growth of 16,000 (c. 2.5%) <i>per annum</i> SOC footprint: 1.1 million, growth of 10,000 (c. 1%) <i>per annum</i>
14. Occupational model	Econometric equations mainly driven by time trends in occupational employment shares, plus trend extrapolations	Shift-share and extrapolative methods; some econometrics
15. Key features of occupational change projected	Growth amongst managers, professionals and associate professionals. Rapid but smaller increases for sales and personal service occupations	Main projected employment growth is for professional and managerial occupations
16. Replacement demand	Driven by age structure by occupation and flow rates (data from LFS); mainly focussed on retirements	Sectoral focus, with the emphasis on gross separations. This reflects a view that there is a rapid obsolescence of IT skills
17. Key features of replacement demand results	For the SSC as a whole, replacement needs are estimates at around 30,000 <i>per annum</i> . The main replacement needs are amongst managerial, professional and associate professional staff, with smaller increases for sales and personal service occupations	Considerably larger in scale, due to the focus on total separations (c. 100,000 <i>per annum</i>).

Table 3.17.1: Employment levels and shares by status and gender: 1994-2014

SSC: e-skills UK									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	89	16	21	126	18	3	4	25	
Male	310	3	61	373	62	1	12	75	
Total employment	398	18	82	499	80	4	16	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	175	70	27	272	24	9	4	37	
Male	374	20	76	470	50	3	10	63	
Total employment	549	90	103	742	74	12	14	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	196	82	31	309	22	9	4	35	
Male	449	30	85	565	51	3	10	65	
Total employment	645	113	117	875	74	13	13	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	236	111	26	373	25	12	3	39	
Male	468	44	66	577	49	5	7	61	
Total employment	704	155	91	950	74	16	10	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	294	150	22	465	27	14	2	43	
Male	502	62	51	615	47	6	5	57	
Total employment	796	211	73	1,080	74	20	7	100	

Table 3.17.2: Composition of employment by occupation: 1994-2014

SSC: e-skills UK					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	78	119	147	160	188
2. Professional Occupations	69	106	129	142	165
3. Associate Professional & Tech.	71	118	148	156	178
4. Administrative, Clerical and Sec.	89	162	174	196	225
5. Skilled Trades Occupations	64	69	74	70	67
6. Personal Service Occupations	12	22	28	35	40
7. Sales & Customer Service Occs.	14	29	40	54	74
8. Machine & Transport Operatives	54	56	66	68	72
9. Elementary Occupations	47	60	69	69	71
Total employment	499	742	875	950	1,080
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	16	16	17	17	17
2. Professional Occupations	14	14	15	15	15
3. Associate Professional & Tech.	14	16	17	16	17
4. Administrative, Clerical and Sec.	18	22	20	21	21
5. Skilled Trades Occupations	13	9	8	7	6
6. Personal Service Occupations	2	3	3	4	4
7. Sales & Customer Service Occs.	3	4	5	6	7
8. Machine & Transport Operatives	11	8	7	7	7
9. Elementary Occupations	9	8	8	7	7
Total employment	100	100	100	100	100

Table 3.17.3: Replacement demand by occupation: 2004-2014

SSC: e-skills UK				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	147	41	52	93
2. Professional Occupations	129	36	40	76
3. Associate Professional & Tech.	148	31	46	77
4. Administrative, Clerical and Sec.	174	50	71	121
5. Skilled Trades Occupations	74	-7	24	17
6. Personal Service Occupations	28	12	11	23
7. Sales & Customer Service Occs.	40	34	14	48
8. Machine & Transport Operatives	66	6	23	29
9. Elementary Occupations	69	2	23	25
Total employment	875	205	303	508
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	17	28	35	63
2. Professional Occupations	15	28	31	59
3. Associate Professional & Tech.	17	21	31	52
4. Administrative, Clerical and Sec.	20	29	41	69
5. Skilled Trades Occupations	8	-10	33	23
6. Personal Service Occupations	3	43	38	81
7. Sales & Customer Service Occs.	5	85	34	119
8. Machine & Transport Operatives	7	9	35	44
9. Elementary Occupations	8	2	33	36
Total employment	100	23	35	58

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.17.1: Employment by gender: 1984-2014

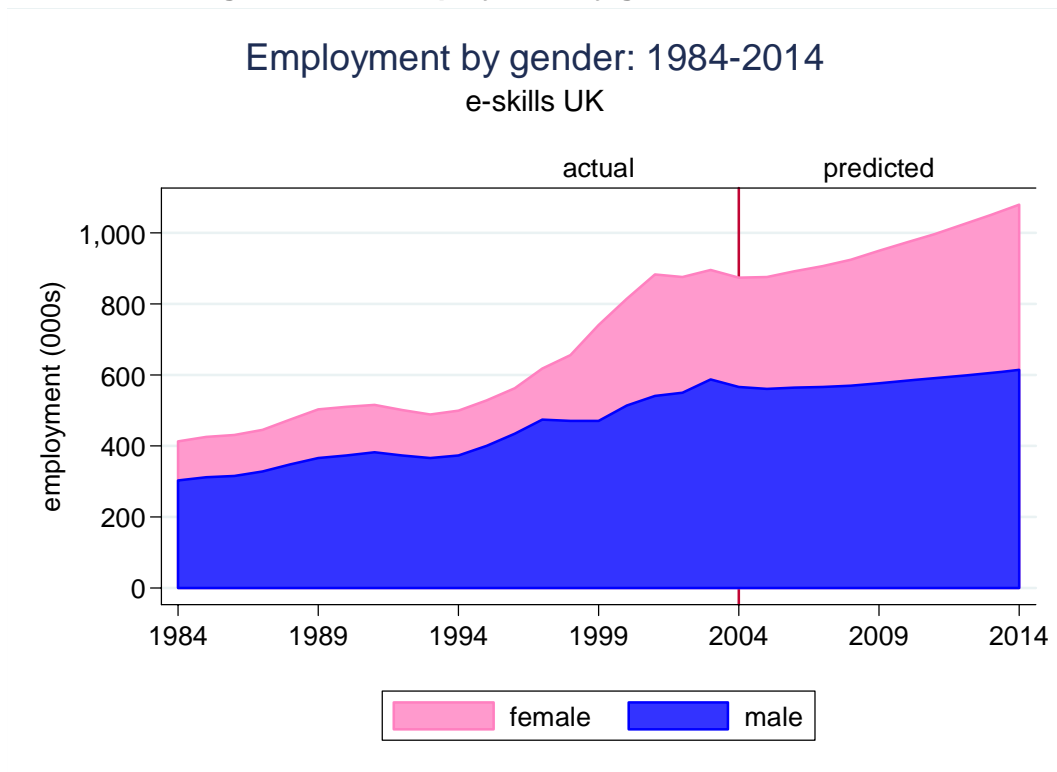


Figure 3.17.2: Employment by status: 1984-2014

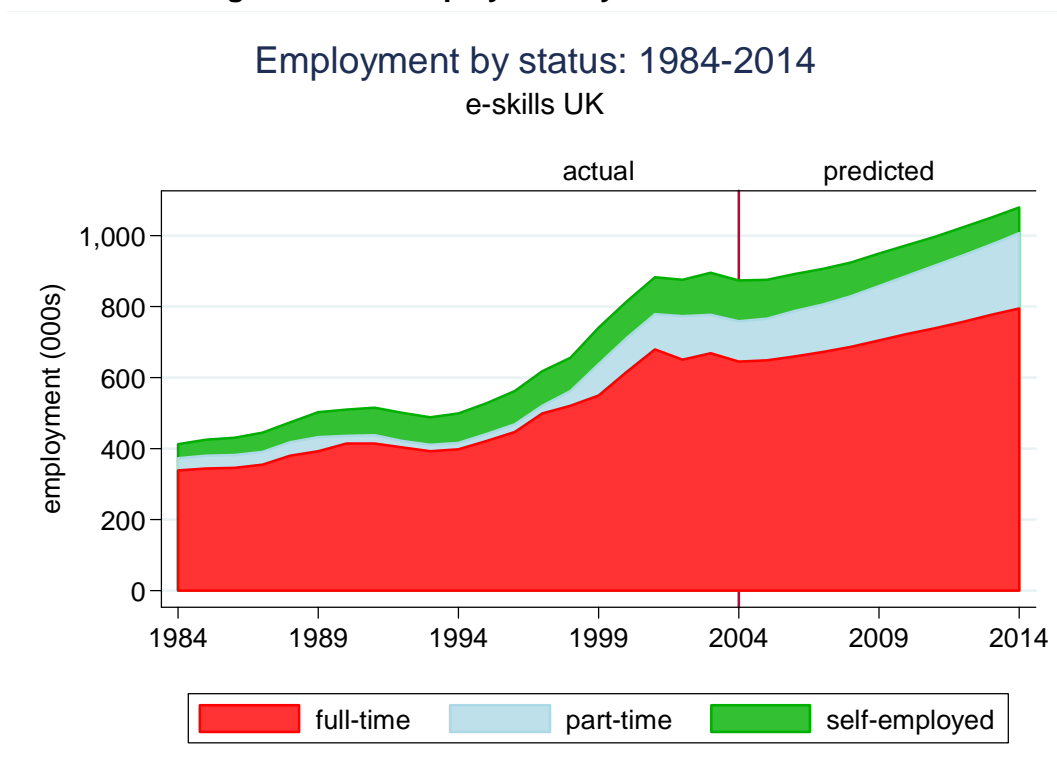


Figure 3.17.3: Occupational composition: 1994-2014

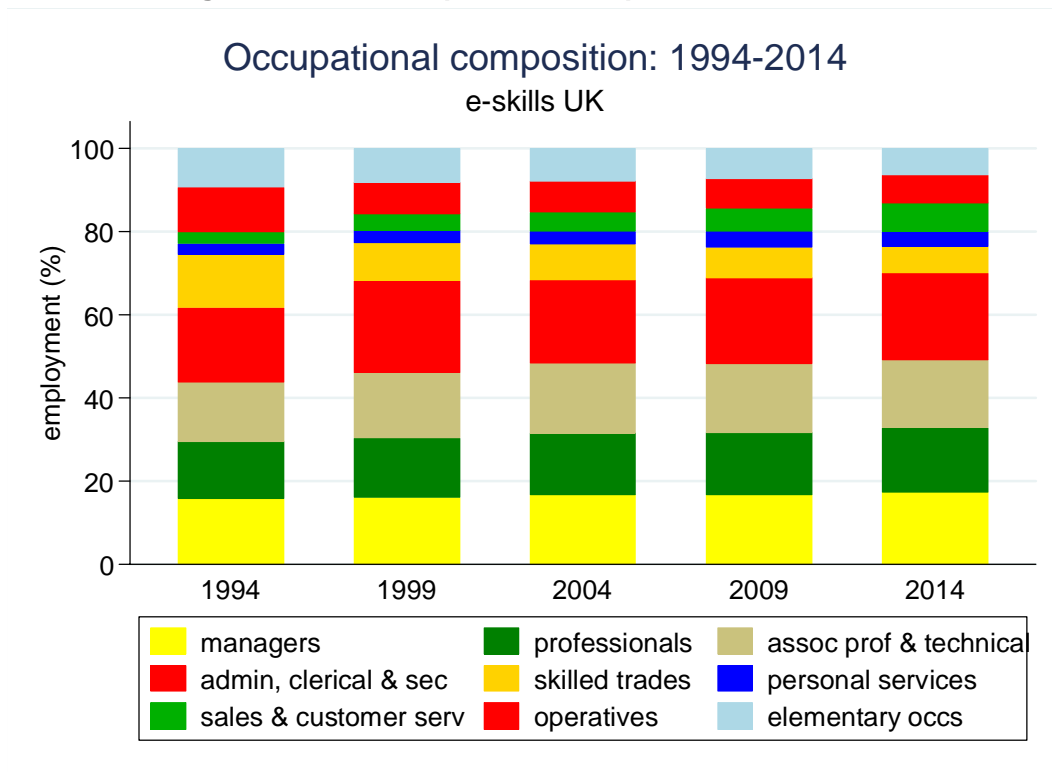


Figure 3.17.4: Employment levels by status and gender: 1994-2014

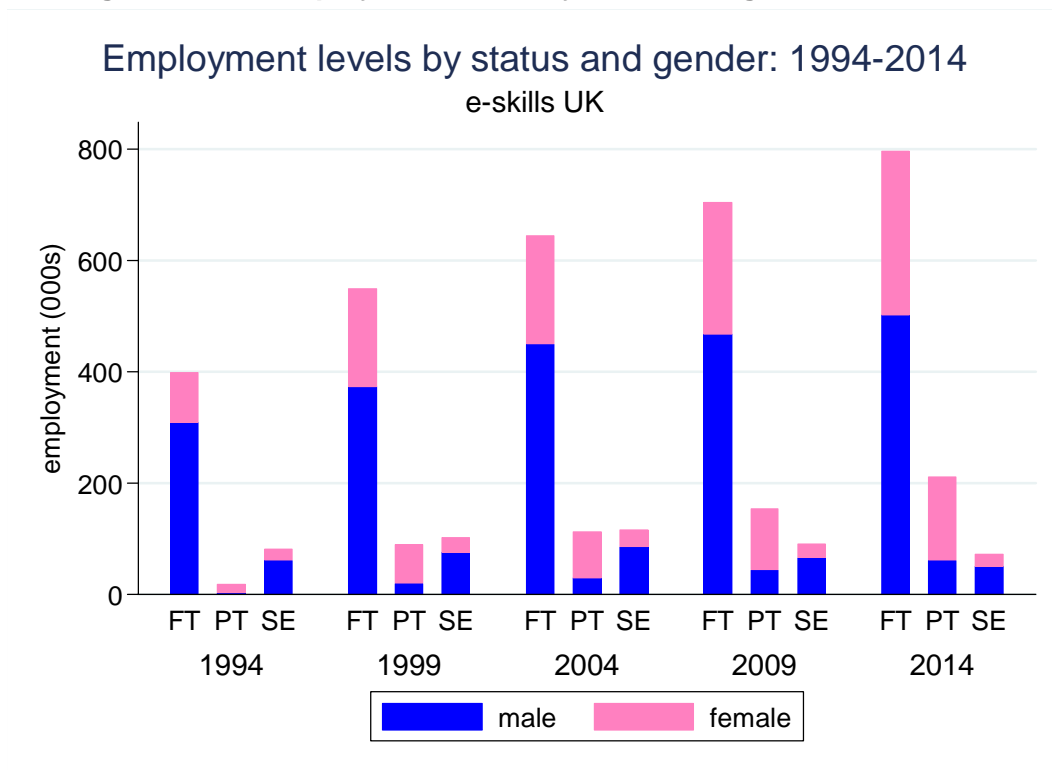


Figure 3.17.5: Employment shares by status and gender: 1994-2014

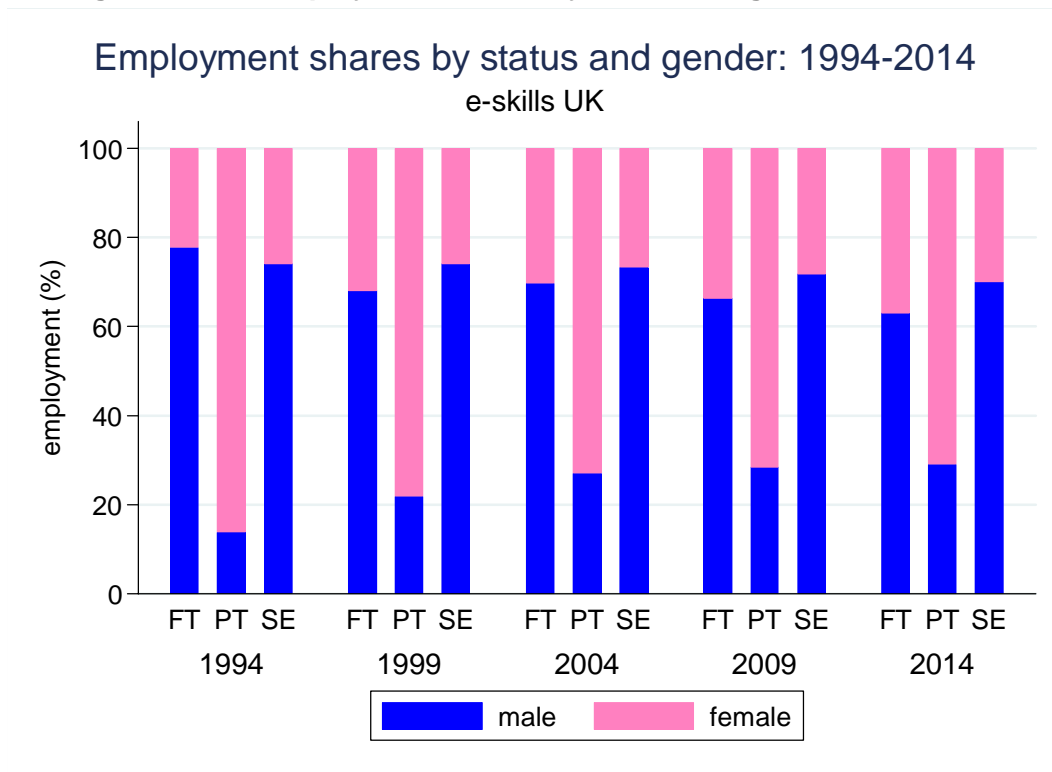


Figure 3.17.6: Employment changes by status and gender: 1984-2014

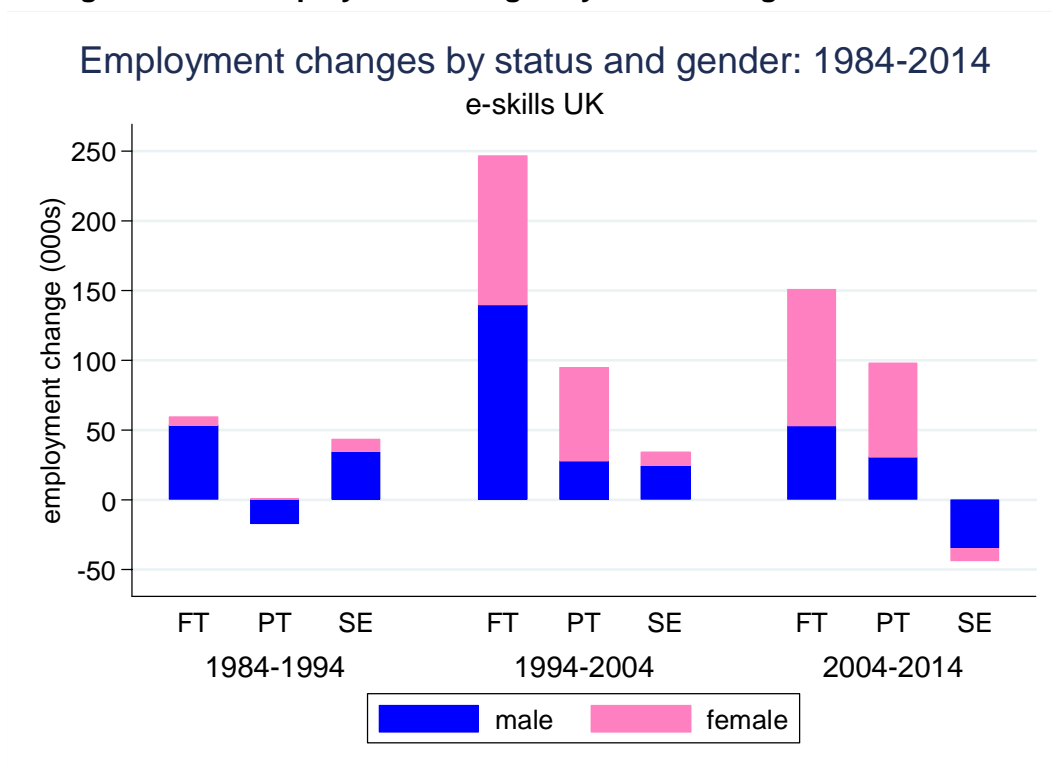
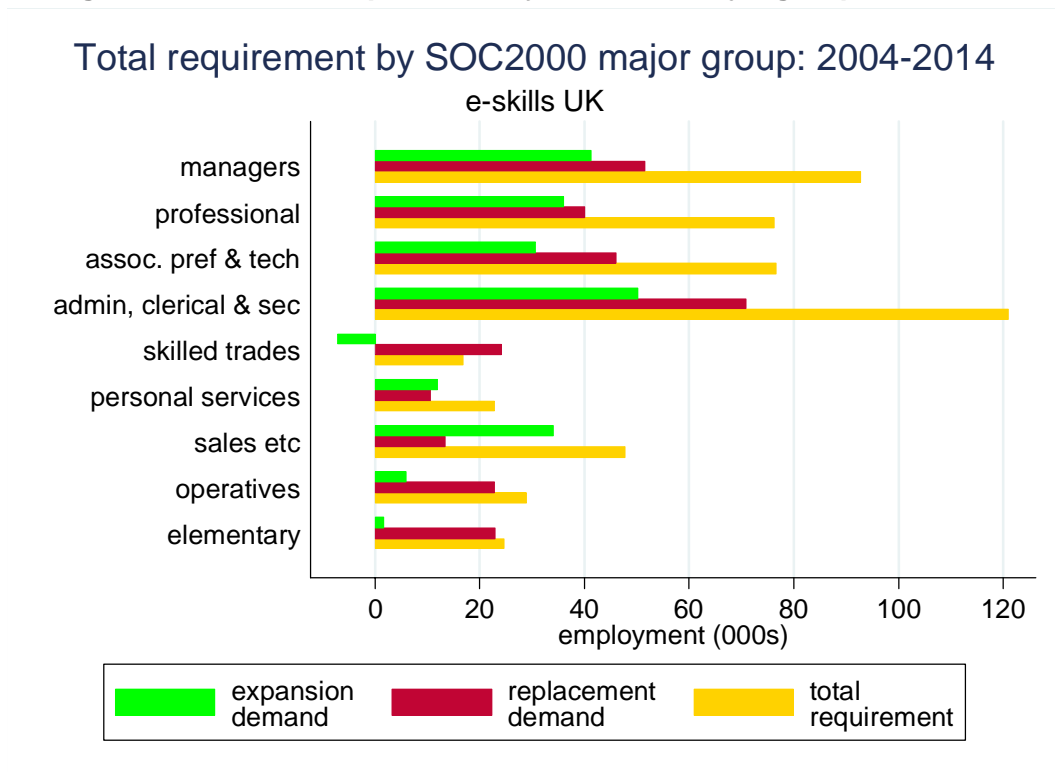


Figure 3.17.7: Total requirement by SOC2000 major group: 2004-2014



3.18 Central Government (in development)

Web:

Sector description:

Central Government.

SIC codes: 75.1, 75.21, 75.22, 75.25, 75.3

(NB: Most of the SIC codes also incorporate local government employees.)

Sector coverage:

Central governmental employers comprise all Government departments, executive agencies and non-departmental public bodies in the UK.

Commentary:

Employment composition by gender and status

- The Central Government SSC currently covers around 1.2 million workers. As expected, almost all those in employment are employees – self-employment comprises only 1% of the total workforce covered by this SSC.
- Around three quarters of jobs are full-time with the remainder part-time.
- Just over half of all jobs in this sector are held by women.

Occupational composition of employment

- Almost 30% of employment in this sector is classified as Administrative, Clerical & Secretarial Occupations, but this is a declining share of total employment in the sector.
- In 1999, this occupational group comprised one third of employment, but it is predicted to fall to only one quarter by 2014.

Expansion demand, replacement demand and total requirement 2004-2014

- Total employment in this sector is forecast to remain relatively constant over the next decade, and its composition to remain relatively unchanged.
- Despite forecast falls in the number of Administrative, Clerical & Secretarial workers, and amongst those in Elementary Occupations, total requirements are positive for all occupational groups given the scale of replacement demands.
- Total requirement is projected to be approximately 400,000 for this sector over the period to 2014.

Table 3.18.1: Employment levels and shares by status and gender: 1994-2014

SSC: Central Government (in development)									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
	FT	PT	SE	Total	FT	PT	SE	Total	
1994									
Female	396	172	6	573	36	16	1	52	
Male	482	44	6	531	44	4	1	48	
Total employment	877	216	12	1,105	79	20	1	100	
1999									
Female	395	220	7	622	37	21	1	59	
Male	378	55	8	441	36	5	1	41	
Total employment	773	275	15	1,063	73	26	1	100	
2004									
Female	417	197	5	620	36	17	0	53	
Male	487	51	8	547	42	4	1	47	
Total employment	905	248	13	1,166	78	21	1	100	
2009									
Female	415	206	6	627	36	18	0	54	
Male	470	57	10	537	40	5	1	46	
Total employment	885	263	16	1,164	76	23	1	100	
2014									
Female	408	212	6	626	36	18	1	55	
Male	446	62	13	521	39	5	1	45	
Total employment	854	274	19	1,147	74	24	2	100	

Table 3.18.2: Composition of employment by occupation: 1994-2014

SSC: Central Government (in development)					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	117	115	148	163	177
2. Professional Occupations	103	99	121	129	134
3. Associate Professional & Tech.	198	201	246	247	244
4. Administrative, Clerical and Sec.	375	354	335	312	283
5. Skilled Trades Occupations	47	37	38	37	36
6. Personal Service Occupations	40	51	61	69	75
7. Sales & Customer Service Occs.	20	25	29	33	34
8. Machine & Transport Operatives	47	37	40	40	39
9. Elementary Occupations	159	145	148	135	124
Total employment	1,105	1,063	1,166	1,164	1,147
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	11	11	13	14	15
2. Professional Occupations	9	9	10	11	12
3. Associate Professional & Tech.	18	19	21	21	21
4. Administrative, Clerical and Sec.	34	33	29	27	25
5. Skilled Trades Occupations	4	3	3	3	3
6. Personal Service Occupations	4	5	5	6	7
7. Sales & Customer Service Occs.	2	2	2	3	3
8. Machine & Transport Operatives	4	4	3	3	3
9. Elementary Occupations	14	14	13	12	11
Total employment	100	100	100	100	100

Table 3.18.3: Replacement demand by occupation: 2004-2014

SSC: Central Government (in development)				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	148	29	54	83
2. Professional Occupations	121	13	43	56
3. Associate Professional & Tech.	246	-2	73	71
4. Administrative, Clerical and Sec.	335	-52	134	82
5. Skilled Trades Occupations	38	-2	13	10
6. Personal Service Occupations	61	14	24	39
7. Sales & Customer Service Occs.	29	5	10	15
8. Machine & Transport Operatives	40	0	14	14
9. Elementary Occupations	148	-24	52	28
Total employment	1,166	-19	416	397
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	13	20	36	56
2. Professional Occupations	10	11	35	46
3. Associate Professional & Tech.	21	-1	30	29
4. Administrative, Clerical and Sec.	29	-16	40	24
5. Skilled Trades Occupations	3	-6	33	28
6. Personal Service Occupations	5	23	40	63
7. Sales & Customer Service Occs.	2	16	34	50
8. Machine & Transport Operatives	3	-1	35	34
9. Elementary Occupations	13	-16	35	19
Total employment	100	-2	36	34

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.18.1: Employment by gender: 1984-2014

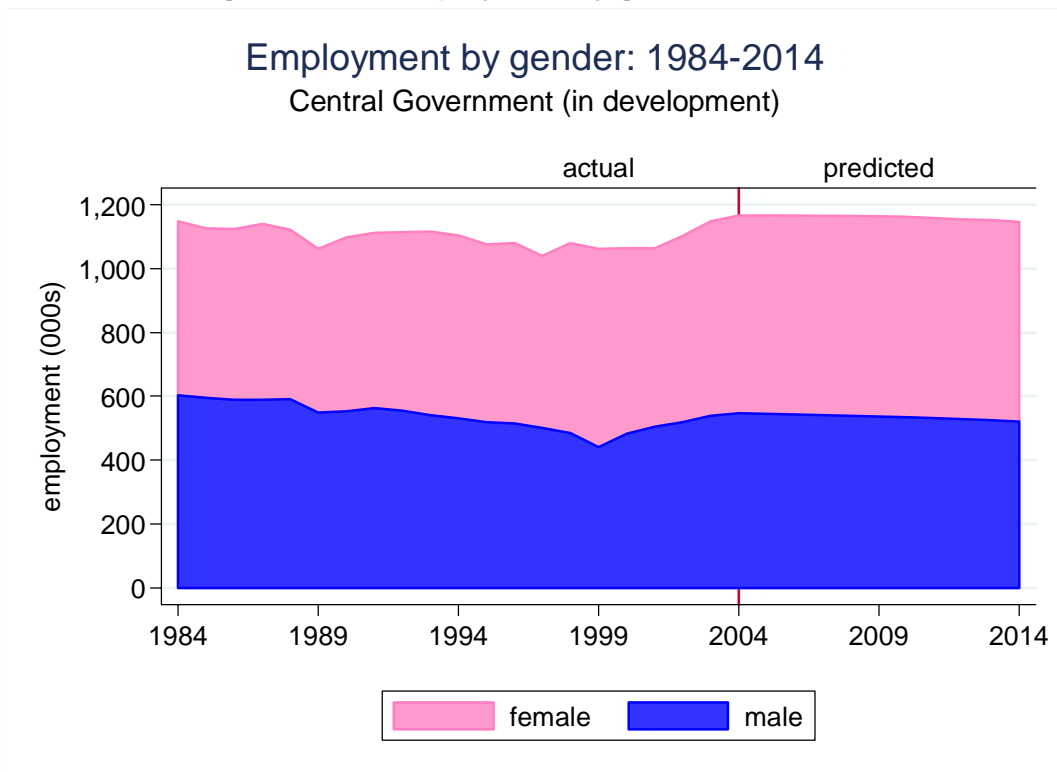


Figure 3.18.2: Employment by status: 1984-2014

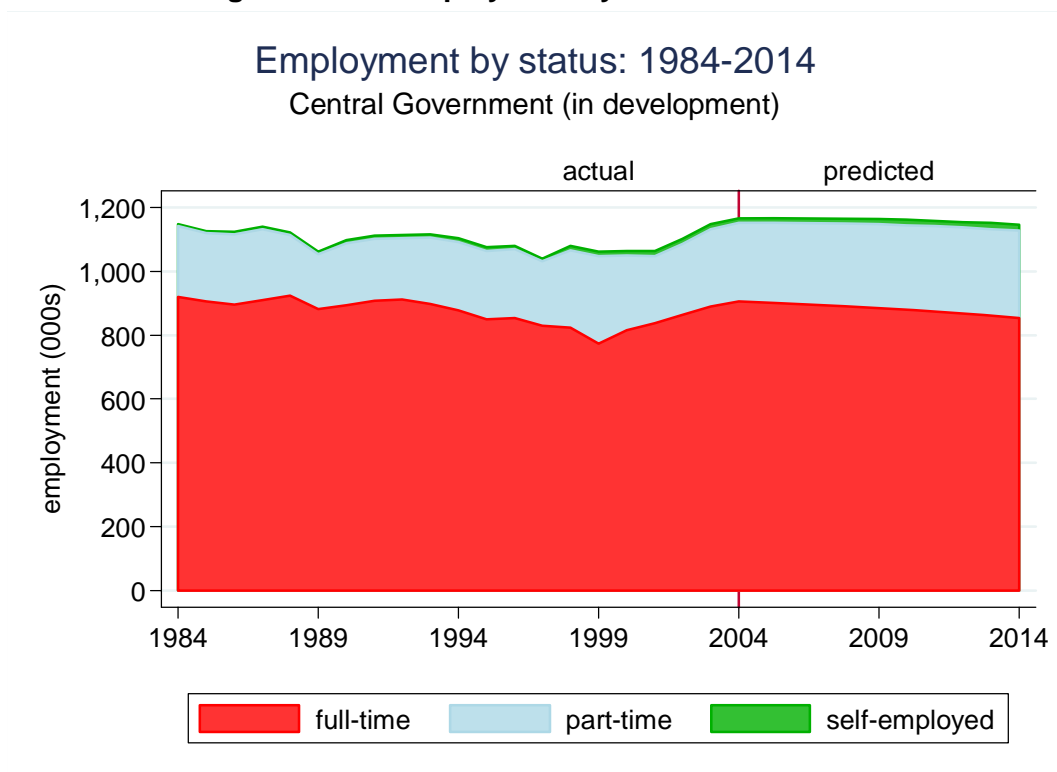


Figure 3.18.3: Occupational composition: 1994-2014

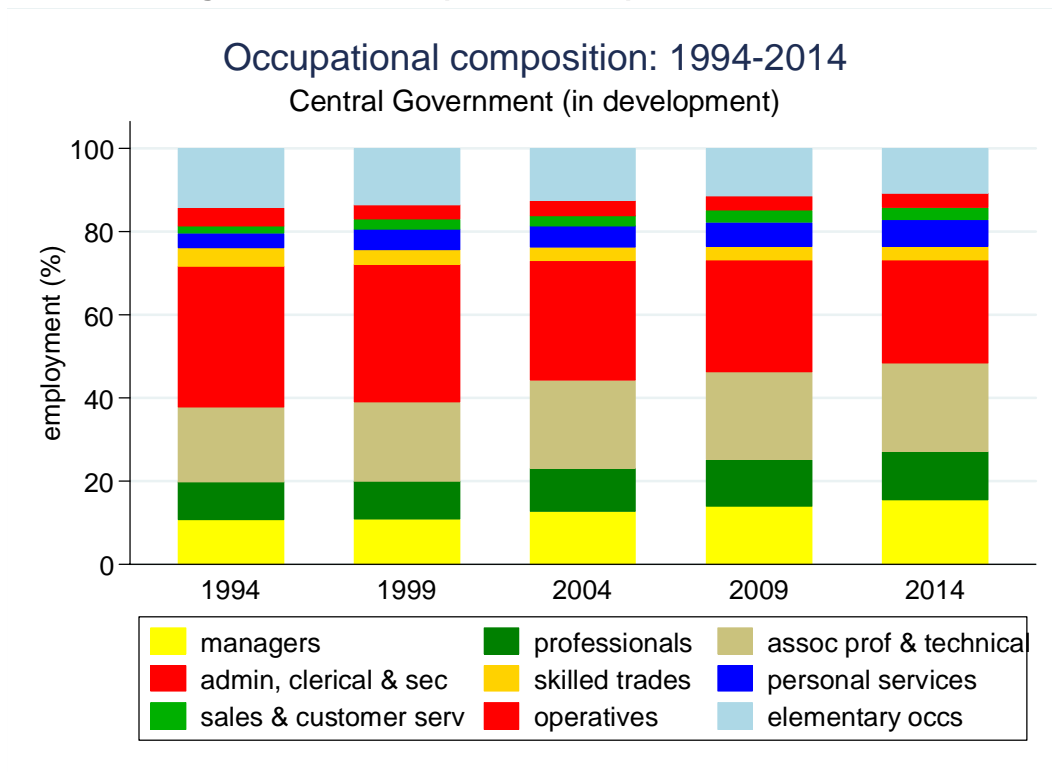


Figure 3.18.4: Employment levels by status and gender: 1994-2014

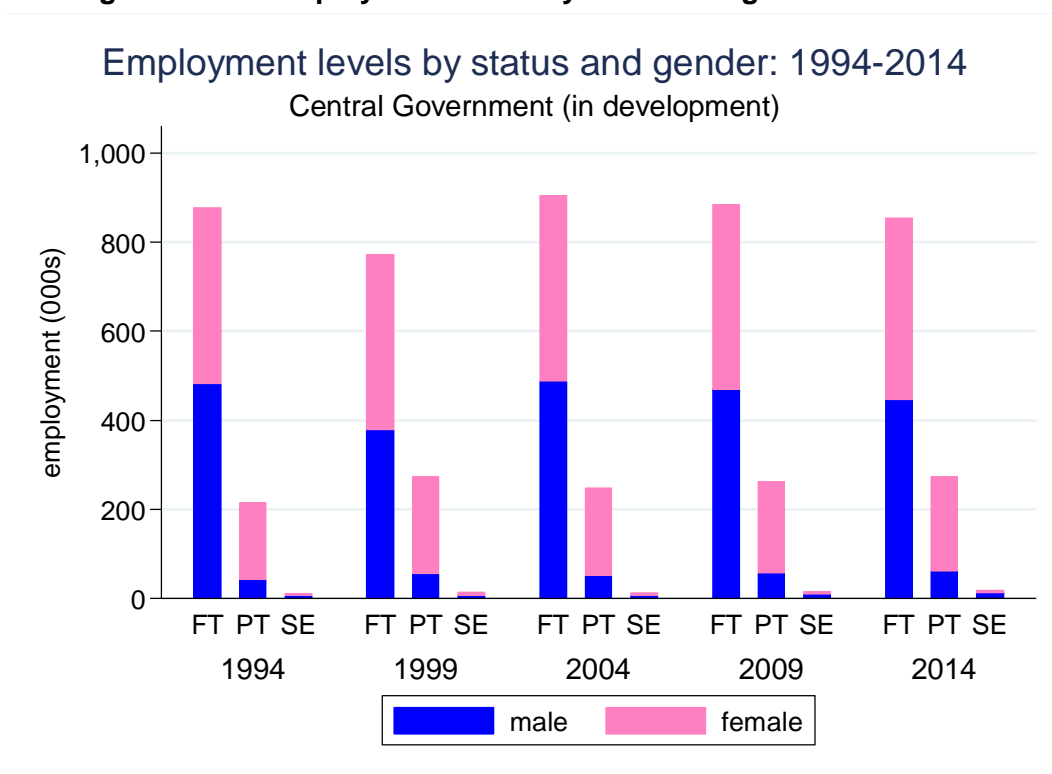


Figure 3.18.5: Employment shares by status and gender: 1994-2014

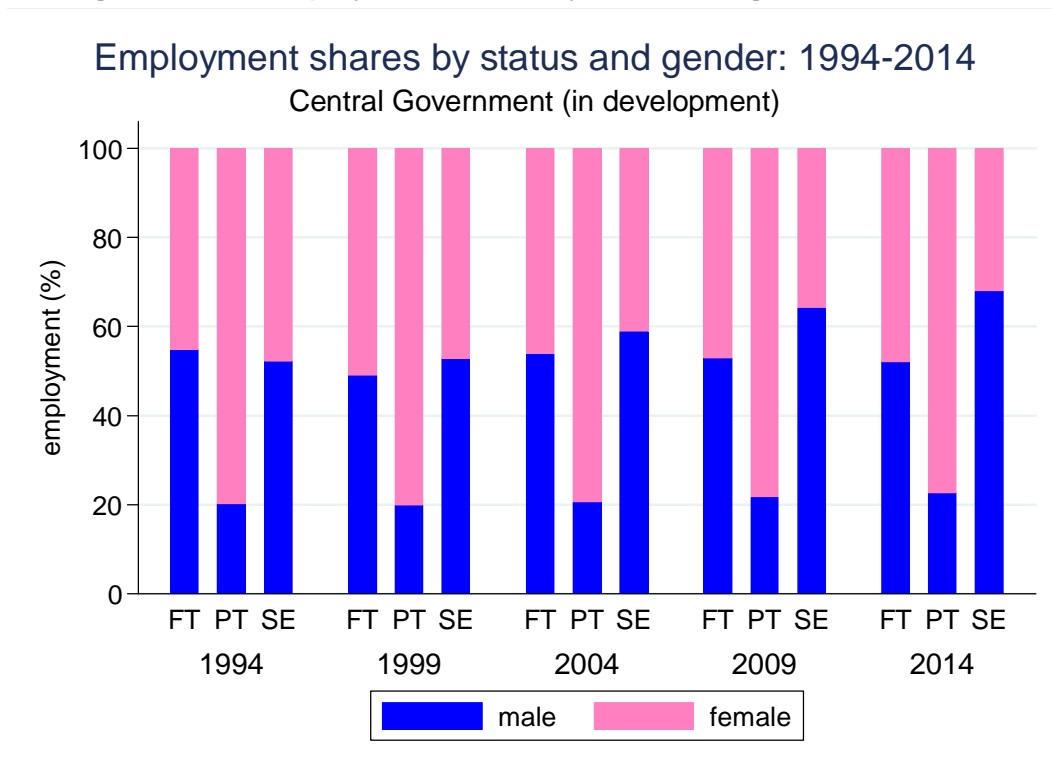


Figure 3.18.6: Employment changes by status and gender: 1984-2014

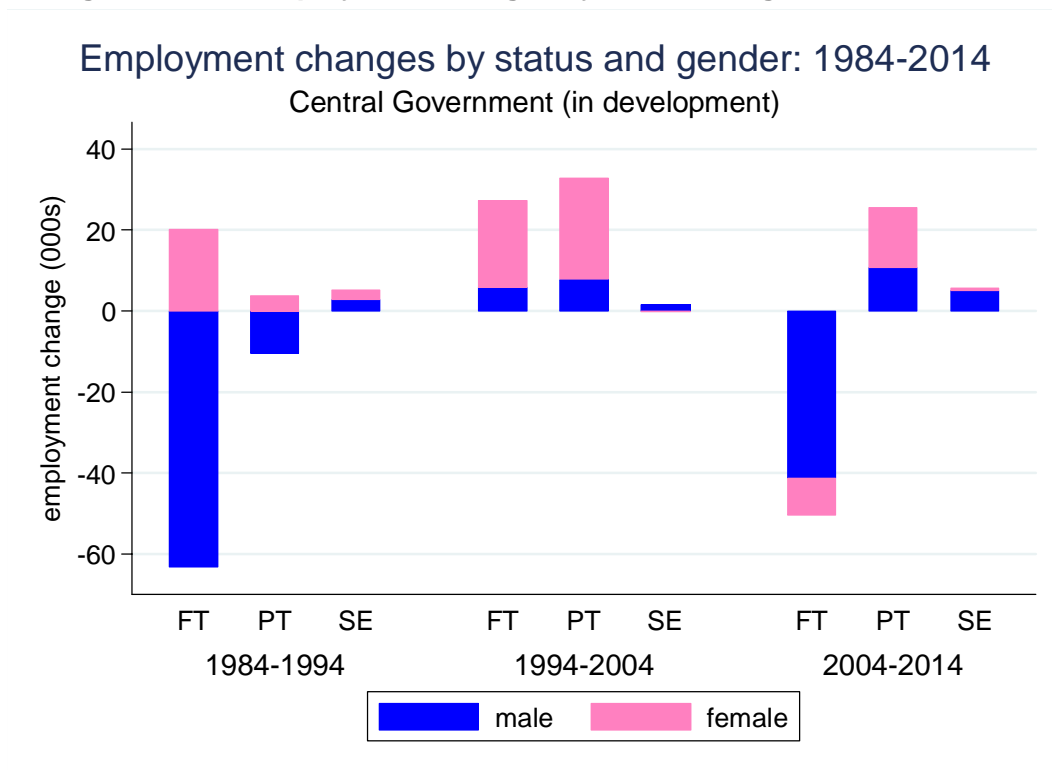
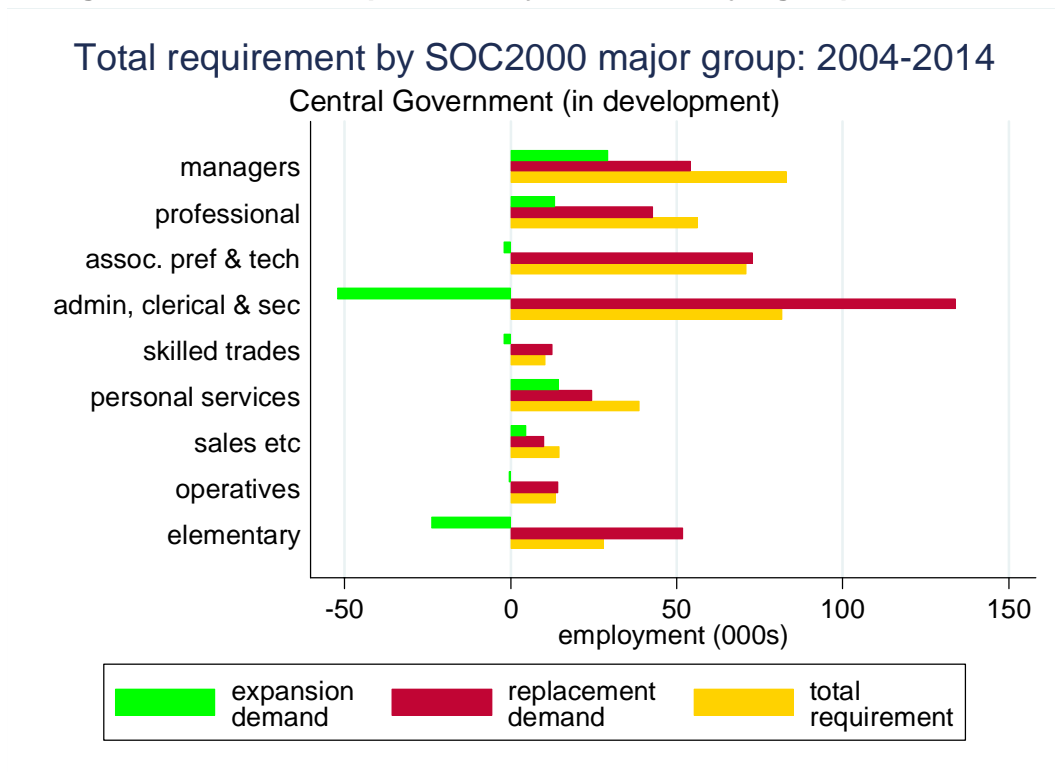


Figure 3.18.7: Total requirement by SOC2000 major group: 2004-2014



3.19 Skills for Justice

Web: www.skillsforjustice.com

Sector description:

Custodial care, community justice and police.

SIC codes: 75.23, 75.24

Sector coverage:

Custodial care, community justice and police.

Commentary:

Employment composition by gender and status

- Skills for Justice is one of the smaller SSCs as measured by its core business sector SIC footprint, covering around 370,000 workers in 2004.
- Skills for Justice has the highest proportion of workers employed full-time of all SSCs. In 2004, more than 90% of all workers were full-time.
- Self-employment is extremely rare in this sector – only 1% of all workers are classified as self-employed in 2004.

Occupational composition of employment

- Almost 25% of workers are in the Associated Professional & Technical Occupations and a further 22% are in Administrative, Clerical & Secretarial Occupations. These are 10 percentage points higher than the shares in the whole economy for these two occupational groups.

Expansion demand, replacement demand and total requirement 2004-2014

- Employment covered by the Skills for Justice SSC is forecast to decline very slightly over the next decade.
- The Administrative, Clerical & Secretarial Occupations group is forecast to decline over the next 10 years. In 1994 this group accounted for 27% of employment in this sector, while by 2014, it is projected to comprise less than 20% of total employment.
- However, replacement demands ensure that total requirements are positive in all occupational groups.

Table 3.19.1: Employment levels and shares by status and gender: 1994-2014

SSC: Skills for Justice									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
	FT	PT	SE	Total	FT	PT	SE	Total	
1994									
Female	108	21	0	129	30	6	0	36	
Male	220	4	3	227	62	1	1	64	
Total employment	328	25	4	356	92	7	1	100	
1999									
Female	108	27	0	135	34	8	0	43	
Male	173	5	4	181	55	1	1	57	
Total employment	280	31	5	317	89	10	1	100	
2004									
Female	114	24	0	138	31	6	0	37	
Male	222	4	4	231	60	1	1	63	
Total employment	336	28	4	369	91	8	1	100	
2009									
Female	113	25	0	139	31	7	0	38	
Male	214	5	6	225	59	1	2	62	
Total employment	328	30	6	363	90	8	2	100	
2014									
Female	112	26	0	138	32	7	0	39	
Male	203	5	7	216	58	2	2	61	
Total employment	315	31	7	353	89	9	2	100	

Table 3.19.2: Composition of employment by occupation: 1994-2014

SSC: Skills for Justice					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	44	40	53	57	61
2. Professional Occupations	39	34	43	45	46
3. Associate Professional & Tech.	72	69	88	88	85
4. Administrative, Clerical and Sec.	98	84	83	75	66
5. Skilled Trades Occupations	19	14	15	15	14
6. Personal Service Occupations	11	12	15	17	18
7. Sales & Customer Service Occs.	5	5	7	7	7
8. Machine & Transport Operatives	18	14	15	15	14
9. Elementary Occupations	50	43	50	46	42
Total employment	356	317	369	363	353
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	12	13	14	16	17
2. Professional Occupations	11	11	12	12	13
3. Associate Professional & Tech.	20	22	24	24	24
4. Administrative, Clerical and Sec.	27	27	22	21	19
5. Skilled Trades Occupations	5	5	4	4	4
6. Personal Service Occupations	3	4	4	5	5
7. Sales & Customer Service Occs.	1	2	2	2	2
8. Machine & Transport Operatives	5	4	4	4	4
9. Elementary Occupations	14	14	13	13	12
Total employment	100	100	100	100	100

Table 3.19.3: Replacement demand by occupation: 2004-2014

SSC: Skills for Justice				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	53	8	19	27
2. Professional Occupations	43	3	15	18
3. Associate Professional & Tech.	88	-3	25	22
4. Administrative, Clerical and Sec.	83	-17	32	15
5. Skilled Trades Occupations	15	-1	5	4
6. Personal Service Occupations	15	3	6	9
7. Sales & Customer Service Occs.	7	0	2	3
8. Machine & Transport Operatives	15	-1	5	4
9. Elementary Occupations	50	-8	16	9
Total employment	369	-16	125	109
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	14	15	35	50
2. Professional Occupations	12	7	34	42
3. Associate Professional & Tech.	24	-3	28	25
4. Administrative, Clerical and Sec.	22	-21	38	18
5. Skilled Trades Occupations	4	-9	33	24
6. Personal Service Occupations	4	17	39	56
7. Sales & Customer Service Occs.	2	7	33	40
8. Machine & Transport Operatives	4	-6	35	29
9. Elementary Occupations	13	-16	33	17
Total employment	100	-4	34	29

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.19.1: Employment by gender: 1984-2014

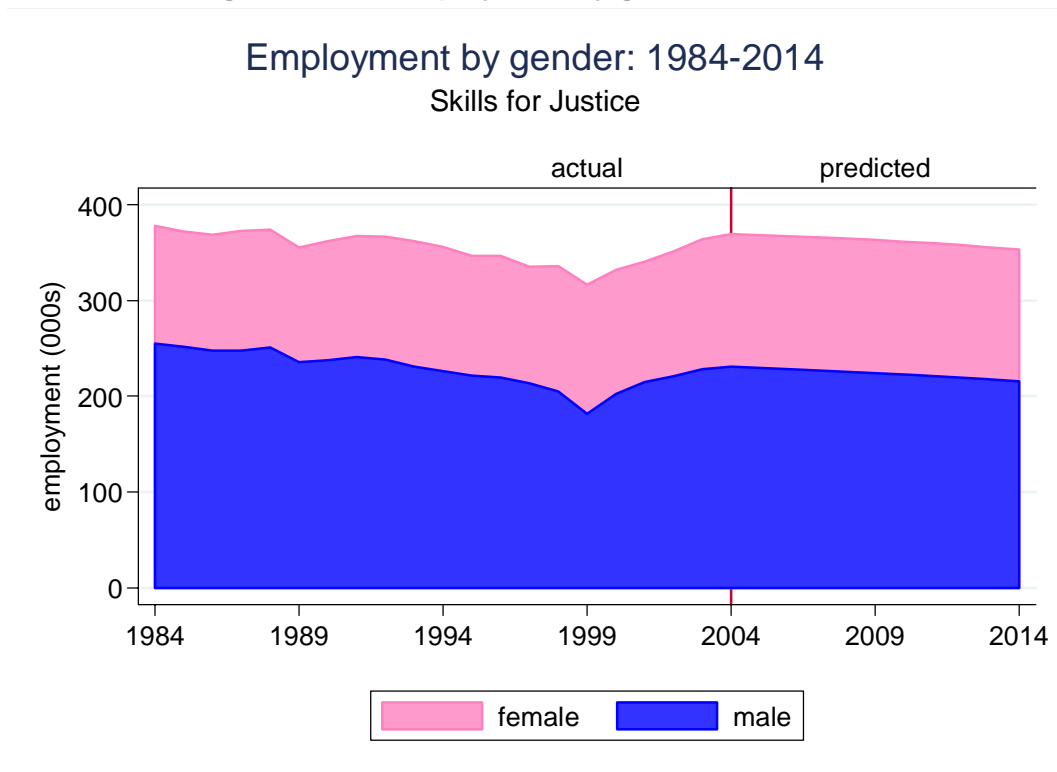


Figure 3.19.2: Employment by status: 1984-2014

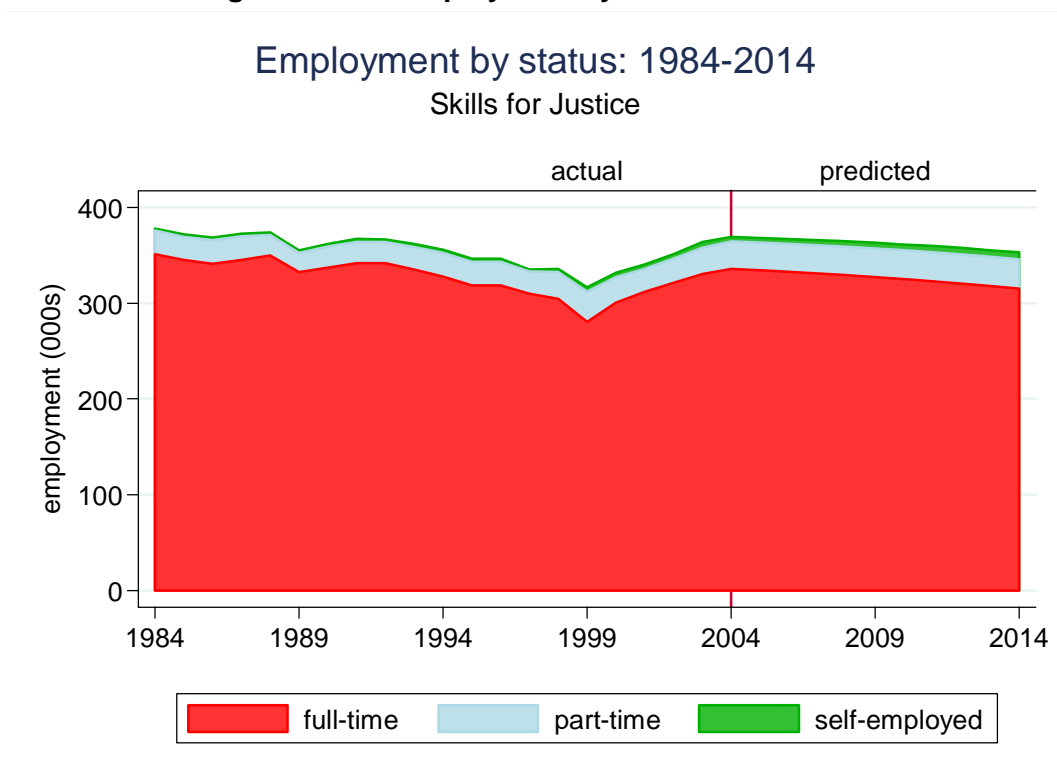


Figure 3.19.3: Occupational composition: 1994-2014

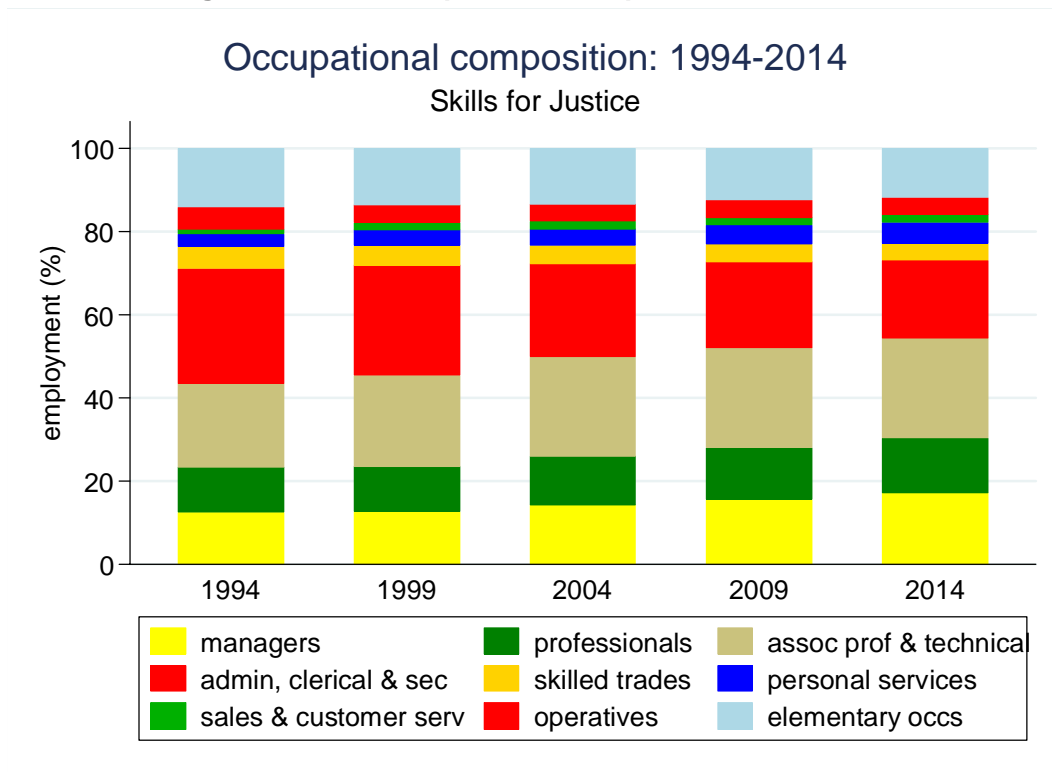


Figure 3.19.4: Employment levels by status and gender: 1994-2014

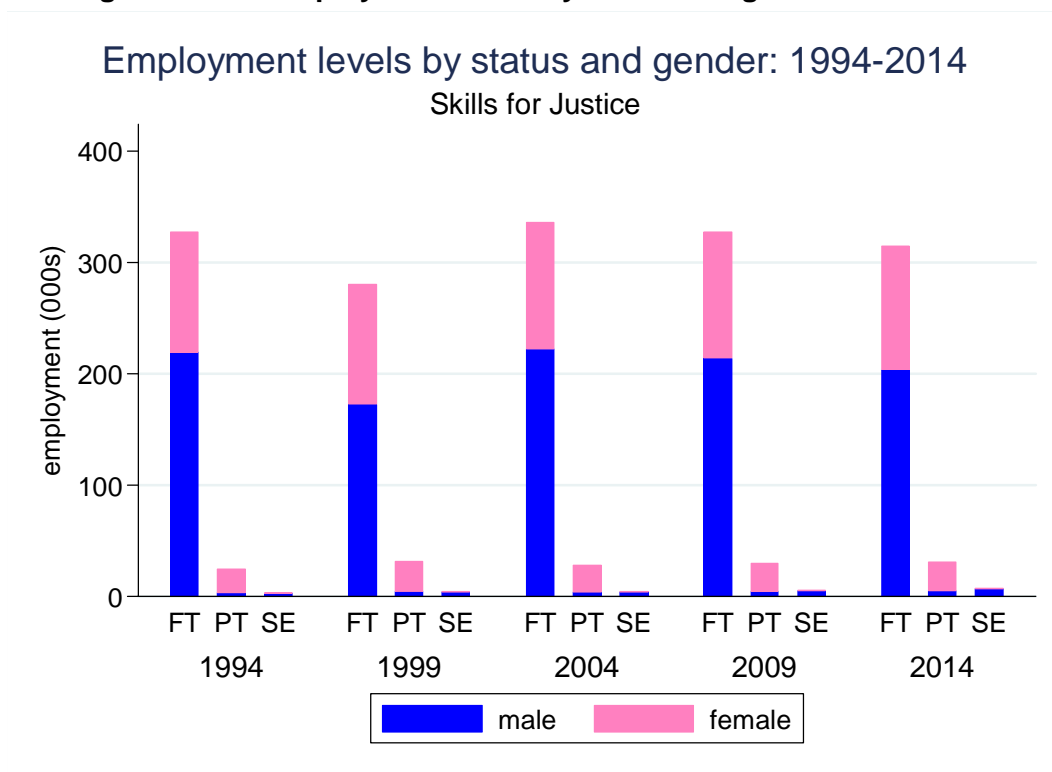


Figure 3.19.5: Employment shares by status and gender: 1994-2014

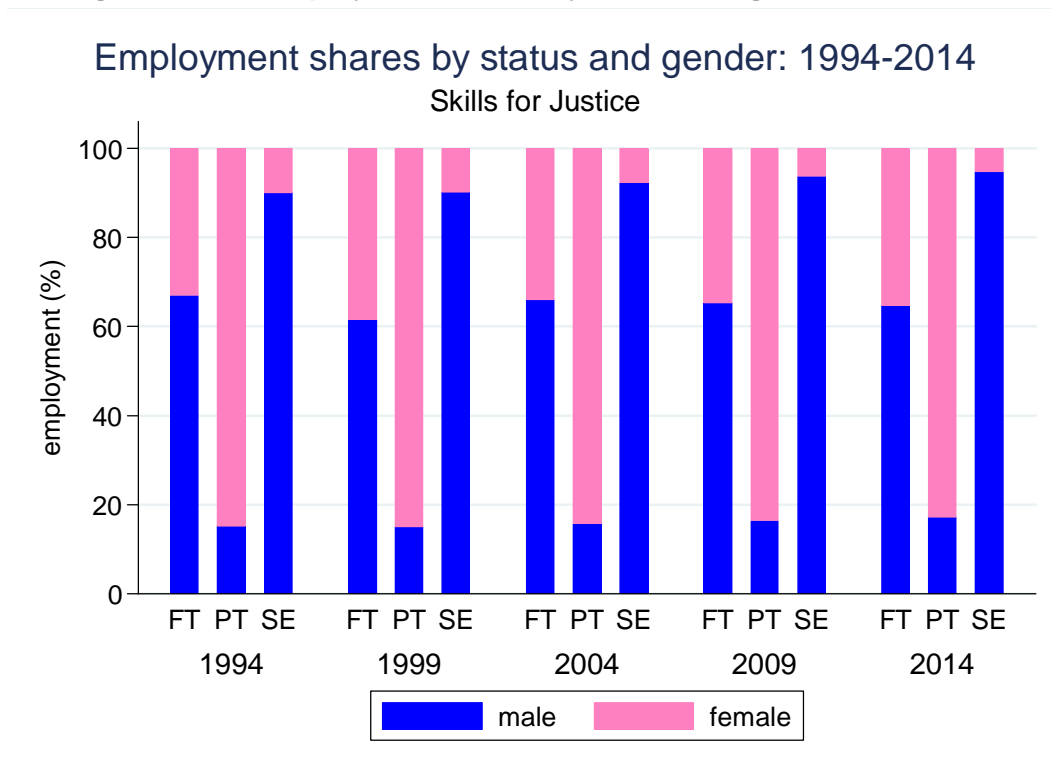


Figure 3.19.6: Employment changes by status and gender: 1984-2014

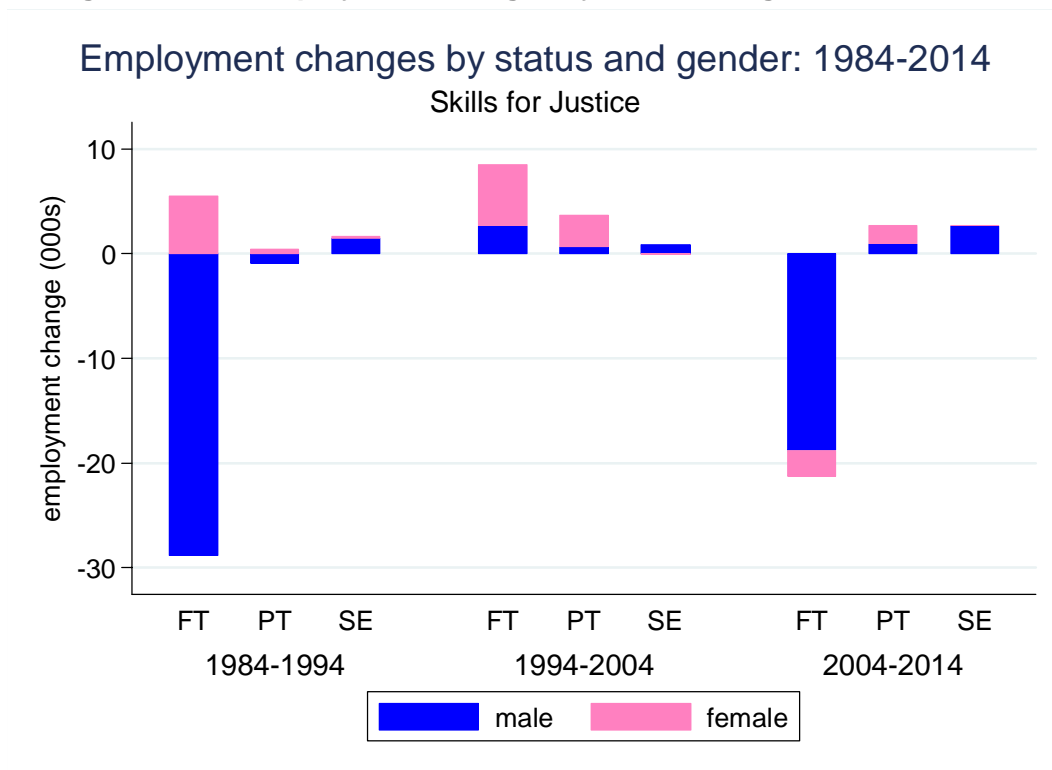
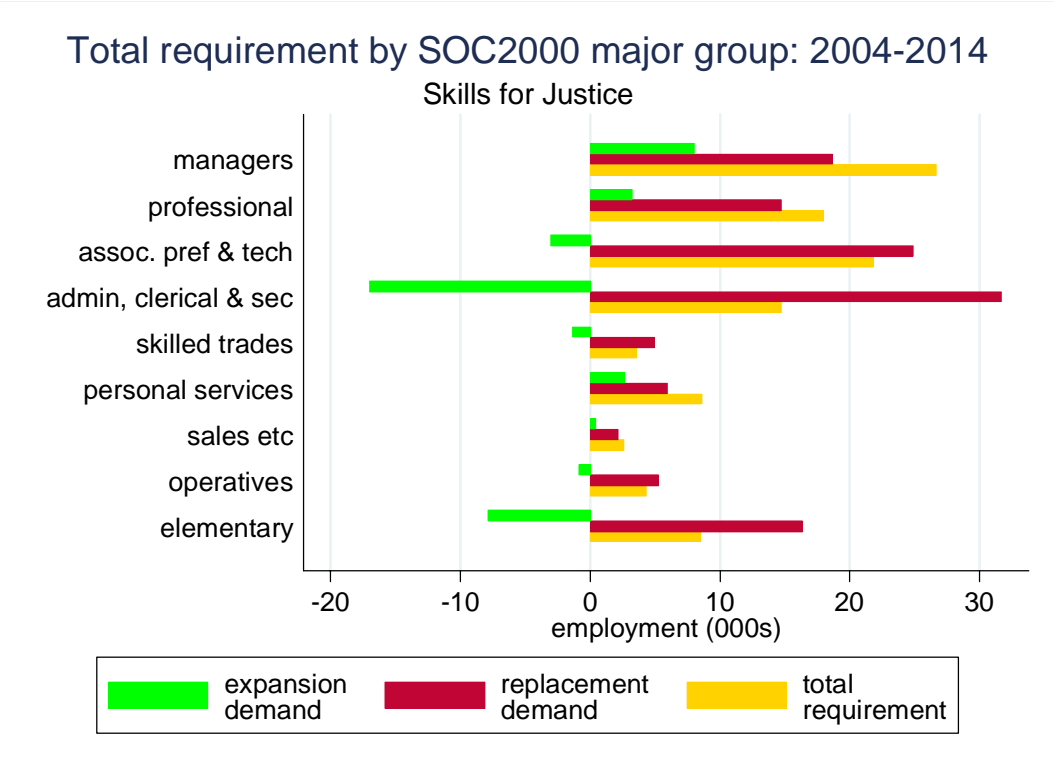


Figure 3.19.7: Total requirement by SOC2000 major group: 2004-2014



3.20 Lifelong Learning UK

Web: www.lifelonglearninguk.org

Sector description:

Community based learning and development, further education, higher education, library and information services, work-based learning.

SIC codes: 80.22, 80.3, 80.42, 92.51

Sector coverage:

Employers who deliver and/or support the delivery of lifelong learning, including community-based learning and development, further education, higher education, library and information services and work-based learning.

Commentary:

Employment composition by gender and status

- Lifelong Learning UK currently covers around 950,000 workers, and is forecast to exceed 1 million workers by 2014.
- A relatively high proportion of workers are employed part-time in this sector.

Occupational composition of employment

- Professional Occupations dominate employment in this sector, comprising more than 50% of total employment in 2004. This is five times the proportion in the whole economy for this occupational group.

Expansion demand, replacement demand and total requirement 2004-2014

- Lifelong Learning UK has a comparatively high replacement demand ratio of 40% of current employment for the next 10 years, which is the highest – together with Skills for Care and Development – of all the SSCs.
- This high replacement demand is driven by replacement demand equivalent to 42% of current employment levels in the Professional Occupations group which dominates overall employment in the sector.
- Almost 300,000 new recruits will be required in this occupational group in order to meet expected demand over the period to 2014.

Table 3.20.1: Employment levels and shares by status and gender: 1994-2014

SSC: Lifelong Learning UK									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	220	218	38	476	28	27	5	60	
Male	238	63	21	321	30	8	3	40	
Total employment	458	280	59	798	57	35	7	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	238	225	44	508	27	25	5	57	
Male	260	90	27	377	29	10	3	43	
Total employment	498	315	71	884	56	36	8	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	269	255	45	568	28	26	5	59	
Male	274	94	29	397	28	10	3	41	
Total employment	542	350	74	965	56	36	8	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	267	266	43	576	27	27	4	58	
Male	283	106	32	421	28	11	3	42	
Total employment	550	371	75	997	55	37	8	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	264	276	42	581	26	27	4	57	
Male	293	117	35	444	29	11	3	43	
Total employment	556	392	76	1,025	54	38	7	100	

Table 3.20.2: Composition of employment by occupation: 1994-2014

SSC: Lifelong Learning UK					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	38	45	55	60	65
2. Professional Occupations	402	460	508	545	579
3. Associate Professional & Tech.	102	119	134	138	142
4. Administrative, Clerical and Sec.	57	51	52	46	39
5. Skilled Trades Occupations	17	18	16	17	18
6. Personal Service Occupations	59	73	88	88	88
7. Sales & Customer Service Occs.	7	8	10	11	11
8. Machine & Transport Operatives	25	28	27	27	28
9. Elementary Occupations	91	83	76	65	56
Total employment	798	884	965	997	1,025
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	5	5	6	6	6
2. Professional Occupations	50	52	53	55	56
3. Associate Professional & Tech.	13	13	14	14	14
4. Administrative, Clerical and Sec.	7	6	5	5	4
5. Skilled Trades Occupations	2	2	2	2	2
6. Personal Service Occupations	7	8	9	9	9
7. Sales & Customer Service Occs.	1	1	1	1	1
8. Machine & Transport Operatives	3	3	3	3	3
9. Elementary Occupations	11	9	8	7	5
Total employment	100	100	100	100	100

Table 3.20.3: Replacement demand by occupation: 2004-2014

SSC: Lifelong Learning UK				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	55	10	21	31
2. Professional Occupations	508	71	213	284
3. Associate Professional & Tech.	134	8	46	54
4. Administrative, Clerical and Sec.	52	-13	21	8
5. Skilled Trades Occupations	16	1	6	7
6. Personal Service Occupations	88	0	35	35
7. Sales & Customer Service Occs.	10	0	4	4
8. Machine & Transport Operatives	27	1	10	11
9. Elementary Occupations	76	-20	31	11
Total employment	965	59	385	445
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	6	19	38	57
2. Professional Occupations	53	14	42	56
3. Associate Professional & Tech.	14	6	34	40
4. Administrative, Clerical and Sec.	5	-26	41	16
5. Skilled Trades Occupations	2	8	34	42
6. Personal Service Occupations	9	0	40	40
7. Sales & Customer Service Occs.	1	3	35	39
8. Machine & Transport Operatives	3	5	36	41
9. Elementary Occupations	8	-26	40	15
Total employment	100	6	40	46

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.20.1: Employment by gender: 1984-2014

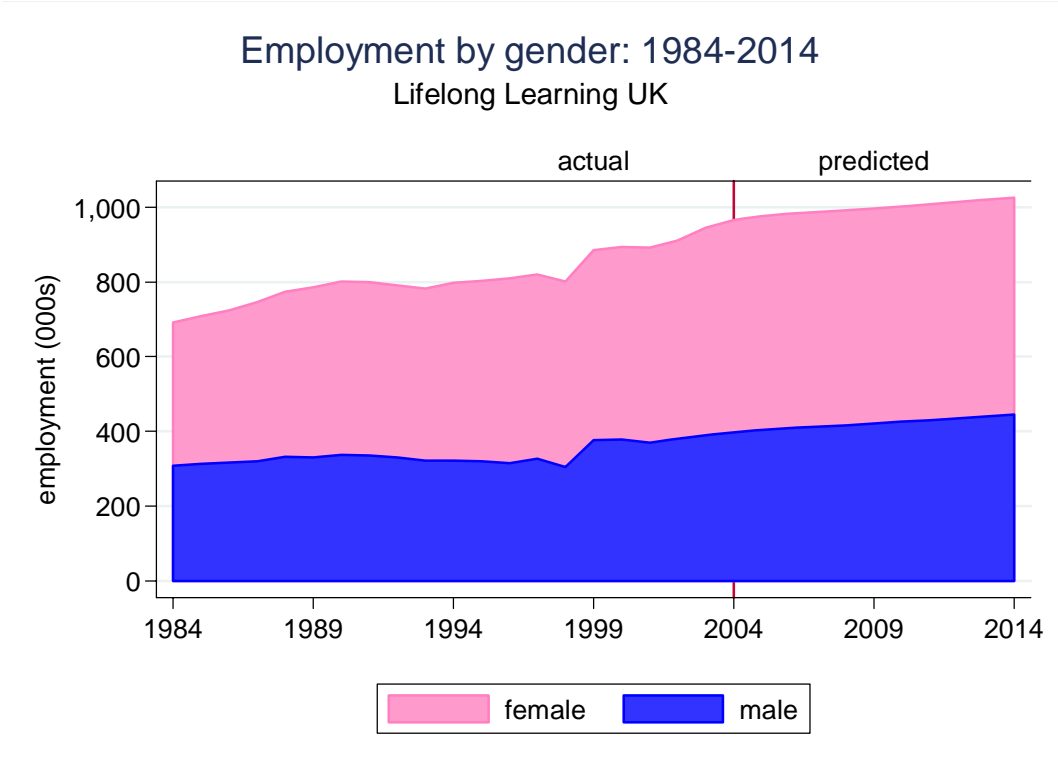


Figure 3.20.2: Employment by status: 1984-2014

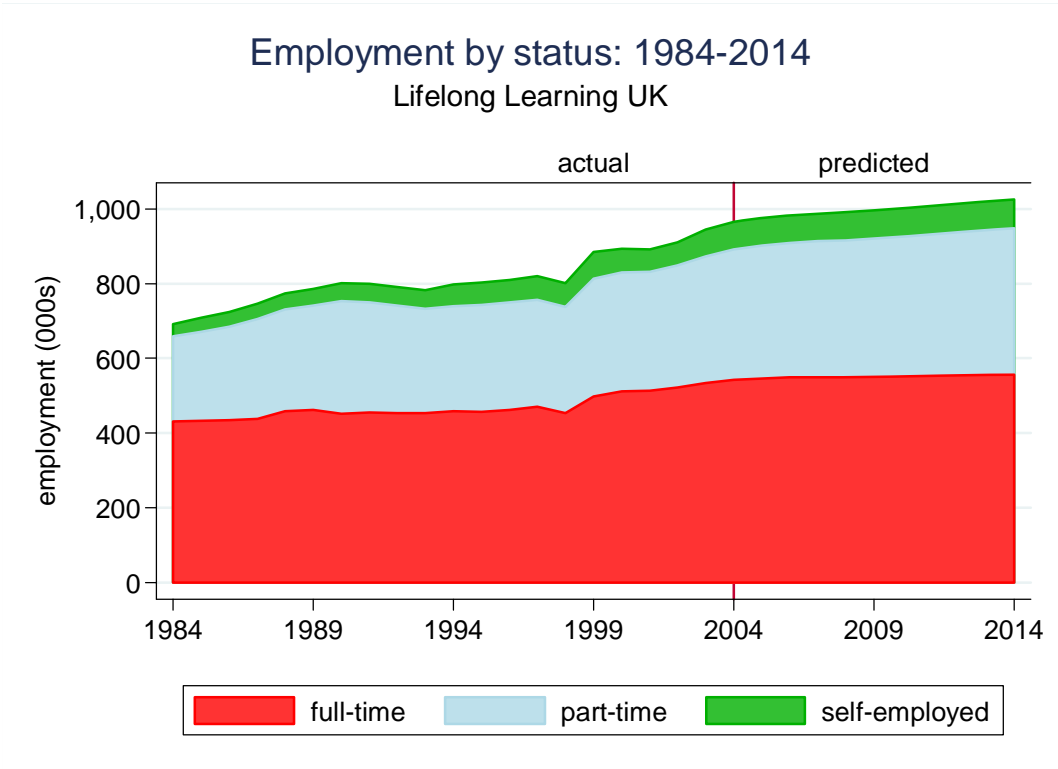


Figure 3.20.3: Occupational composition: 1994-2014

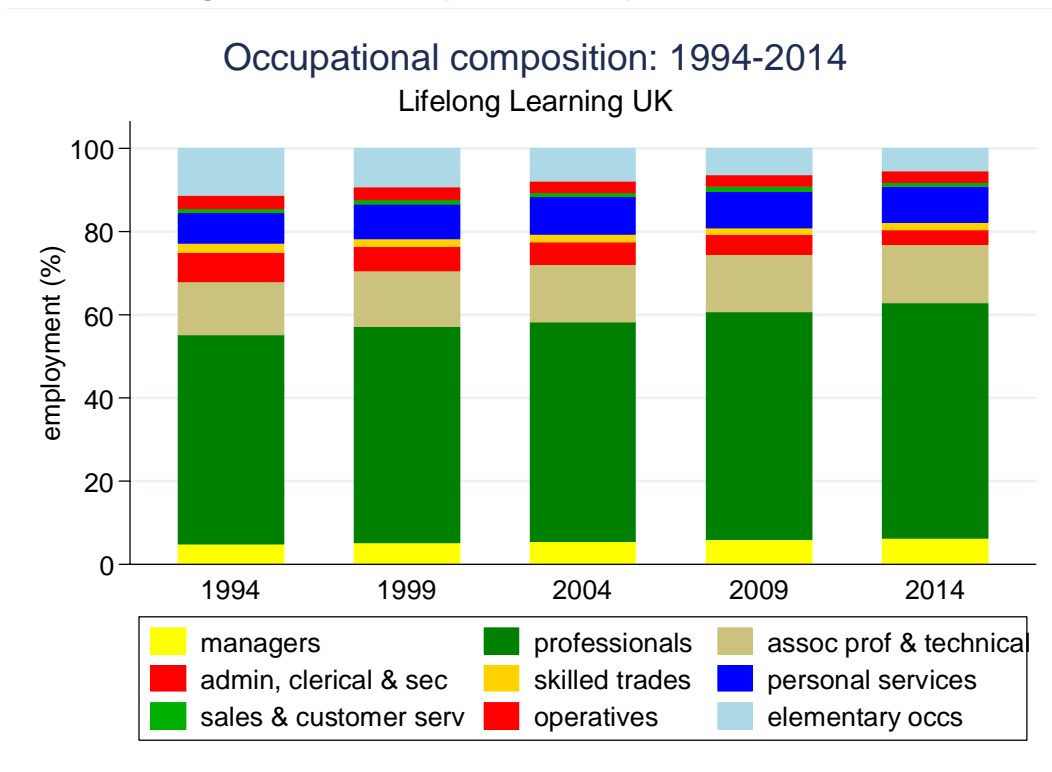


Figure 3.20.4: Employment levels by status and gender: 1994-2014

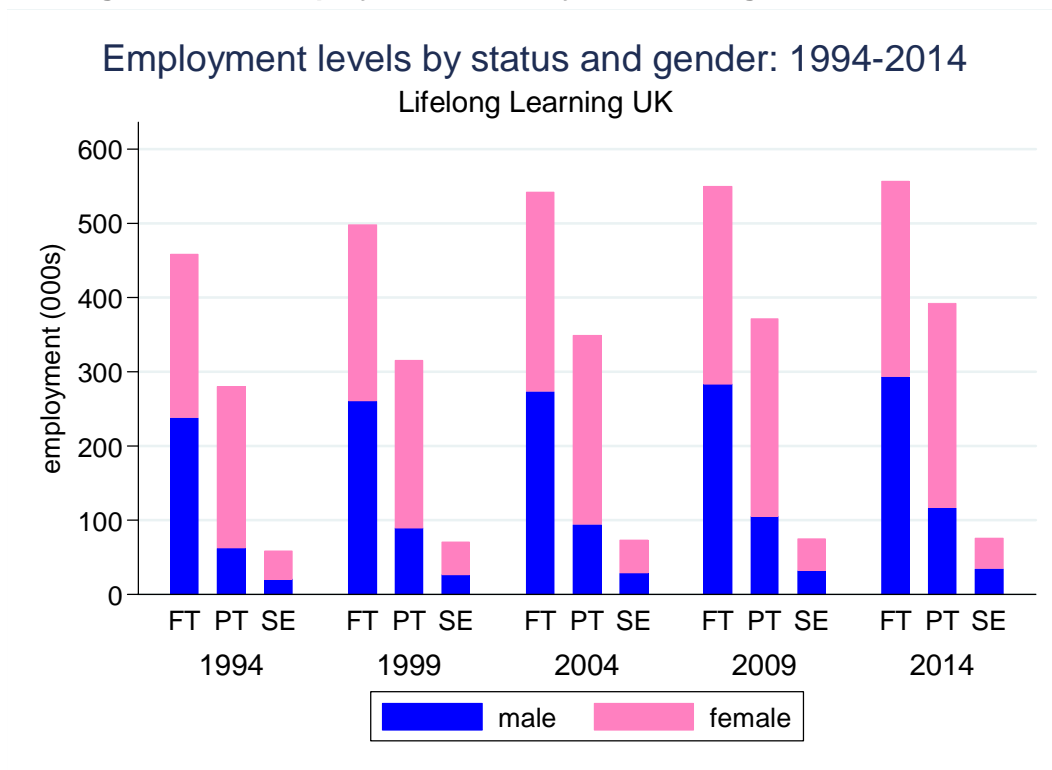


Figure 3.20.5: Employment shares by status and gender: 1994-2014

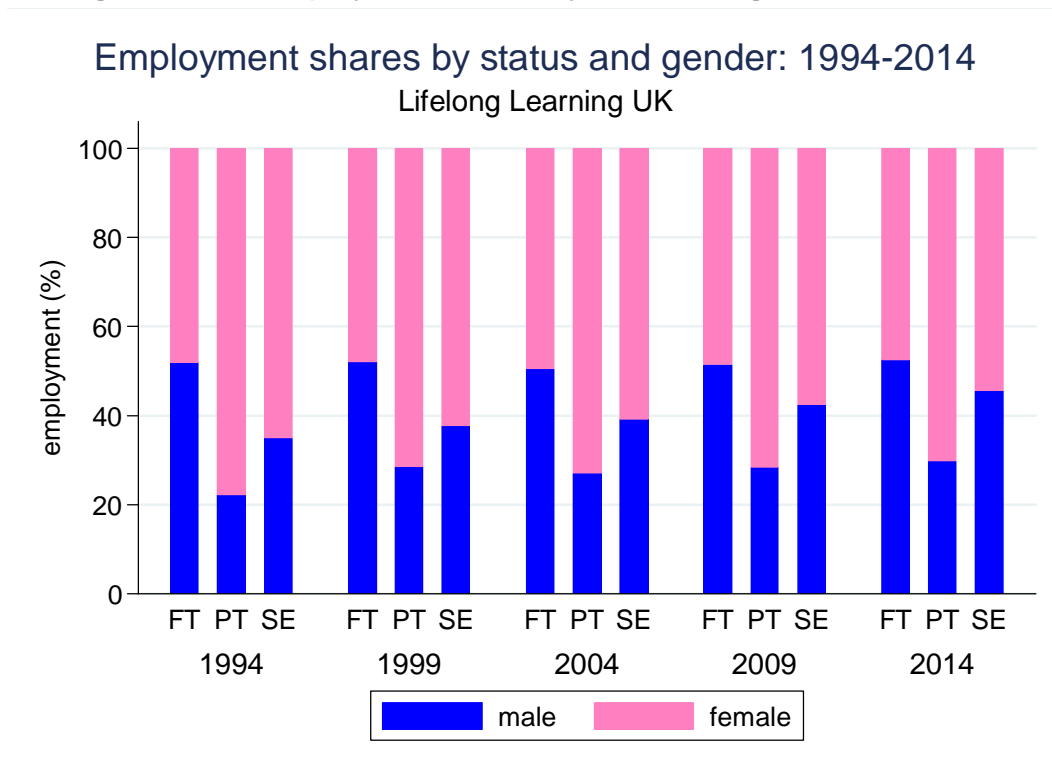


Figure 3.20.6: Employment changes by status and gender: 1984-2014

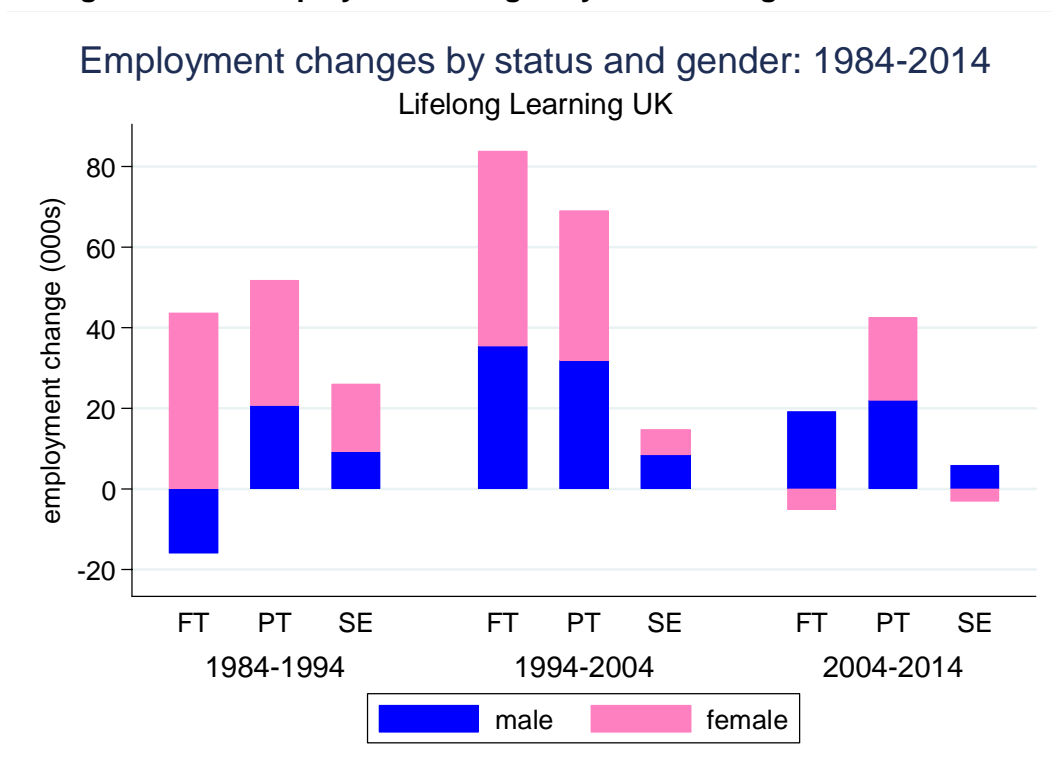
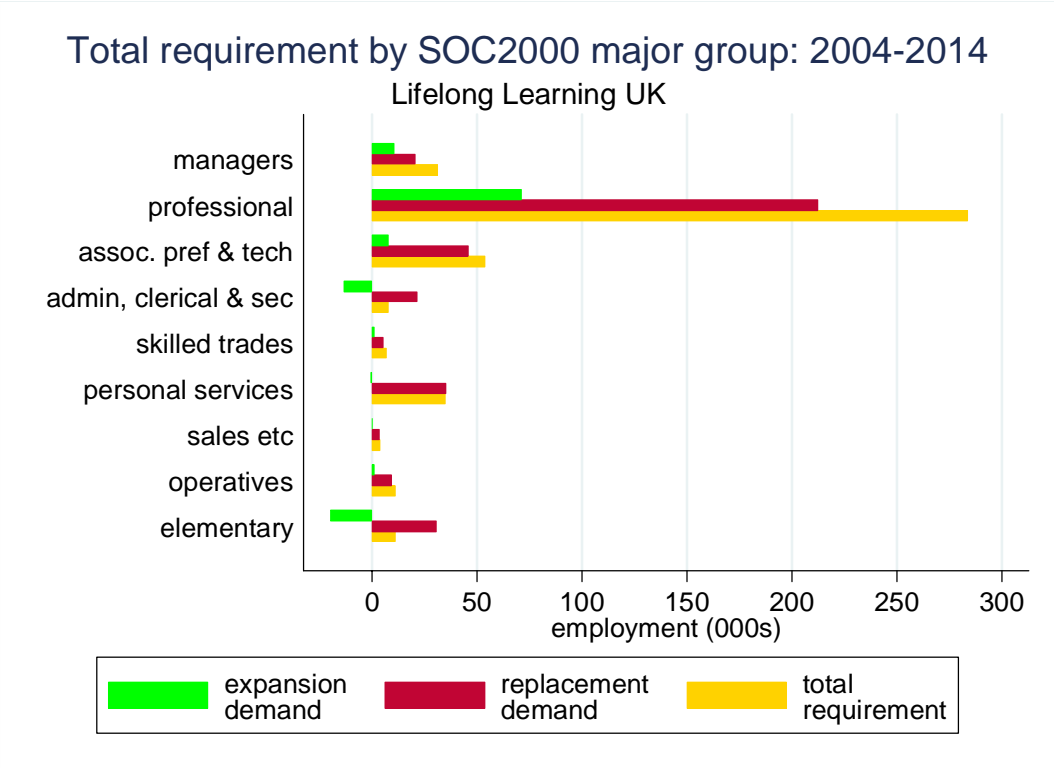


Figure 3.20.7: Total requirement by SOC2000 major group: 2004-2014



3.21 Skills for Health

Web: www.skillsforhealth.org.uk

Sector description:

All staff groups working in NHS, independent and voluntary health organisations.

SIC codes: 85.1

Sector coverage:

Skills for Health represents the four UK health departments, all key stakeholders within the health sector, and has close working relationships with similar bodies working in related sectors such as social care.

Commentary:

Employment composition by gender and status

- The Skills for Health SSC is one of the largest SSCs, and covers more than 2 million workers, or around 7% of total employment the UK. Employment growth is expected to be positive over the next 10 years, and employment is anticipated to expand by another 10% over the period 2004 to 2014, representing more than 200,000 extra jobs.
- Women dominate the Skills for Health workforce: 80% are female, which is second only to Skills for Care and Development.
- The high proportion of women in Skills for Health is reflected in the high proportion of part-time employment, with almost 45% of workers employed part-time, almost all of which are women.

Occupational composition of employment

- As would be expected, Associate Professional & Technical Occupations, and Personal Service Occupations dominate the employment structure of the Skills for Health SSC. This is similar to the Skills for Care and Development SSC.
- Together these two occupational groups comprise 56% of total employment in the sector in 2004.
- Almost 600,000 workers are classified in Associate Professional & Technical Occupations and almost 560,000 in Personal Service Occupations.

Expansion demand, replacement demand and total requirement 2004-2014

- Skills for Health has a comparatively high replacement demand ratio, and coupled with the forecast expansion in employment, these give this SSC a total recruitment requirement for the next 10 years of almost 50% of current employment.
- Total requirement is in excess of 60% of current employment levels for Managers & Senior Officials and in Professional Occupations, since these two occupational groups are forecast to grow strongly over the next decade in both levels and shares of total employment in the sector.
- In terms of the level of recruitment, total requirement for the sector is forecast to be in excess of 1 million new workers over the period to 2014.

Table 3.21.1: Employment levels and shares by status and gender: 1994-2014

SSC: Skills for Health									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
	FT	PT	SE	Total	FT	PT	SE	Total	
1994									
Female	572	796	59	1,426	33	46	3	82	
Male	188	52	66	307	11	3	4	18	
Total employment	760	848	125	1,733	44	49	7	100	
1999									
Female	655	715	68	1,437	36	39	4	79	
Male	230	77	70	377	13	4	4	21	
Total employment	885	791	138	1,814	49	44	8	100	
2004									
Female	745	801	72	1,618	36	39	4	79	
Male	268	90	70	428	13	4	3	21	
Total employment	1,013	891	142	2,047	50	44	7	100	
2009									
Female	777	848	72	1,697	36	39	3	78	
Male	289	110	69	468	13	5	3	22	
Total employment	1,066	958	141	2,165	49	44	7	100	
2014									
Female	794	882	70	1,747	35	39	3	78	
Male	306	130	67	503	14	6	3	22	
Total employment	1,101	1,012	137	2,250	49	45	6	100	

Table 3.21.2: Composition of employment by occupation: 1994-2014

SSC: Skills for Health					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	177	200	241	280	304
2. Professional Occupations	198	231	272	309	341
3. Associate Professional & Tech.	486	526	587	619	626
4. Administrative, Clerical and Sec.	219	174	173	162	142
5. Skilled Trades Occupations	37	40	39	42	43
6. Personal Service Occupations	376	449	557	595	658
7. Sales & Customer Service Occs.	26	26	32	35	35
8. Machine & Transport Operatives	37	36	35	36	35
9. Elementary Occupations	177	134	111	88	67
Total employment	1,733	1,814	2,047	2,165	2,250
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	10	11	12	13	14
2. Professional Occupations	11	13	13	14	15
3. Associate Professional & Tech.	28	29	29	29	28
4. Administrative, Clerical and Sec.	13	10	8	8	6
5. Skilled Trades Occupations	2	2	2	2	2
6. Personal Service Occupations	22	25	27	27	29
7. Sales & Customer Service Occs.	1	1	2	2	2
8. Machine & Transport Operatives	2	2	2	2	2
9. Elementary Occupations	10	7	5	4	3
Total employment	100	100	100	100	100

Table 3.21.3: Replacement demand by occupation: 2004-2014

SSC: Skills for Health				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004	changes 2004-2014		
	levels	ED	RD	TR
1. Managers & Senior Officials	241	63	95	158
2. Professional Occupations	272	68	101	170
3. Associate Professional & Tech.	587	39	227	266
4. Administrative, Clerical and Sec.	173	-31	73	42
5. Skilled Trades Occupations	39	4	14	18
6. Personal Service Occupations	557	102	224	326
7. Sales & Customer Service Occs.	32	3	12	15
8. Machine & Transport Operatives	35	-1	13	13
9. Elementary Occupations	111	-44	45	1
Total employment	2,047	203	805	1,008
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004	changes 2004-2014		
	shares	ED	RD	TR
1. Managers & Senior Officials	12	26	39	66
2. Professional Occupations	13	25	37	62
3. Associate Professional & Tech.	29	7	39	45
4. Administrative, Clerical and Sec.	8	-18	42	24
5. Skilled Trades Occupations	2	9	37	46
6. Personal Service Occupations	27	18	40	59
7. Sales & Customer Service Occs.	2	10	37	48
8. Machine & Transport Operatives	2	-2	37	36
9. Elementary Occupations	5	-40	41	1
Total employment	100	10	39	49

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.21.1: Employment by gender: 1984-2014

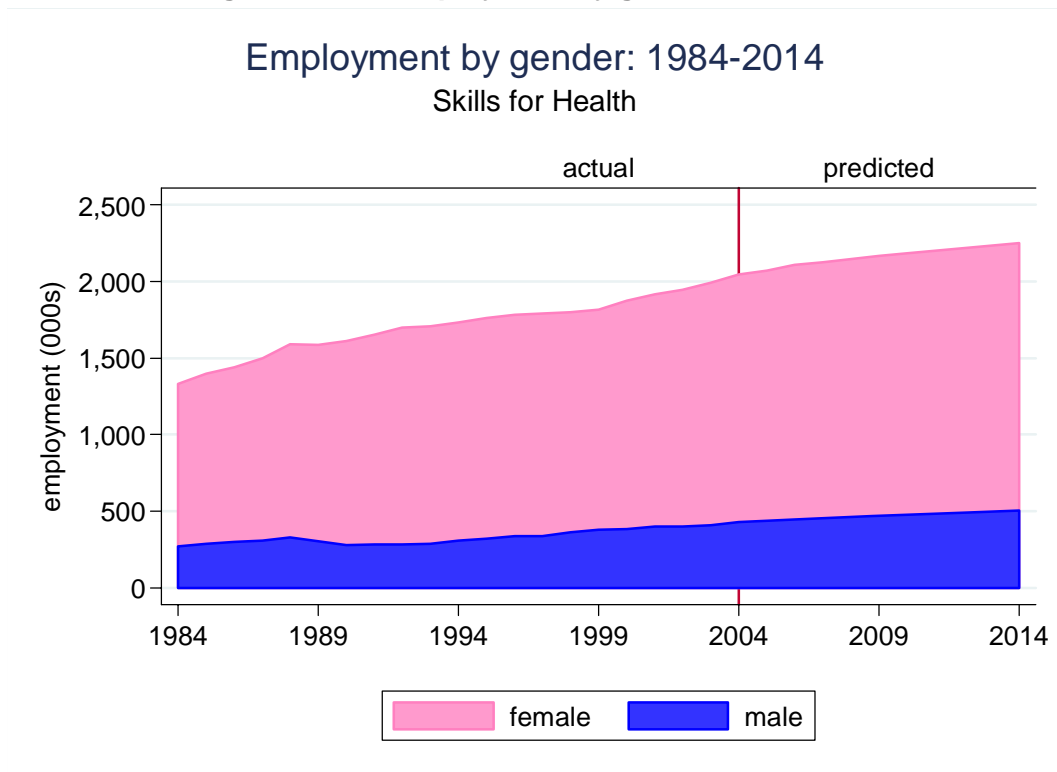


Figure 3.21.2: Employment by status: 1984-2014

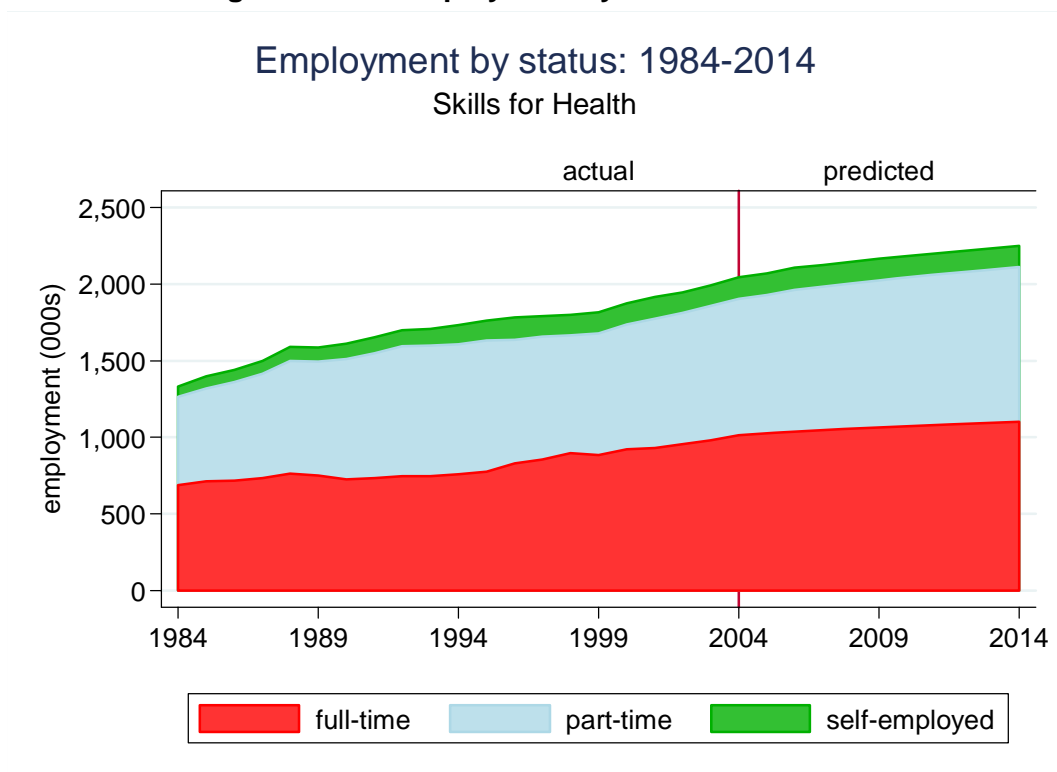


Figure 3.21.3: Occupational composition: 1994-2014

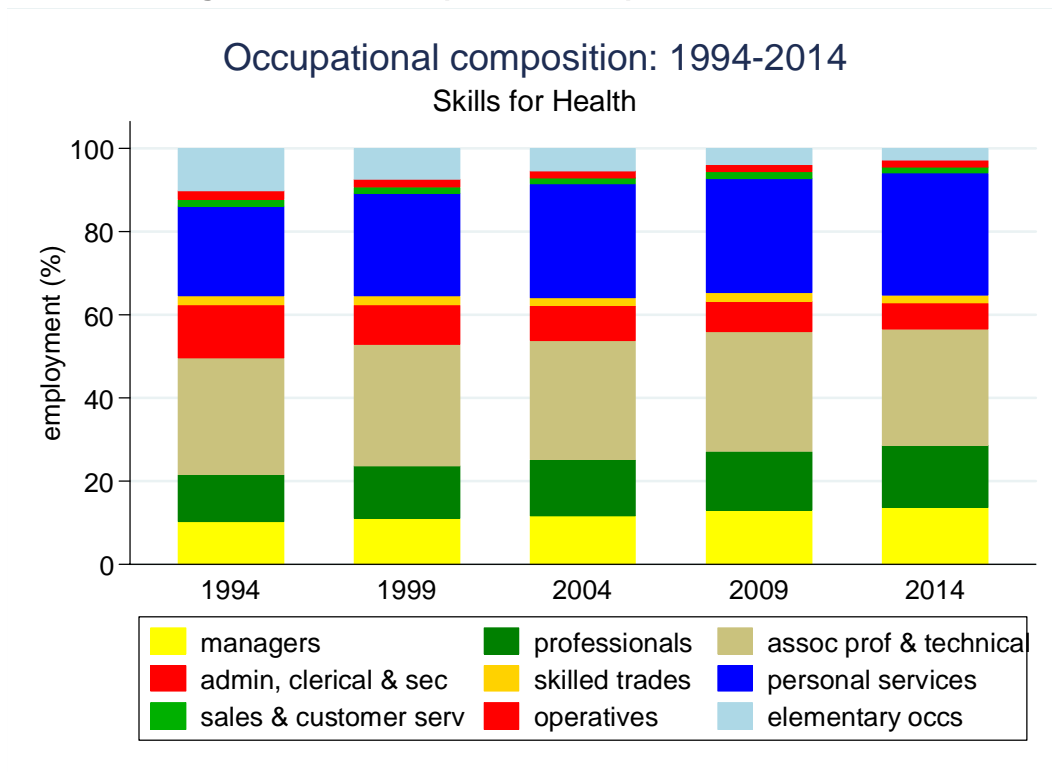


Figure 3.21.4: Employment levels by status and gender: 1994-2014

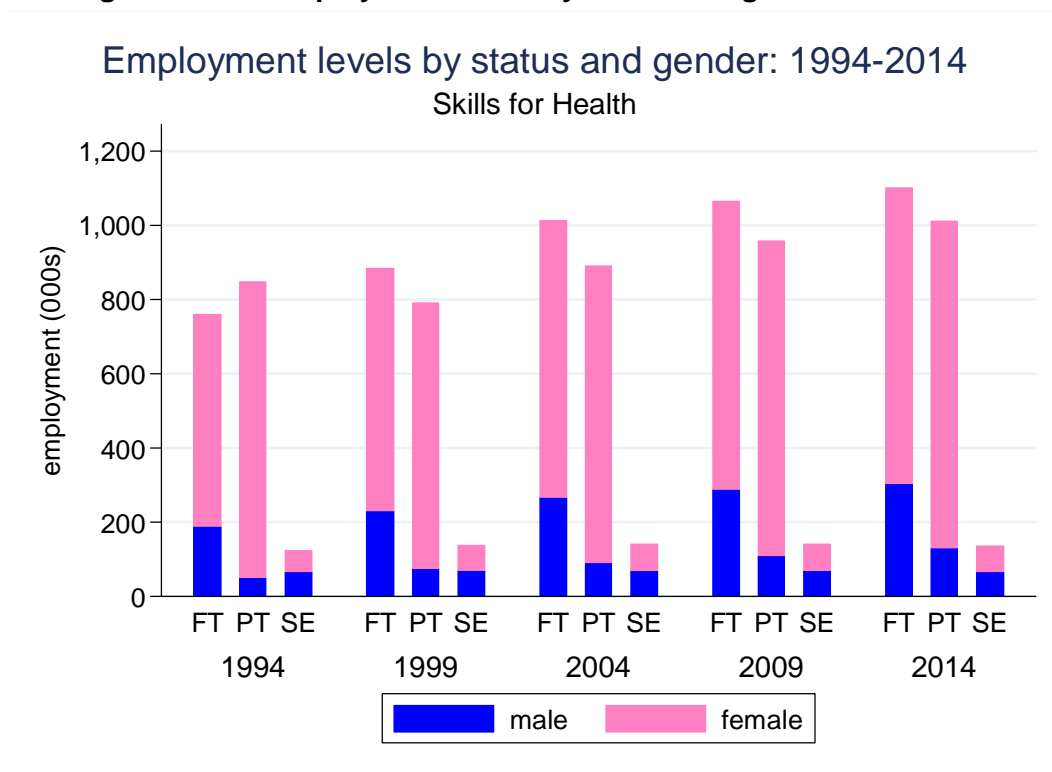


Figure 3.21.5: Employment shares by status and gender: 1994-2014

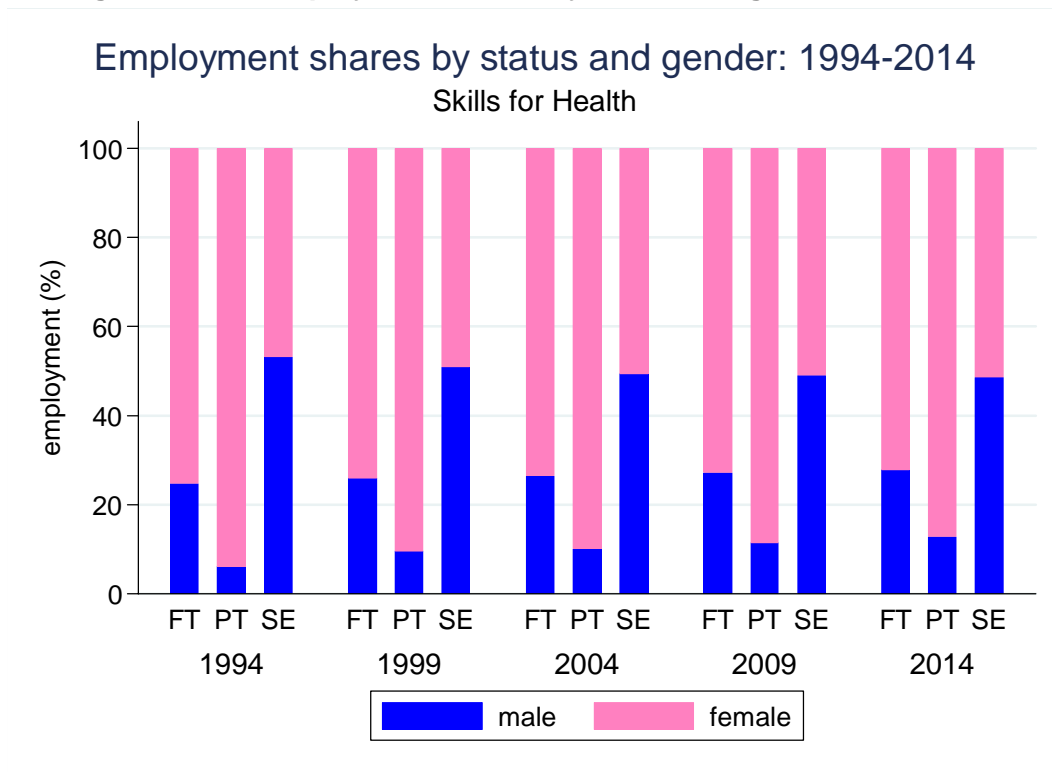


Figure 3.21.6: Employment changes by status and gender: 1984-2014

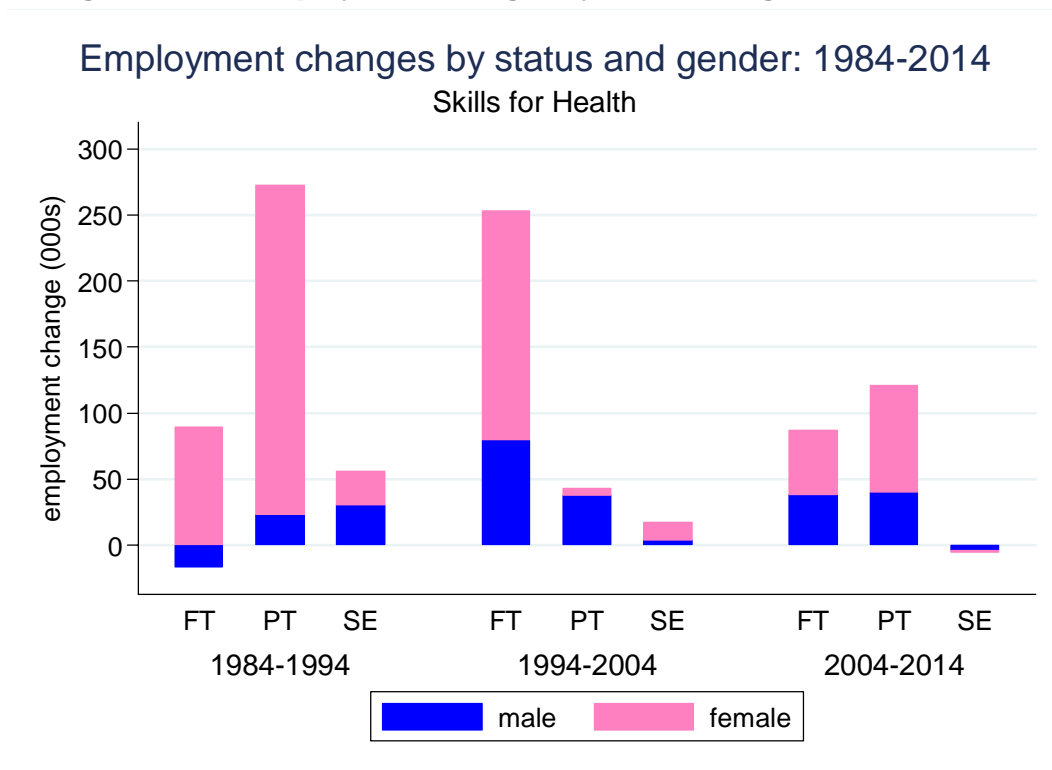
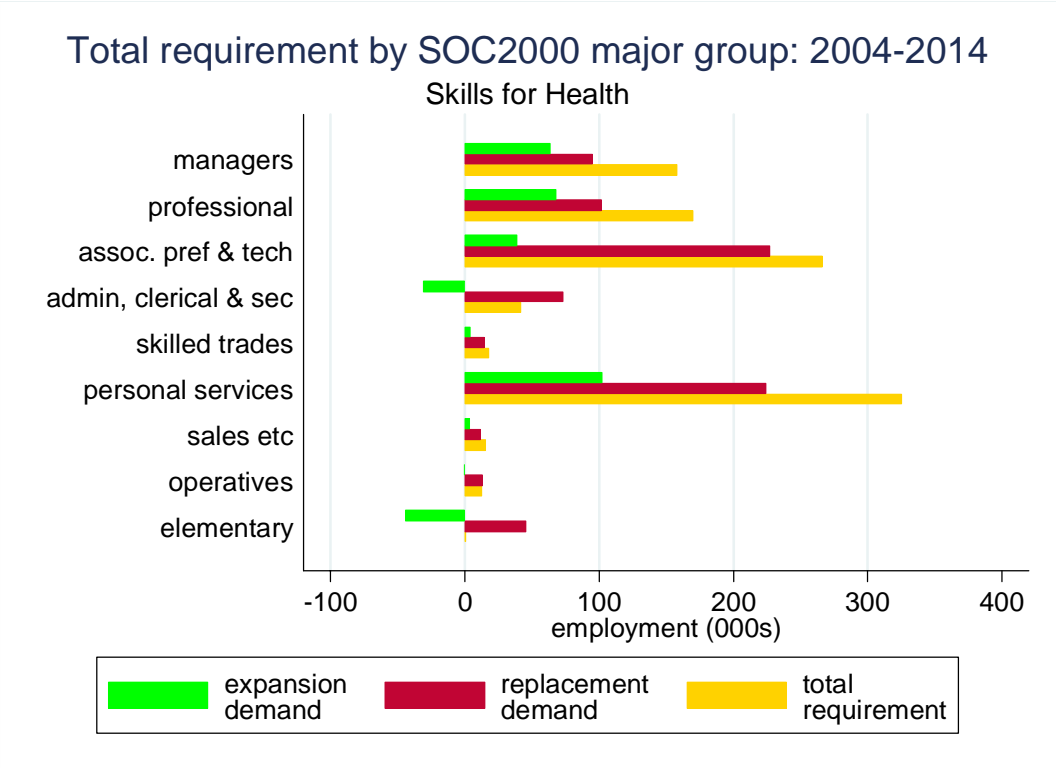


Figure 3.21.7: Total requirement by SOC2000 major group: 2004-2014



3.22 Skills for Care and Development

Web:

Sector description:

Social care including children, families and young children.

SIC codes: 85.3

Sector coverage:

Social care policy is fully devolved to each of the four countries. The scope of the sector is defined by legislation in each of the countries, with some differences for the devolved administrations. It is anticipated that differences in the sector footprints will continue as services evolve to meet specific needs and changing legislative frameworks in individual countries.

The current scope of the sector is: children's homes; care homes; domiciliary care and support agencies; day centres and services; social work; fostering agencies and services, and foster carers; nurse agencies; adoption services; personal assistants employed by or on behalf of direct payments. Additionally, some additional workforces included in some, but not all, of the statutory remits of the country organisations concerned with: early years; secure and offender accommodation; child day care; education welfare; child minding; community justice; supported housing.

Commentary:

Employment composition by gender and status

- Skills for Care and Development has a higher proportion of women in the workforce than any other SSC: in 2004, 86% of all those working in the sector are female.
- This is also reflected in the fact that 46% of workers are currently employed part-time.
- The composition of employment in this sector is projected to remain fairly constant over the next decade.

Occupational composition of employment

- As would be expected, Associate Professional & Technical Occupations, and Personal Service Occupations dominate the employment structure of the Skills for Care and Development SSC. This is similar to the Skills for Health SSC.
- Together these two occupational groups comprise 57% of total employment in the sector in 2004.

Expansion demand, replacement demand and total requirement 2004-2014

- Skills for Care and Development has the highest replacement demand ratio at 40% of current employment over the next 10 years of all the SSCs, matched only by Lifelong Learning UK.
- Employment in this sector is forecast to grow by almost 10% over the next decade.
- The high replacement demand ratio together with the forecast expansion in employment together give this SSC a total recruitment requirement for the next 10 years of almost 50% of current employment levels.
- Amongst Managers & Senior Officials, Professionals and Personal Service Occupations, total requirements are in excess of 60% of current employment levels.

Table 3.22.1: Employment levels and shares by status and gender: 1994-2014

SSC: Skills for Care and Development									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
	FT	PT	SE	Total	FT	PT	SE	Total	
1994									
Female	282	504	88	873	29	51	9	89	
Male	68	26	15	109	7	3	2	11	
Total employment	349	530	102	982	36	54	10	100	
1999									
Female	322	452	101	876	32	45	10	86	
Male	83	38	16	137	8	4	2	14	
Total employment	406	491	117	1,013	40	48	12	100	
2004									
Female	367	507	108	982	32	44	9	86	
Male	97	45	16	157	8	4	1	14	
Total employment	464	552	124	1,140	41	48	11	100	
2009									
Female	383	537	108	1,027	32	45	9	85	
Male	104	55	15	175	9	5	1	15	
Total employment	487	592	123	1,202	40	49	10	100	
2014									
Female	391	558	106	1,055	31	45	8	85	
Male	110	65	15	190	9	5	1	15	
Total employment	502	623	120	1,246	40	50	10	100	

Table 3.22.2: Composition of employment by occupation: 1994-2014

SSC: Skills for Care and Development					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	103	112	131	149	159
2. Professional Occupations	101	120	142	162	179
3. Associate Professional & Tech.	270	288	318	334	337
4. Administrative, Clerical and Sec.	128	101	101	95	82
5. Skilled Trades Occupations	17	18	17	18	18
6. Personal Service Occupations	225	266	329	355	397
7. Sales & Customer Service Occs.	15	15	19	21	20
8. Machine & Transport Operatives	18	17	16	17	16
9. Elementary Occupations	104	77	65	52	37
Total employment	982	1,013	1,140	1,202	1,246
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	10	11	12	12	13
2. Professional Occupations	10	12	12	13	14
3. Associate Professional & Tech.	27	28	28	28	27
4. Administrative, Clerical and Sec.	13	10	9	8	7
5. Skilled Trades Occupations	2	2	2	2	1
6. Personal Service Occupations	23	26	29	30	32
7. Sales & Customer Service Occs.	2	2	2	2	2
8. Machine & Transport Operatives	2	2	1	1	1
9. Elementary Occupations	11	8	6	4	3
Total employment	100	100	100	100	100

Table 3.22.3: Replacement demand by occupation: 2004-2014

SSC: Skills for Care and Development				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	131	28	53	81
2. Professional Occupations	142	37	54	91
3. Associate Professional & Tech.	318	18	125	144
4. Administrative, Clerical and Sec.	101	-20	43	24
5. Skilled Trades Occupations	17	1	7	8
6. Personal Service Occupations	329	68	134	201
7. Sales & Customer Service Occs.	19	2	7	9
8. Machine & Transport Operatives	16	-1	6	6
9. Elementary Occupations	65	-28	27	-1
Total employment	1,140	106	456	562
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	12	21	40	62
2. Professional Occupations	12	26	38	64
3. Associate Professional & Tech.	28	6	39	45
4. Administrative, Clerical and Sec.	9	-19	43	23
5. Skilled Trades Occupations	2	7	39	46
6. Personal Service Occupations	29	21	41	61
7. Sales & Customer Service Occs.	2	8	38	47
8. Machine & Transport Operatives	1	-3	38	35
9. Elementary Occupations	6	-43	42	-1
Total employment	100	9	40	49

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.22.1: Employment by gender: 1984-2014

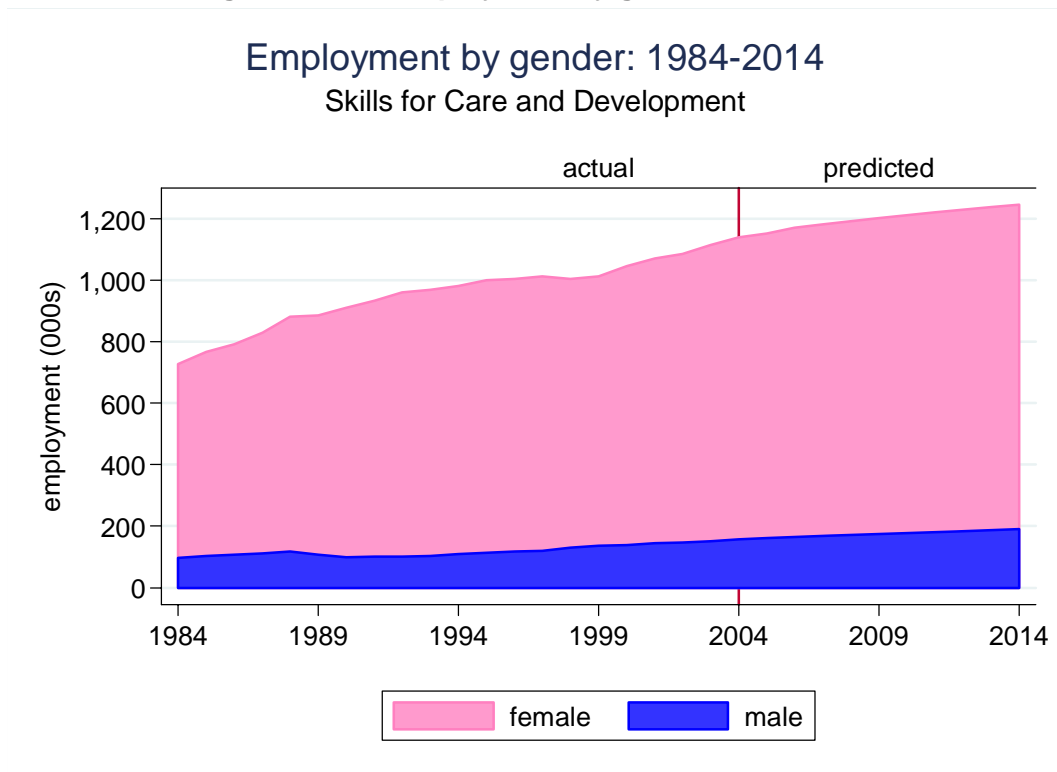


Figure 3.22.2: Employment by status: 1984-2014

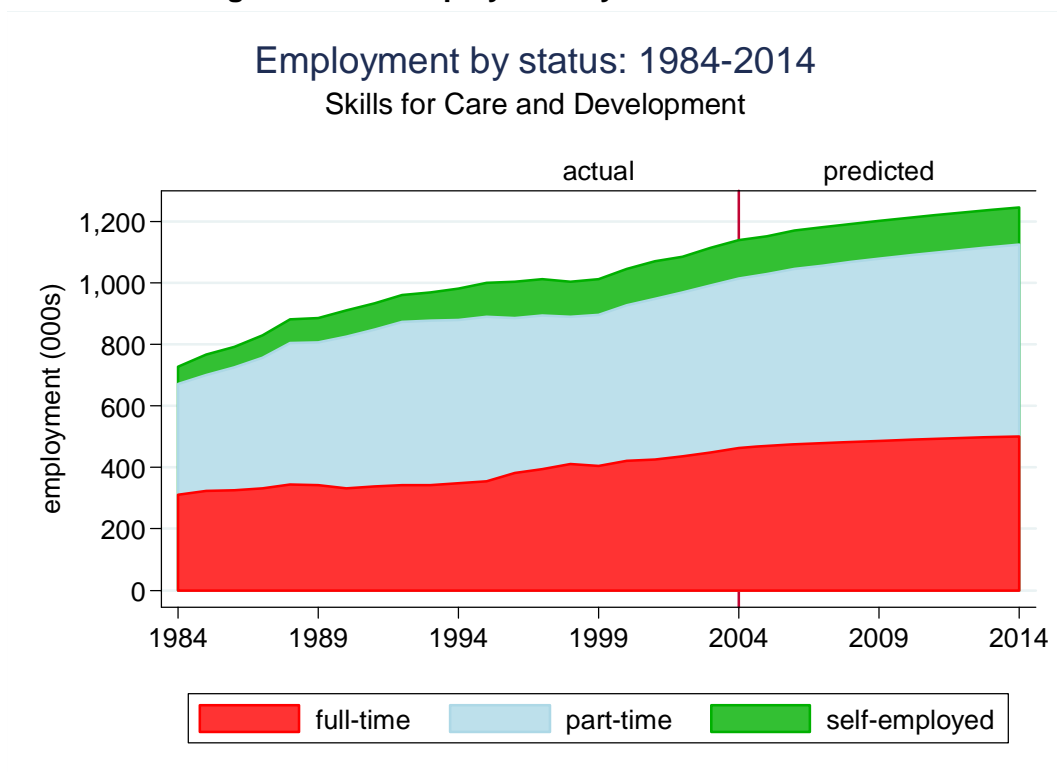


Figure 3.22.3: Occupational composition: 1994-2014

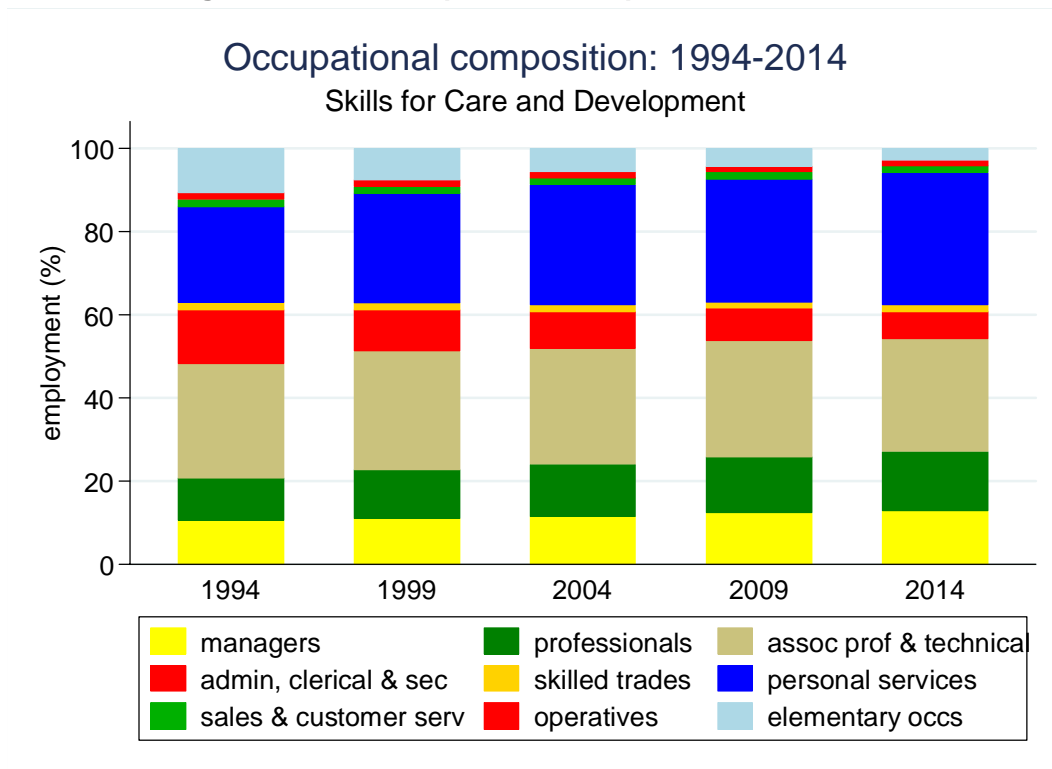


Figure 3.22.4: Employment levels by status and gender: 1994-2014

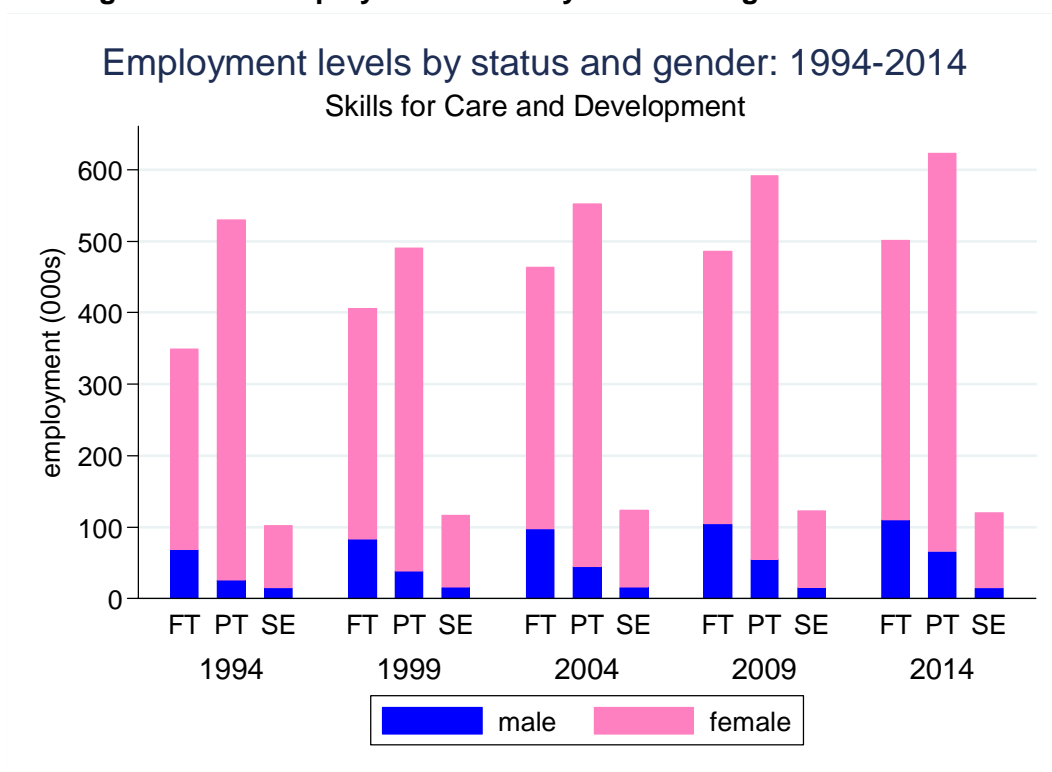


Figure 3.22.5: Employment shares by status and gender: 1994-2014

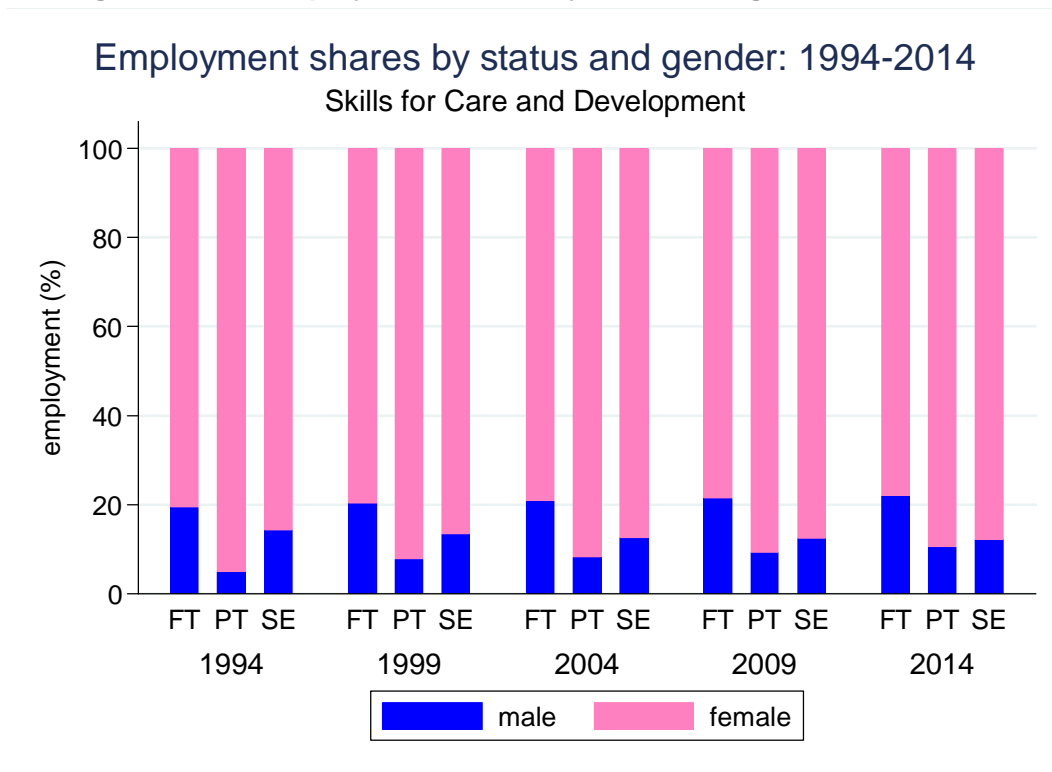


Figure 3.22.6: Employment changes by status and gender: 1984-2014

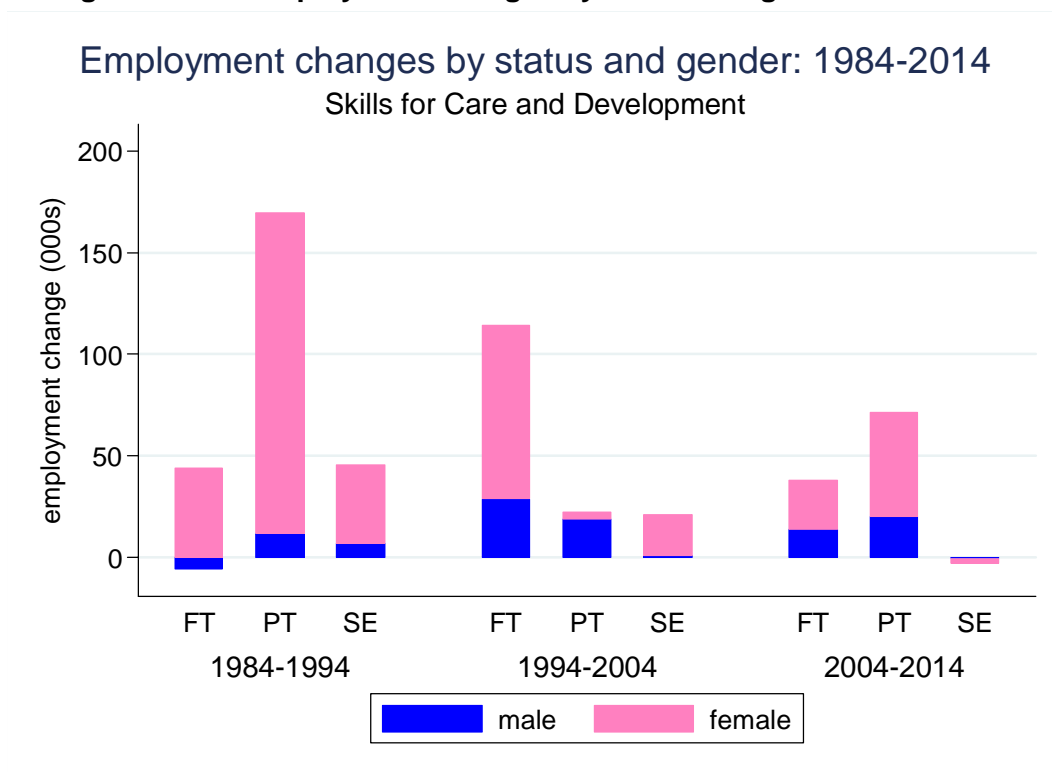
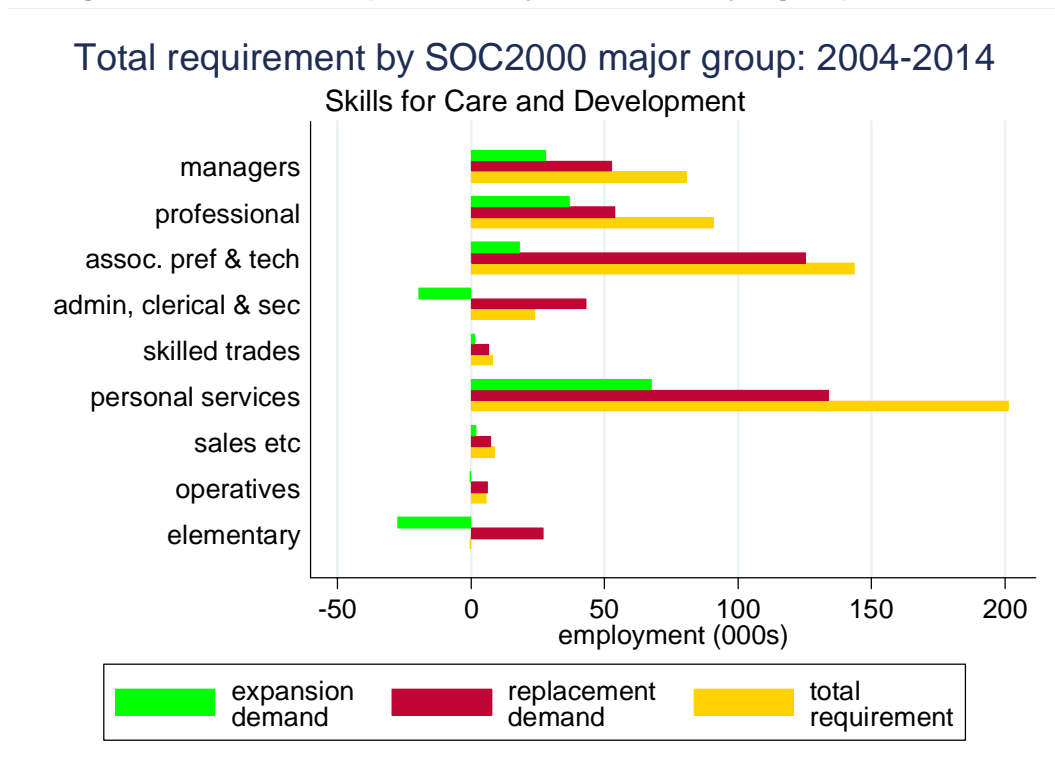


Figure 3.22.7: Total requirement by SOC2000 major group: 2004-2014



3.23 Skillset

Web: www.skillset.org

Sector description:

Broadcast, film, video, interactive media and photo imaging.

SIC codes: 22.32, 24.64, 74.81, 92.1, 92.2

(NB: Interactive media, the largest sector in scope to Skillset, is not separately coded within the SIC. In addition, photo imaging is spread across a range of SIC codes. Consequently, the data presented for Skillset should be interpreted with care.)

Sector coverage:

Broadcast, film, video, interactive media and photo imaging.

Commentary:

Employment composition by gender and status

- Skillset is currently the smallest SSC as defined by its core business sector footprint, covering some 240,000 workers in 2004. However, employment in this sector is increasing, and is projected to grow by almost 50,000 over the next decade, although this projected growth is not as rapid as that experienced in the sector over the last 10 years.
- Skillset has a relatively high proportion of its workforce registered as self-employed – 36% of all workers in 2004 are self-employed.

Occupational composition of employment

- Almost one quarter of employment in 2004 is in Associate Professional & Technical Occupations, and this share is expected to increase still further over the next 10 years.

Expansion demand, replacement demand and total requirement 2004-2014

- Proportionally, Skillset is expected to grow more rapidly over the next 10 years than any other SSC with the exception of e-Skills UK. The *Working Futures* projections forecast a growth of almost 20% in employment in its core business sectors over the period 2004-2014.
- As a consequence, the total requirement in this sector is very high – workers equivalent to 55% of current employment levels will need to be recruited over the next 10 years.

Table 3.23.1: Employment levels and shares by status and gender: 1994-2014

SSC: Skillset									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	31	22	19	72	18	13	11	41	
Male	45	13	44	102	26	7	25	59	
Total employment	76	35	63	174	44	20	36	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	41	24	24	88	19	11	11	41	
Male	61	10	55	127	28	5	26	59	
Total employment	101	34	79	214	47	16	37	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	46	26	28	101	19	11	12	42	
Male	66	14	60	140	27	6	25	58	
Total employment	112	41	87	240	47	17	36	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	48	27	27	102	18	10	10	39	
Male	81	12	68	160	31	4	26	61	
Total employment	129	39	95	262	49	15	36	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	51	28	25	104	18	10	9	36	
Male	99	10	75	183	34	3	26	64	
Total employment	150	37	100	287	52	13	35	100	

Table 3.23.2: Composition of employment by occupation: 1994-2014

SSC: Skillset					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	33	42	47	51	56
2. Professional Occupations	23	30	34	39	45
3. Associate Professional & Tech.	34	47	58	66	76
4. Administrative, Clerical and Sec.	19	20	21	21	22
5. Skilled Trades Occupations	12	14	14	15	17
6. Personal Service Occupations	15	20	26	29	29
7. Sales & Customer Service Occs.	4	5	6	7	8
8. Machine & Transport Operatives	13	14	14	14	15
9. Elementary Occupations	21	21	21	20	19
Total employment	174	214	240	262	287
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	19	20	19	20	20
2. Professional Occupations	13	14	14	15	16
3. Associate Professional & Tech.	19	22	24	25	26
4. Administrative, Clerical and Sec.	11	10	9	8	8
5. Skilled Trades Occupations	7	7	6	6	6
6. Personal Service Occupations	9	9	11	11	10
7. Sales & Customer Service Occs.	2	2	3	3	3
8. Machine & Transport Operatives	7	6	6	6	5
9. Elementary Occupations	12	10	9	7	7
Total employment	100	100	100	100	100

Table 3.23.3: Replacement demand by occupation: 2004-2014

SSC: Skillset				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	47	10	18	27
2. Professional Occupations	34	12	11	23
3. Associate Professional & Tech.	58	18	19	37
4. Administrative, Clerical and Sec.	21	1	8	9
5. Skilled Trades Occupations	14	3	5	8
6. Personal Service Occupations	26	3	10	13
7. Sales & Customer Service Occs.	6	1	2	4
8. Machine & Transport Operatives	14	1	5	6
9. Elementary Occupations	21	-3	8	5
Total employment	240	46	86	132
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	19	21	38	58
2. Professional Occupations	14	35	34	69
3. Associate Professional & Tech.	24	32	32	64
4. Administrative, Clerical and Sec.	9	5	40	45
5. Skilled Trades Occupations	6	21	34	56
6. Personal Service Occupations	11	11	40	51
7. Sales & Customer Service Occs.	3	22	33	55
8. Machine & Transport Operatives	6	7	36	43
9. Elementary Occupations	9	-13	37	24
Total employment	100	19	36	55

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.23.1: Employment by gender: 1984-2014

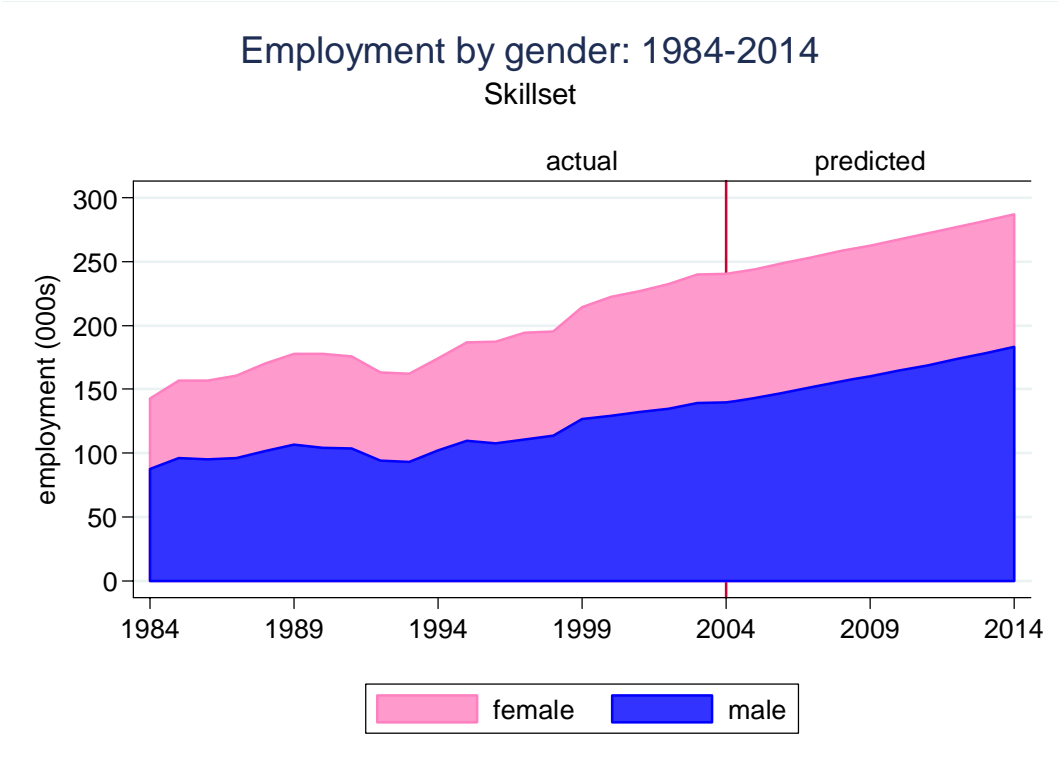


Figure 3.23.2: Employment by status: 1984-2014

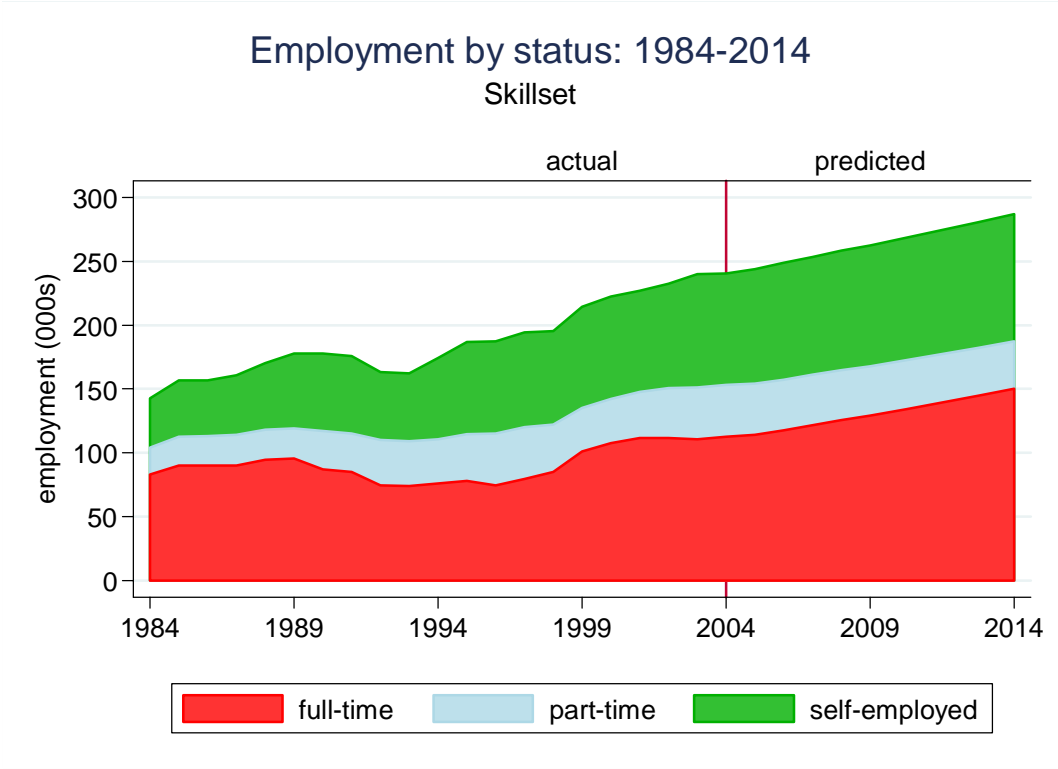


Figure 3.23.3: Occupational composition: 1994-2014

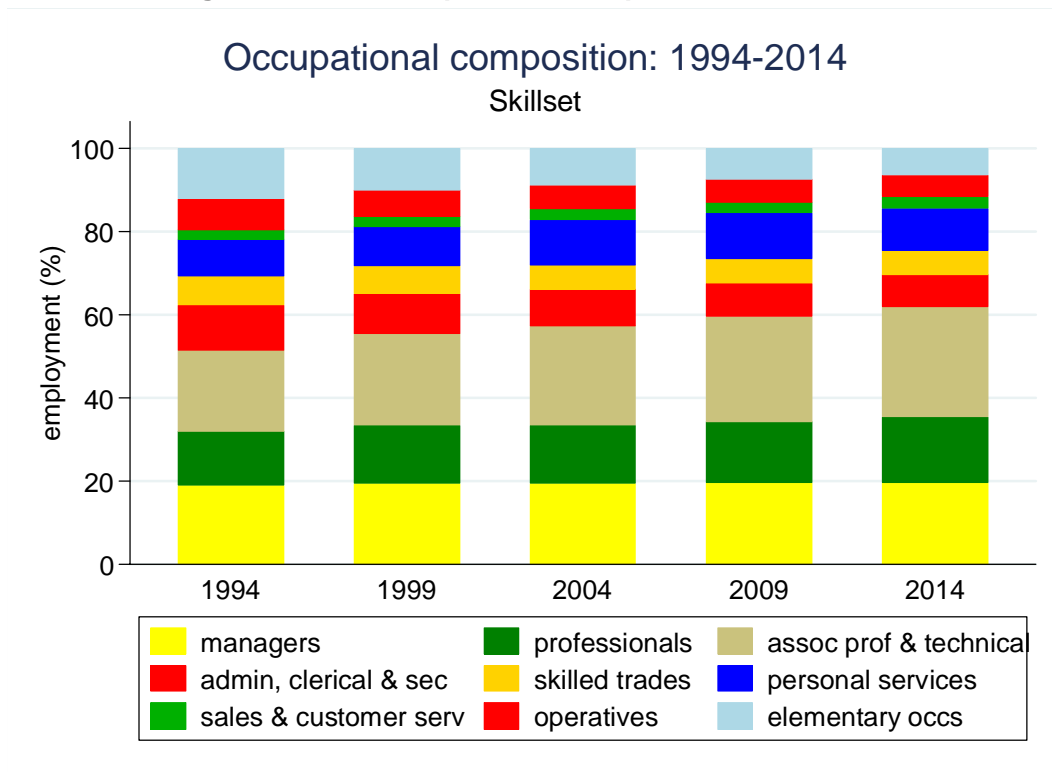


Figure 3.23.4: Employment levels by status and gender: 1994-2014

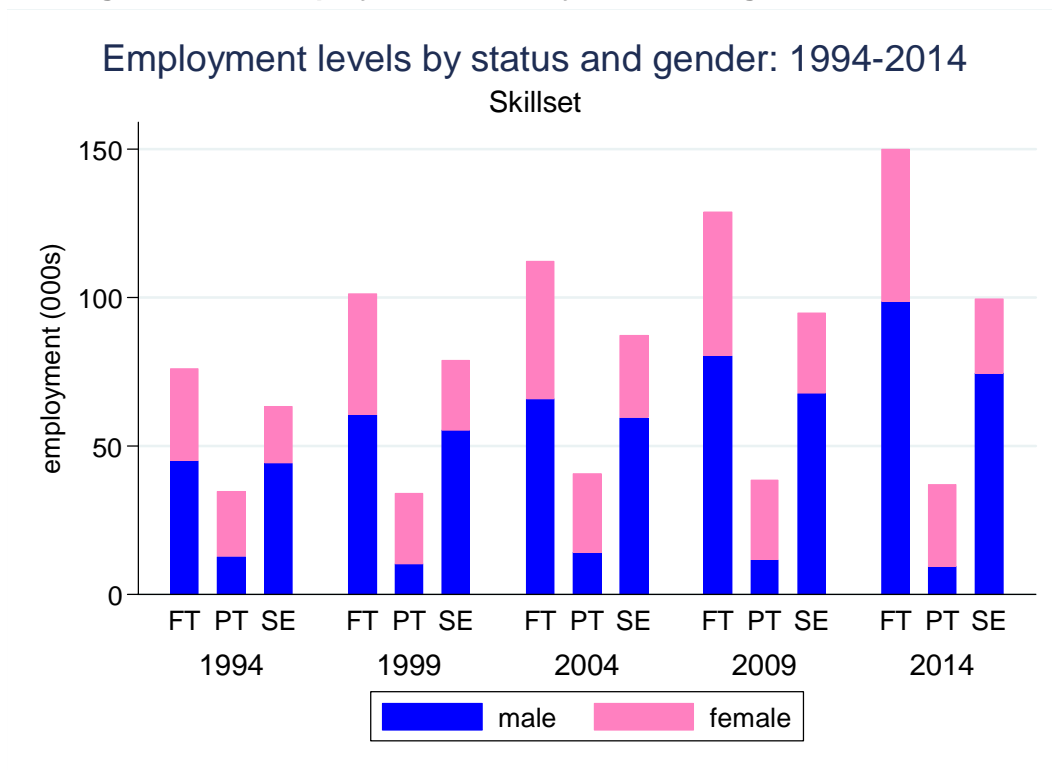


Figure 3.23.5: Employment shares by status and gender: 1994-2014

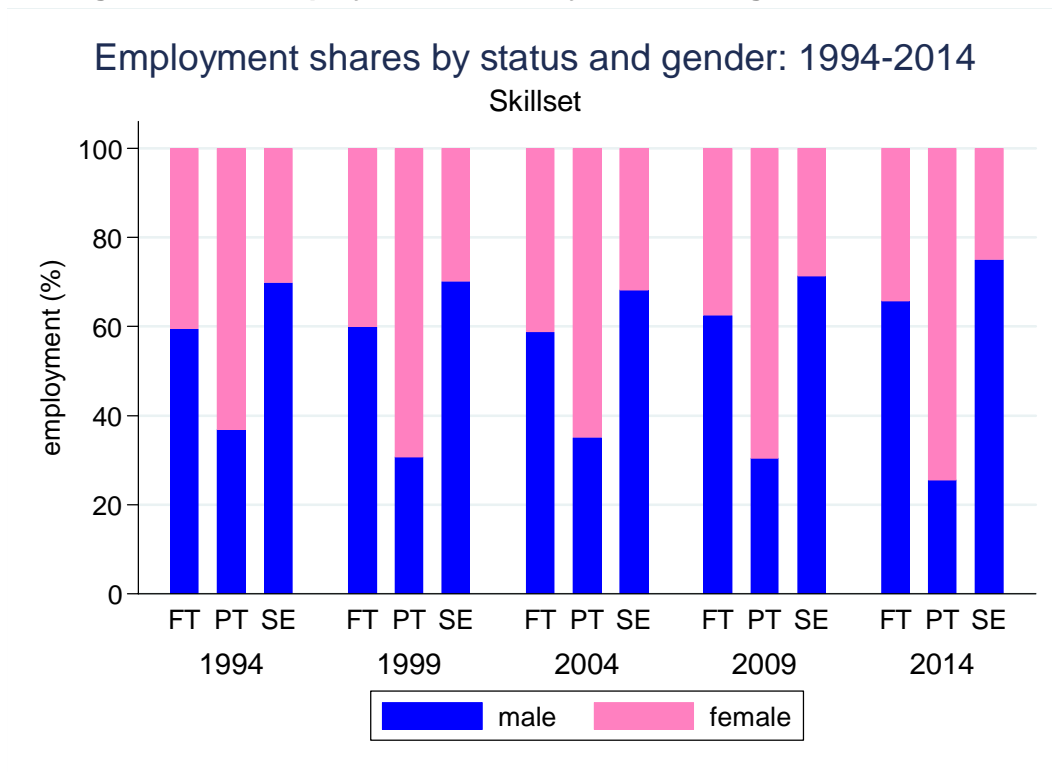


Figure 3.23.6: Employment changes by status and gender: 1984-2014

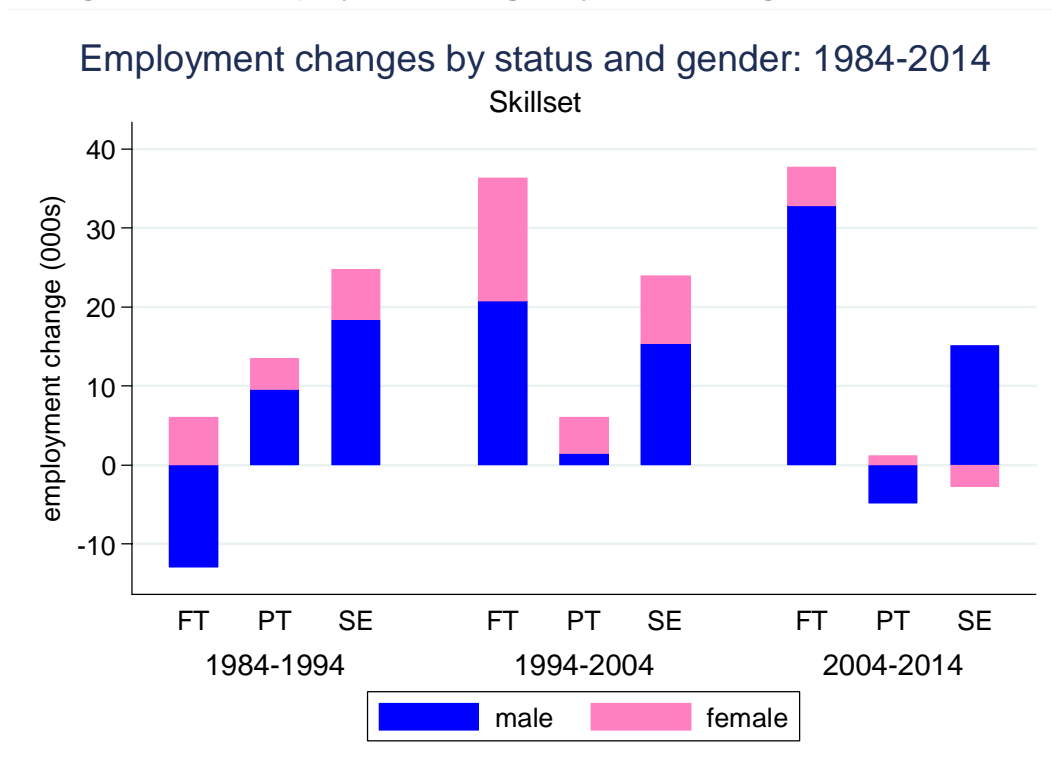
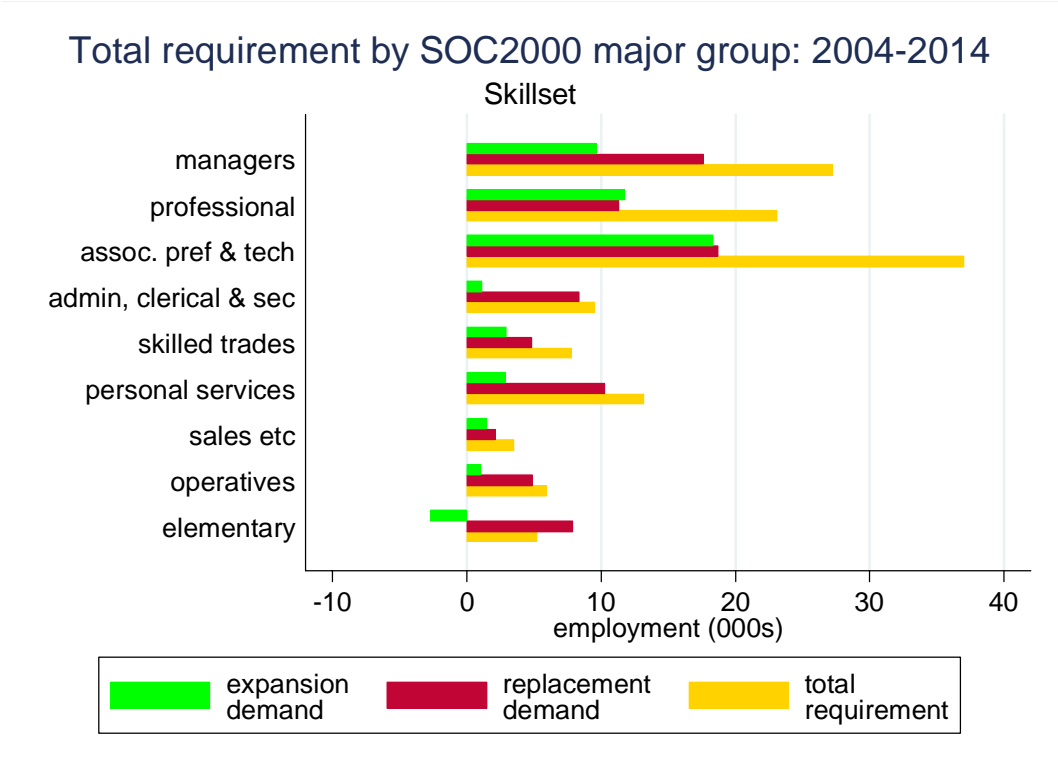


Figure 3.23.7: Total requirement by SOC2000 major group: 2004-2014



3.24 Creative and Cultural Skills

Web: www.ccskills.org.uk

Sector description:

Arts, museums and galleries, heritage, crafts and design.

SIC codes: 22.14, 22.31, 36.3, 74.4, 92.31, 92.32, 92.34, 92.4, 92.52

Sector coverage:

The sub sectors covered by Creative & Cultural Skills SSC are:

- The Arts - music, the performing arts, visual arts and literary arts;
- Cultural Heritage - museums, galleries and heritage organisations;
- Craft - including designer makers of contemporary crafts, covering over 50 specialist trades and occupations;
- Design - specialist consultancies covering graphic, spatial and domestic products.

Commentary:

Employment composition by gender and status

- The Creative and Cultural Skills workforce is dominated by self-employment – more than 2-in-5 workers are self-employed in 2004.
- Men and women are employed in approximately equal numbers in this sector.

Occupational composition of employment

- The occupational composition of employment reveals comparatively high proportions of Managers & Senior Officials and of Associate Professional & Technical Occupations, together accounting for some 44% of total employment in 2004.
- These high shares reflects the diversity of employment in the sector.

Expansion demand, replacement demand and total requirement 2004-2014

- Employment is projected to increase by 15% in this sector over the next decade.
- As an expanding sector, and coupled with a comparatively high replacement demand ratio, the total requirement in this sector is equivalent to more than 50% of current employment for the period 2004-2014.
- In total, more than 200,000 new appointments can be expected to be made in this sector over the next 10 years.

Table 3.24.1: Employment levels and shares by status and gender: 1994-2014

SSC: Creative and Cultural Skills									
<i>Employment by gender</i>	<i>Employment status</i>								
	000s				%				
	FT	PT	SE	Total	FT	PT	SE	Total	
1994									
Female	55	40	56	151	18	13	18	49	
Male	71	19	70	160	23	6	22	51	
Total employment	126	59	126	311	41	19	40	100	
1999									
Female	56	45	67	168	16	13	20	49	
Male	80	17	79	175	23	5	23	51	
Total employment	136	61	146	343	40	18	43	100	
2004									
Female	65	50	79	195	17	13	20	50	
Male	90	23	81	194	23	6	21	50	
Total employment	155	73	161	389	40	19	41	100	
2009									
Female	66	51	82	198	16	12	19	47	
Male	109	20	93	222	26	5	22	53	
Total employment	175	71	175	420	42	17	42	100	
2014									
Female	68	52	78	198	15	12	18	44	
Male	132	18	100	249	29	4	22	56	
Total employment	199	70	178	448	45	16	40	100	

Table 3.24.2: Composition of employment by occupation: 1994-2014

SSC: Creative and Cultural Skills					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	65	73	82	88	90
2. Professional Occupations	36	42	48	57	67
3. Associate Professional & Tech.	58	73	90	103	119
4. Administrative, Clerical and Sec.	43	40	42	41	40
5. Skilled Trades Occupations	20	22	21	24	25
6. Personal Service Occupations	26	31	39	42	41
7. Sales & Customer Service Occs.	8	9	12	13	14
8. Machine & Transport Operatives	20	20	20	21	22
9. Elementary Occupations	35	34	35	32	29
Total employment	311	343	389	420	448
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	21	21	21	21	20
2. Professional Occupations	12	12	12	14	15
3. Associate Professional & Tech.	19	21	23	25	27
4. Administrative, Clerical and Sec.	14	12	11	10	9
5. Skilled Trades Occupations	7	6	6	6	6
6. Personal Service Occupations	8	9	10	10	9
7. Sales & Customer Service Occs.	2	3	3	3	3
8. Machine & Transport Operatives	6	6	5	5	5
9. Elementary Occupations	11	10	9	8	6
Total employment	100	100	100	100	100

Table 3.24.3: Replacement demand by occupation: 2004-2014

SSC: Creative and Cultural Skills				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	82	8	32	40
2. Professional Occupations	48	19	17	36
3. Associate Professional & Tech.	90	29	30	59
4. Administrative, Clerical and Sec.	42	-3	17	15
5. Skilled Trades Occupations	21	4	8	11
6. Personal Service Occupations	39	2	15	18
7. Sales & Customer Service Occs.	12	2	4	6
8. Machine & Transport Operatives	20	2	7	9
9. Elementary Occupations	35	-6	13	7
Total employment	389	58	143	201
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	21	10	39	49
2. Professional Occupations	12	39	35	74
3. Associate Professional & Tech.	23	33	33	66
4. Administrative, Clerical and Sec.	11	-6	41	35
5. Skilled Trades Occupations	6	18	35	53
6. Personal Service Occupations	10	6	40	46
7. Sales & Customer Service Occs.	3	21	35	56
8. Machine & Transport Operatives	5	10	36	45
9. Elementary Occupations	9	-18	38	20
Total employment	100	15	37	52

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.24.1: Employment by gender: 1984-2014

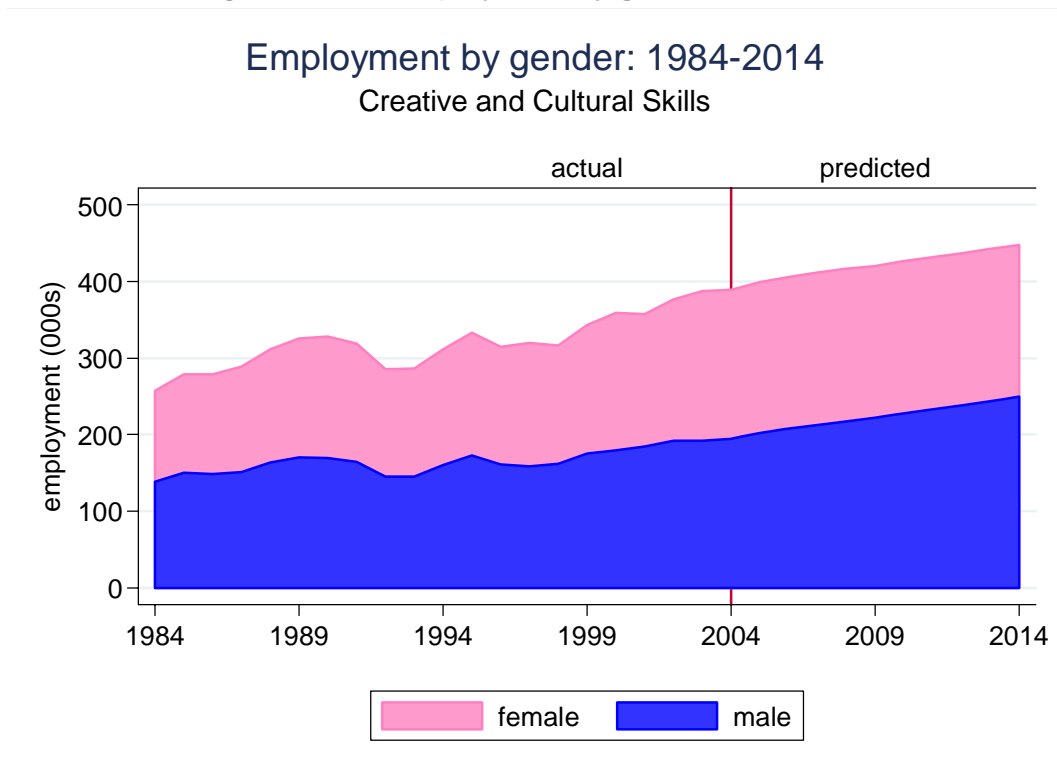


Figure 3.24.2: Employment by status: 1984-2014

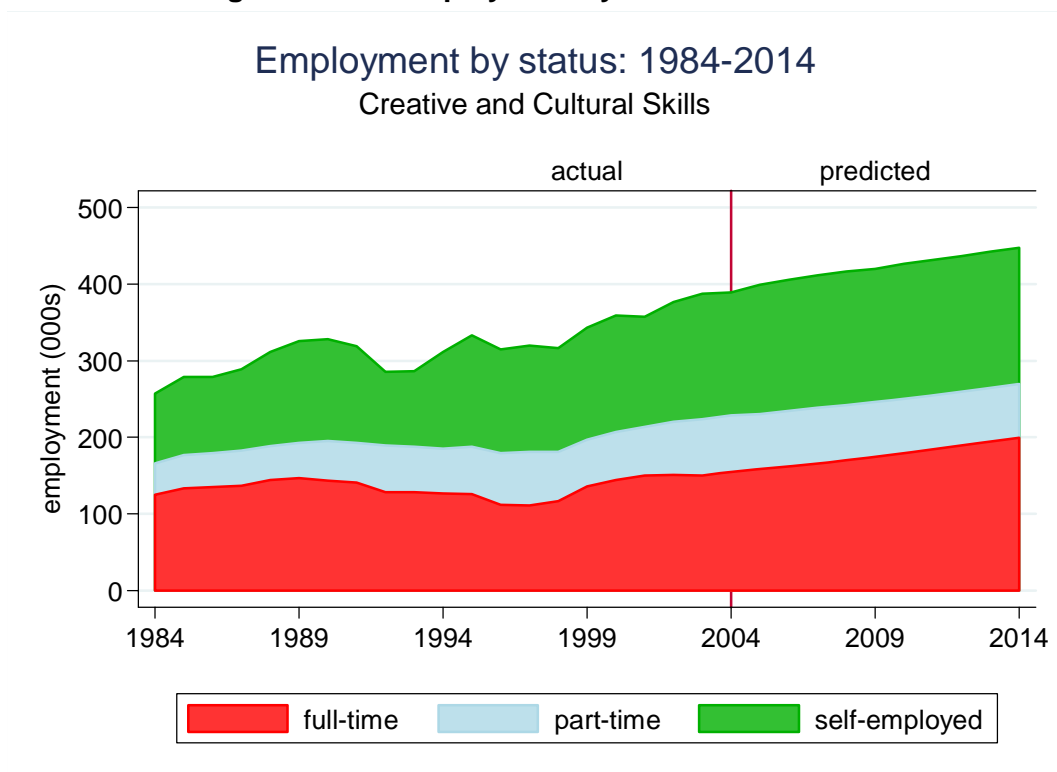


Figure 3.24.3: Occupational composition: 1994-2014

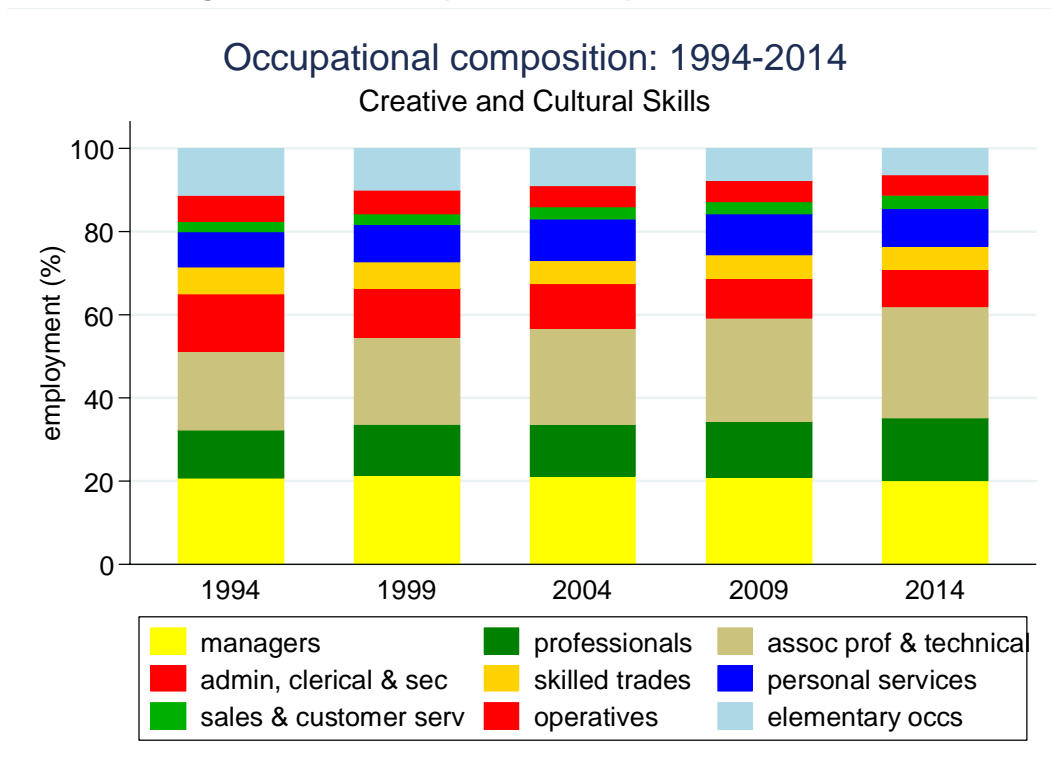


Figure 3.24.4: Employment levels by status and gender: 1994-2014

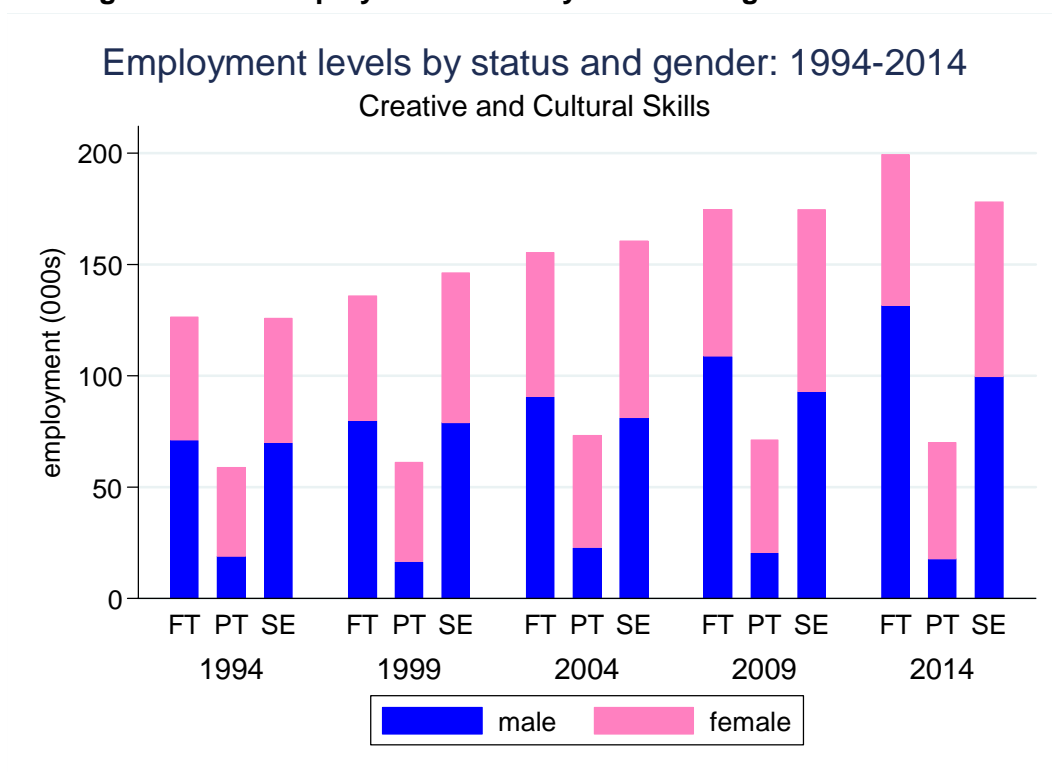


Figure 3.24.5: Employment shares by status and gender: 1994-2014

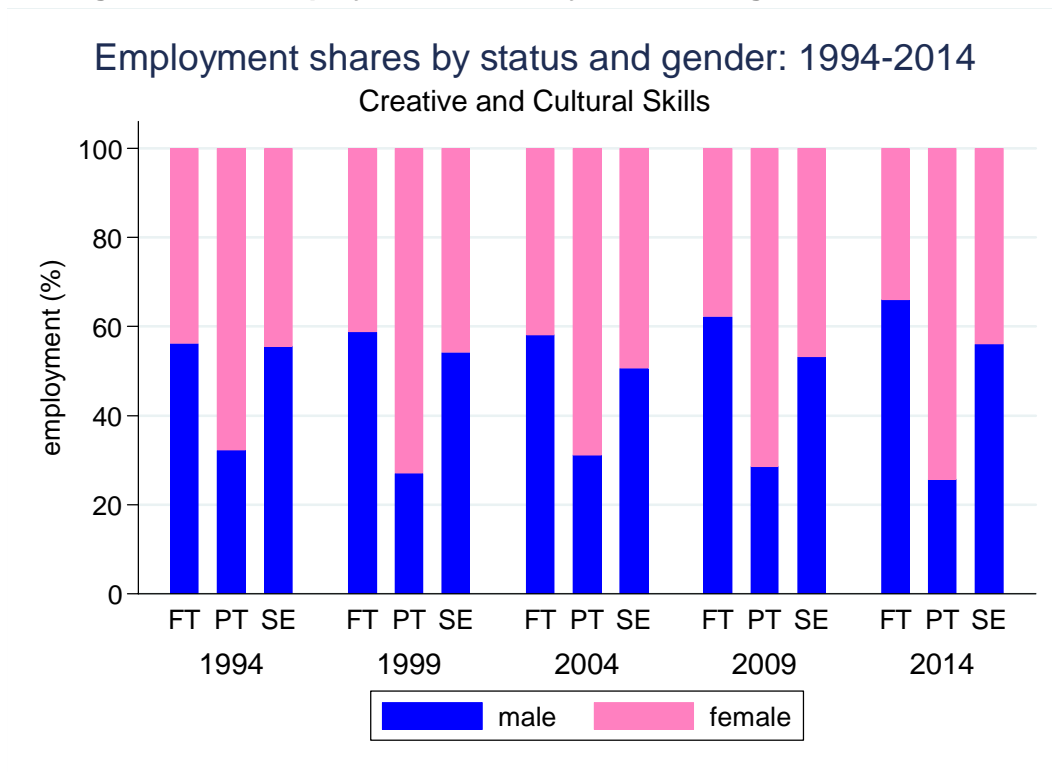


Figure 3.24.6: Employment changes by status and gender: 1984-2014

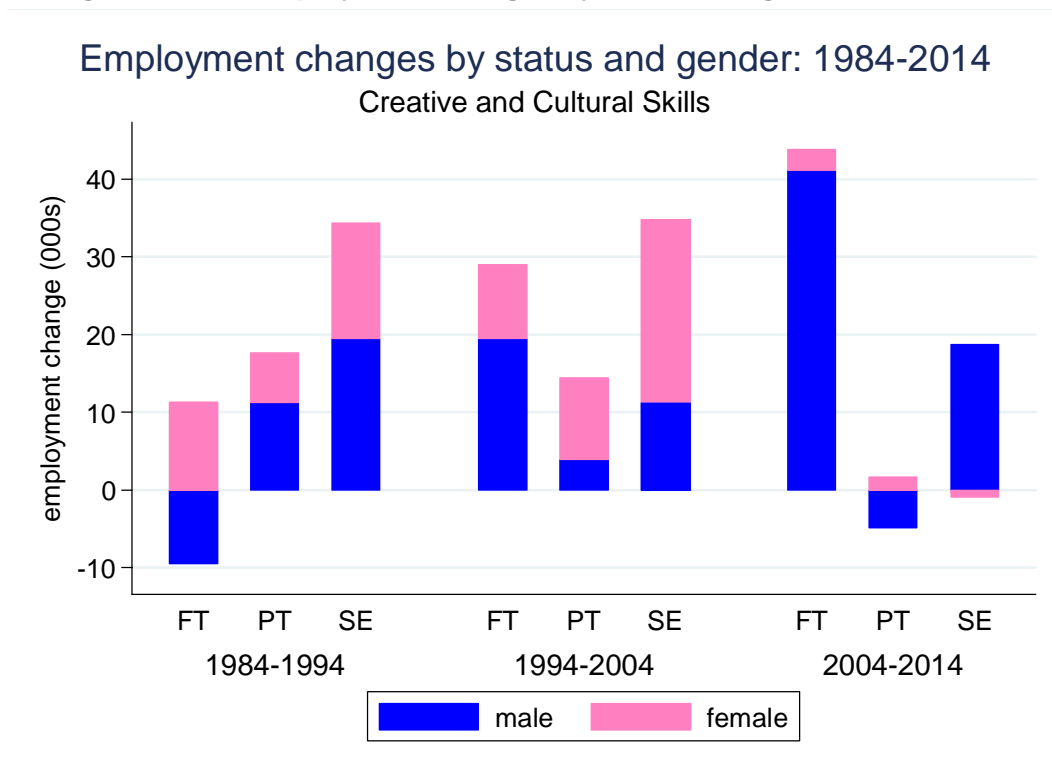
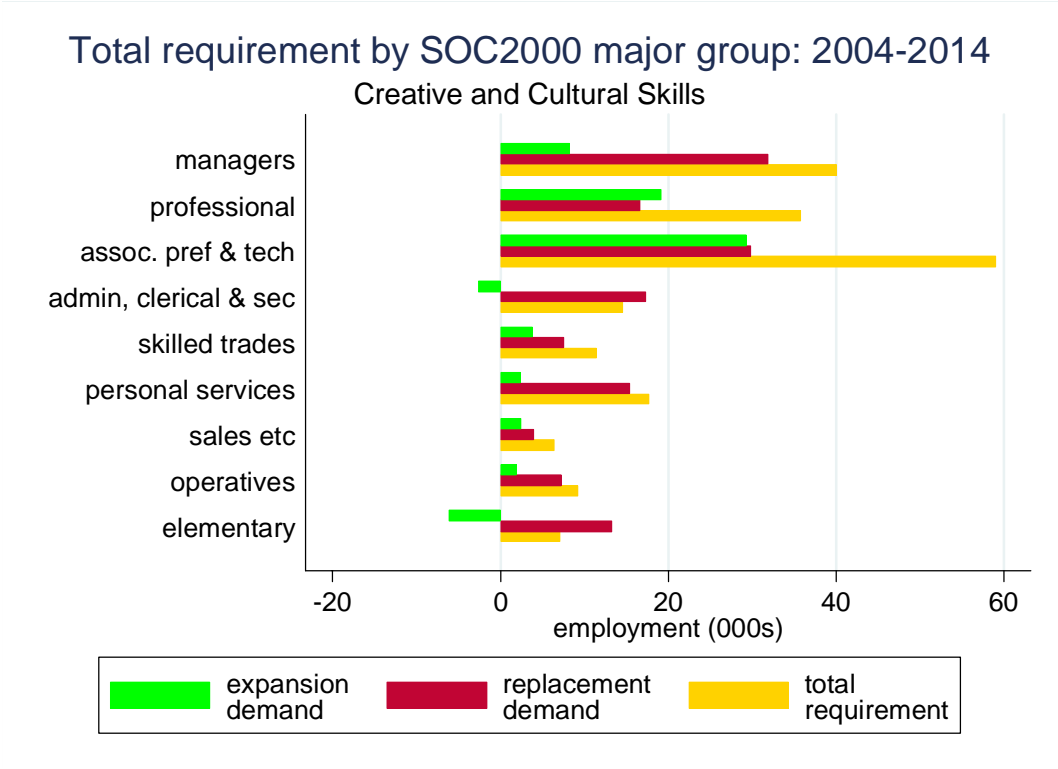


Figure 3.24.7: Total requirement by SOC2000 major group: 2004-2014



3.25 SkillsActive

Web: www.skillsactive.com

Sector description:

Active leisure and learning.

SIC codes: 55.22, 92.6, 93.04

Sector coverage:

Sport, recreation, children's play, health and fitness, outdoor education, training, caravans, recreation and adventure.

Commentary:

Employment composition by gender and status

- SkillsActive has a relatively high proportion of part-time employment – 46% of workers in 2004 are employed part-time.
- Approximately equal numbers of men and women are employed in this sector.
- Full-time employment is projected to increase by almost one third over the next decade at the expense of part-time employment.

Occupational composition of employment

- As would be expected, SkillsActive has a relatively high proportion of employment in Personal Service Occupations.

Expansion demand, replacement demand and total requirement 2004-2014

- Employment in this sector is expected to grow by more than 10% over the next decade. All of this growth will be in full-time, predominantly male, employment.
- Together with a relatively high replacement demand ratio, this forecast growth in total employment gives a total requirement for this SSC equivalent to almost 50% of current employment levels, with 170,000 new recruits to the sector required to meet demand over the next 10 years.
- Amongst Managers & Senior Officials, and Professional Occupations, total requirements are in excess of 70% of current employment levels in these two occupational groups.

Table 3.25.1: Employment levels and shares by status and gender: 1994-2014

SSC: SkillsActive									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	40	82	19	141	15	30	7	51	
Male	59	60	16	135	21	22	6	49	
Total employment	99	142	35	275	36	51	13	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	50	84	22	156	17	28	7	52	
Male	79	46	18	142	26	15	6	48	
Total employment	129	130	39	298	43	44	13	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	59	100	25	184	17	29	7	52	
Male	86	63	18	168	25	18	5	48	
Total employment	145	164	43	352	41	46	12	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	61	102	25	187	17	28	7	51	
Male	110	50	20	181	30	14	5	49	
Total employment	171	152	45	368	46	41	12	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	64	104	23	191	16	27	6	49	
Male	141	38	21	200	36	10	5	51	
Total employment	204	142	45	391	52	36	11	100	

Table 3.25.2: Composition of employment by occupation: 1994-2014

SSC: SkillsActive					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	37	44	51	58	68
2. Professional Occupations	22	28	34	42	53
3. Associate Professional & Tech.	40	50	62	70	81
4. Administrative, Clerical and Sec.	33	32	37	34	34
5. Skilled Trades Occupations	17	17	18	19	20
6. Personal Service Occupations	34	41	55	62	59
7. Sales & Customer Service Occs.	9	10	13	13	14
8. Machine & Transport Operatives	22	21	24	24	23
9. Elementary Occupations	61	55	57	46	39
Total employment	275	298	352	368	391
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	13	15	14	16	17
2. Professional Occupations	8	9	10	11	13
3. Associate Professional & Tech.	14	17	18	19	21
4. Administrative, Clerical and Sec.	12	11	10	9	9
5. Skilled Trades Occupations	6	6	5	5	5
6. Personal Service Occupations	12	14	16	17	15
7. Sales & Customer Service Occs.	3	3	4	4	4
8. Machine & Transport Operatives	8	7	7	7	6
9. Elementary Occupations	22	18	16	13	10
Total employment	100	100	100	100	100

Table 3.25.3: Replacement demand by occupation: 2004-2014

SSC: SkillsActive				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	51	17	19	37
2. Professional Occupations	34	19	12	31
3. Associate Professional & Tech.	62	18	21	39
4. Administrative, Clerical and Sec.	37	-3	15	11
5. Skilled Trades Occupations	18	2	7	8
6. Personal Service Occupations	55	4	22	26
7. Sales & Customer Service Occs.	13	1	5	6
8. Machine & Transport Operatives	24	-1	9	7
9. Elementary Occupations	57	-18	22	4
Total employment	352	39	130	169
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	14	34	38	73
2. Professional Occupations	10	56	34	91
3. Associate Professional & Tech.	18	30	33	63
4. Administrative, Clerical and Sec.	10	-9	40	31
5. Skilled Trades Occupations	5	9	36	45
6. Personal Service Occupations	16	8	40	48
7. Sales & Customer Service Occs.	4	7	34	41
8. Machine & Transport Operatives	7	-5	36	31
9. Elementary Occupations	16	-32	38	6
Total employment	100	11	37	48

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.25.1: Employment by gender: 1984-2014

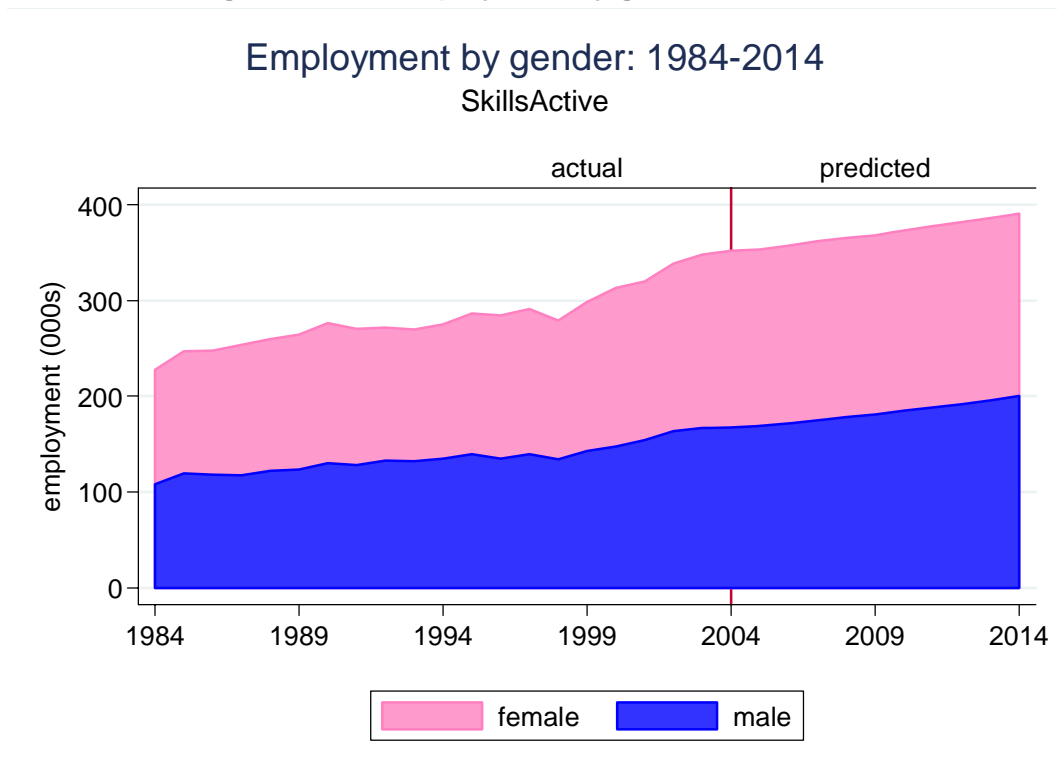


Figure 3.25.2: Employment by status: 1984-2014

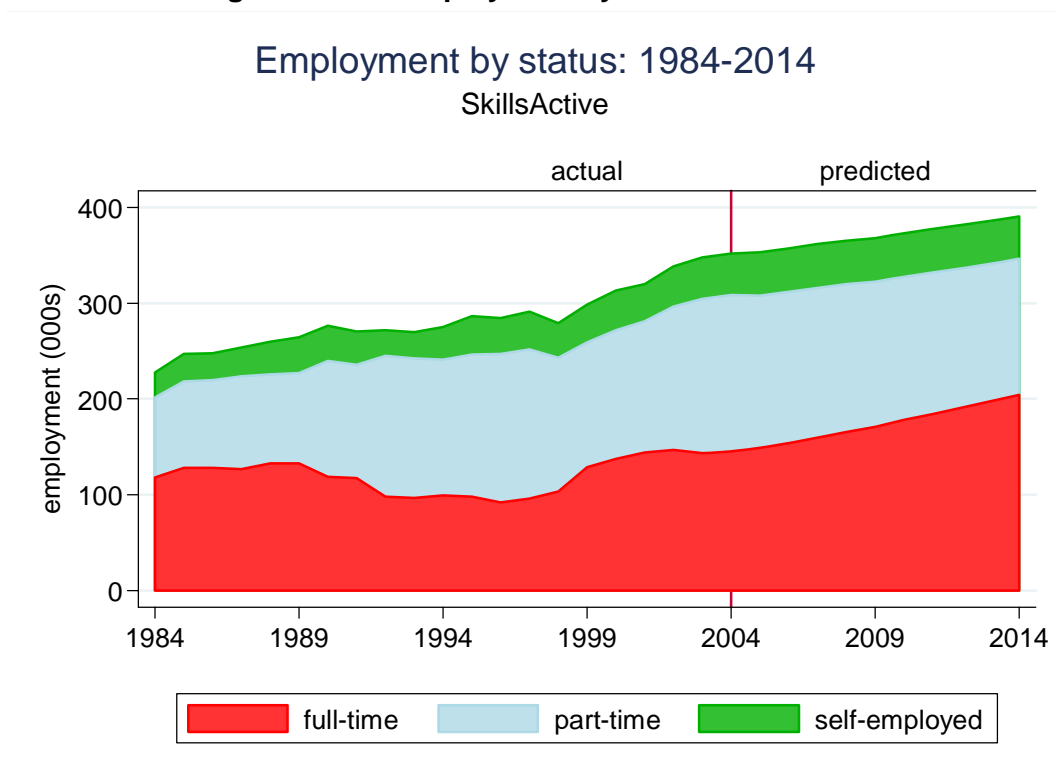


Figure 3.25.3: Occupational composition: 1994-2014

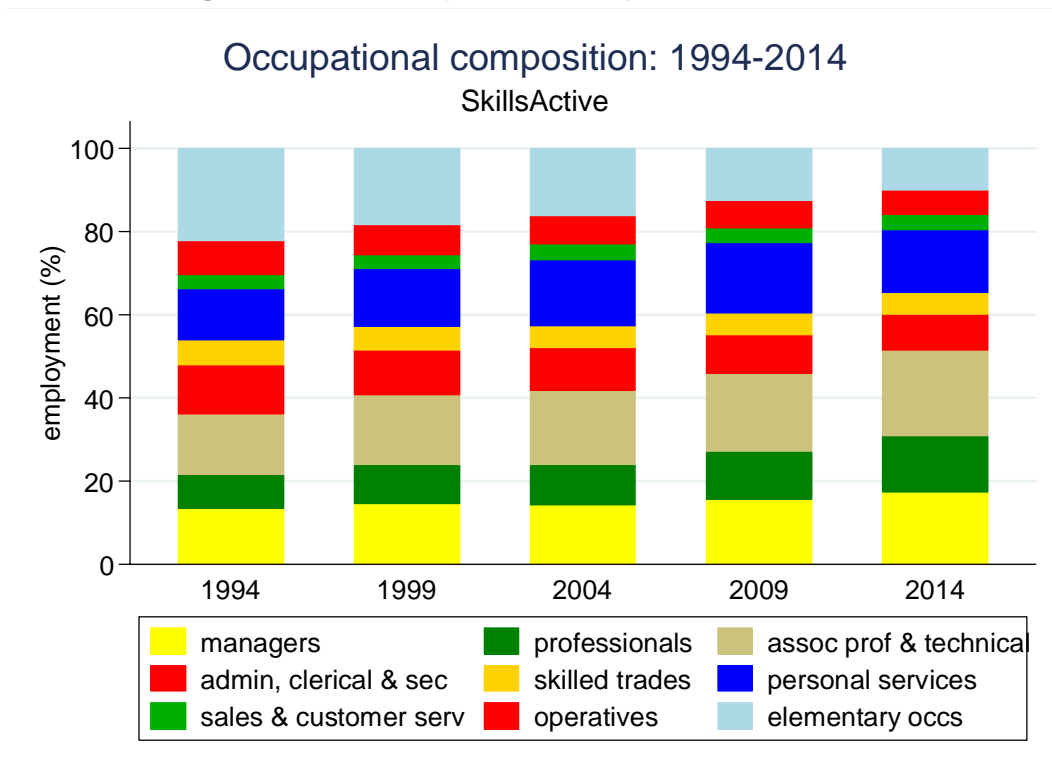


Figure 3.25.4: Employment levels by status and gender: 1994-2014

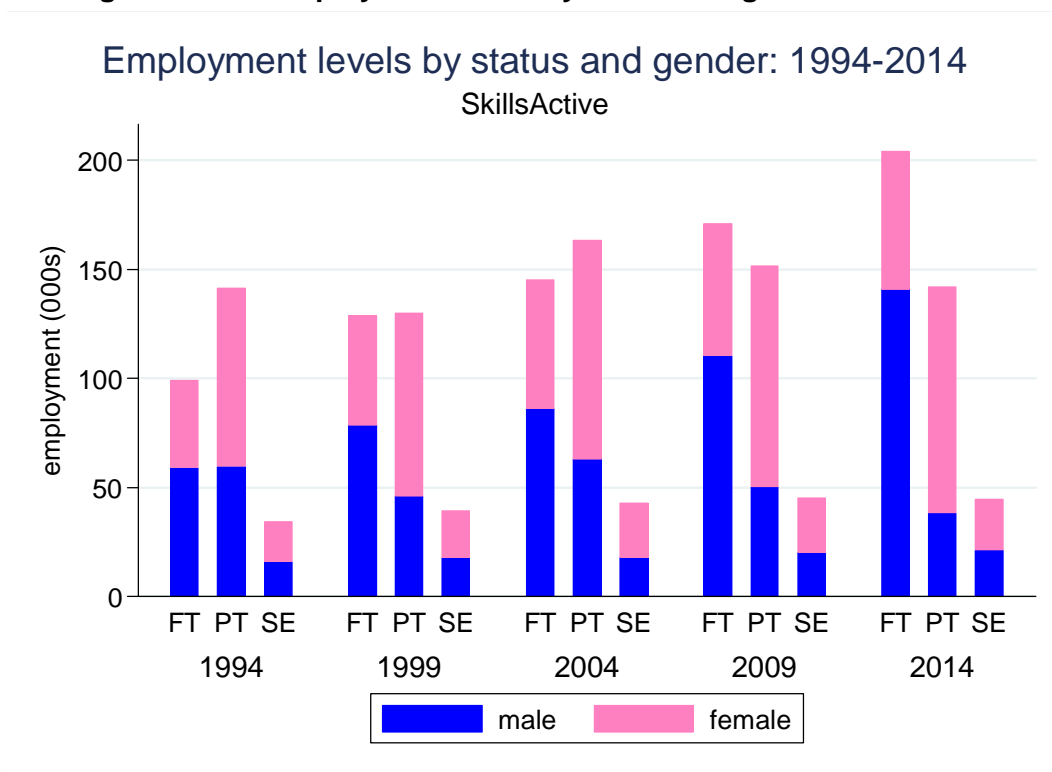


Figure 3.25.5: Employment shares by status and gender: 1994-2014

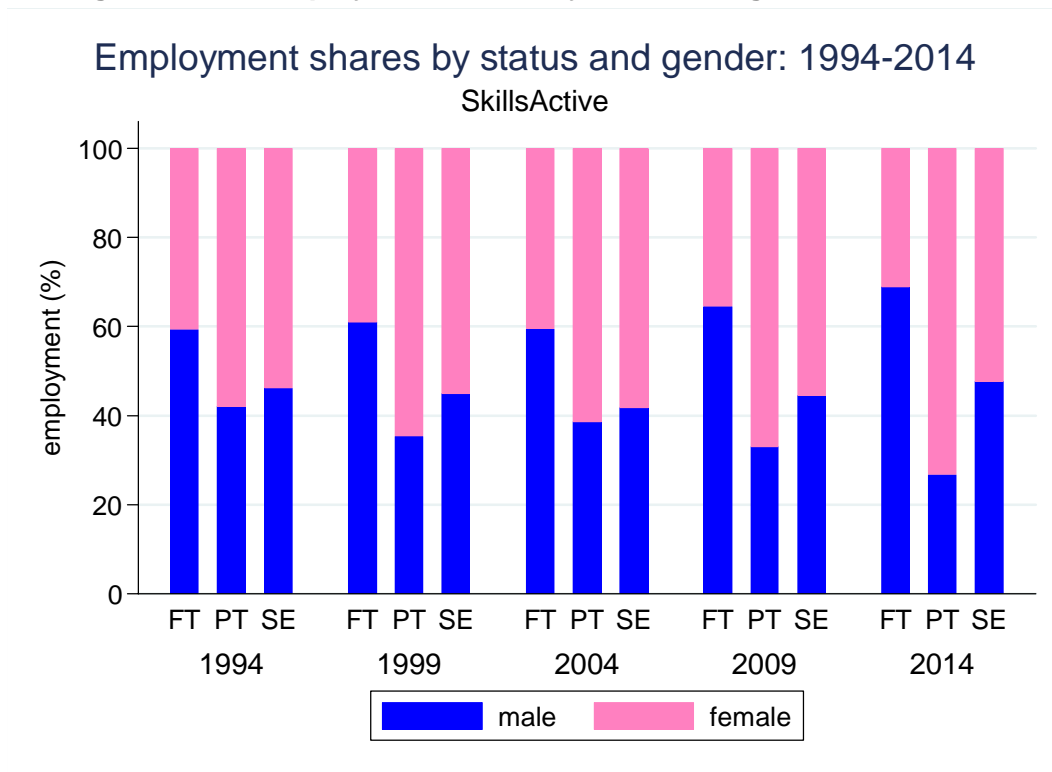


Figure 3.25.6: Employment changes by status and gender: 1984-2014

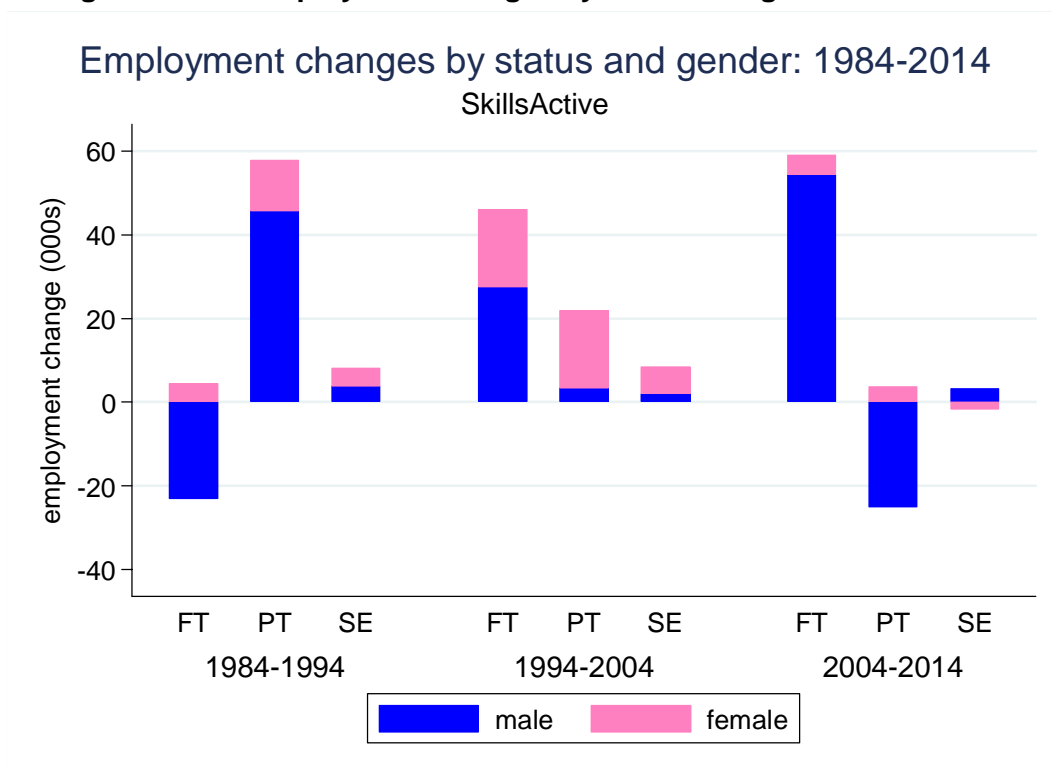
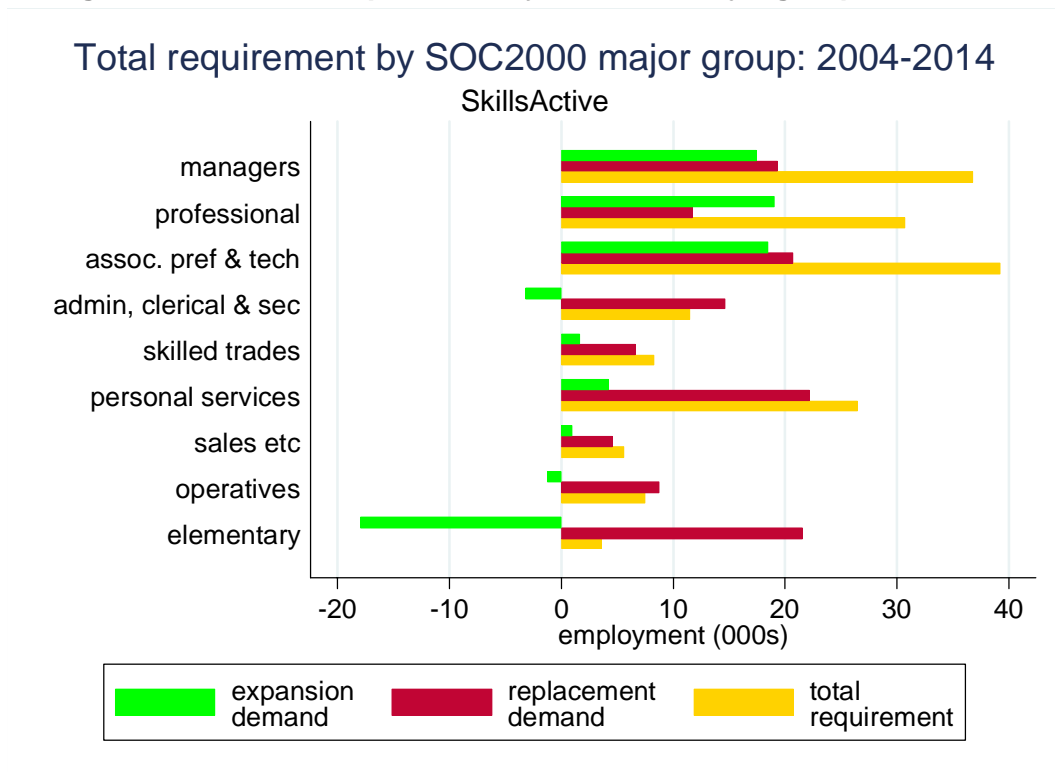


Figure 3.25.7: Total requirement by SOC2000 major group: 2004-2014



3.26 Non-SSC1: Primary

Sector description:

Non-SSC primary sector employers which come under the responsibility of the SSDA.

SIC codes: 05.01, 15.92, 16, 20, 22.11-22.13, 22.15, 26.21-26.25, 26.3, 27.1-27.3, 28.4, 36.1, 36.2, 36.4-36.6

Sector coverage:

Fishing; tobacco; wood; publishing; ceramics; metal manufacturing; manufacturing of furniture, jewellery, sports equipment and games.

Commentary:

Employment composition by gender and status

- This sectoral grouping currently covers around 600,000 workers in the primary and manufacturing sectors.
- Around 70% of workers covered by this grouping are male, and around three quarters are full-time employees.

Occupational composition of employment

- Almost 30% of all employment in this grouping is in Skilled Trades Occupations.

Expansion demand, replacement demand and total requirement 2004-2014

- Total employment accounted for by the industries included in this grouping is falling, and is expected to continue to fall, over the next 10 years.
- However, total requirements are still positive for all but Elementary Occupations.

Table 3.26.1: Employment levels and shares by status and gender: 1994-2014

Non-SSC1: Primary									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
	FT	PT	SE	Total	FT	PT	SE	Total	
1994									
Female	136	52	24	212	21	8	4	32	
Male	361	13	75	449	55	2	11	68	
Total employment	497	65	99	661	75	10	15	100	
1999									
Female	146	46	25	216	21	7	4	31	
Male	375	15	81	471	55	2	12	69	
Total employment	521	61	105	688	76	9	15	100	
2004									
Female	122	42	21	185	20	7	3	30	
Male	338	19	70	427	55	3	12	70	
Total employment	461	60	91	612	75	10	15	100	
2009									
Female	110	33	22	165	18	5	4	27	
Male	341	19	75	435	57	3	13	73	
Total employment	452	52	97	600	75	9	16	100	
2014									
Female	96	29	22	147	17	5	4	25	
Male	335	19	78	432	58	3	13	75	
Total employment	432	48	100	579	75	8	17	100	

Table 3.26.2: Composition of employment by occupation: 1994-2014

Non-SSC1: Primary					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	71	83	83	87	89
2. Professional Occupations	21	24	23	24	24
3. Associate Professional & Tech.	56	68	70	75	79
4. Administrative, Clerical and Sec.	71	68	57	48	42
5. Skilled Trades Occupations	198	205	174	181	186
6. Personal Service Occupations	10	13	12	11	11
7. Sales & Customer Service Occs.	14	16	17	16	15
8. Machine & Transport Operatives	141	135	114	105	93
9. Elementary Occupations	79	76	63	53	40
Total employment	661	688	612	600	579
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	11	12	14	15	15
2. Professional Occupations	3	3	4	4	4
3. Associate Professional & Tech.	8	10	12	12	14
4. Administrative, Clerical and Sec.	11	10	9	8	7
5. Skilled Trades Occupations	30	30	28	30	32
6. Personal Service Occupations	1	2	2	2	2
7. Sales & Customer Service Occs.	2	2	3	3	3
8. Machine & Transport Operatives	21	20	19	17	16
9. Elementary Occupations	12	11	10	9	7
Total employment	100	100	100	100	100

Table 3.26.3: Replacement demand by occupation: 2004-2014

Non-SSC1: Primary				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	83	6	29	35
2. Professional Occupations	23	1	8	9
3. Associate Professional & Tech.	70	9	23	32
4. Administrative, Clerical and Sec.	57	-15	23	8
5. Skilled Trades Occupations	174	12	58	70
6. Personal Service Occupations	12	-1	5	3
7. Sales & Customer Service Occs.	17	-2	6	4
8. Machine & Transport Operatives	114	-20	40	20
9. Elementary Occupations	63	-23	21	-2
Total employment	612	-33	211	178
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	14	7	34	42
2. Professional Occupations	4	6	33	39
3. Associate Professional & Tech.	12	13	33	46
4. Administrative, Clerical and Sec.	9	-26	40	14
5. Skilled Trades Occupations	28	7	33	40
6. Personal Service Occupations	2	-10	39	28
7. Sales & Customer Service Occs.	3	-11	34	24
8. Machine & Transport Operatives	19	-18	35	17
9. Elementary Occupations	10	-37	33	-4
Total employment	100	-5	34	29

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.26.1: Employment by gender: 1984-2014

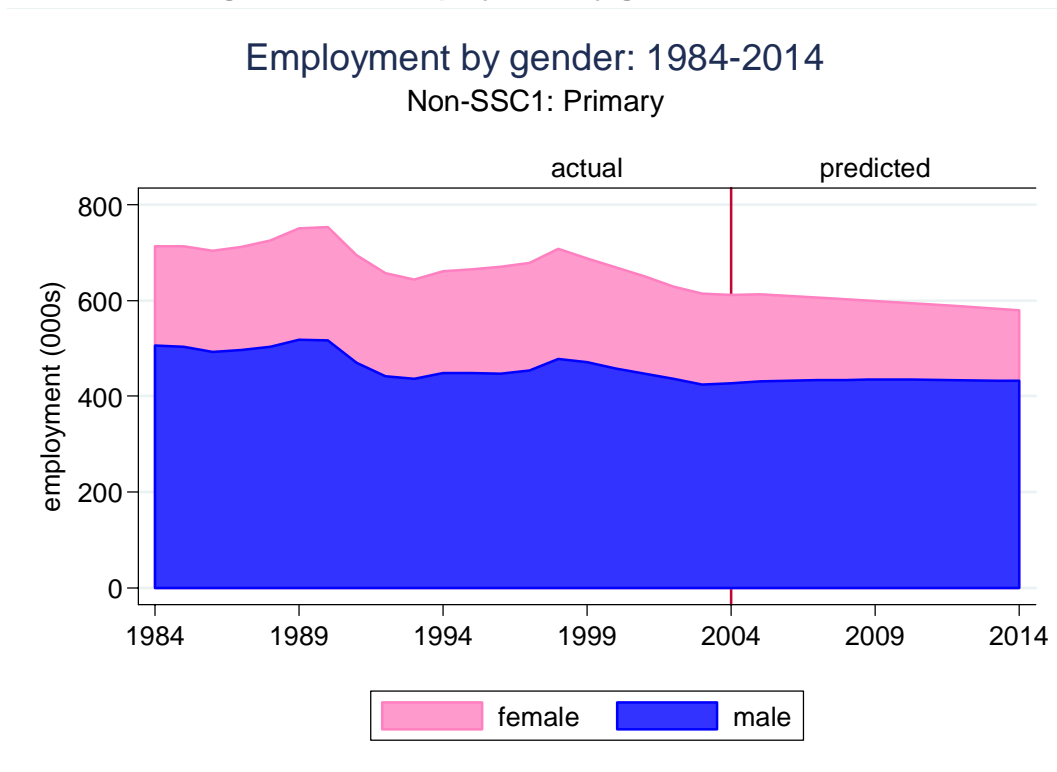


Figure 3.26.2: Employment by status: 1984-2014

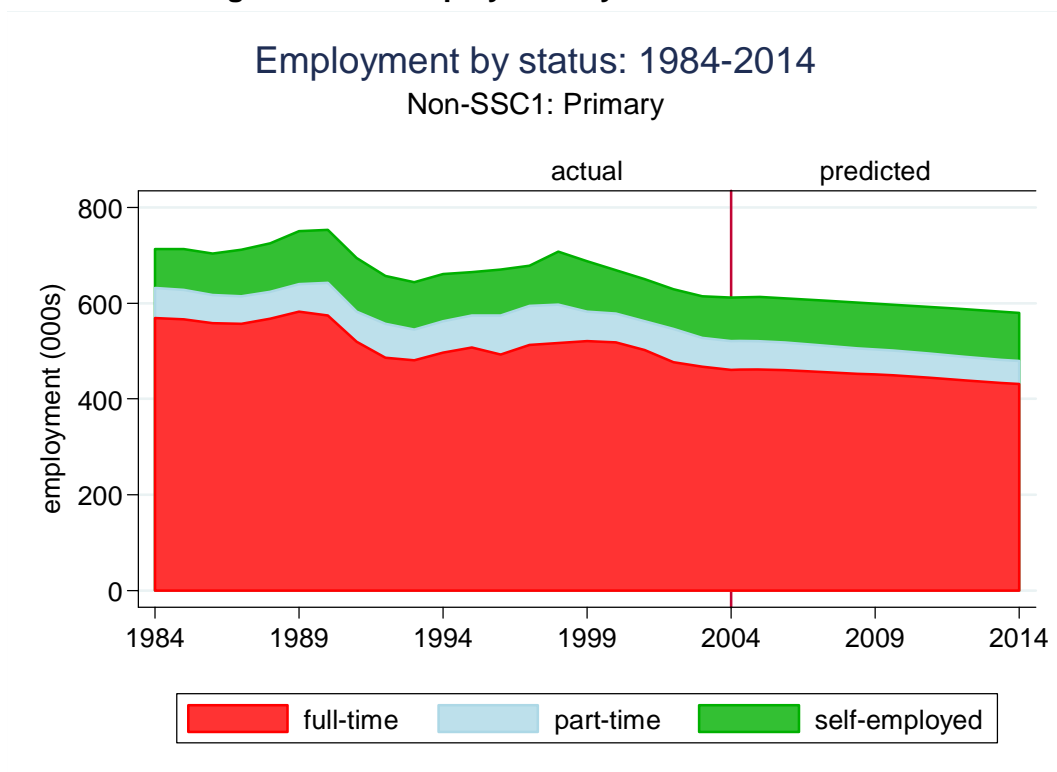


Figure 3.26.3: Occupational composition: 1994-2014

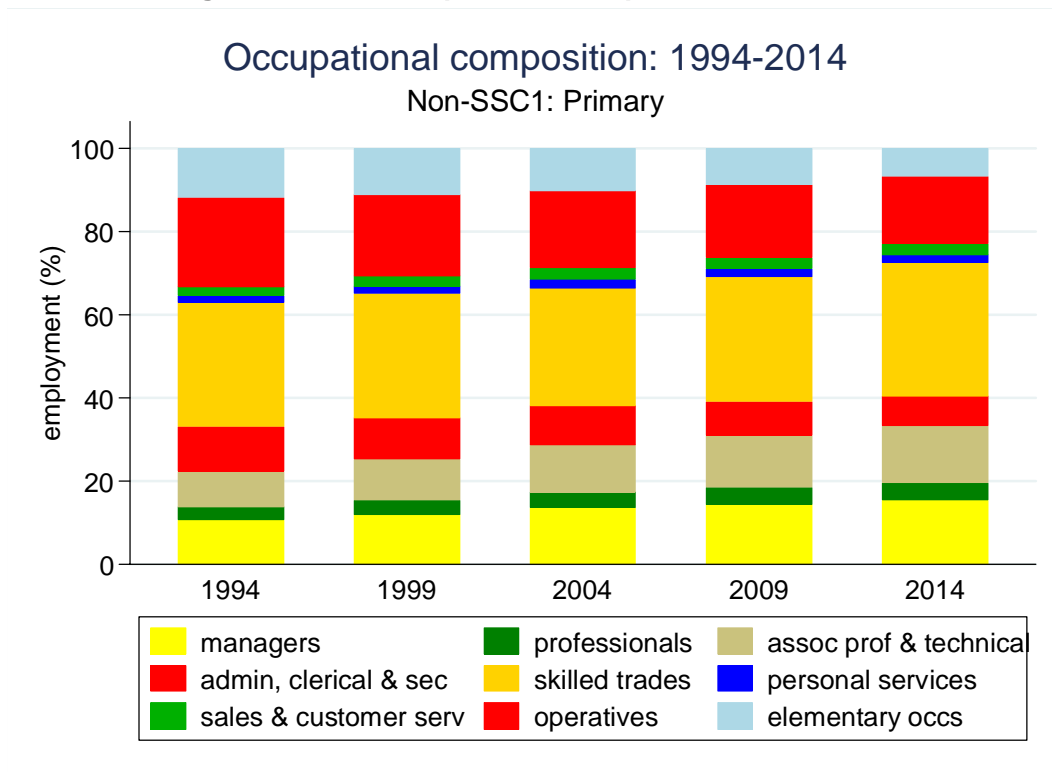


Figure 3.26.4: Employment levels by status and gender: 1994-2014

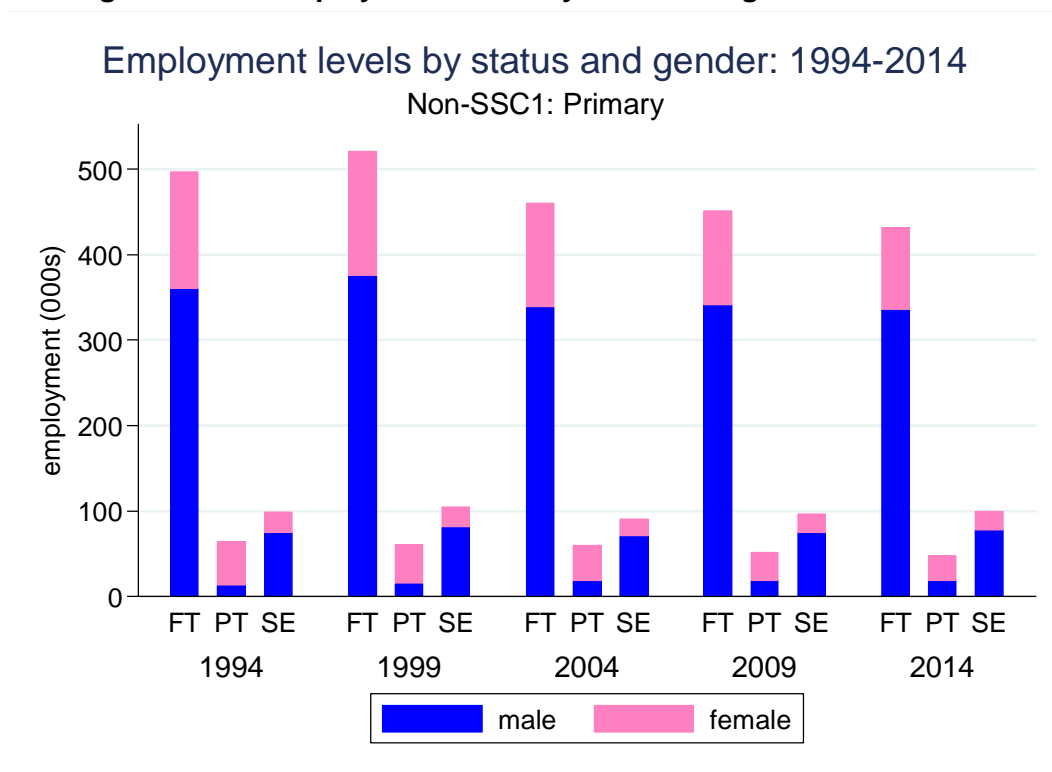


Figure 3.26.5: Employment shares by status and gender: 1994-2014

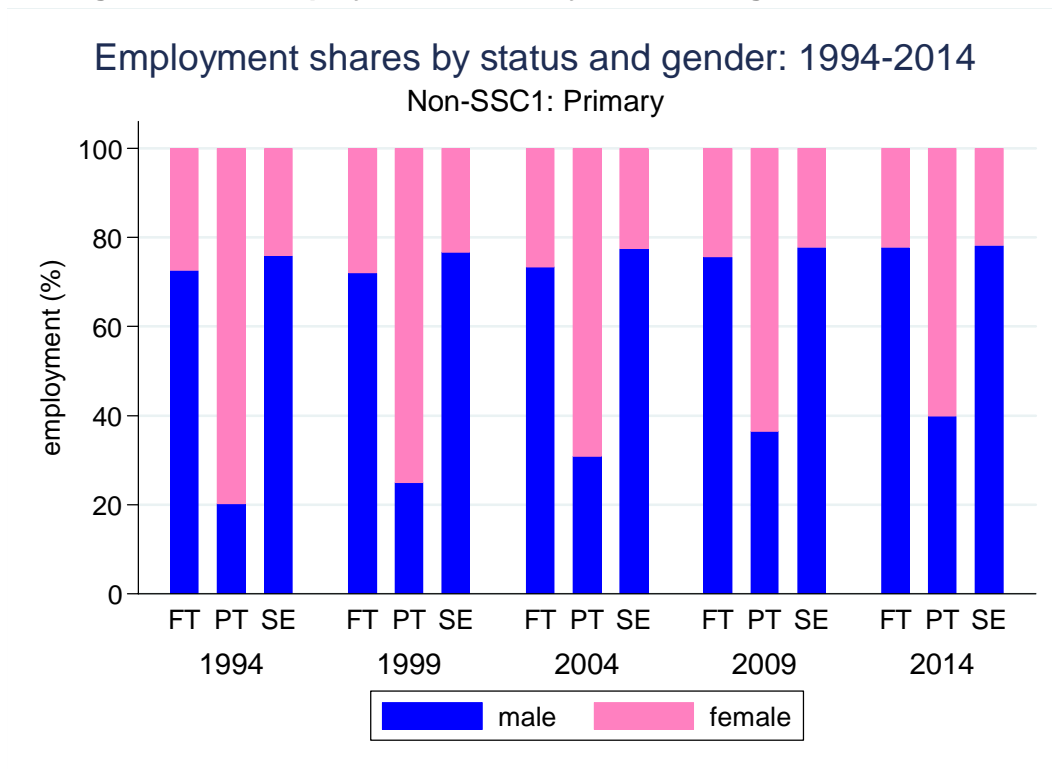


Figure 3.26.6: Employment changes by status and gender: 1984-2014

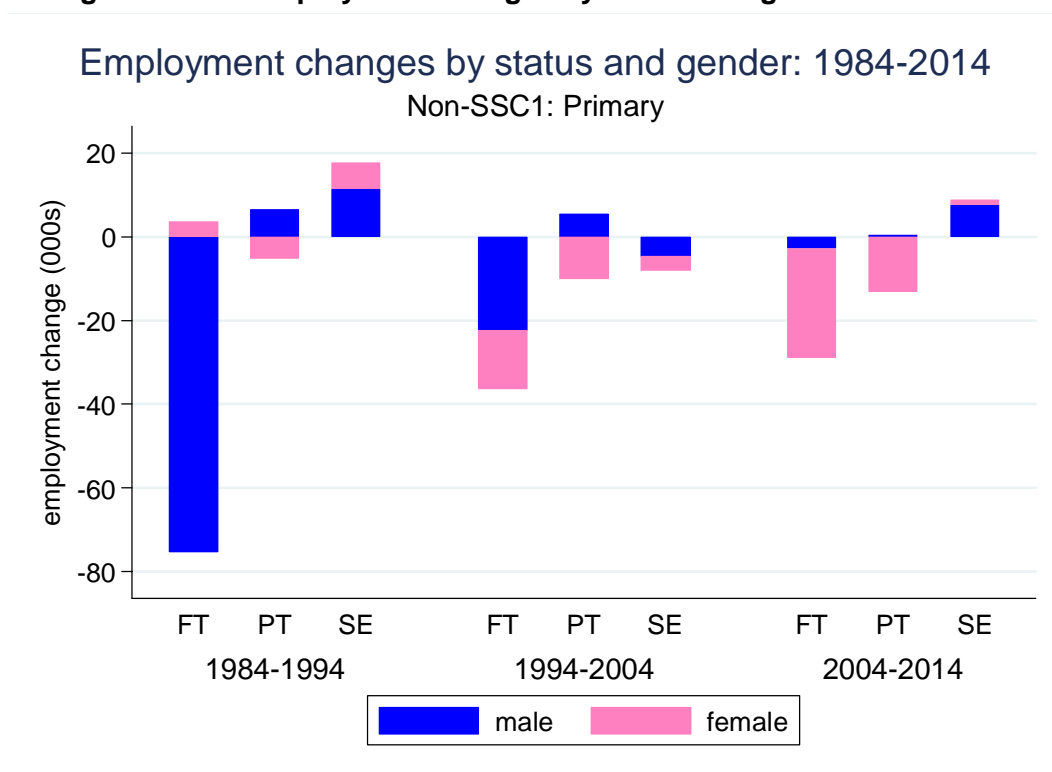
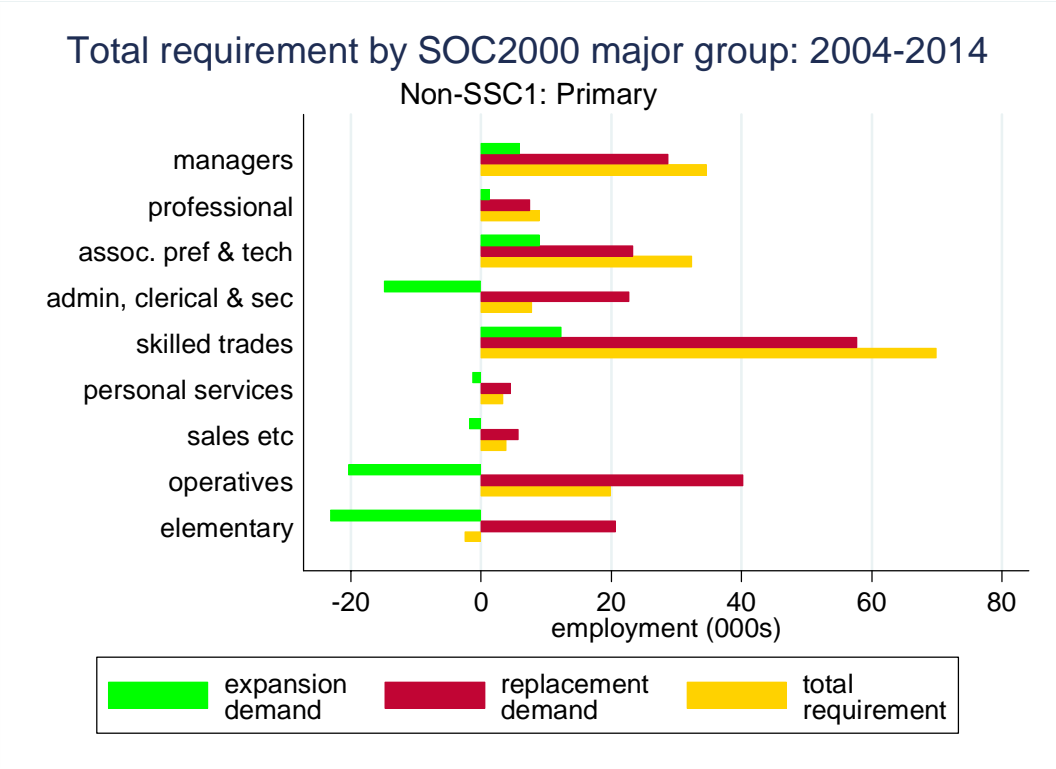


Figure 3.26.7: Total requirement by SOC2000 major group: 2004-2014



3.27 Non-SSC2: Wholesale/Retail

Sector description:

Non-SSC secondary sector employers which come under the responsibility of the SSDA.

SIC codes: 51.11-51.15, 51.17-51.23, 51.25-51.37, 51.39, 51.43-51.53, 51.56-51.90, 52.73, 52.74

Sector coverage:

Wholesale agents; wholesale agricultural products including seeds, grains, flowers and plants, food and dairy products.

Commentary:

Employment composition by gender and status

- This sectoral grouping currently covers about 1.1 million workers in a range of wholesale industries. Total employment is expected to remain fairly static over the next 10 years.
- Approximately 70% of employment is male, and three-quarters consists of full-time employees.

Occupational composition of employment

- As would be expected from the list of industries covered by this sectoral grouping, Sales & Customer Service Occupations feature strongly in employment, with more than one quarter of all employment in 2004 classified to this occupational group.
- In addition, more than 1-in-5 workers are in the Managers & Senior Officials Occupational group.

Expansion demand, replacement demand and total requirement 2004-2014

- Total requirements are in excess of 450,000 new recruits to this sectoral grouping over the next 10 years.
- Total requirements are positive for all occupational groups.

Table 3.27.1: Employment levels and shares by status and gender: 1994-2014

Non-SSC2: Wholesale/Retail									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
1994	FT	PT	SE	Total	FT	PT	SE	Total	
Female	141	36	30	206	13	3	3	20	
Male	686	12	143	840	66	1	14	80	
Total employment	826	47	173	1,047	79	5	17	100	
1999	FT	PT	SE	Total	FT	PT	SE	Total	
Female	246	102	25	374	21	9	2	32	
Male	629	40	135	804	53	3	11	68	
Total employment	875	142	160	1,178	74	12	14	100	
2004	FT	PT	SE	Total	FT	PT	SE	Total	
Female	221	98	25	344	20	9	2	31	
Male	616	43	118	777	55	4	11	69	
Total employment	837	141	143	1,121	75	13	13	100	
2009	FT	PT	SE	Total	FT	PT	SE	Total	
Female	215	99	16	330	19	9	1	29	
Male	667	48	105	819	58	4	9	71	
Total employment	882	147	121	1,150	77	13	11	100	
2014	FT	PT	SE	Total	FT	PT	SE	Total	
Female	211	103	8	322	18	9	1	27	
Male	727	52	92	872	61	4	8	73	
Total employment	939	155	101	1,194	79	13	8	100	

Table 3.27.2: Composition of employment by occupation: 1994-2014

Non-SSC2: Wholesale/Retail					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	262	250	240	245	253
2. Professional Occupations	31	32	33	36	40
3. Associate Professional & Tech.	87	96	96	100	105
4. Administrative, Clerical and Sec.	65	86	74	68	63
5. Skilled Trades Occupations	182	166	144	141	139
6. Personal Service Occupations	32	45	47	52	58
7. Sales & Customer Service Occs.	174	287	286	305	326
8. Machine & Transport Operatives	104	96	90	98	108
9. Elementary Occupations	110	120	111	106	102
Total employment	1,047	1,178	1,121	1,150	1,194
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	25	21	21	21	21
2. Professional Occupations	3	3	3	3	3
3. Associate Professional & Tech.	8	8	9	9	9
4. Administrative, Clerical and Sec.	6	7	7	6	5
5. Skilled Trades Occupations	17	14	13	12	12
6. Personal Service Occupations	3	4	4	5	5
7. Sales & Customer Service Occs.	17	24	26	26	27
8. Machine & Transport Operatives	10	8	8	8	9
9. Elementary Occupations	10	10	10	9	9
Total employment	100	100	100	100	100

Table 3.27.3: Replacement demand by occupation: 2004-2014

Non-SSC2: Wholesale/Retail				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	240	13	84	97
2. Professional Occupations	33	7	11	18
3. Associate Professional & Tech.	96	9	31	40
4. Administrative, Clerical and Sec.	74	-11	29	18
5. Skilled Trades Occupations	144	-4	46	42
6. Personal Service Occupations	47	10	19	29
7. Sales & Customer Service Occs.	286	40	93	133
8. Machine & Transport Operatives	90	19	31	50
9. Elementary Occupations	111	-9	36	27
Total employment	1,121	74	379	453
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	21	5	35	40
2. Professional Occupations	3	21	34	55
3. Associate Professional & Tech.	9	9	32	42
4. Administrative, Clerical and Sec.	7	-14	39	25
5. Skilled Trades Occupations	13	-3	32	29
6. Personal Service Occupations	4	22	40	62
7. Sales & Customer Service Occs.	26	14	32	46
8. Machine & Transport Operatives	8	21	34	55
9. Elementary Occupations	10	-8	32	24
Total employment	100	7	34	40

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.27.1: Employment by gender: 1984-2014

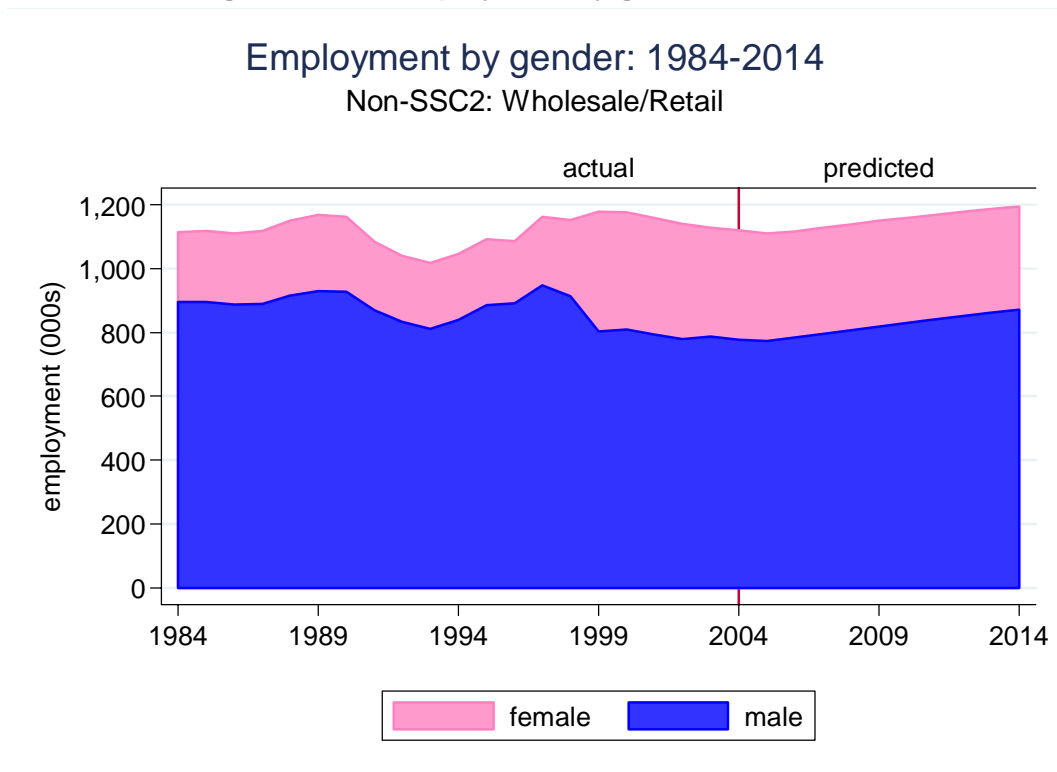


Figure 3.27.2: Employment by status: 1984-2014

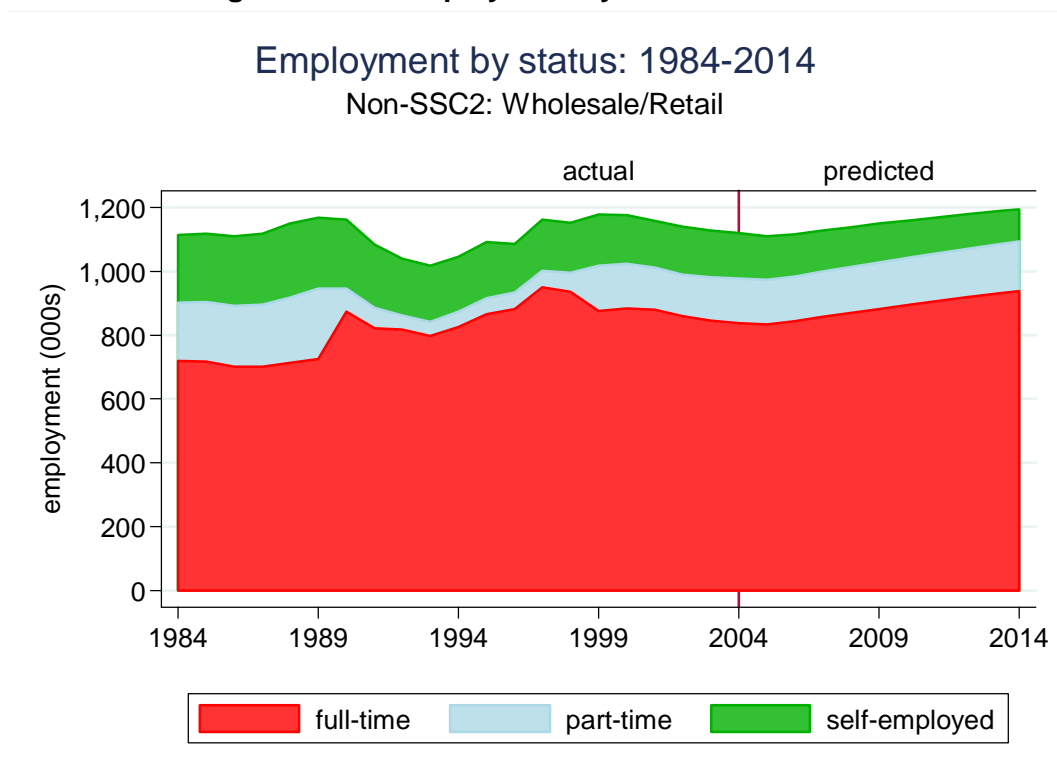


Figure 3.27.3: Occupational composition: 1994-2014

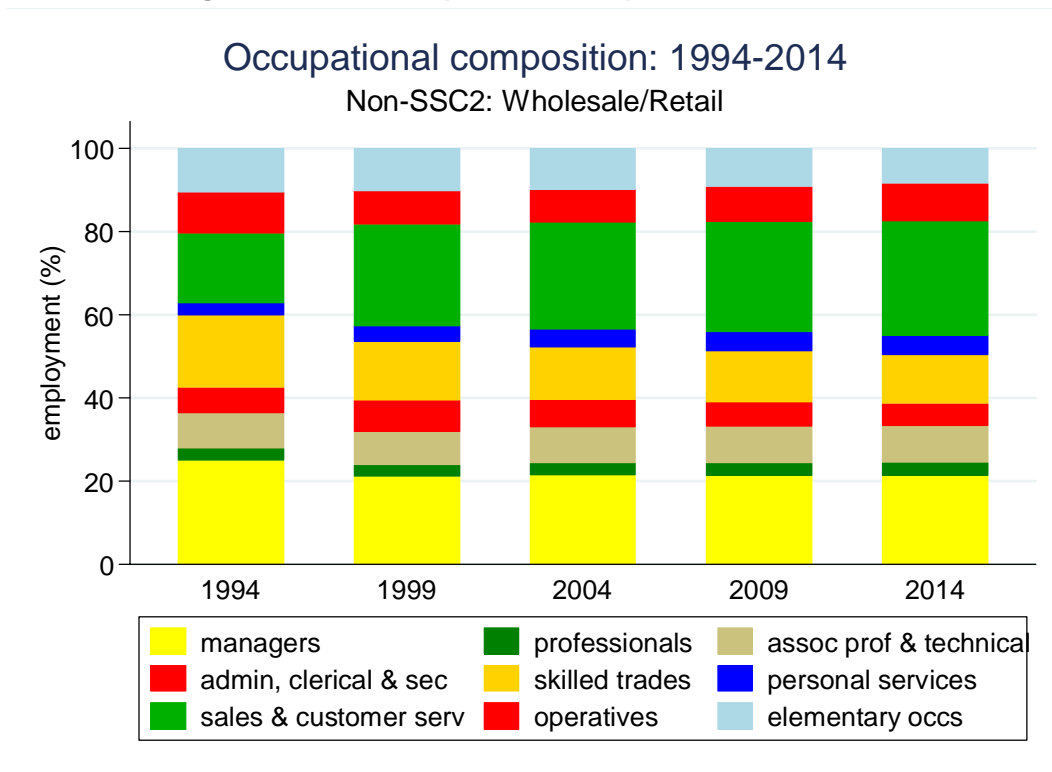


Figure 3.27.4: Employment levels by status and gender: 1994-2014

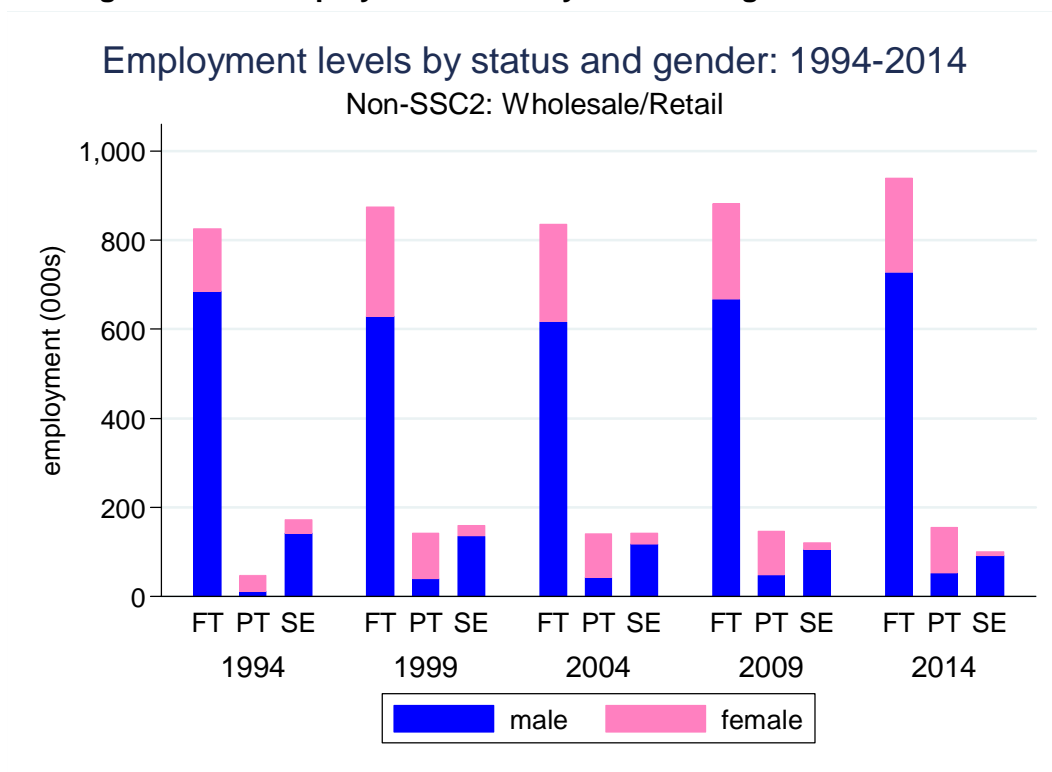


Figure 3.27.5: Employment shares by status and gender: 1994-2014

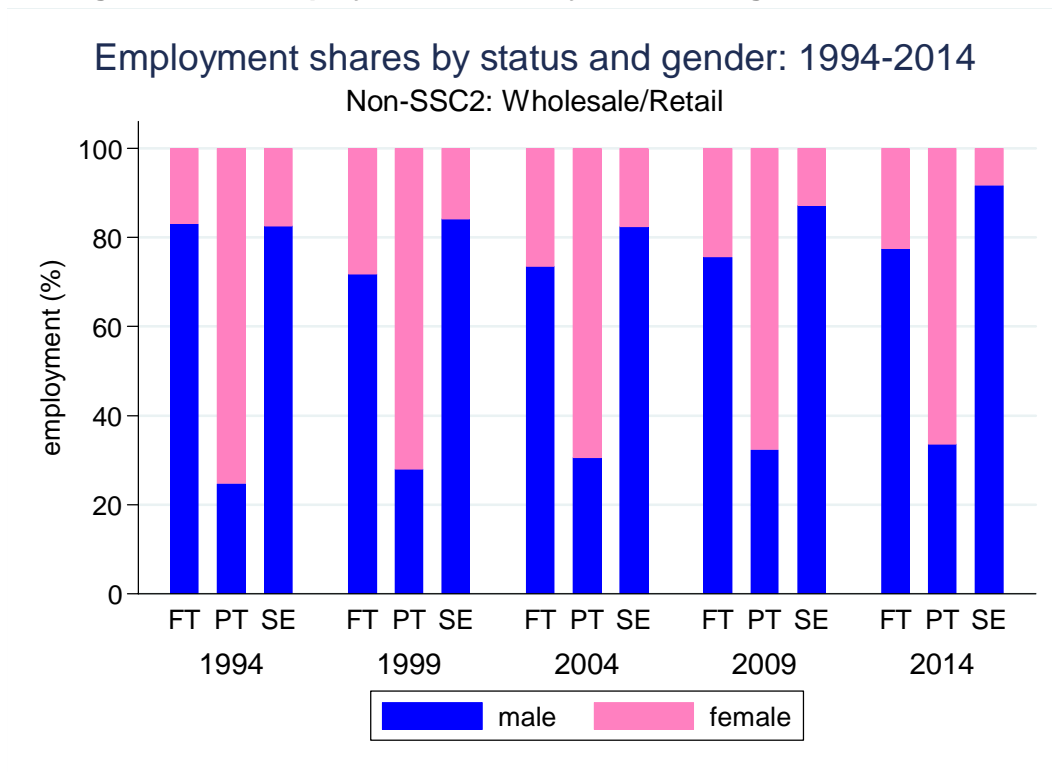


Figure 3.27.6: Employment changes by status and gender: 1984-2014

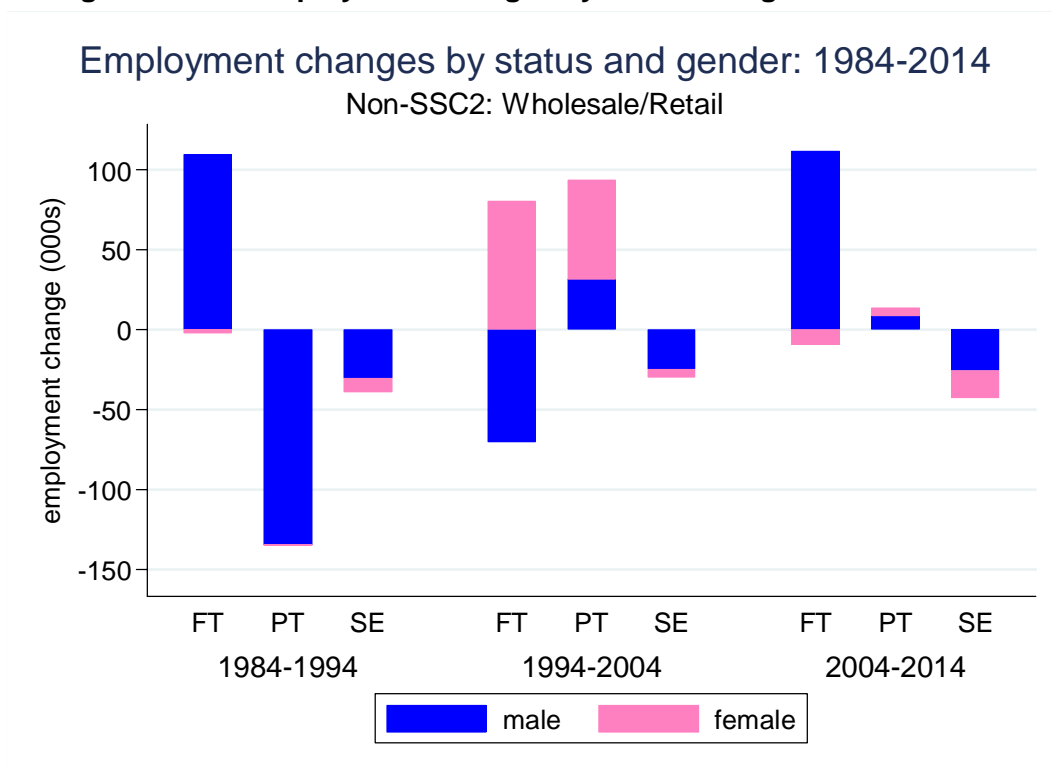
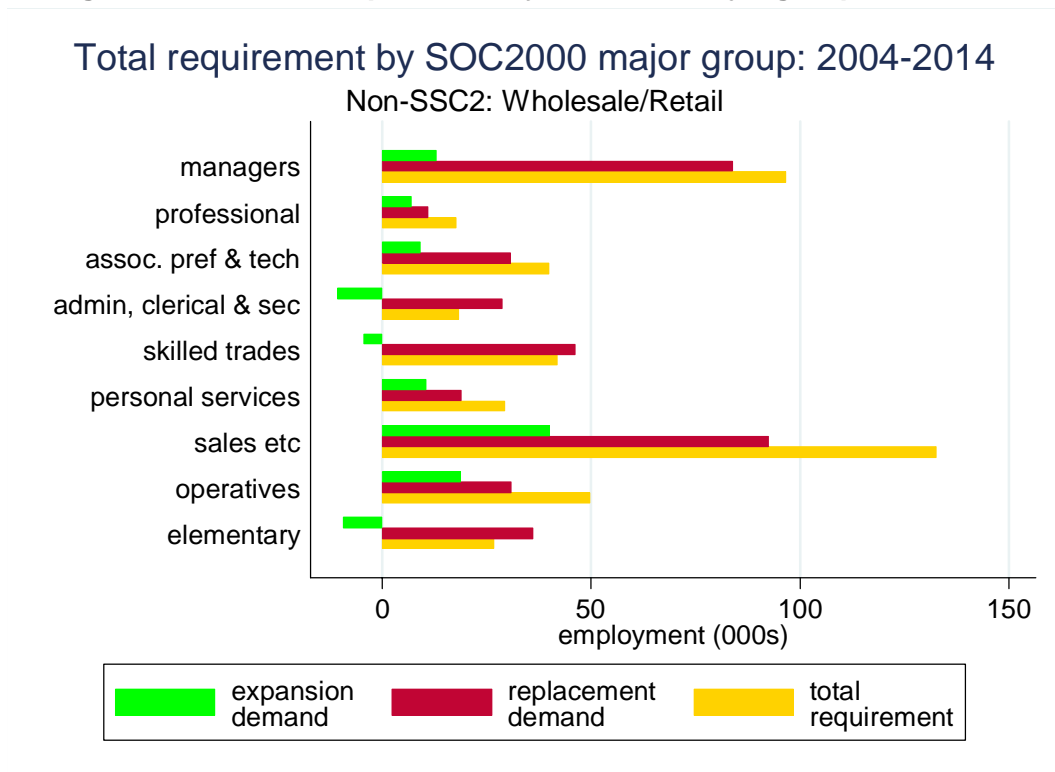


Figure 3.27.7: Total requirement by SOC2000 major group: 2004-2014



3.28 Non-SSC3: Business and Public Services

Sector description:

Non-SSC business and public service sector employers which come under the responsibility of the SSDA.

SIC codes: 62.3, 71.2, 71.31, 71.33, 71.34, 71.4, 73, 74.1, 74.3, 74.5, 74.6, 74.82, 74.85, 74.87, 80.10, 80.21, 91, 92.72, 93.02, 93.03, 93.05

Sector coverage:

Rental; research and development (R&D); other business activities; primary and secondary education; membership organisations; hairdressing; funeral directors.

Commentary:

Employment composition by gender and status

- Currently, this sectoral grouping represents 4.8 million workers, or almost 16% of total employment.
- Its share of total employment is expected to rise over the next decade by almost 500,000 new jobs to almost 17% of all in employment, and will then cover almost 5.3 million workers.

Occupational composition of employment

- Professional and Associate Professional & Technical Occupational groups are disproportionately represented in this sectoral grouping.

Expansion demand, replacement demand and total requirement 2004-2014

- Total requirement for this sectoral grouping for the next 10 years is almost 50% of current employment. This is driven by both expected net expansion of around 10% of current employment, and a relatively high replacement demand ratio.

Table 3.28.1: Employment levels and shares by status and gender: 1994-2014

Non-SSC3: Business and Public Services									
<i>Employment by gender</i>	<i>Employment status</i>								<i>%</i>
	000s								
	FT	PT	SE	Total	FT	PT	SE	Total	
1994									
Female	1,097	975	201	2,273	30	26	5	61	
Male	1,002	198	237	1,438	27	5	6	39	
Total employment	2,099	1,174	438	3,710	57	32	12	100	
1999									
Female	1,157	1,109	213	2,479	27	26	5	58	
Male	1,250	287	290	1,827	29	7	7	42	
Total employment	2,407	1,396	503	4,306	56	32	12	100	
2004									
Female	1,273	1,175	227	2,674	27	25	5	56	
Male	1,450	344	321	2,114	30	7	7	44	
Total employment	2,722	1,519	547	4,788	57	32	11	100	
2009									
Female	1,325	1,220	212	2,757	26	24	4	55	
Male	1,579	364	319	2,263	31	7	6	45	
Total employment	2,905	1,584	531	5,019	58	32	11	100	
2014									
Female	1,380	1,256	204	2,839	26	24	4	54	
Male	1,719	389	330	2,438	33	7	6	46	
Total employment	3,099	1,645	534	5,278	59	31	10	100	

Table 3.28.2: Composition of employment by occupation: 1994-2014

Non-SSC3: Business and Public Services					
SOC2000 Major groups	<i>Employment levels (000s)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	479	598	700	760	828
2. Professional Occupations	897	1,076	1,245	1,391	1,537
3. Associate Professional & Tech.	552	712	855	912	984
4. Administrative, Clerical and Sec.	678	666	650	613	570
5. Skilled Trades Occupations	144	168	170	177	178
6. Personal Service Occupations	288	382	458	488	527
7. Sales & Customer Service Occs.	91	116	143	161	178
8. Machine & Transport Operatives	136	153	164	170	174
9. Elementary Occupations	446	436	403	348	301
Total employment	3,710	4,306	4,788	5,019	5,278
SOC2000 Major groups	<i>Employment shares (%)</i>				
	1994	1999	2004	2009	2014
1. Managers & Senior Officials	13	14	15	15	16
2. Professional Occupations	24	25	26	28	29
3. Associate Professional & Tech.	15	17	18	18	19
4. Administrative, Clerical and Sec.	18	15	14	12	11
5. Skilled Trades Occupations	4	4	4	4	3
6. Personal Service Occupations	8	9	10	10	10
7. Sales & Customer Service Occs.	2	3	3	3	3
8. Machine & Transport Operatives	4	4	3	3	3
9. Elementary Occupations	12	10	8	7	6
Total employment	100	100	100	100	100

Table 3.28.3: Replacement demand by occupation: 2004-2014

Non-SSC3: Business and Public Services				
SOC2000 Major groups	<i>Employment (000s)</i>			
	2004 levels	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	700	128	259	387
2. Professional Occupations	1,245	291	491	783
3. Associate Professional & Tech.	855	129	284	412
4. Administrative, Clerical and Sec.	650	-80	266	186
5. Skilled Trades Occupations	170	8	58	65
6. Personal Service Occupations	458	69	185	254
7. Sales & Customer Service Occs.	143	35	49	84
8. Machine & Transport Operatives	164	11	58	69
9. Elementary Occupations	403	-102	157	55
Total employment	4,788	489	1,806	2,295
SOC2000 Major groups	<i>Percentages (%)</i>			
	2004 shares	changes 2004-2014		
		ED	RD	TR
1. Managers & Senior Officials	15	18	37	55
2. Professional Occupations	26	23	39	63
3. Associate Professional & Tech.	18	15	33	48
4. Administrative, Clerical and Sec.	14	-12	41	29
5. Skilled Trades Occupations	4	5	34	38
6. Personal Service Occupations	10	15	40	55
7. Sales & Customer Service Occs.	3	25	34	59
8. Machine & Transport Operatives	3	6	36	42
9. Elementary Occupations	8	-25	39	14
Total employment	100	10	38	48

Key:

ED = Expansion Demand

RD = Replacement Demand

TR = Total Requirement = ED + RD

Figure 3.28.1: Employment by gender: 1984-2014

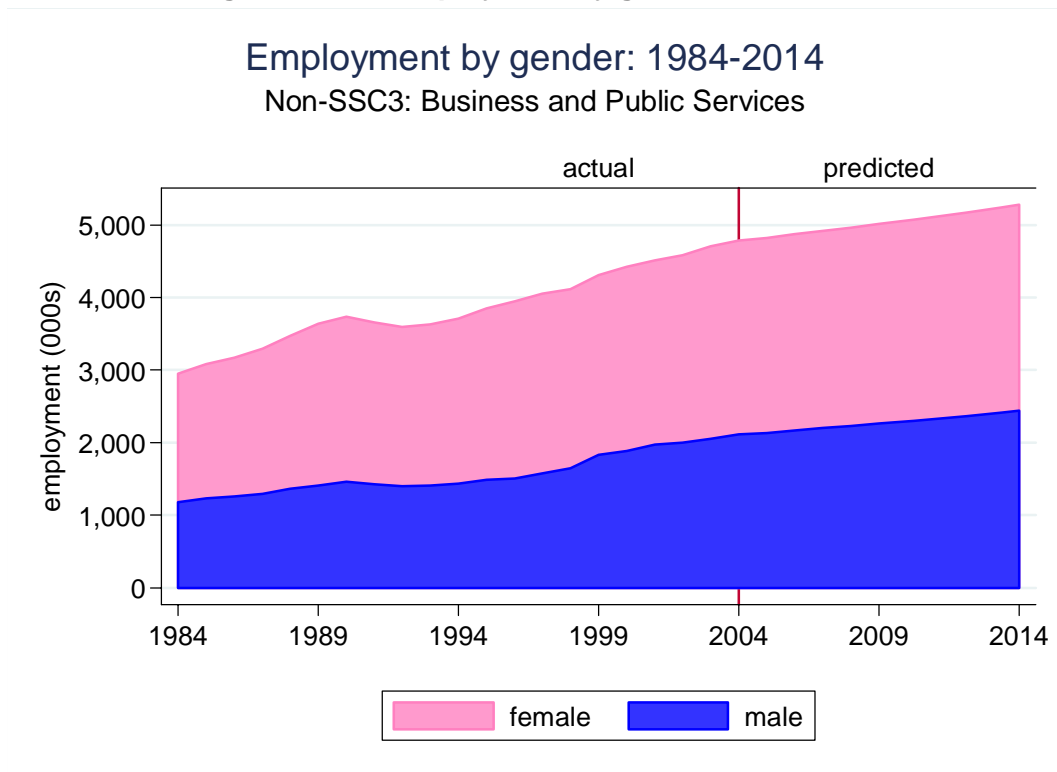


Figure 3.28.2: Employment by status: 1984-2014

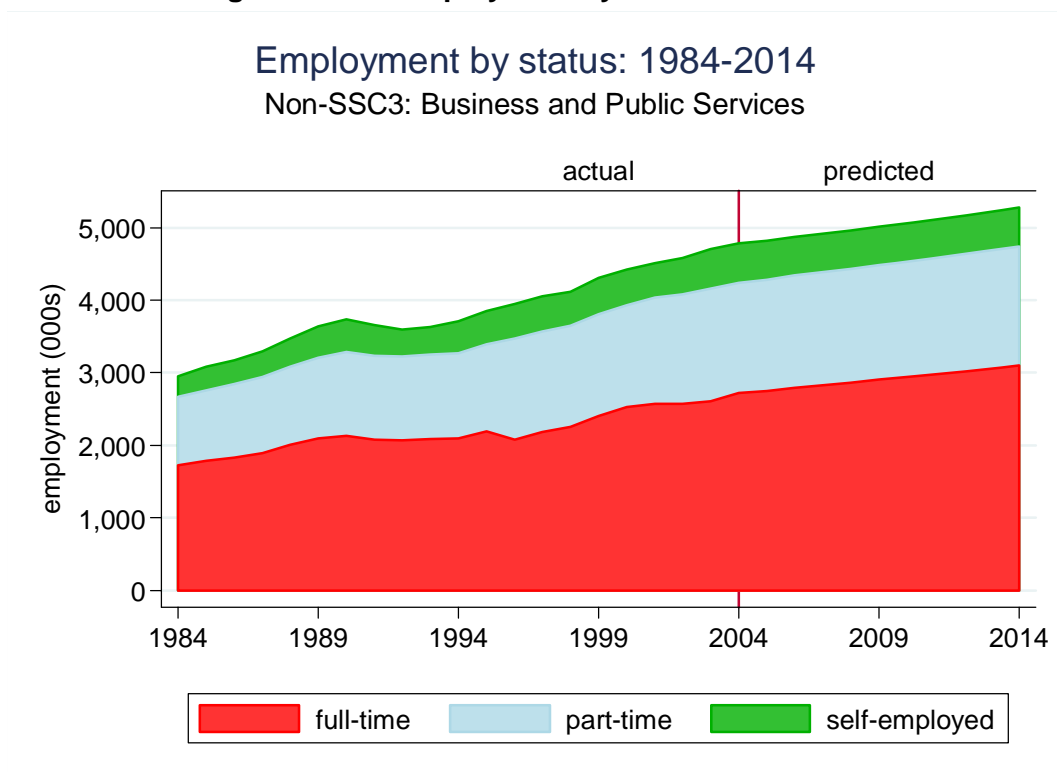


Figure 3.28.3: Occupational composition: 1994-2014

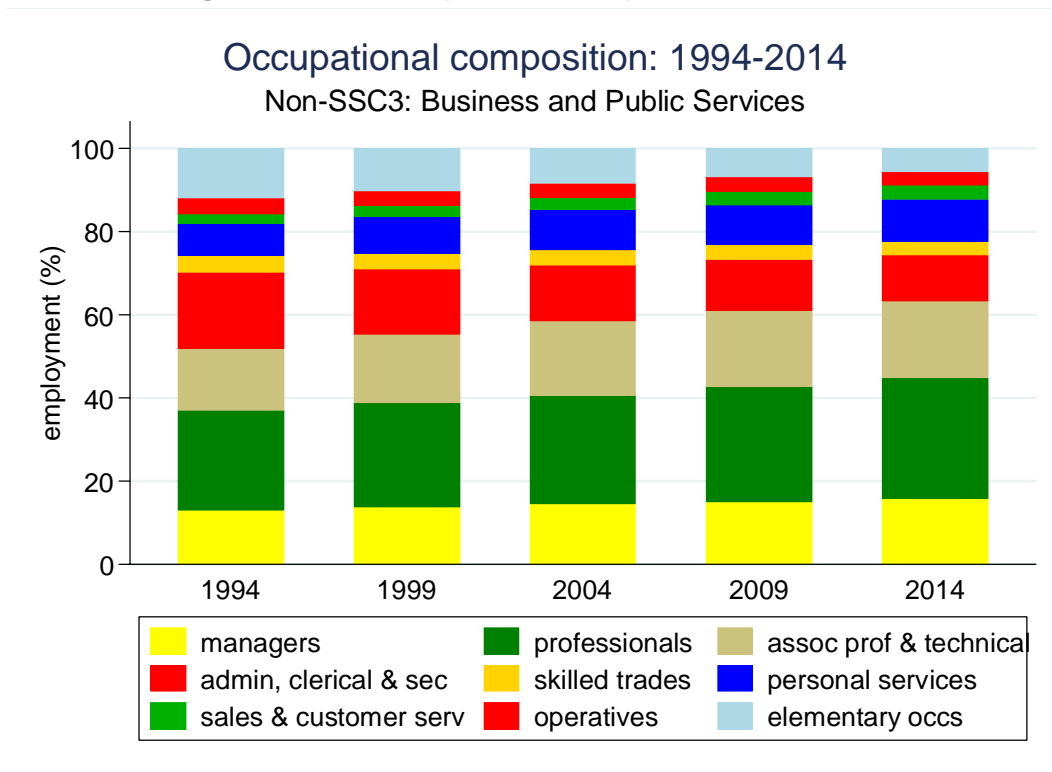


Figure 3.28.4: Employment levels by status and gender: 1994-2014

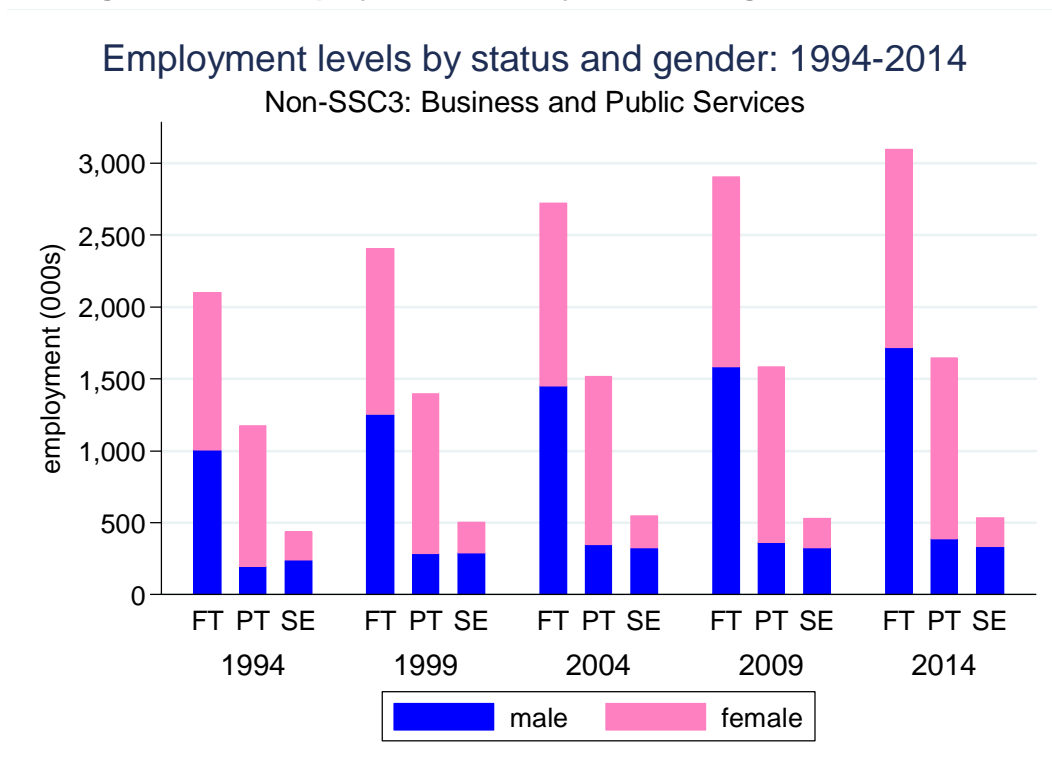


Figure 3.28.5: Employment shares by status and gender: 1994-2014

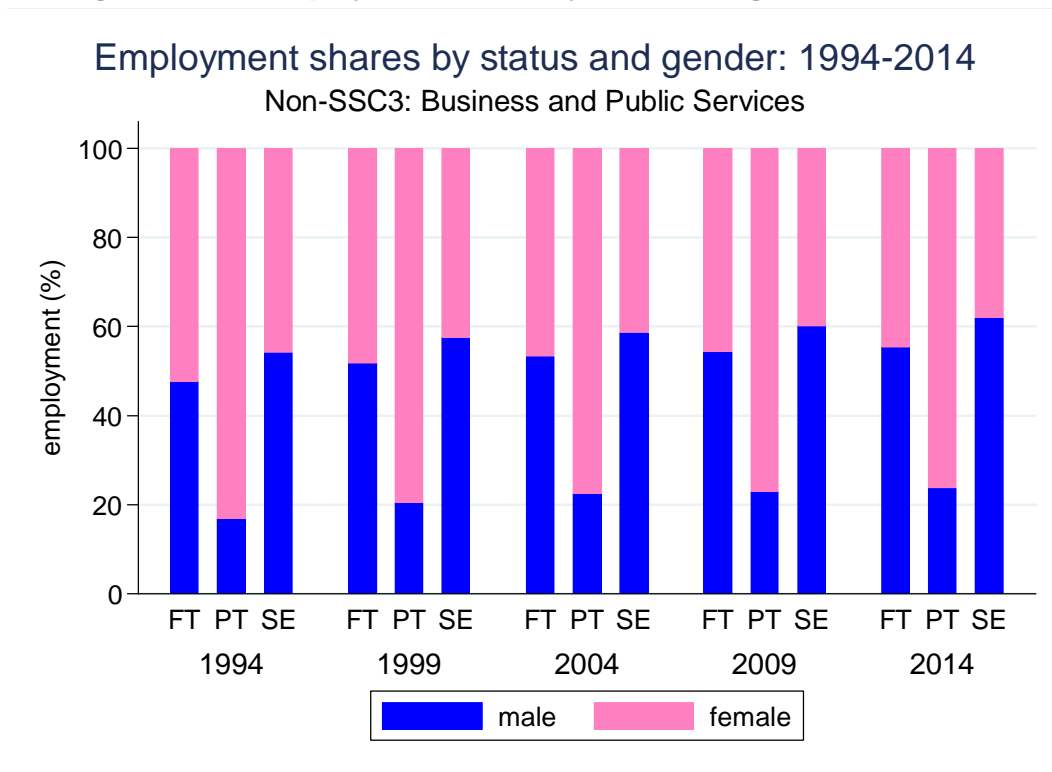


Figure 3.28.6: Employment changes by status and gender: 1984-2014

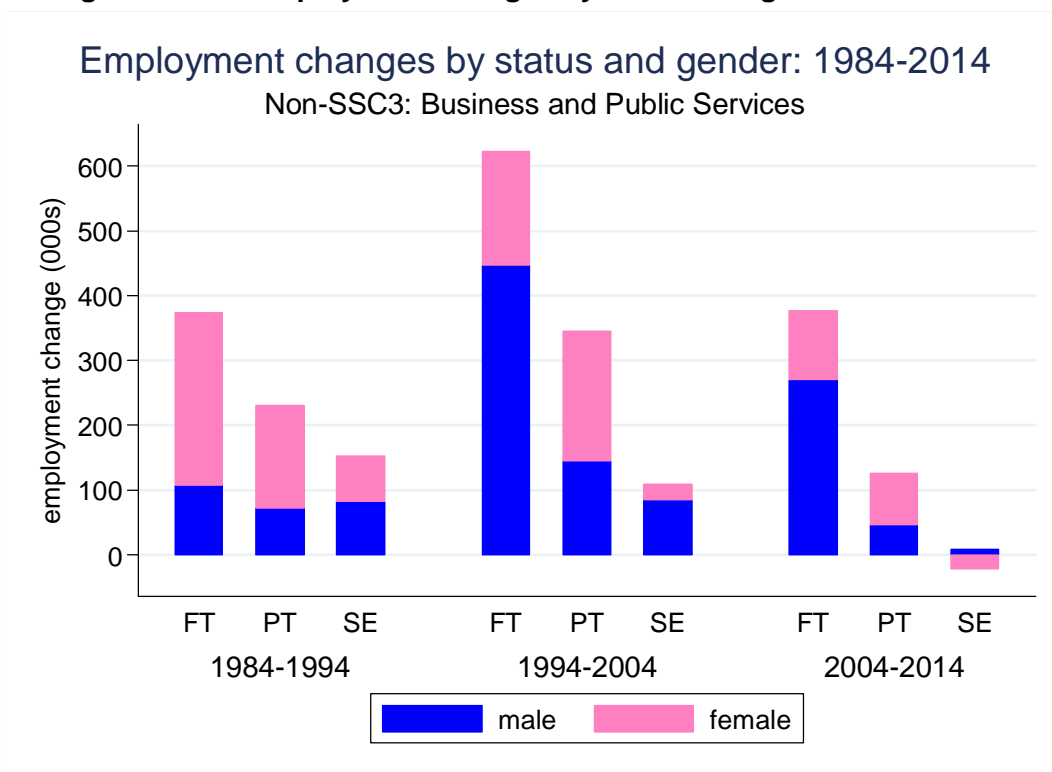
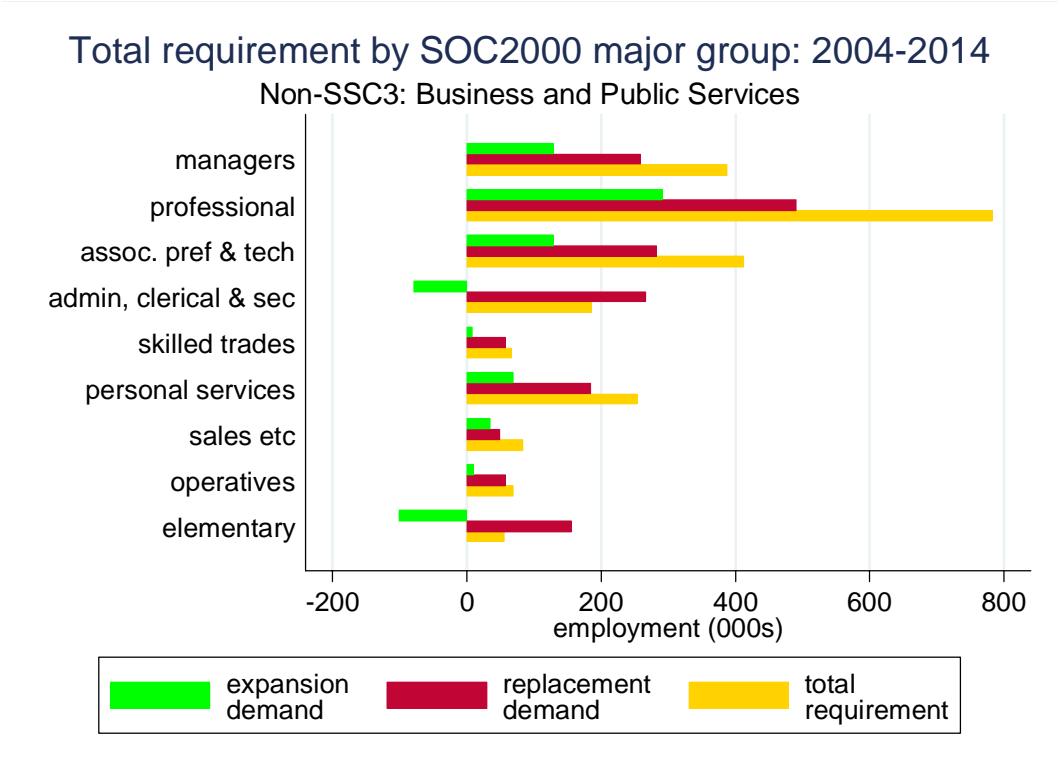


Figure 3.28.7: Total requirement by SOC2000 major group: 2004-2014



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ANNEX A: SOURCES AND METHODS

A1 SSC footprints and the distribution of employment

A1.1 Defining SSC footprints

Since its inception, the Sector Skills Development Agency (SSDA) has established a number of new Sector Skills Councils (SSCs). At the time of writing (October 2005), there are 24 established SSCs, with another SSC currently 'in development' (Central Government), giving a total of 25 SSCs to be considered in these projections. The SSCs are independent organisations led by groups of employers and charged with representing the views of employers in the areas they cover on matters pertaining to skills issues and skills needs in their sector. Their objectives include:

- increasing productivity;
- addressing skills gaps and shortages;
- providing greater opportunities for all; and
- fostering greater responsiveness in education and training providers to the needs of employers.

Following detailed discussions with the SSDA, a 'footprint' for each of the SSCs based on their sectoral coverage and the SSCs' contracts has been agreed. Each SSC footprint is based on a number of 4-digit classes of the 2003 Standard Industrial Classification (SIC2003). The SIC codes used are a 'best fit' of each SSC's core business sectors but the extent to which this is an 'exact' fit to the SSC varies between SSCs. In some cases, the core SIC codes exclude elements of the SSC footprint because these have been included in other SSCs.

Table A1.1 shows how the footprints of the 25 SSCs have been defined in terms of 4-digit SIC2003 classes. There remains a substantial number of 4-digit classes which are not covered by any of the 25 SSCs. Employment in these industrial groups is the responsibility of the SSDA. For the purposes of reporting in *Working Futures*, these have been separated into three industry groupings according to their industrial activity – namely: Non-SSC1: Primary; Non-SSC2: Wholesale/Retail; and Non-SSC3: Business and Public Services.

The classification of the 4-digit SIC2003 industries into SSCs and SSDA industry groups presented in Table A1.1 is exclusive and complete in that no 4-digit SIC codes are covered by two or more SSCs and all 4-digit codes are covered by one of the 25 SSCs or by one of the three Non-SSC groups that have been defined. That is, the 25 SSCs and three Non-SSC groupings are non-overlapping and collectively cover all employment in the UK.

A1.2 Constructing employment projections for SSCs

Generally speaking, historical time series data do not exist for the SSC categories. However the detailed results available from the *Working Futures 2004-2014* database enable an initial assessment to be made of both historical trends and future prospects for SSCs. This is done by combining together the results from the 67 detailed industries which underlie the results presented in *Working Futures*. These have the advantage of being based on a consistent assessment of the demand for the goods and services provided by these various industries, taking into account the situation across all industries simultaneously.

Ideally, constructing employment projections for the SSCs would require that *Working Futures* database of employment data be defined at the same 4-digit level as the SSCs. In practice the current database is not quite as detailed as this. The 67 detailed industry level data does get quite close to what is needed in most cases. However, some of the 67-level categories are split between SSCs. Where more detailed information is needed, the ABI and LFS have been used to construct a detailed mapping from the 67-level industrial categories to SSCs. Effectively, a set of fixed converters is used to translate from SIC to SSC categories.

The employee converters are constructed using data from the ABI 2003 (and thus are based on GB rather than UK shares given the coverage of ABI) which is a survey of employees in employment. Separate converters are constructed for men and women, and for part-time and full-time workers. In contrast, the male and female self-employment converters are based on LFS data (for GB to be comparable to ABI). However, because of small sample sizes for many 4-digit groups, LFS data for the Autumn (Sept-Nov) surveys for 2002, 2003 and 2004 are averaged. In two cases the LFS does not distinguish relevant SIC categories in sufficient detail, and for these, the proportions of full-time employees from ABI are used to develop the relevant converter. These two exceptions are SIC45: Construction and SIC51: Wholesale Trade.

SIC45: Construction is divided between ConstructionSkills and SummitSkills. SummitSkills includes 45.31: Installation of electrical wiring and fittings and 45.33: Plumbing. The LFS does not give any breakdown of SIC45 and hence the full-time employee proportion is used to allocate the self-employed between these two SSCs. Similarly, SIC51: Wholesale Trade is divided between three SSCs but with most (86%) employees unallocated and therefore assigned to the SSDA. Again, the LFS does not make a proper distinction within SIC51 and hence the full-time employee proportion from the ABI is used to allocate between the three SSCs and the unallocated Non-SSC group. The number of employees and the self-employment estimates for each 4-digit industry group are then added together, and the shares then calculated within each SSC.

The conversion from 67 industries to SSCs is therefore accomplished by using six converters in total, distinguishing male and female by employment status (full-time employment, part-time employment and self-employment). Table A1.2 presents the resultant estimates of the shares of total employment in 2003 by 4-digit SIC2003 within each of the 25 SSCs and the three Non-SSC groups.

When employment in all 25 SSCs is added together with that covered by the three Non-SSC groupings, the result sums to total UK employment. Despite the refinements described above, the conversion process is necessarily rather crude. This is necessary in order to achieve a consistent picture across all the other dimensions of employment considered in *Working Futures*. The *Working Futures* database is designed to match headline constraints at regional, sectoral and other levels but it cannot replicate every nuance of all the different underlying data sources. Thus, for example, point estimates based on the LFS for a particular SSC's employment structure will inevitably differ from the detailed estimates presented here. These differences will reflect in part noise in the data (the LFS sample, although large in total, is often not adequate to guarantee very precise estimates at a detailed sectoral level, especially when cross-classified by other dimensions). The *Working Futures 2004-2014* projections by SSC should however offer a useful guide to trends over time, especially for the future.

Table A1.1: SSC definitions^a by 4-digit SIC2003 codes

SSC name	SSC description	SIC definition
1 Lantra Web: www.lantra.co.uk	Environmental and land-based industries <i>Note: Lantra also cover industries which are small elements of other SIC codes not necessarily within their core, e.g. floristry, fencemaking, farriers</i>	01, 02, 05.02, 85.2, 92.53
2 Cogent Web: www.cogent-ssc.com	Chemicals, nuclear, oil and gas, petroleum and polymer industries <i>Note: Cogent also cover the nuclear industry and sign making, but it is not possible to isolate these in terms of SIC.</i>	11, 23, 24.11-24.2, 24.41-24.63, 24.65, 24.66, 25.13-25.24, 50.5
3 Proskills Web: www.proskills.co.uk	Process and manufacturing of extractives, coatings, refractories, building products, paper and print	10, 12-14, 21, 22.2, 24.3, 26.1, 26.26, 26.4-26.8, 40.3
4 Improve Ltd Web: www.improveltd.co.uk	Food and drink manufacturing and processing	15.11-15.91, 15.93-15.98, 51.38
5 Skillfast-UK Web: www.skillfast-uk.org	Apparel, footwear and textile industry	17-19, 24.7, 51.16, 51.24, 51.41, 51.42, 52.71, 93.01
6 SEMTA Web: www.semta.org.uk	Science, engineering and manufacturing technologies <i>Note: SEMTA also cover science sectors, not exclusively defined by SIC</i>	25.11, 25.12, 27.4-28.3, 28.5-28.7, 29-35
7 Energy & Utility Skills Web: www.euskills.co.uk	Electricity, gas, waste management and water industries <i>Note: Energy and Utility Skills also have an interest in gas fitters, covered by SummitSkills SSC.</i>	37, 40.1, 40.2, 41, 51.54, 51.55, 60.3, 90
8 ConstructionSkills Web: www.constructionskills.net/	Development and maintenance of the built environment <i>Note: A substantial proportion of construction work is sub-contracted to self-employed individuals (without employees).</i>	45.1, 45.2, 45.32, 45.34, 45.4, 45.5, 71.32, 74.2
9 SummitSkills Web: www.summitskills.org.uk	Building services engineering (electro-technical, heating, ventilating, air conditioning, refrigeration and plumbing)	45.31, 45.33, 52.72
10 Automotive Skills Web: www.automotiveskills.org.uk	Retail motor industry	50.1-50.4, 71.1
11 Skillsmart Retail Web: www.skillsmartretail.com	Retail industry	52.1-52.6
12 People 1 st Web: www.people1st.co.uk	Hospitality, leisure, travel and tourism	55.1, 55.21, 55.23, 55.3-55.5, 63.3, 92.33, 92.71
13 Goskills Web: www.goskills.org	Passenger transport	60.1, 60.21-60.23, 61, 62.1, 62.2, 63.2, 80.41
14 Skills for Logistics Web: www.skillsforlogistics.org	Freight logistics industry <i>Note: Skills for Logistics also cover rail and water freight transport, for which there are no specific SIC codes.</i>	60.24, 63.1, 63.4, 64.1
15 Financial Services Web: www.fssc.org.uk	Financial services industry	65-67
16 Asset Skills Web: www.assetskills.org	Property, housing, cleaning and facilities management	70, 74.7

^a These definitions are a 'best' fit to each SSC's core business sectors, but the extent to which this is an exact fit to the SSC varies between SSCs. In some cases, the use of the core SIC codes excludes certain elements of the SSC footprint because they are included in other areas.

SSC name	SSC description	SIC definition
	<i>Note: Facilities Management, although as an industry is included in SIC code 70, is also an occupation employed across all industries, so is not fully represented through SIC. Some social housing management activity also falls within 85.31 Social Work activities with accommodation.</i>	
17 e-skills UK Web: www.e-skills.com	IT, telecoms and contact centres	22.33, 64.2, 72, 74.86
	<i>Note: e-skills UK covers IT & telecoms professionals across all industries. Additionally, as a fast changing sector, sector boundaries are continually changing.</i>	
18 Central Government email: cgssc@cabinet-office.x.gsi.gov.uk	Central government	75.1, 75.21, 75.22, 75.25, 75.3
	<i>Note: Most of the above SIC codes also incorporate local government. It is not possible to identify through SIC central or local government establishments.</i>	
19 Skills for Justice Web: www.skillsforjustice.com	Custodial care, community justice and police	75.23, 75.24
20 Lifelong Learning UK Web: www.lifelonglearninguk.org	Community-based learning and development, further education, higher education, library and information services, work-based learning	80.22, 80.3, 80.42, 92.51
21 Skills for Health Web: www.skillsforhealth.org.uk	NHS, independent and voluntary health organisations	85.1
22 Skills for Care and Development email: sscadmin@skillsforcare.org.uk	Social care including children, families and young children	85.3
23 Skillset Web: www.skillset.org	Broadcast, film, video, interactive media and photo imaging	22.32, 24.64, 74.81, 92.1, 92.2
	<i>Note: Photo-imaging is spread across a range of SIC codes, it is not possible to isolate the retail element. Interactive media, the largest sector in scope to Skillset, is not exclusively coded and is included within the core of e-skills UK. Additionally, self-employed people without employees represent most of the sector in areas such as film production and independent production. For these reasons, the data presented for Skillset should be interpreted with caution.</i>	
24 Creative and Cultural Web: www.ccskills.org.uk	Arts, museums and galleries, heritage, crafts and design	22.14, 22.31, 36.3, 74.4, 92.31, 92.32, 92.34, 92.4, 92.52
25 SkillsActive Web: www.skillsactive.com	Sport and recreation, health and fitness, playwork, the outdoors and caravans.	55.22, 92.6, 93.04
	<i>Note: SkillsActive covers sectors which form only a portion of other SIC codes.</i>	
26 Non-SSC employers (Primary)		05.01, 15.92, 16, 20, 22.11-22.13, 22.15, 26.21-26.25, 26.3, 27.1-27.3, 28.4, 36.1, 36.2, 36.4-36.6
27 Non-SSC employers (Wholesale/Retail)		51.11-51.15, 51.17-51.23, 51.25-51.37, 51.39, 51.43-51.53, 51.56-51.90, 52.73, 52.74
28 Non-SSC employers (Business and Public services)		62.3, 71.2, 71.31, 71.33, 71.34, 71.4, 73, 74.1, 74.3, 74.5, 74.6, 74.82, 74.85, 74.87, 80.10, 80.21, 91, 92.72, 93.02, 93.03, 93.05

Table A1.2: 4-digit SIC2003 composition of SSCs 2003

SSC and 4-digit SIC2003 constituent industries		% share
1	Lantra	
0100	DEFRA/Scottish Executive Agricultural Data	37.9
0111	Growing of cereals and other crops n.e.c.	4.9
0112	Growing of vegetables, horticultural specialities and nursery products	4.5
0113	Growing of fruit, nuts, beverage and spice crops	0.6
0121	Farming of cattle, dairy farming	7.1
0122	Farming of sheep, goats, horses, asses, mules and hinnies	4.1
0123	Farming of swine	0.4
0124	Farming of poultry	1.3
0125	Other farming of animals	1.3
0130	Growing of crops combined with farming of animals (mixed farming)	3.2
0141	Agricultural service activities	16.5
0142	Animal husbandry service activities, except veterinary activities	2.7
0150	Hunting, trapping and game propagation including related service activities	0.1
0201	Forestry and logging	3.2
0202	Forestry and logging related service activities	0.9
0502	Operation of fish hatcheries and fish farms	0.7
8520	Veterinary activities	8.6
9253	Botanical and zoological gardens and nature reserve activities	1.9
	TOTAL	100.0
2	Cogent	
1110	Extraction of crude petroleum and natural gas	2.5
1120	Service activities incidental to oil and gas extraction excluding surveying	3.3
2310	Manufacture of coke oven products	0.0
2320	Manufacture of refined petroleum products	2.2
2330	Processing of nuclear fuel	2.7
2411	Manufacture of industrial gases	0.9
2412	Manufacture of dyes and pigments	1.6
2413	Manufacture of other inorganic basic chemicals	1.4
2414	Manufacture of other organic chemicals	3.2
2415	Manufacture of fertilisers and nitrogen compounds	0.4
2416	Manufacture of plastics in primary forms	3.8
2417	Manufacture of synthetic rubber in primary forms	0.2
2420	Manufacture of pesticides and other agro-chemical products	0.8
2441	Manufacture of basic pharmaceuticals	3.2
2442	Manufacture of pharmaceutical preparations	10.1
2451	Manufacture of soap and detergents, cleaning and polishing preparations	3.2
2452	Manufacture of perfumes and toilet preparations	3.8
2461	Manufacture of explosives	0.2
2462	Manufacture of glues and gelatine	0.7
2463	Manufacture of essential oils	0.5
2465	Manufacture of prepared unrecorded media	0.2
2466	Manufacture of other chemical products n.e.c.	3.6
2513	Manufacture of other rubber products	4.6
2521	Manufacture of plastic plates, sheets, tubes and profiles	6.4
2522	Manufacture of plastic packing goods	5.7
2523	Manufacture of builders ware of plastic	12.2
2524	Manufacture of other plastic products	11.8
5050	Retail sale of automotive fuel	10.5
	TOTAL	100.0

3	Proskills UK	
1010	Mining and agglomeration of hard coal	2.2
1020	Mining and agglomeration of lignite	0.0
1030	Extraction and agglomeration of peat	0.0
1200	Mining of uranium and thorium ores	0.0
1310	Mining of iron ores	0.0
1320	Mining of non-ferrous metal ores, except uranium and thorium ores	0.0
1411	Quarrying of stone for construction	0.7
1412	Quarrying of limestone, gypsum and chalk	0.6
1413	Quarrying of slate	0.0
1421	Operation of gravel and sand pits	2.8
1422	Mining of clays and kaolin	0.6
1430	Mining of chemicals and fertiliser minerals	0.3
1440	Production of salt	0.1
1450	Other mining and quarrying n.e.c.	0.2
2111	Manufacture of pulp	0.0
2112	Manufacture of paper and paperboard	4.1
2121	Manufacture of corrugated paper and paperboard and of containers thereof	8.1
2122	Manufacture of household and sanitary goods and of toilet requisites	2.2
2123	Manufacture of paper stationery	2.7
2124	Manufacture of wallpaper	0.5
2125	Manufacture of other articles of paper and paperboard n.e.c.	2.9
2221	Printing of newspapers	1.3
2222	Printing n.e.c.	33.9
2223	Bookbinding	2.9
2224	Pre-press activities	2.0
2225	Ancillary operations related to printing	3.9
2430	Manufacture of paints, varnishes and similar coatings, printing ink and mastics	4.9
2611	Manufacture of flat glass	0.3
2612	Shaping and processing of flat glass	3.7
2613	Manufacture of hollow glass	1.5
2614	Manufacture of glass fibres	0.8
2615	Manufacture and processing of other glass including technical glassware	1.4
2626	Manufacture of refractory ceramic products	1.1
2640	Manufacture of bricks, tiles and construction products, in baked clay	2.1
2651	Manufacture of cement	0.8
2652	Manufacture of lime	0.1
2653	Manufacture of plaster	0.1
2661	Manufacture of concrete products for construction purposes	4.6
2662	Manufacture of plaster products for construction purposes	0.5
2663	Manufacture of ready-mixed concrete	1.4
2664	Manufacture of mortars	0.1
2665	Manufacture of fibre cement	0.2
2666	Manufacture of other articles of concrete, plaster and cement	0.5
2670	Cutting, shaping and finishing of stone	1.9
2681	Production of abrasive products	0.6
2682	Manufacture of other non-metallic mineral products n.e.c.	1.2
4030	Steam and hot water supply	0.0
	TOTAL	100.0

4	Improve Ltd	
1511	Production and preserving of meat	3.3
1512	Production and preserving of poultry meat	3.8
1513	Production of meat and poultry meat products	15.8
1520	Processing and preserving of fish and fish products	4.1
1531	Processing and preserving of potatoes	1.9
1532	Manufacture of fruit and vegetable juice	0.6
1533	Processing and preserving of fruit and vegetables n.e.c.	5.5
1541	Manufacture of crude oils and fats	0.2
1542	Manufacture of refined oils and fats	0.3
1543	Manufacture of margarine and similar edible fats	0.2
1551	Operation of dairies and cheese making	5.3
1552	Manufacture of ice cream	0.6
1561	Manufacture of grain mill products	2.8
1562	Manufacture of starches and starch products	0.2
1571	Manufacture of prepared feeds for farm animals	1.9
1572	Manufacture of prepared pet foods	1.2
1581	Manufacture of bread; manufacture of fresh pastry goods and cakes	16.2
1582	Manufacture of rusks and biscuits; manufacture of preserved pastry goods and cakes	7.1
1583	Manufacture of sugar	0.6
1584	Manufacture of cocoa, chocolate and sugar confectionery	5.5
1585	Manufacture of macaroni, noodles, couscous and similar farinaceous products	0.5
1586	Processing of tea and coffee	1.5
1587	Manufacture of condiments and seasonings	1.5
1588	Manufacture of homogenised food preparations and dietetic food	0.2
1589	Manufacture of other food products n.e.c.	5.4
1591	Manufacture of distilled potable alcoholic beverages	2.1
1593	Manufacture of wines	0.1
1594	Manufacture of cider and other fruit wines	0.3
1595	Manufacture of other non-distilled fermented beverages	0.0
1596	Manufacture of beer	4.2
1597	Manufacture of malt	0.5
1598	Manufacture of mineral waters and soft drinks	2.9
5138	Wholesale of other food including fish, crustaceans and molluscs	3.7
	TOTAL	100.0

5	Skillfast-UK	
1711	Preparation and spinning of cotton-type fibres	0.2
1712	Preparation and spinning of woollen-type fibres	1.2
1713	Preparation and spinning of worsted-type fibres	0.6
1714	Preparation and spinning of flax-type fibres	0.0
1715	Throwing and preparation of silk including from noils and throwing and texturing of synthetic or artificial filament yarns	0.1
1716	Manufacture of sewing threads	0.3
1717	Preparation and spinning of other textile fibres	0.1
1721	Cotton-type weaving	0.9
1722	Woollen-type weaving	0.6
1723	Worsted-type weaving	0.4
1724	Silk-type weaving	1.3
1725	Other textile weaving	0.1
1730	Finishing of textiles	3.0
1740	Manufacture of made-up textile articles, except apparel	13.1
1751	Manufacture of carpets and rugs	2.9
1752	Manufacture of cordage, rope, twine and netting	0.6
1753	Manufacture of non-wovens and articles made from non-wovens, except apparel	0.4
1754	Manufacture of other textiles n.e.c.	4.2
1760	Manufacture of knitted and crocheted fabrics	0.8
1771	Manufacture of knitted and crocheted hosiery	1.1
1772	Manufacture of knitted and crocheted pullovers, cardigans and similar articles	3.1
1810	Manufacture of leather clothes	0.2
1821	Manufacture of workwear	1.7

1822	Manufacture of other outerwear	7.8
1823	Manufacture of underwear	2.4
1824	Manufacture of other wearing apparel and accessories n.e.c.	6.0
1830	Dressing and dyeing of fur; manufacture of articles of fur	0.1
1910	Tanning and dressing of leather	0.8
1920	Manufacture of luggage, handbags and the like, saddlery and harness	1.7
1930	Manufacture of footwear	2.2
2470	Manufacture of man-made fibres	0.5
5116	Agents involved in the sale of textiles, clothing, footwear and leather goods	3.7
5124	Wholesale of hides, skins and leather	0.5
5141	Wholesale of textiles	5.1
5142	Wholesale of clothing and footwear	12.9
5271	Repair of boots, shoes and other articles of leather	1.5
9301	Washing and dry cleaning of textile and fur products	17.7
TOTAL		100.0

6 SEMTA

2511	Manufacture of rubber tyres and tubes	0.5
2512	Retreading and rebuilding of rubber tyres	0.1
2741	Precious metals production	0.1
2742	Aluminium production	0.7
2743	Lead, zinc and tin production	0.1
2744	Copper production	0.3
2745	Other non-ferrous metal production	0.2
2751	Casting of iron	0.6
2752	Casting of steel	0.3
2753	Casting of light metals	0.4
2754	Casting of other non-ferrous metals	0.5
2811	Manufacture of metal structures and parts of structures	4.0
2812	Manufacture of builders' carpentry and joinery of metal	1.4
2821	Manufacture of tanks, reservoirs and containers of metal	0.4
2822	Manufacture of central heating radiators and boilers	0.4
2830	Manufacture of steam generators, except central heating hot water boilers	0.4
2851	Treatment and coating of metals	1.8
2852	General mechanical engineering	7.7
2861	Manufacture of cutlery	0.1
2862	Manufacture of tools	1.5
2863	Manufacture of locks and hinges	0.9
2871	Manufacture of steel drums and similar containers	0.1
2872	Manufacture of light metal packaging	0.4
2873	Manufacture of wire products	0.4
2874	Manufacture of fasteners, screw machine products, chains and springs	0.9
2875	Manufacture of other fabricated metal products n.e.c.	3.2
2911	Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	0.9
2912	Manufacture of pumps and compressors	1.7
2913	Manufacture of taps and valves	1.0
2914	Manufacture of bearings, gears, gearing and driving elements	0.8
2921	Manufacture of furnaces and furnace burners	0.3
2922	Manufacture of lifting and handling equipment	2.3
2923	Manufacture of non-domestic cooling and ventilation equipment	2.3
2924	Manufacture of other general purpose machinery n.e.c.	2.4
2931	Manufacture of agricultural tractors	0.2
2932	Manufacture of other agricultural and forestry machinery	0.8
2941	Manufacture of portable hand held power tools	0.2
2942	Manufacture of metalworking machine tools	0.5
2943	Manufacture of other machine tools n.e.c.	0.6
2951	Manufacture of machinery for metallurgy	0.1
2952	Manufacture of machinery for mining, quarrying and construction	1.0
2953	Manufacture of machinery for food, beverage and tobacco processing	0.8
2954	Manufacture of machinery for textile, apparel and leather production	0.2
2955	Manufacture of machinery for paper and paperboard production	0.1
2956	Manufacture of other special purpose machinery n.e.c.	2.0

2960	Manufacture of weapons and ammunition	0.9
2971	Manufacture of electric domestic appliances	1.3
2972	Manufacture of non-electric domestic appliances	0.5
3001	Manufacture of office machinery	0.6
3002	Manufacture of computers and other information processing equipment	1.8
3110	Manufacture of electric motors, generators and transformers	1.5
3120	Manufacture of electricity distribution and control apparatus	2.7
3130	Manufacture of insulated wire and cable	0.8
3140	Manufacture of accumulators, primary cells and primary batteries	0.3
3150	Manufacture of lighting equipment and electric lamps	1.3
3161	Manufacture of electrical equipment for engines and vehicles n.e.c.	0.7
3162	Manufacture of other electrical equipment n.e.c.	2.4
3210	Manufacture of electronic valves and tubes and other electronic components	2.1
3220	Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy	1.9
3230	Manufacture of television and radio receivers, sound or video recording or reproducing apparatus and associated goods	1.4
3310	Manufacture of medical and surgical equipment and orthopaedic appliances	2.4
3320	Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment	4.7
3330	Manufacture of industrial process control equipment	0.6
3340	Manufacture of optical instruments and photographic equipment	1.1
3350	Manufacture of watches and clocks	0.1
3410	Manufacture of motor vehicles	6.3
3420	Manufacture of bodies (coachwork) for motor vehicles	1.8
3430	Manufacture of parts and accessories for motor vehicles and their engines	6.4
3511	Building and repairing of ships	1.7
3512	Building and repairing of pleasure and sporting boats	0.8
3520	Manufacture of railway and tramway locomotives and rolling stock	0.9
3530	Manufacture of aircraft and spacecraft	6.7
3541	Manufacture of motorcycles	0.1
3542	Manufacture of bicycles	0.1
3543	Manufacture of invalid carriages	0.2
3550	Manufacture of other transport equipment n.e.c.	0.1
TOTAL		100.0

7 Energy & Utility Skills

3710	Recycling of metal waste and scrap	2.2
3720	Recycling of non-metal waste and scrap	2.5
4011	Production of electricity	7.4
4012	Transmission of electricity	4.4
4013	Distribution and trade in electricity	7.7
4021	Manufacture of gas	2.7
4022	Distribution of gaseous fuels through mains	7.4
4100	Collection, purification and distribution of water	8.7
5154	Wholesale of hardware, plumbing and heating equipment and supplies	17.7
5155	Wholesale of chemical products	6.6
6030	Transport via pipelines	0.5
9001	Collection and treatment of sewage	9.0
9002	Collection and treatment of other waste	18.7
9003	Sanitation, remediation and similar activities	4.6
TOTAL		100.0

8 ConstructionSkills		
4511	Demolition and wrecking of buildings; earth moving	1.5
4512	Test drilling and boring	0.2
4521	General construction of buildings and civil engineering works	41.0
4522	Erection of roof covering and frames	2.3
4523	Construction of highways, roads, airfields and sports facilities	5.9
4524	Construction of water projects	0.2
4525	Other construction work involving special trades	7.0
4532	Insulation work activities	1.2
4534	Other building installation	2.0
4541	Plastering	0.8
4542	Joinery installation	5.0
4543	Floor or wall covering	1.3
4544	Painting and glazing	4.6
4545	Other building completion	2.9
4550	Renting of construction or demolition equipment with operator	1.7
7132	Renting of construction and civil engineering machinery and equipment	2.2
7420	Architectural and engineering activities and related technical consultancy	20.2
TOTAL		100.0
9 SummitSkills		
4531	Installation of electrical wiring and fittings	56.7
4533	Plumbing	38.6
5272	Repair of electrical household goods	4.7
TOTAL		100.0
10 Automotive Skills		
5010	Sale of motor vehicles	41.2
5020	Maintenance and repair of motor vehicles	38.8
5030	Sale of motor vehicle parts and accessories	12.8
5040	Sale, maintenance and repair of motorcycles and related parts and accessories	2.1
7110	Renting of automobiles	5.1
TOTAL		100.0
11 Skillsmart Retail		
5211	Retail sale in non-specialised stores with food, beverages or tobacco predominating	35.0
5212	Other retail sale in non-specialised stores	9.8
5221	Retail sale of fruit and vegetables	0.7
5222	Retail sale of meat and meat products	1.2
5223	Retail sale of fish, crustaceans and molluscs	0.1
5224	Retail sale of bread, cakes, flour confectionery and sugar confectionery	1.9
5225	Retail sale of alcoholic and other beverages	1.3
5226	Retail sale of tobacco products	0.6
5227	Other retail sale of food, beverages and tobacco in specialised stores	1.0
5231	Dispensing chemists	2.1
5232	Retail sale of medical and orthopaedic goods	0.2
5233	Retail sale of cosmetic and toilet articles	1.0
5241	Retail sale of textiles	0.7
5242	Retail sale of clothing	12.8
5243	Retail sale of footwear and leather goods	2.0
5244	Retail sale of furniture, lighting equipment and household articles n.e.c.	3.0
5245	Retail sale of electrical household appliances and radio and television goods	3.0
5246	Retail sale of hardware, paints and glass	4.1
5247	Retail sale of books, newspapers and stationery	2.8
5248	Other retail sale in specialised stores	12.9
5250	Retail sale of second-hand goods in stores	0.8
5261	Retail sale via mail order house	2.0
5262	Retail sale via stalls and markets	0.2
5263	Other non-store retail sale	0.9
TOTAL		100.0

12	People 1st	
5510	Hotels	14.9
5521	Youth hostels and mountain refuges	0.1
5523	Other provision of lodgings n.e.c.	2.4
5530	Restaurants	30.8
5540	Bars	26.6
5551	Canteens	1.2
5552	Catering	12.6
6330	Activities of travel agencies and tour operators; tourist assistance activities n.e.c.	6.6
9233	Fair and amusement park activities	0.3
9271	Gambling and betting activities	4.3
	TOTAL	100.0

13	GoSkills	
6010	Transport via railways	7.8
6021	Other scheduled passenger land transport	23.2
6022	Taxi operation	25.2
6023	Other passenger land transport	5.0
6110	Sea and coastal water transport	2.4
6120	Inland water transport	0.3
6210	Scheduled air transport	11.5
6220	Non-scheduled air transport	2.4
6321	Other supporting land transport activities	6.5
6322	Other supporting water transport activities	3.8
6323	Other supporting air transport activities	6.0
8041	Driving school activities	5.8
	TOTAL	100.0

14	Skills for Logistics	
6024	Freight transport by road	37.3
6311	Cargo handling	1.0
6312	Storage and warehousing	14.5
6340	Activities of other transport agencies	9.5
6411	National post activities	25.6
6412	Courier activities other than national post activities	12.1
	TOTAL	100.0

15	Financial Services	
6511	Central banking	0.2
6512	Other monetary intermediation	46.5
6521	Financial leasing	0.8
6522	Other credit granting	5.4
6523	Other financial intermediation n.e.c.	4.8
6601	Life insurance	8.3
6602	Pension funding	0.0
6603	Non-life insurance	9.9
6711	Administration of financial markets	0.3
6712	Security broking and fund management	5.2
6713	Activities auxiliary to financial intermediation n.e.c.	6.0
6720	Activities auxiliary to insurance and pension funding	12.8
	TOTAL	100.0

16	Asset Skills	
7011	Development and selling of real estate	10.3
7012	Buying and selling of own real estate	0.6
7020	Letting of own property	18.4
7031	Real estate agencies	12.7
7032	Management of real estate on a fee or contract basis	7.5
7470	Industrial cleaning	50.6
	TOTAL	100.0

17	e-skills UK	
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2233	Reproduction of computer media	0.1
6420	Telecommunications	28.8
7210	Hardware consultancy	2.4
7221	Publishing of software	7.5
7222	Other software consultancy and supply	33.4
7230	Data processing	4.5
7240	Data base activities	1.6
7250	Maintenance and repair of office, accounting and computing machinery	3.8
7260	Other computer related activities	12.2
7486	Call centre activities	5.7
TOTAL		100.0
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18	Central Government (in development)	
7511	General (overall) public service activities	46.9
7512	Regulation of the activities of agencies that provide health care, education, cultural services and other social services excluding social security	20.6
7513	Regulation of and contribution to more efficient operation of business	5.8
7514	Supporting service activities for the government as a whole	0.8
7521	Foreign affairs	0.2
7522	Defence activities	9.8
7525	Fire service activities	5.6
7530	Compulsory social security activities	10.4
TOTAL		100.0
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19	Skills for Justice	
7523	Justice and judicial activities	25.4
7524	Public security, law and order activities	74.6
TOTAL		100.0
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20	Lifelong Learning UK	
8022	Technical and vocational secondary education	17.2
8030	Higher education	52.1
8042	Adult and other education n.e.c.	26.1
9251	Library and archive activities	4.6
TOTAL		100.0
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21	Skills for Health	
8511	Hospital activities	69.6
8512	Medical practice activities	11.6
8513	Dental practice activities	4.0
8514	Other human health activities	14.8
TOTAL		100.0
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22	Care and Development	
8531	Social work activities with accommodation	42.9
8532	Social work activities without accommodation	57.1
TOTAL		100.0
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23	Skillset	
2232	Reproduction of video recording	1.0
2464	Manufacture photographic chemical material	2.5
7481	Photographic activities	25.4
9211	Motion picture and video production	16.8
9212	Motion picture and video distribution	2.5
9213	Motion picture projection	8.9
9220	Radio and television activities	42.9
TOTAL		100.0
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24	Creative and Cultural	
2214	Publishing of sound recordings	0.9
2231	Reproduction of sound recording	1.2
3630	Manufacture of musical instruments	0.9

7440	Advertising	26.8
9231	Artistic and literary creation and interpretation	40.4
9232	Operation of arts facilities	5.2
9234	Other entertainment activities n.e.c.	8.7
9240	News agency activities	6.2
9252	Museum activities and preservation of historical sites and buildings	9.7
TOTAL		100.0

25 SkillsActive

5522	Camping sites, including caravan sites	4.7
9261	Operation of sports arenas and stadiums	31.5
9262	Other sporting activities	59.2
9304	Physical well-being activities	4.6
TOTAL		100.0

26 Non-SSC1: Primary

0501	Fishing	2.3
1592	Production of ethyl alcohol from fermented materials	0.0
1600	Manufacture of tobacco products	0.6
2010	Saw milling and planing of wood, impregnation of wood	1.9
2020	Manufacture of veneer sheets; manufacture of plywood, laminboard, particle board, fibre board and other panels and boards	1.0
2030	Manufacture of builders carpentry and joinery	9.0
2040	Manufacture of wooden containers	1.1
2051	Manufacture of other products of wood	2.2
2052	Manufacture of articles of cork, straw and plaiting materials	0.0
2211	Publishing of books	6.1
2212	Publishing of newspapers	8.5
2213	Publishing of journals and periodicals	10.6
2215	Other publishing	3.6
2621	Manufacture of ceramic household and ornamental articles	2.8
2622	Manufacture of ceramic sanitary fixtures	0.5
2623	Manufacture of ceramic insulators and insulating fittings	0.1
2624	Manufacture of other technical ceramic products	0.1
2625	Manufacture of other ceramic products	0.4
2630	Manufacture of ceramic tiles and flags	0.4
2710	Manufacture of basic iron and steel and of ferro-alloys	4.7
2721	Manufacture of cast iron tubes	0.4
2722	Manufacture of steel tubes	1.5
2731	Cold drawing	0.1
2732	Cold rolling of narrow strip	0.2
2733	Cold forming or folding	0.2
2734	Wire drawing	0.4
2840	Forging, pressing, stamping and roll forming of metal; powder metallurgy	5.5
3611	Manufacture of chairs and seats	5.5
3612	Manufacture of other office and shop furniture	4.0
3613	Manufacture of other kitchen furniture	3.3
3614	Manufacture of other furniture	9.1
3615	Manufacture of mattresses	1.6
3621	Striking of coins and medals	0.2
3622	Manufacture of jewellery and related articles n.e.c.	1.8
3640	Manufacture of sports goods	1.1
3650	Manufacture of games and toys	1.9
3661	Manufacture of imitation jewellery	0.2
3662	Manufacture of brooms and brushes	0.5
3663	Other manufacturing n.e.c.	6.6
TOTAL		100.0

27 Non-SSC2: Wholesale/Retail

5111	Agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-finished goods	0.5
5112	Agents involved in the sale of fuels, ores, metals and industrial chemicals	0.3

5113	Agents involved in the sale of timber and building materials	0.8
5114	Agents involved in the sale of machinery, industrial equipment, ships and aircraft	1.7
5115	Agents involved in the sale of furniture, household goods, hardware and ironmongery	0.4
5117	Agents involved in the sale of food, beverages and tobacco	0.5
5118	Agents specialising in the sale of particular products or ranges of products n.e.c.	1.6
5119	Agents involved in the sale of a variety of goods	0.5
5121	Wholesale of grain, seeds and animal foods	0.9
5122	Wholesale of flowers and plants	0.9
5123	Wholesale of live animals	0.1
5125	Wholesale of unmanufactured tobacco	0.0
5131	Wholesale of fruit and vegetables	2.8
5132	Wholesale of meat and meat products	2.4
5133	Wholesale of dairy produce, eggs and edible oils and fats	1.5
5134	Wholesale of alcoholic and other beverages	2.7
5135	Wholesale of tobacco products	0.4
5136	Wholesale of sugar and chocolate and sugar confectionery	0.4
5137	Wholesale of coffee, tea, cocoa and spices	0.2
5139	Non-specialised wholesale of food, beverages and tobacco	7.6
5143	Wholesale of electrical household appliances and radio and television goods	4.0
5144	Wholesale of china and glassware, wallpaper and cleaning materials	1.0
5145	Wholesale of perfume and cosmetics	1.6
5146	Wholesale of pharmaceutical goods	4.5
5147	Wholesale of other household goods	10.4
5151	Wholesale of solid, liquid and gaseous fuels and related products	1.8
5152	Wholesale of metals and ores	2.6
5153	Wholesale of wood, construction materials and sanitary equipment	9.3
5156	Wholesale of other intermediate products	1.8
5157	Wholesale of waste and scrap	1.2
5181	Wholesale of machine tools	0.8
5182	Wholesale of mining, construction and civil engineering machinery	0.7
5183	Wholesale of machinery for the textile industry, and of sewing and knitting machines	0.2
5184	Wholesale of computers, computer peripheral equipment and software	5.0
5185	Wholesale of other office machinery and equipment	1.6
5186	Wholesale of other electronic parts and equipment	2.9
5187	Wholesale of other machinery for use in industry, trade and navigation	10.6
5188	Wholesale of agricultural machinery and accessories and implements, including tractors	1.3
5190	Other wholesale	9.8
5273	Repair of watches, clocks and jewellery	0.4
5274	Repair n.e.c.	2.4
TOTAL		100.0

28 Non-SSC3: Business and Public services

6230	Space transport	0.0
7121	Renting of other land transport equipment	0.3
7122	Renting of water transport equipment	0.1
7123	Renting of air transport equipment	0.0
7131	Renting of agricultural machinery and equipment	0.0
7133	Renting of office machinery and equipment including computers	0.1
7134	Renting of other machinery and equipment n.e.c.	0.6
7140	Renting of personal and household goods n.e.c.	0.7
7310	Research and experimental development on natural sciences and engineering	2.1
7320	Research and experimental development on social sciences and humanities	0.1
7411	Legal activities	6.7
7412	Accounting, book-keeping and auditing activities; tax consultancy	6.2
7413	Market research and public opinion polling	1.2
7414	Business and management consultancy activities	6.4
7415	Management activities of holding companies	2.1
7430	Technical testing and analysis	0.7
7450	Labour recruitment and provision of personnel	15.1
7460	Investigation and security activities	3.6
7482	Packaging activities	0.6
7485	Secretarial and translation services	0.8

7487	Other business activities n.e.c.	6.3
8010	Primary education	20.4
8021	General secondary education	11.5
9111	Activities of business and employers organisations	0.3
9112	Activities of professional organisations	0.4
9120	Activities of trade unions	0.2
9131	Activities of religious organisations	0.9
9132	Activities of political organisations	0.1
9133	Activities of other membership organisations n.e.c.	2.9
9272	Other recreational activities n.e.c.	1.1
9302	Hairdressing and other beauty treatment	4.3
9303	Funeral and related activities	0.5
9305	Other service activities n.e.c.	3.7
<hr/> TOTAL		<hr/> 100.0

A2 Models and methods

This annex provides a brief technical description of the methods and data sources used to produce the projections. A more detailed explanation may be found in the *Technical Report*.

A2.1 The macroeconomic model: sectoral and regional dimensions

Labour market projections need to be firmly grounded on an understanding of how the economy as a whole is changing. The analysis of changes in employment structure is therefore intimately tied up with a detailed analysis of the development of the economy more generally. This has been operationalised in the form of the regional multi-sectoral dynamic model of the economy (RMDM) developed by Cambridge Econometrics (CE). Details of RMDM and its relationship with other model elements are given in the *Technical Report*.

RMDM is based on a detailed analysis of economic and other behavioural relationships, estimated via robust econometric methods. The current version is based on a 'bottom-up' treatment of regional economic prospects. The model offers a combination of fine detail and a high level of sophistication. The use of a fully-specified, formal macroeconomic regional multi-sectoral model provides a number of advantages over more *ad hoc* extrapolative methods. These include enforcement of logical and accounting constraints, and an emphasis on making explicit the underlying assumptions built into the projections.

RMDM therefore projects future trends using a complex set of behavioural equations. Together these provide an explanation of the various phenomena which have resulted in past patterns of structural change. These relate the derived demand for labour to the prospects for output growth in each sector and the relative costs of labour and other inputs. The model reflects the various sources of demand for goods and services. It also incorporates the various technical linkages between different sectors, including the impact of technological change on productivity levels as well as the effects of changes in the way activities are classified as a result of the sub-contracting out of many functions. The sectoral analysis therefore derives directly from the CE model of the economy as described above. This model is used to generate estimates for output and productivity for the main industrial sectors and projections of total employment by industry, based on the 2003 update of the 1992 Standard Industrial Classification (SIC2003). In total, 67 separate industries are distinguished, although for presentational purposes these have often been reduced to much more aggregate groups. The estimates and projections of employment produced are consistent with the official ONS estimates.

The latest version of RMDM incorporates the system of UK National Accounts consistent with ESA95, the 2001 price base, and the input-output table for 2001 estimated from official data. The latest National Accounts and associated data from the ONS have also been incorporated into the model database and equation estimates.

A2.2 Occupational projections

The methods developed by IER for projecting occupational employment changes use extrapolative procedures. The present methodology is based on the use of the SOC2000 classification system. Projections are developed for the 25 sub-major groups as listed in Table A2.1. The approach involves two stages. First, projections of the likely changes in industrial employment by region are made using the RMDM model. Secondly, projections of the occupational structure of employment within each industry are made using material from the Censuses of Population (based on extrapolations of past trends). These occupational coefficients are then combined with the projected levels of industrial employment to obtain projected levels of employment by occupation. All this is undertaken at a regional level for the 25 sub-major groups.

The occupational employment projections are therefore based on a sub-model which takes as input the regional/industrial projections produced by the macroeconomic model. It is a 'top-down' approach, the industrial and regional employment projections being disaggregated into the 25 occupational categories for each industry.

A further important element is the use of data from recent Labour Force Surveys (LFS). This information is used to calibrate the occupation model over the recent past and to modify the projections in the light of the latest information on emerging trends. These trends are compared with those emerging from the occupational model. The results of this exercise are used to modify the projected changes in the light of recent and current developments in occupational structure that may not reflect a simple continuation of long-term trends between the decennial censuses.

The present results incorporate data from the Census of Population for 2001. This has enabled a reassessment of trends over the past decade. For many detailed sectors and geographies, this has resulted in quite significant changes to the perception of detailed historical developments and therefore future prospects. The overall patterns are however very similar to those presented in the previous projections presented in *Working Futures 2002-2012* published in 2003.

Users of the results are cautioned that they should not be seen as precise predictions but rather indicative of general trends and tendencies. This applies with particular force to the more detailed disaggregations.

Margins of Error

The employment estimates make use of a wide variety of sources, as described in more detail below. As a consequence, it is not possible to calculate precise margins of error. From an analysis of previous projections it is clear that these errors can be quite large. Industry employment levels are typically projected within $\pm 10\%$ over a 5-10 year horizon. The directions of change are projected correctly in almost 90% of cases. The errors in terms of annual percentage growth rates are usually of the same order of magnitude as the observed changes.

Occupational employment levels are typically projected with $\pm 7\%$ over a 5-10 year horizon. The direction of change is correctly projected in about 80% of all cases. Occupational shares are usually projected within ± 2 percentage points (the typical share is around 4 percentage points).

Historical revisions to the data account for a very large part of the forecast errors. However, it is important to appreciate that the purpose of the projections is not to make precise forecasts of employment *levels*. Rather, the aim is to provide policy analysts with useful information about the general nature of *changing employment patterns* and their implications for skill requirements.

The results provide a useful benchmark for debate and policy deliberations about underlying employment trends. However, they should not be regarded as more precise than the general statements in the text. Many years of international research have demonstrated that detailed manpower planning is not a practicable proposition. The results presented here should be regarded as indicative of general trends and orders of magnitude, given the assumptions set out below, rather than precise forecasts of what will necessarily happen.

A2.3 Development of databases and procedures

Data sources and methods: the database

The modelling procedures and results incorporate the latest sectoral employment data from the Office for National Statistics (ONS), including the 2003 Annual Business Inquiry (ABI). They also take account of information from the 2001 Census of Population (CoP) and the revisions to the LFS which took place as a consequence of the Census findings. These new data provide insights into recent trends in sectoral employment as well as other aspects of employment structure such as the gender-status mix of employment and changing occupational shares. A number of new features are apparent:

- higher than previously estimated historical levels of employment;
- faster increases in the male share of employment than previously estimated;

- revised assessments of the prospects for many occupational categories in the light of the latest CoP data.

Further information about sources and methods is presented in greater detail in the *Technical Report*.

A new employment database was developed for *Working Futures 2004-2014* in order to meet the requirements of the SSDA and its partners for more detailed data. This involved:

- extended sectoral detail, covering all 2-digit SIC2003 categories;
- revised geographies covering the LLSC areas;
- revised treatment of occupations, including development of SOC2000 historical data series and projections for the new sectors and local areas described above.

This had a number of important elements:

- establishing a new historical database of employment and output by detailed sector and LLSC area;
- development of occupational data relating to the new sectors and geographical areas;
- development of models and procedures to generate consistent projections across these various dimensions;
- development of a new replacement demand (RD) module to generate RD estimates across the various dimensions.

Detailed sectoral estimates

Historical data on employees in employment for male and female, full-time and part-time and estimates for self-employment, were available based on information from the ABI and the LFS. This was adjusted using various other official data to develop a consistent data set covering 67 SIC2003 2-digit categories and all 47 LLSC areas. The results incorporate the latest sectoral employment data from ONS, including the 2003 ABI.

For economic indicators such as GDP, the total employment estimates by 41 industries for the counties was multiplied by regional productivity to create an estimate of GDP for the area. Other variables were treated in an analogous fashion, using data from CE's counties databank to do the reallocation and create historical data.

Occupation, gender and status

Historical data on full-time and part-time, male and female employment, and estimates for self-employment, by 41 industries for all the local authority districts were available from the original IER database. These were expanded to provide an occupation dimension within each sector using data from the CoP and LFS. These were extended to 67 SIC2003 categories assuming common patterns of occupation, gender and status mix as for the broader sectoral categories.

The revised occupational employment projections are based on data taken from the CoP, supplemented by information from the LFS. Together these were used to generate a series of employment matrices based on 41 industries (SIC2003) and the old 22 SOC1990 Sub-Major occupational groups for each of the new RDA areas. Further details on the conversion process from SOC1990 are given in the *Technical Report*.

Industry-by-occupation employment matrices were produced for 1981 and 1991 using the latest available information based on similar matrices already developed for the old Standard Planning Regions and using SOC1990. These incorporated estimates from both the CoP1991 and Census of Employment (CoE) estimates. Conversion matrices were developed to translate the data on to the new Government Office/RDA definitions and on to a SOC2000 basis. The CoP data were enhanced by use of the LFS in order to provide more up to date information on on-going trends by occupation beyond 1991, providing a firm base year estimate for 2004.

Information from the CoP2001 was used to calibrate the estimates at an aggregate level. The resulting sector by occupation employment matrices were then used to develop projections of occupational employment in future years by applying projected occupational shares in each industry

to the sectoral forecasts from the macroeconomic model. Further details of the procedures are given in the *Technical Report*.

Projections of occupational shares at this level of detail place considerable demands on the data available and the position can be changed rapidly and substantially by technological and other changes. It is important to appreciate the assumptions used and the range of factors which it is felt are likely to influence immediate future trends, including how these may diverge from previous patterns of change. These issues are discussed in more detail in the companion *National Report*.

The results should be regarded as providing a benchmark for thinking about changing employment structure. They paint a broad-brush picture of such trends and should be regarded as indicative and not a precise forecast.

A2.4 Replacement demand

Net changes in occupational employment are only one indicator of future demand. Another measure, which is important for assessing education and training provision, is the replacement demand needed to offset outflows due to retirements, occupational mobility etc. Procedures have been developed to produce such estimates linked to the main occupational projections.

The analysis of occupational trends and prospects described above provide predictions of the changes in the number of people employed in particular occupational categories. However, education and training requirements are not simply dependent on which occupations are growing rapidly. Even in those occupations where employment levels are expected to decline substantially, there may be a need to train new or existing workers, simply to maintain the existing stock of skills at the required level. In addition to examining likely net changes in the numbers in each occupational category, it is also important, therefore, to assess replacement demands (RD). These represent the numbers needed to maintain the existing stock of skills due to losses resulting from retirements and other outflows.

The use of common assumptions across all geographical areas and sectors ensures that the estimates add up. In practice such parameters are likely to vary across these dimensions.

The key components are:

- information on the age and gender structure of occupational employment;
- information on rates of outflows due to retirement (and other reasons for leaving the workforce);
- inter-occupational mobility;
- mortality.

Data on the age structure are required, since many of the flows, especially retirements and mortality, are age-specific. Age structures also vary significantly by occupation. Retirement rates also vary by gender and by age. The estimates are based on data from the LFS which show the percentage of those employed one year ago who have retired from employment either temporarily or permanently. For males the main outflows are associated with retirement *per se*. For females, in particular, there is a significant outflow for younger age groups associated with family formation.

Another potential outflow is due to mortality. Information on mortality rates is available by age and gender from ONS. While losses due to death are not great for individual age groups up to the age of 65, they can cumulate to produce significant losses over an extended period of time. The rates used are again based on data for the whole of the UK. However, mortality rates are unlikely to vary very much across broad occupational categories.

Potentially, occupational mobility is a more important source of loss for many occupations. Some occupations tend to gain employment as people are promoted from other occupations. For other occupations, losses due to retirement understate the overall replacement demands. Although data on

such occupational flows are available from the LFS for the whole of the UK, they proved insufficiently robust to obtain estimates customised by industry and geographical areas. The replacement demand estimates presented here therefore exclude occupational mobility flows.

A2.5 Choice of sectors for analysis and reporting

The industries used in the CE RMDM model are based on data on 41 industries available from the ONS, especially data relating to input-output information which is central to the model. They are classified according to the updated 1992/2003 Standard Industrial classification (SIC2003). For the purposes of the present project, the analysis has been extended to cover all 2-digit SIC categories. Including employment in private households and extra territorial organisations expands the total number of categories to 67. However, very few data are available for these last two categories. Also, it is not possible to identify any output data for Uranium Mining. So, in effect, there are 64 substantive industries for which comprehensive data are available. These are the groupings for which most of the detailed analysis was undertaken. They are referred to as 'detailed industries' and form the basis for the development of estimates for the SSC industrial footprints. Effectively each SSC is defined in terms of whole or part of each detailed industry. The shares for those detailed industries split over more than one SSC are based on ABI data (for employees) and LFS data (for the self-employed).

The projections are presented at a variety of different sectoral levels using two main types of definition:

Broad sectoral definitions are based on groups of 6, 14 or 27 sectors, and defined by SIC2003 codes. These preserve the traditional manufacturing, services and public sector groupings of the economy. They are hierarchically related, with the 6 broadest sectors being a more aggregated grouping of the 14 sectors, and so on. The 14 and 27 groups have been adopted by the SSDA in their Sector Skills Matrix database and hence are referred to as the Sector Matrix Industries (SMI). These are not coterminous with the SSCs' footprints; and

Sector Skills Councils definitions use SIC code groupings that most closely match the SSC footprints. These definitions are a 'best fit' of each SSC's core business sectors. These specify the *core* SIC codes that are undisputed and do not overlap with any other SSC. The extent to which this is an exact fit varies between SSCs. In some cases, the use of the core SIC codes excludes elements of the SSC footprint because they are included in other areas. SSCs can provide further depth analysis of skills and future employment within their sector (see their individual websites for details - Table A1.1 provides addresses).

The SSDA and LSC have adopted the 27 Sector Matrix Industries for the most recent *Employer Skills Surveys* and for other purposes. However, a number of the categories used are very small (notably mining and quarrying, wood and paper, manufacturing n.e.s, and electricity, gas and water). These pose problems in terms of obtaining statistically reliable historical and projected employment data, especially when additional breaks are required by gender, employment status and occupation. For the purpose of reporting of the national projections in the *National Report* for the UK, a slightly more aggregated set of categories is therefore used. There are 25 categories, most of which correspond to the 27 SMIs. Even so, three of these industrial categories - mining, quarrying and utilities, textiles and clothing, and manufacturing n.e.s – are quite small.

The development of the Skills for Business Network (SfBN) and its constituent Sectors Skills Councils, has led to the need for a new focus on the categories represented by the footprints of the SSCs as defined by SIC. This *Sectoral Report* is structured around these SSC categories.

At regional level, the categories published by ONS for Government Office Regions are even more aggregated than those for the UK, for obvious reasons. In particular, the categorisation does not present *any* detail for manufacturing industries. Thus, in order to provide some detail within manufacturing, an extended set of categories has been developed. These allow for some sub-

manufacturing detail, while maintaining the minimum cell sizes required for statistical reliability across the regional dimension.

Table A2.1: SOC2000 sub-major groups definitions

SOC2000 sub-major group	Occupations
11 Corporate managers	Corporate managers and senior officials; production managers; functional managers; quality and customer care managers; financial institution and office managers; managers in distribution and storage; protective service officers; health and social services managers
12 Managers/proprietors in agriculture and services	Managers in farming, horticulture, forestry and fishing; managers and proprietors in hospitality and leisure services; managers and proprietors in other service industries
21 Science and technology professionals	Engineering professionals; information and communication technology professionals
22 Health professionals	Health professionals, including medical and dental practitioners and veterinarians
23 Teaching and research professionals	Teaching professionals, including primary and secondary school teachers and higher and further education lecturers; research professionals (scientific)
24 Business and public service professionals	Legal professionals; business and statistical professionals; architects, town planners, and surveyors; public service professionals; librarians and related professionals
31 Science and technology associate professionals	Science and engineering technicians; draughtspersons and building inspectors; IT service delivery occupations
32 Health and social welfare associate professionals	Health associate professionals, including nurses and other paramedics; therapists; social welfare associate professionals
33 Protective service occupations	Protective service occupations
34 Culture, media and sports occupations	Artistic and literary occupations; design associate professionals; media associate professionals; sports and fitness occupations
35 Business and public service associate professionals	Transport associate professionals; legal associate professionals; financial associate professionals; business and related associate professionals; conservation associate professionals; public service and other associate professionals
41 Administrative and clerical occupations	Administrative/clerical occupations: government and related organisations; finance; records; communications; general
42 Secretarial and related occupations	Secretarial and related occupations
51 Skilled agricultural trades	Agricultural trades
52 Skilled metal and electrical trades	Metal forming, welding and related trades; metal machining, fitting and instrument making trades; vehicle trades; electrical trades
53 Skilled construction and building trades	Construction trades; building trades
54 Other skilled trades	Textiles and garment trades; printing trades; food preparation trades; skilled trades n.e.c.
61 Caring personal service occupations	Healthcare and related personal services; childcare and related personal services; animal care services
62 Leisure and other personal service occupations	Leisure and other personal service occupations; hairdressers and related occupations; housekeeping occupations; personal service occupations n.e.c.
71 Sales occupations	Sales assistants and retail cashiers; sales related occupations
72 Customer service occupations	Customer service occupations
81 Process plant and machine operatives	Process operatives; plant and machine operatives; assemblers and routine operatives
82 Transport and mobile machine drivers and operatives	Transport drivers and operatives; mobile machine drivers and operatives
91 Elementary occupations: trades, plant and machine related	Elementary occupations: agricultural trades related; process and plant related; mobile machine related
92 Elementary occupations: clerical and services related	Elementary occupations: clerical related; personal services related; cleansing services; security and safety services; sales related

GLOSSARY

ABI	Annual Business Inquiry
CE	Cambridge Econometrics
CoP	Census of Population
DfES	Department for Education and Skills
DTI	Department of Trade and Industry
DWP	Department for Work and Pensions
ED	expansion demand or decline
HMT	HM Treasury
IER	Warwick Institute for Employment Research
IoP	Index of Production
LFS	Labour Force Surveys
LLSC	Local Learning and Skills Council
LMI	labour market information/intelligence
LSC	Learning and Skills Council
n.e.c.	not elsewhere classified
NOMIS	National On-line Manpower Information System
NQF	National Qualifications Framework
ONS	Office for National Statistics
RD	replacement demand
RDA	Regional Development Agency in England
RMDM	Regional Multi-sectoral Dynamic Model
SfBN	Skills for Business Network
SIC	Standard Industrial Classification
SMI	SSDA Sector Matrix Industry
SOC	Standard Occupational Classification
SSC	Sector Skills Council
SSDA	Sector Skills Development Agency
TR	total requirement - which is the sum of expansion demand/decline and replacement demand

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In addition, there is a detailed technical report which describes the sources and methods in detail:

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Source: *Working Futures 2004-2014* (2006), SSDA/LSC/IER/CE, electronic resource.



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This report is also available on the on the SSDA website:

www.skillsforbusiness.org.uk