

# **Working Paper 20**

# Occupational Change in Scotland, 2001 – 2008

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#### **ABSTRACT**

This paper examines the changes which have occurred in the occupational structure of the working population in Scotland over the period 2001 - 2008.

Change in occupational structure is examined, for the total workforce, for males and females separately and for full time workers and part time workers separately, as follows: for the economy as a whole; for each of the nine major occupational groups (as defined by SOC 2000); for each of the nine industrial sectors (as defined by SIC 1992); and for the public sector (as defined in the Labour Force Survey). Again for the total workforce, for males and females separately, and for full time workers and part time workers separately, the extent to which occupational change is attributable to sectoral factors and structural factors is examined. Changes in the occupational distribution of those with graduate status is also examined. Change in the occupational structure in Scotland is compared and contrasted with the same for London. The discussion of the results is contextualised in two themes of relevance to the operation of contemporary labour markets: employment within the 'knowledge' economy and 'polarisation'.

Between 2001 and 2008, the size of the working population in Scotland increased by + 8.3 percent. Over this period, total numbers employed in five of the nine major occupational groups declined: in Administrative and Secretarial; Skilled Trades Occupations; Sales and Customer Service Occupations; Process, Plant and Machine Operatives; and Elementary Occupations. The magnitude of the job losses in these occupational groups was small, however, when contrasted with the expansion in total employment in the groups which comprise the 'top' three in the occupational hierarchy: Managers and Senior Officials; Professional Occupations; and Associate Professional and Technical. There was a gender (and employment status) dimension to the changes in occupational structure, in that three of the major occupational groups were predominantly male viz. Managers and Senior Officials, Skilled Trades Occupations and Process, Plant and Machine Operatives; and three were predominantly female viz. Administrative and Secretarial, Personal Service

Occupations and Sales and Customer Service Occupations. In terms of explaining the change in occupational structure over the period, 'sectoral' factors proved to be of minor importance. There was a discernable pattern to the changes attributable to 'structural' factors in that a process of 'up-skilling' was evident. The number with graduate status within the working population increased by + 39.7 percent between 2001 and 2008. In 2008, approximately six in ten graduates were employed in two major occupational groups viz. Professional Occupations and Associate Professional and Technical. Only 18.1 percent of graduates were employed in Managers and Senior Officials in 2008, although the numbers employed in this group more than doubled over the period. Occupational structure in Scotland in 2008 was different from that in London. The principal changes in occupational structure which occurred in the two regions between 2001 and 2008 were also different. Occupational structure in London exhibited more of the characteristics conventionally associated with an knowledge economy than did the occupational structure in Scotland. Participation in the 'knowledge' components of the economy in both regions, however, was the prerogative of males/full time workers. Evidence of polarisation within the labour market in either region was inconclusive. However, the different patterns to the process of occupational change in both regions was indicate of the different types of labour markets which existed in the two regions, reflecting the diverse economic functions undertaken within their respective geographical boundaries.

## Occupational Change in Scotland, 2001 – 2008

#### 1. CONTEXT AND MOTIVATION

Change in the occupational structure of the workforce is an integral feature of dynamic economies, the consequence of changes in the demand for goods and services; the processes by which these goods and services are produced and distributed; and the skills capacities of individuals able and willing to participate in the labour market to produce these goods and services.

The current policy scenario assumes the development of a 'knowledge economy', characterised by the spread of large, general-purpose technologies, such as the internet; the emergence of mass markets, with well educated, rich, discerning consumers; and strategic investments on the part of organisations, which focus upon tangibles such as information and communication technology, innovation and research and development, and intangibles such as human capital, organisational change and knowledge dissemination (Hepworth et al, 2006: HM Treasury, 2004: Warhurst, 2008). Furthermore, the policy assumption is that, in time, most of those who choose to participate in the labour market will find work in occupations compatible with being 'knowledge workers' (Keep, 2007), principally as a consequence of universal up-skilling, attributable to investments in education and training, notably to degree and degree equivalent levels (Leitch, 2006: Scottish Government, 2007).<sup>1</sup>

However, contemporary empirical realities are somewhat at odds with the rhetoric of this policy scenario. Recent studies of occupational change – for both Great Britain and Scotland - suggest not only that the growth in demand for 'knowledge workers' has been less than expected but that, simultaneously and somewhat paradoxically, there has been an increase in demand for individuals with low/no skills, thereby creating a polarisation within the workforce (Bell and Blanchflower, 2009: Goos and Manning, 2003 and 2007: Warhurst and Thompson, 2006).

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<sup>&</sup>lt;sup>1</sup> This non problematic assumption of universal up-skilling differs somewhat from the more problematical (and more fully contextualised) de-skilling debates of yesteryear (cf. Gallie, 1991: Wood, 1987).

The aim of this paper is to examine the changing occupational structure of employment in Scotland for the period 2001 -2008. In more detail, the paper addresses the following sets of questions.

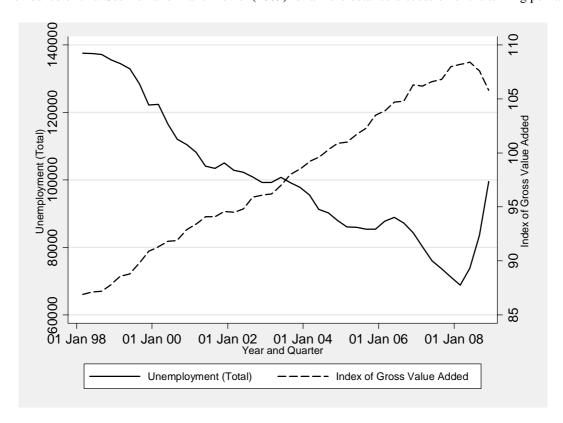
- In what way has the occupational structure of employment changed over the period? To what extent is there evidence of proportionately more individuals being employed in occupational classifications conventionally associated with a knowledge economy?
- Is there a gender dimension to the changes in occupational structure? Is there an employment status dimension to the changes, associated with different outcomes for part time and full time workers?
- To what extent is there evidence of polarisation within the labour market, with labour demand increasing not only for high skill but also for low/no skill workers?
- In which occupations are graduates employed, and in which occupations have changes in the employment of graduates been most apparent?
- To what extent is there evidence of inter-industry differences in changes in the occupational structure? To what extent are the observed changes in the occupational structure attributable to changes in the structure of industry? Alternatively, to what extent are the observed changes attributable to structural factors, as occupations within industries are re-organised and their intraindustry distribution is changed?
- Has there been a change in the occupational structure within the public sector, an important component within the Scottish economy? and
- In what way do the changes which have occurred in the occupational structure of the workforce in Scotland differ from those in London, often seen as the paradigmatic United Kingdom example of a 'knowledge economy'?

#### 2. THE DATA SET

The data set examined is taken from the second (calendar) quarter of the Labour Force Survey (LFS) for the years 2001 through to 2008.<sup>2</sup> The LFS is a quarterly sample survey of households living at private addresses in Great Britain. It seeks information on respondents' personal circumstances and their labour market status during a specific reference period, normally a period of one week or four weeks (depending on the topic) immediately prior to the interview. The LFS is based on a systematic random sample design which makes it representative of Great Britain as a whole, with the use of the appropriate weighting variable. The data set is also statistically representative at other levels of spatial aggregation. The variable GOVTOF (Government Office Region) is used to extract the data for Scotland and, latterly, London.

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<sup>&</sup>lt;sup>2</sup> There is an expediency rather than arbitrariness about the selection of these years. The central variable within the data set first becomes available in the second quarter of 2001 (cf. footnote 4). The second quarter of 2008 is the most recent available at the time of writing, given the objective of examining change on an annual basis. In a wider context, the period in question must be seen, therefore, as commencing mid way through the sustained expansion in the British economy beginning circa 1993, and ending when this period of expansion comes to a halt circa 2008. See the Footnote Figure for some evidence of this. See Bell and Blanchflower (2009) for a more detailed discussion of the turning point.



The analysis is undertaken only for those in employment at the time of the interview, and the variable ILODEFR is used to identify those in this category. SC2KMMJ (the major occupational group in the respondents' main job) is the central variable in the analysis.<sup>3 4</sup> The nine major groups are identified in Table 1, and illustrative examples of each are given.<sup>5</sup> The presumption is that some occupational hierarchy exists, from Elementary Occupations at the bottom through to Managers and Senior Officials at the top, reflecting the manifold dimensions of individual skills and capacities required to undertake the job in question. Conventionally, those identified as 'knowledge workers' are to be found in the upper two occupational groups, Managers and Senior Officials and Professional Occupations.<sup>6</sup> That said, as Table 2 demonstrates, the occupational hierarchy presented does not produce an equivalent earnings hierarchy, with crude mean gross hourly pay for Professional Occupations exceeding that of Managers and Senior Officials; that of Skilled Trades Occupations exceeding that of Administrative and Clerical; and that of Process, Plant and Machine Operatives exceeding that of Sales and Customer Service Occupations.<sup>7</sup>

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<sup>&</sup>lt;sup>3</sup> Throughout, the analysis is undertaken for the respondents' main job.

<sup>&</sup>lt;sup>4</sup> The Standard Occupational Classification (SOC) was revised in 2000 and was first introduced into the LFS in 2001. The revision entailed making tighter the definition of many managerial occupations; moving job titles between major groups, which were themselves re-named; and introducing new occupations in jobs associated with computing, the environment and conservation, and customer service occupations. The extensive revisions made to the former classification, therefore, precludes extending any examination of change over time to years before 2001.

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The Standard Occupational Classification has a four tiered system of 9 major groups, 25 sub major groups, 81 minor groups and 353 unit groups. The illustrative examples of the major groups given in Table 1 are taken from the appropriate unit group. (For further information see LFS User Guide Volume 5.) The one digit analysis of occupations used here is considered by many to be inadequate to examine many contemporary problems which have an occupational dimension. Connelly and Gregory (2008), examining occupational downgrading on the part of women consequential of working part time, and Manning and Petrongolo (2008), examining the part time pay penalty for women working part time, use the 3 digit unit groups within SOC90 and SOC2000, respectively. In their comparison of McJobs and MacJobs (or lousy jobs and lovely jobs), Goos and Manning (2003) (2007) employ industry- occupation combinations to examine 'jobs'. They produce 90 occupations for the purpose of their analysis, using SOC2000 in conjunction with SIC 1992. Bell and Blanchflower (2009) apply Goos and Manning's method in their paper.

<sup>&</sup>lt;sup>6</sup> By contrast, Associate Professional and Technical are conventionally associated with 'knowledge processing' tasks.

<sup>&</sup>lt;sup>7</sup> The mean gross hourly pay figures are described as 'crude' because no attempt is made to control for factors such as age, labour market experience, qualifications etc., some of the more important factors conventionally associated with explaining individual wage differences in earnings equations. Throughout, the magnitude of the standard deviation may be interpreted as indicating that, in earnings terms at least, there are 'lousy' jobs and 'lovely' jobs to be found across and within all occupational groups. Hence the use made of an earnings dimension in Goos and Manning's (2003: 2007) and Bell and Blanchflower's (2009) examination of polarisation.

In the analyses which follow, the variable SC2KMMJ is cross tabulated with the following variables in the LFS data set:

- SEX: the gender of the respondent
- FTPTWK: whether the respondent is working full time or part time in his/her main job
- QUALS01(and, latterly, QUALS401 and QUALS601): the type of qualification already held – to establish whether or not the respondent has degree level qualifications
- PUBLICR: whether or not the respondent is working in the public or private sector <sup>8</sup>

The final LFS variable used in the examination is INDSECT: the (1992) industry sector of the workplace at which the respondent is employed in his/her main job. Industrial structure, or more exactly the change in industrial structure over time, is of particular importance in the examination of occupational change. Individuals are recruited by firms/organisations and employed at workplaces. These workplaces are classified according to the nature of the economic activity undertaken, the Standard Industrial Classification (SIC). As sectors of the economy expand and contract – and an important feature of the knowledge economy is the increasing pace with which this happens – so the occupational structure will change as a direct consequence of this process of 'sectoral' change. However, additionally and simultaneously, a process of 'structural' change occurs, as occupations are organised and re-organised within each industrial sector, changing their distribution accordingly. The relative importance of 'sectoral' and 'structural' factors is examined as a component part of the results section.

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<sup>&</sup>lt;sup>8</sup> For purposes of the LFS, the 'public' sector is defined as workplaces owned, funded or run by central and local government. The 'private' sector is defined as everything else.

<sup>&</sup>lt;sup>9</sup> Only nine of the ten sectors within the LFS are used: (the very few) respondents in (10), a 'workplace outside UK', are excluded from the data set which is examined.

<sup>&</sup>lt;sup>10</sup> The SIC is, like the Standard Occupational Classification, subject to change. As new products emerge, the structure of the economy changes and its classification by industry is revised accordingly. The classification used in this analysis is that associated with the 1992 revision.

By way of a preliminary context to the results, the industrial structure of the Scottish economy in 2008 and the change in industrial structure which has occurred over the period 2001 – 2008 are examined in Tables 3 and 4, respectively.

The highly aggregative nature of the sectors identified makes it difficult to ascertain the extent to which 'knowledge economy sectors' (conventionally associated with pharmaceuticals, aerospace, computers, scientific instruments, motor vehicles, electronic communications, post and telecommunications, finance and insurance and education and health) are prevalent within the Scottish economy. Table 3 shows that the three most important sectors (in terms of employment but not necessarily gross value added) are Public Administration, Education and Health; Distribution, Hotels and Restaurants; and Banking, Insurance and Finance, employing 31.7 percent, 18.8 percent and 13.8 percent, respectively, of the total employed population. <sup>11</sup> These three sectors employed almost half the male working population and four out of every five employed females. They were also responsible for three out of five full time jobs; four out of five part time jobs; and three out of every four jobs for graduates. Banking, Insurance and Finance and Public Administration, Education and Finance were also important growth sectors, with total employment expanding by 22.1 percent and 20.4 percent respectively over the period (Table 4). In both sectors, employment growth was greater for males than females; and greater for full time workers than part time workers. The largest percentage growth in terms of total employment was in Energy and Water (at 40.0 percent), although from a relatively low base in 2001. The increase in employment within this sector was greater for females than males; and for part time workers rather than full time workers. Another important feature of the change in industrial structure was the decrease in employment in Manufacturing and Transport and Communications, with job losses of -25.3 percent and -10.2 percent, respectively. In both sectors, the decrease in employment was greater for females than males and greater for part time workers than full time workers.

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<sup>&</sup>lt;sup>11</sup> The Public Administration, Education and Heath sector, although constituting its most significant proportion, should not be confused with the 'Public Sector'. In 2008, approximately 27.4 percent of the employed workforce in Scotland were working in the public sector, as defined by the LFS, and employment in this sector expanded by 6.5 percent over the period in question. See sub section *V* within the Results section for further details.

#### 3. THE RESULTS

The results are presented and discussed in six sub sections viz.:

- I. occupational change for the economy as a whole
- II. change within each of the nine major occupational groupings
- III. occupational change within each of the nine industrial sectors
- IV. the analysis of occupational change in terms of its sectoral and structural factors
- V. occupational change within the public sector, and
- VI. occupational change in the government office region of London, as a comparison to occupational change in Scotland.

#### I. Occupational Change in the Economy as a Whole.

Between 2001 and 2008, there was an net increase in the total numbers employed of 195,600, an increase of 8.3 percent (Table 5). Total employment within four of the occupational groups expanded viz. Managers and Senior Officials (+ 66,800), Professional Occupations (+ 70,300), Associate Professional and Technical (+ 73,100), and Personal Service Occupations (+ 60,700). The greatest proportionate increase (of + 35.3 percent) was in Personal Service Occupations. However, (at + 31.0 percent) this occupational group was only ranked fourth in the percentage share of the net expansion in total employment over the period. Associate Professional and Technical was ranked first, at + 37.3 percent. Total employment decreased in five occupational groups viz. Administrative and Secretarial (- 31,900), Skilled Trades Occupations (- 6,500), Sales and Customer Service Occupations (- 800), Process, Plant and Machine Operatives (- 34,300), and Elementary Occupations (-1,500). Proportionately, most jobs (- 15.6 percent) were lost in Process, Plant and Machine Operatives.

On the basis of these aggregate statistics, therefore, total employment has expanded most in the three upper occupational groups of the 2000 classification, although not all occupations within these groups are conventionally associated with 'knowledge workers'. Most individuals employed within Associate Professional and Technical, for example, are involved more with knowledge handing, processing and servicing,

work tasks not at all comparable to those associated with the 'symbolic analysts' of Reich (1993), who epitomise the 'knowledge worker'. However, there is no evidence of any 'polarisation' within the labour market in Scotland, in terms of changes in the total numbers employed across the occupational groups. Most if not all of the groups at the lower end of the 2000 occupational hierarchy experienced a net reduction in the total numbers employed, although not all by much in absolute terms. There was net total employment creation only in the Personal Service Occupations.

Tables 6 and 7 disaggregate the results presented in Table 5, by gender. Of the total expansion in employment over the period, 100,900 of the net additional jobs were taken up by males and 94,700 by females (Tables 6 and 7, respectively). With the exception of two occupational groups (viz. Sales and Customer Service Occupations and Elementary Occupations), there was no notable gender difference in terms of net job gains/ net job losses. However, in the context of Sales and Customer Service Occupations, whereas there was a net addition of + 11,200 jobs (+ 19.7 percent) for males, there was a net loss of - 12,100 jobs ( - 8.0 percent) for females. The nature of the change was the same in the context of Elementary Occupations. Whereas there was a net addition of +4,100 jobs (+2.6 percent) for males, there was a net loss of -5,700 jobs (- 3.9 percent) for females. Where there is another gender difference of note, it is in the context of the nature and magnitude of some of the changes as a percentage of the net change in total male/female employment over the period (cf. column 8 of each table). Whereas most of the additional jobs for males, by far, were associated with the upper echelons of the occupational hierarchy (viz. Managers and Senior Officials, Professional Occupations and Associate Professional and Technical), for females there was additional sizeable expansion only within Personal Service Occupations.

Another disaggregation, this time by employment status, is presented in Tables 8 and 9. Of the total expansion in employment over the period, 142,300 were in full time jobs (Table 8) and 51,400 were in part time jobs (Table 9). On this occasion, the direction of employment change over the period was the same in six of the nine occupational groups, being positive for Managers and Senior Officials, Professional Occupations, Associate Professional and Technical and Personal Service Occupations and negative for Administrative and Secretarial and Process, Plant and Machine

Operatives (cf. column 6, Tables 8 and 9). However, whereas employment expanded for full time workers in Sales and Customer Service Occupations, it contracted for part time workers by about the same margin. By contrast, whereas employment in Skilled Trades Occupations and Elementary Occupations contracted for full time workers, it expanded for part time workers. Although the percentage increase over the period was much the same for both full time workers and part time workers, some significant inter occupational differences may be observed. The percentage changes in part time employment in Managers and Senior Officials and Professional Occupations were approximately double those of the corresponding full time workers: and the percentage changes in full time employment for Associate Professional and Technical and Personal Service Occupations were (again approximately) double those of the corresponding part time workers.

This examination of disaggregated statistics does necessitate some qualification to the principal conclusions presented in the preceding examination of aggregate statistics. The expansion in employment in the three highest occupational groups has tended to favour males more than females and full time workers more than part time workers. The important expansion in Personal Service Occupations has been associated mostly with the employment of females and full time workers, although not necessarily female full time workers. At the lower end of the occupational hierarchy, where contraction was the norm, more frequently than not, the 'losers' have been females and part time workers.

During the period, graduate employment increased by + 145,700 (+ 39.7 percent) (Table 10). Most of this expansion occurred in three of the occupational groups viz. Managers and Senior Officials, Professional Occupations and Associate Professional and Technical. Proportionately more of this expansion took place in Professional Occupations and Associate Professional and Technical than in Managers and Senior Officials, however, questioning the extent to which the higher education sector is indeed producing 'knowledge workers' akin to the 'symbolic artists' of Reich. <sup>12</sup> <sup>13</sup>

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<sup>&</sup>lt;sup>12</sup> That said, over the period there was a + 51.9 percent expansion in the number of graduates employed as Managers and Senior Officials, the third highest rate of expansion (column 7, Table 10).

<sup>&</sup>lt;sup>13</sup> Some of these statistics could also be used to illustrate the extent to which graduates, increasingly, are not necessarily to be found in 'graduate' jobs.

Table 11 illustrates how the percentage distribution of total employment by occupation changed over the period on an annual basis. Tables 12 and 13 present the same information for males and females, respectively: Tables 14 and 15 present the information for full time workers and part time workers, respectively: and Table 16 presents the information for graduates. The dominant theme, common to each of these tables, is that change is not constant through time. Rather the relative importance of each major occupational grouping tends to change regularly, if only marginally, sometimes positively, sometimes negatively, for reasons which cannot be readily identified given the aggregate nature of this exercise.

#### II. Inter and Intra Occupational Comparisons

Given the predominantly aggregate perspectives presented in the previous sub section, this sub section uses a series of figures to examine changes in the relative importance of female employment, part time employment and graduate employment within and across each of the nine occupational groups over the period 2001 through to 2008.<sup>14</sup>

Four themes are especially evident from Figures 1 through to 9. First, is the extent of gender segmentation within the labour market in Scotland. Three occupational groups are predominantly male (viz. Managers and Senior Officials, Skilled Trade Occupations and Process, Plant and Machine Operatives); and three are predominantly female (viz. Administrative and Secretarial, Personal Service Occupations and Sales and Customer Service Occupations). Secondly, is the manner in which part time employment is associated mostly with these 'female' occupational groups. Thirdly, if not unexpectedly, is the extent to which graduates are to be found in the three 'highest' occupational groups of Managers and Senior Officials, Professional Occupations and Associate Professional and Technical, constituting the majority of the workforce in the second of these. Fourthly, is the manner in which the gender composition, employment status composition and the graduate composition of these nine occupational groups varied so little over the period, irrespective of whether the numbers employed in that classification increased (as with Managers and Senior Officials, Professional Occupations, Associate Professional and Technical and Personal Service Occupations); decreased (as with Administrative and Secretarial and

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<sup>&</sup>lt;sup>14</sup> Changes in the relative importance of male and full time employment, therefore, are examined only indirectly.

Process, Plant and Machine Operatives); or varied in a less than systematic and quite different pattern (as with Skilled Trade Occupations, Sales and Customer Service Occupations and Elementary Occupations).

This examination of inter and intra occupational differences in terms of gender and employment status complements the findings of the previous subsection. There is a gender dimension, manifest in the occupational segmentation noted above. Further, there is an employment status dimension associated with this gender dimension, with part time employment being associated more with those occupations in which females are relatively more prevalent.

#### III. Inter Industry Comparisons

This sub section examines the extent to which the aggregate picture of the changing occupational structure presented in Tables 5 through to 10 masks inter-industry differences. Disaggregating by industry, makes it possible to see how changes in the occupational structure have varied within and across industries. The pattern of presentation replicates that of the aggregate study viz. for each industrial sector in turn, numerical change, percentage change and change as a percentage of net change in the appropriate employment total is calculated for all workers, males, females, full time workers, part time workers and graduates. This exercise is undertaken also for employment in the Public Sector, and these results are reported in sub section V.

A detailed, industry by industry, discussion follows.

#### a. Agriculture and Fishing (Tables 17 - 22)

Agriculture and Fishing is the smallest industrial sector in terms of employment in the Scottish economy. In 2008, it employed 56,000, 2.2. percent of total employment (Table 3), a decrease of – 900 (- 1.5 percent) since 2001 (Table 17). Approximately three quarters of the workforce were males; four in very five worked full time; and less than one percent of all those employed were graduates.

In 2008, 45 percent of all those employed in Agriculture and Fishing were in Skilled Trades Occupations. 27 percent were in Elementary Occupations. Total employment in both these occupational groups expanded between 2001 and 2008, by + 11.8

percent and + 15.9 percent, respectively. Total employment growth was also experienced in Personal Service Occupations and Process, Plant and Machine Operatives, although from very low initial bases. Nonetheless, + 177.7 percent of the net change in total employment was attributable to employment expansion in Personal Service Occupations (Table 17). There was a decrease in total employment in each of the other occupational groups.

In 2008, 77.3 percent of those employed within Agriculture and Fishing were males, and male employment decreased over the period by – 1,100 (- 2.4 percent). Approximately half of all males were employed in Skilled Trades Occupations. One in four males were employed in Elementary Occupations. Both occupational groups witnessed small increases in the number of males employed over the period. The largest change as a percentage of the net change in total male employment occurred in Process, Plant and Machine Operatives (Table 18). The only other occupational group to witness an increase in male employment was Managers and Senior Officials. For females in 2008, the two most important occupational groups were Elementary Occupations (29.0 percent) and Skilled Trades Occupations (26.7 percent), both of which experienced major expansions in female employment over the period, although from relatively small initial employment bases. They constituted the only occupational groups to experience a net growth in the number of females employed (Table 19).

In 2008, 83.2 percent of those employed within Agriculture and Fishing worked full time. Full time employment over the period decreased by – 3,700 (- 7.2 percent). Skilled Trades Occupations (at 48.6 percent) and Elementary Occupations (at 22.7 percent) were the two most important occupational groups for full time workers. Both experienced marginal increases in full time employment between 2001 and 2008. The occupational group which constituted the largest percentage of the net change in full time employment was Personal Service Occupations. There were decreases in full time employment for Professional Occupations, Administrative and Secretarial and Sales and Customer Service Occupations, although each was relatively small in terms of full time employment in the industry (Table 20). Almost 90 percent of part time employment in Agriculture and Fishing was concentrated in three occupational groups viz. Elementary Occupations (at 48.3 percent), Skilled Trades Occupations (at 27.5

percent) and Administrative and Secretarial (at 13.4 percent). Only the first two of these were sources of part time employment growth between 2001 and 2008 (Table 21).

2,700 graduates were employed in Agriculture and Fishing in 2008, a thirty three percent decrease from 2001. Graduates were employed in three occupational groups viz. Skilled Trades Occupations (at 57.2 percent), Personal Service Occupations (at 22.9 percent) and Managers and Senior Officials (at 19.7 percent). Graduate employment in each of these three occupational groups increased over the period, with the overall decrease in graduate employment being attributable principally to the decline (to '0' in both instances) of the number of graduates employed in Professional Occupations and Administrative and Secretarial (Table 22).

#### b. Energy and Water (Tables 23 – 28)

Energy and Water is the second smallest industrial sector in the Scottish economy in terms of the numbers employed, employing 89,900 in 2008, 3.5 percent of total employment. However, between 2001 and 2008, this sector experienced the largest percentage increase in total employment (+ 40 percent, or 25,700 jobs). 75 percent of total employment was male. 90 percent were employed on a full time basis. 25,700 graduates were employed, 28.5 percent of total employment in the sector.

In 2008, the three most populous occupational groups were Managers and Senior Officials (at 20.3 percent), Professional Occupations (at 18.2 percent) and Associate Professional and Technical (at 15.3 percent). Total employment grew in each of these, by + 88.6 percent, + 46.4 percent and + 15.3 percent, respectively. Together these three occupational groups were responsible for more than 80 percent of the net change in total employment between 2001 and 2008. All occupational groups in the sector increased in terms of total employment, with the single exception of Process Plant and Machine Operatives (Table 23).

In terms of male employment, Managers and Senior Officials (at 22.2 percent in 2008) and Process Occupations (at 20.4 percent in the same year) were the two largest occupational groups. However, there were more employed in Process, Plant and Machine Operatives (16.7 percent) and Skilled Trade Occupations (13.8 percent) than

in Associate Professional and Technical (13.7 percent). With the exception of Administrative and Secretarial, all occupational groups experienced a growth in male employment between 2001 and 2008, with the increase in Managers and Senior Officials contributing to more half of the net change in total male employment (Table 24). In terms of female employment, the two largest occupational groups in 2008 were Sales and Customer Service Occupations (at 26.6 percent) and Administrative and Secretarial (at 21.9 percent). Female employment increased in all occupational groups between 2001 and 2008, with the greatest numerical increase being in Sales and Customer Service Occupations (at + 3,900) and the greatest percentage increase being in Professional Occupations (at + 733.3 percent, although this was from a very low initial base) (Table 25).

Full time employment in Energy and Water was concentrated into three occupational groups viz. Managers and Senior Officials, Professional Occupations, and Associate Professional and Technical, with 21.4 percent 18.2 percent and 16.3 percent, respectively, of total full time employment in 2008. Between 2001 and 2008, full time employment in these three occupational groups increased: by + 95.5 percent in Associate Professional and Technical; by + 85.1 percent in Managers and Senior Officials; and by + 32.1 percent in Professional Occupations. Taken together, full time employment growth in these three occupational groups contributed more than 90 percent of the net change in total full time employment in the sector between 2001 and 2008. Two occupational groups experienced (relatively minor) decreases in full time employment viz. Process, Plant and Machine Operatives (- 1,300 jobs, a percentage reduction of -10.3) and Sales and Customer Service Occupations (- 100 jobs, a percentage reduction of -2.3) (Table 26). Part time employment increased by + 6,800 (+ 485.7 percent, from its very low initial base). Part time employment expanded across all occupational groups, with the numerically greatest increase being in Sales and Customer Service Occupations, the single most important occupational group for part time employment in this sector (Table 27).

25,700 graduates were employed in Energy and Water in 2008, an increase of +12,000 (+ 87.5 percent) since 2001. Approximately 95 percent of these graduates were to be found in three occupational groups viz. Managers and Senior Officials (at 38.8 percent), Professional Occupations (at 35.9 percent) and Associate Professional

and Technical (at 19.9 percent). Graduate employment in each of these occupational groups increased over the period, by + 120.0 percent, + 55.9 percent and + 292.3 percent respectively (Table 28).

#### c. Manufacturing (Tables 29 – 34)

Manufacturing is the fourth largest industrial sector in the Scottish economy in employment terms, employing 251,400 in 2008, 9.9 percent of total employment. Between 2001 and 2008, total employment decreased by - 25.3 percent, a rate of reduction greater than any of the other industrial sectors which experienced job loss in this period. Approximately three in four workers were male. Over 90 percent of all workers were employed on a full time basis. Approximately 14 percent of the workforce were graduates.

Almost 60 percent of total employment in Manufacturing was concentrated into three occupational groups in 2008 viz. Process, Plant and Machine Operatives (at 23.6 percent), Skilled Trades Occupations (at 18.4 percent) and Managers and Senior Officials (at 17.7 percent). Of the nine occupational groups, however, total employment increased only in Managers and Senior Officials (by + 1,100 or + 2.5 percent) between 2001 and 2008. Decreasing total employment was the norm, with the losses being especially high (in numerical terms) in Process, Plant and Machine Operatives (at - 34,500), Skilled Trades Occupations (at - 25,900) and Elementary Occupations (at - 10,000) (Table 29).

Almost half of all male employment in Manufacturing was concentrated into two occupational groups viz. Process, Plant and Machine Operatives (at 24.1 percent) and Skilled Trades Occupations (at 22.2 percent). Between 2001 and 2008, - 22,200 jobs were lost in the former (-33.7 percent of the 2001 total) and – 13,200 jobs were lost in the latter (- 22.2 percent of the 2001 total). These same two occupational groups accounted for approximately 80 percent of the net change in total male employment in this sector over the period. An increase in male employment was experienced in only one occupational group viz. Associate Professional and Technical, where there were an additional + 1,900 jobs created (+ 8.5 percent) (Table 30). In terms of female employment, two occupational groups dominated in 2008 viz. Administrative and Secretarial (at 27.0 percent) and Process, Plant and Machine Operatives (at 22.0

percent). Again, however, decreasing female employment over the period was the norm, with -21.300 jobs being lost in Process, Plant and Machine Operatives, more than half the net change in total female employment between 2001 and 2008. There was an increase in female employment only in Managers and Senior Officials (an increase of +2,800 or +43.0 percent of the 2001 total) (Table 31).

Over 60 percent of full time employment in Manufacturing was concentrated into three occupational groups in 2008 viz. Process, Plant and Machine Operatives (at 23.9 percent), Skilled Trades Occupations (at 19.1 percent) and Managers and Senior Officials (at 18.6 percent). Full time employment in Managers and Senior Officials increased between 2001 and 2008 (by + 900, or + 2.1 percent of the 2001 total). Job loss was the norm elsewhere, however, with reductions being especially severe in Process, Plant and Machine Operatives (where – 30,300 jobs were lost, - 55.7 percent of the 2001 total) and Skilled Trades Occupations (where – 25,200 jobs were lost, -36.1 percent of the 2001 total) (Table 32). Part time employment in 2008 was concentrated into three occupational groups, which, taken together, constituted more than half total part time employment in the sector viz. Elementary Occupations (at 28.2 percent), Administrative and Secretarial (at 15.1 percent) and Associate Professional and Technical (at 10.2 percent). Marginal increases in part time employment were witnessed in three occupational groups viz. Managers and Senior Officials (+ 200), Personal Service Occupations (+ 400) and Elementary Occupations (+ 100) (Table 33).

Graduate employment in Manufacturing in 2008 was concentrated into the three highest occupational groups, 45.8 percent in Managers and Senior Officials, 21.7 percent in Professional Occupations and 23.8 percent in Associate Professional and Technical. The total number of graduates employed over the period decreased (by – 2,300, – 6.2 percent of the 2001 total), principally because of the reduction in the number of graduates employed in Professional Occupations, where there was an employment loss of – 6,700 (or - 47.1 percent of the 2001 total) (Table 34).

#### **d.** Construction (Tables 35 – 40)

Employing 209,300 individuals in 2008 (8.2 percent of total employment), the Construction industry is Scotland's fifth largest industrial sector in terms of numbers employed. Between 2001 and 2008, total employment in the industry increased by + 31,200, or + 17.5 percent of the 2001 number. Almost 90 percent of those employed in the industry in 2008 were males. Approximately, 95 percent worked full time. Approximately, 7 percent were graduates (Table 35).

Almost half (49.3 percent) of total employment in Construction in 2008 were in one occupational group viz. Skilled Trades Occupations. The only other occupational group which employed a significant percentage of total employment was Managers and Senior Officials, at 13.5 percent. As total employment within the sector increased between 2001 and 2008, expansion occurred in five of the nine occupational groups – the two exceptions were Associate Professional and Technical and Process, Plant and Machine Operatives. The increase in total employment was especially notable in Skilled Trades Occupations, Managers and Senior Officials and Administrative and Secretarial, which accounted for + 47.7 percent, + 24.3 percent and + 23.3 percent of the net change in total employment over the period (Table 35).

More than half of all males employed within Construction in 2008 were in Skilled Trades Occupations. 13.3 percent of males were employed in Managers and Senior Officials and 10.6 percent in Process, Plant and Machine Operatives. Between 2001 and 2008, male employment increased across all but two of the occupational groups. The exceptions were Sales and Customer Service Occupations and Process, Plant and Machine Operatives, both of which lost - 400 jobs over the period. More than half of the net change in total male employment within the industry was attributable to the increase in employment in Skilled Trades Occupations. Almost 25 percent of the same was attributable to the increase in employment in Managers and Senior Officials (Table 36). Two in every three females employed in Construction in 2008 were employed in Administrative and Secretarial. 14.6 percent of females were employed in Managers and Senior Officials. Again, female employment increased across all but two of the occupational groups. In this instance the exceptions were Professional

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<sup>&</sup>lt;sup>15</sup> The cell associated with Personal Service Occupations is empty.

Occupations and Associate Professional and Technical, where, between 2001 and 2008, -700 and -2,500 jobs were lost, respectively. More than 80 percent of the net change in total female employment in Construction over the period was attributable to the increase in Administrative and Secretarial (Table 37).

Full time employment within Construction was concentrated in Skilled Trades Occupations, which employed 51.5 percent of the full time workforce in 2008. 14.0 percent of full time workers were employed in Managers and Senior Officials and 10.0 percent in Process, Plant and Machine Operatives. Full time employment decreased between 2001 and 2008 in two occupational groups viz. Associate Technical and Professional, which lost - 1,700 jobs or - 23.9 percent of the 2001 total, and Sales and Customer Service Occupations, which lost – 300 jobs, or - 25.0 percent of the 2001 total. Almost half of the increase in the net change in total full time employment was attributable to the increase in the numbers employed in Skilled Trades Occupations (Table 38). Part time employment was principally in Administrative and Secretarial, although 14.2 percent of the part time workforce were employed in Skilled Trades Occupations. (Marginal) decreases in the numbers of part time workers employed between 2001 and 2008 were witnessed in Associate Professional and Technical (where - 800 jobs were lost) and Process, Plant and Machine Operatives (where - 400 jobs were lost). The increase in part time employment in Administrative and Secretarial was attributable for + 112.5 percent of the net change in total part time employment over the period (Table 39).

Graduates accounted for less than 7 percent of all employees within Construction. Almost 70 percent of all graduates in the industry were found in two occupational groups in 2008 viz. Professional Occupations (at 38.1 percent) and Managers and Senior Officials (at 30.2 percent). The number of graduates employed increased between 2001 and 2008 by + 600, or + 4.5 percent of the 2001 total. Numerically, the greatest increase in the number of graduates employed was in Administrative and Secretarial, at 1,300 jobs, double the increase witnessed in Professional Occupations (Table 40).

#### e. Distribution, Hotels and Restaurants (Tables 41 – 46)

Distribution, Hotels and Restaurants was the second largest industrial sector in terms of numbers employed in the Scottish Economy in 2008, employing 478,200 individuals, 18.8 percent of the total employed population. Between 2001 and 2008, there was an increase in total employment of + 24,700, or + 5.4 percent of the 2001 total. Males, at 47.3 percent, constituted a minority of the workforce in this industrial sector. Almost 60 percent of those employed worked full time. Approximately, 8 percent were graduates.

Over 70 percent of the total employed in Distribution, Hotels and Restaurants were concentrated into three occupational groups in 2008 viz. Sales and Customer Service Occupations (at 29.5 percent), Elementary Occupations (at 23.3 percent) and Managers and Senior Officials (at 19.8 percent). Increases in total employment over the period occurred in all but two occupational groups viz. Sales and Customer Service Occupations, where – 7,600 jobs were lost or - 5.0 percent of the 2001 total, and Administrative and Secretarial, where – 5,500 jobs were lost or – 16.4 percent of the 2001 total. These job losses in total employment, however, were more than compensated for by increases elsewhere, notably in Elementary Occupations, which experienced a + 21.7 percent increase, and Managers and Senior Officials, which experienced a + 18.8 percent increase, over the period (Table 41).

Four occupational groups constituted the principal sources of male employment in Distribution, Hotels and Restaurants in 2008 viz. Managers and Senior Officials (at 24.9 percent), Elementary Occupations (at 23.1 percent), Sales and Customer Service Occupations (at 18.7 percent) and Skilled Trades Occupations (at 16.5 percent). Between 2001 and 2008, male employment increased by + 34, 800, or + 18.1 percent of the 2001 total. More than half of the net change in total male employment was attributable to expansion in two occupational groups viz. Elementary Occupations and Sales and Customer Service Occupations. Marginal decreases in male employment occurred in Associate Professional and Technical ( - 700 jobs), Personal Service Occupations (- 400 jobs) and Administrative and Secretarial (- 300 jobs) (Table 42). Female employment within Distribution, Hotels and Restaurants in 2008 was concentrated in three of the same four occupational groups as male employment viz. Sales and Customer Service Occupations (at 39.4 percent), Elementary Occupations

(at 23.5 percent) and Managers and Senior Officials (at 15.1 percent). In contrast to male employment, however, there was a decrease in female employment over the period, with a job loss of -10,100, or -3.8 percent of the 2001 total. Increases in female employment were to be found only in Managers and Senior Officials, of +8,800, or +30 percent of the 2001 total. This increase in female employment, however, was more than offset by job losses in Sales and Customer Service Occupations, of -15,700, or -13.6 percent of the 2001 total (Table 43).

Full time employment within Distribution, Hotels and Restaurants in 2008 was concentrated in four occupational groups viz. Managers and Senior Officials (at 29.8 percent), Sales and Customer Service Occupations (at 18.4 percent), Elementary Occupations (at 16.2 percent) and Skilled Trades Occupations (at 14.4 percent). However, whereas the first three of these occupational groups witnessed increases in full time employment between 2001 and 2008, there was a decrease in full time employment in Skilled Trades Occupations, of -1,600 jobs or -3.8 percent of the 2001 total. Over the period, full time employment increased by + 21,300, or + 8.2 percent of the 2001 total, and more than half of the net change in total full time employment within the sector was attributable to the increase in Managers and Senior Officials (Table 44). In 2008, almost 80 percent of part time employment in Distribution, Hotels and Restaurants was to be found in two occupational groups viz. Sales and Customer Service Occupations (at 45.2 percent) and Elementary Occupations (at 33.4 percent). Whereas the former was to be the principal source of job loss for part time workers over the period (of - 11,000 jobs, or - 10.9 percent of the 2001 total), the latter was to be the principal source of job creation for the same (of + 9,000 jobs, or + 15.7 percent of the 2001 total) (Table 45).

Graduate employment within Distribution, Hotels and Restaurants in 2008 was more widely spread across the nine occupational groups than hitherto. However, three occupational groups predominated viz. Managers and Senior Officials (at 30.7 percent), Sales and Customer Service Occupations (at 17.4 percent) and Elementary Occupations (at 14.5 percent). Graduate employment within the sector increased between 2001 and 2008, by + 4,900 jobs or + 15.3 percent of the 2001 total. The

single largest increase in the numbers of graduates employed was to be found in Elementary Occupations (Table 46).<sup>16</sup>

#### f. Transport and Communication (Tables 47 – 52)

Transport and Communication is the third smallest industrial sector within the Scottish economy in 2008 in terms of the numbers employed, employing 144,700, 5.7 percent of the total working population. Between 2001 and 2008, total employment in the sector decreased by -16,500, or -10.2 percent of the 2001 total. Almost four in five workers were male and a similar proportion worked full time. Approximately 10 percent of all employed in the sector were graduates.

Three occupational groups accounted for more than half of the total workforce viz. Process, Plant and Machine Operatives (at 33.7 percent), Managers and Senior Officials (at 13.0 percent) and Elementary Occupations (at 12.5 percent). Decreases in total employment occurred in four occupational groups between 2001 and 2008, in order of their numerical magnitude: Administrative and Secretarial (which lost – 10,900 jobs), Elementary Occupations (which lost – 8,000 jobs), Personal Service Occupations (which lost – 4,800 jobs) and Skilled Trades Occupations (which lost – 2,000). Increases in total employment elsewhere, notably Managers and Senior Officials (where the number of jobs increased by + 3,600) and Sales and Customer Service Occupations (where the number of jobs increased + 3,000) were insufficient to offset the scale of these losses (Table 47).

The single most important occupational group for males within Transport and Communication was Process, Plant and Machine Operatives (at 40.3 percent), although 13.1 percent were employed in Elementary Occupations, 11.4 in Managers and Senior Officials and 10.2 percent in Skilled Trades Occupations. Between 2001 and 2008, male employment within four occupational groups decreased viz. Elementary Occupations (which lost – 8,500 jobs), Administrative and Secretarial

<sup>&</sup>lt;sup>16</sup> The percentage distribution across occupations of graduates in the industry and the increase in the number of graduates employed within the lower echelons of the occupational hierarchy between 2001 and 2008 warrants some comment. Part of this may be attributable to the relative ease of finding employment within this industrial sector, given the prevalence of high labour turnover. Hence it is a natural source of interim employment for those graduates still seeking 'graduate' jobs. For the same reason, together with the prevalence of part time employment within the industry, it is a ready source of employment and earnings for those graduates undertaking post graduate studies, both full and part time.

(which lost – 4,300 jobs), Personal Service Occupations (which lost – 1,100 jobs) and Skilled Trades Occupations (which lost – 700 jobs). Increases in male employment elsewhere were insufficient to compensate for the job losses in these occupational groups (Table 48). One in four females in Transport and Communication were employed in Administrative and Secretarial. However, female employment decreased in this occupational group between 2001 and 2008 by – 6,500, or – 44.5 percent of the 2001 total. Although less significant in their scale of magnitude, job losses for females were also to be found in four other occupational groups viz. Personal Service Occupations (- 3,800 jobs), Sales and Customer Service Occupations (- 1,500 jobs), Skilled Trades Occupations (- 1,300) and Associate Professional and Technical (- 600 jobs). A relatively sizeable increase in female employment was a feature of only one occupational group in this industrial sector viz. Managers and Senior Officials, where there was an increase of + 2,800, or + 90.3 percent of the 2001 total (Table 49).

Full time employment within Transport and Communication in 2008 was concentrated in two occupational groups viz. Process, Plant and Machine Operatives (at 36.0 percent) and Managers and Senior Officials (at 15.1 percent). Whereas the latter was to experience a decrease in employment for full time workers between 2001 and 2008 (of – 2,100 jobs, or - 4.5 percent of the 2001 total), the former was to experience an increase in employment for the same (of + 4,000 jobs, or + 27.7 percent of the 2001 total), the largest increase among the four occupational groups which witnessed an increase in full time employment in this sector (Table 50). Part time employment was concentrated into four occupational groups, in order of their relative importance Sales and Service Occupations (at 21.9 percent), Process, Plant and Machine Operatives (at 21.5 percent), Elementary Occupations (at 20.8 percent) and Administrative and Secretarial (at 17.8 percent). Of the four, only one – Process, Plant and Machine Operatives – was to experience an increase in employment for part time workers between 2001 and 2008, of + 2,900 jobs, or + 138 percent of the 2001 total (Table 51).

Graduates employed in Transport and Communication were to be found most especially in Managers and Senior Officials (at 23.8 percent) and Sales and Customer Service Occupations (at 19.8 percent). The numbers of graduates employed increased between 2001 and 2008 by + 6,800 or + 75.5 percent of the 2001 total. Almost half of

the net change in total graduate employment in the sector was to be found in Sales and Customer Service Occupations (Table 52).

#### g. Banking, Insurance and Finance (Tables 53 – 58)

Employing 13.8 percent of the total working population, Banking, Insurance and Finance is the second largest industrial sector in terms of the numbers employed in the Scottish economy in 2008. Moreover, the percentage growth in total employment within this industrial sector (at + 22.1 percent) was greater than in any other industrial sector. Just over half those employed within the sector were males. Approximately four in every five jobs were full time. Over 30 percent of those employed had graduate status.

The principal feature of the occupational structure within Banking, Insurance and Finance was the extent to which total employment was concentrated into the three occupational groups highest within the occupational hierarchy, with 19.4 percent employed in Managers and Senior Officials, 21.9 percent employed in Professional Occupations and 21.5 percent in Associate Professional and Technical in 2008. Moreover, each of those occupational groups experienced an increase in total employment over the period, together accounting for approximately 130 percent of the net change in total employment in the sector. By way of contrast, Administrative and Secretarial, which was the fourth largest occupational group (at 16.1 percent) lost – 22,600 jobs over the period, or - 28.4 percent of the 2001 total (Table 53).

Male employment was even more concentrated into these three highest occupational groups, with 22.4 percent employed in Managers and Senior Officials, 29.6 percent employed in Professional Occupations and 20.1 percent employed in Associate Professional and Technical in 2008. Male employment growth within the sector was concentrated within these same three occupational groups. Despite the increase in total male employment over the period, job losses occurred in two occupational groups viz. Administrative and Secretarial (which lost – 10,700 jobs, or - 65.2 percent of the 2001 total) and Elementary Occupations (which lost – 5,300 jobs, or -25.1 percent of the 2001 total) (Table 54). By way of contrast to male employment, for females employed in Banking, Insurance and Finance the single most important occupational group in 2008 was Administrative and Secretarial (at 32.1 percent).

Nonetheless, 15.8 percent were employed in Managers and Senior Officials, 12.5 percent in Professional Occupations and 23.1 percent in Associate Professional and Technical. Over the period, - 11,900 jobs filled by female workers (-18.9 percent of the 2001 total) were lost in Administrative and Secretarial. Jobs filled by female workers were also lost in four other occupational groups. However, the increase in female employment in the top three occupational groups more than compensated for the magnitude of these job losses (Table 55).

Full time employment within Banking, Insurance and Finance was concentrated, once again, into the top three occupational groups, with 20.9 percent employed in Managers and Senior Officials, 24.6 percent employed in Professional Occupations and 22.1 percent employed in Associate Professional and Technical. Furthermore, each of these occupational groups experienced an increase in full time employment over the period, at + 52.4 percent, + 54.6 percent and + 67.9 percent, respectively. Job losses for full time workers were most prevalent in Administrative and Secretarial, which lost – 21,900 jobs, or -39.4 percent of the 2001 total (Table 56). In terms of part time employment within the sector, the single most important occupational group was Administrative and Secretarial (at 35.3 percent). However, this occupational group lost – 1,300 part time jobs over the period, – 5.4 percent of the 2001 total. Part time employment was not unimportant in Managers and Senior Officials (at 12.7 percent), Professional Occupations (at 10.1 percent) and Associate Professional and Technical (at 18.7 percent). Indeed, the only increases in part time employment over the period were to be found in these three occupational groups (Table 57).

Not unexpectedly, graduate employment within Banking, Insurance and Finance was concentrated into the top three occupational groups, although almost half the total were employed in Professional Occupations. Between 2001 - 2008, graduate employment increased by + 42,400, or + 60.8 percent of the 2001 total. Numerically, most jobs were created in Professional Occupations (+ 20,800). The greatest proportionate increase was in Managers and Senior Officials (at 95.4 percent) (Table 58).

#### h. Public Administration, Education and Health (Tables 59 – 64)

Employing 31.7 percent of the total working population, Public Administration, Education and Health is the largest industrial sector in the Scottish economy in 2008 in employment terms. Between 2001 and 2008, total employment within the sector increased by + 136,500 jobs, or + 20.4 percent of the 2001 total. At 30 percent of the total, males constituted a minority of the total workforce. Approximately, 70 percent of jobs were full time. Almost 30 percent of those employed were graduates.

Three occupational groups each employed more than 20 percent of the total population within Public Administration, Education and Health viz. Associate Professional and Technical (at 24.1 percent), Professional Occupations (at 23.5 percent) and Personal Service Occupations (at (21.9 percent). Between 2001 and 2008, total employment in each of these occupational groups increased, by + 23.2 percent, + 25.1 percent and + 44.0 percent, respectively. Marginal reductions in total employment occurred within two occupational groups viz. Process, Plant and Machine Operatives, where – 500 jobs were lost, and Administrative and Secretarial, where – 100 jobs were lost (Table 59).

56.4 percent of male employment within Public Administration, Education and Health were in two occupational groups in 2008 viz. Professional Occupations (at 28.4 percent) and Associate Professional and Technical (at 28.0 percent). Numerically, the largest increases in male employment between 2001 and 2008 occurred within these same two occupational groups, with male employment increasing in the former by + 14,300 and in the latter by + 11,900. Male employment decreased in two occupational groups, marginally, by - 700 jobs in Administrative and Secretarial, but more significantly, by -5,400 jobs in Process, Plant and Machine Operatives (Table 60). In the context of female employment three occupational groups each employed more than 20 percent of the total female workforce. In order of their relative importance they were: Personal Service Occupations (at 26.9 percent); Associate Professional and Technical (at 22.4 percent); and Professional Occupations (at 21.4 percent). These same three occupational groups were the principal sources of the expansion in female employment in this sector between 2001 and 2008. During this period, female employment increased in Personal Service Occupations by + 43,300 jobs, + 40 percent of the 2001 total; in Associate Professional and Technical, by + 24,700 jobs, +

24.4 percent of the 2001 total; and in Professional Occupations, by 23,700 jobs, + 24.5 percent of the 2001 total. Reductions in female employment occurred in Elementary Occupations, where there were – 6,100 fewer jobs, and Skilled Trades Occupations, where there were – 1,900 fewer jobs (Table 61).

More than half of full time employment within Public Administration, Education and Health were to be found in two occupational groups viz. Associate Professional and Technical (at 26.6 percent) and Professional Occupations (at 25.9 percent). Additionally, 19.2 percent of full time workers were employed in Personal Service Occupations. These three occupational groups were the principal sources of the growth in full time employment between 2001 and 2008, with full time employment increasing by + 44,700 jobs in Personal Service Occupations (+ 68.2 percent of the 2001 total); + 37,800 jobs in Associate Professional and Technical (+ 32.9 percent of the 2001 total); and + 21,500 jobs in Professional Occupations (+ 16.9 percent of the 2001 total). (Relatively marginal) reductions in full time employment occurred in Process, Plant and Machine Operatives, Administrative and Secretarial and Skilled Trades Occupations (Table 62). The single most important occupational group of part time workers in 2008 was Personal Service Occupations, where part time employment expanded by + 9,400 jobs, or + 16.3 percent of the 2001 total. However, the principal source of the expansion of part time employment in Public Administration, Education and Health over the period was Professional Occupations, which accounted for over + 70 percent of the net change in total part time employment (Table 63).

More than half of all graduates employed in Public Administration, Education and Health were employed in Professional Occupations. One in four were employed in Associate Professional and Technical. Graduate employment increased by + 68,300 between 2001 and 2008, + 39.8 percent of the 2001 total. The two most important sources of expansion over this period were Professional Occupations and Associate Professional and Technical (Table 64).

#### i. Other Services (Tables 65 - 70)

Employing 5.8 percent of the total working population, Other Services is the fourth smallest industrial sector in the Scottish economy in 2008, only (very) marginally larger in employment terms than Transport and Communication. Between 2001 and

2008, total employment within the sector increased by + 16,600 jobs, or + 12.5 percent of the 2001 total. With approximately 40 percent of the total, males constituted a minority of the workforce. Approximately 60 percent were employed on a full time basis. One in five had graduate status.

Over 60 percent of total employment in Other Services was concentrated into three occupational groups in 2008. In order of their relative importance: Personal Service Occupations (at 25.0 percent); Associate Professional and Technical (at 20.7 percent); and Elementary Occupations (at 15.9 percent). Although total employment within the sector expanded between 2001 and 2008 by + 16,600 jobs, an increase in the total numbers employed was a feature of only four occupational groups viz. Personal Service Occupations, where there were + 9,200 additional jobs over the period; Administrative and Secretarial, where there were + 7,600 additional jobs; Associate Professional and Technical, where there were + 7,200 additional jobs; and Elementary Occupations, where there were + 2,800 additional jobs. By contrast total employment in both Managers and Senior Officials and Professional Occupations decreased, by – 10.1 percent and – 15.3 percent, respectively (Table 65).

The single most important occupational group for males in Other Services in 2008 was Associate Professional and Technical (at 27.8 percent). However, significant numbers of males were also employed in Elementary Occupations (at 15.8 percent) and Personal Service Occupations (at 15.7 percent). Male employment decreased by – 5.8 percent between 2001 – 2008. Reductions in male employment were especially evident in Skilled Trades Occupations, Managers and Senior Officials and Sales and Customer Service Occupations. By contrast, male employment increased in Administrative and Secretarial and Personal Service Occupations (Table 66). For females within Other Services, the single most important occupational group in 2008 was Personal Service Occupations (at 31.7 percent), although significant numbers were also employed in Administrative and Technical (at 17.3 percent), Elementary Occupations (at 15.9 percent) and Associate Professional and Technical (at 15.6 percent). In contrast to male employment, between 2001 and 2008 female employment in this sector increased, by +20,900 jobs or +31.6 percent of the 2001 total. Moreover, female employment increased over all the nine occupational groups. However, the increases in Associate Professional and Technical and Personal Service

Occupations taken together accounted for more than + 50 percent of the net change in total female employment within the sector (Table 67).

One in four full time workers in Other Services were employed in Personal Service Occupations in 2008. 18.6 percent were employed in Associate Professional and Technical and 15.9 percent in Administrative and Secretarial. There was a marginal decrease in the numbers employed on a full time basis between 2001 and 2008, of – 500, (or -0.5 percent of the 2001 total). Decreases in full time employment occurred in six occupational groups. However, the more significant changes were the increases in full time employment which took place in Personal Service Occupations (+ 4,600 jobs, or + 25.6 percent of the 2001 total) and Administrative and Secretarial (+ 4,100 jobs, or + 41.0 percent of the 2001 total) (Table 68). Three occupational groups accounted for approximately 75 percent of part time employment within Other Services. In order of their relative importance: Personal Service Occupations (at 24.5 percent), Associate Professional and Technical (at 23.7 percent) and Elementary Occupations (at 23.4 percent). In contrast to full time employment in this sector, between 2001 and 2008 part time employment increased by +17,400 jobs (+ 40.4 percent of the 2001 total). Increases in part time employment were especially evident in Associate Professional and Technical and Personal Service Occupations. However, (marginal) reductions in part time employment occurred in Skilled Trades Occupations, Process, Plant and Machine Operatives and Sales and Customer Service Occupations (Table 69).

Graduate employment in Other Services was concentrated in Associate Professional and Technical, which employed almost half of all graduates in the sector. However, 18.1 percent were employed in Administrative and Secretarial and 17.3 percent were employed in Professional Occupations. Between 2001 and 2008 the number of graduates employed in this sector increased by + 14,200, or + 90.4 percent of the 2001 total. The increase in graduate employment was especially evident in Associate Professional and Technical, which accounted for + 69 percent of the net change in total graduate employment (Table 70).

Considerable inter industry differences are to be observed, therefore, in the changing structure of occupational employment in Scotland between 2001 and 2008. Hence the

need to examine the extent to which the observed changes in the occupational structure are attributable to the changes which have occurred in the industrial structure. This is done in the subsequent sub section.

#### IV. Occupational Change: Sectoral and Structural Effects

There are two notable features evident from the inter industry examination of occupational change discussed in the preceding sub section. The first is employment expansion/contraction within each of the nine industrial sectors over the period 2001-2008, noted first is Table 4. Most frequently, this is associated with further contraction within the primary and secondary sectors of the economy accompanied by further expansion within the tertiary sector of the economy, a process of change often referred to as 'de-industrialisation'. Were nothing else to happen, this process of sectoral change will impact upon occupational structure. Secondly, sub section *III* also provides some evidence of changes in the relative importance of the nine occupational groups within each industrial sector. This is attributable to a process of structural change within firms, as they change the nature of the labour they employ. This change in the nature of labour demanded is conventionally assumed to be associated with the employment of relatively more skilled individuals in the 'higher' echelons of the occupational hierarchy and relatively fewer less skilled/unskilled individuals in the 'lower' echelons, a process referred to as 'up-skilling'.

Occupational change which is attributable to changes in the industrial structure is referred to as 'sectoral' change: and change which is attributable to the changing nature of labour demand on the part of firms is referred to as 'structural' change. This sub-section examines the relative importance of these sectoral and structural factors in explaining the change in occupational structural over the period. It does so by applying the statistical technique of shift share analysis, first for all workers, then for males and females, separately, and finally for full time workers and part time workers, separately. The results are reported in Tables 71 through to 75.

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<sup>&</sup>lt;sup>17</sup> There is a long, often impressive history of the use of shift share analysis, for example to examine the process of regional change and performance (e.g. Randall, 1973: Fothergill and Gudgin, 1982: Holden et al, 1989). Different methods of applying the statistical technique are to be found. The one applied here follows that in Paterson *et al* (2004). However, in the context of using the statistical technique, one is ever mindful of Richardson's (1978) observation about this "most common" and "most overvalued tool of analysis in regional economics" (p. 202): "Its popularity is not difficult to comprehend. It is very easy to apply – a harmless pastime for small boys with pocket calculators." (p. 202)

The footnotes to Table 71 explain the process by which the results are obtained and the manner in which the numbers within the cells of the tables may be interpreted. In the context of Managers and Senior Officials, for example, this occupational group constituted 11.7 percent of total employment in 2001 (column 2 of table 71). If the occupational distribution in the economy as a whole did not change between 2001 and 2008, the estimated distribution of Managers and Senior Officials in 2008 would be 11.5 percent, consequential of the change in total employment over the period (column 5 of Table 71). The estimated effect of sectoral change, therefore, is -0.2 percentage points, the difference between this estimated figure for 2008 and the figure for 2001. However, the actual change in the percentage employed in Managers and Senior Officials between 2001 and 2008 was 1.7 percentage points (column 4, Table 71). The difference between what has been explained by sectoral change (-0.2 percentage points) and the actual change (1.7 percentage points) – the residual – is 1.9 percentage points. This residual is assumed to reflect the effect of structural factors on occupational change between 2001 and 2008. This illustrative example may be contrasted with another, Administrative and Secretarial. In 2001, employment within this occupational group constituted 13.2 percent of total employment. Given an unchanged occupational distribution, the corresponding estimated percentage in 2008 would be 13.9, allowing only for employment change. This would estimate the change in Administrative and Secretarial attributable to sectoral factors at 0.7 percentage points. Actual growth within the sector was -2.3 percent, however. The unexplained residual – attributable to structural factors – in this instance is -3.0 percentage points.

Three results are apparent from these five tables. First, the process of sectoral change plays the minor role. The numbers in column 6 of each table tend to be less than the difference between the corresponding numbers of column 4 and the numbers in column 6, where this residual is assumed to approximate the role played by structural factors. Secondly, the process of structural change is indicative of upskilling within firms, as they employ proportionately more workers who would be classified as being within the three 'higher' occupational groups and proportionately fewer workers who would be classified as being within the 'lower' occupational groups. The sign on the residual – 'structural' – component is invariably positive for the 'higher' occupational

groups whereas the sign on the 'lower' occupational groups tends to be negative. <sup>18</sup> Both these results are compatible with those of Paterson *et al* (2004) who used similar methods to examine the process of occupational change over the longer period 1981 – 2000. Finally, a theme not examined by Paterson *et al*, these two outcomes of the relative importance of structural change and upskilling hold, when the total labour force is disaggregated both by gender and by employment status. <sup>19</sup>

#### V. Occupational Change Within the Public Sector (Tables 76 –81)

This section replicates the pattern of the analysis undertaken for the nine industrial sectors in section III, but for the public sector. It make use of Tables 76 through to 81.

The Public Sector - which is to be distinguished from the Public Administration, Education and Health industrial sector (cf. footnote 6) – employs approximately 27 percent of the working population in Scotland in 2008. Between 2001 and 2008 the number employed in the Public Sector increased by + 42,600, or + 6.5 percent of the 2001 total. Males constituted approximately 35 percent of total employment. Approximately three in every four workers were employed on a full time basis. 30 percent had graduate status.

In 2008, more than half of all workers employed within the Public Sector were in two occupational groups: 25.6 percent were employed in Professional Occupations and 23.7 percent were employed in Associate Professional and Technical. Additionally, 15.6 percent were employed in Personal Service Occupations and 14.7 percent were employed in Administrative and Secretarial. Between 2001 and 2008 total employment in the Public Sector expanded by 6.5 percent. Total employment growth was especially evident within Professional Occupations, where total employment increased by + 31,000, a + 21.4 percent increase over the 2001 total, and Personal Service Occupations, where total employment increased by + 24,800, a + 29.6 percent increase over the 2001 total. In contrast, decreases in total employment occurred in Administrative and Secretarial (by - 12,500), Elementary Occupations (by - 9,500),

<sup>&</sup>lt;sup>18</sup> Personal Service Occupations would be seen as an exception to this generalisation.

<sup>&</sup>lt;sup>19</sup> There are two exceptions to this generalisation. Male employment in Sales and Customer Service Occupations (Table 72) and part time employment in Skilled Trades Occupations (Table 75) record positive rather than negative residuals.

Process, Plant and Machine Operatives (by - 8,100) and Skilled Trades Occupations (by - 7,600) (Table 76).

Male employment in the Public Sector in 2008 was concentrated into two occupational groups viz. Professional Occupations (at 25.6 percent) and Associate Professional and Technical (at 24.9 percent). Of the other occupational groups, only Elementary Occupations (at 10.7 percent) had more than 10 percent of total male employment. Between 2001 and 2008, male employment increased by + 5,700, or + 2.3 percent of the 2001 total. Employment in Professional Occupations, Associate Professional and Technical and Personal Service Occupations each increased by at least + 4,000. However, male employment decreased in Process, Plant and Machine Operatives by -8,000, or -45.1 percent of the 2001 total (Table 77). Female employment within the Public Sector in 2008 was also concentrated into Professional Occupations (at 25.0 percent) and Associate Professional and Technical (at 23.0 percent). Additionally, however, 19.7 percent were employed in Personal Service Occupations and 18.1 percent were employed in Administrative and Secretarial. Between 2001 and 2008 female employment increased by + 36,800, an + 8.9 percent increase on the 2001 total. Three occupational groups were the principal sources of the net change in total female employment viz. (in order of their relative importance) Professional Occupations, Personal Service Occupations and Associate Professional and Technical. However, female employment decreased in four of the other six occupational groups, notably in Administrative and Secretarial, where numbers employed dropped by - 11,300, and Elementary Occupations, where numbers employed dropped by -10,200 (Table 78.)

Full time employment within the Public Sector in 2008 was also concentrated into Professional Occupations (at 27.7 percent) and Associate Professional and Technical (at 26.5 percent). Between 2001 and 2008 – when total full time employment in the sector increased by + 8.5 percent – the former expanded by + 12.4 percent and the latter by + 23.1 percent. An even greater rate of employment growth, however, was witnessed in Personal Service Occupations, where the increase was + 38.9 percent, an increase of + 17,600 over the 2001 number. Employment reductions also occurred. For example, employment in each of Administrative and Secretarial, Skilled Trades Occupations and Process, Plant and Machine Operatives decreased by at least – 7,000

(Table 79). Part time employment within the Public Sector was concentrated into five occupational groups. In order of their relative importance, they were: Personal Service Occupations (at 24.4 percent), Elementary Occupations (at 21.0 percent), Professional Occupations (at 18.4 percent), Administrative and Secretarial (at 16.2 percent) and Associate Professional and Technical (at 16.0 percent). However, whereas part time employment increased between 2001 and 2008 in Professional Occupations (by + 15.5 percent) and Personal Service Occupations (by 7.1 percent), it decreased in the other three occupational groups, (by – 8.5 percent in Elementary Occupations, by – 6.4 percent in Associate Professional and Technical and by – 5.1 percent in Administrative and Secretarial) (Table 80).

More than half of all graduates employed within the Public Sector in 2008 were in Professional Occupations. A further 25 percent were in Associate Professional and Technical. Between 2001 and 2008, graduate employment increased by + 47,700, a + 28.9 percent increase over the 2001 total. More than half of the net change in total graduate employment was attributable to the increase in employment in Professional Occupations. Approximately + 30 percent was attributable to the increase in employment in Associate Professional and Technical (Table 81).

# VI. Occupational Change in the Government Office Region of London (Tables 82 – 87)

The first part of this section replicates the pattern of the analysis undertaken above, but for the Government Office Region of London. It makes use of Tables 82 through to 87.<sup>20</sup>

The total employed population resident in London expanded by 6.6 percent over the period 2001 - 2008, with 3,752 thousands being employed in 2008. Of this number, 55.6 percent were males; 79.7 percent worked full time; and 35.7 had graduate status.

In terms of total employment, more than half were employed in the top three occupational groups in 2008, with 19 percent employed in Associate Professional and

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<sup>&</sup>lt;sup>20</sup> It should be emphasised that by using the LFS what is examined is the occupational structure of those resident in London. In this respect, this occupational structure would differ from that based upon individuals working – but not necessarily resident – in London.

Technical, 18.5 percent employed in Managers and Senior Officials and 16.3 percent employed in Professional Occupations (Table 82). Moreover, total employment in each of these occupation groups expanded since 2001, by + 10.8 percent, + 22.0 percent and + 11.5 percent, respectively. Growth was also experienced in Personal Service Occupations (by + 21.2 percent), Skilled Trades Occupations (by + 12.8 percent) and Elementary Occupations (by + 4.1 percent). Elsewhere, a decrease in the total numbers employed was the norm. This decrease was especially evident in Administrative and Secretarial, where almost one in five jobs were lost.

Over the period, male employment in London increased by 8.4 percent (Table 83). 57.4 percent of male employment was concentrated in the top three occupational groups in 2008. Each of these three occupational groups experienced expansion between 2001 and 2008, notably Managers and Senior Officials, where the numbers employed increased by +37.4 percent. An increase in male employment was the norm across all occupations, with the exception of Administrative and Secretarial, which contracted by - 31.1 percent. There was the now familiar increase in male employment in Personal Service Occupations (by + 17.9 percent). However, unusually, male employment in Skilled Trades Occupations and Elementary Occupations also increased, by + 12.4 percent and + 10.8 percent, respectively. Almost half of all females resident in London were employed in the 'top' three occupational groups in 2008, 20 percent in Associate Professional and Technical, 15.4 percent in Professional Occupations and 14.2 percent in Managers and Senior Officials (Table 84). Between 2001 and 2008, female employment increased by + 4.5 percent. In 2001, the most populous female occupational group was Administrative and Secretarial (at 24.6 percent). Between 2001 and 2008, however, female employment in this occupational group contracted by - 15.8 percent. Decreases in female employment in Process, Plant and Machine Operatives (by - 29.5 percent), Sales and Customer Services (by – 10.0 percent) and Elementary Occupations (by -5.9 percent) were also evident.

Almost three in very five full time workers in London were employed in the top three occupational groups in 2008 (Table 85). Moreover, full time employment in all three increased between 2001 and 2008, by + 224.7 thousand jobs in total. Significant increases in full time employment were also observed in Personal Service

Occupations (by +25.5 percent), Skilled Trades Occupations (by +13.1 percent) and Elementary Occupations (by +12.7 percent). Most full time jobs were lost in Administrative and Secretarial, which accounted for -42.1 percent of the net change in total full time employment. By way of contrast, only 31.9 percent of part time workers were employed in the top three occupational groups in 2008, although each experienced increases over the period (Table 86). The two most populous occupational groups for part time workers resident in London in 2008 were Elementary Occupations (at 17.0 percent) and Sales and Customer Services (at 16.3 percent). However, whereas part time employment in the latter increased since 2001 (by +7.9 percent), it decreased in the former (by -10.8 percent). Numerically, the occupational group which expanded most in terms of part time employment was Managers and Senior Officials (by +13,400 jobs, +36.1 percent of the 2001 total). Numerically, the occupational group which contracted most was Administrative and Secretarial (by -20,500 jobs, -15.5 percent of the 2001 total).

Graduate employment in London increased by 27.4 percent between 2001 and 2008. In the latter year, it was concentrated into three occupational groups viz. Professional Occupations (at 33.0 percent), Associate Professional and Technical (at 26.9 percent) and Managers and Senior Officials (at 24.4 percent). Numerically, however, the greatest expansion in graduate jobs since 2001 was in Managers and Senior Officials (by + 99,000 jobs, + 43.2 percent of the 2001 total). Each occupational group, however, witnessed an increase in the numbers employed who had graduate status.

The purpose of including this examination of the change in the occupational structure of employment in the Government Office Region of London is to compare experience there with experience in Scotland. This is done in Tables 88 through to 93, where the foci of the comparison is threefold: the difference in occupational structure in 2008 (columns 2 and 3 of the appropriate tables); the difference in the change within each occupational group between 2001 and 2008 (columns 4 and 5 of the appropriate tables); and the difference in the change between 2001 and 2008 in the percentage of total net change for the employment category in question (columns 6 and 7 of the appropriate tables), again for each occupational group.

The territories covered by the two government office regions and, more especially, the economic functions undertaken within them are very different. Whereas 'Scotland' is a nation state, with its whole economy surveyed, 'London' tops the urban hierarchy of a 'united kingdom', and features also as both an European and International centre. The latter more than the former, therefore, is more likely to have an occupational structure and changes within that structure compatible with the characteristics associated with an 'knowledge' economy.

Not unexpectedly, therefore, proportionately more of the total London working population were employed in the top three occupation groups in 2008 than in Scotland (Table 88). For example, the percentage point differences between London and Scotland for Managers and Senior Officials, Professional Occupations and Associate Professional and Technical were + 5.1, + 3.1 and + 4.1, respectively. Significantly, however, total employment growth in each of these three occupational groups was greater in Scotland than in London. Expansion in total employment in Personal Service Occupations was common to both regions, although it was proportionately more significant in Scotland. Similarly, a large contraction in total employment in Administrative and Secretarial occurred in both regions. On this occasion, however, it was proportionately more significant in London. Relatively more minor contractions in total employment in Sales and Customer Services and Process, Plant and Machine Operatives were also common to both regions. Notably, whereas total employment in Skilled Trades Occupations and Elementary Occupations contracted in Scotland, it expanded in London.

Given these statistics on total employment, whereas the occupational structure in London may be considered to be more compatible with that associated with an 'knowledge economy', there are emerging signs of occupational change within Scotland which are indicative of a movement towards an occupational structure typical of that description. However, any tendency towards polarisation within the respective labour markets would appear to be more prevalent in London than in Scotland. There is no simultaneous expansion in total employment in Managers and Senior Officials and Elementary Occupations in Scotland, for example, but there is in London.

In terms of male employment, the proportions employed in the top three occupational groups were again greater in London than in Scotland (Table 89). In Scotland, they aggregated 43.9 percent of the total. In London, they were + 13.5 percentage points higher. Male employment in each occupational group increased over the period in both regions. However, on this occasion, whereas the growth in male employment in Professional Occupations and Associate Professional and Technical was greater in Scotland than in London, the growth in Managers and Senior Officials was greater in London than it was in Scotland, playing a proportionately significant role in the net change in total male employment in London in so doing (at 76.8 percent). This statistic is eminently compatible with an expansion of employment in an 'knowledge economy', but for the London region only. Male employment also increased in Personal Service Occupations, Sales and Customer Service Occupations and Elementary Occupations in both regions. In the first two of these three occupational groups male employment growth was relatively greater in Scotland, by + 33.3 and + 16 percentage points respectively. In the instance of Elementary Occupations, it was relatively greater in London, by + 8.2 percentage points. Male employment in Administrative and Secretarial contracted in both regions, although the contraction was proportionately greater in London, by - 14.4 percentage points. Again, the experience of the growth in male employment in Skilled Trades Occupations and Process, Plant and Machine Operatives differed between the two regions. Whereas growth in both occupational groups was negative in Scotland, it was positive in London. Again, therefore, this time in terms of male employment, any tendency towards polarisation within the respective labour markets would appear to be more prevalent in London than in Scotland, but not necessarily absent from the latter.

The occupational structure of the female working population has been seen to be different from that of the male. In 2008 in Scotland, for example, the most populous occupational group for females was Administrative and Secretarial (at 18.5 percent), - 1.3 percentage points less than in London (Table 90). In London, the most populous occupational group was Associate Professional and Technical (at 20.0 percent), + 4.5 percentage points more than in Scotland. Female employment in the top three occupational groups expanded in both Scotland and London, but the rate of growth was greater in Scotland, in each instance. Female employment in Personal Service Occupations also expanded in both regions, although by + 10 percentage points more

in Scotland than in London. By contrast, female employment in Sales and Customer Service Occupations, Process Plant and Machine Operatives and Elementary Occupations contracted in both regions. Again, however, the female employment growth experience in Skilled Trades Occupations differed between the regions, contracting in Scotland, by -11.5 percent, and expanding in London, by +18.2 percent.

In contrast to male employment, therefore, the occupational structure of females in both regions is not typical of that of an 'knowledge economy'. Furthermore, there is little evidence of significant recent changes in the occupational structure indicative of some movement towards such a structure. Again in contrast to males, on this occasion, there is little evidence of polarisation in either region, in that female employment within Elementary Occupations contracted in both.

In Scotland, full time employment in 2008 was concentrated into three occupational groups, Managers and Senior Officials, Professional Occupations and Associate Professional and Technical, totalling 46.9 percent (Table 91). Full time employment was similarly concentrated in London, but at + 12.6 percentage points higher. Full time employment expanded in each of these three occupational groups in both regions, and in each instance growth in Scotland exceeded that in London. Full time employment in Personal Service Occupations also expanded in both regions, with the expansion being greater in Scotland, at 47.6 percent opposed to 25.5 percent. Full time employment in Administrative and Secretarial and Process, Plant and Machine Operatives contracted in both regions. In Scotland, the decrease was relatively greater in Process, Plant and Machine Operatives (- 15.5 percent as opposed to -1.9 percent), whereas in London it was relatively greater in Administrative and Secretarial (- 22.0 percent as opposed to – 13.3 percent). There were contrasting regional experiences in three occupational groups in terms of full time employment. In Skilled Trades Occupations and Elementary Occupations, full time employment expanded in London, whereas it contracted in Scotland. In Sales and Customer Service Occupations, it expanded in Scotland, whereas it contracted in London.

In the context of full time employment, therefore, there is further evidence of the occupational structure of London reflecting that traditionally associated with an

knowledge economy. There is also some evidence of change in Scotland compatible with a movement towards that type of occupational structure. Whereas there is some evidence compatible with the polarisation thesis for London, there is no such evidence for Scotland.

As with the very evident gender differences in occupational structure, the occupational structure of part time workers has also been seen to be very different from that of full time workers. In both regions, the most populous occupational group for part time employment in 2008 was Elementary Occupations, at 22.3 percent in Scotland and 17.0 percent in London (Table 92). The second most populous occupational group in both regions was Sales and Customer Service Occupations, at 18.0 percent in Scotland and 16.3 percent in London. Whereas part time employment in Elementary Occupations increased in Scotland between 2001 and 2008, it decreased in London. Conversely, whereas part time employment in Sales and Customer Service Occupations decreased in Scotland, it increased in London. Part time employment in the top three occupational groups increased in both regions, and often at rates quite significant in terms of the net change in total part time employment. Nonetheless, significant numbers were employed only in Associate Professional and Technical (at 12.3 percent in Scotland and 13.9 percent in London).

In terms of part time employment, therefore, there was little evidence in either region either of an occupational structure typical of an 'knowledge economy' or any major recent change in this structure indicative of a shift towards one. Where there was some evidence of polarisation, it was more applicable to Scotland, where part time employment in both Managers and Senior Officials and Elementary Occupations expanded, if only marginally in the latter instance.

As expected, graduate employment was concentrated in the top three occupation groups in both regions in 2008: at 18.1 percent in Managers and Senior Officials in Scotland, - 6.3 percent less than in London; at 42.9 percent in Professional Occupations in Scotland, + 9.9 percent more than in London; and at 23.6 percent in Associate Professional and Technical in Scotland, - 3.3 percent less than in London (Table 93). Graduate employment in all three occupational groups increased in both regions between 2001 and 2008, with the rate of growth being greater in Scotland in

each instance. Graduate employment in all the other occupational groups also increased in both regions over the same period, but with little significant difference between the regions in terms of the net change in total graduate employment for any of these.

## 4. CONCLUSIONS

Between 2001 and 2008, the size of the working population in Scotland increased by 195.6 thousand, an + 8.3 percent increase over the period. The equivalent percentage increases for males and females were + 8.2 and + 8.5, respectively. Full time employment increased by + 8.0 percent and part time employment by 8.9 percent.

During this period of employment growth, however, the total numbers employed in five of the nine major occupational groups declined: by -34,300 in Process, Plant and Machine Operatives; by -31,900 in Administrative and Secretarial; by -6,500 in Skilled Trades Occupations; by -1,500 in Elementary Occupations; and by -800 in Sales and Customer Service Occupations. The magnitude of the job losses in these occupational groups was small, however, when contrasted with the expansion in total employment in some other occupational groups over the same period: notably, by +73,100 in Associate Professional and Technical; +70,300 in Professional Occupations; and +66,800 in Managers and Senior Officials, groups which comprise the top three in the occupational hierarchy.

The labour market in Scotland, however, is segmented, partly reflecting the distribution of employment of its industrial structure. Three of the major occupational groups are predominantly male viz. Managers and Senior Officials, Skilled Trades Occupations and Process, Plant and Machine Operatives; and three are predominantly female viz. Administrative and Secretarial, Personal Service Occupations and Sales and Customer Service Occupations. There is a further dimension to this characteristic of segmentation in that part time employment is associated mostly with the three 'female' occupational groups. Consequently, although there were only minor changes in the gender and employment status composition within each occupational group

over time, nonetheless there was a gender dimension to the change in occupational structure as a whole. Males were affected by the increases/decreases in male dominated occupational groups, in particular the expansion in Managers and Senior Officials and the contraction in Process, Plant and Machine Operatives. Similarly, females were affected by increases/decreases in the female dominated occupational groups, in particular the expansion in Personal Service Occupations and the contraction in Administrative and Secretarial.

In addition to being affected by employment change in the economy as a whole, occupational structure is also affected by changes in industrial structure, referred to as 'sectoral' factors, and changes in the nature of labour hired by organisations, referred to as 'structural' factors. In terms of the change in the occupational structure of employment in Scotland over the period, 'sectoral' factors proved to be of minor importance. Moreover, there was a discernable pattern to the changes attributed to 'structural' factors in that a process of 'up-skilling' was evident, at both aggregate and disaggregate levels i.e. whether in the context of total employment, male or female employment, full time or part time employment, proportionately more individuals within the higher echelons of the occupational hierarchy, such as Managers and Senior Officials or Professional Occupations, were employed over the period and proportionately fewer individuals within the lower echelons of the occupational hierarchy, such as Process, Plant and Machine Operatives and Elementary Occupations, were employed.

Change in the occupational structure was a feature within each of the nine industrial sectors. It was also evident within the Public Sector, not least of which because this sector is predominantly 'female' and approximately half of its total workforce are employed in two major occupational groups viz. Professional Occupations and Associate Professional and Technical. Total employment within the public sector increased by + 6.5 percent between 2001 and 2008. However, the rates of growth in total employment in Professional Occupations and Associate Professional and Technical were + 21.4 percent and + 12.9 percent, respectively. Significantly, whereas the rate of growth for males in the former occupational group was + 8.2 percent, for females it was + 30.3 percent. In the latter occupational group, whereas the rate of

growth in male employment was + 8.5 percent, the rate for females was + 15.7 percent.

Between 2001 and 2008, the number with graduate status among the working population in Scotland increased by + 145,700, or + 39.7 percent. In 2008, approximately six in ten graduates were employed in two major occupational groups viz. Professional Occupations and Associate Professional and Technical. In the same year, only 18.1 percent of graduates were employed in Managers and Senior Officials, although the numbers employed in this occupational group more than doubled over the period.

Occupational structure in Scotland in 2008 was different from that (of the government office of the region) in London. Moreover, the principal changes which occurred in the two regions between 2001 and 2008 were also different. Compatible with its role as an European and International centre, proportionately more of the total working population resident in London were employed in Managers and Senior Officials than in Scotland. However, the rate of growth of total employment of this occupational group over the period was greater in Scotland than it was in London. By way of contrast, although 2.4 percentage points fewer in London than in Scotland were employed in Elementary Occupations, total employment in this occupational group increased in London by + 4.1 percent, whereas it decreased in Scotland by - 0.5 percent.

Both the 'knowledge economy' and 'polarisation' are conceptual constructs, and the relationship of either to particular data definitions and configurations is problematical. Conventionally, in an 'knowledge economy', proportionately more of the working population are to be found in two occupational groups viz. Management and Senior Officials and Professional Occupations. Similar conventions equate the employment dimension of polarisation with simultaneous increases in employment in occupational groups such as Management and Senior Officials, Professional Occupations and Associate Professional and Technical, and Elementary Occupations, the 'top' and the 'bottom' of the occupational hierarchy respectively.

Almost four in ten of the resident male/full time workers of London were employed in Management and Senior Officials and Professional Occupations. Moreover, both occupational groups experienced growth over the period 2001 – 2008 in that region. By way of contrast, for the same gender/employment status disaggregations, only (approximately) 30 percent of males/full time workers in Scotland were employed in these same two occupational groups. Furthermore, the considerable expansion in Managers and Senior Officials for males/full time workers witnessed in Scotland since 2001 was much less than that which prevailed in London. In both regions, however, participation in the 'knowledge' components of the economy is the prerogative of males/full time workers. Although females/part time workers are not necessarily absent, they are not especially evident.

The possibility of polarisation within the labour markets of both regions is also better examined using the gender/employment status dissaggregations. Increasing employment in the three highest occupational groups occurred, irrespective of the level of disaggregation used. In the context of Elementary Occupations, however, in London, increases in employment were evident for males and full time workers (but neither females nor part time workers) and in Scotland for males and part time workers (but not females or full time workers). The evidence is not conclusive, therefore, not the least because the important earnings dimension within the polarisation construct is ignored. However, this is a further indication of the different labour markets which exist within the two regions, reflecting the diverse economic functions undertaken within their respective geographical boundaries.

The changes discussed above occurred during a propitious period of expansion in the Scottish economy, which was accompanied not only by employment growth, for males and females, but also by increases in the employment rates, again for both males and females. The condition of the economy changed suddenly sometime during 2008, abruptly changing from one of growth to one of recession. The implications of this dramatic macro-economic change – and the implications of the policies with which it has been associated – will impact upon the labour market, and, in time, upon the occupational structure of the working population in Scotland. However, at this juncture, it would be futile even to attempt to speculate what the nature and magnitude of these impacts will be.

## REFERENCES

- Bell, D.N.F. and Blanchflower, D.G. What Should be Done about Rising Unemployment in the UK? Stirling: Stirling Economics Discussion Paper.
- Connelly, S. and Gregory, M. (2008) Moving Down: Women's Part-time Work and Occupational Change. *Economic Journal*, 118 (February), pp F52 F 76.
- Fothergill, S. and Gudgin, G. (1982) *Unequal Growth: Urban and Regional Employment Change in the UK*. London: Heinemann Educational Books.
- Gallie, D. (1991) Patterns of Skill Change: Upskilling, Deskilling and the Polarisation of Skills. *Work, Employment and Society*, Vol. 5, No. 3, pp 319 -351.
- Goos, M. and Manning, A. (2003) McJobs and MacJobs: The Growing Polarisation of Jobs in the UK. In Dickens, R., Gregg, P. and Wadsworth, J. (eds.) *The Labour Market Under New Labour: The State of Working Britain*. Basingstoke: Palgrave Macmillan.
- Goos, M. and Manning, A. (2007) Lousy and Lovely Jobs: The Rising Polarisation of Work in Britain. *Review of Economics and Statistics*, Vol. 89, No. 1, pp 118 133.
- Hepworth, M.E., Binks, J. and Ziemann, B. (2006) *Regional Employment and Skills in the Knowledge Economy*. Report for the Department of Trade and Industry (DTI). London: DTI.
- Holden, D.R., Nairn, A.G.M. and Swales, J.K. (1989) Shift Share Analysis of Regional Growth and Policy; A Critique. *Oxford Bulletin of Economics and Statistics*, Vol. 51, No. 1, pp 15 34.
- H.M. Treasury (2004) Skills in the Global Economy. London: H.M. Treasury.
- Keep, E. (2007) Key Future Labour Market and Skills Issues in Scotland (and Beyond). Glasgow: Futureskills Scotland.
- Leitch Review of Skills (2006) Prosperity for All in the Global Economy: World Class Skills. Final Report. London: HM Treasury.
- Manning, A. and Petrongolo, B. (2008) The Part-time Pay Penalty for Women in Britain. *Economic Journal*, 118 (February), pp F28 F51.
- Paterson, L., Bechhofer, F. and McCrone, D. (2004) *Living in Scotland: Social and Economic Change since 1980*. Edinburgh: Edinburgh University Press.

- Randall, J.N. (1973) Shift Share Analysis as a Guide to the Employment Performance of West Central Scotland. *Scottish Journal of Political Economy*, Vol. XX, No. 1, pp 1 26.
- Reich, R. (1993) The Work of Nations. London: Simon and Schuster.
- Richardson, H.W. (1978) *Regional and Urban Economics*. Harmondsworth: Penguin Books.
- Scottish Government (2007) *Skills for Scotland: A Lifelong Skills Strategy*. Edinburgh: The Scottish Government.
- Warhurst, C. (2008) The Knowledge Economy, Skills and Government Labour Market Intervention. *Policy Studies*, Vol. 29, No. 1, pp 71 -86.
- Warhurst, C. and Thompson, P. (2006) Mapping Knowledge in Work: Proxies or Practices? *Work, Employment and Society*, Vol. 24, No. 4, pp 787 -800.
- Wood, S. (1987) The Deskilling Debate, New Technology and Work Organisation. *Acta Sociologica*, Vol. 30, No. 1, pp 3 24.

Table 1. The 2000 Standard Occupational Classification

Major Occupation Group	Some Illustrative Examples
Managers and Senior Officials	Directors and chief executives of major organisations; senior officials in national and local government; financial (etc.)
	managers
<b>Professional Occupations</b>	Chemists; civil (etc.) engineers; health, teaching and legal professionals; chartered (etc.) accountants; social workers; librarians
Associate Professional and	Laboratory (etc.) technicians; nurses; midwives; community workers; fire service officers; designers; artists; journalists; sports
Technical	players; sales representatives; environmental health officials
Administrative and Secretarial	Local government clerical officers and assistants; accounts and wages clerks; library assistants; communication operatives;
	legal (etc.) secretaries; typists
Skilled Trades Occupations	Farmers; sheet metal workers; motor mechanics; electricians; bricklayers; plumbers; plasterers; dressmakers; printers; butchers;
	chefs; goldsmiths; florists
Personal Service Occupations	Nursing auxiliaries; dental nurses; nursery nurses; sports and leisure assistants; travel agents; hairdressers; housekeepers;
	caretakers; undertakers
Sales and Customer Service	Sales and retail assistants; telephone salespersons; market and street traders; debt and rent collectors; call centre operatives
Occupations	
Process, Plant and Machine	Food (etc.) operatives; coal mining operatives; sewing machinists; scaffolders and riggers; bus (etc.) drivers; seafarers
Operatives	
Elementary Occupations	Farm workers; labourers; postal workers; porters; bar staff; cleaners; traffic wardens; car park attendants; shelf fillers

Table 2. Mean Gross Hourly Pay (2008) (Scotland)

Major Occupation Group (Main Job)	Mean	Standard	Median
		Deviation	
Managers and Senior Officials	18.30	8.8221	17.08
Professional Occupations	18.55	7.9991	17.56
Associate Professional and Technical	13.60	7.8202	12.50
Administrative and Secretarial	9.40	3.4314	8.52
Skilled Trades Occupations	10.64	7.0451	9.25
Personal Service Occupations	7.68	2.2845	7.34
Sales and Customer Service Occupations	6.61	3.0198	5.83
Process, Plant and Machine Operatives	9.18	3.9557	8.00
Elementary Occupations	6.43	2.1852	6.00

Table 3. The Industrial Structure, 2008.

Industry	Numbers in '000s	Males (as % of	Females (as % of	Full Time (as % of	Part Time (as % of	Graduates (as % of
	(% of grand total)	grand total)	grand total)	grand total)	grand total)	grand total)
Agriculture and Fishing	56.6 (2.2)	3.3	1.0	2.4	1.5	0.5
Energy and Water	89.9 (3.5)	5.1	1.8	4.2	1.3	5.0
Manufacturing	251.4 (9.9)	14.4	4.9	12.1	3.0	6.7
Construction	209.3 (8.2)	13.9	1.9	10.3	1.8	2.7
Distribution, Hotels and Restaurants	478.2 (18.8)	17.0	20.8	14.6	31.7	7.2
Transport and Communication	144.7 (5.7)	8.5	2.6	6.3	3.7	3.0
Banking, Insurance and Finance	351.0 (13.8)	14.4	13.1	15.0	10.1	21.9
Public Administration, Education And Health	805.3 (31.7)	18.4	46.4	30.0	37.0	46.8
Other Services	149.4 (5.8)	4.6	7.2	4.6	9.6	5.8
Grand Total	2,536.2	1,327.4	1,208.8	1,908.3	625.9	511.8

Notes to Tables 3 and 4:

Source: Labour Force Surveys 2001 – 2008 (second calendar quarter)
 Both 'Numbers' and 'Percentages' are rounded to the first decimal place. Hence the latter may not sum to '100'.

Table 4. Percentage Change in the Industrial Structure, 2001 – 2008.

Industry	Industry	Males	Females	Full Time	Part Time	Graduates
	Total	in	in	in	in	in
		industry	industry	industry	industry	industry
Agriculture and Fishing	-1.5	-2.4	0.7	-7.2	40.2	-32.7
Energy and Water	40.0	23.7	135.1	29.9	485.7	87.5
Manufacturing	-25.3	-18.5	-40.8	-24.9	-29.4	-6.2
Construction	17.5	15.3	37.5	17.2	16.4	4.5
Distribution, Hotels and Restaurants	5.4	18.1	-3.8	8.2	1.4	15.3
Transport and Communication	-10.2	-5.7	-23.1	-9.8	-12.0	75.5
Banking, Insurance and Finance	22.1	26.6	17.0	23.6	14.6	60.8
Public Administration, Education and Health	20.4	22.0	19.7	23.5	11.2	39.8
Other Services	12.8	-5.8	31.6	-0.5	40.4	90.4
Grand Total	8.3	8.2	8.5	8.0	9.0	39.7

Table 5. Occupational Change, 2001 – 2008: Total

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (Percent)	Change 2001- 2008 as a percent of net change in total employment
Managers and Senior Officials	273.7	11.7	340.5	13.4	66.8	24.4	34.1
Professional Occupations	265.8	11.3	336.1	13.2	70.3	26.4	35.9
Associate Professional and Technical	307.0	13.1	380.1	14.9	73.1	23.8	37.3
Administrative and Secretarial	309.1	13.2	277.2	10.9	-31.9	-10.3	-16.3
Skilled Trades Occupations	287.3	12.2	280.8	11.0	-6.5	-2.2	-3.3
Personal Service Occupations	171.7	7.3	232.4	9.1	60.7	35.3	31.0
Sales and Customer Service Occupations	206.5	8.8	205.7	8.1	-0.8	-0.3	-0.4
Process, Plant and Machine Operatives	218.8	9.3	184.5	7.2	-34.3	-15.6	-17.5
Elementary Occupations	299.6	12.8	298.1	11.7	-1.5	-0.5	-0.7
Total ('000s)	2,340.1		2,535.7		195.6	8.3	

Notes to Tables 5 - 10:

<sup>1.</sup> Source: Labour Force Surveys, 2001 – 2008 (second calendar quarter)
2. Columns 3, 5 and 7 of each table, in principle, sum to '100'. Because of rounding to the first decimal place throughout, they rarely do so. The same practice often means that it is difficult to reconcile exactly the figures in column 8 with some of those in the previous columns.

Table 6. Occupational Change, 2001 – 2008: Males

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (Percent)	Change 2001-2008 as a percent of net change in total male employment
Managers and Senior Officials	190.2	15.5	222.5	16.7	32.3	16.9	32.0
Professional Occupations	147.1	12.0	181.9	13.7	34.8	23.6	34.4
Associate Professional and Technical	147.9	12.0	180.3	13.5	32.4	21.9	32.1
Administrative and Secretarial	63.2	5.1	52.6	3.9	-10.6	-16.7	-10.5
Skilled Trades Occupations	263.0	21.4	259.2	19.5	-3.8	-1.4	-3.7
Personal Service Occupations	27.3	2.2	41.3	3.1	14.0	51.2	13.8
Sales and Customer Service Occupations	56.8	4.6	68.0	5.1	11.2	19.7	11.1
Process, Plant and Machine Operatives	175.8	14.3	162.3	12.2	-13.5	-7.6	-13.3
Elementary Occupations	154.2	12.5	158.3	11.9	4.1	2.6	4.0
Total ('000s)	1,225.9		1,326.8		100.9	8.2	

Table 7. Occupational Change, 2001 – 2008: Females

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers 000s)	Change 2001-2008 (Percent)	Change 2001-2008 as a percent of net change in total female employment
Managers and Senior Officials	83.4	7.4	117.9	9.7	34.5	41.3	36.4
Professional Occupations	118.7	10.6	154.1	12.7	35.4	29.8	37.3
Associate Professional and Technical	159.0	14.2	199.8	16.5	40.8	25.6	43.0
Administrative and Secretarial	245.9	22.0	224.5	18.5	-21.4	-8.7	-22.5
Skilled Trades Occupations	24.3	2.1	21.5	1.7	-2.8	-11.5	-2.9
Personal Service Occupations	144.4	12.9	191.0	15.8	46.6	32.2	49.2
Sales and Customer Service Occupations	149.7	13.4	137.6	11.3	-12.1	-8.0	-12.7
Process, Plant and Machine Operatives	42.9	3.8	22.2	1.8	-20.7	-48.3	-21.8
Elementary Occupations	145.4	13.0	139.7	11.5	-5.7	-3.9	-6.0
Total ('000s)	1,114.1		1,208.8		94.7	8.5	

Table 8. Occupational Change, 2001 – 2008: Full Time Workers

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (Percent)	Change 2001-2008 as a percent of net change in total full time employment
Managers and Senior Officials	253.8	14.3	311.8	16.3	58.0	22.8	40.7
Professional Occupations	233.1	13.2	283.8	14.8	50.7	21.7	35.6
Associate Professional and Technical	241.1	13.6	302.7	15.8	61.6	25.5	43.2
Administrative and Secretarial	209.1	11.8	181.2	9.5	-27.9	-13.3	-19.6
Skilled Trades Occupations	274.8	15.5	262.8	13.7	-12.0	-4.3	-8.4
Personal Service Occupations	97.5	5.5	144.0	7.5	46.5	47.6	32.6
Sales and Customer Service Occupations	86.7	4.9	92.2	4.8	5.5	6.3	3.8
Process, Plant and Machine Operatives	202.3	11.4	170.9	8.9	-31.4	-15.5	-22.0
Elementary Occupations	167.2	9.4	158.5	8.3	-8.7	-5.2	-6.1
Total ('000s)	1,766.0		1,908.3		142.3	8.0	

Table 9. Occupational Change, 2001 – 2008: Part Time Workers

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (Percent)	Change 2001-2008 as a percent of net change in total part time employment
Managers and Senior Officials	19.8	3.4	28.6	4.5	8.8	44.4	17.1
Professional Occupations	32.7	5.7	52.3	8.3	19.6	59.9	38.1
Associate Professional and Technical	65.9	11.4	77.4	12.3	11.1	16.8	21.5
Administrative and Secretarial	99.9	17.4	95.3	15.2	-4.6	-4.6	-8.9
Skilled Trades Occupations	12.5	2.1	17.2	2.7	4.7	37.6	9.1
Personal Service Occupations	74.1	12.9	88.3	14.1	14.2	19.1	27.6
Sales and Customer Service Occupations	119.8	20.8	112.9	18.0	-6.9	-5.7	-13.4
Process, Plant and Machine Operatives	16.5	2.8	13.5	2.1	-3.0	-18.1	-5.8
Elementary Occupations	132.4	23.0	139.5	22.3	7.1	5.3	13.8
Total ('000s)	574.0		625.4		51.4	8.9	

Table 10. Occupational Change, 2001 – 2008: Graduates

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (Percent)	Change 2001-2008 as a percent of net change in total graduate employment
Managers and Senior Officials	61.2	16.7	92.6	18.1	31.8	51.9	21.8
Professional Occupations	174.4	47.6	219.8	42.9	45.4	26.0	31.1
Associate Professional and Technical	76.2	20.8	120.7	23.6	44.5	58.3	30.5
Administrative and Secretarial	21.6	5.9	26.7	5.2	5.1	23.6	3.5
Skilled Trades Occupations	8.8	2.4	10.6	2.0	1.8	20.4	1.2
Personal Service Occupations	5.9	1.6	13.1	2.5	7.2	122.0	4.9
Sales and Customer Service Occupations	8.1	2.2	12.7	2.5	4.6	56.7	3.1
Process, Plant and Machine Operatives	3.8	1.0	6.0	1.1	2.2	57.8	1.5
Elementary Occupations	5.7	1.5	9.1	1.7	3.4	59.6	2.3
Total ('000s)	366.1		511.8		145.7	39.7	

Table 11. The Distribution of Employment by Occupation (%), 2001 – 2008: Total

Major Occupation Group (Main Job)	2001	2002	2003	2004	2005	2006	2007	2008
Managers and Senior Officials	11.7	12.2	12.1	12.5	12.7	12.9	12.0	13.4
Professional Occupations	11.3	12.2	11.8	11.8	12.6	12.8	12.6	13.2
Associate Professional and Technical	13.1	12.8	13.3	14.0	14.0	13.6	14.3	14.9
Administrative and Secretarial	13.2	13.4	12.7	12.5	12.6	12.5	11.4	10.9
Skilled Trades Occupations	12.2	11.8	12.1	11.4	11.1	11.2	12.2	11.0
Personal Service Occupations	7.3	7.3	8.1	8.1	8.1	8.3	8.8	9.1
Sales and Customer Service Occupations	8.8	8.4	8.8	8.8	8.8	8.1	8.6	8.1
Process, Plant and Machine Operatives	9.3	8.7	8.1	7.6	8.0	8.1	7.5	7.2
Elementary Occupations	12.8	12.9	12.7	12.9	11.8	12.2	12.1	11.7
Total ('000s)	2,340.1	2,336.2	2,389.4	2,421.9	2,429.8	2,437.8	2,536.4	2,535.7

## Notes to Tables 11 - 16:

<sup>1.</sup> Source: Labour Force Surveys, 2001 – 2008 (second calendar quarter)

<sup>2.</sup> All columns, in principle, sum to '100'. In practice, because of rounding to the first decimal place, they rarely do so.

Table 12. The Distribution of Employment by Occupation (%), 2001 – 2008: Males

<b>Major Occupation Group (Main Job)</b>	2001	2002	2003	2004	2005	2006	2007	2008
Managers and Senior Officials	15.5	15.4	14.9	14.5	15.7	15.8	15.3	16.7
Professional Occupations	12.0	12.4	12.8	12.9	12.8	13.7	13.2	13.7
Associate Professional and Technical	12.0	13.1	13.2	13.5	13.3	13.0	12.6	13.5
Administrative and Secretarial	5.1	5.2	4.8	4.7	4.4	4.9	4.5	3.9
Skilled Trades Occupations	21.4	20.8	20.9	20.4	19.3	19.9	21.4	19.5
Personal Service Occupations	2.2	2.8	2.6	2.5	2.7	2.3	2.6	3.1
Sales and Customer Service Occupations	4.6	4.3	4.6	4.8	5.0	4.6	5.0	5.1
Process, Plant and Machine Operatives	14.3	13.7	13.4	12.6	13.3	13.5	12.3	12.2
Elementary Occupations	12.5	11.9	12.5	13.6	13.1	11.9	12.7	11.9
Total ('000s)	1,225.9	1,219.5	1,255.3	1,260.4	1,283.7	1,265.0	1,330.7	1,326.8

Table 13. The Distribution of Employment by Occupation (%), 2001 – 2008: Females

Major Occupation Group (Main Job)	2001	2002	2003	2004	2005	2006	2007	2008
Managers and Senior Officials	7.4	8.8	9.0	10.3	9.3	9.8	8.5	9.7
Professional Occupations	10.6	12.0	10.6	10.6	12.4	11.8	11.9	12.7
Associate Professional and Technical	14.2	12.4	13.4	14.5	14.9	14.2	16.2	16.5
Administrative and Secretarial	22.0	22.3	21.5	21.0	21.8	20.7	19.0	18.5
Skilled Trades Occupations	2.1	2.0	2.3	1.6	1.9	1.9	2.1	1.7
Personal Service Occupations	12.9	12.2	14.3	14.1	14.0	14.8	15.7	15.8
Sales and Customer Service Occupations	13.4	12.8	13.4	13.2	13.0	11.8	12.6	11.3
Process, Plant and Machine Operatives	3.8	3.2	2.2	2.2	2.0	2.2	2.2	1.8
Elementary Occupations	13.0	14.0	12.9	12.1	10.3	12.5	11.5	11.5
Total ('000s)	1,114.1	1,116.6	1,134.0	1,161.5	1,146.1	1,172.8	1,205.7	1,208.8

Table 14. The Distribution of Employment by Occupation (%), 2001 – 2008: Full Time Workers

<b>Major Occupation Group (Main Job)</b>	2001	2002	2003	2004	2005	2006	2007	2008
Managers and Senior Officials	14.3	15.0	15.2	15.5	15.4	15.9	14.9	16.3
Professional Occupations	13.2	14.4	13.8	13.2	14.2	14.3	13.9	14.8
Associate Professional and Technical	13.6	14.2	14.4	15.5	15.0	14.6	15.4	15.8
Administrative and Secretarial	11.8	12.3	11.2	11.4	11.5	11.1	10.4	9.5
Skilled Trades Occupations	15.5	14.7	15.3	14.2	13.7	14.3	15.0	13.7
Personal Service Occupations	5.5	5.4	6.5	6.0	6.1	6.0	7.0	7.5
Sales and Customer Service Occupations	4.9	4.2	4.5	4.9	4.9	4.9	5.3	4.8
Process, Plant and Machine Operatives	11.4	10.6	9.9	9.2	9.8	9.9	9.2	8.9
Elementary Occupations	9.4	8.8	8.8	9.7	9.0	8.5	8.5	8.3
Total ('000s)	1,766.0	1,749.0	1,766.4	1,807.8	1,829.6	1,821.2	1,921.7	1,908.3

Table 15. The Distribution of Employment by Occupation (%), 2001 – 2008: Part Time Workers

Major Occupation Group (Main Job)	2001	2002	2003	2004	2005	2006	2007	2008
Managers and Senior Officials	3.4	3.8	3.3	3.7	4.6	4.2	3.3	4.5
Professional Occupations	5.7	5.8	5.9	7.6	7.5	8.2	8.4	8.3
Associate Professional and Technical	11.4	8.5	10.3	9.4	11.1	10.5	10.9	12.3
Administrative and Secretarial	17.4	16.6	16.9	15.8	15.9	16.4	14.4	15.2
Skilled Trades Occupations	2.1	3.2	2.9	3.0	3.2	2.1	3.6	2.7
Personal Service Occupations	12.9	12.9	12.9	14.2	14.1	15.1	14.5	14.1
Sales and Customer Service Occupations	20.8	20.7	20.8	20.4	20.5	17.5	19.0	18.0
Process, Plant and Machine Operatives	2.8	2.9	2.9	3.1	2.3	2.7	2.2	2.1
Elementary Occupations	23.0	25.2	23.7	22.5	20.3	23.0	23.4	22.3
Total ('000s)	574.0	587.1	622.9	614.1	600.2	616.6	614.6	625.4

Table 16. The Distribution of Employment by Occupation (%), 2001 – 2008: Graduates

Major Occupation Group (Main Job)	2001	2002	2003	2004	2005	2006	2007	2008
Managers and Senior Officials	16.7	19.2	18.7	16.3	17.9	20.4	18.1	18.1
Professional Occupations	47.6	46.8	47.6	46.3	44.4	43.6	44.8	42.9
Associate Professional and Technical	20.8	18.6	19.3	21.1	22.1	19.3	19.6	23.6
Administrative and Secretarial	5.9	5.7	6.2	6.8	5.3	6.7	6.6	5.2
Skilled Trades Occupations	2.4	1.6	1.7	1.6	2.5	1.3	2.0	2.0
Personal Service Occupations	1.6	2.6	1.9	2.7	1.9	2.4	3.4	2.5
Sales and Customer Service Occupations	2.2	2.8	2.4	2.6	2.9	3.1	2.2	2.5
Process, Plant and Machine Operatives	1.0	0.8	0.8	0.6	1.3	0.9	1.1	1.1
Elementary Occupations	1.5	1.5	0.9	1.6	1.3	1.9	1.8	1.7
Total ('000s)	366.1	408.1	393.3	397.5	454.5	453.5	485.3	511.8

Table 17. Occupational Change, 2001 – 2008, Agriculture and Fishing, Total

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total employment
Managers and Senior Officials	6.5	11.4	6.2	11.0	-0.3	-4.6	-33.3
Professional Occupations	1.6	2.9	0.5	1.0	-1.1	-68.7	-122.2
Associate Professional and Technical	2.4	4.3					
Administrative and Secretarial	4.6	8.0	1.7	3.1	-2.9	-63.0	-322.2
Skilled Trades Occupations	22.8	39.7	25.4	45.0	2.7	11.8	300.0
Personal Service Occupations	0.8	1.5	2.4	4.3	1.6	200.0	177.7
Sales and Customer Service Occupations	1.0	1.8	0.5	0.8	-0.5	-50.0	-55.5
Process, Plant and Machine Operatives	4.1	7.1	4.2	7.4	0.1	2.4	11.1
Elementary Occupations	13.2	23.0	15.3	27.0	2.1	15.9	233.3
Total	57.5		56.6		-0.9	-1.5	

Notes to Tables 17 - 70:

<sup>1.</sup> Source: Labour Force Surveys, 2001 – 2008 (second calendar quarter)

<sup>2.</sup> Columns 3, 5 and 7 of each table, in principle, sum to '100'. Because of rounding to the first decimal place throughout, they rarely do so. The same practice often means that it is difficult to reconcile exactly the figures in column 8 with some of those in the previous columns.

<sup>3.</sup> Occasionally, no figure (as distinct from the figure '0') is reported because of insufficient responses to produce an accurate estimated number. When this happens, the cell is left blank, and no further calculation is undertaken. The absence of numbers in some cells, therefore, will impact on subsequent calculations.

Table 18. Occupational Change, 2001 – 2008, Agriculture and Fishing, Males

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total male employment
Managers and Senior Officials	4.7	10.6	4.8	11.0	0.1	2.1	9.0
Professional Occupations	0.8	1.9	0.5	1.3	-0.3	-37.5	-27.2
Associate Professional and Technical	0.8	1.8					
Administrative and Secretarial	0.8	1.8	0.4	1.0	-0.4	-50.0	-36.3
Skilled Trades Occupations	21.7	48.4	22.1	50.4	0.4	1.8	36.3
Personal Service Occupations	0.4	0.9	0.0	0.0	-0.4	-100.0	-36.3
Sales and Customer Service Occupations	0.5	1.1	0.0	0.0	-0.5	-100.0	-45.4
Process, Plant and Machine Operatives	3.6	8.1	4.2	9.5	0.6	16.6	54.5
Elementary Occupations	11.2	25.0	11.6	26.4	0.4	3.5	36.3
Total	44.9		43.8		-1.1	-2.4	

Table 19. Occupational Change, 2001 – 2008, Agriculture and Fishing, Females

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total female employment
Managers and Senior Officials	1.8	14.3	1.4	11.0	-0.4	-22.2	-400.0
Professional Occupations	0.8	6.4	0.0	0.0	-0.8	-100.0	-800.0
Associate Professional and Technical	1.6	13.1					
Administrative and Secretarial	3.8	30.2	1.2	10.0	-2.6	-68.4	-2600.0
Skilled Trades Occupations	1.0	8.6	3.4	26.7	2.4	240.0	2400.0
Personal Service Occupations	0.4	4.2	0.5	3.9	0.0	0.0	0.0
Sales and Customer Service Occupations	0.5	4.2	0.5	3.9	0.0	0.0	0.0
Process, Plant and Machine Operatives	0.4	3.5	0.0	0.0	-0.4	-100.0	-400.0
Elementary Occupations	1.9	15.7	3.7	29.0	1.8	94.7	1800.0
Total	12.6		12.7		0.1	0.7	

Table 20. Occupational Change, 2001 – 2008, Agriculture and Fishing, Full Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in full time employment
Managers and Senior Officials	6.2	12.2	6.2	13.3	0.0	0.0	0.0
Professional Occupations	1.6	3.3	0.5	1.2	-1.1	-68.7	-29.7
Associate Professional and Technical	2.4	4.8					
Administrative and Secretarial	2.4	4.8	0.4	1.0	-2.0	-83.3	-54.0
Skilled Trades Occupations	22.4	44.2	22.9	48.6	0.5	2.2	13.5
Personal Service Occupations	0.4	0.8	1.9	4.1	1.5	375.0	40.5
Sales and Customer Service Occupations	0.5	1.0	0.0	0.0	-0.5	-100.0	-13.5
Process, Plant and Machine Operatives	4.1	8.0	4.2	8.9	0.1	2.4	-2.7
Elementary Occupations	10.4	20.5	10.7	22.7	0.3	2.8	8.1
Total	50.8		47.1		-3.7	-7.2	

Table 21. Occupational Change, 2001 – 2008, Agriculture and Fishing, Part Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total part time employment
Managers and Senior Officials	0.3	5.7	0.0	0.0	-0.3	-100.0	-11.1
Professional Occupations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Associate Professional and Technical	0.0	0.0					
Administrative and Secretarial	2.1	32.0	1.2	13.4	-0.9	-42.8	-33.3
Skilled Trades Occupations	0.3	5.7	2.6	27.5	2.3	766.6	85.1
Personal Service Occupations	0.4	7.9	0.5	5.3	0.0	0.0	0.0
Sales and Customer Service Occupations	0.5	7.9	0.5	5.3	0.0	0.0	0.0
Process, Plant and Machine Operatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Elementary Occupations	2.8	41.7	4.5	48.3	1.7	60.7	62.9
Total	6.7		9.4		2.7	40.2	

Table 22. Occupational Change, 2001 – 2008, Agriculture and Fishing, Graduates

<b>Major Occupation Group (Main Job)</b>	2001	2001	2008	2008	Change	Change	Change
	Number	Percent	Number	Percent	2001 –	2001-	2001- 2008
	( <b>'000s</b> )		( <b>'000s</b> )		2008	2008	as a percent
					(Numbers	(percent)	of net change
					<b>'000s</b> )		in total graduate employment
Managers and Senior Officials	0.2	6.8	0.5	19.7	0.3	150.0	23.0
Professional Occupations	0.8	21.0	0.0	0.0	-0.8	-100.0	-61.5
Associate Professional and Technical	0.0	0.0					
Administrative and Secretarial	0.4	11.1	0.0	0.0	-0.4	-100.0	-30.7
Skilled Trades Occupations	2.4	60.9	1.5	57.2	0.9	37.5	69.2
Personal Service Occupations	0.0	0.0	0.6	22.9	0.6	-	46.1
Sales and Customer Service Occupations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Process, Plant and Machine Operatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Elementary Occupations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	4.0		2.7	•	-1.3	-32.5	

Table 23. Occupational Change, 2001 – 2008, Energy and Water, Total

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total employment
Managers and Senior Officials	9.7	15.2	18.3	20.3	8.6	88.6	33.4
Professional Occupations	11.2	17.4	16.4	18.2	5.2	46.4	20.2
Associate Professional and Technical	6.8	10.7	13.7	15.3	6.9	101.4	26.8
Administrative and Secretarial	5.8	9.1	6.4	7.1	0.6	10.3	2.3
Skilled Trades Occupations	8.6	13.5	10.0	11.2	1.4	16.2	5.4
Personal Service Occupations	0.3	0.5					
Sales and Customer Service Occupations	4.7	7.3	8.7	9.7	4.0	85.1	15.5
Process, Plant and Machine Operatives	12.6	19.6	11.3	12.5	-1.3	-10.3	-5.0
Elementary Occupations	4.0	6.2	4.8	5.4	0.8	20.0	3.1
Total	64.2		89.9		25.7	40.0	

Table 24. Occupational Change, 2001 – 2008, Energy and Water, Males

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total male employment
Managers and Senior Officials	8.6	15.7	15.0	22.2	6.4	74.4	52.8
Professional Occupations	10.8	19.8	13.8	20.4	3.0	27.7	24.5
Associate Professional and Technical	5.3	9.6	9.3	13.7	4.0	75.4	32.7
Administrative and Secretarial	2.2	4.1	1.5	2.2	-0.7	-31.8	-5.7
Skilled Trades Occupations	8.6	15.8	9.4	13.8	0.8	9.3	6.5
Personal Service Occupations	0.3	0.7					
Sales and Customer Service Occupations	2.8	5.1	2.8	4.2	0.0	0.0	0.0
Process, Plant and Machine Operatives	12.6	23.0	11.3	16.7	1.2	37.5	9.8
Elementary Occupations	3.2	5.8	4.3	6.4	1.2	37.5	9.8
Total	54.8		67.8		12.2	22.2	

Table 25. Occupational Change, 2001 – 2008, Energy and Water, Females

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total female employment
Managers and Senior Officials	1.1	12.1	3.2	14.5	2.1	190.9	16.5
Professional Occupations	0.3	3.7	2.5	11.6	2.2	733.3	17.3
Associate Professional and Technical	1.5	16.6	4.4	19.9	2.9	193.3	22.8
Administrative and Secretarial	3.6	38.4	4.8	21.9	1.2	33.3	9.4
Skilled Trades Occupations	0.0	0.0	0.6	3.0	3.0	-	23.6
Personal Service Occupations	0.0	0.0					
Sales and Customer Service Occupations	1.9	20.4	5.8	26.6	3.9	205.2	30.7
Process, Plant and Machine Operatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Elementary Occupations	0.8	8.5	0.5	2.3	1.5	187.5	11.8
Total	9.4		22.1		12.7	135.1	

Table 26. Occupational Change, 2001 – 2008, Energy and Water, Full Time

<b>Major Occupation Group (Main Job)</b>	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total full time employment
Managers and Senior Officials	9.4	15.0	17.4	21.4	8.0	85.1	42.5
Professional Occupations	11.2	17.8	14.8	18.2	3.6	32.1	19.1
Associate Professional and Technical	6.8	10.9	13.3	16.3	6.5	95.5	34.5
Administrative and Secretarial	5.4	8.7	5.9	7.3	0.5	9.2	2.6
Skilled Trades Occupations	8.6	13.8	10.0	12.3	1.4	16.2	7.4
Personal Service Occupations	0.3	0.6					
Sales and Customer Service Occupations	4.3	6.9	4.2	5.2	-0.1	-2.3	-0.5
Process, Plant and Machine Operatives	12.6	20.1	11.3	13.8	-1.3	-10.3	-6.9
Elementary Occupations	3.6	5.8	4.3	5.3	0.7	19.4	3.7
Total	62.8		81.6		18.8	29.9	

Table 27. Occupational Change, 2001 – 2008, Energy and Water, Part Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total part time employment
Managers and Senior Officials	0.3	24.0	0.8	9.8	0.5	166.6	7.3
Professional Occupations	0.0	0.0	1.5	18.8	1.5	-	22.0
Associate Professional and Technical	0.0	0.0	0.4	5.2	0.4	-	5.8
Administrative and Secretarial	0.4	27.8	0.4	5.3	0.0	0.0	0.0
Skilled Trades Occupations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Personal Service Occupations	0.0	0.0					
Sales and Customer Service Occupations	0.3	23.7	4.5	54.8	4.2	1400.0	61.7
Process, Plant and Machine Operatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Elementary Occupations	0.3	24.4	0.5	6.1	0.2	66.6	2.9
Total	1.4		8.2		6.8	485.7	

Table 28. Occupational Change, 2001 – 2008, Energy and Water, Graduates

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total graduate employment
Managers and Senior Officials	4.5	33.4	9.9	38.8	5.4	120.0	45.0
Professional Occupations	5.9	43.2	9.2	35.9	3.3	55.9	27.5
Associate Professional and Technical	1.3	9.5	5.1	19.9	3.8	292.3	31.6
Administrative and Secretarial	0.9	6.9	0.4	1.7	-0.8	-88.8	-6.6
Skilled Trades Occupations	0.4	3.1	0.0	0.0	-0.4	-100.0	-3.3
Personal Service Occupations	0.0	0.0					
Sales and Customer Service Occupations	0.5	3.6	0.0	0.0	-0.5	-100.0	-4.1
Process, Plant and Machine Operatives	0.0	0.0	0.3	1.5	0.3	_	2.5
Elementary Occupations	0.0	0.0	0.5	2.0	0.5	-	4.1
Total	13.7		25.7		12.0	87.5	

Table 29. Occupational Change, 2001 – 2008, Manufacturing, Total

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total employment
Managers and Senior Officials	43.4	12.9	44.5	17.7	1.1	2.5	1.2
Professional Occupations	24.3	7.2	21.9	8.7	-2.4	-9.8	-2.8
Associate Professional and Technical	33.8	10.0	30.5	12.1	-3.3	-9.7	-3.8
Administrative and Secretarial	27.4	8.0	21.9	8.7	-5.5	-20.0	-6.4
Skilled Trades Occupations	72.0	21.4	46.1	18.4	-25.9	-35.9	-30.2
Personal Service Occupations	.4	.1	.4	.1	0.0	0.0	0.0
Sales and Customer Service Occupations	9.8	2.9	4.5	1.8	-5.3	-54.0	-6.1
Process, Plant and Machine Operatives	93.7	27.8	59.2	23.6	-34.5	-36.8	-40.3
Elementary Occupations	31.4	9.3	21.4	8.5	-10.0	-31.8	-11.6
Total	336.5		250.9		-85.6	-25.4	

Table 30. Occupational Change, 2001 – 2008, Manufacturing, Males

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total male employment
Managers and Senior Officials	36.9	15.7	35.1	18.4	-1.8	-4.8	-4.0
Professional Occupations	21.4	9.1	19.2	10.0	-2.2	-10.2	-4.9
Associate Professional and Technical	22.2	9.4	24.1	12.6	1.9	8.5	4.2
Administrative and Secretarial	5.9	2.5	5.7	3.0	-0.2	-16.9	-0.4
Skilled Trades Occupations	65.7	27.9	43.5	22.7	-22.2	-33.7	-50.2
Personal Service Occupations	0.0	0.0	0.4	0.2	0.4	-	0.9
Sales and Customer Service Occupations	4.9	2.1	1.7	0.9	-3.2	-65.3	-7.2
Process, Plant and Machine Operatives	59.2	25.1	46.0	24.1	-13.2	-22.2	-29.8
Elementary Occupations	18.9	8.0	15.0	7.8	-3.9	-20.6	-8.8
Total	235.4		191.2		-44.2	-18.7	

Table 31. Occupational Change, 2001 – 2008, Manufacturing, Females

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total female employment
Managers and Senior Officials	6.5	6.4	9.3	15.7	2.8	43.0	6.7
Professional Occupations	2.9	2.8	2.6	4.4	-0.3	-10.3	-0.7
Associate Professional and Technical	11.5	11.4	6.3	10.6	-5.2	-45.2	-12.5
Administrative and Secretarial	21.4	21.1	16.1	27.0	-5.3	-24.7	-12.8
Skilled Trades Occupations	6.3	6.2	2.6	4.4	-3.7	-58.7	-8.9
Personal Service Occupations	0.4	0.4	0.0	0.0	-0.4	-100.0	-0.9
Sales and Customer Service Occupations	4.8	4.8	2.7	4.6	-2.1	-43.7	-5.0
Process, Plant and Machine Operatives	34.4	34.1	13.1	22.0	-21.3	-61.9	-51.5
Elementary Occupations	12.5	12.4	6.4	10.8	-6.1	-48.8	-14.7
Total	101.0		59.7		-41.3	-40.8	

Table 32. Occupational Change, 2001 – 2008, Manufacturing, Full Time

<b>Major Occupation Group (Main Job)</b>	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change
Managers and Senior Officials	42.3	13.6	43.2	18.6	<b>'000s)</b>	2.1	in total full time employment  1.1
Professional Occupations	23.9	7.7	21.5	9.2	-2.4	-10.0	-3.1
Associate Professional and Technical	31.4	10.1	28.6	12.3	-2.8	-8.9	-3.6
Administrative and Secretarial	22.3	7.2	19.1	8.2	-3.2	-14.3	-4.1
Skilled Trades Occupations	69.7	22.5	44.5	19.1	-25.2	-36.1	-32.6
Personal Service Occupations	0.4	0.1	0.0	0.0	-0.4	-100.0	-0.5
Sales and Customer Service Occupations	6.9	2.2	3.2	1.4	-3.7	-53.6	-4.7
Process, Plant and Machine Operatives	86.0	27.8	55.7	23.9	-30.3	-55.7	-39.2
Elementary Occupations	26.3	8.5	16.2	7.0	-10.1	-38.4	-13.0
Total	309.7		232.5		-77.2	-24.9	

Table 33. Occupational Change, 2001 – 2008, Manufacturing, Part Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total part time employment
Managers and Senior Officials	1.1	4.2	1.3	7.1	0.2	18.1	2.3
Professional Occupations	0.4	1.5	0.4	2.3	0.0	0.0	0.0
Associate Professional and Technical	2.4	8.9	1.8	10.2	-0.6	-25.0	-7.1
Administrative and Secretarial	5.0	18.6	2.7	15.1	-2.3	-46.0	-27.3
Skilled Trades Occupations	2.2	8.5	1.5	8.6	-0.7	-31.8	-8.3
Personal Service Occupations	0.0	0.0	0.4	2.3	0.4	-	4.7
Sales and Customer Service Occupations	2.8	10.4	1.2	6.9	-1.6	-57.1	-19.0
Process, Plant and Machine Operatives	7.6	28.4	3.5	1.9	-4.1	-53.9	-48.8
Elementary Occupations	5.1	19.1	5.2	28.2	0.1	1.9	1.1
Total	26.8		18.4		-8.4	-31.3	

Table 34. Occupational Change, 2001 – 2008, Manufacturing, Graduates

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total graduate employment
Managers and Senior Officials	12.2	33.0	15.9	45.8	3.7	30.3	160.8
Professional Occupations	14.2	38.5	7.5	21.7	-6.7	-47.1	-291.3
Associate Professional and Technical	6.4	17.1	8.2	23.8	1.8	28.1	78.2
Administrative and Secretarial	1.4	3.8	1.1	3.1	-0.3	-21.4	-13.0
Skilled Trades Occupations	1.2	3.3	0.0	0.0	-1.2	-100.0	-52.1
Personal Service Occupations	0.4	1.2	0.0	0.0	-0.4	-100.0	-17.3
Sales and Customer Service Occupations	0.5	1.4	0.0	0.0	-0.5	-100.0	-21.7
Process, Plant and Machine Operatives	0.4	1.1	1.8	5.4	1.4	350.0	60.8
Elementary Occupations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	37.0		34.7	•	-2.3	-6.2	

Table 35. Occupational Change, 2001 – 2008, Construction, Total

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total employment
Managers and Senior Officials	20.6	11.5	28.2	13.5	7.6	36.8	24.3
Professional Occupations	10.5	5.9	13.7	6.5	3.2	30.4	10.2
Associate Professional and Technical	8.0	4.5	5.4	2.6	-2.6	-32.5	-8.3
Administrative and Secretarial	11.7	6.5	19.0	9.0	7.3	62.3	23.3
Skilled Trades Occupations	88.3	49.6	103.2	49.3	14.9	16.8	47.7
Personal Service Occupations							
Sales and Customer Service Occupations	1.2	0.7	1.4	0.7	0.2	16.6	0.6
Process, Plant and Machine Operatives	20.2	11.3	19.8	9.4	-0.4	-1.9	-1.2
Elementary Occupations	17.2	9.6	18.2	8.7	1.0	5.8	3.2
Total	178.1	•	209.3		31.2	17.5	<u> </u>

Table 36. Occupational Change, 2001 – 2008, Construction, Males

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total male employment
Managers and Senior Officials	18.6	11.5	24.7	13.3	6.1	32.7	24.6
Professional Occupations	8.7	5.4	12.6	6.8	3.9	44.8	15.7
Associate Professional and Technical	5.4	3.4	5.4	2.9	0.0	0.0	0.0
Administrative and Secretarial	1.1	0.7	2.9	1.5	1.8	163.6	7.2
Skilled Trades Occupations	88.3	54.0	102.0	55.0	13.7	15.5	55.4
Personal Service Occupations							
Sales and Customer Service Occupations	0.8	0.5	0.4	0.2	-0.4	-50.0	-1.6
Process, Plant and Machine Operatives	20.2	12.6	19.8	10.6	-0.4	-1.9	-1.6
Elementary Occupations	17.2	10.7	17.3	9.3	0.1	0.5	0.4
Total	160.8		185.5		24.7	15.3	

Table 37. Occupational Change, 2001 – 2008, Construction, Females

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total female employment
Managers and Senior Officials	2.0	11.6	3.4	14.6	1.4	70.0	21.5
Professional Occupations	1.7	10.3	1.0	4.5	-0.7	-41.1	-10.7
Associate Professional and Technical	2.5	14.6	0.0	0.0	-2.5	-147.0	-38.4
Administrative and Secretarial	10.5	61.2	16.0	67.6	5.5	52.3	84.6
Skilled Trades Occupations	0.0	0.0	1.1	4.9	1.1	-	16.9
Personal Service Occupations							
Sales and Customer Service Occupations	0.3	2.1	1.0	4.4	0.7	233.3	10.7
Process, Plant and Machine Operatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Elementary Occupations	0.0	0.0	0.9	3.8	0.9	-	13.8
Total	17.2		23.7		6.5	37.7	

Table 38. Occupational Change, 2001 – 2008, Construction, Full Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total full time employment
Managers and Senior Officials	20.2	12.0	27.8	14.0	7.6	37.6	26.2
Professional Occupations	10.1	6.0	13.2	6.7	3.1	30.6	10.6
Associate Professional and Technical	7.1	4.2	5.4	2.7	-1.7	-23.9	-5.8
Administrative and Secretarial	5.7	3.4	11.3	5.7	5.6	98.2	19.3
Skilled Trades Occupations Personal Service Occupations	87.1	51.7	100.9	51.5	13.8	15.8	47.5
Sales and Customer Service Occupations	1.2	0.7	0.9	0.4	-0.3	-25.0	-1.0
Process, Plant and Machine Operatives	19.7	11.7	19.8	10.0	0.1	0.5	0.3
Elementary Occupations	16.8	10.0	17.8	9.0	1.0	5.9	3.4
Total	168.3		197.3		29.0	17.2	

Table 39. Occupational Change, 2001 – 2008, Construction, Part Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total part time employment
Managers and Senior Officials	0.3	4.0	0.4	3.8	0.1	33.3	6.2
Professional Occupations	0.4	4.2	0.5	4.5	0.1	25.0	6.2
Associate Professional and Technical	0.8	8.7	0.0	0.0	-0.8	-100.0	-50.0
Administrative and Secretarial	5.9	61.4	7.7	68.2	1.8	30.5	112.5
Skilled Trades Occupations	1.2	12.7	1.6	14.2	0.4	33.3	25.0
Personal Service Occupations							
Sales and Customer Service Occupations	0.0	0.0	0.5	4.9	0.5	-	31.2
Process, Plant and Machine Operatives	0.4	4.9	0.0	0.0	-0.4	-100.0	-25.0
Elementary Occupations	0.3	3.8	0.4	4.2	0.1	33.3	6.2
Total	9.7		11.3		1.6	16.4	

Table 40. Occupational Change, 2001 – 2008, Construction, Graduates

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total graduate employment
Managers and Senior Officials	4.2	32.0	4.2	30.2	0.0	0.0	0.0
Professional Occupations	4.6	35.1	5.3	38.1	0.7	15.2	116.6
Associate Professional and Technical	0.8	6.2	0.5	4.0	-0.3	-37.5	-50.0
Administrative and Secretarial	0.8	6.2	2.1	15.6	1.3	162.5	216.6
Skilled Trades Occupations	1.7	12.8	1.6	11.9	-0.1	-5.8	-16.6
Personal Service Occupations							
Sales and Customer Service Occupations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Process, Plant and Machine Operatives	0.5	4.1	0.0	0.0	-0.5	-100.0	-83.3
Elementary Occupations	0.4	3.4	0.0	0.0	-0.4	-100.0	-66.6
Total	13.3		13.9		0.6	4.5	

Table 41. Occupational Change, 2001 – 2008, Distribution, Hotels and Restaurants, Total

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total employment
Managers and Senior Officials	79.7	17.5	94.7	19.8	15.0	18.8	60.7
Professional Occupations	4.9	1.1	5.0	1.0	0.1	2.0	0.4
Associate Professional and Technical	20.6	4.5	19.6	4.1	1.0	4.8	4.0
Administrative and Secretarial	33.4	7.3	27.9	5.8	-5.5	-16.4	-22.2
Skilled Trades Occupations	46.5	10.2	47.7	9.9	1.2	2.5	4.8
Personal Service Occupations	3.7	0.8	3.9	0.8	0.2	5.4	0.8
Sales and Customer Service Occupations	149.4	32.9	141.8	29.5	-7.6	-5.0	-30.7
Process, Plant and Machine Operatives	18.3	4.0	25.6	5.3	7.3	39.8	29.5
Elementary Occupations	96.7	21.3	111.7	23.3	21.0	21.7	85.0
Total	453.5		478.2		24.7	5.4	

Table 42. Occupational Change, 2001 – 2008, Distribution, Hotels and Restaurants, Males

<b>Major Occupation Group (Main Job)</b>	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total male employment
Managers and Senior Officials	50.4	26.2	56.6	24.9	6.2	12.3	17.8
Professional Occupations	1.7	0.9	2.0	0.8	0.3	17.6	0.8
Associate Professional and Technical	9.5	4.9	8.8	3.9	-0.7	-7.3	-2.0
Administrative and Secretarial	5.6	2.9	5.3	2.3	-0.3	-5.3	-0.8
Skilled Trades Occupations	36.2	18.8	37.4	16.5	1.2	3.3	3.4
Personal Service Occupations	0.4	0.2	0.0	0.0	-0.4	-100.0	-1.1
Sales and Customer Service Occupations	34.3	17.9	42.4	18.7	8.1	23.6	23.2
Process, Plant and Machine Operatives	14.9	7.7	21.4	9.4	6.7	44.9	19.2
Elementary Occupations	38.5	20.0	52.4	23.1	13.9	36.1	39.9
Total	191.8		226.6		34.8	18.1	

Table 43. Occupational Change, 2001 – 2008, Distribution, Hotels and Restaurants, Females

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total female employment
Managers and Senior Officials	29.3	11.2	38.1	15.1	8.8	30.0	87.1
Professional Occupations	3.2	1.2	3.0	1.2	-0.2	-6.2	-1.9
Associate Professional and Technical	11.1	4.2	10.8	4.3	-0.3	-2.7	-2.9
Administrative and Secretarial	27.7	10.6	22.6	8.9	-0.1	-0.4	-0.9
Skilled Trades Occupations	10.3	3.9	10.2	4.0	-0.1	-0.9	-0.9
Personal Service Occupations	3.3	3.7	3.9	1.5	0.6	18.1	5.9
Sales and Customer Service Occupations	115.0	43.9	99.3	39.4	-15.7	-13.6	-155.4
Process, Plant and Machine Operatives	3.3	1.2	4.1	1.6	0.8	24.2	7.9
Elementary Occupations	58.2	22.5	59.2	23.5	1.0	1.7	9.9
Total	261.7		251.6		-10.1	-3.8	

Table 44. Occupational Change, 2001 – 2008, Distribution, Hotels and Restaurants, Full Time

<b>Major Occupation Group (Main Job)</b>	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total full time employment
Managers and Senior Officials	72.4	28.1	83.3	29.8	10.9	15.0	51.1
Professional Occupations	3.0	1.1	3.7	1.3	0.7	23.3	3.2
Associate Professional and Technical	16.3	6.3	13.7	4.9	-2.6	-15.9	-12.2
Administrative and Secretarial	18.5	7.2	17.4	6.2	-1.1	-5.9	-5.1
Skilled Trades Occupations	41.8	16.2	40.2	14.4	-1.6	-3.8	-7.5
Personal Service Occupations	2.6	1.0	0.9	0.3	-1.7	-65.3	-7.9
Sales and Customer Service Occupations	48.5	18.8	51.3	18.4	2.8	5.7	13.1
Process, Plant and Machine Operatives	14.8	5.7	22.6	8.1	7.8	52.7	36.6
Elementary Occupations	39.3	15.2	45.3	16.2	6.0	15.2	28.1
Total	257.6		278.9		21.3	8.2	

Table 45. Occupational Change, 2001 – 2008, Distribution, Hotels and Restaurants, Part Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total part time employment
Managers and Senior Officials	7.2	3.7	11.3	5.7	4.1	56.9	146.4
Professional Occupations	1.9	1.0	1.2	0.6	-0.7	-36.8	-25.0
Associate Professional and Technical	4.3	2.2	5.8	2.9	1.5	34.8	53.5
Administrative and Secretarial	14.8	7.5	10.5	5.2	-4.3	-29.0	-153.5
Skilled Trades Occupations	4.7	2.4	7.4	3.7	2.7	57.4	96.4
Personal Service Occupations	1.0	0.5	3.0	1.5	2.0	200.0	71.4
Sales and Customer Service Occupations	100.8	51.4	89.8	45.2	-11.0	-10.9	-392.8
Process, Plant and Machine Operatives	3.4	1.7	2.9	1.4	-0.5	-14.7	-17.8
Elementary Occupations	57.3	29.2	66.3	33.4	9.0	15.7	321.4
Total	195.9		198.7		2.8	1.4	

Table 46. Occupational Change, 2001 – 2008, Distribution, Hotels and Restaurants, Graduates

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total graduate employment
Managers and Senior Officials	9.7	30.5	11.3	30.7	1.6	16.4	32.6
Professional Occupations	4.5	14.3	3.6	9.7	-0.9	-20.0	-18.3
Associate Professional and Technical	3.8	12.0	2.8	7.5	-1.0	-26.3	-20.4
Administrative and Secretarial	2.0	6.5	2.9	7.9	0.9	45.0	18.3
Skilled Trades Occupations	1.8	5.6	2.7	7.5	0.9	50.0	18.3
Personal Service Occupations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sales and Customer Service Occupations	5.8	18.1	6.4	17.4	0.6	10.3	12.2
Process, Plant and Machine Operatives	0.7	2.4	1.6	4.5	0.9	128.5	18.3
Elementary Occupations	3.3	10.3	5.3	14.5	2.0	60.6	40.8
Total	32.0		36.9		4.9	15.3	

Table 47. Occupational Change, 2001 – 2008, Transport and Communication, Total

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total employment
Managers and Senior Officials	15.2	9.4	18.8	13.0	3.6	23.6	21.8
Professional Occupations	3.3	2.0	4.9	3.3	1.6	48.4	9.6
Associate Professional and Technical	9.7	6.0	10.0	6.9	0.3	3.0	1.8
Administrative and Secretarial	23.4	14.5	12.5	8.6	-10.9	-46.5	-66.0
Skilled Trades Occupations	13.5	8.4	11.5	7.9	-2.0	-14.8	-12.1
Personal Service Occupations	10.9	6.7	6.1	4.2	-4.8	-44.0	-29.0
Sales and Customer Service Occupations	10.8	6.7	13.8	9.5	3.0	27.7	18.1
Process, Plant and Machine Operatives	48.0	27.9	48.7	33.7	0.7	1.4	4.2
Elementary Occupations	26.1	18.2	18.1	12.5	-8.0	-30.6	-48.4
Total	161.2	•	144.7		-16.5	-10.2	

Table 48. Occupational Change, 2001 – 2008, Transport and Communication, Males

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total male employment
Managers and Senior Officials	12.1	10.1	12.8	11.4	0.7	5.7	10.1
Professional Occupations	2.9	2.4	4.3	3.8	1.4	48.2	20.2
Associate Professional and Technical	7.0	5.8	7.8	6.9	0.8	11.4	11.5
Administrative and Secretarial	8.7	7.3	4.4	3.9	-4.3	-49.4	-62.3
Skilled Trades Occupations	12.2	10.2	11.5	10.2	-0.7	-5.7	-10.1
Personal Service Occupations	3.7	3.0	2.6	2.3	-1.1	-29.7	-14.4
Sales and Customer Service Occupations	4.1	3.5	8.6	7.7	4.5	109.7	65.2
Process, Plant and Machine Operatives	45.3	37.8	45.5	40.3	0.2	0.4	2.8
Elementary Occupations	23.3	19.5	14.8	13.1	-8.5	-36.4	-123.1
Total	119.6		112.7		-6.9	-5.7	

Table 49. Occupational Change, 2001 – 2008, Transport and Communication, Females

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total female employment
Managers and Senior Officials	3.1	7.6	5.9	18.6	2.8	90.3	29.1
Professional Occupations	0.4	1.0	0.5	1.6	0.1	25.0	1.0
Associate Professional and Technical	2.7	6.4	2.1	6.8	-0.6	-22.2	-6.2
Administrative and Secretarial	14.6	35.2	8.1	25.5	-6.5	-44.5	-67.7
Skilled Trades Occupations	1.3	3.1	0.0	0.0	-1.3	-100.0	-13.5
Personal Service Occupations	7.2	17.3	3.4	10.7	-3.8	-52.7	-39.5
Sales and Customer Service Occupations	6.6	15.9	5.1	16.1	-1.5	-22.7	-15.6
Process, Plant and Machine Operatives	2.6	6.4	3.2	10.1	0.6	23.0	6.2
Elementary Occupations	2.7	6.7	3.3	10.3	0.6	22.2	6.2
Total	41.5		31.9		-9.6	-23.1	

Table 50. Occupational Change, 2001 – 2008, Transport and Communication, Full Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in full time employment
Managers and Senior Officials	14.4	10.7	18.4	15.1	4.0	27.7	30.3
Professional Occupations	3.3	2.4	4.9	4.0	1.6	48.4	12.1
Associate Professional and Technical	8.5	6.3	8.7	7.2	0.2	2.3	1.5
Administrative and Secretarial	16.6	12.3	8.4	6.9	-8.2	-49.3	-62.1
Skilled Trades Occupations	13.5	10.0	11.1	9.1	-2.4	-17.7	-18.1
Personal Service Occupations	6.7	5.0	4.0	3.3	-2.7	-40.2	-20.4
Sales and Customer Service Occupations	5.6	4.2	8.7	7.1	3.1	55.3	23.4
Process, Plant and Machine Operatives	45.8	34.0	43.7	36.0	-2.1	-4.5	-15.9
Elementary Occupations	19.8	14.7	13.2	10.9	-6.6	-33.3	-50.0
Total	134.6		121.4		-13.2	-9.8	

Table 51. Occupational Change, 2001 – 2008, Transport and Communication, Part Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in part time employment
Managers and Senior Officials	0.8	3.1	0.4	1.7	-0.4	-50.0	-12.5
Professional Occupations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Associate Professional and Technical	1.1	4.4	1.2	5.4	0.1	9.0	3.1
Administrative and Secretarial	6.7	25.4	4.1	17.8	-2.6	-38.8	-81.2
Skilled Trades Occupations	0.0	0.0	0.4	1.7	0.4	-	12.5
Personal Service Occupations	4.1	15.6	2.0	8.7	-2.1	-51.2	-65.6
Sales and Customer Service Occupations	5.1	19.3	5.1	21.9	0.0	0.0	0.0
Process, Plant and Machine Operatives	2.1	8.2	5.0	21.5	2.9	138.0	90.6
Elementary Occupations	6.3	23.7	4.8	20.8	-1.5	-23.8	-46.8
Total	26.5		23.3		-3.2	-12.0	

Table 52. Occupational Change, 2001 – 2008, Transport and Communication, Graduates

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total graduate employment
Managers and Senior Officials	3.2	3.6	3.7	23.8	0.5	15.6	7.3
Professional Occupations	0.4	4.6	1.8	11.4	1.4	350.0	20.5
Associate Professional and Technical	2.1	23.2	1.8	11.4	-0.3	-14.2	-4.4
Administrative and Secretarial	0.8	9.1	1.6	10.4	0.8	100.0	11.7
Skilled Trades Occupations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Personal Service Occupations	0.4	5.2	0.4	2.6	0.0	0.0	0.0
Sales and Customer Service Occupations	0.0	0.0	3.1	19.8	3.1	-	45.5
Process, Plant and Machine Operatives	1.2	13.9	2.1	13.3	0.9	75.0	13.2
Elementary Occupations	0.6	7.7	1.0	6.5	0.4	66.6	5.8
Total	9.0		15.8		6.8	75.5	

Table 53. Occupational Change, 2001 – 2008, Banking, Finance and Insurance, Total

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total employment
Managers and Senior Officials	43.6	15.1	68.3	19.4	24.7	56.6	38.8
Professional Occupations	50.1	17.4	77.0	21.9	26.9	53.6	42.2
Associate Professional and Technical	43.9	15.3	75.4	21.5	31.5	71.7	49.5
Administrative and Secretarial	79.3	27.6	56.7	16.1	-22.6	-28.4	-35.5
Skilled Trades Occupations	8.1	2.8	12.5	3.5	4.4	54.3	6.9
Personal Service Occupations	4.1	1.4	4.9	1.4	0.8	19.5	1.2
Sales and Customer Service Occupations	20.7	7.2	24.1	6.8	3.4	16.4	5.3
Process, Plant and Machine Operatives	5.0	1.7	5.9	1.7	0.9	18.0	1.4
Elementary Occupations	32.0	11.1	25.8	7.3	-6.2	-19.3	-9.7
Total	287.4		351.0		63.6	22.1	

Table 54. Occupational Change, 2001 – 2008, Banking, Finance and Insurance, Males

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total male employment
Managers and Senior Officials	29.4	19.4	43.1	22.4	13.7	46.5	33.8
Professional Occupations	40.3	26.6	57.0	29.6	16.7	41.4	41.2
Associate Professional and Technical	25.1	16.5	38.7	20.1	13.6	54.1	33.5
Administrative and Secretarial	16.4	10.8	5.7	3.0	-10.7	-65.2	-26.4
Skilled Trades Occupations	7.8	5.1	12.1	6.3	4.3	55.1	10.6
Personal Service Occupations	1.8	1.2	2.7	1.4	0.9	50.0	2.2
Sales and Customer Service Occupations	5.6	3.7	11.3	5.8	5.7	101.7	14.0
Process, Plant and Machine Operatives	3.8	2.5	5.5	2.8	1.7	44.7	4.1
Elementary Occupations	21.1	13.9	15.8	8.2	-5.3	-25.1	-13.0
Total	151.8		192.3		40.5	26.6	

Table 55. Occupational Change, 2001 – 2008, Banking, Insurance and Finance, Females

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total female employment
Managers and Senior Officials	14.1	10.4	25.1	15.8	11.0	78.0	47.6
Professional Occupations	9.7	7.1	19.9	12.5	10.2	105.1	44.1
Associate Professional and Technical	18.8	13.9	36.7	23.1	17.9	95.2	77.4
Administrative and Secretarial	62.8	46.3	50.9	32.1	-11.9	-18.9	-51.5
Skilled Trades Occupations	0.3	0.2	0.3	0.2	0.0	0.0	0.0
Personal Service Occupations	2.3	1.7	2.1	1.3	-0.2	-8.6	-0.8
Sales and Customer Service Occupations	15.1	11.1	12.8	8.0	-2.3	-15.2	-9.9
Process, Plant and Machine Operatives	1.2	0.9	0.4	0.2	-0.8	-66.6	-3.4
Elementary Occupations	10.9	8.0	10.0	6.3	-0.9	-8.2	-3.8
Total	135.5		158.6		23.1	17.0	

Table 56. Occupational Change, 2001 – 2008, Banking, Insurance and Finance, Full Time

<b>Major Occupation Group (Main Job)</b>	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total full time employment
Managers and Senior Officials	39.5	17.0	60.2	20.9	20.7	52.4	37.7
Professional Occupations	45.6	19.7	70.5	24.6	24.9	54.6	45.3
Associate Professional and Technical	37.8	16.3	63.5	22.1	25.7	67.9	46.8
Administrative and Secretarial	55.5	23.9	33.6	11.7	-21.9	-39.4	-39.8
Skilled Trades Occupations	7.8	3.3	12.5	4.3	4.7	60.2	8.5
Personal Service Occupations	3.4	1.4	4.2	1.4	0.8	23.5	1.4
Sales and Customer Service Occupations	15.2	6.5	19.0	6.6	3.8	25.0	6.9
Process, Plant and Machine Operatives	4.6	2.0	5.5	1.9	0.9	19.5	1.6
Elementary Occupations	22.1	9.5	17.4	6.1	-4.7	-4.5	-8.5
Total	231.9		286.8		54.9	23.6	

Table 57. Occupational Change, 2001 – 2008, Banking, Insurance and Finance, Part Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total part time employment
Managers and Senior Officials	4.0	7.3	8.1	12.7	4.1	102.5	50.6
Professional Occupations	4.4	8.0	6.4	10.1	2.0	45.4	24.6
Associate Professional and Technical	6.0	10.9	11.9	18.7	5.9	98.3	72.8
Administrative and Secretarial	23.7	42.8	22.4	35.3	-1.3	-5.4	-16.0
Skilled Trades Occupations	0.3	0.6	0.0	0.0	-0.3	-100.0	-3.7
Personal Service Occupations	0.7	1.3	0.6	1.0	-0.1	-14.2	-1.2
Sales and Customer Service Occupations	5.5	10.0	5.1	8.1	-0.4	-7.2	-4.9
Process, Plant and Machine Operatives	0.4	0.7	0.3	0.6	-0.1	-25.0	-1.2
Elementary Occupations	9.9	17.9	8.3	13.1	-1.6	-16.1	-19.7
Total	55.4		63.5		8.1	14.6	

Table 58. Occupational Change, 2001 – 2008, Banking, Insurance and Finance, Graduates

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total graduate employment
Managers and Senior Officials	13.3	19.0	26.0	23.1	12.7	95.4	29.9
Professional Occupations	34.6	49.6	55.4	49.4	20.8	60.1	49.0
Associate Professional and Technical	14.2	20.4	23.8	21.2	9.6	67.6	22.6
Administrative and Secretarial	4.9	7.0	2.8	2.5	-2.1	-42.8	-4.9
Skilled Trades Occupations	1.2	1.7	3.0	2.7	1.8	150.0	4.2
Personal Service Occupations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sales and Customer Service Occupations	0.9	1.3	1.0	0.9	0.1	11.1	0.2
Process, Plant and Machine Operatives	0.4	0.6	0.0	0.0	-0.4	-100.0	-0.9
Elementary Occupations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	69.7		112.1		42.4	60.8	

Table 59. Occupational Change, 2001 – 2008, Public Administration, Education and Health, Total

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total employment
Managers and Senior Officials	40.7	6.0	48.7	6.0	8.0	19.6	5.8
Professional Occupations	151.6	22.6	189.7	23.5	38.1	25.1	27.9
Associate Professional and Technical	157.6	23.5	194.3	24.1	36.7	23.2	26.8
Administrative and Secretarial	108.7	16.2	108.6	13.4	-0.1	-0.1	-0.1
Skilled Trades Occupations	15.9	2.3	16.3	2.0	0.4	2.5	0.2
Personal Service Occupations	122.9	18.3	177.0	21.9	54.1	44.0	39.6
Sales and Customer Service Occupations	1.6	0.2	5.0	0.6	3.4	212.5	2.4
Process, Plant and Machine Operatives	11.6	1.7	6.6	0.8	-0.5	-43.1	-3.6
Elementary Occupations	57.7	8.6	58.6	7.2	0.9	1.5	0.6
Total	668.8		805.3		136.5	20.4	

Table 60. Occupational Change, 2001 – 2008, Public Administration, Education and Health, Males

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total male employment
Managers and Senior Officials	20.2	10.0	23.9	9.8	3.7	18.3	8.3
Professional Occupations	55.1	27.5	69.4	28.4	14.3	25.9	32.4
Associate Professional and Technical	56.6	28.3	68.5	28.0	11.9	21.0	26.9
Administrative and Secretarial	19.9	9.9	19.2	7.8	-0.7	-3.5	-1.5
Skilled Trades Occupations	11.8	5.9	14.2	5.8	2.4	20.3	5.4
Personal Service Occupations	14.9	7.4	25.7	10.5	10.8	72.4	24.4
Sales and Customer Service Occupations	0.4	0.2	0.5	0.2	0.1	25.0	0.2
Process, Plant and Machine Operatives	10.9	5.4	5.5	2.2	-5.4	-49.5	-12.2
Elementary Occupations	9.9	4.9	17.0	6.9	7.1	71.7	16.0
Total	200.2		244.3		44.1	22.0	

Table 61. Occupational Change, 2001 – 2008, Public Administration, Education and Health, Females

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total female employment
Managers and Senior Officials	20.5	4.3	24.7	4.4	4.2	20.4	4.5
Professional Occupations	96.5	20.6	120.2	21.4	23.7	24.5	25.6
Associate Professional and Technical	101.0	21.5	125.7	22.4	24.7	24.4	26.7
Administrative and Secretarial	88.7	18.9	89.3	15.9	0.6	0.6	0.6
Skilled Trades Occupations	4.0	0.8	2.1	0.3	-1.9	-47.5	-2.0
Personal Service Occupations	108.0	23.0	151.3	26.9	43.3	40.0	46.8
Sales and Customer Service Occupations	1.2	0.2	4.5	0.8	3.3	275.0	3.5
Process, Plant and Machine Operatives	0.7	0.1	1.1	0.2	0.4	57.1	0.4
Elementary Occupations	47.7	10.1	41.6	7.4	-6.1	-12.7	-6.6
Total	468.6		561.0		92.4	19.7	

Table 62. Occupational Change, 2001 – 2008, Public Administration, Education and Health, Full Time

<b>Major Occupation Group (Main Job)</b>	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total full time employment
Managers and Senior Officials	36.4	7.9	44.8	7.8	8.4	23.0	7.4
Professional Occupations	127.0	27.5	148.5	25.9	21.5	16.9	19.0
Associate Professional and Technical	114.8	24.9	152.6	26.6	37.8	32.9	33.4
Administrative and Secretarial	72.1	15.6	70.6	12.3	-1.5	-2.0	-1.3
Skilled Trades Occupations	14.7	3.1	14.2	2.4	-0.5	-3.4	-0.4
Personal Service Occupations	65.5	14.2	110.2	19.2	44.7	68.2	39.5
Sales and Customer Service Occupations	1.6	0.3	3.5	0.6	1.9	118.7	1.6
Process, Plant and Machine Operatives	9.7	2.1	5.0	0.8	-4.7	-48.4	-4.1
Elementary Occupations	18.3	3.9	23.6	4.1	5.3	28.9	18.3
Total	460.5		573.4		112.9	24.5	

Table 63. Occupational Change, 2001 – 2008, Public Administration, Education and Health, Part Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total part time employment
Managers and Senior Officials	4.3	2.0	3.8	1.6	-0.5	-11.6	-2.1
Professional Occupations	24.6	11.8	41.1	17.5	16.5	67.0	70.2
Associate Professional and Technical	42.8	20.5	41.6	17.9	-1.2	-2.8	-5.1
Administrative and Secretarial	36.5	17.5	37.9	16.3	1.4	3.8	5.9
Skilled Trades Occupations	1.2	0.5	2.1	0.9	0.9	75.0	3.8
Personal Service Occupations	57.4	27.5	66.8	28.8	9.4	16.3	40.0
Sales and Customer Service Occupations	0.0	0.0	1.5	0.6	1.5	-	6.3
Process, Plant and Machine Operatives	1.9	0.9	1.6	0.7	-0.3	-15.7	-1.2
Elementary Occupations	39.3	18.9	35.0	15.1	-4.3	-10.9	-18.2
Total	208.3		231.8		23.5	11.2	

Table 64. Occupational Change, 2001 – 2008, Public Administration, Education and Health, Graduates

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total graduate employment
Managers and Senior Officials	10.4	6.1	18.8	7.8	8.4	80.7	12.2
Professional Occupations	103.8	60.5	131.6	54.8	27.8	26.7	40.7
Associate Professional and Technical	42.8	25.0	63.9	26.6	21.1	49.2	30.8
Administrative and Secretarial	8.4	4.9	10.2	4.2	1.8	21.4	2.6
Skilled Trades Occupations	0.0	0.0	0.5	0.2	0.5	-	0.7
Personal Service Occupations	4.6	2.6	11.2	4.7	6.6	143.4	9.6
Sales and Customer Service Occupations	0.0	0.0	1.5	0.6	1.5	-	2.1
Process, Plant and Machine Operatives	0.4	0.2	0.0	0.0	-0.4	-100.0	-0.5
Elementary Occupations	0.8	0.5	1.7	0.7	0.9	112.5	1.3
Total	171.5		239.8		68.3	39.8	

Table 65. Occupational Change, 2001 – 2008, Other Services, Total

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total employment
Managers and Senior Officials	13.8	10.4	12.4	8.3	-1.4	-10.1	-8.4
Professional Occupations	7.8	5.9	6.6	4.4	-1.2	-15.3	-7.2
Associate Professional and Technical	23.7	17.9	30.9	20.7	7.2	30.3	43.3
Administrative and Secretarial	14.5	10.9	22.1	14.8	7.6	52.4	45.7
Skilled Trades Occupations	11.1	8.4	7.5	5.0	-3.6	-32.4	-21.6
Personal Service Occupations	28.2	21.3	37.4	25.0	9.2	32.6	59.6
Sales and Customer Service Occupations	7.0	5.3	5.5	3.6	-1.5	-21.4	-9.0
Process, Plant and Machine Operatives	5.0	3.8	2.8	1.8	-2.2	-44.0	-13.2
Elementary Occupations	21.0	15.8	23.8	15.9	2.8	13.3	16.8
Total	132.4		149.4	•	16.6	12.5	

Table 66. Occupational Change, 2001 – 2008, Other Services, Males

<b>Major Occupation Group (Main Job)</b>	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total male employment
Managers and Senior Officials	9.0	13.5	6.0	9.7	-3.0	-33.3	-76.9
Professional Occupations	4.9	7.4	2.5	4.1	-2.4	-48.9	-61.5
Associate Professional and Technical	15.7	23.6	17.3	27.8	1.6	10.1	41.0
Administrative and Secretarial	2.0	3.1	7.1	11.4	5.1	255.0	130.7
Skilled Trades Occupations	10.2	15.4	6.7	10.7	-3.5	-34.3	-89.2
Personal Service Occupations	5.6	8.5	9.7	15.7	4.1	73.2	105.1
Sales and Customer Service Occupations	3.0	4.5	0.0	0.0	-3.0	-100.0	-76.9
Process, Plant and Machine Operatives	5.0	7.5	2.8	4.5	-2.2	-44.0	-56.4
Elementary Occupations	10.5	15.9	9.8	15.8	-0.7	-6.6	-17.9
Total	66.2		62.3		-3.9	-5.8	

Table 67. Occupational Change, 2001 – 2008, Other Services, Females

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total female employment
Managers and Senior Officials	4.8	7.3	6.4	7.3	1.6	33.3	7.6
Professional Occupations	2.8	4.3	4.0	4.6	1.2	42.8	5.7
Associate Professional and Technical	8.0	12.2	13.5	15.6	5.5	68.7	26.3
Administrative and Secretarial	12.4	18.8	15.0	17.3	2.6	20.9	12.4
Skilled Trades Occupations	0.8	1.3	0.8	0.9	0.0	0.0	0.0
Personal Service Occupations	22.5	34.1	27.6	31.7	5.1	14.9	24.4
Sales and Customer Service Occupations	4.0	6.0	5.5	6.3	1.5	37.5	7.1
Process, Plant and Machine Operatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Elementary Occupations	10.4	15.7	13.9	15.9	3.5	33.6	16.7
Total	66.1		87.0		20.9	31.6	

Table 68. Occupational Change, 2001 – 2008, Other Services, Full Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total full time employment
Managers and Senior Officials	12.7	14.2	10.1	11.4	-2.6	-20.4	-520.0
Professional Occupations	7.0	7.8	5.7	6.4	-1.3	-18.5	-260.0
Associate Professional and Technical	15.5	17.3	16.5	18.6	1.0	6.4	200.0
Administrative and Secretarial	10.0	11.2	14.1	15.9	4.1	41.0	820.0
Skilled Trades Occupations	8.7	9.7	6.1	6.8	-2.6	-29.8	-520.0
Personal Service Occupations	17.9	20.0	22.5	25.3	4.6	25.6	920.0
Sales and Customer Service Occupations	2.5	2.8	1.1	1.2	-1.4	-56.0	-280.0
Process, Plant and Machine Operatives	4.6	5.1	2.8	3.1	-1.8	-39.1	-360.0
Elementary Occupations	10.2	11.4	9.6	10.8	-0.6	-5.8	-120.0
Total	89.4		88.9		-0.5	-0.5	

Table 69. Occupational Change, 2001 – 2008, Other Services, Part Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total part time employment
Managers and Senior Officials	1.1	2.6	2.3	3.8	1.2	109.0	6.8
Professional Occupations	0.7	1.8	0.9	1.5	0.2	28.5	1.1
Associate Professional and Technical	8.2	19.1	14.3	23.7	6.1	74.3	35.0
Administrative and Secretarial	4.4	10.4	8.0	13.2	3.6	81.8	20.6
Skilled Trades Occupations	2.3	5.5	1.4	2.3	-0.9	-39.1	-5.1
Personal Service Occupations	10.2	23.9	14.8	24.5	4.6	45.0	26.4
Sales and Customer Service Occupations	4.5	10.5	4.3	7.2	-0.2	-4.4	-1.1
Process, Plant and Machine Operatives	0.3	0.8	0.0	0.0	-0.3	-100.0	-1.7
Elementary Occupations	10.7	25.1	14.1	23.4	3.4	31.7	19.5
Total	43.0		60.4		17.4	40.4	

Table 70. Occupational Change, 2001 – 2008, Other Services, Graduates

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total graduate employment
Managers and Senior Officials	3.0	19.2	1.9	6.6	-1.1	-36.6	-7.7
Professional Occupations	5.3	33.7	5.1	17.3	-0.2	-3.7	-1.4
Associate Professional and Technical	4.5	28.8	14.3	47.9	9.8	217.7	69.0
Administrative and Secretarial	1.7	10.8	5.4	18.1	3.7	217.6	26.0
Skilled Trades Occupations	0.0	0.0	1.0	3.4	1.0	100.0	7.0
Personal Service Occupations	0.3	2.3	0.8	2.7	0.5	166.6	3.5
Sales and Customer Service Occupations	0.3	2.3	0.6	2.0	0.3	100.0	2.1
Process, Plant and Machine Operatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Elementary Occupations	0.3	2.3	0.4	1.6	0.1	33.3	0.7
Total	15.7		29.9		14.2	90.4	

Table 71. Components of Change in the Occupational Structure, 2001 – 2008: Total

Major Occupation Group (Main Job)	distribution 2001 (Percent)	distribution 2008 (Percent)	Change 2001-2008	estimated distribution 2008 (percent)	Change 2001-2008 If wholly due to Sectoral change
Managers and Senior Officials	11.7	13.4	1.7	11.5	-0.2
Professional Occupations	11.3	13.2	1.9	12.1	0.8
Associate Professional and Technical	13.1	14.9	1.8	13.7	0.6
Administrative and Secretarial	13.2	10.9	-2.3	13.9	0.7
Skilled Trades Occupations	12.2	11.0	-1.2	11.6	-0.6
Personal Service Occupations	7.3	9.1	1.8	7.9	0.6
Sales and Customer Service Occupations	8.8	8.1	-0.7	8.6	-0.2
Process, Plant and Machine Operatives	9.3	7.2	-2.1	8.0	-1.3
Elementary Occupations	12.8	11.7	-1.1	12.6	-0.2

## Footnotes to Tables 71 - 75:

- 1. Columns 2 and 3 of each table are taken from Tables 5 9, respectively.
- 2. Column 5 is the estimated occupational distribution in 2008 if the 2001 occupational distributions in each of the nine industrial sectors is applied to the actual employment in each of these industrial sectors in 2008. Data are rounded and hence do not total 100.
- 3. Column 6 is obtained by subtracting column 2 from column 5. This figure is assumed to represent the extent to which actual change may be 'explained' by the change in industrial structure. The difference between column 6 and column 4, therefore, estimates the change in occupational structure which is not attributable to 'sectoral' change. This residual is assumed to reflect the extent of the change which is due to 'structural' change.

Table 72. Components of Change in the Occupational Structure, 2001 – 2008: Males

Major Occupation Group (Main Job)	distribution 2001 (Percent)	distribution 2008 (Percent)	Change 2001 - 2008	Estimated Distribution 2008 (percent)	Change 2001-2008 If wholly due to Sectoral change
Managers and Senior Officials	15.5	16.7	1.2	14.5	-1.0
Professional Occupations	12.0	13.7	1.7	11.8	-0.2
Associate Professional and Technical	12.0	13.5	1.5	11.5	-0.5
Administrative and Secretarial	5.1	3.9	-1.2	4.9	-0.2
Skilled Trades Occupations	21.4	19.5	-1.9	19.2	-2.2
Personal Service Occupations	2.2	3.1	0.9	2.1	-0.1
Sales and Customer Service Occupations	4.6	5.1	0.5	4.4	-0.2
Process, Plant and Machine Operatives	14.3	12.2	-2.1	19.6	5.3
Elementary Occupations	12.5	11.9	-0.6	11.6	-0.9

Table 73. Components of Change in the Occupational Structure, 2001 – 2008: Females

Major Occupation Group (Main Job)	distribution 2001 Percent	distribution 2008 Percent	Change 2001 - 2008	Estimated Distribution 2008	Change 2001 – 2008 If wholly due to Sectoral change
	1 er cent	rercent		(percent)	Sector at change
Managers and Senior Officials	7.4	9.7	2.3	7.3	-0.1
Professional Occupations	10.6	12.7	2.1	11.6	1.0
Associate Professional and Technical	14.2	16.5	2.3	15.1	0.9
Administrative and Secretarial	22.0	18.5	-3.5	22.7	0.7
Skilled Trades Occupations	2.1	1.7	-0.4	1.7	-0.4
Personal Service Occupations	12.9	15.8	2.9	14.2	1.3
Sales and Customer Service Occupations	13.4	11.3	-2.1	12.3	-1.1
Process, Plant and Machine Operatives	3.8	1.8	-2.0	2.3	-1.5
Elementary Occupations	13.0	11.5	-1.5	12.6	-0.4

Table 74. Components of Change in the Occupational Structure, 2001 – 2008: Full Time Workers

Major Occupation Group (Main Job)	distribution 2001 Percent	distribution 2008 Percent	Change 2001 - 2008	Estimated Distribution 2008 (percent)	Change 2001-2008 If wholly due to Sectoral change
Managers and Senior Officials	14.3	16.3	2.0	14.2	-0.1
Professional Occupations	13.2	14.8	1.6	14.3	1.1
Associate Professional and Technical	13.6	15.8	2.2	14.3	0.7
Administrative and Secretarial	11.8	9.5	-2.3	12.3	0.5
Skilled Trades Occupations	15.5	13.7	-1.8	14.6	0.9
Personal Service Occupations	5.5	7.5	2.0	5.9	0.4
Sales and Customer Service Occupations	4.9	4.8	-0.1	4.9	0.0
Process, Plant and Machine Operatives	11.4	8.9	-2.5	9.8	-1.6
Elementary Occupations	9.4	8.3	-1.1	9.1	-0.3

Table 75. Components of Change in the Occupational Structure, 2001 – 2008: Part Time Workers

Major Occupation Group (Main Job)	distribution 2001	distribution 2008	Change 2001 - 2008	Estimated Distribution	Change 2001 – 2008 If wholly due to	
	Percent	Percent		2008	Sectoral change	
				(percent)		
Managers and Senior Officials	3.4	4.5	1.1	3.6	0.2	
Professional Occupations	5.7	8.3	2.6	5.7	0.0	
Associate Professional and Technical	11.4	12.3	0.9	11.8	0.4	
Administrative and Secretarial	17.4	15.2	-2.2	17.6	0.2	
Skilled Trades Occupations	2.1	2.7	0.6	2.1	0.0	
Personal Service Occupations	12.9	14.1	1.2	13.4	0.5	
Sales and Customer Service Occupations	20.8	18.0	-2.8	19.8	-1.0	
Process, Plant and Machine Operatives	2.8	2.1	-0.7	2.2	-0.6	
Elementary Occupations	23.0	22.3	-0.7	23.0	0.0	

Table 76. Occupational Change, 2001 – 2008, Public Sector, Total

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total employment
Managers and Senior Officials	34.4	5.2	37.7	5.4	3.3	9.5	7.7
Professional Occupations	144.5	22.1	175.5	25.6	31.0	21.4	72.7
Associate Professional and Technical	145.9	22.3	164.8	23.7	18.9	12.9	44.3
Administrative and Secretarial	114.9	17.6	102.4	14.7	-12.5	-10.8	-29.3
Skilled Trades Occupations	28.0	4.3	20.4	2.9	-7.6	-27.1	-17.8
Personal Service Occupations	83.7	12.8	108.5	15.6	24.8	29.6	58.2
Sales and Customer Service Occupations	3.9	0.6	6.3	0.9	2.4	61.5	5.6
Process, Plant and Machine Operatives	18.5	2.8	10.4	1.5	-8.1	-43.7	-19.0
Elementary Occupations	78.0	11.9	68.5	9.8	-9.5	-12.1	-22.3
Total	652.2		694.8		42.6	6.5	

For footnotes to Tables 76 – 81, refer to the footnotes to Table 17

Table 77. Occupational Change, 2001 – 2008, Public Sector, Males

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total male employment
Managers and Senior Officials	21.1	8.8	23.8	9.6	2.7	12.7	47.5
Professional Occupations	58.1	24.2	62.9	25.6	4.8	8.2	84.2
Associate Professional and Technical	56.4	23.5	61.2	24.9	4.8	8.5	84.2
Administrative and Secretarial	22.1	9.2	20.9	8.5	-1.2	-5.4	-21.0
Skilled Trades Occupations	21.7	9.0	18.7	7.6	-3.0	-13.8	-52.6
Personal Service Occupations	15.7	6.5	19.7	8.0	4.0	13.2	70.1
Sales and Customer Service Occupations	0.9	0.3	1.9	0.7	1.0	111.1	17.5
Process, Plant and Machine Operatives	17.7	7.4	9.7	3.9	-8.0	-45.1	-140.3
Elementary Occupations	25.8	10.7	26.4	10.7	0.6	2.3	10.6
Total	240.0		245.7		5.7	2.3	

Table 78. Occupational Change, 2001 – 2008, Public Sector, Females

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in total female employment
Managers and Senior Officials	13.2	3.2	13.9	3.1	0.7	5.3	1.9
Professional Occupations	86.3	20.9	112.5	25.0	26.2	30.3	71.1
Associate Professional and Technical	89.4	21.7	103.5	23.0	14.1	15.7	38.3
Administrative and Secretarial	92.7	22.5	81.4	18.1	-11.3	-12.1	-30.7
Skilled Trades Occupations	6.3	1.5	1.6	0.3	-4.7	-74.6	-12.7
Personal Service Occupations	68.0	16.5	88.7	19.7	20.7	30.4	56.2
Sales and Customer Service Occupations	3.0	0.7	4.4	0.9	1.4	46.6	3.8
Process, Plant and Machine Operatives	0.7	0.1	0.6	0.1	-0.1	-14.2	-0.2
Elementary Occupations	52.2	12.6	42.0	9.3	-10.2	-19.5	-27.7
Total	412.2		449.0		36.8	8.9	

Table 79. Occupational Change, 2001 – 2008, Public Sector, Full Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in net full time employment
Managers and Senior Officials	31.6	6.7	36.1	7.1	4.5	14.2	11.3
Professional Occupations	125.5	26.8	141.1	27.7	15.6	12.4	39.1
Associate Professional and Technical	109.5	23.4	134.9	26.5	25.4	23.1	63.8
Administrative and Secretarial	79.4	16.9	72.0	14.1	-7.4	-9.3	-18.5
Skilled Trades Occupations	25.9	5.5	18.7	3.6	-7.2	-27.7	-18.0
Personal Service Occupations	45.2	9.6	62.8	12.3	17.6	38.9	44.2
Sales and Customer Service Occupations	3.0	0.6	3.5	0.6	0.5	16.6	1.2
Process, Plant and Machine Operatives	17.2	3.6	9.2	1.8	-8.0	-46.5	-20.1
Elementary Occupations	30.3	6.4	29.2	5.7	-1.1	-3.6	-2.7
Total	468.0		507.8		39.8	8.5	

Table 80. Occupational Change, 2001 – 2008, Public Sector, Part Time

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (percent)	Change 2001- 2008 as a percent of net change in net part time employment
Managers and Senior Officials	2.7	1.5	1.5	0.8	-1.2	-44.4	-42.8
Professional Occupations	18.9	10.2	34.4	18.4	15.5	82.9	553.5
Associate Professional and Technical	36.3	19.7	29.9	16.0	-6.4	-17.6	-228.5
Administrative and Secretarial	35.5	19.2	30.4	16.2	-5.1	-14.3	-182.1
Skilled Trades Occupations	2.1	1.1	1.6	0.8	-0.5	-23.8	-17.8
Personal Service Occupations	38.5	20.9	45.6	24.4	7.1	18.4	253.5
Sales and Customer Service Occupations	0.8	0.4	2.8	1.5	2.0	250.0	71.4
Process, Plant and Machine Operatives	1.2	0.6	1.1	0.6	-0.1	-8.3	-3.5
Elementary Occupations	47.7	25.9	39.2	21.0	-8.5	-17.8	-303.5
Total	184.1		186.9		2.8	1.5	

Table 81. Occupational Change, 2001 – 2008, Public Sector, Graduates

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (percent)	Change 2001- 2008 as a percent of net change in total graduate employment
Managers and Senior Officials	9.9	6.0	15.2	7.1	5.3	53.5	11.1
Professional Occupations	97.8	59.4	122.0	57.4	24.2	24.7	50.7
Associate Professional and Technical	39.8	24.1	54.0	25.4	14.2	35.6	29.7
Administrative and Secretarial	11.2	6.8	11.8	5.5	0.6	5.3	1.2
Skilled Trades Occupations	0.3	0.2	1.7	0.8	1.4	466.6	2.9
Personal Service Occupations	3.4	2.0	4.4	2.0	1.0	29.4	2.0
Sales and Customer Service Occupations	0.4	0.2	1.7	0.8	1.3	325.0	2.7
Process, Plant and Machine Operatives	0.4	0.2	0.0	0.0	0.4	100.0	0.8
Elementary Occupations	1.2	0.7	1.2	0.5	0.0	0.0	0.0
Total	164.7		212.4		47.7	28.9	

Table 82. Occupational Change, London, 2001 – 2008: Total

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (Percent)	Change 2001- 2008 as a percent of net change in total employment
Managers and Senior Officials	571.1	16.2	696.8	18.5	125.1	22.0	53.3
Professional Occupations	551.7	15.6	615.2	16.3	63.5	11.5	27.0
Associate Professional and Technical	645.6	18.3	715.8	19.0	70.2	10.8	29.9
Administrative and Secretarial	537.2	15.2	429.8	11.4	-107.4	-19.9	-45.7
Skilled Trades Occupations	260.6	7.4	294.1	7.8	33.5	12.8	14.2
Personal Service Occupations	220.6	6.2	267.5	7.1	46.9	21.2	20.0
Sales and Customer Service Occupations	232.0	6.6	221.3	5.9	-10.7	-4.6	-4.5
Process, Plant and Machine Operatives	161.3	4.5	159.9	4.2	-1.4	-0.8	-0.5
Elementary Occupations	337.7	9.6	351.7	9.3	14.0	4.1	5.9
Total ('000s)	3,518.1		3,752.6		234.5	6.6	

## Notes to Tables:

- 1. Source: Labour Force Surveys, 2001 2008 (second calendar quarter)
- 2. The surveyed population is recorded by usual place of residence. 'London', therefore, refers to those resident within the area associated with this Government Office Region. The results reported here will be different from the occupational classification of those who work in London, because some will commute into London from other Government Office Regions. Equally, a proportion of those resident in 'London' as recorded here will commute out to work in other Government Office Regions.
- 3. Columns 3, 5 and 7 of each table, in principle, sum to '100'. Because of rounding to the first decimal place throughout, they rarely do so. The same practice often means that it is difficult to reconcile exactly the figures in column 8 with some of those in the previous columns.

Table 83. Occupational Change, London, 2001 – 2008: Males

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (Percent)	Change 2001-2008 as a percent of net change in total male employment
Managers and Senior Officials	334.3	20.4	459.4	22.0	125.1	37.4	76.8
Professional Occupations	320.4	16.6	357.6	17.1	37.2	11.6	22.8
Associate Professional and Technical	346.0	17.9	382.6	18.3	36.6	10.5	22.4
Administrative and Secretarial	144.2	7.4	99.3	4.7	-44.9	-31.1	-27.5
Skilled Trades Occupations	240.3	12.4	270.1	12.9	29.8	12.4	18.3
Personal Service Occupations	46.7	2.4	55.1	2.6	8.4	17.9	5.1
Sales and Customer Service Occupations	90.6	4.7	94.0	4.5	3.4	3.7	2.0
Process, Plant and Machine Operatives	138.9	7.2	144.2	6.9	5.3	3.8	3.2
Elementary Occupations	203.7	10.8	225.7	10.8	22.0	10.8	13.5
Total ('000s)	1.925.5		2,088.3		162.8	8.4	

Table 84. Occupational Change, London, 2001 – 2008: Females

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers 000s)	Change 2001- 2008 (Percent)	Change 2001-2008 as a percent of net change in total female employment
Managers and Senior Officials	176.8	11.1	237.3	14.2	60.5	34.2	84.2
Professional Occupations	231.3	14.5	257.5	15.4	26.2	11.3	36.4
Associate Professional and Technical	299.5	18.8	333.2	20.0	33.7	11.2	46.9
Administrative and Secretarial	392.9	24.6	330.5	19.8	-62.4	-15.8	-86.9
Skilled Trades Occupations	20.3	1.2	24.0	1.4	3.7	18.2	5.1
Personal Service Occupations	173.8	10.9	212.4	12.7	38.6	22.2	53.7
Sales and Customer Service Occupations	141.4	8.8	127.2	7.6	-14.2	-10.0	-19.7
Process, Plant and Machine Operatives	22.3	1.4	15.7	0.9	-6.6	-29.5	-9.1
Elementary Occupations	134.0	8.4	126.0	7.5	-8.0	-5.9	-11.1
Total ('000s)	1,592.5		1,664.3		71.8	4.5	

Table 85. Occupational Change, London, 2001 – 2008: Full Time Workers

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001-2008 (Percent)	Change 2001-2008 as a percent of net change in total full time employment
Managers and Senior Officials	533.5	19.1	646.3	21.6	112.8	21.1	54.3
Professional Occupations	472.2	16.9	527.0	17.6	54.8	11.6	26.4
Associate Professional and Technical	551.7	19.8	609.1	20.3	57.4	10.4	27.6
Administrative and Secretarial	396.3	14.2	308.8	10.3	-87.5	-22.0	-42.1
Skilled Trades Occupations	234.5	8.4	265.3	8.8	30.8	13.1	14.8
Personal Service Occupations	138.4	4.9	173.8	5.8	35.4	25.5	17.0
Sales and Customer Service Occupations	116.5	5.1	140.2	4.6	-2.8	-1.9	-1.3
Process, Plant and Machine Operatives	143.0	5.1	140.2	4.6	-2.8	-1.9	-1.3
Elementary Occupations	197.7	7.1	223.0	7.4	25.3	12.7	12.1
Total ('000s)	2,784.3		2,991.8		207.5	7.4	

Table 86. Occupational Change, London, 2001 – 2008: Part Time Workers

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (Percent)	Change 2001-2008 as a percent of net change in total part time employment
Managers and Senior Officials	37.1	5.0	50.5	6.7	13.4	36.1	57.5
Professional Occupations	79.4	10.8	85.4	11.3	6.0	7.5	25.7
Associate Professional and Technical	93.8	12.8	104.8	13.9	11.0	11.7	47.2
Administrative and Secretarial	140.8	19.2	120.3	15.9	-20.5	-15.5	-87.9
Skilled Trades Occupations	25.6	3.5	27.5	3.6	1.9	7.4	8.1
Personal Service Occupations	81.4	11.1	93.6	12.4	12.2	14.9	52.3
Sales and Customer Service Occupations	115.5	15.8	123.4	16.3	7.9	6.8	33.9
Process, Plant and Machine Operatives	17.5	2.4	19.7	2.6	2.2	12.5	9.4
Elementary Occupations	139.5	19.0	128.7	17.0	-10.8	-7.7	-46.3
Total ('000s)	730.9		754.2		23.3	3.1	

Table 87. Occupational Change, London, 2001 – 2008: Graduates

Major Occupation Group (Main Job)	2001 Number ('000s)	2001 Percent	2008 Number ('000s)	2008 Percent	Change 2001 – 2008 (Numbers '000s)	Change 2001- 2008 (Percent)	Change 2001-2008 as a percent of net change in total graduate employment
Managers and Senior Officials	229.1	21.7	328.1	24.4	99.0	43.2	34.3
Professional Occupations	384.8	36.5	443.3	33.0	58.5	15.2	20.2
Associate Professional and Technical	271.2	25.7	360.6	26.9	89.4	32.9	31.0
Administrative and Secretarial	93.9	8.9	96.6	7.2	2.7	2.8	0.9
Skilled Trades Occupations	15.0	1.4	22.8	1.7	7.8	52.0	2.7
Personal Service Occupations	15.8	1.5	32.8	2.4	17.0	107.5	5.8
Sales and Customer Service Occupations	15.7	1.4	24.8	1.8	9.1	57.9	3.1
Process, Plant and Machine Operatives	5.2	0.5	8.5	0.6	3.3	63.4	1.1
Elementary Occupations	20.8	1.9	22.2	1.6	1.4	6.7	0.4
Total ('000s)	1,051.8		1,340.1		288.3	27.4	

Table 88. Occupational Change, 2001 – 2008, Scotland and London: Total

Major Occupation Group (Main Job)	2008 (percent) Change 2001 – 2008 (percent)					net change
	Scotland	London	Scotland	London	Scotland	London
Managers and Senior Officials	13.4	18.5	24.4	22.0	34.1	53.3
Professional Occupations	13.2	16.3	26.4	11.5	35.9	27.0
Associate Professional and Technical	14.9	19.0	23.8	10.8	37.3	29.9
Administrative and Secretarial	10.9	11.4	-10.3	-19.9	-16.3	-45.7
Skilled Trades Occupations	11.0	7.8	-2.2	12.8	-3.3	14.2
Personal Service Occupations	9.1	7.1	35.3	21.2	31.0	20.3
Sales and Customer Service Occupations	8.1	5.9	-0.3	-4.6	-0.4	-4.5
Process, Plant and Machine Operatives	7.2	4.2	-15.6	-0.8	-17.5	-0.5
Elementary Occupations	11.7	9.3	-0.5	4.1	-0.7	5.9
Total ('000s)	2,535.7	3,752.6			195.6	234.5

Footnote to Tables 88 - 93:

The initial Scotland data are taken from Tables 5-10, respectively, and the initial London data from Tables 82-87, respectively.

Table 89. Occupational Change, 2001 – 2008, Scotland and London: Male

<b>Major Occupation Group (Main Job)</b>	2008 (p	2008 (percent) Change 2001 – 2008 (percent)		Change 2001 – 2008 As a percent of net change In total male employment		
	Scotland	London	Scotland	London	Scotland	London
Managers and Senior Officials	16.7	22.0	16.9	37.4	32.0	76.8
Professional Occupations	13.7	17.1	23.6	11.6	34.4	22.8
Associate Professional and Technical	13.5	18.3	21.9	10.5	32.1	22.4
Administrative and Secretarial	3.9	4.7	-16.7	-31.1	-10.5	-27.5
Skilled Trades Occupations	19.5	12.9	-1.4	12.4	-3.7	18.3
Personal Service Occupations	3.1	2.6	51.2	17.9	13.8	5.1
Sales and Customer Service Occupations	5.1	4.5	19.7	3.7	11.1	2.0
Process, Plant and Machine Operatives	12.2	6.9	-7.6	3.8	-13.3	3.2
Elementary Occupations	11.9	10.8	2.6	10.8	4.0	13.5
Total ('000s)	1,326.8	2,088.3			100.9	162.8

Table 90. Occupational Change, 2001 – 2008, Scotland and London: Females

<b>Major Occupation Group (Main Job)</b>	2008 (percent)		Change 20 (perc		Change 2001 – 2008 As a percent of net change In total female employment		
	Scotland	London	Scotland	London	Scotland	London	
Managers and Senior Officials	9.7	14.2	41.3	34.2	36.4	84.2	
Professional Occupations	12.7	15.4	29.8	11.3	37.4	36.4	
Associate Professional and Technical	16.5	20.0	25.6	11.2	43.0	46.9	
Administrative and Secretarial	18.5	19.8	-8.7	-15.8	-22.5	-86.9	
Skilled Trades Occupations	1.7	1.4	-11.5	18.2	-2.9	5.1	
Personal Service Occupations	15.8	12.7	32.2	22.2	49.2	53.7	
Sales and Customer Service Occupations	11.3	7.6	-8.0	-10.0	-12.7	-19.7	
Process, Plant and Machine Operatives	1.8	0.9	-48.3	-29.5	-21.8	-9.1	
Elementary Occupations	11.5	7.5	-3.9	-5.9	-6.0	-11.1	
Total ('000s)	1,208.8	1,664.3			94.7	71.8	

Table 91. Occupational Change, 2001 – 2008, Scotland and London: Full Time

<b>Major Occupation Group (Main Job)</b>	2008 (p	ercent)	Change 2001 – 2008 (percent)		Change 2001 As a percent of	
			феге	ciit)	In total full time	
	Scotland	London	Scotland	London	Scotland	London
Managers and Senior Officials	16.3	21.6	22.8	21.1	40.7	54.3
Professional Occupations	14.8	17.6	21.7	11.6	35.6	26.4
Associate Professional and Technical	15.8	20.3	25.5	10.4	43.2	27.6
Administrative and Secretarial	9.5	10.3	-13.3	-22.0	-19.6	-42.1
Skilled Trades Occupations	13.7	8.8	-4.3	13.1	-8.4	14.8
Personal Service Occupations	7.5	5.8	47.6	25.5	32.6	17.0
Sales and Customer Service Occupations	4.8	4.6	6.3	-1.9	3.8	-1.3
Process, Plant and Machine Operatives	8.9	7.4	-5.2	12.7	-6.1	12.1
Elementary Occupations	8.3	7.4	-5.2	12.7	-6.1	12.1
Total ('000s)	1,908.3	2,991.8			142.3	207.5

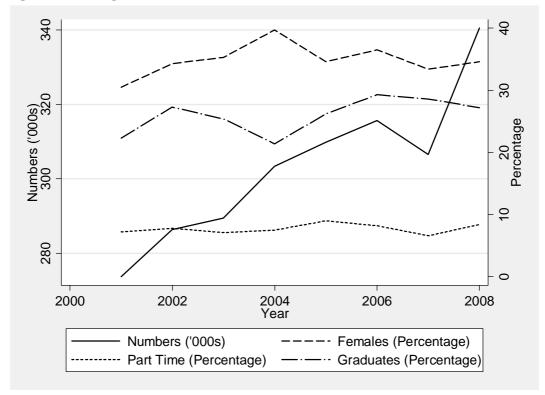
Table 92. Occupational Change, 2001 – 2008, Scotland and London: Part Time

Major Occupation Group (Main Job)	2008 (p	ercent)	<b>Change 2001 – 2008</b>		Change 2001	<b>Change 2001 – 2008</b>		
		(percent)		As a percent of n	et change			
					In total part time e	employment		
	Scotland	London	Scotland	London	Scotland	London		
Managers and Senior Officials	4.5	6.7	44.4	36.1	17.1	57.5		
Professional Occupations	8.3	11.3	59.9	7.5	38.1	25.7		
Associate Professional and Technical	12.3	13.9	16.8	11.7	21.5	47.2		
Administrative and Secretarial	15.2	15.9	-4.6	-15.5	-8.9	-87.9		
Skilled Trades Occupations	2.7	3.6	37.6	7.4	9.1	8.1		
Personal Service Occupations	14.1	12.4	19.1	14.9	27.6	52.3		
Sales and Customer Service Occupations	18.0	16.3	-5.7	6.8	-13.4	33.9		
Process, Plant and Machine Operatives	2.1	2.6	-18.1	12.5	-5.8	9.4		
Elementary Occupations	22.3	17.0	5.3	-7.7	13.8	-46.4		
Total ('000s)	625.4	754.2			51.4	23.3		

Table 93. Occupational Change, 2001 – 2008, Scotland and London: Graduates

Major Occupation Group (Main Job)	2008 (p	<b>2008 (percent)</b> Change <b>2001 – 2008</b>		<b>Change 2001 – 2008</b>		
			(perc	ent)	As a percent of net change	
					In total graduate e	employment
	Scotland	London	Scotland	London	Scotland	London
Managers and Senior Officials	18.1	24.4	51.9	43.2	21.8	34.3
Professional Occupations	42.9	33.0	26.0	15.2	31.1	20.2
Associate Professional and Technical	23.6	26.9	58.3	32.9	30.5	31.0
Administrative and Secretarial	5.2	7.2	23.6	2.8	3.5	0.9
Skilled Trades Occupations	2.0	1.7	20.4	52.0	1.2	2.7
Personal Service Occupations	2.5	2.4	122.0	107.5	4.9	5.8
Sales and Customer Service Occupations	2.5	1.8	56.7	57.9	3.1	3.1
Process, Plant and Machine Operatives	1.1	0.6	57.8	63.4	1.5	1.1
Elementary Occupations	1.7	1.6	59.6	6.7	2.3	0.4
Total ('000s)	511.8	1,340.1			145.7	288.3

Figure 1. Managers and Senior Officials



**Figure 2. Professional Occupations** 

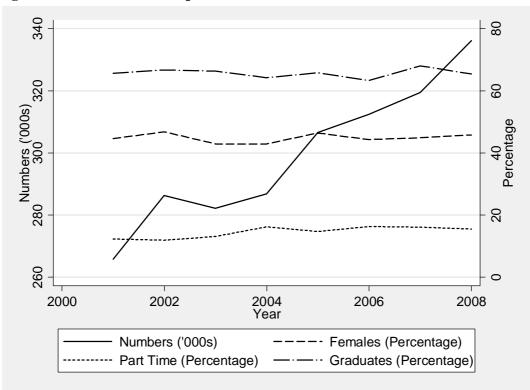


Figure 3. Associate Professional and Technical

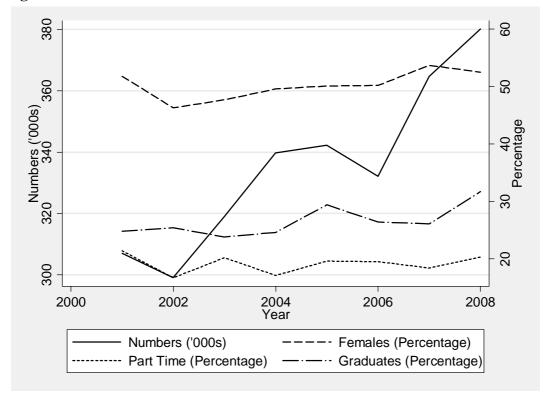


Figure 4. Administrative and Secretarial

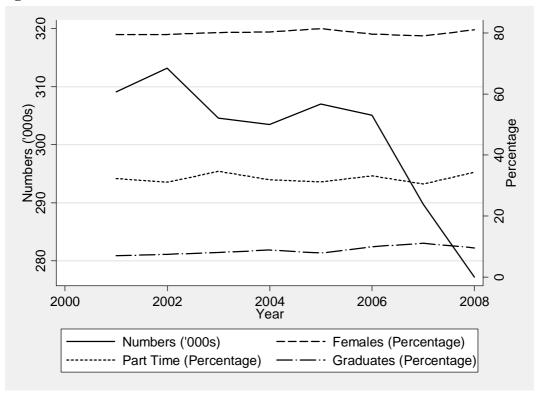
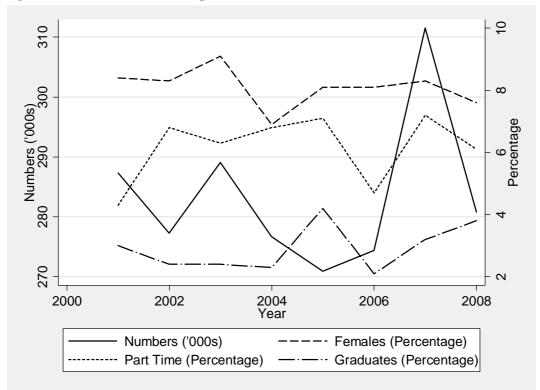


Figure 5. Skilled Trade Occupations



**Figure 6. Personal Service Occupations** 

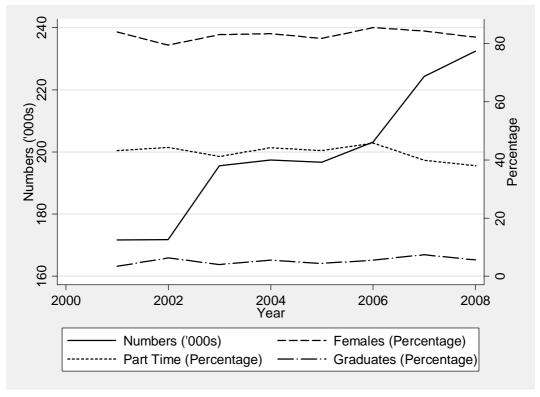


Figure 7. Sales and Customer Service Occupations

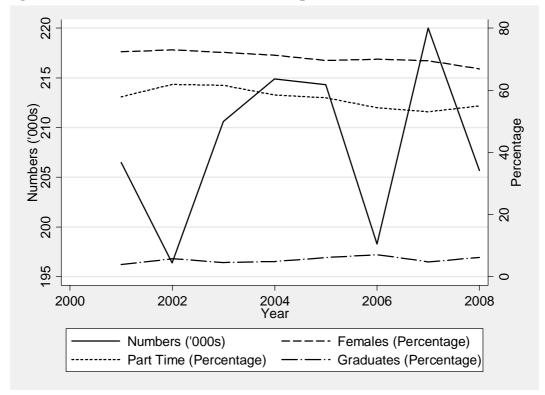


Figure 8. Process, Plant and Machine Operatives

