Comparison of London's employment forecasts by gender

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This current issues note compares employment projections for London by gender and occupation and by gender and sector. The Greater London Authority (GLA)'s projections are compared to those from Cambridge Econometrics, Experian Business Strategies and Oxford Economics Forecasting. This information is provided as part of the GLA's wider programme of research into women in London's economy. This comparison allows a better understanding of the future of women's participation in the labour market.

1. Introduction

In order to project into the future, it is important to consider the past and present. In London in 2003, women's share of total employment was 45 per cent and women had lower employment rates than men. For females in London the employment rate was 62.5 per cent compared to the male employment rate of 75.5 per cent. The employment rate was lower still for women with dependent children, at 42 per cent for women with children aged 0-4 years and 58 per cent for those with children aged 5-10 years.

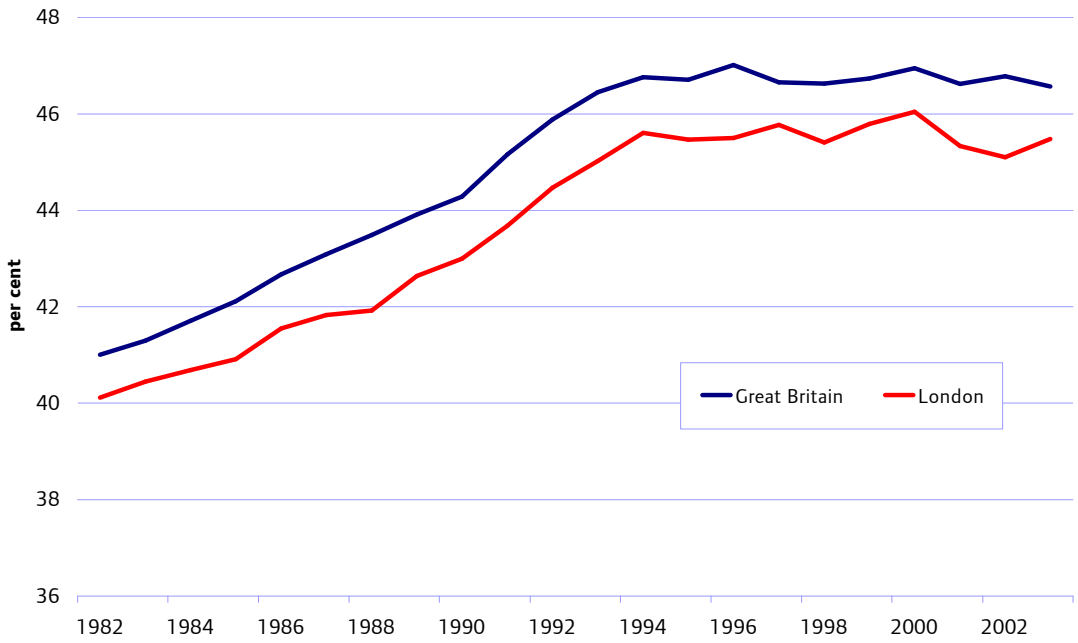
The next section of this note looks at the past trends in women's share of total employment (which *includes* the self employed) and for employees only (which *excludes* the self employed). This note then provides projections of employment in London by gender split, taking into consideration the sector or occupational structure, between 2002-2016.

2. Current trends in employment in London

Figures 2.1 and 2.2 show the proportion of women in employment (this includes employees and the self-employed) and employees only in London and Great Britain. From 1982 (the earliest year for which we have data), women's share in total employment increased strongly through to the mid-1990s, but has since stagnated in both London and Great Britain. Although more women are participating in the labour market in London nowadays compared to the past two decades, the current female participation in the capital remains slightly lower than in Great Britain. In 2003, women's share of total employment in London was 45 per cent compared to 47 per cent in Great Britain.

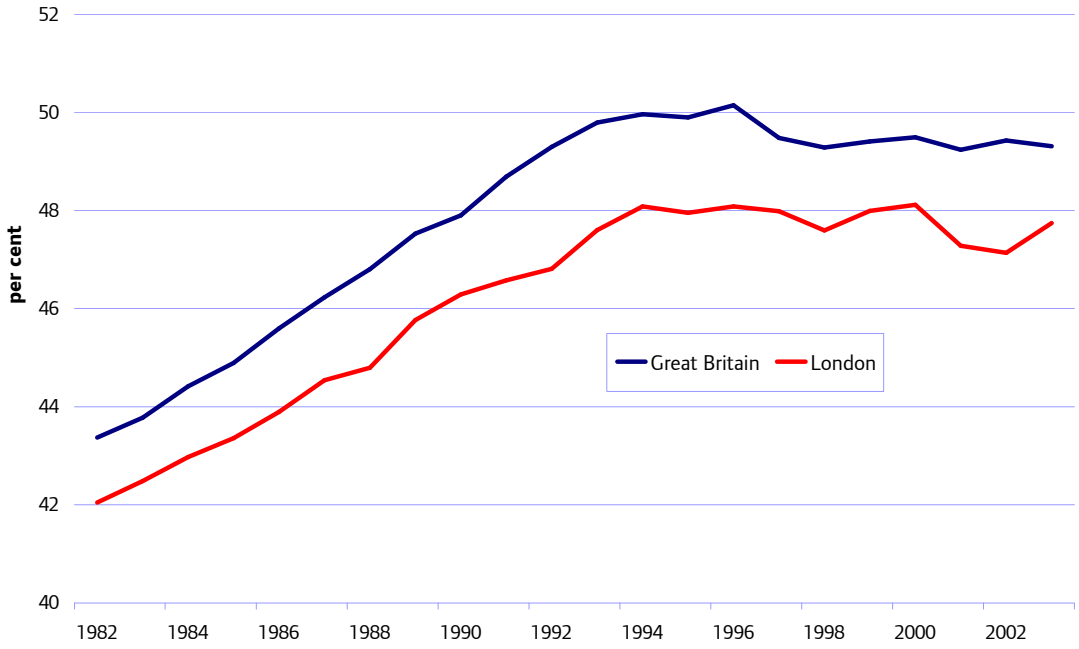
A greater proportion of women participate in London's labour market nowadays than in the early 1980s. Women's share of total number of employees in London was 48 per cent in 2003 (Figure 2.2). There is evidence that since the mid 1990s female participation in the labour market has remained relatively stable at this level, apart from dipping in 2000 when the London's economy slowed down. From 2003, there have been signs of recovery and the women's share of total employees has almost regained the level of its previous peak.

Figure 2.1: Proportion of female employees and self employed in London
1982-2002



Source: GLA Workforce employment series from Experian Business Strategies

Figure 2.2: Proportion of female employees in London
1982-2002



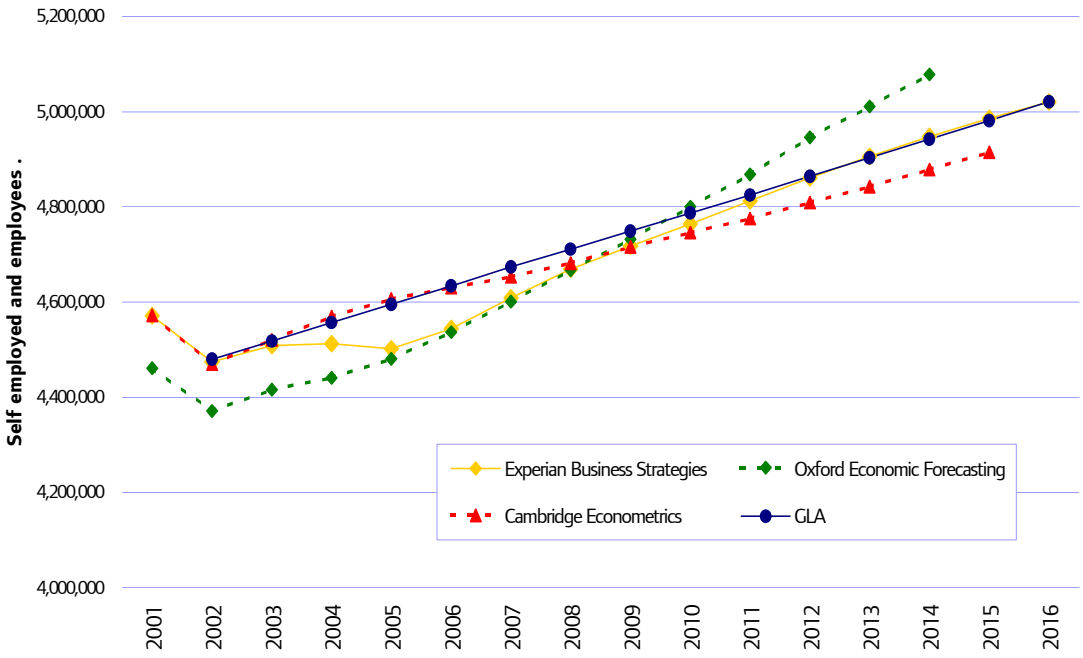
Source: GLA Workforce employment series from Experian Business Strategies

3. Future prospects for women's employment in London

This section compares London employment projections used by the GLA in *The London Plan*[1], and data from external suppliers, namely Experian Business Strategies (EBS), Oxford Economic Forecasting (OEF) and Cambridge Econometrics (CE), from 2001 to 2016. Future prospects for women's employment in the capital by sector or occupation are also assessed.

Figure 3.1 shows that all providers expect employment growth in London between 2002 and 2016. There are only slight variations in the range of employment levels projected. The GLA's *London Plan*'s employment projections and EBS' projections are very similar, particularly from 2012 onwards. CE's projections appear to predict a lower employment level than other providers. Variations in projections are due to differences in the methodology and data sources employed by different suppliers. Appendix A gives a detailed explanation of the methodology used by each of the suppliers.

Figure 3.1: Total employment (employees and self employed) in London



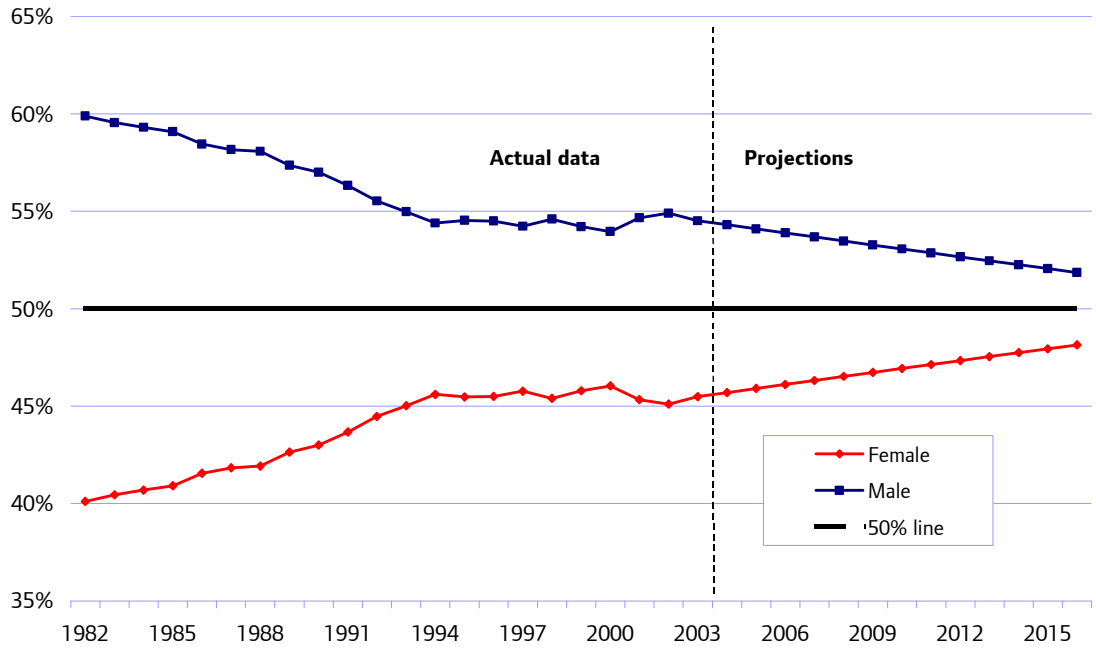
Source: EBS, OEF, CE and GLA

[1] Greater London Authority, 2004,The London Plan - The Mayor's Spatial Development Strategy, GLA: London

Projections of women's share in total employment in London

Figure 3.2 indicates that the future employment prospects for women between 2004 to 2016 are projected to grow. By 2016, women's share of total employment in London is expected to be 48 per cent.

Figure 3.2: Male and female proportion of total employment in London
1982-2003 Actual; 2004-2016 Projection



Source: GLA Economics, 2006, Women at Work… Looking Ahead – London employment projections by gender and sector, GLA: London

Proportion of women by industry in London

This section presents past trends on women's share of total employment in London by industry and projections for 2004 to 2016 using Volterra's projections adopted by the GLA.

By looking at these past trends on women's share of total employment in London we can put into perspective the future employment prospects of women in different industrial sectors.

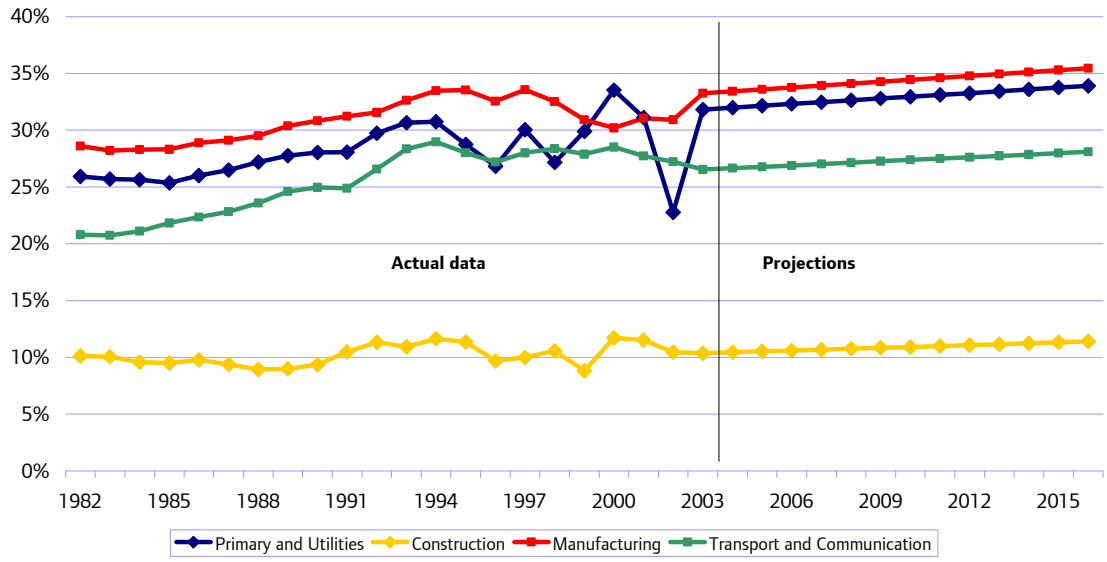
Employment by different industries has been classified into three groups according to the proportion of women/men of total employment in each sector: male-dominated industries; female-dominated industries; and industries with a more equal male/female split.

Historically, women working in London have had a low share of participation in construction (ten per cent); transport and communication (between 21-27 per cent);

primary and utilities (26-32 per cent); and manufacturing (29-33 per cent) sectors (based on 1982 and 2003 figures – see Figure 3.3). Between 2004-2016 there are expected job losses in these sectors for women as the sectors are in overall decline but the female share of employment will marginally increase over this period.

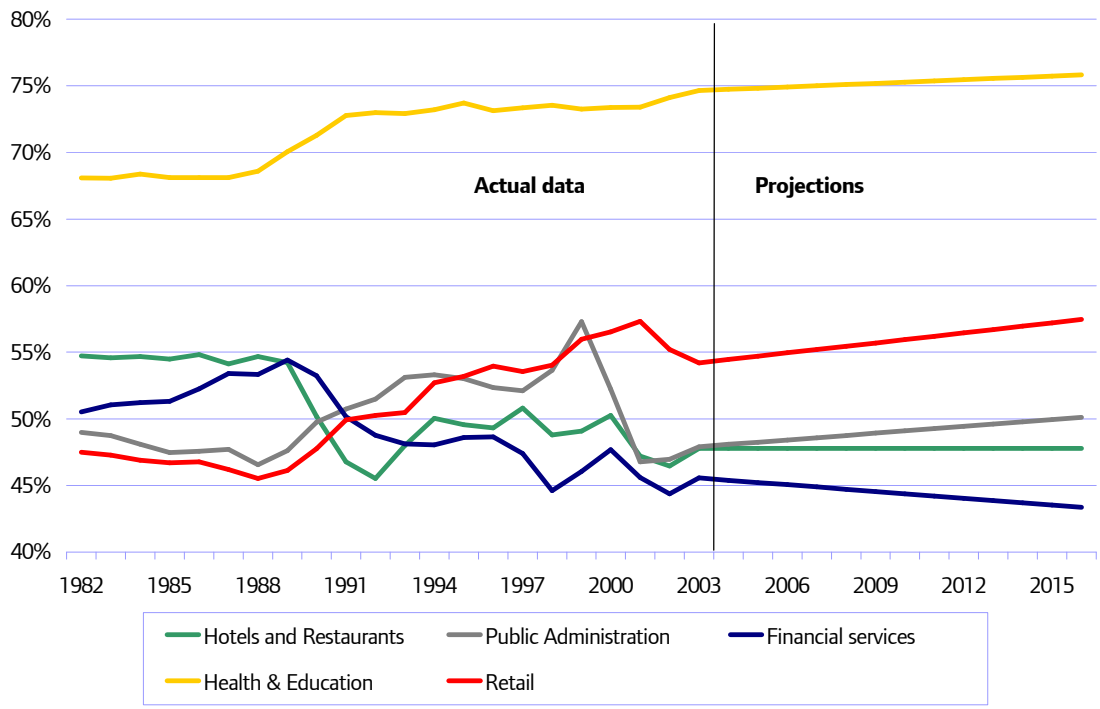
Sectors that have the highest participation of females are shown in Figure 3.4. The health and education sector has increased its female participation from 68 per cent to 75 per cent between 1982 and 2003 and is projected to remain at around this level to 2016. Hotel and restaurants have experienced a decline in the proportion of females from 55 percent to 48 percent for the same time period although further reductions in the proportion of women is not anticipated for this sector. Employment levels in public administration are strongly influenced by policy – the proportion of women working in this sector is projected to slightly increase. The proportion of women working in the retail sector is projected to increase. Of concern however are the projected trends for the finance sector; despite overall growth for this key sector, the proportion of female workers is expected to decline.

Figure 3.3: Female proportion of total employment in male-dominated sectors
1982-2003 Actual; 2004-2016 Projected



Source: GLA Economics, 2006, Women at Work… Looking Ahead – London employment projections by gender and sector, GLA: London

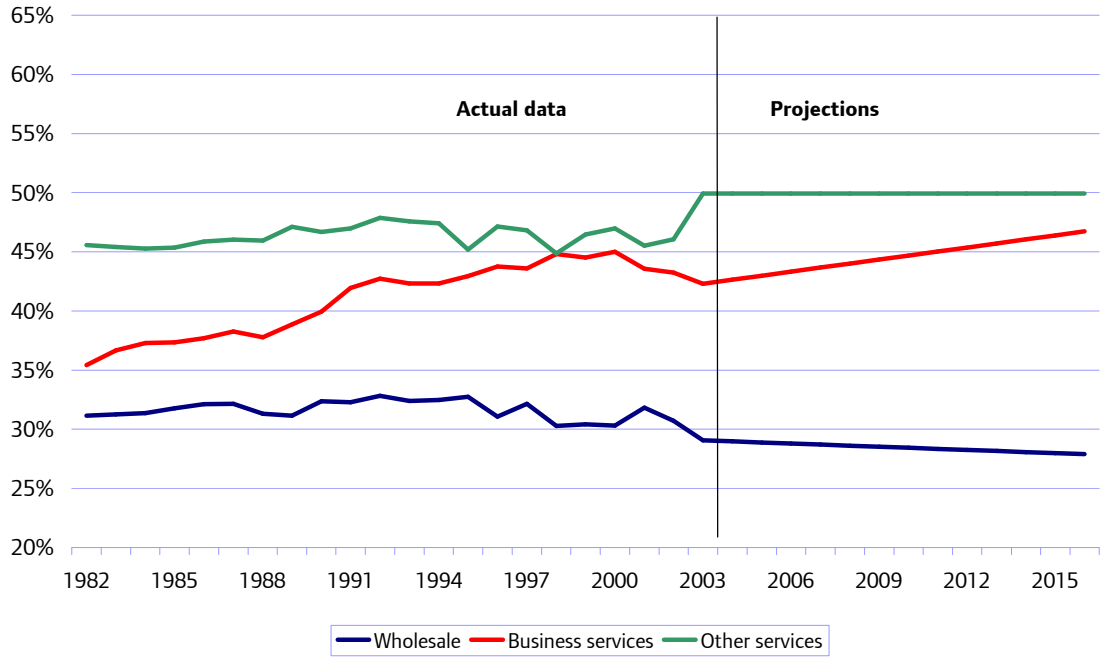
Figure 3.4: Female proportion of total employment in the most female-dominated sectors
1982-2003 Actual; 2004-2016 Projected



Source: GLA Economics, 2006, Women at Work… Looking Ahead – London employment projections by gender and sector, GLA: London

For industries where there is a more even split of the workforce by gender, there is an expected growth in jobs, in particular for business services and other services (see Figure 3.5). Business services is the largest sector in London and is expected to provide an additional 362,900 jobs to 2016 of which 217,100 of these jobs are projected to be taken by women.

Figure 3.5: Projected proportions of females in sectors which have the most evenly male/female split in 2003
1982-2003 Actual; 2004-2016 Projected



Source: GLA Economics, 2006, Women at Work… Looking Ahead – London employment projections by gender and sector, GLA: London

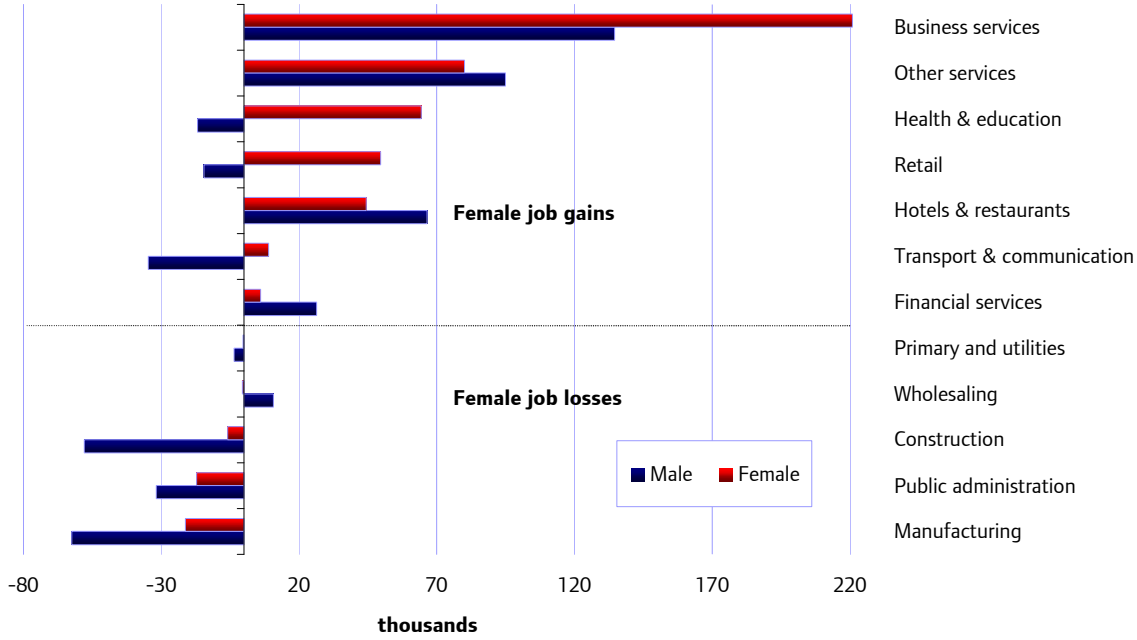
Projections of employment by sector

This section looks at employment projections by sector and gender from three of the previously mentioned suppliers: GLA, EBS, and CE.

GLA employment projections

Figure 3.6 shows the change in employment projections by gender, for 12 sectors in London between 2002-2016. These projections come from the GLA. Based on past trends, future employment prospects for women look optimistic with job gains in sectors such as business and other services. Large female job gains are also expected in health and education, retail, and hotels and restaurants where women already have a relatively high participation. Female job losses are projected for construction, public administration and manufacturing.

Figure 3.6: GLA's employment projections by industry and gender in London
Change between 2002-2016



Source: GLA Economics, 2006, Women at Work… Looking Ahead – London employment projections by gender and sector, GLA: London

Experian Business Strategies Employment Projections

Figure 3.7 displays the change in employment projections, also for 12 sectors in London, between 2002-2016 from EBS. The largest job gains are expected in the business services sector, with around 270,000 new jobs of which nearly 120,000 will be filled by females. The future prospects of women employment is of job creation in most of the 12 sectors apart from manufacturing and wholesale. Other services and health and education are expected to have the second and third largest job gains for women.

Figure 3.7: EBS' employment projections by industry in London
Change between 2002-2016

Source: Experian Business Strategies

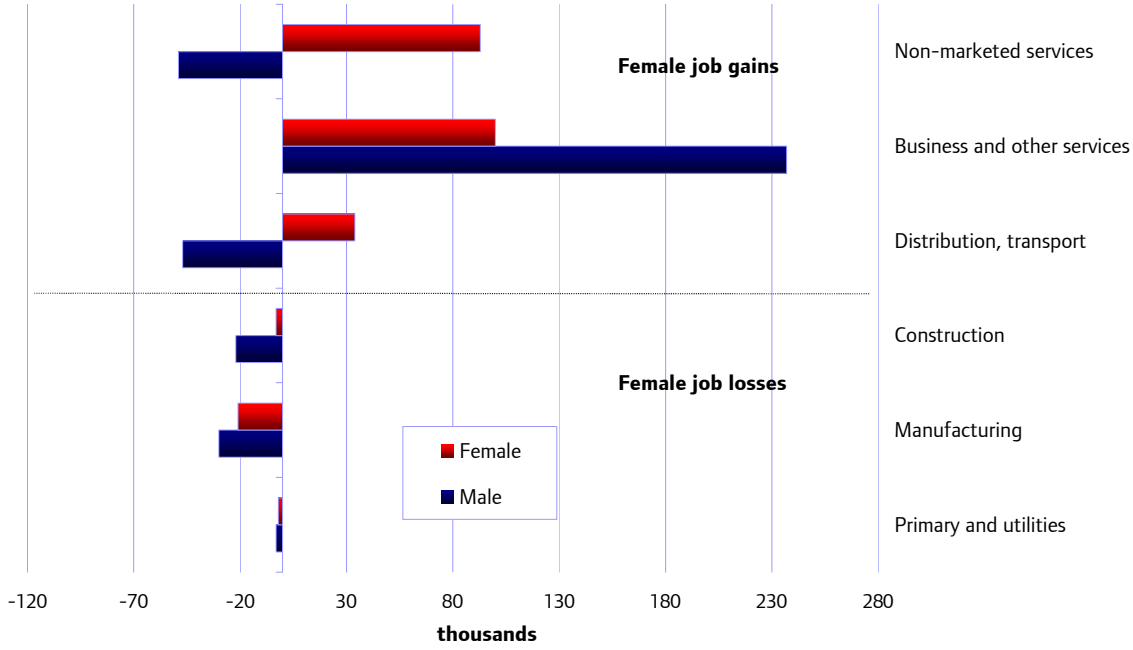
Cambridge Econometrics

Figure 3.8 presents changes in London employment projections between 2002 and 2016 by broad industrial sector from CE. CE use a broader industrial breakdown than other suppliers (see Table 3.1 which compares the CE breakdown with that used by the GLA).

Business and other services is expected to have the largest job gains with an additional 237,000 male jobs and around 100,000 female jobs. Distribution, transport and non-marketed services sectors are expected to also have female job gains. Conversely, construction, manufacturing, and primary and utilities are projected to have fewer jobs for both men and women.

Figure 3.8: Cambridge Econometrics employment projections by industrial sector

Change between 2002-2012



Source: Report by Cambridge Econometrics for employment research, University of Warwick, 2004

Table 3.1: Comparison of classification of industrial sectors

GLA	CE
1. Primary and utilities	As GLA
2. Manufacturing	As GLA
3. Construction	As GLA
4. Wholesale 5. Retail 6. Transport and communications 7. Hotels and restaurants	Distribution and transport
8. Business services 9. Other services 10. Financial services	Business and other services
11. Public administration 12. Health and education	Non-marketed services

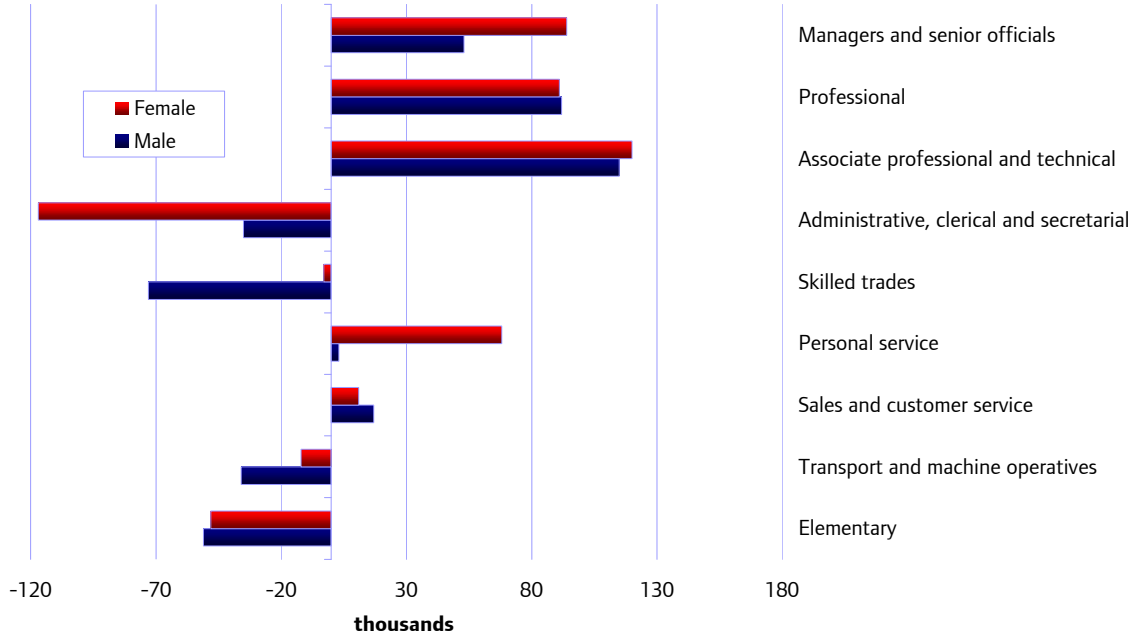
Although there are variations in the change in employment projections between 2002-2016 among different suppliers considered, there is a general consensus that more female jobs will be gained in the business and other services sectors. However, the GLA projects an additional 100,000 female jobs in the business service sector above the EBS projection.

Projections of employment by occupation

Not all the forecasts providers that we considered derive projections of employment by occupation and gender. For this paper we solely consider those given by CE between 2002 and 2012 (see Figure 3.9).

The largest increase is projected to be in associate professional and technical occupations, with an increase of 235,000 jobs of which 120,000 will be filled by women and 115,000 by men.

Figure 3.9: Employment projections by occupation in London
Change between 2002-2012



Source: Report by Cambridge Econometrics for Employment Research, University of Warwick, 2004

The next largest jobs gain will be in professional occupations with 183,000 jobs (91,000 for women and 92,000 for men) over the same period. More modest job gains are expected in occupations such as personal service and sales and customers service. The largest job losses are expected in administrative, clerical and secretarial occupations, in which historically more women participate and where it is projected that around 117,000 female jobs will be lost. Overall, CE projects a higher increase in female employment in top occupations such as managers and senior officials, professional, and associate professional and technical, in comparison to men. Also CE's employment projections indicate there will be fewer job losses by women in occupations such as transport and machine operatives, and elementary which tend towards the lower end of the pay spectrum.

4. Conclusions

This note has identified that future employment prospects for women in London for the next decade are projected to grow. Based on employment projections for 2004-2016, it is projected that women will take seven-out-of-ten of the 558,000 net additional jobs that will be created in London.

The job gains for women are expected not only to be in those sectors where women are over-represented, but also where they have a low participation. A chief concern however is in financial services, an important sector for London, where over time women have been participating less with this trend expected to continue up to 2016.

Employment projections by occupation for 2002-2016 indicate also positive prospects for women in the capital. More increases in women jobs are expected to be in professional occupations that are better-paid occupations than in those at the lower end of the pay spectrum.

Appendix A: Description of the main features of the projection providers

Volterra (GLA)

The Volterra model is based on standard models of economic growth. Trends in the level of employment per unit of output are projected. This provides the level of demand for labour that would be associated with the level of output implied by the growth rate in the absence of any constraints. The absence of constraints implies that the level of employment which workers are willing to offer equals the potential labour demand. The model requires the assumption of a certain sustainable medium-term growth rate for the London economy. This model does not take into account any transport capacity constraints that could affect potential demand for labour in central London.

The same technique used for projecting total London employment is used to project employment broken down to the sector level. They considered twelve major industrial sectors. [2]

The technique for splitting this employment growth by gender involves projecting forward the trends surrounding the proportion of each sector which has been female. These trends are then applied to employment by sector to give a gender split of employment growth by sector.

Cambridge Econometrics

CE developed a multi-sector model of the UK economy (MDM), which is based on an accounting matrix framework. The CE model relates the derived demand for labour (employment) to the prospects for output growth in each sector and region.[3]

CE calculates employment at each region, treating this as a demand for labour derived from the regional demand for good and services. So, employment in each region is estimated relating employment in each industry to its output in the region, to wage rates in the region relative to output prices and to national variables. CE uses 67 industries to do their projections, but generally present using more aggregate groups.[4]

Experian Business Strategies

The EBS framework is based on various models such as the Long-Term Regional model, which determines long-term employment and productivity levels, and the London Impact model. The labour demand is a function of the current industrial structure of employment weighted for long-term (national) growth prospects, the qualifications of the workforce and accessibility to major airports. Labour supply depends on migration.

[2] GLA Economics, 2006, Working Paper 14: Working London - Employment projections for London by sector

[3] Institute of Employment Research of Warwick, 2004, Working Futures: Regional Report 2003-04, Annex A- Sources and Methods

[4] Cambridge Econometrics, 2005, Regional Economic Prospects: Analysis and Forecasts to the Year 2015 for the Regions of the UK

Oxford Economic Forecasting

The OEF multi-regional forecasting model is by regions as defined by the Government Office. Regional output growth for each sector is projected by applying forecast employment to projected UK productivity in each sector. The relatively regional productivity is calculated from historical data.

Table A1: Summary of projection models

	Industry	Occupation	Geography	Employment
Cambridge Econometrics (CE)	67 industries based on the 1992 Standard Industrial Classification (SIC)	Up to 25 sub major groups from the 2000 Standard Occupation Classification (SOC)	Their model is derived for the UK Government Office Regions of England, Wales, Scotland and Northern Ireland	Regional employment is estimated in terms of its output in the region, wage rates and
Experian Business Strategies (EBS)	Their regional quarterly model considers 10 industries. But EBS has sub-models up to 30 industries	Produce standard estimates and forecasts of employment by occupation	Considered the Government Office Regions and for London boroughs	Produce both workplace and residence based employment
Oxford Economic Forecasting (OEF)	26 industries based on the 1992 Standard Industrial Classification (SIC)	Produce forecasts of employment by occupation at 1-digit SOC level	Considered 13 Government Office Regions in the UK	Produce workplace employment
Volterra (GLA's London Plan)	Original model produced 12 sectors	Not Available	London and at borough level	Employment is calculated from derived demand estimating a productivity trend and considering a medium term rate of growth of 2.5 per cent

Source: Regional Economic Prospects: Cambridge Econometrics, Oxford Economic Forecast.

Acronyms

CE	Cambridge Econometrics
EBS	Experian Business Strategies
GLA	Greater London Authority
OEF	Oxford Economic Forecasting
SIC	Standard Industrial Classification
SOC	Standard Occupation Classification
UK	United Kingdom