Women in the IT & Telecoms Workforce

October 2011

The IT & Telecoms workforce

IT and Telecoms is central to the UK economy and a key source of competitiveness for all sectors. The UK’s IT & Telecoms industry produces an annual GVA of £81 billion, 9% of the total UK economy.

People working in IT and Telecoms professional occupations account for just over 1.1 million of the UK’s total workforce (just under 29 million). Whilst employment in IT professional occupations has consistently grown in the last decade and is forecast to grow by 1.42% over the next decade, the representation of females within IT and Telecoms occupations has steadily declined. This stems from low female representation levels in IT related subjects in both Secondary and Higher Education.

Women in the IT & Telecoms workforce

Although women account for 46% of the UK labour force, they make up just 17% of IT and Telecoms professionals. Figure 1, below, indicates that, although there has been some fluctuation over the past 10 years in the proportion of women working in an IT & Telecoms professional occupation, the trend is showing a falling percentage.

Females as a percentage of all IT & Telecoms occupations

![Graph showing the percentage of females in IT & Telecoms occupations from 2001 to 2010](image)

Figure 1

Source: e-skills analysis of data from the ONS Labour Force Survey 2001 to 2010 (Q.4)

Figure 2 shows that nearly one in five (19%) ICT managerial positions are occupied by females. IT Strategy and Planning professionals are also seldom female, with 89% being male. Females appear more frequently in the seemingly less influential/leadership roles with 57% of Database Assistants and Clerks and 23% of IT Operations Technicians being female.

Higher Education choices

Across all subjects in Higher Education, females account for 56% of applicants and 45% of acceptances. By stark contrast, in Computer Science / IT related subjects, females make up just 14% of applicants and 16% of acceptances.

Figure 3 shows that females account for just 19% of qualifiers from Computer Science / IT related courses. Since 2004 the gap between the genders has widened by 10 percentage points. The number of female qualifiers has fallen by 38% over this time period, 25 percentage points more than the fall in the number of male qualifiers from Computer Science / IT related courses.

![Graph showing the trend in the percentage of female qualifiers in Computer Science / IT related courses from 2001 to 2010](image)

Figure 2

Source: e-skills analysis of data from the ONS Labour Force Survey (2010 Q.4)

Note: Excluding Telecoms Engineers, Line Repairers & Cable Jointers and Computer Engineers due to small sample.

In October 2011 e-skills, in collaboration with the UK’s Sector Skills Council, the IT Strategy and Planning Skills Council and the University and College Union, launched the UK’s first Business Case for Diversity in the IT & Telecoms workforce. The case highlights the benefits of having a diverse workforce and the resulting business opportunities.

Regional analysis

Regionally, females account for the lowest number (165) of Computing degree qualifiers from Higher Education Institutions in Northern Ireland but the greatest proportion, where just over one in four (28%) are female (figure 4). London has the largest number of females qualifying in a Computing degree (1,330).

![Graph showing the number of female Computing degree qualifiers by region for 2010](image)

Figure 3

Source: e-skills analysis of HESA qualifiers data 2004-2010

1 Based on SIC Codes 61 and 62

2 Source: e-skills UK analysis of UCAS Applicants and Accepts data 2010
Gender divide narrows at GCSE level

Figure 5 shows that the gender divide in terms of those taking an ICT GCSE in the UK\(^3\) has narrowed since 2004. However, it is important to recognise that the total number of ICT GCSEs taken has declined over the same time period, from 244,835 in 2004 to 80,440 in 2011, a decline of 67% overall.

Regional breakdown

Table 1 illustrates that there are approximately four males to every one female IT & Telecoms professional. The highest proportion of females (24%) is found in Yorkshire and Humber. By contrast, the South East has the lowest proportion at 11%.

But widens at A-Level

Males account for 92% of those taking Computing A-Level\(^4\) and females just 8% with this gap having widened by eight percentage points since 2004 (figure 6). The gender gap is not as great for ICT A-Level with 61% being male and 39% female.

In terms of total numbers taking Computing and ICT A-Level, it is a similar story of decline as for GCSE numbers. Since 2004 there has been a 53% reduction in overall numbers taking Computing A-Level and a 26% decline in ICT A-Level. In 2011 just 300 females took the Computing A-Level and only 4,680 took the ICT A-Level.

Regional breakdown

Table 1

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage of females in IT &amp; Telecoms occupations</th>
<th>Percentage of females in all occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>North East</td>
<td>14%</td>
<td>47%</td>
</tr>
<tr>
<td>North West</td>
<td>17%</td>
<td>47%</td>
</tr>
<tr>
<td>Yorkshire &amp; Humber</td>
<td>24%</td>
<td>47%</td>
</tr>
<tr>
<td>East Midlands</td>
<td>15%</td>
<td>46%</td>
</tr>
<tr>
<td>West Midlands</td>
<td>18%</td>
<td>47%</td>
</tr>
<tr>
<td>East of England</td>
<td>19%</td>
<td>46%</td>
</tr>
<tr>
<td>London</td>
<td>18%</td>
<td>42%</td>
</tr>
<tr>
<td>South East</td>
<td>11%</td>
<td>48%</td>
</tr>
<tr>
<td>South West</td>
<td>17%</td>
<td>47%</td>
</tr>
<tr>
<td>Wales</td>
<td>17%</td>
<td>47%</td>
</tr>
<tr>
<td>Scotland</td>
<td>18%</td>
<td>49%</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>23%</td>
<td>47%</td>
</tr>
<tr>
<td>Total</td>
<td>17%</td>
<td>46%</td>
</tr>
</tbody>
</table>

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There is a distinction between Computing A-Level, which is more specialised and more closely related to Computer Science at HE level (although not necessarily seen as an entry route by HEIs) and ICT A-Level, which tends to be broader and more application based.