



Australian Government
Department of Education, Employment
and Workplace Relations



Employment Outlook for Professional, Scientific and Technical Services



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Introduction

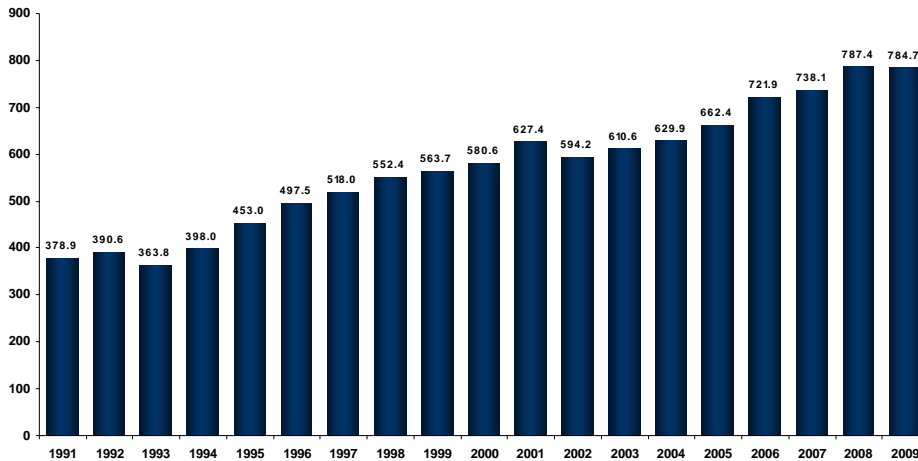
Professional, Scientific and Technical Services is the sixth largest employing industry in Australia, employing 784 700 workers (or 7.3 per cent of the total workforce) as at February 2009. The industry is divided into nine sectors: Legal and Accounting Services; Architectural, Engineering and Technical Services; Computer System Design; Management and Related Consulting; Advertising Services; Scientific Research Services; Market Research and Statistical Services; Veterinary Services; and Other Professional, Scientific and Technical Services.

The discussion below focuses on employment characteristics, trends and prospects in the Professional, Scientific and Technical Services industry, and highlights sectors where job growth is strongest. The analysis of characteristics includes workforce ageing, employment share by gender, educational profile, weekly earnings, average hours worked, regional and occupational employment.

Employment Growth

Despite a slight drop over the year to February 2009, employment in the Professional, Scientific and Technical Services industry has shown strong growth over the past decade (see Figure 1). In the 10 years to February 2009, employment in the industry rose by 221 100 to 784 700. This represents an average annual growth rate of 3.4 per cent.

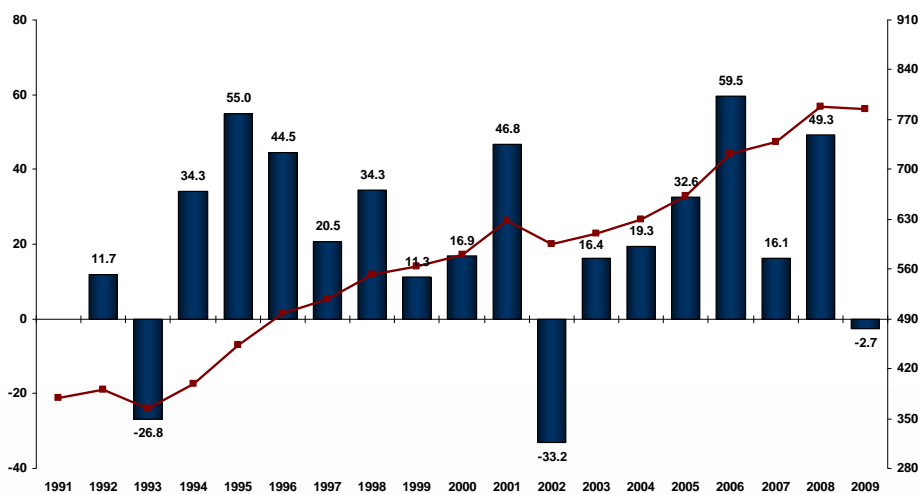
Figure 1: Employment Level ('000s) - February 1991 to February 2009



Source: ABS Labour Force Survey (DEEWR trend data)

While long-term job growth in the Professional, Scientific and Technical Services industry has been strong, annual employment changes highlight the consistent employment growth in the industry (see Figure 2). Between 2003 and 2008, the industry experienced six successive years of employment gains. Employment in Professional, Scientific and Technical Services is influenced not only by international economic and geopolitical factors, but is also sensitive to business profitability and investment in Australia.

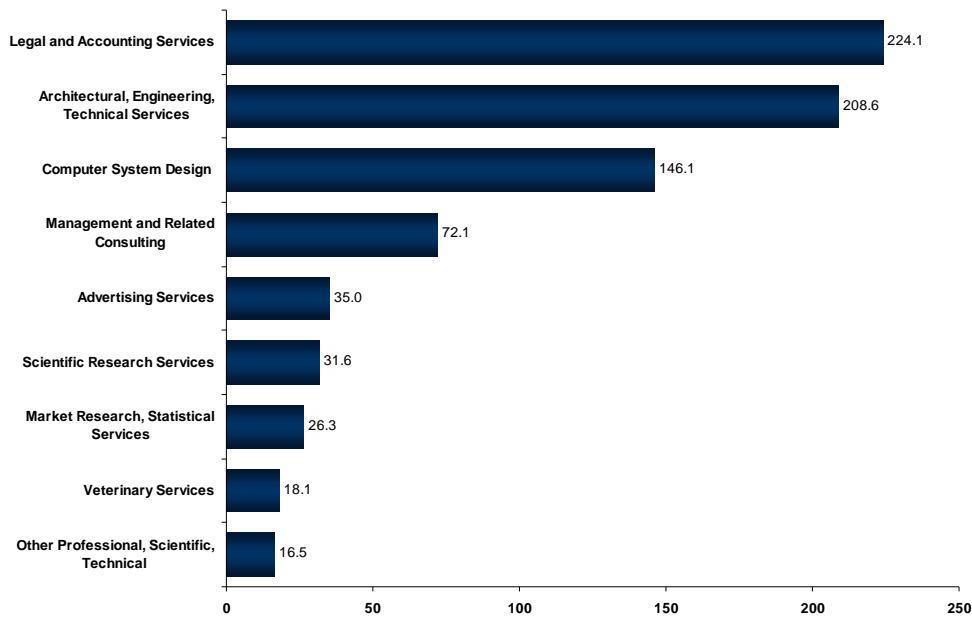
Figure 2: Employment Level (line RHS) and Annual Change ('000s) (cols LHS) year to February 2009



Source: ABS Labour Force Survey (DEEWR trend data)

When employment in the Professional, Scientific and Technical Services industry is broken down into sectors, the main contributors to employment can be identified. Legal and Accounting Services is the largest sector in the Professional, Scientific and Technical Services industry, accounting for more than one quarter (28.6 per cent) of industry employment or 224 100 workers as at February 2009 (see Figure 3). Architectural, Engineering and Technical Services is the second largest source of employment, employing 208 600 workers (or 26.6 per cent). A relatively low proportion of employees was employed in Other Professional, Scientific and Technical Services (16 500 workers or 2.1 per cent) and Veterinary Services (18 100 workers or 2.3 per cent).

**Figure 3: Professional, Scientific and Technical Services Sectors - Employment Level ('000s)
February 2009**



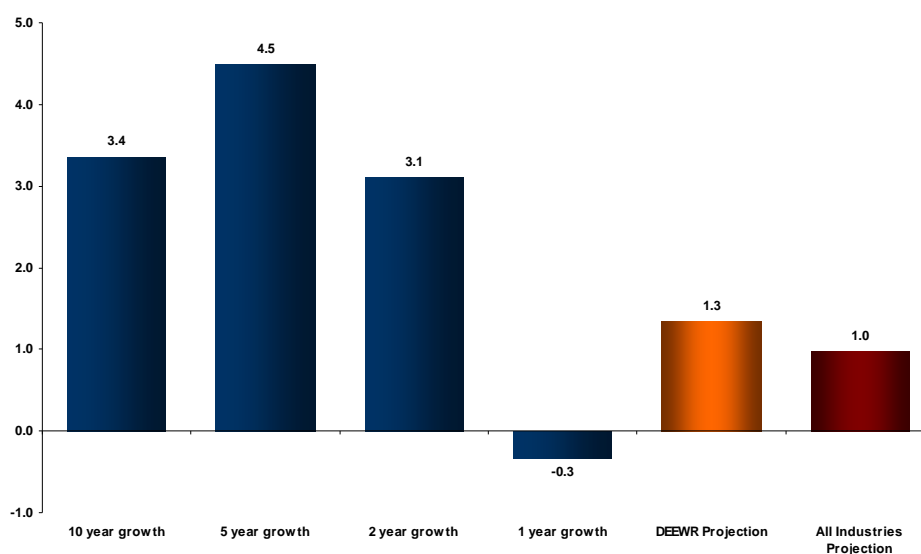
Source: ABS Labour Force Survey (DEEWR trend data)

Employment Prospects

The Department of Education, Employment and Workplace Relations (DEEWR) prepares annual updates of employment projections for industries for the next five years. These are based in part on the Monash model developed by the Centre of Policy Studies at Monash University, but also take into account recent employment trends and prospective industry developments. It should be noted that a certain degree of uncertainty is attached to these employment projections.

In the five years to 2013-14, DEEWR has projected employment in the Professional, Scientific and Technical Services industry to grow at an average rate of 1.3 per cent per annum (see Figure 4). This compares with an average annual growth rate of 1.0 per cent for all industries over the same period.

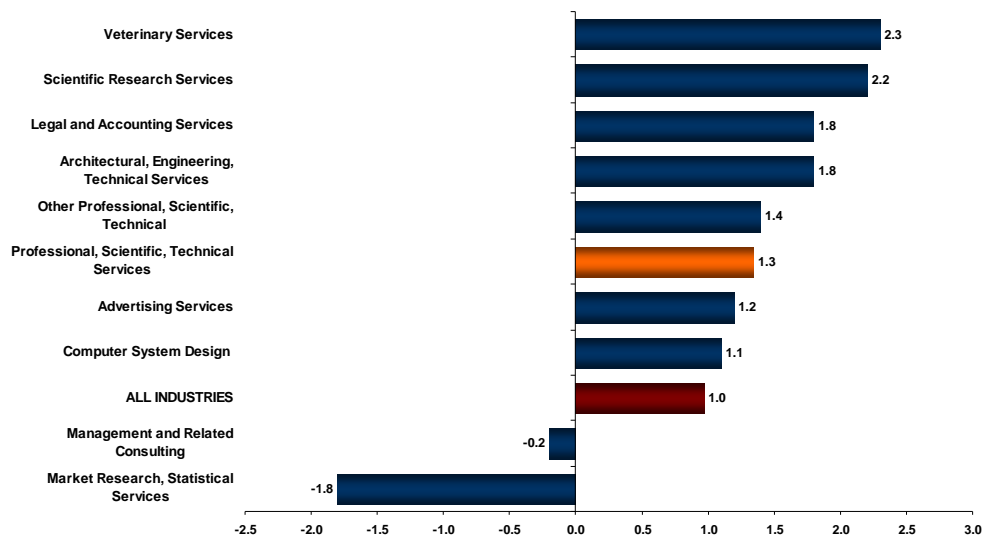
Figure 4: Recent and Projected Employment Growth (% pa) – to February 2009 (past) and 5 years to 2013-2014 (projected)



Source: ABS Labour Force Survey (DEEWR trend data); DEEWR projections

Employment growth is expected to vary across the nine specific Professional, Scientific and Technical Services sectors (see Figure 5). Veterinary Services is projected to have the strongest employment growth (up by 2.3 per cent per annum), followed by Scientific Research Services (2.2 per cent), Legal and Accounting Services and Architectural, Engineering and Technical Services (both 1.8 per cent). Other Professional, Scientific and Technical Services (1.4 per cent) are also forecast to grow at a faster rate than the industry as a whole. Market Research and Statistical Services and Management and Related Consulting are expected to contract over the five years to 2013-2014 (by 1.8 per cent and 0.2 per cent respectively).

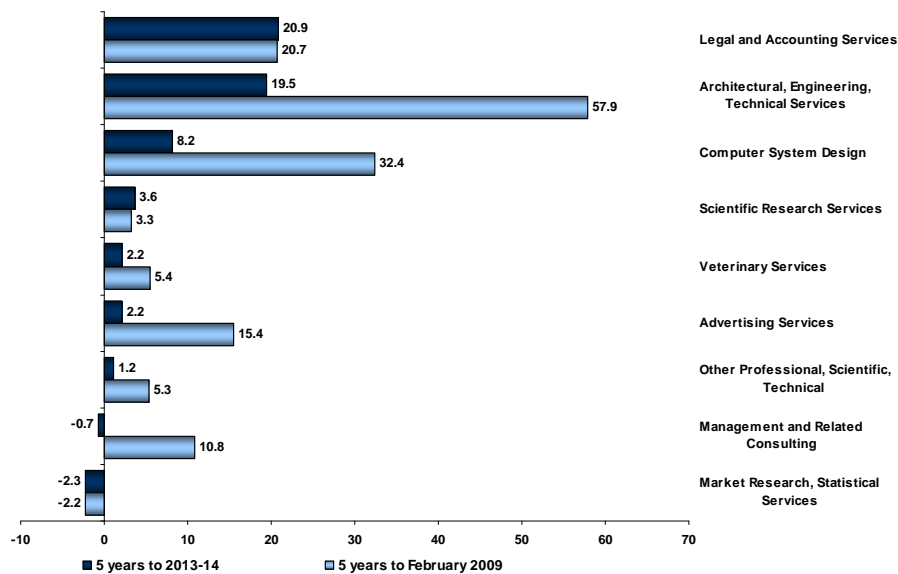
Figure 5: Professional, Scientific and Technical Services Sectors - Projected Employment Growth (% pa) to 2013-2014



Source: DEEWR projections

In the five years to February 2009, Architectural, Engineering and Technical Services experienced the largest employment gain (57 900 new jobs, see Figure 6), followed by Computer System Design (32 400) and Advertising Services (15 400). Employment fell for Market Research and Statistical Services (down by 2200) over the same time period. In the five years to 2013-14, the largest number of job gains is expected to occur in Legal and Accounting Services (up by 20 900), closely followed by Architectural, Engineering and Technical Services (19 500) and Computer System Design (8200).

Figure 6: Professional, Scientific and Technical Services Sectors - Recent and Future Employment Growth ('000) - 5 years to February 2009 (past) and to 2013-14 (projected)

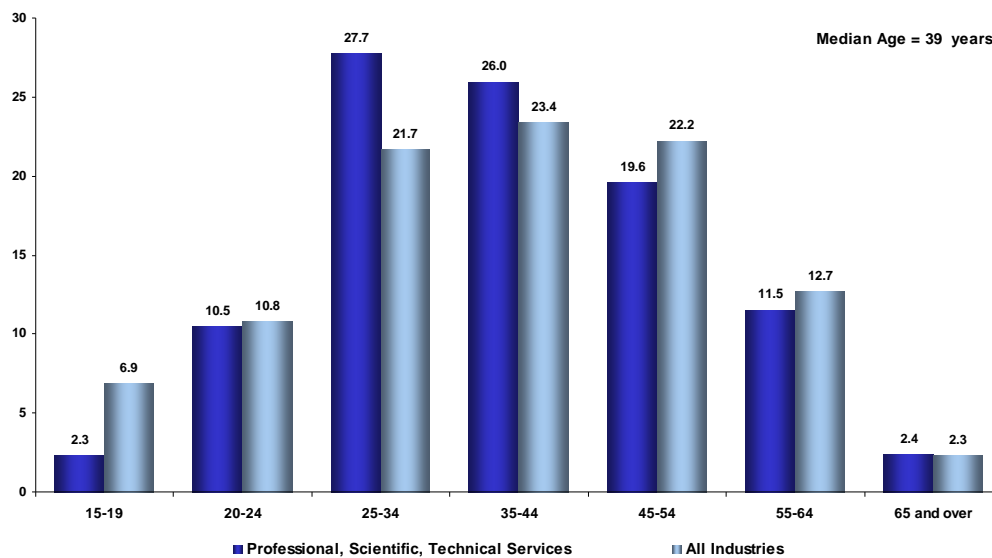


Source: ABS Labour Force Survey (DEEWR trend data); DEEWR projections

Workforce Ageing

Compared with other industries, the Professional, Scientific and Technical Services industry has a relatively young workforce, with an above average share of 'prime age' workers (25 to 44 years). Over half (53.7 per cent) of the Professional, Scientific and Technical Services workforce is aged between 25 to 44 years, compared with 45.1 per cent for all industries (see Figure 7).

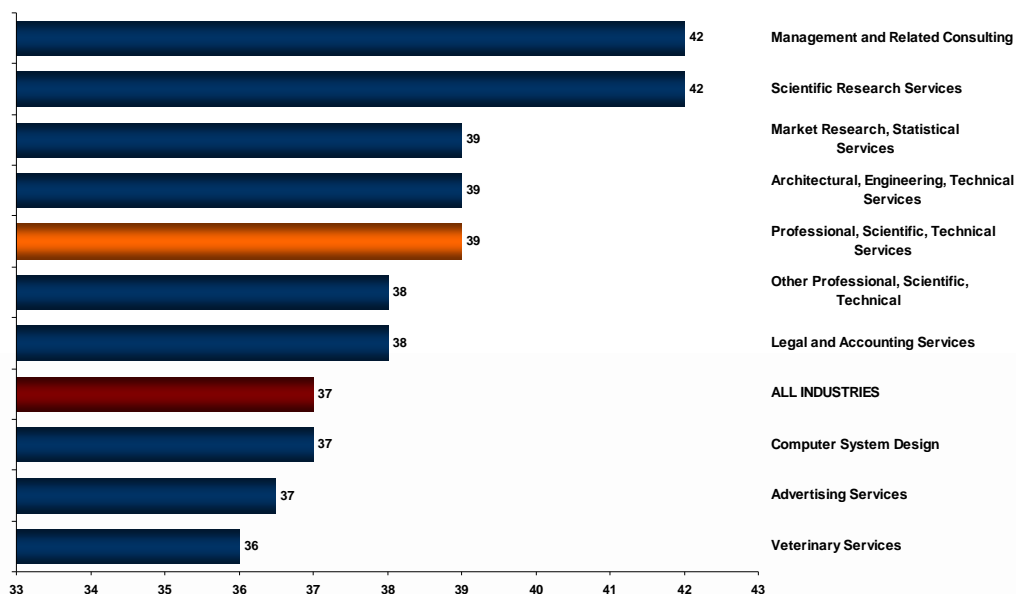
Figure 7: Employed Persons by Age compared with All Industries (% share of employment) - 2008



Source: ABS Labour Force Survey

In 2008, the median age of workers in Professional, Scientific and Technical Services was 39 years. This compares with a median age of 37 years for all industries (see Figure 8). There was some variation in the median age across sectors in the industry, ranging from 42 years for both Management and Related Consulting and Scientific Research Services, down to 36 years for Veterinary Services.

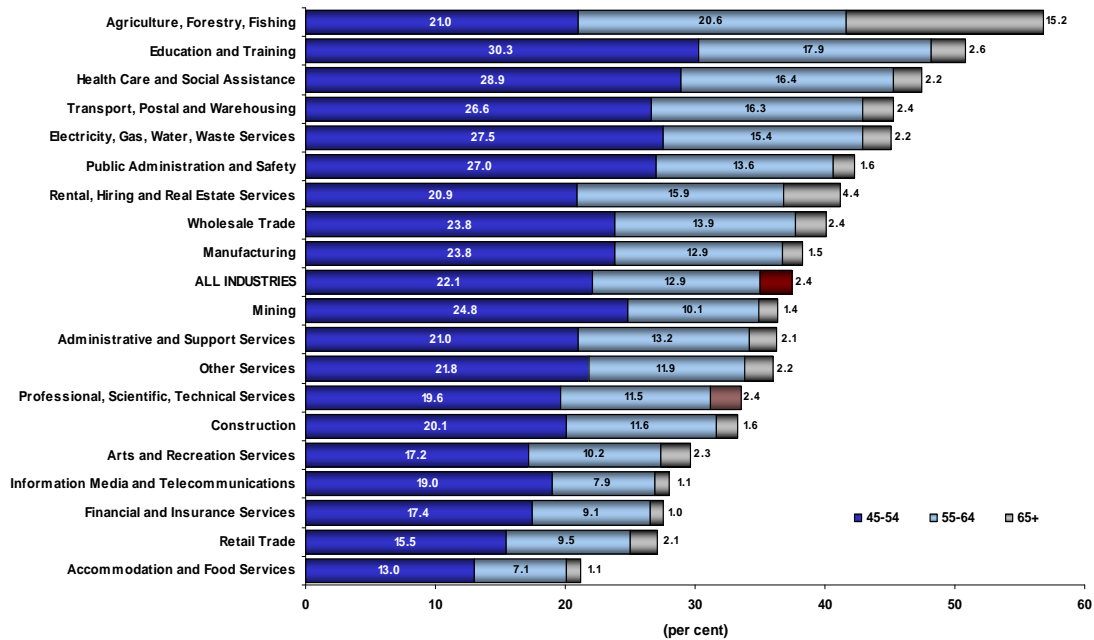
Figure 8: Professional, Scientific and Technical Services Sectors - Median Age (years) - 2008



Source: ABS Labour Force Survey

In 2008, about a third (33.5 per cent) of workers in Professional, Scientific and Technical Services were aged 45 years and over, which was comparable with the share of mature age workers for all industries (37.4 per cent, see Figure 9).

Figure 9: Mature Age Workers (45+ years) - % share of employment - 2008



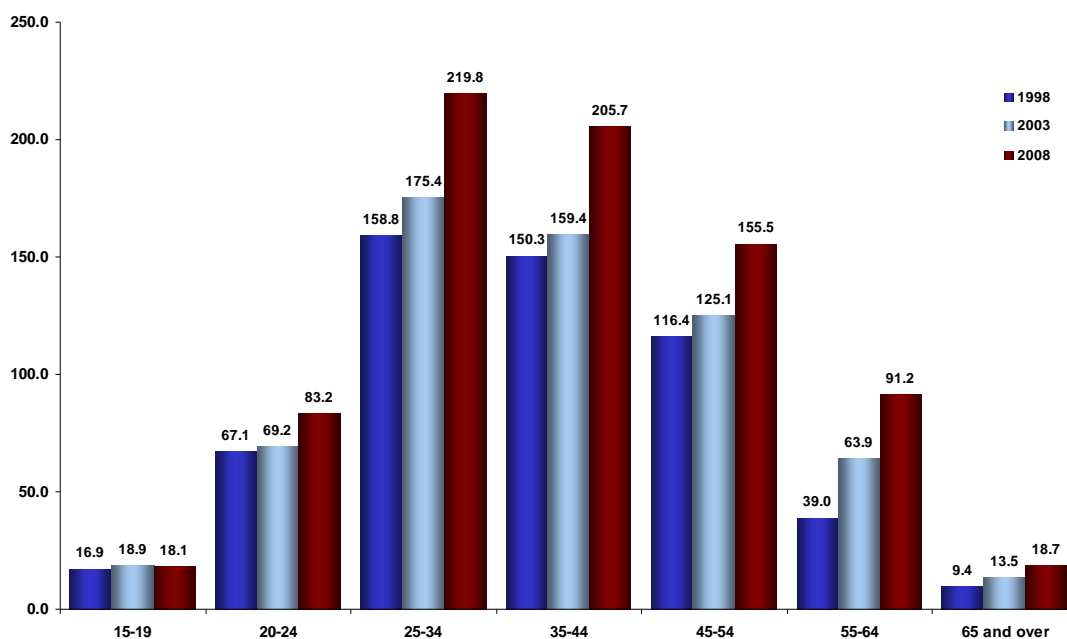
Source: ABS Labour Force Survey

Figure 10 shows employment in the industry by age group for three calendar years: 1998, 2003 and 2008. This provides a guide to changes in the employment mix by age group.

As the Australian workforce experiences an increase in the median age of the population, it is important that there is a supply of prime age and mature age workers entering the workforce.

In response to the strong growth in employment, there has been an increase of workers in the Professional, Scientific and Technical Services industry in all age groups over the past decade (see Figure 10). Workers aged between 25 and 34 years experienced the largest employment growth in the 10 years to 2008 (up by 61 000), followed by workers aged 35 to 44 years (55 400). Over the same period, workers aged 55 to 64 years also experienced strong growth (up by 52 200).

Figure 10: Employed persons by age ('000s) - 1998, 2003, 2008

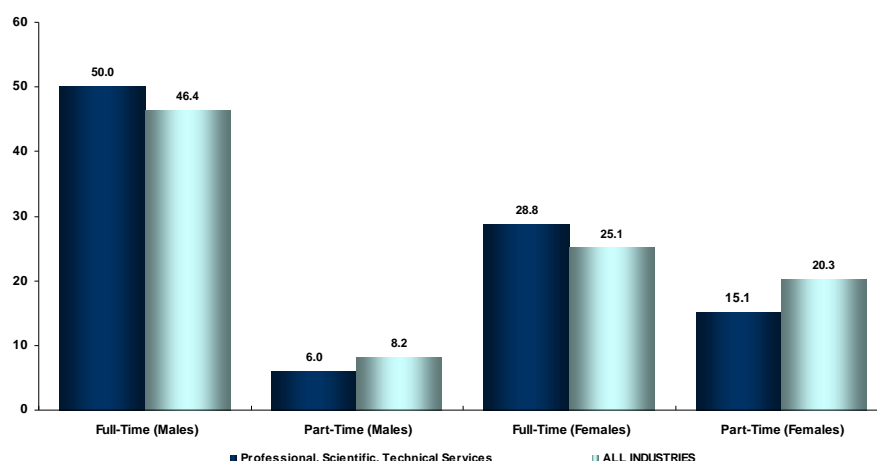


Source: ABS Labour Force Survey

Employment by Gender and Full-time/Part-time

Employment in the Professional, Scientific and Technical Services industry is relatively evenly split by gender, with males accounting for 56.0 per cent of industry employment, compared with 54.6 per cent of male workers in all industries (see Figure 11). Workers in Professional, Scientific and Technical Services are generally employed on a full-time basis, with 78.8 per cent of the industry workforce working full-time compared with the all industries average of 71.5 per cent. Full-time employment is also higher for females in the industry (28.8 per cent) than for females in all industries (25.1 per cent).

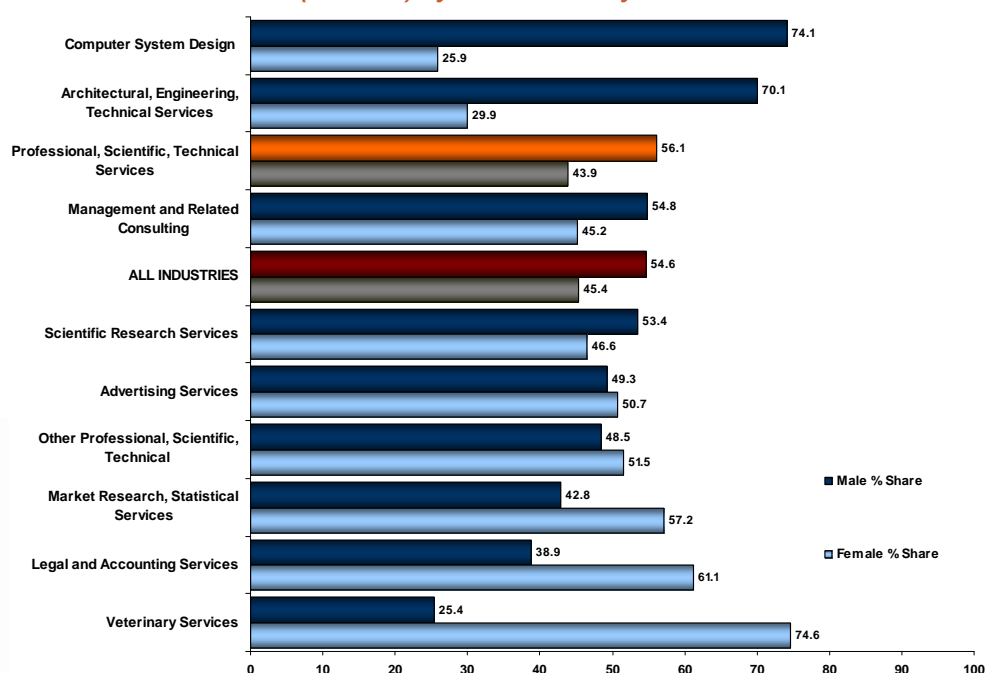
Figure 11: Employment by Gender and Full-time / Part-time (% share) – year to February 2009



Source: ABS Labour Force Survey

The highest proportion of male employment within the Professional, Scientific and Technical Services industry was apparent in Computer System Design (74.1 per cent), followed by Architectural, Engineering and Technical Services (70.1 per cent) and Management and Related Consulting (54.8 per cent). The highest females proportions of employment were in Veterinary Services (74.6 per cent), Legal and Accounting Services (61.1 per cent) and Market Research and Statistical Services (57.2 per cent).

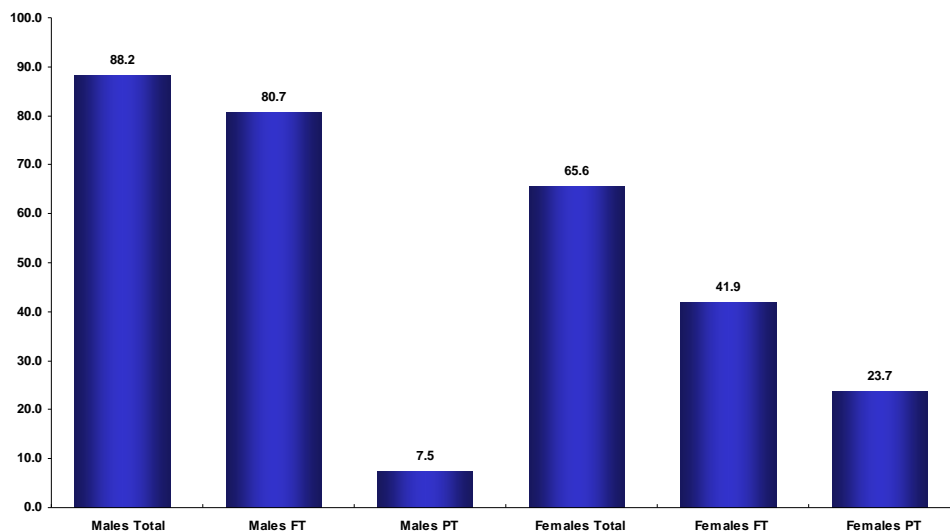
Figure 12: Professional, Scientific and Technical Services Sectors - Employment by Gender (% share) - year to February 2009



Source: ABS Labour Force Survey

In the five years to February 2009, employment for both male and female workers in Professional, Scientific and Technical Services has risen strongly (up by 88 200 and 65 600 respectively), with most of this growth attributable to full-time workers (80 700 and 41 900 respectively, see Figure 13).

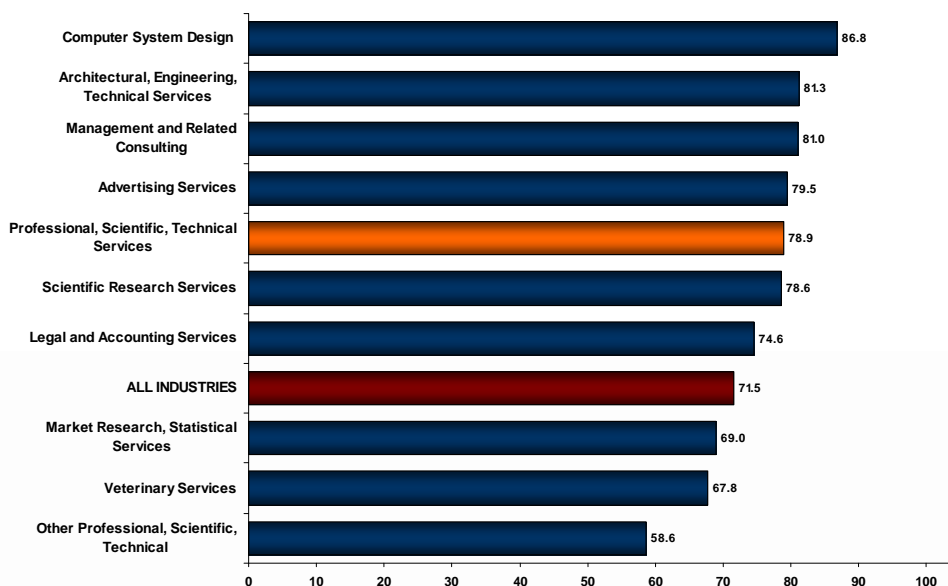
Figure 13: Employment Growth by Gender (5 years) Full-time / Part-time - year to February 2009 ('000s)



Source: ABS Labour Force Survey

The majority of the Professional, Scientific and Technical Services industry sectors have a higher full-time employment share than all industries (71.5 per cent, see Figure 14). The highest full-time employment shares can be found in Computer System Design (86.8 per cent), followed by Architectural, Engineering and Technical Services (81.3 per cent) and Management and Related Consulting (81.0 per cent). The lowest share of full-time employment was apparent in Other Professional, Scientific and Technical Services (58.6 per cent).

Figure 14: Professional, Scientific and Technical Services Sectors- % working full-time - year to February 2009

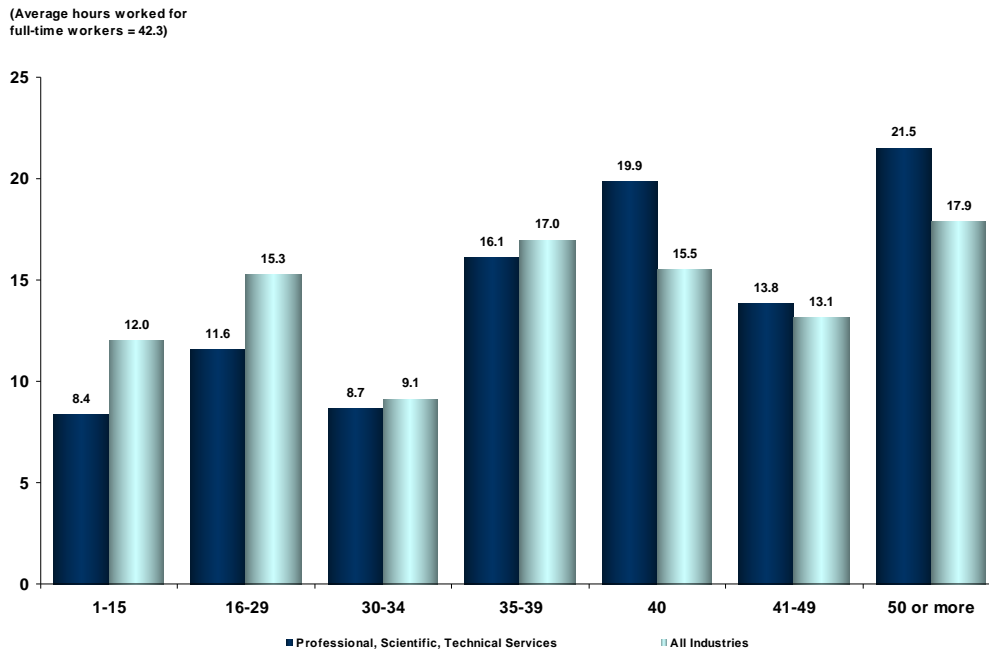


Source: ABS Labour Force Survey

Hours Worked

In the year to February 2009, full-time employees in the Professional, Scientific and Technical Services industry worked slightly longer hours than workers across all industries (42.3 hours compared with 41.3 hours for all industries). Over a fifth of workers employed in Professional, Scientific and Technical Services worked 50 or more hours a week, while a further 19.9 per cent worked 40 hours a week (see Figure 15).

Figure 15: Hours of Work - year to February 2009 (% share)



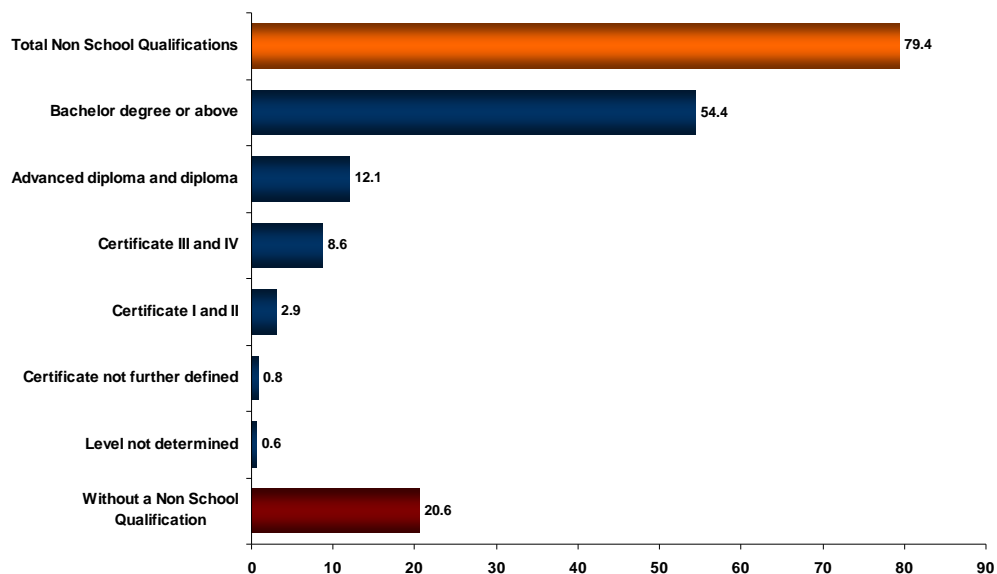
Source: ABS Labour Force Survey

Employment Characteristics

Educational Profile

In general, Professional, Scientific and Technical Services workers are highly qualified, with 79.4 per cent of workers having completed a non-school qualification as at May 2008 (see Figure 16). More than half (54.4 per cent) of all workers in the industry had obtained a Bachelor degree or higher qualification. However, about a fifth (20.6 per cent) of workers in the industry were without a non-school qualification, reflecting the diverse range of occupations on offer in the Professional, Scientific and Technical Services industry, including for less-skilled workers.

Figure 16: Educational Attainment - Share of Employment (%) - May 2008

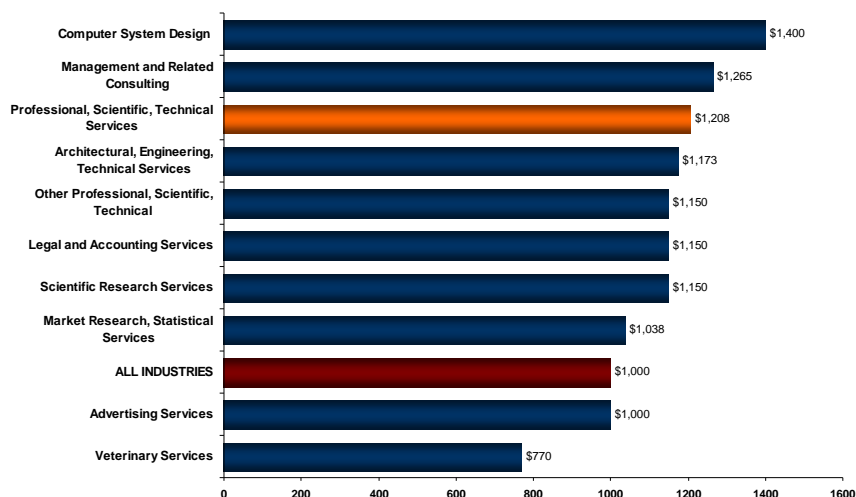


Source: ABS Education and Work Cat. no. 6227.0

Median Weekly Earnings

Median weekly full-time earnings in the Professional, Scientific and Technical Services industry vary with a large range of occupations (see Figure 17). As at August 2008, median weekly full-time earnings in the industry were \$1208, higher than the all industries average of \$1000. Computer System Design (\$1400) and Management and Related Consulting (\$1265) recorded the highest median full-time weekly earnings within the industry. Only Veterinary Services (\$770) recorded median full-time weekly earnings (\$800) which were below the all industries average.

Figure 17: Professional, Scientific and Technical Services Sectors - Median weekly earnings (full-time and before tax) – August 2008

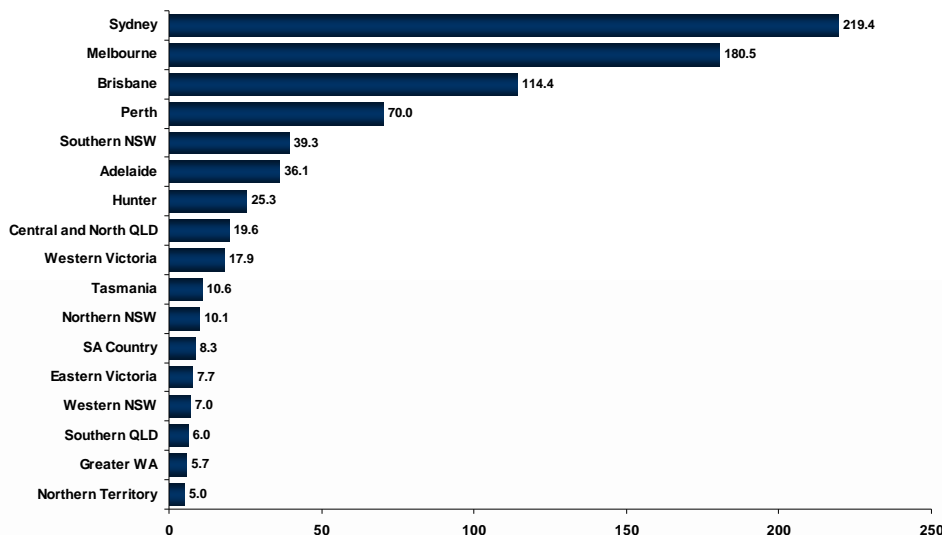


Source: ABS Employee Earnings, Benefits and Trade Union Membership, Cat. no. 6310.0

Employment by Region

Employment in the Professional, Scientific and Technical Services industry is highly concentrated in the major capital cities in Australia, reflecting the large population base in these cities. In the year to February 2009, the majority of workers in Professional, Scientific and Technical Services were employed in Sydney (219 400), followed by Melbourne (180 500), Brisbane (114 400) and Perth (70 000).

Figure 18: Main Employing Regions ('000s) – year to February 2009



Source: ABS Labour Force Survey

Main Employing Occupations

The Professional, Scientific and Technical Services industry offers a diverse range of career options. In 2008, the largest employing occupations in the industry were Accountants (78 200), Software and Applications Programmers (42 800), Solicitors (38 900) and Secretaries (28 800) - see Figure 19.

Figure 19: Top 20 Employing Occupations ('000) –2008



Source: ABS Labour Force Survey

Further information on occupations is available on the Job Outlook website (www.joboutlook.gov.au)

For further information on the Professional, Scientific and Technical Services industry (or other industries), visit the SkillsInfo website at skillsinfo.gov.au. SkillsInfo provides a range of skills related information for industries and regions. The website offers a broad range of information on employment, careers, education and training and skills issues – including workforce ageing, skills in demand, labour force data, ICT and employability skills, as well as quick links to skills information. Data are sourced mainly from the ABS Labour Force Survey.

SkillsInfo also brings together a large collection of links to external industry and skills related websites.

