

#### Other physical sciences13

880 UK-domiciled doctoral graduates (7% of PS&E cohort), 600 respondents (68%) of which 450 entered employment in the UK (2003-2007)

This group of doctoral graduates from other physical sciences was 36% female and consisted of 17% who gained their doctorate through part-time study. Both of these percentages are above the PS&E average (27% female, 14% part-time study). 77% of respondents entered UK employment while 9% chose to work or study abroad (Table 2). 49% of those employed in the UK remained in the education sector (Table 3), mirroring the average across all disciplines.

Research roles were the prime destination for doctoral graduates in other physical sciences over 2003–2007. Research roles occur across the different types of employment shown in Figure 10. Analysis of SOCs shows research occupations accounted for 42% of respondents employed in the UK, mirroring the 43% across PS&E as a whole. Further analysis shows that 28% of respondents in other physical sciences entered university research staff roles, the same proportion as respondents across all PS&E subjects<sup>14</sup>.

'Education and teaching professional' roles absorbed 17% of respondents, above the



Figure 10: Types of work entered into by UK-domiciled respondents employed in the UK, graduating in 2003–2007 in other subjects in physical sciences, based on Standard Occupational Classifications (SOC) returned in the DLHE surveys

PS&E average (12%). 11% of respondents became HE lecturers, well above the PS&E average of 6%.

One in ten respondents worked as 'business and financial professionals and associate professionals'. The relatively broad spread of these and other occupational areas entered by respondents in other physical sciences reflects the wide range of smaller subjects that have been combined to form this category.

#### Electrical and electronic engineering

740 UK-domiciled doctoral graduates (6% of PS&E cohort), 495 respondents (67%) of which 405 entered employment in the UK (2003–2007)

Over 2003–2007, electrical and electronic engineering was the largest engineering subject. It also had the largest gender imbalance of any subject with 13% female UK-domiciled graduates. 22% of UKdomiciled graduates gained their doctorate through part-time study. 75% of respondents 'entered work in the UK'. The 7% 'working and studying in the UK' was the lowest proportion in PS&E (Table 2). Employment in the education sector led at 45% of respondents; an equal proportion was divided between manufacturing at 24% and finance, business and IT at 21% (Table 3).

Unsurprisingly, the largest group of electrical and electronic engineering respondents comprised 'engineering professionals' (31%). Over 2003–2007, a similar proportion of respondents was employed in research roles which occur across the different types of employment shown in Figure 11. Analysis of SOCs shows research occupations accounted for 30% of respondents employed in the UK compared with 43% across PS&E as a whole. Further analysis shows 33% of respondents entered research staff roles in



Figure 11: Types of work entered into by UK-domiciled respondents employed in the UK, graduating in 2003–2007 in electrical and electronic engineering, based on Standard Occupational Classifications (SOC) returned in the DLHE surveys

higher education compared with 28% across all PS&E subjects<sup>15</sup>.

12% of electrical and electronic engineering respondents were employed as 'information technology professionals'. The 11% in 'education and teaching professional' roles corresponds to the proportion for PS&E subjects as a whole, but is only half that across all disciplines (22%). Only 5% of respondents were HE lecturers.

One in six electrical and electronic engineering respondents entered other occupations. The largest group were 'commercial, industrial and public sector managers' (6%).

<sup>15</sup> The methods for calculating doctoral graduates employed both in research roles and as research staff in HE are given in the methodology chapter. The proportion shown in research roles (30%) is considered to understate actual figures as the DLHE survey does not enable identification of 'engineering professionals' who are employed in research roles.

Physical sciences and engineering

<sup>13</sup> Other physical science subjects include astronomy, materials science, metallurgy, minerals technology, statistics, and town and country planning.

<sup>&</sup>lt;sup>14</sup> The methods for calculating doctoral graduates employed both in research roles and as research staff in HE are given in the methodology chapter.

## Mechanical engineering

600 UK-domiciled doctoral graduates (5% of PS&E cohort), 395 respondents (66%) of which 335 entered employment in the UK

24% of mechanical engineering doctoral graduates studied for their doctorate part-time; 15% were female. The gender imbalance was the second largest of all subjects after electrical and electronic engineering. Respondents in mechanical engineering had, along with those in computer science, the lowest unemployment rate in PS&E 2003–2007 at 3.1% (Table 2). The education sector was the most popular for respondents employed in the UK, absorbing 36%, closely followed by manufacturing with 34%<sup>16</sup> (Table 3).

Of all respondents 2003–2007, those in mechanical engineering were most likely to be employed as 'engineering professionals' (45%). Research roles were the next most popular group of occupations. Research roles occur across the different types of employment shown in Figure 12. Analysis of SOCs shows research occupations accounted for 24% of respondents employed in the UK compared with 43% across PS&E as a whole. Further analysis shows 30% of mechanical engineering respondents entered research staff roles in higher



- Commercial, industrial and public sector managers
- Scientific research, analysis & development professionals Engineering professionals
- Health professionals and associate professionals
- Education and teaching professionals
- Business and financial professionals and associate professionals
- Information technology professionals
- Marketing, sales, media and advertising professionals
- Researchers (university or unspecified)
- Other professionals, associate professional and technical occupations
- Numerical clerks and cashiers, clerical, retail and bar staff
- Armed forces and public protection services occupations
- Other occupations
- Unknown occupations

Figure 12: Types of work entered into by UK-domiciled respondents employed in the UK, graduating in 2003–2007 in mechanical engineering, based on Standard Occupational Classifications (SOC) returned in the DLHE surveys

education compared with 28% across all PS&E subjects<sup>17</sup>.

The third most popular destination of mechanical engineering respondents was 'commercial, industrial and public sector managers' (10%). These were mostly managers in production, works and maintenance. This group of occupations absorbed a higher proportion of mechanical engineering respondents than the combined PS&E subjects and all disciplines (both 7%).

Only 5% entered 'education and teaching professional' roles, with 2% of mechanical engineering respondents employed as HE lecturers.

## **Civil engineering**

#### 405 UK-domiciled doctoral graduates (3% of PS&E cohort), 275 respondents (67%) of which 235 entered employment in the UK

Over 2003–2007, 24% of UK-domiciled doctoral graduates in civil engineering were female, just below the PS&E average (27%). 30% gained their doctorate through part-time study; the highest proportion of any PS&E subject. 86% of civil engineering respondents were employed in the UK, the highest proportion across PS&E. Conversely, only 5% chose to continue their career abroad, one of the discipline's lowest proportions (Table 2). Although the education sector absorbed the most civil engineering respondents at 35% of those employed in the UK, this proportion was the lowest of all PS&E subjects. The finance, business and IT sectors accounted for 31% (Table 3) - the second highest proportion after respondents from mathematics.

Unsurprisingly, the most popular occupations for 2003–2007 respondents in civil engineering were 'engineering professional' roles at 34%.

Research roles were next in popularity. Research roles occur across the different types of employment shown in Figure 13. Analysis of SOCs shows research occupations accounted for 26% of respondents employed in the UK



Commercial, industrial and public sector managers

- Scientific research, analysis & development professionals
- Engineering professionals
- Health professionals and associate professionals
- Education and teaching professionals
- Business and financial professionals and associate professionals
- Information technology professionals
- Marketing, sales, media and advertising professionals
- Researchers (university or unspecified)
- Other professionals, associate professional
- and technical occupations
- Numerical clerks and cashiers, clerical, retail and bar staff
- Armed forces and public protection services occupations
- Other occupations
- Unknown occupations

Figure 13: Types of work entered into by UK-domiciled respondents employed in the UK, graduating in 2003–2007 in civil engineering, based on Standard Occupational Classifications (SOC) returned in the DLHE surveys

compared with 43% across PS&E as a whole. Further analysis shows 22% of respondents entered research staff roles in higher education compared with 28% across all PS&E subjects<sup>17</sup>.

The 12% of civil engineering respondents in 'education and teaching professional' roles corresponds to PS&E subjects as a whole (11%), but is well below the proportion across all disciplines (22%). Three-quarters of those in 'education and teaching professional' roles attained HE lectureships (9% of respondents).

'Commercial, industrial and public sector managers' (8%) and 'other professionals, associate professional and technical occupations' (8%) covered a wide range of occupations in statistically insignificant numbers.

<sup>17</sup> The methods for calculating doctoral graduates employed both in research roles and as research staff in HE are given in the methodology chapter. The proportion shown in research roles is considered to understate actual figures as the DLHE survey does not enable identification of 'engineering professionals' who are employed in research roles.

<sup>&</sup>lt;sup>16</sup> The proportion of respondents entering manufacturing was second only to chemistry (across all subjects).



## Other engineering<sup>18</sup>

#### 2090 UK-domiciled UK doctoral graduates (7% of PS&E cohort), 1410 respondents (67%) of which 1150 entered employment in the UK

Over 2003-2007, 24% of UK-domiciled doctoral graduates in other engineering subjects were female, close to the PS&E average of 27%, and 22% gained their doctorate through part-time study, above the discipline average of 14%. UK employment rates among respondents 2003–2007 were above the discipline average (78%), while the proportion who chose to continue their career abroad was below the PS&E average at 9% (Table 2). The education sector absorbed the most respondents in UK employment at 39% (Table 3). The manufacturing sector accounted for 27%, just above the PS&E average of 25%.

The most popular occupations of other engineering respondents were 'engineering professionals' (27%) and research roles. Research roles occur across the different types of employment shown in Figure 14. Analysis of SOCs shows research occupations accounted for 28% of respondents employed in the UK compared with 43% across PS&E as a whole. Further analysis shows 22% of respondents entered research staff roles in higher education compared with 28% across all PS&E subjects<sup>19</sup>.

The third most popular set of occupations of other engineering respondents were



Figure 14: Types of work entered into by UK-domiciled respondents employed in the UK, graduating in 2003–2007 in other engineering subjects, based on Standard Occupational Classifications (SOC) returned in the DLHE surveys

'education and teaching professional' roles, absorbing 15%. HE lectureships accounted for 10% of respondents.

The spread of occupations entered by the remaining other engineering respondents reflects the range of engineering subjects which have been combined to form this category, such as chemical, process and energy, production and manufacturing, as well as aerospace engineering. Respondents in other engineering were

more likely to become 'commercial, industrial and public sector managers' than those from all PS&E and across all disciplines (7%). Typical occupations are 'production, works and maintenance managers', 'marketing and sales managers' and 'research and development managers'. The percentage entering 'business and financial professional and associate professional occupations' (6%) was slightly larger than for respondents across all disciplines (4%).

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<sup>18</sup> Other engineering subjects include aeronautical, general, chemical, maritime and production engineering, architecture, building, and maritime technology.
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<sup>19</sup> The methods for calculating doctoral graduates employed both in research roles and as research staff in HE are given in the methodology chapter. The proportion shown in research roles is considered to understate actual figures as the DLHE survey does not enable identification of 'engineering professionals' who are employed in research roles.

# Social sciences

# Social sciences doctoral graduates at a glance

Doctoral graduates from the social sciences (SS) made up 10% of all UK-domiciled doctoral graduates in 2007 and over the period 2003–2007.

- The number of SS doctoral graduates varied between 690 in 2005 and 810 in 2003<sup>2</sup>
- The most popular subjects were business and management, sociology, and politics
- The average SS response rate to the survey between 2003–2007 was 66% and was highest in 2005 at 70%
- Of UK-domiciled doctoral graduates 2003–2007, 48% of SS graduates were female; 42% had achieved their doctorate through part-time study<sup>3</sup>

#### Of UK-domiciled SS doctoral graduates who responded to the DLHE survey

- The percentage working, or working and studying in the UK averaged 84% over the period 2003–2007
- The proportion who chose to further their careers abroad averaged 4%
- The unemployment rate (3.3% 2007 and 2.4% 2003–2007 average) was consistently lower than for SS first-degree (5.5% in 2007) and masters graduates (3.7% in 2007)

#### Looking in more detail at those SS respondents working or working and studying in the UK<sup>4</sup>

- The education sector was consistently the largest employment area for SS respondents, absorbing 71% in 2007and 66% over 2003–2007
- SS respondents 2003–2007 were considerably more likely to enter 'education and teaching' occupations (45%) than the doctoral graduate population as a whole (22%)
- 34% of SS respondents entered higher education lecturer positions the highest proportion of any discipline 2003–2007 and more than double the all disciplines average (14%)
- The percentage working in all research roles was 24%, well below the all disciplines average (35%)
- 18% moved into research staff roles in higher education below the average for all disciplines (23%)

SS UK-domiciled doctoral graduates	2003	2004	2005	2006	2007	Total
Total doctoral graduates in SS	810	725	690	725	805	3750
Total respondents	510	460	480	455	545	2450
% response	63%	63%	70%	63%	69%	66%
Female respondents	275	230	245	235	255	1240
Male respondents	235	230	235	220	290	1210

## Overall survey response for social science subjects

Table 1: Survey response for UK-domiciled doctoral graduates 2003–2007 in social sciences

The UK-domiciled SS doctoral graduate population was almost identical in 2003 and 2007 at 810 and 805 having dipped to 690 in 2005. SS doctoral graduates accounted for one in ten of the UK-domiciled doctoral graduate population.

## This chapter ...

contains analysis of the social sciences doctoral graduate cohort, their response rate to the DHLE survey, first destination employment rates, employment sectors and occupations. The subjects discussed in this chapter are business and management; sociology; politics; human and social geography; law; and economics. Other subjects in social sciences are grouped together. Although not included in the social sciences totals<sup>1</sup>, academic studies in education is discussed as a subject.

<sup>1</sup> Academic studies in education are not classified as a social science in JACS and are separate in the HESA data.

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Social sciences

<sup>&</sup>lt;sup>2</sup> For data protection, all figures have been rounded to the nearest five. Number and percentages may not total due to rounding.

<sup>&</sup>lt;sup>3</sup> Compared with the total UK-domiciled doctoral graduate population where 46% were female; 27% gained their doctorate through part-time study.

<sup>&</sup>lt;sup>4</sup> All data on destinations, whether in terms of occupations or sectors, is from those respondents who entered work or work and study in the UK.



# **Employment rates for social sciences**

Employment circumstances of SS respondents varied slightly more over time than the all disciplines average. The combined total entering UK employment or working and studying in the UK ranged from 83% (2007) to 88% (2003). Working or studying overseas accounted for between 3% (2003) and 5% (2005).

Over 2003–2007, SS respondents entering employment or combining work and study in the UK totalled 84% compared with 81% of all respondents. However, the proportion working or studying overseas (4%) was below that for all respondents (7%). Unemployment averaged 2.4% over 2003– 2007, compared with 3.4% across all disciplines. In 2006 SS unemployment was less than 1%: the lowest of any discipline between 2003 and 2007. However, the employment picture at broad discipline level masks variations between different subjects.

Over 2003–2007 business and management graduates accounted for 24% of SS doctoral graduates, with numbers recovering after a mid-period dip. Sociology accounted for 15% and politics 13%; all other subject groups had fewer than 10% of UK-domiciled SS doctoral graduates. Amalgamating data from 2003–2007 creates sufficient numbers to identify employment rates, sectors and broad types of work that respondents entered in the following subjects: business and management; sociology; politics; human and social geography; law; and economics. All other SS subjects are discussed as 'other social sciences'5. Although the employment outcomes of doctoral graduates in academic studies in education are discussed as a subject on page 49, these doctoral graduates do not form part of the overall SS cohort discussed here5.



Figure 1: Employment circumstances of UK-domiciled SS doctoral graduate respondents: 2007 and 2003–2007 comparison

SS UK-domiciled respondents	Business and management	Sociology	Politics	Human and social geography	Law	Economics	Other subjects in social sciences	Academic studies in education
Entered work in the UK	72.2%	71.0%	69.4%	73.8%	69.5%	72.9%	70.8%	74.5%
Working and studying in the UK	14.1%	12.7%	10.6%	12.2%	15.3%	10.0%	13.8%	12.4%
Entered study or training in the UK	1.2%	1.4%	2.1%	1.5%	2.3%	2.3%	1.0%	0.6%
Working or studying overseas	1.9%	2.9%	6.2%	5.2%	4.2%	8.7%	4.3%	2.6%
Not available for work or study	4.5%	4.6%	3.4%	0.5%	3.1%	1.6%	3.7%	4.7%
Believed unemployed	1.3%	2.2%	3.4%	4.8%	0.5%	2.0%	3.1%	1.9%
Other	4.8%	5.2%	5.0%	2.0%	5.2%	2.6%	3.3%	3.3%

## Summary of employment outcomes by subject 2003–2007

Table 2: Employment circumstances of UK-domiciled SS doctoral graduates 2003–2007: respondents in different subjects in social sciences

<sup>5</sup> Other SS subjects include catering and institutional management, land and property management, marketing and market research, psychology (without a significant element of biological science), transport, other business and administrative studies, and 'other social studies'. Note that doctoral studies in the field of education are treated separately, on page 49.

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## Employment sectors for social sciences doctoral graduates

Employment in the education sector dominated, accounting for over two thirds (71%) of respondents who graduated in 2007, above the 2003–2007 average of 66%. Across the doctoral graduate population as a whole the education sector 2003–2007 absorbed 49% of respondents.

The finance, business and IT sector employed a stable one in ten of SS respondents, equalling the average across the doctoral population as a whole. The health and social work sector employed 8% over 2003–2007 but only 6% in 2007.



Figure 2: Employment sectors entered by UK-domiciled SS respondents working in the UK, based on Standard Industrial Classifications (SIC): 2007 and 2003–2007 comparison

#### Summary of employment sectors by subject 2003–2007

SS UK-domiciled respondents	Business and management	Sociology	Politics	Human and social geography	Law	Economics	Other subjects in social sciences	Academic studies in education
Education	65.6%	71.4%	69.6%	59.3%	73.9%	59.3%	63.6%	78.7%
Finance, business and IT	17.6%	4.4%	8.6%	9.4%	5.7%	14.9%	7.0%	2.8%
Health and social work	4.0%	9.2%	2.6%	5.8%	5.7%	4.5%	15.5%	4.6%
Manufacturing	4.2%	3.8%	3.9%	7.9%	3.4%	6.4%	3.7%	1.8%
Public administration	5.0%	7.4%	10.6%	9.6%	9.6%	7.7%	6.8%	8.7%
Other sectors	3.5%	3.8%	4.7%	8.0%	1.7%	7.3%	3.3%	3.4%

Table 3: Employment sectors entered by UK-domiciled SS respondents working in the UK and graduating in 2003–2007 from different social sciences subjects, based on Standard Industrial Classifications (SIC) returned in the DLHE surveys



#### Occupations of social sciences doctoral graduates

45% (915) of SS respondents were employed as 'education and teaching professionals' in 2007. This proportion is considerably higher than that for all disciplines (22%). 705 of these, 34% of all SS respondents, gained HE lectureship positions, the highest proportion of all disciplines (14% average)<sup>7</sup>. Other significant roles in education and teaching were FE teaching professionals, university tutorial and teaching assistants and secondary teachers.

Research roles occur across the different types of employment shown in Table 4. Analysis of SOCs shows research occupations accounted for a total of 24% of SS respondents employed in the UK. Further analysis showed 18% of SS respondents entered research staff roles in higher education<sup>8</sup>. The proportions of respondents employed in research roles across all employment sectors and as HE research staff were below the averages for the doctoral population as a whole, at 35% and 23%, respectively.

14% of SS respondents were employed as 'commercial, industrial and public sector managers', compared with 7% across all disciplines. The 6% employed as 'business and financial professionals and associate professionals' was also above the all disciplines average (4%).

Overall, 2003–2007 was a relatively stable period for SS doctoral graduate employment. UK employment rates were above that for all disciplines; unemployment rates below. The education sector employment dominated, with education and teaching destinations well above the average for the doctoral population as a whole. We now look in more detail at the employment rates, sectors and occupations of SS doctoral graduates by subject.



Unknown occupations

Figure 3: Types of work entered by UK-domiciled SS doctoral graduates (2007), based on Standard Occupational Classifications (SOC) returned in the DLHE surveys<sup>6</sup>

SS UK-domiciled respondents	2003	2004	2005	2006	2007	Total
Commercial, industrial and public sector managers	12.5%	15.3%	15.4%	15.2%	10.6%	13.7%
Scientific research, analysis & development professionals	1.7%	0.3%	1.0%	0.7%	0.7%	0.9%
Engineering professionals	0.0%	0.8%	0.0%	0.5%	0.0%	0.2%
Health professionals and associate professionals	5.7%	1.8%	1.3%	1.8%	1.6%	2.5%
Education and teaching professionals	46.1%	38.9%	43.4%	45.1%	49.6%	44.8%
Business and financial professionals and associate professionals	5.2%	7.5%	4.6%	4.8%	6.7%	5.8%
Information technology professionals	0.9%	0.7%	1.0%	0.5%	0.2%	0.7%
Marketing, sales, media and advertising professionals	1.7%	1.8%	1.3%	2.0%	2.0%	1.8%
Researchers (university or unspecified)	14.5%	17.8%	17.5%	18.3%	18.6%	17.3%
Other professionals, associate professional and technical occupations	10.0%	12.2%	12.1%	8.1%	6.0%	9.6%
Numerical clerks and cashiers, clerical, retail and bar staff	1.3%	1.2%	0.8%	1.2%	3.1%	1.6%
Armed forces and public protection services occupations	0.0%	0.3%	0.5%	1.0%	0.2%	0.4%
Other occupations	0.2%	1.3%	1.0%	0.7%	0.7%	0.8%
Unknown occupations	0.2%	0.3%	0.0%	0.0%	0.0%	0.1%

Table 4: Types of work entered by UK-domiciled SS doctoral graduates (2003–2007), based on Standard Occupational Classifications (SOC) returned in the DLHE surveys<sup>9</sup>

<sup>7</sup> Arts and humanities had a higher proportion of respondents entering the 'education and teaching professional' group of occupations.

<sup>&</sup>lt;sup>8</sup> The methods of calculating doctoral graduates employed in research related roles and as research staff in HE are given in the methodology chapter.

<sup>&</sup>lt;sup>9</sup> Types of work being undertaken by UK-domiciled respondents working in the UK on January 15 2004, 2005, 2006, 2007 and 2008 after graduating from UK universities in 2003, 2004, 2005, 2006 and 2007.

#### Business and management

905 UK-domiciled doctoral graduates (24% of SS cohort), 605 respondents (67%) of which 520 entered employment in the UK (2003–2007)

Over 2003-2007, business and management was the largest subject group in SS, and included a very high proportion of doctoral graduates who had studied part-time, 63% compared with the SS average of 42% and the all disciplines average of 27%. Female doctoral graduates at 41% were below the SS average of 48%. Respondents in business and management had the highest UK employment rate<sup>10</sup> (86%) and lowest proportion entering overseas work or study (2%) of SS subjects (Table 2). The education sector dominated UK employment (Table 3), absorbing two thirds of respondents, followed by the finance, business and IT sector (18%), well above the proportion for all SS and all disciplines (10%) and only just below the proportion in physical sciences and engineering (20%).

Employment of business and management respondents across a range of 'education and teaching professional' roles (51%) was above the SS average (45%) and much above the proportion of respondents across the doctoral population as a whole (22%). 41% of respondents in these subjects entered HE lecturer roles, again above the SS average (34%) and all disciplines average (14%). The majority of the remainder were FE teaching professionals.



Commercial, industrial and public sector managers Scientific research, analysis & development professionals Engineering professionals Health professionals and associate professionals Education and teaching professionals Business and financial professionals and associate professionals Information technology professionals Marketing, sales, media and advertising professionals Researchers (university or unspecified) Other professionals, associate professional and technical occupations Numerical clerks and cashiers, clerical, retail and bar staff Armed forces and public protection services occupations Other occupations Unknown occupations

Figure 4: Types of work entered into by UK-domiciled respondents employed in the UK, graduating in 2003– 2007 in business and management, based on Standard Occupational Classifications (SOC) returned in the DLHE surveys

'Commercial, industrial and public sector manager' roles were second most popular (23%) for business and management respondents. Typical occupations were: marketing managers, research and development managers, and hospital and health service managers. 'Business and financial professionals' accounted for only 8% of business and management respondents. Research roles occur across the different types of employment shown in Figure 4. Analysis of SOCs shows research occupations account for a total of 12% of business and management respondents employed in the UK. Further analysis showed 10% of UK-employed respondents entered research staff roles in higher education<sup>11</sup>. Both are below the discipline average of 24% and 18%, respectively.

#### Sociology

580 UK-domiciled doctoral graduates (15% of SS cohort), 380 respondents (66%) of which 315 entered employment in the UK (2003–2007)

Over 2003–2007, sociology had one of the highest proportions of females (59%) and of doctoral graduates who had studied part-time (46%) across the UK-domiciled doctoral population. 84% of sociology respondents were employed in the UK (Table 2), the same proportion as for SS as a whole. The education sector dominated UK employment, absorbing 71% of sociology respondents, followed by the health and social work sector (9%) (Table 3).

Employment of sociology respondents across a range of 'education and teaching professional' roles at 41% was below the SS average of 45% but well above the proportion across the doctoral population as a whole (22%). 33% entered HE lecturer roles, close to the SS average (34%) and over twice that across all disciplines (14%).

Research roles occur across the different types of employment shown in Figure 5. Analysis of SOCs shows research occupations account for a total of 32% of sociology respondents employed in the



- Commercial, industrial and public sector managers
- Scientific research, analysis & development professionals
- Engineering professionals
- Health professionals and associate professionals
- Education and teaching professionals
- Business and financial professionals and associate professionals
- Information technology professionals
- Marketing, sales, media and advertising professionals
- Researchers (university or unspecified)Other professionals, associate professional
- and technical occupations
- Numerical clerks and cashiers, clerical, retail and bar staff
- Armed forces and public protection services occupations
- Other occupations
- Unknown occupations

Figure 5: Types of work entered into by UK-domiciled respondents employed in the UK, graduating in 2003– 2007 in sociology, based on Standard Occupational Classifications (SOC) returned in the DLHE surveys

UK. Further analysis showed 26% of UKemployed respondents entered research staff roles in higher education<sup>11</sup>. Both are above the discipline average of 24% and 18%, respectively. 'Commercial, industrial and public sector manager' roles were the only other significant group of occupations of sociology respondents at 13%.

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Data source: Graduate Prospects using DLHE surveys 2004, 2005, 2006, 2007, 2008 (© HESA)

<sup>&</sup>lt;sup>10</sup> The combined total of those who 'entered work in the UK' and who were 'working and studying in the UK'.

<sup>&</sup>lt;sup>11</sup> The methods for calculating doctoral graduates employed in research related roles and as research staff in HE are given in the methodology chapter.



#### Politics

#### 470 UK-domiciled doctoral graduates (13% of SS cohort), 295 respondents (62%) of which 230 entered employment in the UK (2003–2007)

Over 2003–2007, females (36%) and those who studied for their doctorate part-time (22%) were under-represented in the politics subject area compared to the SS averages of 48% and 42%, respectively. The proportion of politics respondents continuing their career overseas (6%) was above the SS average (4%) and in UK employment (80%) was below the discipline average at 84% (Table 2). Employment in the education sector dominated at 70%. 11% of respondents entered the public administration sector, the highest proportion of any SS subject (Table 3).

Over 2003–2007, 47% of respondents entered education and teaching professional roles, close to the SS average (45%) and well above the 22% across the doctoral graduate population as a whole. 31% entered HE lecturer roles, a little below the SS average (34%) but more than double that across all disciplines (14%). The second largest group in education and teaching occupations were teaching professionals in further education.



Figure 6: Types of work entered into by UK-domiciled respondents employed in the UK, graduating in 2003– 2007 in politics, based on Standard Occupational Classifications (SOC) returned in the DLHE surveys

Research roles occur across the different types of employment shown in Figure 6. Analysis of SOCs shows research occupations accounted for a total of 27% of politics respondents employed in the UK. Further analysis showed 19% of UK-employed respondents entered research staff roles in higher education<sup>12</sup>. Both slightly above the discipline average of 24% and 18%, respectively.

The remaining politics respondents were spread in small numbers across a wide variety of occupations.

# Human and social geography

#### 325 UK-domiciled doctoral graduates (9% of SS cohort), 200 respondents (62%) of which 170 entered employment in the UK (2003–2007)

Only 18% of human and social geography doctoral graduates studied for their doctorate part-time, the lowest proportion among SS subjects. The proportion of female doctoral graduates at 50% was close to the SS average of 48%. Human and social geography furnished one of the highest UK employment rates in SS (86% of respondents) (Table 2). The education sector absorbed 59% of human and social geography respondents. Public administration was just ahead among remaining sectors in absorbing 10% (Table 3).

Over 2003–2007, the most popular occupations for human and social geography respondents were 'education and teaching professionals' (30%). This figure was below the SS average of 45% but above the 22% across respondents from all disciplines. 20% entered HE lecturer roles, again below the SS average (34%) but above that across all disciplines (14%).

The next most popular occupations were research roles. Research roles occur across the different types of employment shown in Figure 7. Analysis of SOCs



Figure 7: Types of work entered into by UK-domiciled respondents employed in the UK, graduating in 2003– 2007 in human and social geography, based on Standard Occupational Classifications (SOC) returned in the DLHE surveys

shows research occupations accounted for a total of 39% of human and social geography respondents employed in the UK. Further analysis showed 26% of UKemployed respondents entered research staff roles in higher education<sup>12</sup>. Both are well above the discipline average of 24% and 18%, respectively: human and social geography respondents were the most likely of all SS respondents to be employed in research roles.

The only other significant destinations for respondents in human and social geography were 'commercial, industrial and public sector manager' occupations. These absorbed 11%, compared with 14% of all SS respondents and 7% across respondents as a whole.

<sup>12</sup> The methods for calculating doctoral graduates employed in research related roles and as research staff in HE are given in the methodology chapter.

#### Law

Social sciences

#### 320 UK-domiciled doctoral graduates (9% of SS cohort), 215 respondents (67%) of which 175 entered employment in the UK (2003–2007)

Over 2003–2007, the proportion of female doctoral graduates in law (52%) was above average<sup>13</sup>. The percentage of law doctoral graduates who had studied part-time (37%) was between the SS (42%) and all disciplines (27%) averages. Law respondents furnished the highest proportion of SS graduates combining work and study (15%), and the lowest unemployment rate (0.5%), the lowest unemployment rate of any subject analysed (Table 2). Three quarters of respondents in law remained in the education sector (74%), the largest proportion of all SS subjects. The public administration sector absorbed one in ten (Table 3).

'Education and teaching professional' roles dominated for law respondents, absorbing 64%, the highest proportion of all SS subjects and significantly above the average for respondents across all disciplines (22%). The proportion in HE lecturer roles was 56%, which was again the highest proportion among any subjects analysed.

'Other professionals, associate professionals and technical occupations' was the next largest occupational category



Engineering professionals
Health professionals and associate professionals
Education and teaching professionals
Business and financial professionals and associate professionals
Information technology professionals
Marketing, sales, media and advertising professionals
Researchers (university or unspecified)
Other professionals, associate professional and technical occupations
Numerical clerks and cashiers, clerical, retail and bar staff
Armed forces and public protection services occupations
Other occupations

Commercial, industrial and public sector managers

Scientific research, analysis & development professionals

Unknown occupations

Figure 8: Types of work entered into by UK-domiciled respondents employed in the UK, graduating in 2003– 2007 in law, based on Standard Occupational Classifications (SOC) returned in the DLHE surveys

for law respondents at 13%. This category includes legal professionals as well as, for example, social science researchers and social workers.

Research roles occur across the different types of employment shown in Figure 8. Analysis of SOCs shows research occupations accounted for a total of 9% of law respondents employed in the UK. Further analysis showed 7% of UKemployed law respondents entered research staff roles in higher education<sup>14</sup>. Both are well below the discipline average of 24% and 18%, respectively. Respondents from law were the least likely of all respondents to be employed in research roles, with the exception of theology respondents (8%).

#### **Economics**

#### 265 UK-domiciled doctoral graduates (7% of SS cohort), 155 respondents (57%) of which 125 entered employment in the UK (2003–2007)

Over 2003–2007, females at 35% were under-represented among UK-domiciled doctoral graduates in economics. The proportion of those who had gained their doctorate through part-time study at 30% was below that for all social sciences (42%). Economics furnished the highest proportion of SS respondents choosing to continue their career abroad (9%) (Table 2). In the UK, the education sector absorbed the most economics respondents (59%), below the SS average (66%) but above that across all disciplines (49%). The finance, business and IT sector absorbed 15%, compared with 10% across SS as a whole (Table 3).

The most popular occupations were 'education and teaching professionals' at 38% of economics respondents. This figure was below the SS average (45%) but well above the 22% across the respondent population as a whole. 26% of respondents entered HE lecturer roles, again below the SS average (34%) but above that across all disciplines (14%).

Research roles occur across the different types of employment shown in Figure 9.



Figure 9: Types of work entered into by UK-domiciled respondents employed in the UK, graduating in 2003– 2007 in economics, based on Standard Occupational Classifications (SOC) returned in the DLHE surveys

Analysis of SOCs shows research occupations accounted for a total of 27% of respondents in economics employed in the UK. Further analysis showed 20% of UK-employed economics respondents entered research staff roles in higher education<sup>14</sup>. Both are a little above the discipline average of 24% and 18%, respectively. Unsurprisingly, the proportion of economics respondents employed in 'business and financial professional and associate professional' occupations at 15% was well above the SS (7%) and all disciplines (4%) average. The remaining respondents were spread in very small numbers across a wide variety of occupations.

<sup>13</sup> Females accounted for 48% of SS doctoral graduates and 46% across all disciplines.

<sup>&</sup>lt;sup>14</sup> The methods for calculating doctoral graduates employed in research related roles and as research staff in HE are given in the methodology chapter.