

The Impact of Sandwich Education on the Activities of Graduates Six Months Post- Graduation

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Abstract

The Higher Education Statistics Agency is responsible for the collection of statistical data on the first destinations of graduates six months after graduation. This study examines the first destination returns to establish whether there is a correlation between work experience and post-graduation activity, in particular, whether graduates with work experience are more likely to secure early employment than those graduates without. Participation in further study and unemployment are also analysed.

Overall, the analysis demonstrated that graduates who undertook a sandwich placement as part of their programme of study are more likely to secure full-time paid employment within six months of graduating than graduates from full-time courses. Conversely, greater proportions of full-time graduates continued with their studies than sandwich graduates. The percentage of unemployed graduates was similar irrespective of undergraduate work-experience.

Closer analysis by subject area revealed that these broad trends were reflected across different disciplines. However, the extent to which sandwich graduates were advantaged varied between subjects: science and language sandwich graduates did not enjoy a significant advantage over full-time graduates in the same subjects, but sandwich graduates from other subjects, such as engineering, did.

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1 Context

The notion of work experience for undergraduates is not new. Undergraduate teacher training, and other professional courses, such as nursing, have traditionally incorporated work experience as a statutory requirement. The pre-1992 polytechnic sector in the United Kingdom was also renowned for its vocational approach, and undergraduate courses, such as engineering and business studies, often included a work-experience element.

There has been a resurgence of interest in work experience during the latter half of this decade, culminating in the establishment of the National Centre for Work Experience in October 1998. This renewed enthusiasm for work experience was triggered by one of the key recommendations of the National Committee of Inquiry into Higher Education (NCIHE), chaired by Lord Dearing, that all undergraduates should have the opportunity to undertake a period of work experience:

...students can benefit from experience in many different settings, structured and informal, paid and unpaid. Their academic experience should help them understand how experience relates to their personal and future development.

(NCIHE, 1997, para. 9.30)

The National Committee drew this conclusion on the basis of a plethora of research findings including a report entitled *Graduates' Work: Organisational change and students' attributes* by Lee Harvey, Sue Moon and Vicki Geall (1997, p.2) that concluded:

If there were a single recommendation to come from the research, it would be to encourage all undergraduate programmes to offer students an option of a year-long placement and employers to be less reluctant to provide placement opportunities.

Harvey *et al.* (1997) conducted more than 250 in-depth interviews in over 90 organisations with strategic and line managers and recent graduate and non-graduate employees. The respondents were strongly of the opinion that work experience made an invaluable contribution to the personal and professional development of undergraduates. Employers commented that those graduates who had undertaken a period of work experience during their degree possessed many of the skills essential for success at work: they were more mature, possessed attributes such as teamworking, communication and interpersonal skills, as well as an awareness of workplace culture.

I do believe that four-year degrees with a year out in industry are a good way of building some of the other skills in the ideal graduate, some of the interpersonal stuff. And I don't see any other way of doing that. You can't expect the degree to do everything. So development as individuals is something I don't think you can expect, but to have a year placement is a good way of starting that process.

(Line manager, large international manufacturer/service organisation)

Graduate employees who had undertaken work experience during their degrees remarked on the advantage the experience gave them during interviews:

I know at interview I was questioned about the work experience I had done. Some of it was quite menial, but what I had learnt was quite significant. So it is not necessarily how wonderful the job sounds but what you as an individual got out of it and put in to it, how it shapes you into something.

(Marketing officer, multi-national food manufacturers)

Undergraduates also recognise the potential benefits of work experience. For example, several students surveyed in the Student Satisfaction Survey, conducted at the University of Central England, commented that the most important outcome or benefit of their time at university was the work-experience element:

The most beneficial part of my time here has been the placement and emphasis on group work and seminar presentation.

Contacts through work placement have been important.

The opportunity to go on placement is invaluable as this gives practical experience.

Since employers, graduates and undergraduates all value work experience and the opportunities it presents to undergraduates to become work ready, it is possible to hypothesise that those students who undertake degrees with a work-experience element are more likely to gain early employment on graduation than those students with no work experience.

Julie White (1997, p.1), on behalf of the Council for Industry and Higher Education (CIHE) and the Council of University Deans of Arts and Humanities (CUDAH), began to explore this hypothesis for arts and humanities graduates and concluded that:

employment prospects are good for arts and humanities graduates because they often have intellectual rigour, breadth of perspective and key people skills that employers value.

Arts and humanities graduates possess these skills because many departments have developed schemes designed to equip students for work, including work-experience schemes.

White's findings prompted a broader study designed to establish whether or not there is a correlation between work experience and early employability, irrespective of subject area. The Centre for Research into Quality (CRQ) at the University of Central England was commissioned by the National Centre for Work Experience to undertake this study, which also analysed graduate unemployment and participation in further education. The findings are discussed below.

Methodology

The study is based on the analysis of first-destination returns, provided by the Higher Education Statistics Agency (HESA), for all degree qualifiers from all higher education institutions in the United Kingdom in 1995–96. Statistics were provided for all subjects¹ taught on either a full-time or a thick- or thin-sandwich basis as defined by Harvey, Geall and Moon (1998) (Figure 1.1).

Figure 1.1: Definition of work experience

All those subjects taught on a full-time basis only were removed from the sample leaving a total of 95 subject areas with 181,198 graduates. The majority (85.9%) of the remaining graduates

¹ HESA do not differentiate between different courses or programmes of study, only between broad subject areas.

when many graduates may not be actively seeking a career or to undertake further qualifications. There are no data on the nature of the occupations or courses of study of those graduates who are in full-time, paid employment or further education. Although the figures demonstrate that many graduates are employed, they may not be employed in an occupation of choice or one for which they have been trained. Similarly, those graduates who report that they are unemployed, may have undertaken work since graduation or may be purposefully unemployed (for example, to travel) or may be pursuing alternative avenues such as self-employment.

Thus, the statistical analysis, based on HESA data, is subject to the usual caveats:

- the reliability of the database is dependent on accurate returns from institutions;
- the activity of graduates six months after graduation may not reflect the longer-term pattern of graduates from a subject area;
- employment rates should be treated with caution because it was not possible to distinguish whether graduates were employed in their career of choice or in relatively unskilled positions, earning lower than average salaries;
- any perceived advantage afforded by a particular subject or course type may not continue into the longer-term.

With these caveats in mind, the sub-sample was then broken down further to investigate whether these broad trends were reflected across all subject areas. Six subject groups were selected to reflect the spectrum of disciplines

- Pure Science
- Built Environment
- Business, Finance and Management
- Languages
- Engineering
- Social Sciences

Art and design and law subjects are not represented because of the small number of courses in these subjects offered on a sandwich basis. However, information from a separate study on the impact on employment of work experience of art and design graduates is included in the conclusion.

The following six chapters will focus on each subject area in turn. They will provide more detailed analyses of graduate activity, in particular, the proportion of full-time, thick- and thin-sandwich graduates who are unemployed, in full-time paid employment and further education.

2 Pure Science

Overall

In total, there were 10,329 biology, chemistry and physics graduates in the study. Biology was the only one of the three subjects not to be taught on a thin-sandwich basis. As with all subjects under analysis, the majority of graduates undertook full-time courses. However, unusually, the majority of pure science sandwich graduates undertook thin-, as opposed to thick-sandwich courses (Figure 2.1).

Figure 2.1: Science graduates

Overall, almost half (44.1%) the science graduates were in full-time paid employment six months after graduation. This percentage was similar, irrespective of course type, with 43.4% of full-time graduates, 46.1% of thick-sandwich graduates and 45.9% of thin-sandwich graduates in full-time paid employment (Figure 2.2).

Almost one in ten (8.4%) science graduates stated that they were unemployed at the time the first destinations were collected. Slightly more thick-sandwich graduates (9.0%) were unemployed than thin-sandwich (8.3%) and full-time graduates (8.3%) (Figure 2.2).

Just over 40% of science graduates elected to continue their education beyond their first degree. Once again, this percentage was similar, irrespective of course type (Figure 2.2).

Figure 2.2: Main activities of science graduates

Course breakdowns

Thick- and thin-sandwich graduates from physics and chemistry programmes have higher employment rates than their full-time counterparts. Thick-sandwich physics graduates do particularly well in the labour market with well over half (56.3%) securing employment six months after graduation. This figure is more than 10% above the overall average rate of employment for this subject group. Thick-sandwich biology graduates are the only group to have poorer rates of employment than full-timers (Figure 2.3).

Figure 2.3: Percentage of science graduates in full-time employment by subject area

Unemployment rates are similar irrespective of course type. However, subject breakdowns revealed that physics and biology graduates from sandwich courses have lower unemployment rates than full-time graduates from the same subjects. The reverse is true for chemistry, whose thick-sandwich graduates have the highest rate of unemployment of all categories at 9.5% (Figure 2.4).

Figure 2.4: Percentage of unemployed science graduates by subject area

Physics and chemistry thin-sandwich and full-time graduates are more likely than their thick-sandwich peers to enter further study. Conversely, almost 10% more thick-sandwich biology graduates than full-time biology graduates continued with their studies.

Figure 2.5: Percentage of science graduates undertaking further study by subject area

Summary

- Regardless of course type, almost half the science graduates were in full-time paid employment six months after graduation.
- Around one in ten (8.4%) science graduates stated that they were unemployed at the time the statistics were collected.
- Irrespective of course type, just over 40% of science graduates elected to continue their education beyond their first degree.
- Thick-and thin-sandwich graduates from physics and chemistry programmes have higher employment rates than their full-time counterparts.
- Physics graduates from thick-sandwich courses appear to be particularly successful in securing employment six months after graduation.
- Overall, unemployment rates are similar irrespective of mode of study. However, subject breakdowns revealed that physics and biology sandwich graduates have lower unemployment rates than full-timers.
- Physics and chemistry thin-sandwich and full-time graduates are more likely than their thick-sandwich peers to enter further study after graduation.
- More thick-sandwich biology graduates than full-time biology graduates continued with their studies.

3 Built Environment

Overall

In total, there were 5938 built environment graduates in the sample. Subjects in the built environment group were:

- Architecture;
- Building;
- Environmental Technologies;
- Town and Country Planning.

The majority (70%) of built environment graduates studied on full-time courses. Almost a quarter (24%) of the graduates undertook thick-sandwich courses and a small group were on thin-sandwich programmes (6%) (Figure 3.1).

Figure 3.1: Built environment graduates

Overall, 59.2% of built environment graduates were in full-time paid employment at the time the first-destination returns were collected. Almost three-quarters of the thick-sandwich graduates (71.4%) were employed; a much higher proportion than the percentages of full-time (56.0%) and thin-sandwich (49.9%) graduates in full-time employment (Figure 3.2).

Thick-sandwich courses gave rise to the lowest proportion of unemployed graduates, 5.6%, compared with 8.6% for full-time and 9.2% for thin-sandwich graduates (Figure 3.2).

A third (32.8%) of the thin-sandwich graduates and 28.3% of full-time graduates were participating in further education six months post-graduation. This contrasts sharply with thick-sandwich course graduates of whom only 16.6% continued with their education beyond their undergraduate degree (Figure 3.2).

Figure 3.2: Main activities of built environment graduates

Course breakdowns

Only two out of the four subjects in the built environment group were taught on a thin-sandwich basis: architecture and building. In both instances, thin-sandwich graduates had achieved the lowest labour market success when compared with their thick-sandwich and full-time counterparts.

A substantially higher proportion of thick-sandwich building graduates (78.0%) had secured employment than those from thin-sandwich (60.4%) and full-time (61.6%) courses. Similarly, the proportion of sandwich course town planning graduates (74.2%) in full-time employment was more than 20% higher than for full-timers (53.0%) in the same subject.

On the other hand, 52.1% of full-time architecture graduates were in full-time employment six months after graduation, compared with only 25.3% of thin-sandwich graduates and 37.6% of thick-sandwich students. Similar proportions of environmental technologies graduates were employed, irrespective of course type (Figure 3.3)

Figure 3.3: Percentage of built environment graduates in full-time employment by subject area

Full-time graduates have the highest proportion of unemployed in all built environment subjects except building, where thin-sandwich graduates have the highest proportion. Conversely, thin-sandwich architecture graduates have the lowest proportion of unemployed. In all other subjects apart from architecture, thick-sandwich graduates have the lowest rate of unemployment (Figure 3.4).

Figure 3.4: Percentage of unemployed built environment graduates by subject area

Smaller proportions of full-time architecture and environmental technologies graduates entered further education than their sandwich counterparts, with almost twice as many sandwich architecture graduates entering further education than full-time graduates. Conversely, full-time building and town planning graduates appear more likely than their sandwich peers to continue with their studies (Figure 3.5).

Figure 3.5: Percentage of built environment graduates in further study by subject area

Summary

- Three-fifths (59%) of built environment graduates were in full-time paid employment at the time the first-destination returns were collected.
- Almost three-quarters (71%) of thick-sandwich graduates were employed compared to 56% of full-time and 50% of thin-sandwich graduates.
- Thick-sandwich building and town planning graduates have much higher rates of full-time employment than thin-sandwich and full-time graduates in the same subjects.
- Unusually, full-time architecture graduates have the highest rate of full-time employment for that subject.
- Full-time graduates have the highest rate of unemployment in all subjects except building, where the thin-sandwich students have the highest rate of unemployment.
- Full-time graduates from building and town planning are most likely to be undertaking further study. Sandwich graduates from environmental technology and architecture are more likely than full-time graduates from the same subjects to be doing further study.

4 Business, Finance and Management

Overall

In total, there were 24,221 business, finance and management graduates in the sample. Subjects in this group were:

- Business and Management Studies;
- Financial Management;
- Accountancy;
- Marketing and Market Research;
- Industrial Relations;
- Catering and Institutional Management;
- Land and Property Management;
- Transport and other Business and Administration Studies.

The sample of business, finance and management graduates comprises almost three-quarters full-time and one-quarter sandwich (Figure 4.1). Only three out of the eight subjects were run on a thin-sandwich basis, so the overall figures for thin-sandwich provision are based on relatively small numbers.

Figure 4.1: Business, finance and management graduates

Business, finance and management graduates appear to enjoy a great deal of labour market success, with 65.9% of graduates in full-time paid work. There is a very large difference between the full-time employment rates of different types of course. Thick-sandwich students do far better than other students with 81.8% in full-time employment within six months of graduation. Thin-sandwich graduates do slightly better than average with 66.9% employed. Only 60.8% of full-time graduates were employed full-time at the time of the first-destination returns (Figure 4.2).

Overall, 8.2% of business, finance and management graduates were unemployed six months after graduation. This percentage was similar irrespective of course type (Figure 4.2).

Full-time graduates (24.4%) and thin-sandwich graduates (19.9%) were far more likely to elect to undertake further study than their thick-sandwich (5.3%) counterparts in this subject area (Figure 4.2).

Figure 4.2: Main activities of business, finance and management graduates

Course breakdowns

Thin-sandwich business and management and catering graduates achieved greater labour market success than their full-time counterparts, although they were less successful than thick-sandwich graduates in the same subjects. Thin-sandwich marketing graduates had the lowest employment rate in their subject. A greater proportion of thick-sandwich graduates had secured employment in three out the remaining five subject areas. Full-time graduates had achieved the highest employment rates in only two out the eight subjects (Figure 4.3). Apart from accountancy and financial management, it appears that sandwich students in business, finance and management are enormously advantaged in the labour market.

Figure 4.3: Percentage of business, finance and management graduates in full-time employment by subject area

Of the five subjects taught on a full-time and thick-sandwich basis only, full-time graduates have the highest proportion unemployed in all but one subject, financial management. Thin-sandwich graduates have the lowest proportion of unemployed in two of the three subjects taught on a thin-sandwich basis. Thick-sandwich students have the lowest proportion of unemployed in half of the cases, but have the highest proportion of unemployed in three of the remaining four (Figure 4.4).

Figure 4.4: Percentage of unemployed business, finance and management graduates by subject area

Thin-sandwich marketing students have the lowest proportion unemployed in the entire subject group with less than 1% unemployed. However, 23.5% of thin-sandwich marketing students elected to undertake further study, a proportion second only to thin-sandwich catering graduates of whom 29.9% proceeded to further education. The proportion of graduates from full-time courses undertaking further study is greater than the proportion of thick-sandwich graduates in all but two cases: transport and accountancy (Figure 4.5).

Figure 4.5: Percentage of business, finance and management graduates in further study by subject area

Summary

- Business, finance and management graduates appear to enjoy a great deal of labour market success, with 65.9% of graduates in full-time paid work.
- Sandwich students do particularly well with 81.8% of thick-sandwich graduates and 66.9% of thin-sandwich graduates employed six months after graduation.
- Thin-sandwich graduates have the lowest proportion unemployed in two of the three subjects taught on a thin-sandwich basis. Thick-sandwich graduates have the lowest proportion of unemployed in 50% of cases.
- Full-time graduates have the highest proportion of unemployed in four out of eight subjects
- The proportion of graduates from full-time courses undertaking further study is greater than the proportion of thick-sandwich graduates in all but two cases: transport and accountancy.
- Thin-sandwich catering graduates (29.9%) have the highest proportions going onto further study, followed by 28.7% of full-time business and management graduates.

5 Languages

Overall

In total, there were 4614 language graduates in the sample. The language group consisted of the following subjects:

- Balanced combination within languages;
- German language, literature and culture;
- Scandinavian languages, literature and culture;
- Other European languages, literature and culture;
- Other unspecified modern languages.

There were some language courses offered on a thin-sandwich basis, but all except one, balanced combination within languages, had less than 20 respondents. The small number of respondents militated against meaningful comparisons, therefore, all thin-sandwich language graduates were removed from the sample. The remainder of the sample consisted of 94% full-time graduates and 6% on thick-sandwich courses (Figure 5.1).

Figure 5.1: Language graduates

Similar proportions of language graduates were in full-time employment, irrespective of course type. Hence, the employment rate was close to the overall average of 56.8% for all subjects. Equal proportions of full-time and thick-sandwich graduates were also unemployed (6.5%) and attending further study (28.3%) (Figure 5.2).

Figure 5.2: Main activities of language graduates

Course breakdowns

Further analysis at the individual subject level revealed that work experience did not provide language graduates with a significant advantage. Thick-sandwich Scandinavian language graduates were the only exception with 66.7% enjoying labour market success compared with only 51.3% of full-timers. Indeed, in three of the remaining four subjects, greater proportions of full-time graduates than thick-sandwich graduates had secured full-time paid employment (Figure 5.3).

Figure 5.3: Percentage of language graduates in full-time employment by subject area

Overall, 6.5% of language graduates were unemployed at the time the first-destination returns were collected. This figure was broadly reflected at the subject level, the most notable exceptions being full-time and thick-sandwich Scandinavian language graduates with 9.8% and 11.2% unemployed respectively, thick-sandwich German graduates with 10% unemployed and full-time European language graduates with 8.7% unemployed (Figure 5.4).

Figure 5.4: Percentage of unemployed language graduates by subject area

Overall, 28.3% of language graduates had entered further study post-graduation. However, in this instance, subject analysis did not reveal a trend across all areas. As few as 6.0% of thick-sandwich German graduates and 11.2% of thick-sandwich Scandinavian language graduates and as many as 38% of thick-sandwich modern language graduates entered further education. Only the percentage of full-time modern language graduates reflected the average of 28% (Figure 5.5).

Figure 5.5: Percentage of language graduates in further study by subject area

Summary

- Irrespective of course type, the employment rate among language graduates for all subjects was close to the overall average of 56.8%.
- It appears that, with the exception of Scandinavian language graduates, work experience does not provide language graduates with a significant labour market advantage. However, sandwich language graduates seem less likely to be unemployed, with the lowest proportions in three out of five subjects.
- Thick-sandwich language graduates are more inclined to enter further study than full-time language graduates. However, much greater proportions of full-time Scandinavian and German graduates continued their studies than their sandwich peers.

6 Engineering

Overall

In total, there were 16,043 engineering graduates in the sample. The nine subjects in the engineering group were:

- General Engineering;
- Civil Engineering;
- Mechanical Engineering;
- Aeronautical Engineering;
- Electrical Engineering;
- Electronic Engineering;
- Production Engineering;
- Chemical engineering;
- Balanced combination within engineering and technology.

Four-fifths of engineers studied on full-time degree courses. The majority of the remainder studied on thick-sandwich courses and only 2% of the sample undertook a thin-sandwich course (Figure 6.1).

Figure 6.1: Engineering graduates

Almost two-thirds (65.7%) of engineering students were in full-time paid employment at the time the first-destination returns were collected. This is a high overall employment rate and very nearly matches that of business, finance and management graduates (65.9%). Reflecting the situation in business, much higher percentages of engineering sandwich graduates were in employment than full-time graduates (63.6%). However, unlike the business sector, thin-sandwich engineering graduates (80.0%) do better than thick-sandwich graduates (73.3%) (Figure 6.2).

Overall, the proportion of unemployed engineering students broadly reflects the proportion of unemployed business, finance and management graduates at 7.9%.

In total 23.5% of full-time graduates were undertaking further study, compared with only 10.7% thin-sandwich and 15.4% thick-sandwich graduates.

Figure 6.2: Main activities of engineering graduates

Course breakdowns

Closer analysis of the engineering subjects revealed that these general trends are broadly reflected across different types of engineering courses. Thin-sandwich graduates generally do best in the labour market, the only exceptions being production and civil engineering where thick-sandwich graduates have the edge. However, thin-sandwich civil engineering graduates still do better than

full-time graduates who have the lowest proportions in employment in all sub-areas of engineering except chemical, general and aeronautical engineering (Figures 6.3a, 6.3b).

Figure 6.3a: Percentage of engineering graduates in full-time paid employment by subject area

Figure 6.3b: Percentage of engineering graduates in full-time paid employment by subject area (continued)

As a result of thin-sandwich graduates' success in the labour market, the proportion of unemployed thin-sandwich graduates is small; lower than their full-time counterparts in all except two subjects: civil engineering and production engineering (Figure 6.4a). Full-time graduates have the highest proportion of unemployed in all the engineering subjects taught on a full-time and thick-sandwich basis only (Figure 6.4b).

Figure 6.4a: Percentage of unemployed engineering graduates by subject area

Figure 6.4b: Percentage of unemployed engineering graduates by subject area (continued)

In seven of the nine engineering subjects, full-time graduates have the highest proportions in further study. Further study is the least popular activity for thin-sandwich graduates who have the lowest participation rates in all except two subjects (Figures 6.5a, 6.5b).

Figure 6.5a: Percentage of engineering graduates in further study by subject area

Figure 6.5b: Percentage of engineering graduates in further study by subject area (continued)

Summary

- Almost two-thirds (65.7%) of engineering graduates were in full-time paid employment at the time the first-destination statistics were collected.
- Higher percentages of sandwich graduates were in employment six months after graduation: 73.3% of thick-sandwich graduates and 80.0% of thin-sandwich graduates compared to 63.6% of full-time graduates.
- Almost a quarter (23.5%) of full-time graduates were undertaking further study, compared with only 10.7% thin-sandwich and 15.4% thick-sandwich graduates.
- The labour market advantage of sandwich students was apparent in all sub areas of engineering, except aeronautical engineering, where full-time graduates have a slight advantage.

7 Social Sciences

Overall

There were 14,279 social science graduates in the sample from the following subjects:

- Economics;
- Sociology;
- Anthropology;
- Psychology;
- Politics;
- Balanced combination within social, economic and political studies.

Most of the sample (86%) graduated from full-time courses. Of the remaining 14%, almost all graduated from thick-sandwich programmes (Figure 7.1).

Figure 7.1: Social Science graduates

Subjects in the social sciences follow the overall trend, with a higher proportion of sandwich graduates gaining early full-time paid employment than their full-time counterparts (Figure 7.2).

Overall, 9.5% of social scientists were unemployed six months after leaving their course. Only 7.3% of thick-sandwich graduates were unemployed compared to 11.3% of thin-sandwich and 9.8% of full-time graduates (Figure 7.2).

Almost a quarter (23.4%) of full-time graduates continued with their studies after their first degree. This compares with 14.6% of thin-sandwich and 16.3% of thick-sandwich graduates (Figure 7.2).

Figure 7.2: Main activities of social science graduates

Course breakdowns

Closer analysis of these subjects revealed a greater degree of diversity within social science subjects than within other subject areas. Initially at least, thin-sandwich politics and economics graduates do better than other politics and economics graduates in the employment market. Conversely, thick-sandwich anthropology, sociology and psychology graduates do better than their full-time and thin-sandwich peers. Full-time graduates are disadvantaged in all subjects except combined studies and economics. Economics is unusual in being a subject in which full-time graduates (65.5%) have a large advantage over thick-sandwich graduates (43.5%) in the labour market six months after graduation (Figure 7.3).

Figure 7.3: Percentage of social science graduates in full-time paid employment by subject area

There were a greater proportion of unemployed full-time graduates than sandwich graduates in three out of the six social science subjects: sociology; psychology and combined studies. For the remaining three subjects, thick-sandwich graduates had the highest rate of unemployment in economics and politics and thin-sandwich graduates had the highest proportion in anthropology. In politics and economics, thin-sandwich graduates had the lowest rate of unemployment and thick-sandwich graduates had the lowest unemployment rates in the remaining four subjects (Figure 7.4).

Figure 7.4: Percentage of unemployed social science graduates by subject area

Overall, 22.3% of social scientists entered further education upon graduation. This proportion was not reflected in the majority of subject areas, except politics and combined studies. Thick- and thin-sandwich anthropology graduates demonstrated a low take-up of further education with just under 7% from each group continuing with their studies. Conversely, almost half (44.6%) the thick-sandwich economics graduates went on to further education (Figure 7.5)

Figure 7.5: Percentage of social science graduates in further education by subject area

Summary

- A higher proportion of social science sandwich graduates gained early full-time paid employment than their full-time counterparts.
- Thin-sandwich politics and economics graduates do better than other politics and economics graduates in the employment market. Conversely, thick-sandwich anthropology, sociology and psychology graduates do better than their full-time and thin-sandwich peers.
- Almost one in ten (9.5%) social scientists were unemployed six months after leaving their course. Although thin-sandwich and full-time graduates had higher than average unemployment rates, only 7.3% of thick-sandwich graduates were unemployed after the same period of time.
- Almost a quarter (23.4%) of full-time graduates continued with their studies after their first degree compared to 14.6% of thin-sandwich and 16.3% of thick-sandwich graduates.

8 Conclusion

This broad analysis across diverse subject areas demonstrates that there is a correlation between graduates who have work experience and early employability. Sandwich students are advantaged in the labour market, at least in the early part of their careers, although the extent of this advantage is dependant on subject area: science and language sandwich graduates for instance do not enjoy a significant advantage but most built environment, business, engineering and social science sandwich graduates do.

Breakdowns by type of sandwich course reveal that for all broad subject areas except engineering, higher proportions of thick-sandwich graduates achieve greater labour market success than thin-sandwich graduates.

Overall, sandwich graduates are marginally less likely than their full-time counterparts to be unemployed. However, in science, language and engineering, graduates are no more likely to be unemployed if they studied full-time than if they studied on a sandwich degree. Even in broad subject areas where, overall, full-time graduates are more likely to be unemployed than sandwich students, breakdowns at the subject level reveal that there are exceptions to this trend. Greater proportions of thin-sandwich building graduates, thick-sandwich marketing and financial management graduates, and thin-sandwich sociology and anthropology graduates are unemployed, than the full-time graduates who studied the same subjects.

Similarly, full-time graduates are more likely to enter further study on graduation than their sandwich peers. However, once again closer analysis revealed some notable exceptions. As with the previous activity categories, there is little diversity between the participation rate of full-time and sandwich science and language graduates in further education. There is a great deal of diversity in the participation rate of other disciplines, particularly between graduates from sandwich architecture courses, thick-sandwich environmental studies, thin-sandwich marketing and catering, thick-sandwich accountancy, chemical engineering, economics and combined studies who are all more likely than full-time graduates from the same course to continue their education.

The analysis has not included art and design because the HESA returns provided insufficient numbers of graduates on sandwich courses to make any analysis viable. However, a recent study of the destinations of almost 2000 art and design graduates provides information on the impact of work experience (Blackwell and Harvey, 1999). The study concludes that only 29% of the sample had undertaken work placement(s) as part of their course and this ranged from 13% of fine art graduates to 58% of fashion and textiles graduates. Of these, 59% had a total placement time of less than six weeks and only 7% had work experience of 35 weeks or more. Many respondents to the survey thought that their course provided a relatively poor level of contact with the world of work. There were insufficient work-linked projects, employment-related visits or work-experience opportunities, such as embedded placements.

However, a substantial majority of those who had undertaken placements of any length (70%) found them both useful and important. Only 15% thought them to have been of little use or as

unimportant, and most of these were short placements. The longer the placement the more useful and important respondents considered it to be.

Work experience has some impact on the activity since graduating of art and design students.

- Graduates who have had some form of work experience are significantly more likely to have been, or to be currently, in full-time permanent employment than those who have had no work experience.
- Graduates who had work experience related to their current work are significantly more likely to be undertaking commissioned or freelance work than other graduates.
- Significantly more graduates with relevant work experience have operated their own business since graduating than other graduates.
- Those with relevant work experience are less likely to have been unemployed and seeking work at any point since graduating than other graduates.
- Graduates who have had work experience that is related to their current job have higher incomes than other graduates.
- Graduates who had work experience regard skill development as more important for their career than those who had no work experience.

The authors concluded that ‘without doubt increasing the amount of work experience linked to the programme of study would enormously benefit art and design graduates’ (Harvey and Blackwell, 1999, p. 5)

The study of HESA statistics would seem to endorse this view across a wider set of disciplines. Bearing in mind the caveats relating to the first-destination returns outlined in the introductory chapter, it appears that work experience, in the form of undergraduate sandwich placements, provides new graduates with an edge in the labour market. In addition, sandwich graduates are less likely to remain unemployed or undertake further study during the first six months after graduation.

The reasons for, and the true extent of, the advantage afforded to sandwich graduates by their placement experience cannot be deduced from the HESA statistics. However, other research has pointed to the perceived advantages of a lengthy period of work experience and in some cases correlated work experience with employment rates. The analysis of HESA statistics confirms that in many areas, the inclusion of a work experience element in the form of a thick placement or several ‘thin’ placements do advantage graduates when seeking work. However, it is impossible to speculate, from the statistical data available, why, for example, thin-sandwich engineering graduates are more successful than their thick-sandwich peers in the early part of their career.

Recommendations for further research

Further research needs to be carried out at the national level to investigate:

- The nature of the work graduates undertake six months post-graduation and the salaries earned.
- Why employers favour sandwich graduates and why thin-sandwich graduates are favoured over thick-sandwich graduates in certain professions.
- Why graduates elect to continue their studies beyond the first degree and the nature of the courses studied.
- What other kinds of work experience, apart from embedded placements, provide a labour market advantage for graduates.

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Statistics provided by the Higher Education Statistics Agency, September 1997.

Appendix 1

Overall	87	0.5	3505	21.8	293	1.8	16043
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Social Science Type of graduate	Unemployment		FT employment		PT employment	
	n	%	n	%	n	%
Thick-sandwich	1199	9.8	7248	59.5	610	5
Thin-sandwich	138	7.3	1375	72.8	43	2.3
Full-time	24	11.3	154	72.3	3	1.4
Overall	1361	9.5	8777	61.5	656	4.6

Social Science Type of graduate	Unpaid employment		Further study		Unknown		Total n
	n	%	n	%	n	%	
Thick-sandwich	131	1.1	2846	23.4			1888
Thin-sandwich	10	0.5	308	16.3			213
Full-time	0	0	31	14.6			12178
Overall	141	1	3185	22.3	159	1.1	14279