## Patterns of higher education institutions in the UK



This is a report by Professor Brian Ramsden on behalf of the Longer Term Strategy Group of Universities UK.

This ninth edition of Patterns of higher education institutions in the UK is supported by the UK Higher Education Europe Unit based at Universities UK. The Europe Unit is a sector-wide body which raises awareness of European Union (EU) issues affecting UK higher education. Launched in January 2004, the Unit strengthens the position of the UK higher education sector in the EU and Bologna Process policy debates and decision-making fora. The Unit is funded by the Higher Education Funding Council for England, the Scottish Funding Council, the Higher Education Funding Council for Wales, GuildHE and the Quality Assurance Agency and Universities UK. To find out more about the work of the Europe Unit, visit www.europeunit.ac.uk.

■ This report is the ninth in a series published annually by Universities UK, with the support of GuildHE and the UK Higher Education Europe Unit, updating and expanding a rich variety of data through which to understand higher education institutions in the UK.

## The Patterns series

The Patterns series, since its first report in 2001, has examined the trends in UK higher education at both the sector and institutional level. We have built up a 10-year time series of information that has proved very useful to senior managers in the sector as well as being drawn upon by many outside higher education. In addition, each report has focused in its final section on a particular issue of interest. In 2001 that was consolidation and collaboration within the higher education sector following the abolition of the binary line. In subsequent reports, the particular issues have covered the diversity in the sector's activities and provision; differentiation - in other words, the planned positioning of institutions within the higher education sector; regional issues; the relationship between UK higher education institutions and those of other countries; the student experience and how it has changed over time; and strategic and vulnerable subjects. The eighth report, published in 2008, included an examination of the financial aspects of diversity and a time series analysis: some of the key financial data included for the first time in Patterns 2008 are updated in this report.

## The ninth report

■ This ninth report follows the established format of the Patterns series. Section A looks at sector level trends over the 10-year period from 1998/99 to 2007/08 and provides the context for the findings about institutions. Section B looks at patterns of institutional diversity and updates information on higher education provided in the earlier Patterns reports. Section C focuses on a range of statistical information about higher education in Europe, and the UK's relationship with this.

A wide range of fascinating data is presented in this report. I shall draw attention to some of the key findings here.

## Higher education enrolments

- Across the UK, undergraduate enrolments in higher education institutions have increased by 25 per cent overall in the 10-year period from 1998/99 to 2007/08. There is a noticeably greater increase in the number of part-time enrolments lespecially in Scotland and Wales) than full-time enrolments at undergraduate level over the last 10 years. However, this trend in part-time enrolments has been slightly reversed in the latest year (2007/08).

In this ninth report, it is not possible to replicate fully the trend analysis shown in previous reports because of changes in the definitions used by the Higher Education Statistics Agency (HESA) to measure enrolled students, particularly the exclusion from the data of those completing theses or dissertations. There have also been changes to subject definitions within the student record and changes to the finance record which complicate any consideration of time series comparisons.

## The student population

The increasing diversity of the student population has been seen in successive issues of Patterns. This year's report confirms the downward trend in the proportion of men amongst students enrolled in higher education institutions - this proportion has declined significantly over the 10-year period from 1998/99 to 2007/08. Although the total number of men in higher education has increased, it has to be noted that 75 per cent of the growth in full-time students is accounted for by women. Female students are in the majority at all modes and levels, and it is only among full-time postgraduates (who are dominated by non-UK students) that male students very nearly approach parity. Comparative figures for the previous academic year show very little change, although the proportion of males has slightly increased among full-time postgraduate students.

## How are students choosing to study?

- There has been a decline between 2006/07 and 2007/08 in the number of part-time students enrolled in higher education at undergraduate and postgraduate level (although a decrease in the latter may be due to the change in HESA definitions). This compares with a significant increase in part-time students over the last 10 years as a whole. This may be a cause for concern, as part-time study plays an increasingly important role in meeting the higher level skills agenda and to lifelong learning. Amongst the various factors that explain this decline may be the different systems for student support now available to full-time and part-time students. Part-time student numbers will need to increase if the sector is to expand to the extent proposed in the Leitch Report, particularly when the decrease in the number of 18 -year-olds in the next decade after 2009 is taken into account. As the projections in Universities UK's recent reports on the Future size and shape of the higher education sector in the UK show, the 30-50 age group from which part-time students are largely drawn will continue to grow while the size of the younger age group declines in the period up to 2019/20.


## What students are choosing to study

■ Over the decade from 1998/99 to 2007/08 there have been significant changes in the subjects that students are studying. Above average increases in enrolments since 1998/99 are seen in subjects allied to medicine (mostly because of nursing); biological sciences (mostly because of psychology); mathematical sciences (continuing a significant recovery in recent years); law; mass communication and documentation; historical and philosophical studies; education; social studies lespecially social work and politics); and creative arts and design (which includes drama and music).

■ While no subject area has seen a significant absolute reduction in student numbers from 1997/98 to 2006/07, there have been lower than average levels of increase in enrolments in veterinary science; medicine; architecture, building and planning; engineering and technology; the physical sciences; computer science; agriculture; and business and administrative studies (the last of which has been one of the most popular subject areas in recent years). The very small increase in computer science, for long one of the growth subjects, confirms its downward trend in recent years. Even in these subjects, however, there are pockets of significant growth, such as aerospace engineering, architecture, finance, marketing, astronomy and ocean sciences.

■ Following the significant changes to the categorisation of subjects in 2002/03, further, less significant, changes have taken place in 2007/08, and so the detailed allocation of students in this report does not precisely follow the definitions in last year's Patterns report.

## EU and international students

- It is clear from the analysis in this report that the UK is continuing to attract students from across the world. In the 10-year period from 1998/99 to 2007/08 non-EU international student enrolments have increased by 25 per cent. The small fall between 2006/07 and 2007/08 may be a signal of the sensitivity of these markets to movements in exchange rates, though EU enlargement will have also had some impact.
$■$ China remains the most significant provider of students to UK higher education across most levels of study. India features very strongly among taught postgraduate students, and students from the United States are also prominent among research postgraduates. Countries of the Middle East and South Asia feature prominently among postgraduate research students, including students from India, Pakistan, Saudi Arabia, Iran, Libya and Egypt. Undergraduate enrolments of students from the Republic of Ireland have declined again, presumably in response to the abolition of tuition fees in the Republic.


## Trends in income

■ Between 2006/07 and 2007/08, the sector saw an increase in income of the order of 10 per cent, resulting partly from the introduction of variable fees, increases in other tuition fee income, and increases in funding council grants and research council grants. Endowment and investment income also shows an improvement as compared with earlier years. The overall change since 2001 is an increase in total income, and most income components, of a little over 70 per cent. This is, of course, gross income. Only the increase in funding council income now falls below this level, with a notable lag in Wales. The overall annual income to the sector is now over $€ 23$ billion, compared with $£ 13$ billion in 2001/02.

## Patterns of institutional diversity

- Radical changes in the diversity of institutions should not be expected from year to year, but the patterns themselves remain of considerable interest in underlining the continuing diversity of the higher education sector. Thus, the recruitment of non-EU international students is concentrated across institutions at the same levels in 2007/08 as in the previous year. Students from the EU, on the other hand, have grown particularly strongly in those institutions in which there was already a high concentration. Female students are becoming more numerous even in those institutions which had a high proportion of male students, reflecting an increase in female students in subjects once dominated by men.
$■$ Recent editions of Patterns have noted an increasing concentration of students from minority ethnic backgrounds in a limited number of institutions, but there has been a modest reversal of this trend in 2007/08. It is too early to identify this as a change of trend, but it does signal a greater spread of minority ethnic students across the sector as a whole.
$■$ The section on institutional diversity is always a particularly interesting part of Patterns, and the increasing focus on financial patterns makes it even more so. Surplus or deficit as a percentage of income, for example, shows an improvement across the sector between 2005/06 and 2006/07, but with this being particularly marked amongst institutions already showing a relatively high level of surplus. There is a considerable diversity of financial security across the sector, as is revealed in a series of charts. This section also underlines the high level of concentration of research income (from both sides of the dual support system) with the median at just 3 per cent of all income, and the upper decile at 21 per cent.


## Aspects of European higher education

- This edition of Patterns focuses on a range of statistical information about the development of higher education in continental Europe, and how the UK relates to it. It has been a particular challenge because it takes Brian Ramsden's work into different and quite challenging data, and the results should give us all a good deal of food for thought. As with all international comparisons, readers may be surprised by the areas in which the UK appears to be fairly average as well as by those where it stands out as different.

■ There is a comparison of higher education enrolments and total population for all the Bologna countries and trends in participation between 1999-2006, including the mode of study and gender of the student body, are reviewed. They make striking reading, for example on growth in participation since 1999 where the UK's rate of expansion looks quite modest, and the distribution of students across fields of study. The percentage of female students in engineering and technology, for example, shows the relatively weak position of the UK and it will be of interest to those who believe that changing the UK gender balance in these subjects will significantly address the shortfall in recruitment in this area.

■ An examination of inward mobility shows that the UK is the major European provider of higher education to international students generally, but not to those from Europe (where it is exceeded by Germany). The UK shows a 48 per cent increase in its incoming international students between 2000-2006, with modest outward mobility in comparison. A similar, though less acute, picture of imbalance can be seen when looking at student exchanges through the Erasmus programme.

- In terms of the percentage of GDP spent on higher education, the UK is close to the European average, fractionally above France and Germany but below that of several smaller European nations.
$■$ Section C also looks at total expenditure on research and development and at the investment in research in higher education institutions as a percentage of GDP overall. In terms of total spend on research and development as a percentage of GDP, the UK lags behind Germany and France. However, when we look at research expenditure in higher education institutions as opposed to industry and other sectors a greater proportion is spent within higher education compared to comparator countries such as Germany and France, highlighting the importance of our universities to the UK research base. It is also notable that the UK has the highest number of publications within the top 1 per cent of citations (over the period 2000-2006), ahead of Germany and France.
■ Much more rich material is set out in Patterns 9, and readers will certainly find a great deal of interest beyond the highlights that I have been able to point to in this brief introduction. I would like once again to thank Professor Brian Ramsden for continuing to provide this fascinating insight into the patterns of higher education institutions in the UK.



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Contents

## 6 Index of tables

## 7 Index of charts

## 8 Index of institutional distribution charts

Section A
10 Trends in UK higher education
10 Enrolments
13 Enrolments by gender
15 Enrolments by subject
20 Changes in subject balance of full-time first degree students
21 Trends in EU and international enrolments
23 Trends in income
Section B
26 Patterns of institutional diversity
26 Number of institutions in the sector
27 Institutional charts
27 Balance of provision
31 Student characteristics and outcomes
37 Aspects of staffing in higher education institutions
38 Financial issues
Section C
49 Aspects of European higher education
49 Introduction
49 Students
49 The Bologna process countries: an overview
51 Participation in higher education
54 Mode of study
56 Gender
57 Student mobility
63 Student outcomes
65 Financial indicators
69 Academic staff
70 Research and development

## 74 Conclusion

## 75 Appendices

76 Appendix 1: Total enrolments by detailed subject of study, 1998/99 and 2007/08
81 Appendix 2: Non-UK domiciled students at UK higher education institutions by domicile and qualification aim, 2007/08
84 Appendix 3: Trends in sources of income to higher education institutions, 2000/01, 2006/07 and 2007/08
87 Appendix 4: Distribution of enrolments among higher education and further education institutions by mode and level, 2006/07
88 Appendix 5: Mergers within the higher education sector, 1994/95-2007/08
90 Appendix 6: HESA academic cost centres
91 Appendix 7: Definitions of higher education
92 Appendix 8: Countries included in the Section $C$ analysis
93 Appendix 9: Mobility of students at European institutions, 2006
97 Appendix 10: Sources
98 Notes

Index of tables

10 Table 1 Enrolments in higher education institutions by country on higher education (HE) and further education (FE) programmes, 1998/99-2007/08
11 Table 2 Enrolments on higher education level courses within higher and further education institutions, 2006/07

12 Table 3 Enrolments by mode and level, 1998/99, 2006/07 and 2007/08
13 Table 4 Overall change of undergraduate enrolments by mode and level, 1998/99-2007/08
13 Table 5 Enrolments by level, mode and gender, 2007/08
14 Table 6 Enrolments by level, mode and gender, 2006/07
14 Table 7 Enrolments by level, mode and gender, 1998/99
16 Table 8 Enrolments by subject area, 2006/07 and 2007/08
17 Table 9 Enrolments by subject area, 1998/99 (adjusted) and 2007/08
22 Table 10 Enrolments of students by domicile, 1998/99, 2006/07 and 2007/08
23 Table 11 Major countries supplying students to UK higher education institutions, by level of study, 2007/08
24 Table 12 Main sources of income received by UK higher education institutions, 2000/01, 2006/07 and 2007/08, €000 (cash terms)
34 Table 13 Classification of national statistics socio-economic groups
50 Table 14 Higher education enrolments and total population for all Bologna process countries, 2005/06
51 Table 15 Trends in participation in higher education - changes from 1999 to 2006
53 Table 16 Age at entry of new higher education students, 2006
54 Table 17 Percentage of entrants by broad field of study, 2006
55 Table 18 De facto student status: students with full-time status by size of effective workload for study-related activities per week, ISCED 5A, 2006
58 Table 19 Inward mobility into selected European states, 2006, and overall percentage change, 2000-2006
61 Table 20 Erasmus incoming and outgoing students, and percentage relationship, 2006/07
62 Table 21 Distribution of international and foreign students in tertiary education, by field of education, 2006
64 Table 22 Graduates (ISCED 5A and 6) by field of study (percentages, excluding unknowns), 2006
65 Table 23 Percentage of GDP spent on higher education, 2005
67 Table 24 Annual total expenditure on tertiary educational institutions per full-time equivalent student (in EUR PPS) with and without expenditure on research and ancillary services, 2005
69 Table 25 Percentage expenditure against international income, 2005
70 Table 26 Academic staff by mode of employment, 2006
71 Table 27 Research and development as a percentage of GDP, overall and by sector, 2000 and 2006

Index of charts

15 Chart 1 Percentage of male students by mode and level, 1998/99 and 2007/08
18 Chart 2 Percentage change in enrolments by subject area, 1998/99-2007/08
21 Chart 3 Percentage of full-time first degree students in each subject area, 1994/95-2007/08
52 Chart 4 Percentage change in higher education enrolments, 1999-2006
52 Chart 5 Entry rates into higher education, 2006
55 Chart 6 Percentage of ISCED 5A students reported as being part-time, 2006
56 Chart 7 Percentage of female students at ISCED 5A, 2006
56 Chart 8 Percentage points change in female participation in higher education (ISCED 5A), 2000-2006
57 Chart 9 Percentage of female students in the fields of science, mathematics and computing at ISCED 5-6, 2006
57 Chart 10 Percentage of female students in the fields of engineering and technology at ISCED 5-6, 2006
59 Chart 11 Mobility of all international students into selected European countries, 2006
59 Chart 12 Mobility of European students into selected European countries, 2006
60 Chart 13 Percentage change in inward mobility of selected countries, 2000-2006
60 Chart 14 Outward mobility of students from the UK to other European destinations, 2006
63 Chart 15 Graduation rates at ISCED 5A (first graduation), 2006
65 Chart 16 Percentage unemployment rate of tertiary graduates at ISCED 5-6, cumulated over 2003-2007
66 Chart 17 Percentage of GDP spent on higher education by country, 2005
66 Chart 18 Higher education institution income from private sources as a percentage of all sources, 2005

68 Chart 19 Annual total expenditure on tertiary educational institutions per full-time equivalent student (in EUR PPS) including expenditure on research and ancillary services, 2005
68 Chart 20 Annual total expenditure on tertiary educational institutions per full-time equivalent student (in EUR PPS) excluding expenditure on research and ancillary services, 2005
69 Chart 21 Gender of academic staff, 2006: percentage female
70 Chart 22 Age of academic staff, 2006: percentages by age of group
72 Chart 23 Total expenditure on research and development as percentage of GDP, 2006
72 Chart 24 Percentage of GDP applied to research and development in higher education institutions, 2006
73 Chart 25 Publications within the top 1 per cent of citations, 2000-2006

Index of institutional distribution charts

Institutional chart 1 Percentage of students following postgraduate programmes, 2007/08
Institutional chart 2 Absolute numbers of postgraduate enrolments, 2007/08
Institutional chart 3 Absolute numbers of undergraduate enrolments, 2007/08
Institutional chart 4 Percentage of enrolments in undergraduate programmes not directly leading to first degrees, 2007/08
Institutional chart 5 Percentage of part-time enrolments, 2007/08
Institutional chart 6 Enrolments of all non-UK domiciled students, 2007/08
Institutional chart 7 Enrolments of international (non-EU) domiciled students, 2007/08
Institutional chart 8 Enrolments of EU (excluding UK) domiciled students, 2007/08
Institutional chart 9 Percentage of mature full-time undergraduates, 2007/08
Institutional chart 10 Percentage of male students, 2007/08
Institutional chart 11 Percentage of UK-domiciled first year students from minority ethnic groups, 2007/08
Institutional chart 12 Percentage of young full-time first degree entrants from national statistics socio-economic classification classes 4, 5, 6 and 7, 2007/08
Institutional chart 13 Average tariff points of entrants to full-time undergraduate courses, 2007/08
Institutional chart 14 Percentage of first-class degrees awarded, 2007/08
Institutional chart 15 Percentage of first- and upper second-class degrees awarded, 2007/08
Institutional chart 16 Percentage of first degree full-time graduates not unemployed, 2006/07
Institutional chart 17 Number of cost centres within which staff are employed, 2007/08
Institutional chart 18 Percentage of female academic staff, 2007/08
Institutional chart 19 Percentage of minority ethnic groups among academic staff, 2007/08
Institutional chart 20 Surplus/deficit as a percentage of income, 2007/08
Institutional chart 21 Five-year average of percentage ratio of historical surplus/deficit after tax to total income, 2002/03-2007/08
Institutional chart 22 Days ratio of net liquid assets to total expenditure, 2007/08
Institutional chart 23 Days ratio of total general funds to total expenditure, 2007/08
Institutional chart 24 The security index, 2007/08
Institutional chart 25 Percentage ratio of total long term borrowings to total income, 2007/08
Institutional chart 26 Funding council income as a percentage of total income, 2007/08
Institutional chart 27 Funding council teaching grant as a percentage of total income, 2007/08
Institutional chart 28 Funding of research through the dual support system (€000), 2007/08
Institutional chart 29 Funding of research through the dual support system as a percentage of total income, 2007/08

Index of institutional distribution charts

$$
\begin{array}{lll}
44 & \text { Institutional chart 30 } & \begin{array}{l}
\text { Research grants and contracts as a percentage of funding } \\
\text { council research grant, 2007/08 }
\end{array} \\
44 & \text { Institutional chart } 31 & \text { Income for other services rendered (£000), 2007/08 } \\
45 & \text { Institutional chart 32 } & \text { Income from international (non-EU) student fees (€000), 2007/08 } \\
45 & \text { Institutional chart 33 } & \begin{array}{l}
\text { Income from international (non-EU) student fees, as a } \\
\text { percentage of total income, 2007/08 }
\end{array} \\
46 \text { Institutional chart 34 } & \text { Ratio of payroll costs to total income, 2007/08 } \\
47 & \text { Institutional chart 35 } & \text { Administrative costs per full-time equivalent student (£), 2006/07 } \\
47 & \text { Institutional chart 36 } & \begin{array}{l}
\text { Academic departmental costs per full-time equivalent student, } \\
\text { excluding academic staff (€), 2006/07 }
\end{array} \\
48 \text { Institutional chart 37 } & \begin{array}{l}
\text { Total academic services expenditure per full-time equivalent } \\
\text { student (£), 2006/07 }
\end{array} \\
48 \text { Institutional chart 38 } & \begin{array}{l}
\text { Premises expenditure per full-time equivalent student (£), } \\
\text { 2006/07 }
\end{array}
\end{array}
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1 Almost all of the statistical information within this report has been drawn from HESA publications: in particular, it draws on the CD-Rom publications HE Finance Plus and HE Planning Plus and also the volumes of Students and Resources of higher education institutions. The presentation of figures within the tables conforms to HESA's conventions for the year in question: for example, numbers for the year 2007/08 are rounded to the nearest five. It follows that some rows and columns in tables will not sum precisely. All HESA publications are published by the Higher Education Statistics Agency Limited, 95 Promenade, Cheltenham, GL50 1HZ, telephone +44 (0) 124225 5577: further details are available at www.hesa.ac.uk/products/ pubs/home.htm.

## Table 1

Enrolments in higher education institutions by country on higher education (HE) and further education (FE) programmes, 1998/99-2007/08

1 This section of the Patterns reports has in previous years set out some of the major trends in higher education in the United Kingdom during the last 10 years. It is not possible fully to replicate the trend analysis shown in previous reports, because of changes in the Higher Education Statistics Agency (HESA) records. ${ }^{1}$

2 The major change has been in the definition of HESA's standard registration population - the major measure of enrolled students - which has been reduced by the exclusion of students writing up or completing theses and dissertations. There are also changes to the subject definitions within the student record. There are further changes to the finance record, which involve additional complications when considering time series comparisons. While HESA has provided some bridging data, which is welcome, this is only available at a high level and for the most recent two years, and cannot therefore support detailed recalculation and analysis over a 10-year period.

3 The changes in the student and finance records involve the second significant fluctuation in 10 years and therefore the construction of some 10-year comparisons (including comparisons of student numbers at some levels of disaggregation) would be unwise and would inevitably lead to unreliable inferences. The comparisons in this section are therefore limited to those which can be made reasonably robustly. Where absolute student numbers are not comparable, we have in some instances included percentage change calculations in the belief that the characteristics of the underlying population will not have changed significantly - although this is a challengeable assumption.

## Enrolments

4 Before looking at enrolments on higher education programmes, it should be noted that there is a percentage of students in higher education institutions who are following programmes at further education level, which increased significantly between 1998/99 and 2001/02 but has now levelled off. Table 1 shows the figures for enrolments at higher education and further education levels in 2007/08 and comparisons with 1998/99 and 2006/07.

|  |  | United Kingdom | England | Wales | Scotland | Northern Ireland |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1998/99 | Total all students | 1,890,775 | 1,573,668 | 101,187 | 173,195 | 48,225 |
|  | Total HE students | 1,845,757 | 1,533,582 | 96,527 | 172,923 | 48,200 |
|  | Total FE students | 45,018 | 40,086 | 4,660 | 272 | 25 |
|  | FE students as percentage of total | 2.4\% | 2.5\% | 4.6\% | 0.2\% | 0.1\% |
| 2006/07 | Total all students | 2,478,425 | 2,060,400 | 144,140 | 223,560 | 50,325 |
|  | Total HE students | 2,362,815 | 1,957,190 | 131,765 | 223,530 | 50,325 |
|  | Total FE students | 115,610 | 103,210 | 12,375 | 25 | 0 |
|  | FE students as percentage of total | 4.7\% | 5.0\% | 8.6\% | 0.0\% | 0.0\% |
| 2007/08 | Total all students | 2,399,795 | 1,994,870 | 146,460 | 210,230 | 48,225 |
|  | Total HE students | 2,306,105 | 1,922,180 | 125,540 | 210,180 | 48,200 |
|  | Total FE students | 93,690 | 72,690 | 20,920 | 50 | 25 |
|  | FE students as percentage of total | 3.9\% | 3.6\% | 14.3\% | 0.0\% | 0.1\% |

5 Calculation of changes across years should not be undertaken on the absolute numbers in table 1, because of the high level of aggregation. Comparisons of percentages are also problematic, because of the definitional changes referred to above. The increase in the numbers and percentage of further education students in Welsh institutions is however significant and consistent over time.

Table 2
Enrolments on higher education level courses within higher and further education institutions, 2006/07

6 While this report analyses students enrolled chiefly within publicly funded higher education institutions, it does not generally cover students following courses at higher education level in further education institutions or in privately funded higher education institutions ${ }^{2}$. Consequently, a significant number of students following higher education programmes, especially in Scotland and Northern Ireland, is excluded from this analysis, since there is a far higher proportion of students within those countries who begin or undertake their higher education experience within further education institutions. The overall statistics are presented in table 2: it should be noted that this table is not available for 2007/08.

| Country | Higher education <br> institutions |  | Further education <br> institutions |  |  | All institutions |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

2 With the exception of the University of Buckingham.

3 With the exception of the University of Buckingham, which has been included in HESA data since 2004/05.

7 A more detailed analysis in Appendix 4 shows the disaggregation of enrolments by level.

8 As was noted in last year's report, the clear trend in relation to the provision of higher education courses is that a smaller proportion is being provided directly in further education colleges. Overall, the percentage of higher education students being taught in further education colleges across the UK as a whole fell, from over 9 per cent in 2001/02 to 7 per cent in 2006/07. The absolute numbers of higher education students in further education institutions has declined overall by 5 per cent in the last year, and this reduction is consistent in all countries of the UK with the exception of Wales which has seen a small increase from a low base.

9 Overall, across the UK 11 per cent of part-time higher education enrolments are in further education colleges: in Scotland, the figure is 25 per cent (compared with 26 per cent in 2005/06). As Appendix 4 shows, the large majority of enrolments among part-time and full-time students studying at 'other undergraduate' level in Scotland and Northern Ireland are in further education colleges.

10 However, the definitions of full-time study in further education colleges vary across countries and the statistics would be more robust if a common approach were adopted.
11 Registrations on programmes at further education level within higher education institutions and on programmes at higher education level within further education institutions are excluded from the further analyses within this report, which concentrates on higher education enrolments at higher education institutions.
12 There is also no analysis of students following courses in privately funded higher education institutions, since there is currently no process for collecting data on a consistent basis from those institutions. ${ }^{3}$

13 Turning now to higher education student enrolments, table 3 shows enrolments at undergraduate and postgraduate level, by UK country of institution and by mode of study in 2007/08, with comparisons with 1998/99 and 2006/07.

Table 3
Enrolments by mode
and level, 1998/99,
2006/07 and 2007/08

| Year | Level | Mode of study | United Kingdom | England | Wales | Scotland | Northern Ireland |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1998/99 | Postgraduate | Full-time | 146,367 | 121,140 | 7,112 | 14,651 | 3,464 |
|  |  | Part-time | 256,973 | 216,614 | 10,772 | 24,230 | 5,357 |
|  |  | Total | 403,340 | 337,754 | 17,884 | 38,881 | 8,821 |
|  | Undergraduate | Full-time | 1,032,897 | 835,526 | 58,819 | 113,700 | 24,852 |
|  |  | Part-time | 409,520 | 360,302 | 19,824 | 20,342 | 9,052 |
|  |  | Total | 1,442,417 | 1,195,828 | 78,643 | 134,042 | 33,904 |
|  | All students | Full-time | 1,179,264 | 956,666 | 65,931 | 128,351 | 28,316 |
|  |  | Part-time | 666,493 | 576,916 | 30,596 | 44,572 | 14,409 |
|  |  | Total | 1,845,757 | 1,533,582 | 96,527 | 172,923 | 42,725 |
|  |  | Percentage Postgraduate | 21.9\% | 22.0\% | 18.5\% | 22.5\% | 20.6\% |
| 2006/07 | Postgraduate | Full-time | 243,070 | 201,830 | 11,175 | 26,680 | 3,390 |
|  |  | Part-time | 316,320 | 260,605 | 16,490 | 32,350 | 6,880 |
|  |  | Total | 559,390 | 462,430 | 27,665 | 59,025 | 10,270 |
|  | Undergraduate | Full-time | 1,208,645 | 985,810 | 66,005 | 126,115 | 30,720 |
|  |  | Part-time | 594,780 | 508,955 | 38,095 | 38,390 | 9,335 |
|  |  | Total | 1,803,425 | 1,494,760 | 104,100 | 164,505 | 40,060 |
|  | All students | Full-time | 1,451,715 | 1,187,640 | 77,180 | 152,795 | 34,110 |
|  |  | Part-time | 911,100 | 769,560 | 54,585 | 70,740 | 16,215 |
|  |  | Total | 2,362,815 | 1,957,190 | 131,765 | 223,530 | 50,325 |
|  |  | Percentage Postgraduate | 23.7\% | 23.6\% | 21.0\% | 26.4\% | 20.4\% |
| 2007/08 | Postgraduate | Full-time | 248,380 | 206,865 | 11,405 | 26,320 | 3,790 |
|  |  | Part-time | 252,755 | 210,300 | 11,855 | 24,955 | 5,645 |
|  |  | Total | 501,135 | 417,165 | 23,260 | 51,275 | 9,435 |
|  | Undergraduate | Full-time | 1,232,005 | 1,011,955 | 66,810 | 123,290 | 29,950 |
|  |  | Part-time | 572,965 | 493,060 | 35,475 | 35,620 | 8,810 |
|  |  | Total | 1,804,970 | 1,505,015 | 102,285 | 158,910 | 38,760 |
|  | All students | Full-time | 1,480,385 | 1,218,820 | 78,215 | 149,610 | 33,740 |
|  |  | Part-time | 825,720 | 703,360 | 47,330 | 60,575 | 14,455 |
|  |  | Total | 2,306,105 | 1,922,180 | 125,540 | 210,180 | 48,200 |
|  |  | Percentage Postgraduate | 21.7\% | 21.7\% | 18.5\% | 24.4\% | 19.6\% |

14 Again, the change in time cannot be reported overall in a robust way because of the definitional changes in the student records, which particularly affect postgraduate statistics. (In all countries of the UK, the reported percentage of postgraduates has declined in the most recent year: this is a result of the redefinition of the HESA record, and does not represent a real reduction.) The change over time in relation to undergraduate enrolment statistics is summarised in table 4.

Table 4
Overall change of undergraduate enrolments by mode and level, 1998/99-2007/08

|  | United <br> Kingdom | England | Wales | Scotland | Northern Ireland |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Overall changes |  |  |  |  |  |
| Percentage change in enrolments of undergraduates, 1998/99 to 2007/08 | 25.1\% | 25.9\% | 30.1\% | 18.6\% | 14.3\% |
| Percentage change in enrolments of undergraduates, 2006/07 to 2007/08 | 0.1\% | 0.7\% | -1.7\% | -3.4\% | -3.2\% |
| Change in part-time numbers |  |  |  |  |  |
| Percentage change in enrolments of part-time undergraduates, 1998/99 to 2007/08 | 8 39.9\% | 36.8\% | 78.9\% | 75.1\% | -2.7\% |
| Percentage change in enrolments of part-time undergraduates, 2006/07 to 2007/08 | - $3.7 \%$ | -3.1\% | -6.9\% | -7.2\% | -5.6\% |
| Change in full-time numbers |  |  |  |  |  |
| Percentage change in enrolments of full-time undergraduates, 1998/99 to 2007/08 | - 19.3\% | 21.1\% | 13.6\% | 8.4\% | 20.5\% |
| Percentage change in enrolments of full-time undergraduates, 2006/07 to 2007/08 | 8 1.9\% | 2.7\% | 1.2\% | -2.2\% | -2.5\% |

15 When the figures are disaggregated by mode, it can be seen that there is a noticeably greater increase in the number of part-time enrolments lespecially in Scotland and Wales) than full-time enrolments at undergraduate level over the last 10 years. However, this increase has been slightly reversed in the latest year.
16 While a significant proportion of the growth in part-time undergraduates can be attributed to a structural cause (the mainstreaming of the former continuing education courses in the pre-1992 universities in 1994/95), there is in fact a generally greater increase across the whole of the period in part-time enrolments as compared with full-time enrolments. However, again it is important to take into account the two redefinitions of the HESA standard population over the period, which led to the reporting of greater numbers following short part-time courses.

## Enrolments by gender

17 We now turn to information about the trend in student enrolments in higher education institutions by gender. Table 5 looks at enrolments by level, mode and gender for 2007/08.

Table 5
Enrolments by level, mode and gender, 2007/08

| Level and mode of study | Total | Female | Male | Percentage <br> male |
| :---: | :---: | :---: | :---: | :---: |
| Full-time students |  |  |  |  |
| Postgraduate | 248,380 | 124,400 | 123,980 | $49.9 \%$ |
| First degree | $1,108,685$ | 604,405 | 504,260 | $45.5 \%$ |
| Other undergraduate | 123,320 | 82,125 | 41,185 | $33.4 \%$ |
| Total full-time | $\mathbf{1 , 4 8 0 , 3 8 5}$ | $\mathbf{8 1 0 , 9 3 0}$ | $\mathbf{6 6 9 , 4 2 0}$ | $45.2 \%$ |
| Part-time students | 252,755 | 145,160 | 107,550 | $42.6 \%$ |
| Postgraduate | 198,155 | 118,250 | 79,905 | $40.3 \%$ |
| First degree | 374,810 | 243,400 | 131,350 | $35.0 \%$ |
| Other undergraduate | $\mathbf{8 2 5 , 7 2 0}$ | $\mathbf{5 0 6 , 8 0 5}$ | $\mathbf{3 1 8 , 8 0 0}$ | $38.6 \%$ |
| Total part-time |  |  |  |  |

18 Female students are in the majority at all modes and levels, and it is only among full-time postgraduates (who are dominated by non-UK students) that male students very nearly approach parity.

19 Comparative figures for the previous academic year are set out in table 6 from which it can be seen that there is very little change although the proportion of males has slightly increased among full-time postgraduate students.

Table 6 Enrolments by level, mode and gender, 2006/07

| Level and mode of study | Total | Female | Male | Percentage male |
| :---: | :---: | :---: | :---: | :---: |
| Full-time students |  |  |  |  |
| Postgraduate | 243,070 | 123,065 | 120,005 | 49.4\% |
| First degree | 1,086,080 | 590,825 | 495,255 | 45.6\% |
| Other undergraduate | 122,570 | 83,555 | 39,010 | 31.8\% |
| Total full-time | 1,451,720 | 797,445 | 654,270 | 45.1\% |
| Part-time students |  |  |  |  |
| Postgraduate | 316,320 | 175,715 | 140,605 | 44.5\% |
| First degree | 201,145 | 121,990 | 79,160 | 39.4\% |
| Other undergraduate | 393,630 | 257,270 | 136,360 | 34.6\% |
| Total part-time | 911,095 | 554,975 | 356,120 | 39.1\% |

20 Finally, in order to assess the long term trend, table 7 shows the situation as it was in 1998/99.

Table 7
Enrolments by level, mode and gender, 1998/99

| Level and mode of study | Total | Female | Male | Percentage male |
| :---: | :---: | :---: | :---: | :---: |
| Full-time students |  |  |  |  |
| Postgraduate | 314,562 | 159,774 | 154,788 | 49.2\% |
| First degree | 908,332 | 474,391 | 433,941 | 47.8\% |
| Other undergraduate | 124,565 | 76,851 | 47,714 | 38.3\% |
| Total full-time | 1,347,459 | 711,016 | 636,443 | 47.2\% |
| Part-time students |  |  |  |  |
| Postgraduate | 256,973 | 126,696 | 130,277 | 50.7\% |
| First degree | 93,651 | 55,060 | 38,591 | 41.2\% |
| Other undergraduate | 315,869 | 190,894 | 124,975 | 39.6\% |
| Total part-time | 666,493 | 372,650 | 293,843 | 44.1\% |

21 A comparison of tables 5 and 7 shows that at all modes and levels, with the exception of full-time postgraduates, the proportion of male students enrolled in higher education institutions has declined significantly over the 10-year period from 1998/99 to 2007/08. Chart 1 illustrates the changes.

Chart 1 Percentage of male students by mode and level, 1998/99 and 2007/08
1998/99

- 2007/08



## Enrolments by subject

## Methodological considerations

22 Previous Patterns reports have described, on a time series basis, the trends in student enrolments by subject and in each of the major subject area groupings. This exercise involves some complications. The first is that, in 2002/03, HESA introduced a new subject classification which had the effect of aligning its subject codes with those used by the Universities and Colleges Admissions Service (UCAS). In the process a precise correspondence with the codes used in previous years was lost. At the aggregated subject area level, the categorisations are very close, with one exception: introducing the new subject coding, together with a new (and improved) methodology for calculating principal subjects of study, had the effect of significantly reducing the 'combined' subject area. No adjustments will be made for this change. However, it should be taken into account that the precise components of each subject area are somewhat different in 2007/08 compared to the equivalent components before 2002/03.

23 The second complication is more significant. Historically, the Open University, which is the largest provider of undergraduate higher education, reported all of its students within the 'combined' subject area. In 2002/03, for the first time, many of the university's students were reported according to the main subject of the qualification for which they were enrolled. It follows that both at individual subject level and also at the level of aggregated subject areas there has been a major shift from the 'combined' subject area into the other subjects and subject areas. The new position gives a better picture of the overall enrolment by subject but the time series comparison with previous years is distorted considerably.
24 Further minor changes to the subject classification have been introduced in the 2007/08 academic year.
25 Consequently table 8 shows the absolute and relative enrolments in each of the 19 conventional subject areas in the most recent two years, and the percentage change. The figures include all students, irrespective of level, mode or domicile.
26 In table 9, the figures for 2007/08 are re-presented alongside the 1998/99 figures adjusted according to the new subject definitions to enable comparisons, except that the 'combined' subject area (which showed a 64 per cent reduction primarily as a result of the redistribution of Open University students) is shown below the sub-total of other subject areas.

Table 8
Enrolments by subject
area, 2006/07 and
2007/08

| Subject area enr | Student nrolments, 2006/07 | Percentage of total | $\begin{array}{r} \text { Student } \\ \text { enrolments, } \\ 2007 / 08 \end{array}$ | Percentage of total | $\begin{aligned} & \text { Percentage } \\ & \text { change, } \\ & 2006 / 07 \text { to } \\ & 2007 / 08 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Medicine and dentistry | 63,245 | 2.7\% | 61,810 | 2.7\% | -2\% |
| Subjects allied to medicine | 300,900 | 12.7\% | 287,125 | 12.5\% | -5\% |
| Biological sciences | 164,215 | 6.9\% | 161,600 | 7.0\% | -2\% |
| Veterinary science | 4,875 | 0.2\% | 4,850 | 0.2\% | -1\% |
| Agriculture and related subjects | 16,085 | 0.7\% | 17,680 | 0.8\% | 10\% |
| Physical sciences | 83,905 | 3.6\% | 82,130 | 3.6\% | -2\% |
| Mathematical sciences | 33,790 | 1.4\% | 34,120 | 1.5\% | 1\% |
| Computer science | 106,910 | 4.5\% | 95,575 | 4.1\% | -11\% |
| Engineering and technology | 140,580 | 5.9\% | 139,435 | 6.0\% | -1\% |
| Architecture, building and planning | 60,525 | 2.6\% | 63,085 | 2.7\% | 4\% |
| Social studies | 201,720 | 8.5\% | 198,875 | 8.6\% | -1\% |
| Law | 90,845 | 3.8\% | 89,245 | 3.9\% | -2\% |
| Business and administrative studies | 310,255 | 13.1\% | 310,455 | 13.5\% | 0\% |
| Mass communications and documentation | n 47,935 | 2.0\% | 47,965 | 2.1\% | 0\% |
| Languages | 139,715 | 5.9\% | 136,050 | 5.9\% | -3\% |
| Historical and philosophical studies | 103,215 | 4.4\% | 96,620 | 4.2\% | -6\% |
| Creative arts and design | 160,525 | 6.8\% | 158,890 | 6.9\% | -1\% |
| Education | 216,330 | 9.2\% | 202,300 | 8.8\% | -6\% |
| Combined | 117,245 | 5.0\% | 118,300 | 5.1\% | 1\% |
| All subjects 2 | 2,362,815 | 100.0\% | 2,306,105 | 100.0\% | -2\% |

Table 9
Enrolments by subject
area, 1998/99
(adjusted) and 2007/08

|  | 1998/99 | Percentage of total excluding combined | 2007/08 | Percentage of total excluding combined | $\begin{array}{r} \text { Percentage } \\ \text { change, } \\ \text { 1998/99 } \\ \text { to 2007/078 } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Medicine and dentistry | 42,839 | 2.9\% | 61,810 | 2.8\% | 44.3\% |
| Subjects allied to medicine | 182,212 | 12.1\% | 287,125 | 13.1\% | 57.6\% |
| Biological sciences | 103,409 | 6.9\% | 161,600 | 7.4\% | 56.3\% |
| Veterinary science | 3,524 | 0.2\% | 4,845 | 0.2\% | 37.5\% |
| Agriculture and related subjects | 15,301 | 1.0\% | 17,680 | 0.8\% | 15.5\% |
| Physical sciences | 71,356 | 4.8\% | 82,130 | 3.8\% | 15.1\% |
| Mathematical sciences | 20,753 | 1.4\% | 34,120 | 1.6\% | 64.4\% |
| Computer science | 85,102 | 5.7\% | 95,575 | 4.4\% | 12.3\% |
| Engineering and technology | 128,713 | 8.6\% | 139,435 | 6.4\% | 8.3\% |
| Architecture, building and planning | 44,007 | 2.9\% | 63,085 | 2.9\% | 43.4\% |
| Social studies | 123,821 | 8.2\% | 198,875 | 9.1\% | 60.6\% |
| Law | 58,361 | 3.9\% | 89,245 | 4.1\% | 52.9\% |
| Business and administrative studies | 226,173 | 15.1\% | 310,455 | 14.2\% | 37.3\% |
| Mass communications and documentation | 22,094 | 1.5\% | 47,965 | 2.2\% | 117.1\% |
| Languages | 89,798 | 6.0\% | 136,050 | 6.2\% | 51.5\% |
| Historical and philosophical studies | 60,566 | 4.0\% | 96,620 | 4.4\% | 59.5\% |
| Creative arts and design | 97,112 | 6.5\% | 158,890 | 7.3\% | 63.6\% |
| Education | 126,314 | 8.4\% | 202,300 | 9.2\% | 60.2\% |
| Sub-total excluding combined | 1,501,455 | 100.0\% | 2,187,805 | 100.0\% | 45.7\% |
| Combined | 342,109 |  | 118,300 |  | -65.4\% |
| Total all subjects | 1,843,564 |  | 2,306,105 |  | 25.1\% |

27 It should be noted that the large increase in the numbers of enrolments in subjects allied to medicine (predominantly nursing) has an obvious (compensatory negative) effect on the proportions of the sector made up by the other subject areas.
28 The percentage change in the numbers within each subject area is therefore illustrated in chart 2.

Chart 2
Percentage change in enrolments by subject area, 1998/99-2007/08

4 We are looking here at the 162 principal subjects of qualification aim, as identified by HESA.

5 A full explanation of the changes in the subject classification is available at: www.hesa.ac.uk/ jacs/jacs.htm.


29 Above average increases in enrolments since 1998/99 are seen in subjects allied to medicine, biological sciences, mathematical sciences, law, mass communication and documentation, historical and philosophical studies, languages, education, social studies and creative arts and design.

30 While no subject area has seen a significant absolute reduction in student numbers from 1998/99-2007/08, there have been only low levels of increase in enrolments in veterinary science and medicine, architecture, building and planning, engineering and technology, the physical sciences, computer science, agriculture and business and administrative studies (the last of which has been one of the most popular subject areas in recent years). This simple analysis by broad subject group however does not do full justice to the very significant shifts in emphasis in higher education courses during the 10 years under investigation. It is important to consider the specific subjects ${ }^{4}$ being studied in order fully to assess the nature of the changes in detail. As part of this analysis, it is necessary to be aware of the significant changes that took place in the categorisation of subjects in 2002/03. Examples of these changes include:
$■$ psychology is now classified as a single subject, whereas it was previously identified as two separate subjects depending on whether its major orientation was scientific or social;

■ physical geography is now combined with the former environmental sciences subject;

■ electronic engineering and electrical engineering have merged into a single subject electronic and electrical engineering';

■ sports science is identified as a subject in its own right, having previously been split between other related subjects;

■ pharmacy and pharmacology have been merged;
■ history of art is no longer identifiable, having been subsumed within history by topic. ${ }^{5}$

6 Under the new subject classification it is no longer possible to distinguish between these two subjects.

7 We should note that psychology is now classified as a single subject including both scientific and social psychologies: the figures have been adjusted to recognise this.

31 Further less significant changes have taken place in 2007/08 and so the detailed allocation of students in this report does not precisely follow the definitions in last year's Patterns report.

32 Subject to these caveats, the numbers of students following individual subjects as their main qualification aim in each of the years 1998/99 and 2007/08 are set out in the table in Appendix 1. This table is limited to subjects that can be clearly identified, and generally ignores 'balanced combinations', 'broadly based programmes' and so on. The table does not distinguish by mode, level or intensity of study: it simply reports on the numbers of enrolments within each subject.
33 The populations and definitions used in Appendix 1 and in the following analysis of changes between 1998/99 and 2007/08 are based on those adopted in the relevant annual HESA publications. A more detailed analysis shows that:

- enrolments within medicine and dentistry have risen by 44 per cent, slightly below the overall increase of 46 per cent. Changes in the structure of clinical degrees have led to a shift from pre-clinical to clinical studies;
- within subjects allied to medicine, nursing has seen an increase of over 50 per cent. This is largely a product of the shift of funding of nursing courses into the higher education sector. Significant increases are also reported in pharmacy and pharmacology ${ }^{6}$, nutrition, aural and oral sciences, anatomy, physiology and pathology and medical technology;
- within biological sciences most subjects show a below average increase in student numbers, the overall increase being the result of the inclusion of psychology and sports science. ${ }^{7}$ Botany shows an actual reduction in enrolments of 26 per cent;
- there has been an increase in enrolments in veterinary science of 37 per cent, below the average;
- re-classifications within agriculture and related subjects make time series comparisons impossible at the detailed subject level for this subject area;
- within the physical sciences area, chemistry has seen a reduction of 14 per cent and physics an increase of 9 per cent (a slight improvement over the previous 10-year comparison). However, there have been large increases in astronomy and ocean sciences. Geology shows a below average increase ( 35 per cent);
- subjects within the area of mathematical sciences generally show increases in their recorded student populations, thus confirming a trend that has been identified in the last four Patterns reports. It can be argued, however, that these increases are partly a result of the changing definitions and apportionment algorithms adopted by HESA over the period. For the fourth time since these figures were first published, mathematics itself again shows an above average increase in enrolments ( 64 per cent). Statistics and operational research show modest absolute increases;
- after adjusting for new definitions, we see a rise of only 12 per cent in enrolments in computer science, significantly below the norm, confirming the downward trend identified in the last report, and after several previous years in which it showed above average increases over the 10-year period;
■ enrolments in most subjects in the engineering and technology subject area have decreased, or show below average increases. There have, for example, been significant absolute reductions in enrolments in minerals technology, production engineering and polymers and textiles. Electronic and electrical engineering and general engineering show a small increase in enrolments. Civil engineering and biotechnology now show increases in line with the norm, after falling behind in previous years. Only aerospace engineering has shown a significant increase in enrolments (78 per cent) over the 10-year period;
- within the architecture, building and planning area, enrolments in architecture have increased by 59 per cent, which is above the average rise, but it is offset by a below average increase in the numbers of students following courses in planning (24 per cent);
- most aspects of social studies report an improved situation compared with earlier years, with percentage increases in enrolments generally at or above the average level. Notable are social work and especially politics ( 86 per cent), confirming a trend identified in the last Patterns report;
- there has been a 53 per cent increase in enrolments in law, slightly above average for the sector as a whole;
- the business and administrative studies subject area, as now reclassified, presents some difficulties in analysis over time. The combined areas of business and management studies show an average increase of only 35 per cent, although this may overstate the position as some other aspects of management are no longer separately recorded. While accounting shows an increase of only 38 per cent, enrolments in finance have more than doubled; marketing also shows an above average rise;
- within the area of mass communications and documentation, media studies shows an increase of 236 per cent between 1998/99 and 2007/08 while journalism has increased by 237 per cent;
- the languages area has seen some significant reclassifications of subjects, and comparisons are difficult. Major increases are seen for English studies and French studies, the latter being a reversal of an earlier relative decline, although derived partly perhaps from a transfer from the combined group. Among less popular languages, Italian and Spanish continue to show very large percentage increases. Celtic studies and classical studies also show marked increases;
- all subjects within the areas of historical and philosophical studies continue to be relatively buoyant in terms of overall enrolments, although redefinitions make detailed comparisons difficult. Philosophy has increased beyond the average;
- creative arts and design subjects also continue to show a significant increase (64 per cent overall): enrolments in music and in drama increased significantly, although they do not show as great increases as were reported last year. We continue to see a very high level of increase in enrolments in cinematics;
- the rise in enrolments in education is, for the second time, above the average increase across all subjects, and this now includes teacher training courses.
34 In summary there have been major changes in the subject enrolments of students on higher education courses in the UK between 1998/99 and 2007/08.


## Changes in subject balance of full-time first degree students

35 Longer term trends in the enrolment of full-time first degree students are interesting. These can be tracked with some degree of confidence over the 13 years since this data for higher education institutions throughout the UK has been collected more consistently.
36 The following chart shows the trends in each subject group, continuing the series that has appeared in previous Patterns reports.

## Chart 3 <br> Percentage of full-time first degree students in each subject area, 1994/95-2007/08 <br> 1994/95 <br> 1995/96 <br> - 1996/97 <br> - 1997/98 <br> - 1998/99 <br> - 1999/00 <br> 2000/01 <br> 2001/02 <br> 2002/03 <br> 2003/04 <br> 2004/05 <br> 2005/06 <br> 2006/07 <br> 2007/08

8 In this report 'international' refers to non-EU domiciled students and 'EU' refers to EU (excluding the UK) domiciled students.


37 In considering chart 3, it is important to remember that there has been a major movement away from the 'combined' subject group in the years since 2002/03 for purely structural reasons. Allowing for this the graph shows a reduction in enrolments in physical sciences lalthough this has been slightly reversed in the last three years) and in engineering and technology (with a slight compensation in the latest year). As noted previously, the reduction in enrolments in languages appears to have been arrested and indeed reversed. However, this is perhaps partly due to the re-assignment of courses from the 'combined' subject group. The same may be true of mathematical sciences. Computer science continues to show a negative enrolment trend as do agricultural subjects.
38 On the other hand, there has been a consistent increase in enrolments in subjects allied to medicine, biological sciences (primarily because of the effect of increasing enrolments in psychology) and creative arts and design. Education appears also to show a modest proportional increase.

## Trends in EU and international enrolments

39 Turning now to the domicile of students, table 10 shows the absolute and relative numbers of students from the UK, other EU countries and countries from outside the EU (international) ${ }^{8}$ for 2007/08, with comparisons for 2006/07 and the 10-year change in the period from 1998/99 to 2007/08. This table, like others in this report, is influenced by the changed definitions within the HESA student record, especially because of the comparatively high proportion of overseas students following postgraduate programmes.

| Table 10 <br> Enrolments of students by domicile, 1998/99, 2006/07 and 2007/08 | Year | Domicile | Student numbers | percentage of total |
| :---: | :---: | :---: | :---: | :---: |
|  | 1998/99 | UK | 1,626,472 | 88.1\% |
|  |  | EU | 101,995 | 5.5\% |
|  |  | International | 117,290 | 6.4\% |
|  |  | All | 1,845,757 | 100.0\% |
|  | 2006/07 | UK | 2,011,345 | 87.2\% |
|  |  | EU | 112,260 | 4.9\% |
|  |  | International | 239,210 | 10.4\% |
|  |  | All | 2,362,815 | 102.5\% |
|  | 2007/08 | UK | 1,964,315 | 85.2\% |
|  |  | EU | 112,150 | 4.9\% |
|  |  | International | 229,640 | 10.0\% |
|  |  | All | 2,306,105 | 100.0\% |
|  | Percentage change 1998/99 to 2007/08 | UK | 21\% |  |
|  |  | EU | 10\% |  |
|  |  | International | 96\% |  |
|  |  | All | 25\% |  |
|  | Percentage change 2006/07 to 2007/08 | UK | -2\% |  |
|  |  | EU | 0\% |  |
|  |  | International | -4\% |  |
|  |  | All | -2\% |  |

40 From 1998/99 to 2007/08, there has again been a considerably greater increase in the number of students from non-EU countries than from the UK or the other countries of the EU. Non-EU international student numbers, on this count, have almost doubled over the 10-year period. Enrolments from other countries of the EU show a lower rate of increase than UK-domiciled students.

41 The final section of this report describes several aspects of higher education in Europe, and adds to the analysis in this section.

42 More detailed information about the enrolment of students from particular regions and countries is contained in Appendix 2, from which it is possible to derive information about those countries that are the major suppliers of students to the UK. This information is summarised in table 11, which looks specifically at first degrees and taught and research higher degrees.

Table 11
Major countries supplying students to UK higher education institutions,
by level of study, 2007/08

| Country | First degree | Country | Research higher degrees | Country | Taught higher degrees |
| :---: | :---: | :---: | :---: | :---: | :---: |
| China | 19,385 | China | 3,715 | China | 18,275 |
| Malaysia | 7,730 | United States | 2,695 | India | 17,920 |
| Ireland | 7,035 | Germany | 2,205 | Nigeria | 6,165 |
| Hong Kong | 6,915 | Greece | 2,035 | Greece | 4.965 |
| Cyprus | 6,665 | Malaysia | 1,700 | United States | 4,925 |
| Germany | 6,170 | Italy | 1,525 | Pakistan | 4,615 |
| France | 6,160 | India | 1,480 | Taiwan | 3,630 |
| Poland | 5,355 | France | 1,030 | Ireland | 3,205 |
| Greece | 4,850 | Pakistan | 1,025 | Germany | 2,875 |
| India | 4,480 | Ireland | 1,005 | France | 2,700 |
| Nigeria | 3,835 | Canada | 995 | Thailand | 2,290 |
| United States | 3,355 | Saudi Arabia | 880 | Cyprus | 1,950 |
| Pakistan | 2,835 | Thailand | 875 | Canada | 1,880 |
| Spain | 2,295 | Taiwan | 865 | Malaysia | 1,695 |
| Sweden | 2,150 | Libya | 700 | Japan | 1,460 |
| Singapore | 1,915 | Nigeria | 690 | Italy | 1,430 |
| Italy | 1,875 | Portugal | 655 | Poland | 1,420 |
| Norway | 1,830 | Egypt | 650 | Hong Kong | 1,320 |
| Korea (South) | 1,800 | Iran | 640 | Ghana | 1,205 |
| Japan | 1,795 | Poland | 620 | Korea (South) | 1,190 |
| Sri Lanka | 1,710 | Spain | 585 | Turkey | 1,145 |
| Lithuania | 1,590 | Korea (South) | 580 | Spain | 1,060 |
| Canada | 1,540 | Cyprus | 530 | Saudi Arabia | 1,015 |
| Belgium | 1,540 | Mexico | 530 | Bangladesh | 1,010 |
| Kenya | 1,370 | Hong Kong | 495 | Netherlands | 970 |

9 Note that Hong Kong, Taiwan and Macao are distinguished from China in this analysis.

43 China ${ }^{9}$ continued to be clearly the most significant provider of students to UK higher education across most levels of study: the apparent decline in its numbers at postgraduate level reflects the redefinition of the HESA student record. India features very strongly among taught higher degree students. Students from the United States are also prominent among research postgraduates.

44 Undergraduate enrolments of students from the Republic of Ireland have declined again, presumably in response to the abolition of fees in the Republic. Countries of the Middle East and South Asia feature prominently among postgraduate research students, including students from India, Pakistan, Saudi Arabia, Iran, Libya and Egypt. Nigeria features prominently among taught higher degree students.

## Trends in income

45 Finally, this section concludes with a continuation of the data series that shows trends in the sources of income received by higher education institutions. The data is presented for the latest year, 2007/08, the previous year, 2006/07, and for the financial year 2000/01 as a baseline. The data cannot be analysed over a longer timescale because of changes in data definitions.

46 Table 12 summarises the main sources and levels of income for these three years for the United Kingdom as a whole and for its four constituent countries and also shows the percentage changes. Appendix 3 contains more detailed data about the individual components of each income stream.

Table 12
Main sources of income received by UK higher education institutions,
2000/01, 2006/07
and 2007/08, £000
(cash terms)

|  | UK | England | Wales | Scotland |
| :--- | ---: | :--- | ---: | ---: | ---: |
| Northern |  |  |  |  |
| Ireland |  |  |  |  |

47 Since 2006/07, the sector has seen an increase in income of roughly 10 per cent, as a result of various changes that include increases in tuition fee income las a result of variable fees but also other sources of fee income) and increases in funding council and research council grants. Endowment and investment income also shows an improvement as compared with earlier years though these remain a modest part of overall institutional income. The overall change since 2001 is an increase in total income, and most income components, of a little over 70 per cent. Only funding council income now falls below this level, with a particularly striking lag in Wales. The overall annual income to the sector is now over $£ 23$ billion, compared with £13 billion in 2001/02.

48 Section B presents information about institutions within the higher education sector in graphical form, showing the distribution of various features across the institutions within the sector. The number of institutional charts has been extended this year in response to feedback from users. Where available, attention is drawn to time series comparisons and trends.
49 Not all institutions are included within all the charts. In some instances, institutions recently joining the sector do not have available data. In those charts that are derived directly or indirectly from Universities and Colleges Admissions Service (UCAS) data, institutions that do not admit students through UCAS are excluded: the student population in these charts is limited to those who are admitted through the UCAS (and related) systems and any students directly admitted to the institution are therefore omitted, although they are included in charts which are not directly derived from UCAS data.

50 Four main themes are addressed:

- balance of provision;

■ student characteristics and outcomes;
■ aspects of staffing in higher education institutions; and
$\square$ financial issues.
51 Throughout this section, unless otherwise indicated, the sources of the data analysed are drawn from the relevant HESA publications.

## Number of institutions in the sector

52 Since the publication of the last Patterns report, the structure of the higher education sector has changed slightly:

■ The Royal College of Nursing transferred provision of its higher education distance learning programmes to the Open University;

■ University Campus Suffolk joined the higher education sector as an independent institution;

■ The Royal Welsh College of Music and Drama merged with the University of Glamorgan;

■ Bell College merged with the University of Paisley;
■ Dartington College of Arts merged with University College Falmouth (although both institutions made separate returns of data to HESA).

53 A number of mergers has taken place within the sector since 1994/95. The common pattern for institutional mergers in recent years, as the previous Patterns reports have noted, has been the absorption of specialist colleges into the pre-1992 universities although this pattern is not universal. A list of the mergers that have taken place since 1994/95 is given in Appendix 5.

54 In total, therefore, this report describes the features of 166 higher education institutions. Since 1994/95, the number of institutions within the sector has reduced from 186 , a decline of 11 per cent.

## Institutional charts

55 A series of charts shows the distribution of institutions in relation to various features. Within them the median position and the upper and lower deciles are shown for each chart, with last year's figures in parentheses where these can be directly compared. The text also comments on changes since the first Patterns volume was published using data from 1998/99.
56 There is no suggestion that these charts are in any way 'performance indicators': rather, they are designed to illustrate the shape of the sector as it changes over time.

## Balance of provision

57 Four aspects of the balance of provision within higher education institutions are considered:

■ different levels of study;

- full-time and part-time provision;

■ UK, EU and international students; and

- subject.

58 The following charts analyse the balance by level of study.

Institutional chart 1
Percentage of students following postgraduate programmes, 2007/08

Lower decile 9\%
(10\%)


59 Institutional chart 1 cannot be directly compared with those in earlier Patterns reports, which include data from 1998/99, because of changes in methodologies described earlier; these changes have the effect of reducing the number of reported postgraduate students because those writing theses and dissertations are excluded.

60 To put these figures into context, institutional charts 2 and 3 show the institutional distribution of absolute numbers of reported enrolments at postgraduate and undergraduate levels within UK higher education institutions.

Institutional chart 2 Absolute numbers of postgraduate enrolments, 2007/08

Institutional chart 3 Absolute numbers of undergraduate enrolments, 2007/08


61 The figures in institutional chart 2 are again influenced by the redefinition of student records referred to above, and the apparent reductions in postgraduate numbers should be regarded as a construct of the redefined records. However, the increase in undergraduate students shown in institutional chart 3 is genuine.
62 Institutional chart 4 shows those undergraduate programmes which lead to qualifications other than first degrees.

Institutional chart 4
Percentage of enrolments in undergraduate programmes not directly leading to first degrees, 2007/08


63 Since 1998/99 the median has declined by one percentage point, the upper decile is down one percentage point and the lower decile is unchanged.
64 Turning now to the balance between full-time and part-time enrolments, institutional chart 5 analyses the balance by mode of study.

Institutional chart 5 Percentage of parttime enrolments, 2007/08

Lower decile 7\%


65 Comparisons with previous years cannot be undertaken robustly, because of the definitional changes in relation to part-time students referred to earlier.

66 As the previous Patterns reports identified, and as has been noted in Section A of this report, the growth of student numbers coming from countries outside the EU has significantly outstripped the growth in enrolments of home- and EU-domiciled students during recent years. We now address the institutional distribution of EU and other international students. Institutional charts 6, 7 and 8 show the numbers of EU and non-EU students enrolled on programmes of study at higher education institutions in the UK, both in total and disaggregated between students from other EU countries and from outside the EU.

Institutional chart 6 Enrolments of all non-UK domiciled students, 2007/08


67 Since 1998/99 the median is up by 57 per cent, the upper decile is up by 69 per cent and the lower decile is up by 306 per cent, although of course from a low base.
68 Clearly, institutions across the spectrum have seen significant increases in the numbers of students from outside the UK. Since 2001/02, the number of institutions with more than 5,000 students enrolled from outside the UK has risen from three to 16 .

Institutional chart 7
Enrolments of international (non-EU) domiciled students, 2007/08

Median 1,073
$(1,034)$
Upper decile 3,426
$(3,435)$


69 Since 1998/99 the median is up by 119 per cent, the upper decile is up by 109 per cent and the lower decile is up by 190 per cent from a low base. The growth, which has been referred to at the overall sector level in the first section of this report, is clear across the sector as a whole; unlike the situation as reported in some previous Patterns volumes, it is now clear that there is no differential increase among the institutions in the middle of the chart.

Institutional chart 8
Enrolments of EU (excluding UK) domiciled students, 2007/08

Institutional chart 9
Percentage of mature full-time undergraduates, 2007/08

Lower decile 43
(45)


70 Since 1998/99 the median is up by 8 per cent, the upper decile is up by 33 per cent and the lower decile is down by 6 per cent. A reduction in the enrolment of students from other EU countries observed in previous Patterns reports has been reversed and an increase is seen across most of the spectrum of institutions for the second consecutive year. The enlargement of the EU is obviously relevant here, and the institutional figures accord with the aggregate totals reported in Section A of this report.

## Student characteristics and outcomes

71 The following section addresses some aspects of student characteristics and outcomes within higher education institutions.
72 Previous Patterns reports have drawn attention to the significance of mature student enrolments in UK higher education. The percentage of full-time mature undergraduates is shown in institutional chart 9.

Lower decile 10\% (10\%)


Institutional chart 10 Percentage of male students, 2007/08

73 Since 1998/99 the median is up five percentage points, the upper decile is up eight percentage points and the lower decile has reduced by one percentage point. The figures show a continuing increase in the proportion of full-time mature undergraduates and a concentration in institutions that already had a significant proportion of these students.
74 We have noted in Section A that male students in higher education are in a minority among almost all modes and levels. There are, however, considerable variations between institutions, which are shown in institutional chart 10.

Lower decile 29\%
(29\%)


75 Almost all institutions have a percentage of male students in a range from 30 per cent to 50 per cent, although there are some obvious outliers: these are chiefly specialist institutions. The subject specialisms of these institutions include nursing and education at the lower end of the chart, and engineering and technology at the other end.

76 Since this is only the third time that this chart has been presented in the Patterns series, it is inappropriate to present time series comparisons over the longer term. However, we may note that males are less well represented at the median and upper levels of the chart as compared with last year - a sign that in many institutions female students are now becoming a majority in subjects traditionally seen as dominated by males.

77 Institutional chart 11 shows the percentage of UK first year students who are reported as belonging to minority ethnic groups.

Institutional chart 11 Percentage of UKdomiciled first year students from minority ethnic groups, 2007/08


78 Since 1998/99 the median is up four percentage points, the upper decile is up 16 percentage points and the lower decile is up one percentage point. In previous Patterns reports there was evidence of an increasing concentration of students from minority ethnic groups in a limited number of institutions. However, in this latest data, there is a modest indication of an increase at the lower end of the chart (following an increase in the median last year), implying a more general increase in the proportion of students from minority ethnic groups across the sector as a whole. There continue to be outliers at both ends of the spectrum, generally specialist institutions: for example, pharmacy features at the higher end and agriculture at the lower end. (For comparison with these figures the overall percentage of entrants to higher education institutions from minority ethnic groups is 17 per cent.)

79 The earliest Patterns reports included some analysis of the participation of students from 'under-represented groups', as identified within the funding councils' performance indicators. Two such measures were used: firstly, the percentage of young full-time first degree entrants from social classes IIIM, IV and V; and, secondly, the percentage coming from 'low participation neighbourhoods', as identified by the Higher Education Funding Council for England (HEFCE). The reports noted that there was a close correlation between the institutional figure on each of these measures (while not assuming that the measures themselves closely correlated) and non-traditional entrants to full-time undergraduate courses lagain, at institutional level). In more recent years, following the 2001 Census, a new categorisation of socio-economic groupings has been adopted, the national statistics socio-economic classification. ${ }^{10}$

80 In place of the six categories used in the earlier definition of social class, the new classification has seven categories as set out in table 13.

Table 13
Classification of national statistics socio-economic groups

| Socio-economic group | Description |
| :---: | :--- |
| 1 | Higher managerial and professional occupations |
| 2 | Lower managerial and professional occupations |
| 3 | Intermediate occupations |
| 4 | Small employers and own account workers |
| 5 | Lower supervisory and technical occupations |
| 6 | Semi-routine occupations |
| 7 | Routine occupations |

81 The last four of these categories have been identified as being the lower socioeconomic groupings for the purpose of constructing performance indicators for the higher education sector. While this definition will be followed in this report, it should be noted that it includes 'small employers and own account workers', which may include a wide variety of occupations. For example, it includes many people engaged in farming (and so agricultural college figures are very high) and also many contractors in the computing industry.
82 It should also be noted that the analyses of socio-economic groupings are available only for students entering through UCAS. While these cover a high proportion of entrants to full-time undergraduate courses ( 85 per cent), it is possible that the percentage of entrants from lower socio-economic groups is understated. The data for the year 2007/08 is presented in institutional chart 12.

Institutional chart 12
Percentage of young full-time first degree entrants from national statistics socioeconomic classification classes 4, 5, 6 and 7, 2007/08


Upper decile 44\% (45\%)

83 The lower decile has increased by one percentage point since 2004/05 but the median and upper deciles show increases of two and three percentage points - fractionally less than last year. The overall impression therefore continues to be that there is an increase in the proportions of students entering higher education from social classes $4,5,6$ and 7 and that this increase is concentrated in institutions that are already showing a high proportion of students from the lower social classes.

84 Previous Patterns volumes have also included an analysis of entrants from 'low participation neighbourhoods'. It was noted in last year's volume that a new definition had been adopted for this indicator. In 2007/08, the data is not available for Scotland and therefore this indicator is not now included in Patterns.

11 A full description of the tariff is given at: www.ucas.ac.uk/candq/tariff/

Institutional chart 13 Average tariff points of entrants to full-time undergraduate courses, 2007/08

12 The full definition is 'Average tariff points for full-time, first year, undergraduate students whose highest qualification on entry was ' $A$ ' level equivalent qualification not elsewhere specified or any combinations of GCE 'A'/SCE 'Higher' and GNVQ/GSVQ or NVQ/SVQ at level $3^{\prime}$.

13 The denominator in this and the following chart is all classified degrees. It therefore excludes most clinical degrees, which are awarded without classification. Note also that many Scottish universities award a significant proportion of their degrees without classification.

Institutional chart 14 Percentage of first-class degrees awarded, 2007/08

85 Earlier Patterns reports included information about the entry qualifications of new students based on 'A-level points', although this time series was discontinued because the structure of reporting changed significantly. Applicants and acceptances to full-time undergraduate courses are now recorded in relation to UCAS' 'tariff points', which include not only the conventional academic qualifications but also many vocational qualifications. ${ }^{11}$
86 This year, therefore, for the fourth time, we show entry qualifications to higher education institutions according to the UCAS tariff, in institutional chart 13. ${ }^{12}$


87 There is virtually no change in the median or in the upper decile as compared with last year's report, but there is a marked increase at the lower end: it is possible that this reflects the change in the fees regime in England which had a negative effect on applications in 2006/07 and which is now seen to have been reversed.

88 We now turn to the outcomes from higher education as represented by the degree classifications awarded to qualifiers from first degree programmes and the subsequent graduate employment rates. Institutional chart 14 shows the percentage of first-class honours degrees awarded. ${ }^{13}$

Institutional chart 15 Percentage of firstand upper secondclass degrees awarded, 2007/08

89 Since 1998/99 the median is up five percentage points, from 8 per cent to 13 per cent; the upper decile is up seven percentage points, from 14 per cent to 21 per cent; and the lower decile is up four percentage points, from 4 per cent to 8 per cent. There has been a considerable increase in the proportion of students awarded a first-class degree from 1998/99 to 2007/08, with a further increase in the most recent year. Institutions at the upper end of the scale show the greatest level of increase; some of the institutions that have historically awarded a high percentage of first-class degrees have increased their proportion. The three institutions at the upper end of the scale are all music conservatoires and a number of other institutions at the high end are also specialist institutions. It is also relevant to look at the combined total of firsts and upper seconds, which are presented in institutional chart 15.


90 Since 1998/99 the median is up eight percentage points, the upper decile is up 11 percentage points and the lower decile is up seven percentage points. Again, a significant increase is seen in the proportion of students gaining good honours' degrees.

91 Finally, we turn to data on graduate employment. Institutional chart 16 shows the percentage 'employment rate' (all activities except unemployment) for full-time UK-domiciled first degree students who graduated in the academic year 2006/07, as reported approximately six months after graduation.

Institutional chart 16 Percentage of first
degree full-time
graduates not unemployed, 2006/07

Lower decile 90\%
(90\%)


Institutional chart 17 Number of cost centres within which staff are employed, 2007/08

Institutional chart 18
Percentage of
female academic
staff, 2007/08

92 The change since the last year is insignificant and the chart continues to show a very low level of unemployment among first degree graduates. Long-term changes should not be reported since they are dependent on the overall labour market.

## Aspects of staffing in higher education institutions

93 The previous Patterns reports included an analysis of the number of academic cost centres within which staff of higher education institutions were undertaking teaching and research (see Appendix 6 for a list of HESA academic cost centres). This analysis is updated in institutional chart 17.

Lower decile 1
(1)


94 As reported in the previous Patterns volumes, both the median and the upper decile have reduced by one cost centre since 1998/99, perhaps reflecting a reduction in spread of subject provision. However, there has been no change in the two most recent years.

95 We now turn to the analysis of the gender balance of all academic staff. This has been updated and can be seen in institutional chart 18.


96 The gender balance of academic staff within higher education institutions varies markedly between institutions, and the issue of subject distribution is relevant here. There is virtually no change in the gender balance of academic staff as compared with the previous year.

97 The ethnicity of academic staff is illustrated in institutional chart 19.

Institutional chart 19 Percentage of minority ethnic groups among academic staff, 2007/08


98 While the median and upper decile remain unchanged, the lower decile now shows a zero value. This is due more to a change in the constituency of the higher education sector than a significant change of emphasis. However, it is relevant to note that, across all higher education institutions, the mean percentage of academic staff from minority ethnic groups is 10 per cent as compared with the median institution's figure of 7 per cent. This draws attention to the concentration of staff from minority ethnic groups and it is unsurprising to note that, as was the case last year, only one of the 10 institutions at the upper end of the graph is located outside London.

Financial issues
99 Turning now to financial issues, the previous Patterns reports included some analysis of financial security and of costs and efficiency, together with an analysis of sources of income. This year's report adopts the same approach.

## Financial security

100 Institutional chart 20 shows the historical surplus/deficit for each institution in 2007/08 as a percentage of income.

Institutional chart 20 Surplus/deficit as a percentage of income, 2007/08

Institutional chart 21 Five-year average of percentage ratio of historical surplus/ deficit after tax to total income, 2002/03-2007/08

Upper decile 10.1\% (7.3\%)


101 Since 1998/99 the median is virtually unchanged, the upper decile is up 4.1 percentage points and the lower decile is up one percentage point. There is a slight improvement as compared with the figures given in the last Patterns report.
102 However, the current year out-turn is only one relevant measure, and one that should be seen in a wider context. In order to do so we now present the average surplus/deficit for each institution over the last five years.


103 While the chart shows a simple comparison of the median with the figures published last year, it is too early to draw more conclusions from this chart. Institutional charts 22 and 23 show two other security measures relating to liquidity and the retention of reserves respectively.

Institutional chart 22 Days ratio of net liquid assets to total expenditure, 2007/08

Upper decile 162 (139)

Median 70
(62)


104 Since 1998/99 the median has increased by 10 days, while the upper decile is up by 32 days and the lower decile is up by seven days. The latest year's figures show, for the second time, an improvement in this measure across the spectrum of institutions.
105 We now turn to the days ratio of general funds to total expenditure - a measure of the ability of institutions to invest in the future, as illustrated in the following chart.

Institutional chart 23 Days ratio of total general funds to total expenditure, 2007/08

## Median 94 <br> (103)

Lower decile 5
(13)


14 In 2005/06 institutions were, for the first time, required to include net pensions assets or liabilities within their general funds as set out in the FRS17 accounting convention. Most institutions have a net pensions liability, which means that there was a significant overall reduction in general funds. The large reduction in this indicator is therefore primarily due to new accounting conventions: the pensions liabilities existed in the past, but were not previously counted.

106 As indicated in last year's Patterns volume, comparisons with years before 2005/06 are invalid because of a change in definitions. ${ }^{14}$ In the last year this ratio shows a small deterioration across the spectrum of institutions.

107 The previous Patterns reports set out an index of financial security based on three factors (equally weighted):

■ the average of the last two years' percentage ratios of historical surplus/deficit after tax to total income;

- the days ratio of general funds to total expenditure; and

■ the days ratio of net liquid assets to total expenditure.

108 In the light of advice and comments from users, the security index has now been extended in its scope to include the percentage ratio of total long term borrowings to total income. This factor is given a weighting of 0.5 in the overall calculation.

109 The new security index for 2007/08 is set out in institutional chart 24.

Institutional chart 24 The security index, 2007/08

Institutional chart 25 Percentage ratio of total long term borrowings to total income, 2007/08


110 It should be noted that this index does not report on the financial security of the sector as a whole, but simply on the relativities within the sector. It provides a basis for analysing aspects of institutional provision against a single measure of financial security, but a quantification of change from year to year within the sector as a whole cannot be derived from it. It does, however, provide a basis for disaggregation of the sector and an assessment of comparative financial security among individual institutions and groupings of institutions.

111 We now turn to a further measure of financial security, which is the exposure to long term borrowings. Institutional chart 25 reports the latest information.


112 The chart continues to show a very wide variation in long term borrowing in relation to institutional income, ranging from many institutions that report zero borrowing to four that have borrowings above the level of 70 per cent of annual income. The change since last year suggests that there is now slightly less proportional exposure to long term borrowing across the sector.

## Patterns of income

113 The Joint Performance Indicators Working Group and the Higher Education Management Statistics Group (which define the financial indicators published by HESAl proposed that dependence on funding council income might be seen as a further aspect of financial security. It is also, of course, an issue of inherent interest in the context of the differentiation of the sector. The percentage of income from the funding councils is shown in institutional chart 26 .

Institutional chart 26 Funding council income as a percentage of total income, 2007/08

Institutional chart 27 Funding council teaching grant as a percentage of total income, 2007/08

Lower decile 28\%
(29\%)


114 For the second successive year we see a reduction in the proportion of funding from the funding councils across the spectrum of institutions as a consequence of increased income from undergraduate tuition fees coupled with the enhancement of income from other sources.

115 Before moving to other sources of income, we now publish, for the first time in this section of Patterns, a chart which shows the total teaching grant of higher education institutions as a percentage of total income. This chart is derived from one which was published in the final section of last year's report. Since this is a new chart, no time series comparisons are included this year.

Lower decile 13\%
Median 34\%
Upper decile 47\%


Institutional chart 28 Funding of research through the dual support system (£000), 2007/08

Institutional chart 29 Funding of research through the dual support system as a percentage of total income, 2007/08

116 Institutional chart 28 shows the distribution of the public funding of research through the dual support system, which consists of funding council research income and research grant and contract income from the research councils. It expresses public funding of research in absolute cash terms.

Lower decile 0
(0)


117 Since 1998/99 the lower decile is unchanged (at zero), the median is up 75 per cent and the upper decile is up 107 per cent. In both the median and the upper decile we see an increase in research funding in the last year.
118 Institutional chart 29 shows the relationship between public research income through the dual support system and all income.

Lower decile 0\%
(0)


119 It should be noted that there is a steep gradient above the upper decile.
120 As in the previous three Patterns reports, we also set out the relationship between the income received by institutions from research grants and contracts and the research income from the funding councils which is designed to underpin the development of research.
121 We have mapped institutions showing the income from research grants and contracts as a percentage of the funding councils' research grant. Institutional chart 30 is limited to institutions that have a research grant of at least $£ 100,000$.

Institutional chart 30 Research grants and contracts as a percentage of funding council research grant, 2007/08

15 One extreme outlier has been excluded from this analysis.


122 The chart shows that the large majority of institutions receive more income from research grants and contracts than from the research funding provided by the funding councils. The institutions in the middle of the chart show a small increase in the ratio, i.e. an increase in research grants and contracts that is greater than the increase in research council funding; however, there has been a slight reduction in the latest year in the ratio at the upper and lower ends.
123 Institutional chart 31 shows for the third time the institutional distribution of income from other services rendered, which is broadly commercial contracts of a non-research nature. ${ }^{15}$

Lower decile 0 (0)


Institutional chart 32
Income from international (non-EU) student fees (£000), 2007/08

124 There is a similar though less extreme level of differentiation between institutions as seen above in relation to research. There has been a significant increase in the income of higher education institutions from this source in the last year, following a similar increase in the previous year.

125 Previous Patterns reports have noted the importance of income from international student fees. Institutional chart 32 looks at the fees derived from international (non-EU) students which, as previous reports have noted, are by far the largest component of international income to UK higher education institutions.


126 Once again there is a highly differentiated situation, with many institutions earning less than $£ 5$ million a year from the fees of international (non-EU) students, and a few earning over $£ 30$ million a year from this source.

127 The median and upper and lower deciles have increased significantly since last year in real terms. As noted in the previous Patterns report, there appears to be an increasingly broader distribution of income from international student fees and there is clearly a significant increase in the income from these fees among most of the higher education institutions.

128 The raw numbers in the previous chart are presented as percentages of total income in the following chart, which is a new addition to the Patterns publications and therefore no time series comparisons are included.

Institutional chart 33 Income from international (non-EU) student fees, as a percentage of total income, 2007/08

Lower decile 2\%


129 It should be noted that while there is generally a broad distribution here, there is a markedly higher dependence on international (non-EU) student fees among some institutions above the upper decile.
130 Finally, we present for the first time an analysis of expenditure. The following chart (which is derived from one included in the third section of last year's report) shows the relationship between expenditure on staff and total income. Time series comparisons are not yet provided for this indicator.

Institutional chart 34
Ratio of payroll costs to total income, 2007/08


## Costs and efficiency

131 In this section of the report, we look at information about expenditure per full-time equivalent student, which was published in the previous Patterns reports. ${ }^{16}$ For comparison with the rates of change shown in parentheses in the following paragraphs, it should be noted that the increase in the GDP deflator over the period 1998/99 to 2006/07 was 21 per cent.

132 Also, as noted in the last Patterns volume, the calculation of full-time equivalent students changed in 2005/06 with the exclusion of students following non-credit bearing courses; there will therefore, inevitably, be an increase in the costs per full-time equivalent student as compared with the earlier Patterns volumes. Institutional chart 35 shows the cost per full-time equivalent student of central administrative services, including staff and student facilities. ${ }^{17}$

Institutional chart 35 Administrative costs per full-time equivalent student (£), 2006/07

Institutional chart 36 Academic departmental costs per full-time equivalent student, excluding academic staff (£), 2006/07

Lower decile £1,095

## $(£ 1,009)$



133 Since 1998/99 the median has increased by $£ 739$ ( 78 per cent), the upper decile is up £867 (51 per cent) and the lower decile up $£ 361$ ( 67 per cent). As noted in the previous Patterns reports, it appears to be the case that institutions generally have increased their administrative and support expenditure per full-time equivalent student by more than the rate of inflation. It is important to recognise that institutional structures vary. Furthermore, central administrative costs should be considered alongside the non-academic costs within academic departments, since in several institutions the administrative costs will fall also within academic departments. This is shown in institutional chart 36.


134 Since 1998/99 the median is up by $£ 443$ ( 43 per cent), the upper decile is up $£ 2,107$ ( 95 per cent) and the lower decile is up $£ 215$ ( 44 per cent). There is a marked increase in the unit costs of administrative activities within academic units, especially at the higher end of the distribution. This may reflect a shift from central administrative cost centres to academic cost centres as a result of reorganisation. It may also reflect a reallocation of budget codes to areas closer to the students.

135 We now turn to information about the cost per full-time equivalent student of academic services, including expenditure on libraries, computing facilities, museums, galleries and observatories (except those run by academic departments). The ratio also covers expenditure on any other general academic services not covered above including, for example, radiation protection, international liaison offices and industrial liaison. The latest version of the ratio is shown in institutional chart 37.

Institutional chart 37
Total academic services expenditure per full-time equivalent student (£), 2006/07

Lower decile $£ 437$
(£426)


136 The figures show small increases as compared with the previous year: a detailed time series comparison will be provided in a future report.
137 Institutional chart 38 shows the spread of premises expenditure per full-time equivalent student.

## Institutional chart 38 Premises expenditure per full-time equivalent student (£), 2006/07



138 Since 1998/99 the median has increased by $£ 316$ ( 48 per cent), the upper decile by $£ 840$ ( 65 per cent) and the lower decile by $£ 232$ ( 68 per cent). There has been a continuing increase in premises costs. This has generally been concentrated at the upper end of the graph, reflecting the fact that institutions with already high costs have seen these rise disproportionately, although in the most recent year we see a significant increase at the lower end of the chart.

18 In order to conserve much needed space in tables and charts, this has been abbreviated to FYROM, as is conventional; we have also in some tables referred to Russia, rather than the Russian Federation, and to UK rather than United Kingdom.

19 Throughout this section, data items which are marked 'm' are unavailable; those marked 'n' are negligible; and those marked 'a' are not applicable. This follows the practice of OECD.

20 Most of the higher education student figures relate to the 2005/06 academic year, being the latest which is generally available, although those for Turkey and Montenegro relate to 2004/05. The population estimates relate to the mid-calendar year 2005.

## Introduction

139 This section reports on a range of statistical information about higher education in Europe and the UK's relationship with this. It was originally designed as an information paper for this year's Longer Term Strategy Group seminar which was on the future of higher education in Europe.
140 The brief for this work was to provide as far as possible some information covering the 27 current EU states, the candidate countries (the Former Yugoslav Republic of Macedonia ${ }^{18}$, Croatia and Turkey) and where possible also Russia and Ukraine - though statistics about these last two are limited. These 32 countries are regarded as core countries in this report. ${ }^{19}$

141 It is recognised that the availability of data will restrict the extent to which information can be provided and also that there is a limit to the extent that comparable data can be found. While an attempt has been made to provide trend data over time, this is bedevilled by gaps in the data at particular points in time. Therefore there is no attempt to provide a consistent analysis for each statistic over a defined time period although some time series comparisons have been included.

142 The quality of the information in this section is directly related to the quality of the data provided by individual countries - and that varies markedly from country to country. The country coverage in parts of this section varies depending on the nature of the data and the comprehensiveness of countries' data collection systems. There is none that can compare with the UK's systems in terms of comprehensiveness and robustness.

143 The definition of higher education is an important issue. Virtually all of the statistical information available about countries in Europe, other than the UK, is framed by the International Standard Classification of Education (ISCED) 97 classification. The concepts of first degree, other undergraduate, taught higher degree, doctorate and so on are irrelevant in this context, and cannot be derived from the available statistical sources. Most of the data we have used relates to ISCED 5A, which encompasses most first degree activity as well as taught Masters' programmes. The ISCED categories, which were designed by UNESCO, are summarised in Appendix 7.
144 The data in this section has been drawn from a number of sources, described in Appendix 10. Appendix 8 lists the countries for which coverage has been sought.

## Students

145 Most of the analysis in this report relates to the 32 'core countries' identified in the introduction, subject to availability of data. However, before addressing these, we shall consider the wider constituency of the Bologna process countries.

## The Bologna process countries: an overview

146 We have sought to provide a summary of higher education enrolments in each of the 46 Bologna process countries, and to relate these to the overall population of the countries concerned. The figures have been derived using the United Nations Economic Commission for Europe statistical databases (see Appendix 10), and we have supplemented them by individual searches in relation to some countries. They relate to the totality of higher education enrolments (ISCED 5-6), and cannot be disaggregated between the various ISCED levels on a consistent basis.

147 Table 14 shows the relationship between the number of higher education students in the country and its total population lage-related populations are not universally available). Note that the number of students studying within a country includes those who may have been originally domiciled in another country. ${ }^{20}$

Table 14
Higher education enrolments and total population for all Bologna process countries, 2005/06

21 The Ateneo Pontificio Regina Apostolorum is situated in Italy, not in the Vatican state.

| Country | Number of HE students (all levels) | Total population of country | HE students as percentage of total population |
| :---: | :---: | :---: | :---: |
| Albania | 74,157 | 3,142,059 | 2.4\% |
| Andorra | 718 | 76,875 | 0.9\% |
| Armenia | 99,293 | 3,217,500 | 3.1\% |
| Austria | 253,139 | 8,236,225 | 3.1\% |
| Azerbaijan | 129,948 | 8,391,850 | 1.5\% |
| Belgium | 394,427 | 10,478,617 | 3.8\% |
| Bosnia/Herzegovina | 91,263 | 3,915,238 | 2.3\% |
| Bulgaria | 243,464 | 7,739,900 | 3.1\% |
| Croatia | 136,646 | 4,443,393 | 3.1\% |
| Cyprus | 20,587 | 757,795 | 2.7\% |
| Czech Republic | 337,405 | 10,235,828 | 3.3\% |
| Denmark | 228,893 | 5,419,432 | 4.2\% |
| Estonia | 68,287 | 1,346,097 | 5.1\% |
| Finland | 308,966 | 5,246,096 | 5.9\% |
| France | 2,201,201 | 60,995,911 | 3.6\% |
| FYROM | 48,368 | 2,036,855 | 2.4\% |
| Georgia | 144,991 | 4,361,372 | 3.3\% |
| Germany | 2,289,465 | 82,437,995 | 2.8\% |
| Greece | 653,003 | 11,103,965 | 5.9\% |
| Hungary | 438,702 | 10,087,065 | 4.3\% |
| Iceland | 15,746 | 296,734 | 5.3\% |
| Ireland | 186,044 | 4,159,096 | 4.5\% |
| Italy | 2,029,023 | 58,607,043 | 3.5\% |
| Latvia | 131,125 | 2,300,512 | 5.7\% |
| Liechtenstein | 0 | 34,000 | 0.0\% |
| Lithuania | 198,868 | 3,414,304 | 5.8\% |
| Luxembourg | 2,692 | 465,158 | 0.6\% |
| Malta | 8,922 | 403,837 | 2.2\% |
| Moldova | 126,132 | 3,595,186 | 3.5\% |
| Montenegro | 10,645 | 623,277 | 1.7\% |
| Netherlands | 572,147 | 16,319,868 | 3.5\% |
| Norway | 214,711 | 4,623,291 | 4.6\% |
| Poland | 2,145,687 | 38,165,445 | 5.6\% |
| Portugal | 367,312 | 10,549,424 | 3.5\% |
| Romania | 834,969 | 21,634,371 | 3.9\% |
| Russia | 9,684,755 | 143,953,092 | 6.7\% |
| Serbia | 235,686 | 7,440,769 | 3.2\% |
| Slovakia | 197,943 | 5,387,001 | 3.7\% |
| Slovenia | 114,794 | 2,000,474 | 5.7\% |
| Spain | 1,789,254 | 43,398,143 | 4.1\% |
| Sweden | 422,614 | 9,029,572 | 4.7\% |
| Switzerland | 204,999 | 7,437,115 | 2.8\% |
| Turkey | 2,106,351 | 72,064,992 | 2.9\% |
| UK | 2,336,108 | 60,242,843 | 3.9\% |
| Ukraine | 2,740,342 | 46,924,816 | 5.8\% |
| Vatican ${ }^{21}$ | 0 | 1,000 | 0.0\% |
| Total | 34,839,792 | 806,741,431 | 4.3\% |

Source: UNECE databases, supplemented

## Participation in higher education

148 Table 15 and chart 4 show the numbers participating in higher education in the EU member states and map the change from 1999 to 2006.

Table 15 Trends in participation in higher education changes from 1999 to 2006

|  | Numbers participating in higher education (thousands) 1999 2006 |  | Percentage change, 19992006 |
| :---: | :---: | :---: | :---: |
| Austria | 252.9 | 253.1 | 0.08\% |
| Belgium | 351.8 | 394.4 | 12.11\% |
| Bulgaria | 270.1 | 243.5 | -9.85\% |
| Cyprus | 10.8 | 20.6 | 90.74\% |
| Czech Republic | 231.2 | 337.4 | 45.93\% |
| Germany | 2087 | 2,289.5 | 9.70\% |
| Denmark | 190 | 228.9 | 20.47\% |
| Estonia | 48.7 | 68.3 | 40.25\% |
| Spain | 1,786.8 | 1,789.3 | 0.14\% |
| Finland | 262.9 | 309 | 17.54\% |
| France | 2,012.2 | 2,201.2 | 9.39\% |
| Greece | 387.9 | 653 | 68.34\% |
| Hungary | 279.4 | 438.7 | 57.02\% |
| Ireland | 151.1 | 186 | 23.10\% |
| Italy | 1,797.2 | 2029 | 12.90\% |
| Lithuania | 107.4 | 198.9 | 85.20\% |
| Luxembourg | 2.7 | 2.7 | 0.00\% |
| Latvia | 82 | 131.1 | 59.88\% |
| FYROM | 35.1 | 48.4 | 37.89\% |
| Malta | 5.8 | 8.9 | 53.45\% |
| Netherlands | 469.9 | 579.6 | 23.35\% |
| Poland | 1,399.1 | 2,145.7 | 53.36\% |
| Portugal | 356.8 | 367.3 | 2.94\% |
| Romania | 407.7 | 835 | 104.81\% |
| Sweden | 335.1 | 422.6 | 26.11\% |
| Slovenia | 79.1 | 114.8 | 45.13\% |
| Slovakia | 122.9 | 197.9 | 61.03\% |
| Turkey | 1,464.7 | 2,342.9 | 59.96\% |
| United Kingdom | 2081 | 2,336.1 | 12.26\% |
| Summary areas |  |  |  |
| European Union (27 countries) | 15,569.5 | 18,782.5 | 20.64\% |
| Euro area | 9,998.3 | 11,168.9 | 11.71\% |
| Comparator countries |  |  |  |
| Japan | 3940.8 | 4,084.9 | 3.66\% |
| United States | 13,769.4 | 17,487.5 | 27.00\% |

[^0]Chart 4
Percentage change in higher education enrolments, 1999-2006

Source: Eurostat

22 The calculated entry rates are the sum of percentages of the population at each year of age entering higher education at ISCED 5A. This inevitably leads to a higher entry rate than that which is currently used in England.

Chart 5 Entry rates into higher education, 2006

149 There is no international equivalent of the measures conventionally used within the UK, for example the higher education initial participation rate for England (HEIPR), relating to the percentage of the population engaged in higher education. An alternative which has some international currency is the composite entry rate used by the Organisation for Economic Co-operation and Development (OECD).

150 Chart 5 shows the calculated entry rates into higher education at tertiary level $\mathrm{A}^{22}$ for those countries that have provided comparable data.


[^1]Table 16
Age at entry of new higher education students, 2006

151 The data yields a broad picture of the ages of entry into higher education in different countries, and table 16 summarises this: the columns headed 20th, 50th and 80th percentile identify that respectively 20,50 and 80 per cent of new entrants are below this age.

|  | Age at entry: |  | 80th percentile |
| :---: | :---: | :---: | :---: |
|  | 20th percentile | 50th percentile |  |
| Austria | 19.4 | 20.8 | 23.7 |
| Belgium | 18.4 | 19.1 | 23.2 |
| Czech Republic | 19.6 | 20.5 | 24.1 |
| Denmark | 20.8 | 22.6 | 27.9 |
| Estonia | 19.1 | 19.8 | 23.2 |
| Finland | 19.8 | 21.6 | 27.8 |
| Germany | 19.9 | 21.2 | 24.0 |
| Greece | 18.2 | 18.9 | 25.9 |
| Hungary | 19.3 | 21.0 | 28.0 |
| Ireland | 18.3 | 19.1 | 20.6 |
| Italy | 19.2 | 19.8 | 23.5 |
| Netherlands | 18.4 | 19.7 | 22.6 |
| Poland | 19.5 | 20.3 | 22.6 |
| Portugal | 18.6 | 20.1 | 27.5 |
| Slovak Republic | 19.5 | 20.7 | 26.5 |
| Slovenia | 19.2 | 19.7 | 20.8 |
| Spain | 18.4 | 19.0 | 22.8 |
| Sweden | 20.1 | 22.4 | 29.6 |
| Turkey | 18.5 | 19.8 | 23.3 |
| United Kingdom | 18.5 | 19.6 | 25.4 |

Source: OECD database

152 It is also possible to disaggregate the entry figures by broad subject of study, as table 17 shows.

Table 17
Percentage of
entrants by broad
field of study, 2006

|  | Life sciences, physical sciences and agriculture | Mathematics and computer science | Engineering, manufacturing and construction | Humanities, arts and education | Health and welfare | Social sciences, business, law and services | Not known or unspecified |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage of new entrants | Percentage of new entrants | Percentage of new entrants | Percentage of new entrants | Percentage of new entrants | Percentage of new entrants | Percentage of new entrants |
| Austria | 8 | 6 | 15 | 26 | 10 | 35 | n |
| Belgium | 7 | 3 | 13 | 24 | 15 | 38 | n |
| Czech Republic | 7 | 6 | 15 | 18 | 11 | 32 | 10 |
| Denmark | 4 | 8 | 12 | 18 | 23 | 35 | n |
| Finland | 5 | 6 | 26 | 15 | 18 | 29 | n |
| Germany | 8 | 7 | 15 | 27 | 16 | 26 | n |
| Hungary | 5 | 3 | 13 | 20 | 8 | 51 | n |
| Ireland | 6 | 3 | 15 | 25 | 13 | 37 | 1 |
| Italy | 9 | 3 | 14 | 21 | 13 | 40 | n |
| Netherlands | 2 | 5 | 9 | 22 | 19 | 43 | 1 |
| Poland | 6 | 6 | 13 | 22 | 6 | 47 | n |
| Portugal | 6 | 7 | 14 | 19 | 19 | 35 | n |
| Slovak Republic | 7 | 5 | 18 | 22 | 15 | 32 | n |
| Spain | 3 | 6 | 17 | 20 | 12 | 35 | 7 |
| Sweden | 6 | 6 | 18 | 26 | 13 | 30 | n |
| Turkey | 7 | 4 | 14 | 19 | 5 | 51 | n |
| United Kingdom | 8 | 6 | 8 | 26 | 19 | 25 | 8 |
| Estonia | 6 | 7 | 13 | 18 | 10 | 47 | n |
| Russian Federation ${ }^{23}$ | 10 | ~ | 23 | 13 | 6 | 46 | 2 |
| Slovenia | 5 | 4 | 20 | 13 | 6 | 52 | n |

Source: OECD database

23 Figures for mathematics and computer science in the Russian Federation cannot be disaggregated from the figures for life sciences, physical sciences and agriculture, within which they are included.

24 These figures, despite their limitations, are considered to be more relevant than those contained in the OECD publication Education at a glance, which include ISCED 6, 'Advanced research programmes' as well as ISCED 5A.

153 In table 17, the UK shows a low level of participation in engineering, manufacturing and construction and a high level in humanities, as well as in health and welfare (the latter partly, no doubt, because of the nursing education arrangements). There is a surprisingly high level of unknowns.

## Mode of study

154 The analysis of mode of study in an international context is complex. The distinction between full-time and part-time students as we understand it in the UK has no validity in several countries and a simple analysis of the reported mode of study among students at ISCED 5A shows some major countries providing no data about part-time students. ${ }^{24}$ It should of course be remembered here that ISCED 5A includes taught Masters' degrees, which cannot be disaggregated from first degrees under the classification.

Chart 6
Percentage of ISCED 5A students reported as being part-time, 2006


Source: OECD database

Table 18 De facto student status: students with full-time status by size of effective workload for studyrelated activities per week, ISCED 5A, 2006

|  | up to 10 hours/ week | 11-20 hours/ week | 21-30 hours/ week | $\begin{aligned} & >30 \text { hours/ } \\ & \text { week } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| Austria | 6.2 | 13.7 | 23.3 | 56.7 |
| Bulgaria | 3.9 | 8.0 | 19.6 | 68.5 |
| Czech Republic | 7.7 | 16.6 | 26.7 | 49.0 |
| Estonia | 18.0 | 25.6 | 24.9 | 31.5 |
| Finland | 16.4 | 16.8 | 22.1 | 44.7 |
| France | 10.0 | 12.7 | 20.7 | 56.6 |
| Germany | 6.0 | 11.5 | 23.8 | 58.6 |
| Ireland | 1.3 | 12.8 | 35.1 | 50.8 |
| Italy | 2.7 | 15.0 | 25.8 | 56.5 |
| Latvia | 6.0 | 23.6 | 31.1 | 39.3 |
| Netherlands | 4.8 | 15.2 | 24.5 | 55.5 |
| Norway | 4.0 | 13.9 | 28.2 | 53.9 |
| Portugal | 1.6 | 3.4 | 17.3 | 77.7 |
| Romania | 1.1 | 6.8 | 16.1 | 76.0 |
| Slovakia | 11.0 | 22.6 | 28.5 | 37.9 |
| Slovenia | 7.3 | 15.8 | 19.7 | 57.2 |
| Spain | 8.4 | 14.1 | 23.0 | 54.6 |
| Sweden | 3.1 | 13.0 | 24.9 | 59.0 |
| Switzerland | 5.0 | 9.0 | 17.0 | 69.0 |
| Turkey | 1.5 | 8.4 | 23.0 | 67.0 |

[^2]Gender
156 Chart 7 shows the percentage of female students at ISCED 5A.

Chart 7
Percentage of female students
at ISCED 5A, 2006


Source: OECD database

157 For comparison, the average EU female participation rate is 55 per cent. In all European countries female students are in the majority and the UK is high in the chart. Chart 8 shows the percentage point change in female enrolment between 2000 and 2006, the EU average being $3 \%$.

Chart 8 Percentage points change in female participation in higher education (ISCED 5A), 2000-2006


Source: Eurostat database

158 There are differences in the gender balance of students by field of study, and the following two charts show the proportion of female students in two of the areas which are referred to in the UK as STEM (science, technology, engineering and mathematics).

Chart 9 Percentage of female students in the fields of science, mathematics and computing at ISCED 5-6, 2006


Source: Eurostat database

Chart 10
Percentage of female students in the fields of engineering and technology at ISCED 5-6, 2006


Source: Eurostat database

159 Here we find the UK in the upper half of the graph in terms of participation by females in science, mathematics and computing, but low in engineering and technology.

Student mobility
160 We now summarise the complex issue of student mobility between countries. A detailed analysis of student mobility among European countries, and intake from other regions of the world, is at Appendix 9. A summary of mobility into European states (EU and other) for which data is available is given in table 19.

Table 19 Inward mobility into selected European states, 2006, and overall percentage change, 2000-2006

| Country of destination | Total from Europe, 2006 | Of which, from EU countries | Total from all countries, 2006 | Total from all countries, 2000 | Percentage change in total from all countries, 2000-2006 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Austria | 32,244 | 18,801 | 39,329 | 30,382 | 29\% |
| Belgium | 31,373 | 28,423 | 47,012 | 38,799 | 21\% |
| Czech Republic | 18,518 | 1,085 | 21,395 | 5,468 | 291\% |
| Denmark | 10,916 | 4,013 | 19,123 | 12,871 | 49\% |
| Finland | 4,575 | 1,793 | 8,955 | 5,570 | 61\% |
| France | 51,544 | 28,860 | 247,510 | 137,085 | 81\% |
| Germany | 127,648 | 42,932 | 261,363 | 187,033 | 40\% |
| Greece | 5,041 | 635 | 16,558 | 8,615 | 92\% |
| Hungary | 11,713 | 2,100 | 14,491 | 9,904 | 46\% |
| Ireland | 4,627 | 3,813 | 12,745 | 7,413 | 72\% |
| Italy | 32,644 | 9,703 | 48,766 | 24,929 | 96\% |
| Luxembourg | 1,014 | 927 | 1,137 | 652 | 74\% |
| Netherlands | 22,522 | 18,521 | 36,427 | 14,012 | 160\% |
| Poland | 7,647 | 1,012 | 11,365 | 6,126 | 86\% |
| Portugal | 3,173 | 2,521 | 17,077 | 10,616 | 61\% |
| Slovak Republic | 1,269 | 166 | 1,733 | 1,570 | 10\% |
| Spain | 16,069 | 10,537 | 51,013 | 25,502 | 100\% |
| Sweden | 20,599 | 14,250 | 41,410 | 25,548 | 62\% |
| Turkey | 5,675 | 1,403 | 19,079 | 17,654 | 8\% |
| United Kingdom | 109,287 | 88,849 | 330,078 | 222,936 | 48\% |
| Estonia | 1,967 | 451 | 2,151 | 863 | 149\% |
| Russian Federation | 18,003 | ~ | 77,438 | 41,210 | 88\% |
| Slovenia | 1,336 | 125 | 1,390 | 778 | 79\% |
| Total inward mobility | 539,404 | 280,920 | 1,327,545 | 835,536 | 59\% |

Source: OECD database

161 The following charts show that the United Kingdom is the major European provider of higher education to international students generally, but not to those from Europe where it is exceeded by Germany.

Chart 11
Mobility of all international students into selected European countries, 2006

Chart 12
Mobility of European students into selected European countries, 2006


Source: OECD database


[^3]Chart 13
Percentage change in inward mobility of selected countries, 2000-2006

162 Chart 13 shows the percentage change in inward student mobility of European countries between 2000 and 2006.


Source: OECD database

163 While the UK shows an increase of 48 per cent in its incoming international students over this period, from a high base, it is relevant to note the higher increases in other countries, notably the Netherlands and Spain. Both countries are now offering degree courses in the English language in a more generous fees regime than the UK offers to EU students. The percentage increases in France and Russia are also significant here.

164 In contrast to its inward mobility of over 100,000 students from European states, the UK's outward mobility is more modest, as chart 14 shows.


[^4]165 Student exchanges through the Erasmus programme display a similar pattern, as table 20 shows.

Table 20
Erasmus incoming and outgoing students,

| Country | Outgoing | Incoming | Outgoing as percentage of incoming |
| :---: | :---: | :---: | :---: |
| Austria | 3,908 | 3,735 | 105\% |
| Belgium | 5,045 | 5,279 | 96\% |
| Bulgaria | 938 | 296 | 317\% |
| Cyprus | 129 | 209 | 62\% |
| Czech Republic | 4,977 | 3,030 | 164\% |
| Denmark | 1,539 | 4,420 | 35\% |
| Estonia | 564 | 480 | 118\% |
| Finland | 3,738 | 5,979 | 63\% |
| France | 22,564 | 20,462 | 110\% |
| Greece | 2,433 | 1,823 | 133\% |
| Germany | 23,065 | 17,670 | 131\% |
| Hungary | 2,976 | 1,692 | 176\% |
| Ireland | 1,503 | 3,981 | 38\% |
| Italy | 16,983 | 14,687 | 116\% |
| Latvia | 781 | 353 | 221\% |
| Lithuania | 2,018 | 807 | 250\% |
| Luxembourg | 166 | 24 | 692\% |
| Malta | 125 | 329 | 38\% |
| Netherlands | 4,347 | 6,799 | 64\% |
| Poland | 11,051 | 3,708 | 298\% |
| Portugal | 4,382 | 4,754 | 92\% |
| Romania | 3,350 | 792 | 423\% |
| Slovakia | 1,335 | 655 | 204\% |
| Slovenia | 962 | 746 | 129\% |
| Spain | 21,944 | 27,257 | 81\% |
| Sweden | 2,507 | 7,327 | 34\% |
| Turkey | 4,438 | 1,321 | 336\% |
| UK | 7.129 | 16,282 | 44\% |
| Total of selected states | 154,897 | 154,897 |  |

Source: Erasmus database

166 Finally in this section we look at the fields of study of students entering higher education from other countries. There is a complication here, in that some countries (for example the UK and Germany) report incoming students in accordance with their domicile and they are therefore categorised as 'international students'. Some other countries (for example France and Italy) categorise their incoming students by nationality and they are categorised as 'foreign students'. The following table, derived from OECD statistics, amalgamates the two categories in order to generate some statistical information about the overall subject enrolments of non-nationals. Further disaggregation is problematic.

Table 21
Distribution of international and foreign students in tertiary education, by field of education, 2006

| Agriculture |  | Education 5.5 | Engineering, manufacturing and construction 11.5 | Health and welfare$10.3$ | Humanities and arts <br> 23.6 | Sciences <br> 10.8 | Services$1.5$ | Social sciences, business and law 34.5 | Not <br> known or unspecified |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Austria | 2.3 |  |  |  |  |  |  |  |  |
| Belgium | 9.0 | 5.0 | 6.6 | 43.5 | 13.0 | 6.6 | 2.2 | 14.1 | n |
| Czech Republic | 1.7 | 2.0 | 11.7 | 23.5 | 7.4 | 11.5 | 1.6 | 35.1 | 5.4 |
| Denmark | 2.2 | 4.3 | 16.6 | 19.9 | 16.6 | 7.8 | 0.8 | 31.9 | n |
| Estonia | 8.3 | 0.9 | 1.0 | 12.9 | 19.5 | 3.2 | 0.8 | 53.4 | n |
| Finland | 2.2 | 2.3 | 29.9 | 12.0 | 16.4 | 9.8 | 3.7 | 23.7 | n |
| France | 0.2 | 1.2 | 11.5 | 8.9 | 20.7 | 15.4 | 1.6 | 40.6 | 0.1 |
| Germany | 1.4 | 4.7 | 19.8 | 6.1 | 22.0 | 17.1 | 1.3 | 27.4 | 0.1 |
| Hungary | 11.5 | 6.9 | 12.0 | 30.0 | 11.4 | 6.7 | 1.8 | 19.7 | n |
| Italy | 1.8 | 2.1 | 14.4 | 21.6 | 18.6 | 6.5 | 1.8 | 32.3 | 1.0 |
| Netherlands | 1.9 | 6.9 | 5.4 | 16.0 | 13.1 | 5.8 | 5.0 | 45.3 | 0.5 |
| Poland | 0.7 | 5.4 | 4.3 | 26.0 | 20.0 | 5.3 | 3.6 | 34.8 | n |
| Portugal | 1.2 | 4.9 | 18.6 | 7.7 | 8.5 | 7.4 | 5.0 | 46.6 | n |
| Slovak Republic | 9.8 | 4.7 | 11.3 | 30.5 | 14.8 | 7.3 | 5.4 | 16.3 | a |
| Slovenia | 1.2 | 6.1 | 16.4 | 12.9 | 21.5 | 9.1 | 3.4 | 29.5 | n |
| Spain | 1.7 | 2.7 | 9.5 | 30.7 | 13.2 | 7.4 | 2.8 | 31.9 | n |
| Sweden | 1.0 | 3.9 | 24.1 | 8.6 | 15.7 | 14.5 | 1.5 | 30.4 | 0.3 |
| Turkey | 2.3 | 8.8 | 14.3 | 14.2 | 9.8 | 8.9 | 3.2 | 38.5 | n |
| United Kingdom | 0.8 | 3.9 | 14.8 | 9.1 | 13.9 | 14.1 | 1.2 | 40.8 | 1.2 |

Source: OECD database/ISCED 97

## Student outcomes

167 An obvious potential measure of student outcomes is the graduation rate of undergraduate students. While such a measure can be derived, and appears in chart 15 , it should be treated with extreme caution because, as we have seen, no distinction is made here between full-time and part-time undergraduate students. Despite this, it is interesting, not least because it shows an almost identical rate of graduation by students in the UK and Ireland, which have very similar higher education structures.

Chart 15 Graduation rates at ISCED 5A (first graduation), 2006 ${ }^{25}$

25 Sum of graduation rates for single year of age by programme destination and duration.


[^5]26 Figures for mathematics and computer science in the Russian Federation cannot be disaggregated from the figures for life sciences, physical sciences and agriculture, within which they are included.

168 The following table disaggregates the graduates from higher education by field of study.

|  | Health and welfare | Life sciences, physical sciences and agriculture | Mathematics and computer science | Humanities, arts and education | Social sciences, business, law and services | Engineering, manufacturing and construction |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Austria | 8.7 | 8.7 | 9.1 | 18.9 | 39.9 | 14.5 |
| Belgium | 11.7 | 10.2 | 4.6 | 25.6 | 36.5 | 11.3 |
| Czech Republic | 9.4 | 7.5 | 4.4 | 24.3 | 34.2 | 16.2 |
| Denmark | 27.7 | 4.5 | 4.0 | 25.6 | 28.0 | 10.2 |
| Finland | 19.2 | 5.7 | 5.3 | 19.9 | 29.2 | 20.7 |
| France | 8.8 | 8.8 | 5.9 | 19.1 | 44.8 | 12.6 |
| Germany | 10.1 | 8.9 | 7.8 | 31.0 | 29.5 | 12.6 |
| Hungary | 8.8 | 4.1 | 4.6 | 27.7 | 48.5 | 6.3 |
| Ireland | 14.2 | 14.8 | n | 28.6 | 34.4 | 8.0 |
| Italy | 14.2 | 6.6 | 2.1 | 22.3 | 37.8 | 14.9 |
| Netherlands | 16.5 | 3.3 | 4.6 | 24.2 | 42.8 | 8.3 |
| Poland | 7.9 | 5.1 | 4.8 | 25.2 | 48.3 | 8.6 |
| Portugal | 19.7 | 6.6 | 5.9 | 23.4 | 32.6 | 11.7 |
| Slovak Republic | 16.5 | 7.7 | 4.0 | 22.2 | 34.4 | 15.3 |
| Spain | 14.6 | 7.1 | 5.4 | 23.8 | 34.6 | 14.3 |
| Sweden | 25.7 | 4.8 | 3.8 | 23.1 | 24.6 | 18.0 |
| Turkey | 5.9 | 7.9 | 3.3 | 34.7 | 38.7 | 9.4 |
| United Kingdom | 12.4 | 8.5 | 6.8 | 27.4 | 34.7 | 8.8 |
| Estonia | 6.1 | 9.3 | 5.7 | 28.3 | 40.9 | 9.7 |
| Russian Federation ${ }^{26}$ | 4.3 | 9.8 |  | 16.3 | 51.3 | 18.3 |
| Slovenia | 10.6 | 5.8 | 2.5 | 25.4 | 45.5 | 10.2 |

Source: Bologna process indicators

169 The following chart shows the percentage unemployment rate of tertiary graduates, derived from the Eurostat Labour Force Survey (LFS). These relate to cumulated unemployment rates of graduates aged 20-34 over the period 2003-2007 and relate to ISCED 5-6.

Chart 16
Percentage unemployment rate of tertiary graduates at ISCED 5-6, cumulated over 2003-2007


Source: Eurostat LFS

170 The chart confirms that the unemployment rate of UK graduates calculated on this basis is one of the lowest in Europe.

## Financial indicators

171 We now turn to financial indicators and must recognise the limitation of international comparisons here. It is, for example, not realistic to chart issues such as surplus and deficit in the context of the wide-ranging funding arrangements that exist across the 27 EU countries, let alone the others. First, the following table shows the percentage of GDP spent on higher education in the most recent available year.

Table 23
Percentage of GDP
spent on higher education, 2005

| Country | Percentage <br> of GDP spent <br> on higher <br> education |
| :--- | ---: |
| Austria | 1.48 |
| Belgium | 1.29 |
| Bulgaria | 0.76 |
| Croatia | 0.86 |
| Cyprus | 1.58 |
| Czech Republic | 0.89 |
| Denmark | 2.38 |
| Estonia | 0.92 |
| Finland | 2.01 |
| France | 1.19 |
| Germany | 1.14 |
| Greece | 1.44 |
| Hungary | 1.03 |
| Ireland | 1.11 |


| Country | Percentage <br> of GDP spent <br> on higher <br> education |
| :--- | ---: |
| Ltaly | 0.76 |
| Latvia | 0.88 |
| Lithuania | 1.04 |
| Malta | 1.07 |
| Netherlands | 1.37 |
| Poland | 1.19 |
| Portugal | 0.98 |
| Romania | 0.81 |
| Slovakia | 0.81 |
| Slovenia | 1.27 |
| Spain | 0.95 |
| Sweden | 1.92 |
| United Kingdom | 1.21 |

[^6]172 The information in table 23 is graphed in chart 17. The UK appears in the middle of the chart, fractionally above France and Germany but below several smaller European nations.

Chart 17 Percentage of GDP spent on higher education by country, 2005


Source: Eurostat

173 Chart 18 looks at the sources of income to higher education institutions from private sources, as a percentage of all sources.

Chart 18
Higher education institution income from private sources as a percentage of all sources, 2005


Source: Eurostat

Table 24
Annual total expenditure on tertiary educational institutions per full-time equivalent student (in EUR PPS ${ }^{27}$ ) with and without expenditure on research and ancillary services, 2005

27 PPS (Purchasing power standard): purchasing power parity is a currency conversion rate that converts economic indicators expressed in a national currency to an artificial common currency that equalises the purchasing power of different national currencies In other words, purchasing power parity is both a price deflator and a currency converter; it eliminates the differences in price levels between countries in the process of conversion to an artificial common currency, called purchasing power standard (PPS).

|  | Including research etc | Excluding research etc |
| :---: | :---: | :---: |
| Belgium | 10,117 | 6,534 |
| Bulgaria | 3,642 | 2,812 |
| Czech Republic | 5,624 | 4,428 |
| Denmark | 12,654 | - |
| Germany | 10,425 | 5,996 |
| Estonia | 3,338 | 3,336 |
| Ireland | 8,856 | 6,248 |
| Greece | 5,186 | 3,772 |
| Spain | 8,535 | 6,076 |
| France | 9,302 | 5,934 |
| Italy | 6,786 | 4,270 |
| Cyprus | 8,817 | 7,038 |
| Latvia | 3,765 | 3,151 |
| Lithuania | 3,801 | 3,023 |
| Hungary | 5,353 | 4,006 |
| Malta | 9,079 | 7,683 |
| Netherlands | 11,744 | 7,374 |
| Austria | 12,813 | 8,631 |
| Poland | 4,716 | 4,266 |
| Portugal | 6,244 | 4,907 |
| Romania | 2,403 | - |
| Slovenia | 7,080 | 5,815 |
| Slovakia | 4,892 | 3,615 |
| Finland | 10,390 | 6,406 |
| Sweden | 13,490 | 7,005 |
| UK | 12,106 | 6,984 |
| Croatia | 4,235 | 4,004 |
| Russia | 3,158 | - |
| Comparators |  |  |
| EU-27 | 8,282 | 5,505 |
| Japan | 10,324 |  |
| USA | 20,949 | 16,037 |

Source: Bologna process indicators

174 The figures for total expenditure per full-time equivalent student, including and excluding research and ancillary services, are mapped in charts 19 and 20.

Chart 19
Annual total expenditure on tertiary educational institutions per full-time equivalent student (in EUR PPS) including expenditure on research and ancillary services, 2005

Chart 20
Annual total expenditure on tertiary educational institutions per full-time equivalent student (in EUR PPS) excluding expenditure on research and ancillary services, 2005


Source: Bologna process indicators


[^7]175 Table 25 maps expenditure by higher education institutions against income received from international agencies and other foreign sources, as identified by the OECD.

Table 25 Percentage expenditure against international income, 2005

Chart 21
Gender of academic staff, 2006: percentage female
$\left.\begin{array}{|lr} & \begin{array}{r}\text { Percentage } \\ \text { expenditure } \\ \text { against }\end{array} \\ \text { international } \\ \text { income }\end{array}\right\}$

|  | Percentage expenditure against international income |
| :---: | :---: |
| Italy | 1.1\% |
| Netherlands | 0.0\% |
| Poland | 0.0\% |
| Portugal | 3.0\% |
| Slovak Republic | 1.5\% |
| Spain | 0.0\% |
| Sweden | 3.3\% |
| United Kingdom | 2.3\% |

Source: OECD

## Academic staff

176 We look briefly at the characteristics of academic staff by gender, age and mode of employment. Chart 21 shows the percentage of female academic staff by country in 2006. The UK appears to be slightly above the median here, and ahead of most Western European countries in the percentage of females employed as academic staff.


[^8]Chart 22
Age of academic staff, 2006: percentages by age of group
■Under 30

- 30-49
- 50-64

Table 26
Academic staff by mode of employment, 2006

|  | Percentage <br> part-time |
| :--- | ---: |
| Austria | $4.1 \%$ |
| Belgium | $48.1 \%$ |
| Bulgaria | $46.1 \%$ |
| Cyprus | $32.9 \%$ |
| Germany | $55.3 \%$ |
| Spain | $30.1 \%$ |
| France | $2.6 \%$ |
| Greece | $46.6 \%$ |
| Croatia | $26.7 \%$ |
| Hungary | $30.9 \%$ |
| Ireland | $29.6 \%$ |
| Lithuania | $50.7 \%$ |


|  | Percentage <br> part-time |
| :--- | ---: |
| Latvia | $48.8 \%$ |
| FYROM | $0.6 \%$ |
| Malta | $37.6 \%$ |
| Netherlands | $52.0 \%$ |
| Poland | $1.3 \%$ |
| Portugal | $39.0 \%$ |
| Romania | $3.0 \%$ |
| Sweden | $26.5 \%$ |
| Slovenia | $63.2 \%$ |
| Slovakia | $16.9 \%$ |
| Turkey | $1.3 \%$ |
| UK | $37.1 \%$ |

Source: Eurostat

## Research and development

179 Definitions of research and development (R\&D) and practice differ substantially across Europe.

## Inputs and investment

180 Table 27 shows the breakdown of research and development expenditure in 2000 and 2006 by available country and also by sector of spend.

Table 27
Research and development as a percentage of GDP, overall and by sector, 2000 and 2006

|  | Higher education |  | Business |  | Government |  | Private non-profit |  | Total R\&D |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2000 | 2006 | 2000 | 2006 | 2000 | 2006 | 2000 | 2006 | 2000 | 2006 |
| Belgium | 0.40 | 0.42 | 1.43 | 1.30 | 0.12 | 0.15 | 0.02 | 0.01 | 1.97 | 1.88 |
| Bulgaria | 0.05 | 0.05 | 0.11 | 0.12 | 0.36 | 0.31 | 0.00 | 0.00 | 0.52 | 0.48 |
| Czech Republic | 0.17 | 0.25 | 0.73 | 1.03 | 0.31 | 0.27 | 0.01 | 0.01 | 1.22 | 1.56 |
| Denmark | 0.44 | 0.64 | 1.50 | 1.66 | 0.28 | 0.16 | 0.02 | 0.01 | 2.24 | 2.47 |
| Germany | 0.40 | 0.41 | 1.73 | 1.77 | 0.33 | 0.35 | 0.00 | 0.00 | 2.46 | 2.53 |
| Estonia | 0.32 | 0.47 | 0.14 | 0.51 | 0.14 | 0.15 | 0.01 | 0.02 | 0.61 | 1.15 |
| Ireland | 0.23 | 0.34 | 0.80 | 0.88 | 0.09 | 0.08 | 0.00 | 0.00 | 1.12 | 1.30 |
| Greece | m | 0.27 | 0.15 | 0.17 | m | 0.12 | 0.00 | 0.01 | - | 0.57 |
| Spain | 0.27 | 0.33 | 0.49 | 0.67 | 0.14 | 0.20 | 0.01 | 0.00 | 0.91 | 1.20 |
| France | 0.40 | 0.40 | 1.34 | 1.32 | 0.37 | 0.35 | 0.03 | 0.03 | 2.14 | 2.10 |
| Italy | 0.32 | 0.34 | 0.52 | 0.55 | 0.20 | 0.20 | 0.00 | 0.04 | 1.04 | 1.13 |
| Cyprus | 0.06 | 0.18 | 0.05 | 0.10 | 0.11 | 0.12 | 0.02 | 0.03 | 0.24 | 0.43 |
| Latvia | 0.17 | 0.24 | 0.18 | 0.35 | 0.10 | 0.11 | 0.00 | 0.00 | 0.45 | 0.70 |
| Lithuania | 0.22 | 0.39 | 0.13 | 0.22 | 0.25 | 0.18 | 0.00 | 0.00 | 0.60 | 0.79 |
| Luxembourg | 0.00 | 0.04 | 1.53 | 1.43 | 0.12 | 0.20 | 0.00 | 0.00 | 1.65 | 1.67 |
| Hungary | 0.19 | 0.24 | 0.35 | 0.48 | 0.20 | 0.25 | 0.00 | 0.00 | 0.74 | 0.97 |
| Malta | m | 0.18 | m | 0.44 | m | 0.03 | 0.00 | 0.00 | - | 0.65 |
| Netherlands | 0.51 | 0.47 | 1.07 | 1.01 | 0.23 | 0.23 | 0.02 | 0.00 | 1.83 | 1.71 |
| Austria | m | 0.59 | m | 1.73 | m | 0.13 | 0.00 | 0.01 | - | 2.46 |
| Poland | 0.20 | 0.17 | 0.23 | 0.18 | 0.21 | 0.21 | 0.00 | 0.00 | 0.64 | 0.56 |
| Portugal | 0.28 | 0.32 | 0.21 | 0.47 | 0.18 | 0.11 | 0.08 | 0.10 | 0.75 | 1.00 |
| Romania | 0.04 | 0.08 | 0.26 | 0.22 | 0.07 | 0.15 | 0.00 | 0.01 | 0.37 | 0.46 |
| Slovenia | 0.23 | 0.24 | 0.78 | 0.94 | 0.36 | 0.38 | 0.02 | 0.00 | 1.39 | 1.56 |
| Slovakia | 0.06 | 0.12 | 0.43 | 0.21 | 0.16 | 0.16 | 0.00 | 0.00 | 0.65 | 0.49 |
| Finland | 0.60 | 0.65 | 2.37 | 2.46 | 0.35 | 0.32 | 0.02 | 0.02 | 3.34 | 3.45 |
| Sweden | m | 0.77 | m | 2.79 | m | 0.17 | 0.00 | 0.01 | - | 3.74 |
| UK | 0.37 | 0.46 | 1.18 | 1.08 | 0.23 | 0.18 | 0.03 | 0.04 | 1.81 | 1.76 |
| Croatia | m | 0.32 | m | 0.32 | m | 0.23 | 0.00 | 0.00 | - | 0.87 |
| Turkey | 0.29 | 0.30 | 0.16 | 0.21 | 0.03 | 0.07 | 0.00 | 0.00 | 0.48 | 0.58 |

[^9]181 These figures are disaggregated in the following charts.

Chart 23
Total expenditure on research and development as percentage of GDP, 2006

Chart 24
Percentage of GDP applied to research and development in higher education institutions, 2006


Source: Eurostat database


Source: Eurostat database

182 The United Kingdom features at the upper end of the charts in terms of both the total expenditure on research and development and also the investment in research and development in higher education institutions as a percentage of GDP overall.
183 In chart 23 however, in terms of total spend on research and development, the UK lags behind Germany and France, although chart 24 shows that a higher proportion is expended within the higher education institutional community.

Chart 25
Publications within the top 1 per cent of citations, 2000-2006

## Outputs and performance

184 There is an extensive literature concerning research output and performance which could not realistically be replicated or extended here. Chart 25 shows, for selected countries, the number of publications within the top 1 per cent of citations lover the period 2000-2006). The UK is at the top of the spectrum, ahead of Germany and France.


DIUS: Evidence report

28 Including the Technopolis report for Universities UK, International research collaboration opportunities for the UK higher education sector, April 2008.

29 http://www.dius.gov.uk/~/ media/publications/I/ IntComparativePerformance UKResearch, 2.01.

185 Finally, we look at research collaboration. Again there is a body of published work ${ }^{28}$, although little gives a detailed comparison with European countries, not least because the major areas of collaboration are with the United States and increasingly with China.

186 As the report produced by Evidence Ltd (see Appendix 10) indicated: 'The number of the UK's publications that have a non-UK co-author has risen from about 22,500 ( 31.7 per cent of total output) in 1998 to almost 37,000 ( 44.6 per cent) in 2007, a rise of about two-thirds in volume and one-third relative to total activity... Collaboration with the USA is relatively stable as a proportion of UK volume but is increasing for EU partners'. ${ }^{29}$

## Conclusion

187 This report has been prepared as the latest in a series of yearbooks about higher education in the UK in order to meet the expressed wishes of the higher education sector, through Universities UK, GuildHE and the UK Higher Education Unit. It has expanded the data contained in previous Patterns reports, as a basis for subsequent comparisons.

188 It is hoped that it will also be of interest to a wider audience, through setting out a range of facts, trends and ratios for universities and colleges in the United Kingdom.

## Appendices

Appendix 1: Total enrolments by detailed subject of study, 1998/99 and 2007/08
Appendix 2: Non-UK domiciled students at UK higher education institutions by domicile and qualification aim, 2007/08

Appendix 3: Trends in sources of income to higher education institutions, 2000/01, 2006/07 and 2007/08

Appendix 4: Distribution of enrolments among higher education and further education institutions by mode and level, 2006/07

Appendix 5: Mergers within the higher education sector, 1994/95-2007/08
Appendix 6: HESA academic cost centres
Appendix 7: Definitions of higher education
Appendix 8: Countries included in the Section C analysis
Appendix 9: Mobility of students at European institutions, 2006
Appendix 10: Sources

|  | 1998/99 |  | 2007/08 |
| :---: | :---: | :---: | :---: |
| Medicine and dentistry | 42,839 |  | 61,810 |
| Pre-clinical medicine | 10,777 | Pre-clinical medicine | 13,155 |
| Pre-clinical dentistry | 1,677 | Pre-clinical dentistry | 1,050 |
| Clinical medicine | 25,992 | Clinical medicine | 40,230 |
| Clinical dentistry | 3,685 | Clinical dentistry | 6,400 |
| Subjects allied to medicine | 182,212 |  | 287,125 |
| Anatomy and physiology | 5,449 | Anatomy, physiology and pathology | 16,510 |
| Pharmacology | 3,393 | Pharmacology, toxicology and pharmacy | 21,615 |
| Pharmacy | 8,906 |  |  |
| Nutrition | 1,874 | Nutrition | 6,220 |
| Ophthalmics | 2,623 | Ophthalmics | 3,290 |
| Audiology | 1,109 | Aural and oral sciences | 4,035 |
| Nursing | 112,307 | Nursing | 168,330 |
| Medical technology | 4,403 | Medical technology | 8,335 |
|  |  | Complementary medicine | 6,215 |
| Other medical subjects | 41,393 | Others in subjects allied to medicine | 51,905 |
| Biological sciences | 103,409 |  | 161,600 |
| Biology | 23,347 | Biology | 26,360 |
| Botany | 837 | Botany | 620 |
| Zoology | 3,644 | Zoology | 3,810 |
| Genetics | 2,133 | Genetics | 2,100 |
| Microbiology | 2,708 | Microbiology | 3,375 |
|  |  | Sports science | 32,870 |
| Physical education | 6,924 |  |  |
| Molecular biology and biophysics | 1,529 | Molecular biology, biophysics and biochemistry | 10,315 |
| Biochemistry | 8,381 |  |  |
| Psychology (not solely as social science) | 28,244 | Psychology | 72,570 |
| Psychology (without significant element of biological science) | 9,340 |  |  |
| Other biological sciences | 16,322 | Others in biological sciences | 8,815 |
| Veterinary science | 3,524 |  | 4,845 |
| Agriculture and related subjects | 15,301 |  | 17,680 |
|  | 9,157 |  |  |
| Agriculture | 762 | Agriculture | 7,250 |
| Forestry | 2,924 | Forestry | 685 |
| Food science | 457 | Food and beverage studies | 2,695 |
| Agricultural sciences | 1,960 | Agricultural sciences | 200 |
| Other agricultural subjects | 41 | Others in veterinary sciences, agriculture and related subjects | 3,140 |
|  |  | Animal science | 3,715 |


|  | 1998/99 |  | 2007/08 |
| :---: | :---: | :---: | :---: |
| Physical sciences | 71,356 |  | 82,130 |
| Chemistry | 21,905 | Chemistry | 18,815 |
| Materials science | 423 | Materials science | 620 |
| Physics | 13,695 | Physics | 14,870 |
| Archaeology as a physical science | 2,247 | Forensic and archaeological science | 10,030 |
| Astronomy | 1,341 | Astronomy | 2,935 |
| Geology | 6,156 | Geology | 8,325 |
| Oceanography | 779 | Science of aquatic and terrestrial environments | 6,760 |
| Geography studies as a science | 9,911 | Physical geographical sciences | 14,510 |
| Environmental science and other physical sciences | 13,292 |  |  |
|  |  | Others in physical sciences | 4,300 |
| Mathematical sciences | 20,753 |  | 34,120 |
| Mathematics | 16,343 | Mathematics | 29,620 |
| Operational research | 555 | Operational research | 855 |
| Statistics | 2,393 | Statistics | 3,435 |
| Other mathematical sciences | 726 | Others in mathematical sciences | 125 |
| Computer science | 85,102 |  | 95,575 |
| Computing science | 85,102 | Computer science | 64,100 |
|  |  | Information systems | 24,180 |
|  |  | Software engineering | 6,245 |
| Engineering and technology | 128,713 |  | 139,435 |
| General engineering | 17,050 | General engineering | 19,920 |
| Civil engineering | 16,167 | Civil engineering | 22,895 |
| Mechanical engineering | 22,672 | Mechanical engineering | 22,990 |
| Aeronautical engineering | 4,853 | Aerospace engineering | 8,630 |
|  |  | Naval architecture | 560 |
| Electrical engineering | 6,427 | Electronic and electrical engineering | 30,340 |
| Electronic engineering | 22,424 |  |  |
| Production engineering | 11,629 | Production and manufacturing engineering | 6,055 |
| Chemical engineering | 6,076 | Chemical, process and energy engineering | 7,715 |
| Minerals technology | 822 | Minerals technology | 295 |
| Metallurgy | 831 | Metallurgy | 435 |
| Ceramics and glasses | 181 | Ceramics and glasses | 150 |
| Polymers and textiles | 3,989 | Polymers and textiles | 2,835 |
| Other materials technology | 2,616 | Materials technology not otherwise specified | 2,740 |
| Maritime technology | 1,943 | Maritime technology | 1,775 |
| Biotechnology | 690 | Biotechnology | 1,025 |
| Other technologies | 2,459 | Others in technology | 9,620 |


|  | 1998/99 |  | 2007/08 |
| :---: | :---: | :---: | :---: |
| Architecture, building and planning | 44,007 |  | 63,085 |
| Architecture | 13,656 | Architecture | 20,515 |
| Building | 17,985 | Building | 26,055 |
| Environmental technologies | 2,186 |  |  |
|  |  | Landscape design | 1,855 |
| Town and country planning | 9,687 | Planning (urban, rural and regional) | 12,050 |
| Other architectural studies | 489 | Others in architecture, building and planning | 2,325 |
| Social studies | 123,821 |  | 198,875 |
| Economics | 23,030 | Economics | 29,850 |
| Politics | 17,357 | Politics | 32,230 |
| Sociology | 23,084 | Sociology | 29,755 |
| Social policy and administration | 8,521 | Social policy | 14,275 |
| Social work | 26,829 | Social work | 60,490 |
| Anthropology | 3,886 | Anthropology | 4,825 |
| Geography (unless solely as a physical science) | 8,391 | Human and social geography | 12,470 |
| Other social studies | 4,998 | Others in social studies | 14,475 |
| Balanced combinations within social, economic and political studies | 7,725 |  |  |
| Law | 58,361 |  | 89,245 |
|  | 58,361 | Law by area | 34,660 |
|  |  | Law by topic | 49,975 |
|  |  | Others in law | 2,955 |
| Business and administrative studies | 226,173 |  | 310,455 |
| Business and management studies | 137,727 | Business studies | 121,020 |
|  |  | Management studies | 68,265 |
| Financial management | 9,073 | Finance | 21,575 |
| Accountancy | 23,037 | Accounting | 31,690 |
| Marketing and market research | 14,293 | Marketing | 23,190 |
| Industrial relations | 11,257 |  |  |
|  |  | Human resource management | 16,145 |
| Catering and institutional management | 18,120 | Hospitality, leisure, tourism and transport | 24,650 |
| Transport, other business and admin studies | 3,011 |  |  |
| Land and property management | 2,659 |  |  |
| Librarianship and information science | 22,094 |  | 47,965 |
| Librarianship | 1,336 | Information services | 4,560 |
| Information science | 4,356 |  |  |
| Communication studies | 4,554 | Publicity studies | 3,960 |
| Media studies | 8,363 | Media studies | 28,085 |
| Publishing | 387 | Publishing | 965 |
| Journalism | 2,735 | Journalism | 9,220 |


|  | 1998/99 |  | 2007/08 |
| :---: | :---: | :---: | :---: |
| Languages | 89,798 |  | 136,050 |
| Linguistics | 4,604 | Linguistics | 5,145 |
| Comparative literature | 2,532 | Comparative literary studies | 1,260 |
| English | 30,789 | English studies | 61,910 |
| Celtic languages, literature and culture | 1,383 | Celtic studies | 3,795 |
| Latin language and literature | 162 | Latin studies | 685 |
| Ancient Greek language and literature | 154 | Classical Greek studies | 115 |
| Classics | 2,676 | Classical studies | 4,390 |
| French language, literature and culture | 6,468 | French studies | 11,220 |
| German language, literature and culture | 2,586 | German studies | 4,920 |
| Italian language, literature and culture | 1,349 | Italian studies | 2,715 |
| Spanish language, literature and culture | 2,711 | Spanish studies | 10,940 |
| Portuguese language, literature and culture | 135 | Portuguese studies | 510 |
| Latin American languages, literature and culture | 381 |  |  |
| Scandinavian languages, literature and culture | 476 | Scandinavian studies | 365 |
| Russian languages, literature and culture | 863 | Russian and East European studies | 1,820 |
| Slavonic and East European languages, literature and culture | 405 |  |  |
| Other European languages, literature and culture | 4,282 | Others in European languages, literature and related subjects | 12,725 |
| Chinese languages, literature and culture | 637 | Chinese studies | 1,495 |
| Japanese languages, literature and culture | 776 | Japanese studies | 1,330 |
| Other Asian languages, literature and culture | 285 | South Asian studies | 325 |
|  |  | Other Asian studies | 150 |
| African languages, literature and culture | 174 | African studies | 245 |
| Modern Middle Eastern languages, literature and culture | 1,103 | Modern Middle Eastern studies | 1,535 |
| American studies | 2,706 | American studies | 3,195 |
| Historical and philosophical studies | 60,566 |  | 96,620 |
| History | 26,916 | History by period | 40,410 |
|  |  | History by area | 2,185 |
| Economic and social history | 1,549 | History by topic | 10,540 |
| History of art | 7,845 |  |  |
| History and philosophy of science | 315 |  |  |
| Archaeology | 4,441 | Archaeology | 6,185 |
| Philosophy | 5,863 | Philosophy | 11,690 |
| Theology and religious studies | 10,068 | Theology and religious studies | 14,510 |
| Other humanities | 1,486 | Others in historical and philosophical studies | 10,795 |
| Creative arts and design | 97,112 |  | 158,890 |
| Fine art | 15,230 | Fine art | 19,610 |
| Design studies | 44,535 | Design studies | 60,100 |
| Music | 13,997 | Music | 24,680 |
| Drama | 11,703 | Drama | 22,085 |
|  |  | Dance | 3,695 |
| Cinematics | 4,461 | Cinematics and photography | 14,905 |
| Crafts | 448 | Crafts | 1,275 |
|  |  | Imaginative writing | 5,415 |
| Art and design other | 5,515 | Others in creative arts and design | 7,055 |


|  | $\mathbf{1 9 9 8} / \mathbf{9 9}$ |  | $\mathbf{2 0 0 7 / 0 8}$ |
| :--- | ---: | :--- | ---: |
| Education | $\mathbf{1 2 6 , 3 1 4}$ |  | $\mathbf{2 0 2 , \mathbf { 3 0 0 }}$ |
| Teacher training | 60,018 | Training teachers | $\mathbf{9 7 , 1 6 5}$ |
|  |  | Research and study skills in education | $\mathbf{3 , 6 8 5}$ |
| Academic studies in education | 28,323 | Academic studies in education | $\mathbf{8 1 , 9 6 0}$ |
| Techniques in teaching children | 1,565 |  |  |
| Techniques in teaching adults | 10,722 |  |  |
| Education for those with special needs | 4,946 |  | 19,300 |

Appendix 2
Non-UK domiciled students at UK higher education institutions by domicile and qualification aim, 2007/08

|  | First degree | Other undergraduate | Higher degree (research) | Higher degree (taught) | Other postgraduate | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total non-UK domiciled | 143,570 | 30,735 | 39,860 | 115,800 | 11,820 | 341,790 |
| European Union countries excluding UK | 56,820 | 13,045 | 12,635 | 25,095 | 4,560 | 112,150 |
| Austria | 695 | 120 | 230 | 330 | 40 | 1,415 |
| Belgium | 1,540 | 165 | 240 | 430 | 100 | 2,475 |
| Bulgaria | 725 | 95 | 100 | 305 | 25 | 1,250 |
| Cyprus (European Union) | 6,665 | 395 | 530 | 1,950 | 100 | 9,640 |
| Czech Republic | 725 | 225 | 100 | 225 | 25 | 1,300 |
| Denmark | 605 | 160 | 160 | 485 | 105 | 1,515 |
| Estonia | 515 | 55 | 30 | 55 | 5 | 660 |
| Finland | 1,085 | 120 | 135 | 265 | 55 | 1,660 |
| France | 6,160 | 2,405 | 1,030 | 2,700 | 385 | 12,685 |
| Germany | 6,170 | 1,955 | 2,205 | 2,875 | 425 | 13,625 |
| Gibraltar | 480 | 55 | 10 | 45 | 35 | 620 |
| Greece | 4,850 | 485 | 2,035 | 4,965 | 295 | 12,625 |
| Hungary | 600 | 105 | 115 | 170 | 35 | 1,025 |
| Ireland | 7,035 | 2,260 | 1,005 | 3,205 | 1,755 | 15,260 |
| Italy | 1,875 | 510 | 1,525 | 1,430 | 265 | 5,605 |
| Latvia | 905 | 105 | 30 | 100 | 5 | 1,145 |
| Lithuania | 1,590 | 130 | 45 | 185 | 15 | 1,970 |
| Luxembourg | 600 | 35 | 65 | 120 | 15 | 835 |
| Malta | 220 | 30 | 165 | 370 | 35 | 820 |
| Netherlands | 1,140 | 285 | 435 | 970 | 190 | 3,025 |
| Poland | 5,355 | 1,035 | 620 | 1,420 | 145 | 8,570 |
| Portugal | 1,365 | 270 | 655 | 470 | 65 | 2,830 |
| Romania | 550 | 135 | 195 | 265 | 35 | 1,180 |
| Slovakia | 785 | 125 | 55 | 135 | 15 | 1,115 |
| Slovenia | 100 | 30 | 60 | 85 | 10 | 285 |
| Spain | 2,295 | 1,515 | 585 | 1,060 | 285 | 5,740 |
| Sweden | 2,150 | 225 | 270 | 460 | 90 | 3,195 |
| European Union not otherwise specified | 30 | 25 | 5 | 15 | 5 | 75 |
| Other European Economic Area countries | 1,940 | 175 | 200 | 690 | 70 | 3,075 |
| Iceland | 105 | 20 | 55 | 145 | 15 | 340 |
| Liechtenstein | 5 | 0 | 0 | 5 | 0 | 15 |
| Norway | 1,830 | 150 | 145 | 540 | 55 | 2,720 |
| Other Europe | 3,560 | 750 | 1,115 | 3,240 | 325 | 8,995 |
| Albania | 95 | 25 | 25 | 75 | 5 | 225 |
| Belarus | 50 | 15 | 35 | 50 | 5 | 155 |
| Croatia | 45 | 10 | 45 | 105 | 10 | 215 |
| Cyprus (Non-European Union) | 85 | 20 | 5 | 40 | 0 | 155 |
| Russia | 1,215 | 240 | 215 | 905 | 70 | 2,645 |
| Switzerland | 895 | 130 | 260 | 485 | 125 | 1,895 |
| Turkey | 635 | 195 | 335 | 1,145 | 60 | 2,370 |
| Ukraine | 195 | 50 | 60 | 175 | 15 | 495 |
| Other countries not listed | 340 | 65 | 140 | 260 | 35 | 840 |


|  | First degree | Other undergraduate | Higher degree (research) | Higher degree (taught) | Other postgraduate | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Africa | 11,485 | 2,955 | 3,650 | 12,905 | 1,295 | 32,295 |
| Algeria | 75 | 30 | 125 | 90 | 10 | 335 |
| Angola | 205 | 30 | 0 | 40 | 5 | 285 |
| Botswana | 375 | 25 | 65 | 115 | 10 | 590 |
| Cameroon | 185 | 60 | 35 | 225 | 25 | 530 |
| Egypt | 145 | 155 | 650 | 300 | 150 | 1,395 |
| Ethiopia | 45 | 10 | 35 | 110 | 25 | 220 |
| The Gambia | 175 | 45 | 10 | 90 | 10 | 330 |
| Ghana | 500 | 175 | 260 | 1,205 | 100 | 2,235 |
| Kenya | 1,370 | 120 | 155 | 710 | 70 | 2,430 |
| Libya | 130 | 160 | 700 | 575 | 60 | 1,625 |
| Malawi | 200 | 50 | 65 | 200 | 20 | 535 |
| Mauritius | 1,055 | 160 | 70 | 360 | 60 | 1,700 |
| Morocco | 85 | 20 | 20 | 80 | 5 | 210 |
| Nigeria | 3,835 | 710 | 690 | 6,165 | 380 | 11,785 |
| Sierra Leone | 80 | 40 | 20 | 95 | 10 | 245 |
| South Africa | 410 | 210 | 270 | 525 | 115 | 1,540 |
| Sudan | 80 | 25 | 60 | 155 | 35 | 345 |
| Tanzania | 385 | 65 | 90 | 415 | 30 | 990 |
| Uganda | 310 | 55 | 80 | 440 | 35 | 920 |
| Zambia | 265 | 70 | 45 | 225 | 25 | 630 |
| Zimbabwe | 920 | 550 | 100 | 395 | 60 | 2,025 |
| Other countries not listed | 665 | 185 | 105 | 390 | 55 | 1,400 |
| Asia | 55,275 | 8,690 | 12,570 | 57,425 | 3,520 | 137,485 |
| Azerbaijan | 65 | 25 | 10 | 75 | 5 | 180 |
| Bangladesh | 1,185 | 185 | 210 | 1,010 | 230 | 2,815 |
| Brunei | 1,085 | 110 | 40 | 250 | 15 | 1,500 |
| Burma | 150 | 10 | 15 | 55 | 5 | 235 |
| China | 19,385 | 3,180 | 3,715 | 18,275 | 800 | 45,355 |
| Georgia | 45 | 10 | 10 | 100 | 10 | 175 |
| Hong Kong (special administrative region of China) | ) 6,915 | 680 | 495 | 1,320 | 295 | 9,700 |
| India | 4,480 | 1,335 | 1,480 | 17,920 | 690 | 25,905 |
| Indonesia | 330 | 45 | 115 | 415 | 25 | 925 |
| Japan | 1,795 | 610 | 485 | 1,460 | 115 | 4,465 |
| Kazakhstan | 695 | 100 | 35 | 340 | 10 | 1,180 |
| Korea (South) | 1,800 | 345 | 580 | 1,190 | 115 | 4,030 |
| Macao (special administrative region of China) | 100 | 10 | 15 | 30 | 10 | 165 |
| Malaysia | 7,730 | 275 | 1,700 | 1,695 | 335 | 11,730 |
| Nepal | 220 | 75 | 60 | 270 | 25 | 645 |
| Pakistan | 2,835 | 435 | 1,025 | 4,615 | 390 | 9,305 |
| Philippines | 170 | 315 | 45 | 100 | 35 | 665 |
| Singapore | 1,915 | 140 | 295 | 475 | 75 | 2,900 |
| Sri Lanka | 1,710 | 130 | 265 | 970 | 65 | 3,140 |
| Taiwan | 675 | 315 | 865 | 3,630 | 130 | 5,615 |
| Thailand | 735 | 175 | 875 | 2,290 | 110 | 4,180 |
| Vietnam | 930 | 115 | 145 | 585 | 20 | 1,790 |
| Other countries not listed | 320 | 80 | 100 | 365 | 25 | 890 |


|  | First degree | Other undergraduate | Higher degree (research) | Higher degree (taught) | Other postgraduate | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Australasia | 455 | 305 | 555 | 755 | 220 | 2,285 |
| Australia | 340 | 220 | 375 | 505 | 165 | 1,610 |
| New Zealand | 80 | 65 | 145 | 170 | 50 | 510 |
| Other countries not listed | 35 | 20 | 30 | 75 | 5 | 170 |
| Middle East | 6,615 | 1,265 | 3,605 | 4,825 | 390 | 16,690 |
| Bahrain | 545 | 70 | 115 | 235 | 10 | 980 |
| Iran | 880 | 135 | 640 | 695 | 50 | 2,400 |
| Iraq | 50 | 65 | 230 | 200 | 15 | 555 |
| Israel | 160 | 35 | 210 | 195 | 15 | 615 |
| Jordan | 390 | 30 | 390 | 445 | 30 | 1,285 |
| Kuwait | 625 | 75 | 240 | 295 | 35 | 1,265 |
| Lebanon | 130 | 20 | 120 | 285 | 10 | 560 |
| Oman | 1,005 | 100 | 185 | 440 | 35 | 1,760 |
| Qatar | 440 | 95 | 45 | 110 | 10 | 705 |
| Saudi Arabia | 1,115 | 425 | 880 | 1,015 | 100 | 3,535 |
| Syria | 55 | 25 | 250 | 190 | 5 | 525 |
| United Arab Emirates | 1,135 | 170 | 265 | 675 | 65 | 2,310 |
| Yemen | 80 | 20 | 25 | 30 | 10 | 165 |
| Other countries not listed | 5 | 0 | 5 | 15 | 0 | 25 |
| North America | 6,220 | 2,995 | 4,415 | 8,150 | 1,035 | 22,810 |
| The Bahamas | 145 | 10 | 10 | 50 | 20 | 230 |
| Barbados | 150 | 20 | 30 | 130 | 15 | 340 |
| Bermuda | 160 | 15 | 5 | 45 | 10 | 235 |
| Canada | 1,540 | 235 | 995 | 1,880 | 355 | 5,005 |
| Jamaica | 205 | 85 | 60 | 245 | 40 | 630 |
| Mexico | 135 | 100 | 530 | 505 | 30 | 1,305 |
| United States | 3,355 | 2,445 | 2,695 | 4,925 | 490 | 13,905 |
| Other countries not listed | 525 | 90 | 95 | 375 | 75 | 1,160 |
| South America | 945 | 350 | 815 | 1,765 | 285 | 4,160 |
| Argentina | 30 | 15 | 70 | 90 | 50 | 255 |
| Brazil | 235 | 140 | 285 | 535 | 75 | 1,270 |
| Chile | 20 | 10 | 160 | 160 | 20 | 370 |
| Colombia | 60 | 55 | 110 | 315 | 15 | 555 |
| Peru | 55 | 10 | 40 | 95 | 10 | 210 |
| Trinidad and Tobago | 375 | 60 | 55 | 265 | 80 | 835 |
| Venezuela | 65 | 20 | 40 | 160 | 20 | 310 |
| Other countries not listed | 100 | 35 | 55 | 145 | 15 | 355 |
| Non-European-Union unknown | 255 | 220 | 295 | 955 | 120 | 1,845 |

Appendix 3
Trends in sources of income to higher education institutions, 2000/01, 2006/07 and 2007/08

2000/01 UK
Funding Council grants
a Grants for higher education provision
lincluding further education
in Scotland)
i Recurrent (teaching)
ii Recurrent (research)
Other higher education grants
b Grants for further education provision

Total funding council grants

## Tuition fees and education grants and contracts

1 Higher education course fees

| a Home and EU domicile students | 2013648 | 1686126 | 101806 | 180555 | 45161 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| b Non-EU domicile students | 746,366 | 648,976 | 23,851 | 68,502 | 5,037 |
| Total higher education course fees | 2,760,014 | 2,335,102 | 125,657 | 249,057 | 50,198 |
| 2 Non-credit-bearing course fees | 236,782 | 209,252 | 4,715 | 20,697 | 2,118 |
| 3 Further education course fees | 26,416 | 25,975 | 90 | 351 |  |
| 4 Research training support grants | 25,367 | 19,036 | 800 | 5,263 | 268 |
| Total tuition fees and education grants and contracts | 3,048,579 | 2,589,365 | 131,262 | 275,368 | 52,584 |
| Total research grants and contracts | 2,207,228 | 1,812,384 | 78,807 | 278,265 | 37,772 |
| Other income |  |  |  |  |  |
| a Other services rendered | 652,262 | 506,803 | 50,233 | 83,378 | 11,848 |
| b Residences and catering operations lincluding conferences) | 925,602 | 771,461 | 50,966 | 93,965 | 9,210 |
| c Grants from local authorities | 10,606 | 10,521 | 85 |  |  |
| d Income from health and hospital authorities (excluding teaching contracts) | 200,225 | 175,523 | 5,043 | 14,678 | 4,981 |
| e Released of deferred capital grants | 45,655 | 37,261 | 649 | 7,745 |  |
| f Income from intellectual property rights | 17,828 | 7,413 | 3,478 | 6,906 | 31 |
| $g$ Other operating income | 737,770 | 612,080 | 21,654 | 89,480 | 14,556 |
| Total other income | 2,589,948 | 2,121,062 | 132,108 | 296,152 | 40,626 |
| Total endowment and investment income | 292,387 | 245,949 | 12,533 | 30,948 | 2,957 |
| Total income | 13,493,919 | 11,068,645 | 641,060 | 1,513,246 | 270,968 |

2006/07 UK

## Funding Council grants

a Grants for higher education provision (including further education in Scotland)
i Recurrent lteaching
ii Recurrent (research)
Other higher education grants
b Grants for further education provision
Total funding council grants

## Tuition fees and education grants and contracts

1 Higher education course fees
a Home and EU domicile students
b Non-EU domicile students
Total higher education course fees
2 Non-credit-bearing course fees
3 Further education course fees
4 Research training support grants

Total tuition fees and education grants and contracts

Total research grants and contracts

## Other income

b Residences and catering operations (including conferences)
c Grants from local authorities
d Income from health and hospital authorities (excluding teaching contracts)
e Released of deferred capital grants
f Income from intellectual
property rights
g Other operating income
Total other income
Total endowment and investment income
Total income
$3,270,707$
$1,712,730$
$4,983,437$
307,005
28,00
95,542
$5,413,985$
$3,376,99$

England

## Wales

| $5,358,952$ | $4,318,990$ |
| ---: | ---: |
| $1,671,653$ | $1,343,770$ |
| 887,679 | 689,684 |
| 112,367 | 101,963 |
| $8,030,651$ | $6,454,407$ |

273,476
65,315
83,571
10,404
432,766

| 629,779 | 136,707 |
| ---: | ---: |
| 215,917 | 46,651 |
| 97,003 | 17,421 |
| 0 | 0 |
| 942,699 | 200,779 |

$2,808,414$
$1,472,893$
$4,281,307$
268,910
26,933
71,923
$4,649,073$

$\mathbf{2 , 7 4 4 , 8 9 3}$
140,387
60,110
200,497
9,054
740
4,704
214,995
131,334

| 252,043 | 69,863 |
| ---: | ---: |
| 171,002 | 8,725 |
| 423,045 | 78,588 |
| 27,886 | 1,155 |
| 328 | 0 |
| 18,885 | 30 |
| 470,144 | 79,773 |
| 431,071 | $\mathbf{6 9 , 6 9 3}$ |


| $1,313,930$ | $1,108,518$ | 94,378 | 94,196 | 16,838 |
| ---: | ---: | ---: | ---: | ---: |
| $1,233,005$ | $1,034,152$ | 59,402 | 125,661 | 13,790 |
| 1,464 | 1,371 | 77 | 16 | 0 |
| 330,040 | 274,921 | 15,745 | 20,405 | 18,969 |
| 88,651 | 71,948 | 3,121 | 12,402 | 1,180 |
|  |  |  |  | 4,611 |
| 33,871 | 27,548 | 1,702 | 114,245 | 28,344 |
| $1,076,424$ | 898,293 | 35,542 | 371,536 | $\mathbf{7 9 , 1 3 1}$ |
| $\mathbf{4 , 0 7 7 , 3 8 5}$ | $3,416,751$ | 209,967 | $\mathbf{4 3 , 1 2 4}$ | $\mathbf{5 , 2 3 9}$ |
| $\mathbf{3 9 0 , 8 4 1}$ | $\mathbf{3 2 6 , 4 9 4}$ | $\mathbf{1 5 , 9 8 4}$ |  | $\mathbf{4 3 4 , 6 1 5}$ |
| $\mathbf{2 1 , 2 8 9 , 8 5 3}$ | $\mathbf{1 7 , 5 9 1 , 6 1 8}$ | $\mathbf{1 , 0 0 5 , 0 4 6}$ | $\mathbf{2 , 2 5 8 , 5 7 4}$ | $\mathbf{4 3 4}$ |

2007/08 UK

## Funding Council grants

a Grants for higher education provision (including further education in Scotland)
i Recurrent (teaching)
ii Recurrent (research)
Other higher education grants
b Grants for further education provision
Total funding council grants
$5,604,682$
$1,762,155$
$1,030,436$
110,716
$8,507,989$

## Tuition fees and education grants and contracts

1 Higher education course fees
a Home and EU domicile students
b Non-EU domicile students
Total higher education course fees
2 Non-credit-bearing course fees
3 Further education course fees
4 Research training support grants
Total tuition fees and education grants and contracts

## Total research grants and contracts

$1,880,101$
$5,770,272$
334,314
38,008
111,404
$6,253,998$
$3,721,88$
$1,619,689$
$4,963,715$
292,414
37,042
81,094
$5,374,265$
63,358
269,719
9,988
796
6,091
286,594
143,008

| 187,573 | 9,481 |
| ---: | ---: |
| 443,368 | 93,470 |
| 30,652 | 1,260 |
| 170 | 0 |
| 24,198 | 21 |
| 498,388 | 94,751 |
| $\mathbf{4 9 2 , 4 4 5}$ | $\mathbf{7 5 , 1 8 0}$ |


| $1,470,856$ | $1,231,880$ | 107,052 | 112,766 | 19,158 |
| ---: | ---: | ---: | ---: | ---: |
| $1,316,079$ | $1,103,088$ | 62,338 | 135,915 | 14,738 |
| 8,754 | 8,683 | 71 | 0 | 0 |
| 337,991 | 277,601 | 15,986 | 23,439 | 20,965 |
| 107,111 | 85,942 | 3,980 | 15,997 | 1,192 |
| 36,908 | 31,520 | 1,152 | 3,995 | 241 |
| $1,170,268$ | 993,600 | 33,439 | 112,074 | 31,155 |
| $4,447,967$ | $3,732,314$ | 224,018 | 404,186 | 87,449 |
| 507,791 | 421,303 | 18,952 | 57,439 | $\mathbf{1 0 , 0 9 7}$ |
| $\mathbf{2 3 , 4 3 9 , 6 2 6}$ | $19,400,191$ | $1,091,778$ | $\mathbf{2 , 4 8 1 , 9 4 0}$ | $\mathbf{4 6 5 , 7 1 7}$ |

Appendix 4
Distribution of enrolments among higher education and further education institutions by mode and level, 2006/07


Unless otherwise stated, the merged institutions assumed the name of the last named institution. Only publicly funded higher education institutions are included in this list: it does not therefore include reference to further education colleges which have merged with higher education institutions.

1994/1995

Institute of Psychiatry (transition) and
West London Institute of Higher Education
London Hospital Medical College
St Bartholomew's Hospital Medical School
The Welsh Agricultural College
Duncan of Jordanstone College of Art
1995/1996
Salford College of Technology and
Winchester School of Art
Charlotte Mason College
and King's College London
and Brunel University
and
and
and
and

Queen Mary and Westfield College Queen Mary and Westfield College University College of Wales, Aberystwyth University of Dundee
and University of Salford
and University of Southampton
and St Martin's College
The British Postgraduate Medical Federation incorporated into: Imperial College of Science, Technology and Medicine, King's College London, University College London and London University - Senate institutes

1996/1997

Institute of Psychiatry and
Royal Postgraduate Medical School

Charing Cross and Westminster Medical School

La Sainte Union College
and
Coleg Normal
1998/1999
Loughborough College of Art and Design and
United Medical and Dental School (UMDS)
Royal Free Hospital School of Medicine
Westhill College
Moray House Institute of Education
The Scottish College of Textiles
1999/2000
St Andrew's College of Education and

King's College London
Imperial College of Science, Technology and Medicine

Imperial College of Science, Technology and Medicine

University of Southampton
University College of North Wales, Bangor

Loughborough University
King's College London
University College London
University of Birmingham
University of Edinburgh
Heriot-Watt University

University of Glasgow

Westminster College Oxford and
Wye College and

North Riding College and
College of Guidance Studies and
Bretton Hall
Homerton College, Cambridge

## 2001/2002

| London Guildhall University | and |
| :--- | ---: |
| Northern College of Education | and |
| 2002/2003 | and |
| Northern School of Contemporary Dance |  |

## 2004/2005

University of Manchester Institute of Science and Technology and

Kent Institute of Art and Design and

The University of Wales College of Medicine and

## 2005/2006

Wimbledon School of Art and
Homerton College

## 2006/07

De Montfort University's Bedford campus and (transfer of provision)

## 2007/08

Oxford Brookes University
Imperial College of Science, Technology and Medicine

University of Hull
Canterbury Christ Church University College
University of Leeds
University of Cambridge (partial merger)

University of North London, forming London Metropolitan University

University of Aberdeen and University of Dundee

Conservatoire for Dance and Drama
the Victoria University of Manchester, forming the University of Manchester the Surrey Institute of Art and Design, forming the University College for the Creative Arts

Cardiff University

University of the Arts London
Anglia Ruskin University

University of Bedfordshire
the Carlisle campus and Penrith campus of the University of Central Lancashire merged with St Martin's College, forming the University of Cumbria
the Open University
University of Glamorgan
the University of Paisley, forming the University of the West of Scotland.

Appendix 6
HESA academic cost centres

01 Clinical medicine
02 Clinical dentistry
03 Veterinary science
04 Anatomy and physiology
05 Nursing and paramedical studies
06 Health and community studies
07 Psychology and behavioural sciences
08 Pharmacy and pharmacology
10 Biosciences
11 Chemistry
12 Physics
13 Agriculture and forestry
14 Earth, marine and environmental sciences
16 General engineering
17 Chemical engineering
18 Mineral, metallurgy and materials engineering
19 Civil engineering
20 Electrical, electronic and computer engineering
21 Mechanical, aero and production engineering
23 Architecture, built environment and planning
24 Mathematics
25 Information technology and systems sciences and computer software engineering
26 Catering and hospitality management
27 Business and management studies
28 Geography
29 Social studies
30 Media studies
31 Humanities and language based studies
33 Design and creative arts
34 Education
35 Modern languages
37 Archaeology
38 Sports science and leisure studies
41 Continuing education

Appendix 7
Definitions of higher education

Throughout Europe there are significantly different definitions of the terms "university" and 'higher education'. There is no common definition of a university even within the EU, let alone the wider Europe of the Bologna process.

Several countries retain a distinction between academic universities and vocational institutes: others have generally integrated their higher education institutions although in some instances, such as the UK, the integration is only partial.

The common denominator for analysis of data is the International Standard Classification of Education (ISCED) 97 categorisation, which is as follows:

ISCED level 5: First stage of tertiary education (not leading directly to an advanced research qualification), covering programmes of at least two years' duration, divided between:

Type A: Programmes that are theoretically based and/or preparatory to research (history, philosophy, mathematics etc) or give access to professions with high skill requirements such as medicine, dentistry and architecture. This category includes first degrees and taught higher degrees.

Type B: Programmes that are practically oriented/occupationally specific and are mainly designed for participants to acquire the practical skills and knowhow needed for employment in a particular occupation or trade, the successful completion of which usually culminates in a qualification relevant for the labour market. This category embraces most activity which is included in the UK classification of 'other undergraduate'.

ISCED level 6: Second stage of tertiary education, covering programmes leading to an advanced research qualification (for example PhD or doctorate), which are devoted to advanced study and original research and not based on coursework only.

Appendix 8
Countries included in the Section C analysis

| Albania | x |  |  |
| :---: | :---: | :---: | :---: |
| Andorra | x |  |  |
| Armenia | x |  |  |
| Austria | x | x | x |
| Azerbaijan | x |  |  |
| Belgium | $x$ | x | x |
| Bosnia/Herzegovina | x |  |  |
| Bulgaria | x | x | x |
| Croatia | x |  | x |
| Cyprus | x | x | x |
| Czech Republic | x | x | x |
| Denmark | x | $x$ | x |
| Estonia | x | x | x |
| Finland | x | $x$ | x |
| France | x | x | X |
| FYROM | x |  | x |
| Georgia | x |  |  |
| Germany | x | x | x |
| Greece | x | $x$ | x |
| Hungary | x | x | x |
| Iceland | x |  |  |
| Ireland | x | x | x |
| Italy | x | x | x |
| Latvia | x | x | x |
| Liechtenstein | x |  |  |
| Lithuania | x | x | x |
| Luxembourg | x | x | x |
| Malta | x | x | x |
| Moldova | x |  |  |
| Montenegro | x |  |  |
| Netherlands | x | x | x |
| Norway | x |  |  |
| Poland | x | x | X |
| Portugal | x | X | x |
| Romania | x | x | x |
| Russia | x |  | x |
| Serbia | x |  |  |
| Slovakia | x | x | X |
| Slovenia | x | x | x |
| Spain | x | x | x |
| Sweden | x | x | x |
| Switzerland | x |  |  |
| Turkey | x |  | x |
| UK | x | x | $x$ |
| Ukraine | x |  | x |
| Vatican | x |  |  |


| Country of destination |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country of origin | Austria | Belgium | Czech Republic | Denmark | Finland | France |
| CORE COUNTRIES |  |  |  |  |  |  |
| Austria | a | 40 | 37 | 43 | 33 | 419 |
| Belgium | 64 | a | 9 | 19 | 24 | 2,725 |
| Bulgaria | 1,373 | 204 | 111 | 116 | 68 | 2,876 |
| Croatia | 1,188 | 25 | 63 | 19 | 24 | 135 |
| Cyprus | 24 | 14 | 130 | 2 | 4 | 206 |
| Czech Republic | 508 | 59 | a | 42 | 61 | 694 |
| Denmark | 70 | 49 | 3 | a | 47 | 247 |
| Estonia | 31 | 23 | 6 | 116 | 629 | 123 |
| Finland | 185 | 52 | 6 | 187 | a | 302 |
| France | 445 | 17,680 | 26 | 229 | 158 | a |
| FYROM | 225 | 84 | 64 | n | 2 | 126 |
| Germany | 10,174 | 553 | 207 | 1,072 | 323 | 6,565 |
| Greece | 237 | 500 | 113 | 49 | 52 | 2,014 |
| Hungary | 1,134 | 94 | 33 | 68 | 91 | 660 |
| Ireland | 49 | 66 | 40 | 60 | 36 | 498 |
| Italy | 6,188 | 2,349 | 24 | 158 | 133 | 4,455 |
| Luxembourg | 428 | 1,612 | n | 3 | 5 | 1,659 |
| Malta | 2 | 6 | 1 | 2 | 2 | 19 |
| Netherlands | 127 | 3,273 | 15 | 184 | 80 | 603 |
| Poland | 1,341 | 470 | 246 | 651 | 155 | 3,427 |
| Portugal | 59 | 906 | 159 | 47 | 25 | 2,593 |
| Romania | 628 | 400 | 34 | 229 | 122 | 4,332 |
| Russian Federation | 418 | 458 | 782 | 432 | 1,114 | 3,083 |
| Slovak Republic | 1,228 | 65 | 14,664 | 30 | 21 | 415 |
| Slovenia | 550 | 123 | 23 | 8 | 8 | 101 |
| Spain | 394 | 1,087 | 20 | 149 | 121 | 3,664 |
| Sweden | 187 | 46 | 63 | 1,342 | 567 | 546 |
| Turkey | 2,070 | 319 | 40 | 237 | 75 | 2,412 |
| Ukraine | 432 | 170 | 685 | 222 | 112 | 1,194 |
| United Kingdom | 194 | 210 | 363 | 471 | 189 | 2,570 |
| OTHER REGIONS |  |  |  |  |  |  |
| Total from Africa | 573 | 9,841 | 406 | 866 | 1,131 | 111,862 |
| Total from Asia | 5,606 | 3,824 | 1,801 | 4,246 | 2,678 | 45,780 |
| of which China | 1,320 | 1,302 | 71 | 2,066 | 1,444 | 17,132 |
| of which India | 124 | 182 | 82 | 368 | 169 | 717 |
| Total from Europe | 32,244 | 31,373 | 18,518 | 10,916 | 4,575 | 51,544 |
| of which, from EU countries | 18,801 | 28,423 | 1,085 | 4,013 | 1,793 | 28,860 |
| Total from North America | 385 | 332 | 171 | 475 | 283 | 4,064 |
| Total from Oceania | 60 | 28 | 8 | 65 | 42 | 348 |
| Total from South America | 415 | 1,079 | 164 | 407 | 210 | 10,779 |
| Total from all countries, 2006 | 39,329 | 47,012 | 21,395 | 19,123 | 8,955 | 247,510 |
| Total from all countries, 2000 | 30,382 | 38,799 | 5,468 | 12,871 | 5,570 | 137,085 |
| Percentage change 2000-2006 | 29\% | 21\% | 291\% | 49\% | 61\% | 81\% |
| Market share of all international students, 2006 | 1.3 | 1.6 | 0.7 | 0.7 | 0.3 | 8.5 |
| Market share of all international students, 2000 | 1.6 | 2.0 | 0.3 | 0.7 | 0.3 | 7.2 |


| Country of destination |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country of origin | Germany | Greece | Hungary | Ireland | Italy | Luxembourg |
| CORE COUNTRIES |  |  |  |  |  |  |
| Austria | 6,351 | 7 | 54 | 59 | 215 | 2 |
| Belgium | 978 | 37 | 7 | 79 | 204 | 160 |
| Bulgaria | 12,853 | 506 | 44 | 38 | 677 | 9 |
| Croatia | 4,955 | 9 | 191 | 8 | 1,334 | 1 |
| Cyprus | 218 | 8,966 | 280 | 10 | 108 | n |
| Czech Republic | 2,309 | 9 | 17 | 35 | 165 | 4 |
| Denmark | 591 | 6 | 3 | 25 | 54 | 2 |
| Estonia | 800 | 18 | 10 | 14 | 62 | n |
| Finland | 927 | 13 | 27 | 77 | 87 | 2 |
| France | 6,346 | 35 | 40 | 800 | 915 | 387 |
| FYROM | 850 | 38 | 6 | 2 | 234 | 2 |
| Germany | a | 341 | 1,408 | 713 | 1,638 | 111 |
| Greece | 6,268 | a | 158 | 61 | 5,473 | 6 |
| Hungary | 2,746 | 16 | a | 15 | 231 | 2 |
| Ireland | 440 | n | 48 | a | 33 | 4 |
| Italy | 7,582 | 71 | 23 | 226 | a | 48 |
| Luxembourg | 2,307 | 1 | n | 12 | 38 | a |
| Malta | 37 | 1 | 3 | 3 | 45 | n |
| Netherlands | 1,607 | 10 | 15 | 79 | 31 | 6 |
| Poland | 16,106 | 85 | 64 | 173 | 1,332 | 10 |
| Portugal | 1,612 | 4 | 10 | 18 | 104 | 181 |
| Romania | 4,468 | 244 | 3,334 | 71 | 1,874 | 7 |
| Russian Federation | 12,643 | 211 | 238 | 101 | 793 | 7 |
| Slovak Republic | 1,700 | 10 | 2,324 | 15 | 178 | 5 |
| Slovenia | 592 | n | 23 | 7 | 397 | n |
| Spain | 5,355 | 11 | 32 | 388 | 502 | 12 |
| Sweden | 697 | 14 | 222 | 80 | 129 | 2 |
| Turkey | 25,251 | 113 | 50 | 16 | 288 | 3 |
| Ukraine | 9,069 | 185 | 1,333 | 12 | 465 | 1 |
| United Kingdom | 1,871 | 85 | 53 | 1,196 | 280 | 4 |
| OTHER REGIONS |  |  |  |  |  |  |
| Total from Africa | 23,527 | 720 | 265 | 725 | 4,582 | 81 |
| Total from Asia | 95,829 | 10,582 | 2,134 | 4,342 | 6,429 | 28 |
| of which China | 27,390 | 39 | 138 | 1,722 | 960 | 15 |
| of which India | 4,102 | 2 | 45 | 440 | 386 | 1 |
| Total from Europe | 127,648 | 5,041 | 11,713 | 4,627 | 32,644 | 1,014 |
| of which, from EU countries | 42,932 | 635 | 2,100 | 3,813 | 9,703 | 927 |
| Total from North America | 4,033 | 130 | 330 | 2,471 | 531 | 1 |
| Total from Oceania | 409 | 36 | 8 | 69 | 79 | n |
| Total from South America | 8,239 | 49 | 41 | 95 | 4,231 | 8 |
| Total from all countries, 2006 | 261,363 | 16,558 | 14,491 | 12,745 | 48,766 | 1,137 |
| Total from all countries, 2000 | 187,033 | 8,615 | 9,904 | 7,413 | 24,929 | 652 |
| Percentage change 2000-2006 | 40\% | 92\% | 46\% | 72\% | 96\% | 74\% |
| Market share of all international students, 2006 | $6 \quad 8.9$ | 0.6 | 0.5 | 0.4 | 1.7 | 0.0 |
| Market share of all international students, 2000 | - 9.9 | 0.5 | 0.5 | 0.4 | 1.3 | 0.0 |


| Country of destination |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country of origin Neth | erlands | Poland | Portugal | Slovak Republic | Spain | Sweden |
| CORE COUNTRIES |  |  |  |  |  |  |
| Austria | 202 | 33 | 22 | 7 | 146 | 486 |
| Belgium | 2,176 | 8 | 77 | 5 | 368 | 247 |
| Bulgaria | 377 | 96 | 50 | 13 | 610 | 95 |
| Croatia | 74 | 21 | 6 | 31 | 69 | 96 |
| Cyprus | 27 | 9 | n | 21 | 66 | 2 |
| Czech Republic | 116 | 262 | 31 | 481 | 113 | 221 |
| Denmark | 136 | 14 | 5 | n | 71 | 979 |
| Estonia | 52 | 13 | 3 | n | 81 | 258 |
| Finland | 172 | 9 | 12 | 2 | 108 | 3,880 |
| France | 754 | 77 | 746 | 6 | 1,785 | 1,619 |
| FYROM | 84 | 22 | 4 | 4 | 71 | 25 |
| Germany | 11,898 | 344 | 300 | 18 | 1,624 | 3,044 |
| Greece | 464 | 24 | 40 | 98 | 198 | 288 |
| Hungary | 352 | 66 | 16 | 36 | 43 | 179 |
| Ireland | 119 | 14 | 9 | 1 | 60 | 149 |
| Italy | 521 | 41 | 239 | 4 | 2,711 | 722 |
| Luxembourg | 41 | n | 45 | n | 9 | 5 |
| Malta | 5 | n | n | 2 | 20 | 6 |
| Netherlands | a | 10 | 243 | n | 289 | 708 |
| Poland | 880 | a | 141 | 28 | 595 | 926 |
| Portugal | 291 | 35 | a | n | 2,356 | 199 |
| Romania | 211 | 62 | 95 | 66 | 1,283 | 234 |
| Russian Federation | 501 | 456 | 65 | 27 | 562 | 745 |
| Slovak Republic | 105 | 160 | 15 | a | 91 | 50 |
| Slovenia | 53 | 9 | 19 | 3 | 54 | 54 |
| Spain | 795 | 36 | 679 | 3 | a | 1,163 |
| Sweden | 180 | 322 | 18 | 10 | 194 | a |
| Turkey | 683 | 47 | 25 | 7 | 39 | 285 |
| Ukraine | 206 | 2,482 | 41 | 91 | 336 | 237 |
| United Kingdom | 772 | 45 | 86 | 12 | 618 | 761 |
| OTHER REGIONS |  |  |  |  |  |  |
| Total from Africa | 2,096 | 470 | 10,776 | 64 | 6,311 | 1,391 |
| Total from Asia | 8,447 | 2,104 | 314 | 345 | 2,391 | 5,533 |
| of which China | 3,835 | 306 | 80 | 4 | 587 | 1,267 |
| of which India | 234 | 176 | 24 | 6 | 107 | 739 |
| Total from Europe | 22,522 | 7,647 | 3,173 | 1,269 | 16,069 | 20,599 |
| of which, from EU countries | 18,521 | 1,012 | 2,521 | 166 | 10,537 | 14,250 |
| Total from North America | 619 | 1,018 | 266 | 36 | 725 | 1,370 |
| Total from Oceania | 85 | 25 | 23 | n | 47 | 376 |
| Total from South America | 1,605 | 87 | 2,525 | 19 | 25,470 | 1,056 |
| Total from all countries, 2006 | 36,427 | 11,365 | 17,077 | 1,733 | 51,013 | 41,410 |
| Total from all countries, 2000 | 14,012 | 6,126 | 10,616 | 1,570 | 25,502 | 25,548 |
| Percentage change 2000-2006 | 160\% | 86\% | 61\% | 10\% | 100\% | 62\% |
| Market share of all international students, 2006 | 1.2 | 0.4 | 0.6 | 0.1 | 1.7 | 1.4 |
| Market share of all international students, 2000 | 0.7 | 0.3 | 0.6 | 0.1 | 1.3 | 1.3 |


| Country of origin | Country of destination |  |  |  | Slovenia | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Turkey | United Kingdom | Estonia | deration |  |  |
| CORE COUNTRIES |  |  |  |  |  |  |
| Austria | 23 | 1,368 | 2 | m | 10 | 12,390 |
| Belgium | 3 | 2,487 | 2 | m | 2 | 11,543 |
| Bulgaria | 1,163 | 627 | 4 | m | 5 | 27,556 |
| Croatia | 15 | 215 | n | m | 598 | 10,503 |
| Cyprus | n | 7,203 | n | m | n | 19,352 |
| Czech Republic | 1 | 875 | n | m | 3 | 7,562 |
| Denmark | 5 | 1,603 | 3 | m | 1 | 6,387 |
| Estonia | n | 362 | a | 812 | 2 | 4,340 |
| Finland | 6 | 1,787 | 398 | m | n | 9,979 |
| France | 11 | 12,456 | 5 | m | 3 | 65,780 |
| FYROM | 329 | 104 | n | m | 147 | 9,382 |
| Germany | 202 | 13,267 | 13 | m | 14 | 78,242 |
| Greece | 994 | 17,676 | n | m | 2 | 40,654 |
| Hungary | 1 | 805 | 5 | m | 17 | 8,180 |
| Ireland | 4 | 16,790 | 1 | m | n | 20,143 |
| Italy | 14 | 5,461 | 6 | m | 88 | 40,265 |
| Luxembourg | n | 838 | n | m | n | 7,393 |
| Malta | 1 | 749 | n | m | n | 999 |
| Netherlands | 12 | 2,680 | n | m | 2 | 13,066 |
| Poland | 16 | 4,325 | 1 | m | 5 | 36,129 |
| Portugal | 4 | 2,885 | n | m | 1 | 13,872 |
| Romania | 56 | 634 | 2 | m | 5 | 25,777 |
| Russian Federation | 604 | 2,187 | 1,129 | a | 25 | 49,200 |
| Slovak Republic | 4 | 642 | n | m | 8 | 22,982 |
| Slovenia | 1 | 294 | n | m | a | 2,825 |
| Spain | 4 | 6,224 | 5 | m | n | 26,875 |
| Sweden | 4 | 3,327 | 13 | m | 2 | 14,540 |
| Turkey | a | 2,084 | 2 | m | 1 | 56,984 |
| Ukraine | 241 | 490 | 74 | 6,802 | 25 | 32,881 |
| United Kingdom | 117 | a | 3 | m | n | 25,027 |
| OTHER REGIONS |  |  |  |  |  |  |
| Total from Africa | 351 | 30,967 | 4 | n | 4 | 361,191 |
| Total from Asia | 10,189 | 152,020 | 165 | 31,302 | 35 | 1,416,263 |
| of which China | 110 | 50,753 | 119 | m | 4 | 451,526 |
| of which India | 5 | 19,204 | 11 | m | 18 | 148,116 |
| Total from Europe | 5,675 | 109,287 | 1,967 | 18,003 | 1,336 | 745,756 |
| of which, from EU countries | 1,403 | 88,849 | 451 | n | 125 | 377,409 |
| Total from North America | 36 | 19,608 | 12 | $n$ | 2 | 94,352 |
| Total from Oceania | 30 | 2,267 | n | n | 1 | 18,756 |
| Total from South America | 9 | 8,446 | 3 | n | 12 | 182,261 |
| Total from all countries, 2006 | 19,079 | 330,078 | 2,151 | 77,438 | 1,390 | 2,924,679 |
| Total from all countries, 2000 | 17,654 | 222,936 | 863 | 41,210 | 778 | 1,894,792 |
| Percentage change 2000-2006 | 8\% | 48\% | 149\% | 88\% | 79\% | 54\% |
| Market share of all international students, 2006 | 0.7 | 11.3 | 0.1 | 2.6 | 0.0 |  |
| Market share of all international students, 2000 | 0.9 | 11.8 | 0.0 | 2.2 | 0.0 |  |
| Source: OECD database |  |  |  |  |  |  |

Most of the information in Section C has been sourced through the UOE (UNESCO/OECD/Eurostat) information collection system. It also makes use of secondary analysis contained within the Bologna Process indicators published in 2009 jointly by Eurostudent and Eurostat, and the OECD Education at a glance with its underlying databases. The Erasmus data was sourced from the Erasmus statistical database. Data about research performance is drawn from the Evidence report commissioned by the then Department of Innovation, Universities and Skills and published in July 2008.

In more detail, these resources can be accessed at:

Eurostat database
Bologna process indicators (Eurostudent and Eurostat)

OECD database
United Nations Economic
Commission for Europe
statistical database
Erasmus database
Evidence Ltd: International comparative performance of the UK research base
http://tinyurl.com/puqgmp
http://tinyurl.com/q33j4p
http://tinyurl.com/p4rc4x
http://tinyurl.com/ojhjvq
http://tinyurl.com/o5hb5a
http://tinyurl.com/rcl6pd

## NOTES

NOTES

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[^0]:    Source: Eurostat

[^1]:    Source: OECD database

[^2]:    Source: Bologna process indicators

[^3]:    Source: OECD database

[^4]:    Source: OECD database

[^5]:    Source: Eurostat database

[^6]:    Source: Eurostat

[^7]:    Source: Bologna process indicators

[^8]:    Source: Eurostat

[^9]:    Source: Eurostat database

