

Electronic appendix

Methodology of data preparation

This chapter provides details of steps taken to prepare analysis datasets from pupil-database extracts provided by statisticians in England, Wales, Northern Ireland and Scotland. With each of the nations holding their own qualifications databases, data received varied in content and format. The following sections describe the steps undertaken in the preparation of analysis datasets from raw data tables for each nation. Please note that whilst preparatory steps varied to accommodate content and eliminate unwanted data content, methods applied to identify subject combinations and attainment variables were identical.

England dataset entries, combinations and attainment

E.1 Data request

National Pupil Database tables for 16–18 year old students in all schools and colleges in England taking GCE, VCE and

applied GCE awards in 2004/05, 2006/07 and 2008/09, and additional school and candidate level details (school type, gender, additional PLASC details in case of additional analysis requirements) were requested from the (then) Department for Children, Schools and Families.

E.2 Data received

Datasets with KS5 Candidate/Indicator data and Key Stage 5 Results data and additional Qualification and Mapping code tables were received in February 2010¹ (see table below).

E.3 Data selection

- (i) **Identification of relevant qualifications in Results dataset.**
Results were received for all KS5 qualifications taken by 16–18 year old candidates in schools and colleges. Data found to include some records of candidates taking examinations in previous years (potential 're-sits' and records of KS5 students having taken qualifications a year early). Where relevant, these were included to

Tables received from DCSF.		
Table 1: File No.	Table 2: File Name	Table 3: Description
Table 4: 1	Table 5: KS5CandInd_2005.txt	Table 6: Key Stage 5 'final' Candidate/Indicator data for the academic year 2004/2005. (563,166 records)
Table 7: 2	Table 8: KS5Res_2005.txt	Table 9: Key Stage 5 'final' Results data for the academic year 2004/2005. i.e. multiple result records per pupil in file 1 above. (2,692,460 records)
Table 10: 3	Table 11: KS5CandInd_2007.txt	Table 12: Key Stage 5 'final' Candidate/Indicator data for the academic year 2006/2007. (505,902 records)
Table 13: 4	Table 14: KS5Res_2007.txt	Table 15: Key Stage 5 'final' Results data for the academic year 2006/2007. i.e. multiple result records per pupil in file 3 above. (2,910,582 records)
Table 16: 5	Table 17: KS5CandInd_2009.txt	Table 18: Key Stage 5 'Amended' Candidate/Indicator data for the academic year 2008/2009. (638,545 records)
Table 19: 6	Table 20: KS5Res_2009.txt	Table 21: Key Stage 5 'Amended' Results data for the academic year 2008/2009. i.e. multiple result records per pupil in file 5 above. (3,904,653 records)
Table 22: 7	Table 23: QualCodes.txt	Table 24: Description of the Key Stage 5 qualification codes held in the KS5 Results files above.
Table 25: 8	Table 26: MappingCodes.txt	Table 27: Description of the Key Stage 5 mapping codes held in the KS5 Results files above

¹ Data request DR091203.01 included final data for 2004/05 and 2006/07 results and amended data for 2008/09.

Qualifications codes included in selection for England dataset

Code	Description
110	A-level (legacy)
111	GCE A-level
112	Applied GCE A-level/AS-level combined (2009 only—205 entries)
221	Vocational GCE single award (VCE A)
223	Vocational GCE double award (VCE DA)
224	Applied GCE single award
226	Applied GCE double award

provide a broader profile of school leavers. Qualifications included were:

(ii) Limitation to **relevant qualifications** in dataset:

2004/05: 2,692,460 records to 818,659 entries
 2006/07: 2,910,582 records to 808,808 entries
 2008/09: 3,904,653 records to 888,236 entries

(iii) Removal of duplicate entries (potential 'resits' with same or different result)

- Same subject, same result—duplicate removed
- Same subject, different result—result with highest grade retained

2004/05: 818,659 to 804,501 entries
 2006/07: 808,808 to 790,496 entries
 2008/09: 888,236 to 860,493 entries

E.4 Dataset preparation—entries and combinations

(i) **Dataset transposed from Entries to Combinations by student and institution** (one row per student):

2004/05: 804,501 entries to 288,891 students
 2006/07: 790,496 entries to 263,008 students
 2008/09: 860,493 entries to 293,074 students

(ii) Data check-up on gender using candidate and results data provided. Reclassification of 212 'not known' cases where candidate and results data varied.

(iii) Merging records for students attending more than one institution. (Change institution ID to 'multiple'.):

2004/05: 288,891 students to 286,535 students
 2006/07: 263,008 students to 261,876 students
 2008/09: 293,074 students to 291,589 students

(iv) Inclusion of additional variables (institution type) from EduBase/DCSF school data (EduBase and KS5 performance tables). Sixth form centres and sixth form colleges combined into one category to allow school type analysis (high risk of suppression). (Categories used: *Academy/CTC, Maintained, Independent, Sixth*

form centres and colleges, FE colleges, Other [including SEN])

(v) Definition of analysis variables at candidate level (*same for Wales and Northern Ireland*):

- the number of examinations.²
- the number of GCE A-level examinations [code: 110, 111].³
- the number of vocational qualifications (GCE applied and VCE [code: 112,221,223,224,226]).
- the combination of examinations taken (GCE, VCE, GCE/VCE).
- subject group combinations taken, including
 - number of subjects taken within each group.
- Core science variables (biology subjects,⁴ chemistry, physics) (BCP), including:
 - number of core science subjects taken;
 - combination of core science subjects taken (biology, chemistry, physics);
 - number of core science and mathematics subjects taken;
 - combination of core sciences with mathematics subjects (BCP(M));
 - combination of core sciences and mathematics subjects (BCPM).
- Mathematics⁵ variables including:
 - number of mathematics subjects taken;
 - combination of mathematics subjects taken (mathematics/further mathematics).
- Other science⁶ variables including:
 - number of other science subjects taken.
- Applied science variables including:
 - applied science subjects taken (VCE).

E.5 Dataset preparation—attainment

(i) Definition of attainment variables for BCP, BCP(M) and BCPM combinations for students with a) three or more A-levels and b) two or more core science/mathematics

2 Re-sits were excluded. Where duplicate subject entries for pupils were found, only one entry was retained and the highest grade achieved recorded.

3 A few records indicated students took 111 coded GCE A-levels in vocational subjects. (The dataset classification rules listed them as 'GCE A', not as vocational.)

4 Biology and human biology were counted separately.

5 Subject entries in mathematics, statistics, pure mathematics, the use of mathematics and further and additional mathematics were each counted separately.

6 Subjects other than core sciences (IT, D&T, home economics, geology, etc) have been coded as 'other', but were counted separately.

subjects. Qualifications with an X or Q grade were not analysed.

a. Definition of unique attainment categories:

All A (any student achieving A grade only).

A–B (any student achieving A and B grades only).

A–C (any student achieving A, B and C grades).

Other (any student achieving grade combinations including D, E or U).⁷

Wales dataset entries, combinations and attainment

W.1 Data request

National Pupil Database tables for 16–18 year old students in all schools in Wales taking GCE, VCE and applied GCE awards in 2004/05, 2006/07 and 2008/09 were requested from the Welsh Assembly's School Statistics department. Additional FE sector results were requested from the Welsh Assembly's Post-16 Education Statistics department.

W.2 Data received

Data were received for all students in schools in Wales taking selected qualifications only (GCE and VCE entries)⁸ for each year requested. Data for the FE sector were received for 2006/07 and 2008/09 only because 2004/05 data were not available.⁹

W.3 Data selection

(i) Identification of duplicate entries for students in the same or different schools (potential 'resits' with same or different result)

None found.

W.4 Dataset preparation—entries and combinations

(i) **Dataset transposed from Entries to Combinations by student and institution** (one row per student)

2004/05: 30,152 entries to 11,701 students

2006/07: 38,646 entries to 15,198 students

2008/09: 39,634 entries to 15,558 students

(ii) Inclusion of school type from tables provided by the Welsh Assembly (and using edubase)

(iii) Definition of analysis variables at candidate level:

- the number of examinations.
- the number of GCE A-level examinations [code: 110,111].¹⁰
- the number of vocational qualifications (GCE applied and VCE [code: 112,221,223,224,226]).
- the combination of examinations taken (GCE, VCE, GCE/VCE).
- subject group combinations taken, including:
 - number of subjects taken within each group.
- Core science variables (biology subjects,¹¹ chemistry, physics) (BCP), including
 - number of core science subjects taken;
 - combination of core science subjects taken (biology, chemistry, physics);
 - number of core science and mathematics subjects taken;
 - combination of core sciences with mathematics subjects (BCP(M));
 - combination of core sciences and mathematics subjects (BCPM).
- Mathematics¹² variables including:
 - number of mathematics subjects taken;
 - combination of mathematics subjects taken (mathematics/further mathematics).¹³
- Other science¹⁴ variables including:
 - number of other science subjects taken.
- Applied science variables including:
 - applied science subjects taken (VCE).

W.5 Dataset preparation—attainment

(i) Definition of attainment variables for BCP, BCP(M) and BCPM combinations for students with a) three or more A-levels and b) two or more core science/mathematics subjects.

a. Definition of unique attainment categories:

All A (any student achieving A grade only).

A–B (any student achieving A and B grades only).

7 Attainment data exclude records of students with X, U, P and N grades in selected combinations.

8 This differs from the range of the tables provided by DCSF (results for all KS5 candidates and all KS5 qualifications for 16–18 year olds in all schools and colleges in England) and tables provided by DENI (results for candidates of all ages in all educational establishments in Northern Ireland with large numbers of entries for years different from those selected for analysis).

9 Siobhan Evans (Post-16 Education Statistics at Welsh Assembly), personal communication 4 August 2010.

10 A few records indicated students took 111 coded GCE A-levels in vocational subjects. (The dataset classification rules listed them as 'GCE A', not as vocational.)

11 Biology and human biology were counted separately.

12 Subject entries in mathematics, statistics, pure mathematics, the use of mathematics and further and additional mathematics were each counted separately.

13 Students with further mathematics only were included in the 'Mathematics and Further Mathematics' category.

14 Subjects other than core sciences (IT, D&T, home economics, geology, etc, have been coded as 'other', but were counted separately.

A–C (any student achieving A, B and C grades).

Other (any student achieving grade combinations including D and E).¹⁵

Northern Ireland dataset entries, combinations and attainment

N.1 Data request

Data were requested from the Department of Education Northern Ireland (DENI).

N.2 Data received

National Pupil database tables for candidates (including some candidates outside the 16–18 year old age range) in schools and FE colleges in Northern Ireland were received in July 2010. These were released by RM Data Solutions and forwarded by DENI for analysis.

N.3 Data selection

(i) Identification of relevant students

Removed entries for students not 16–18 years at the beginning of the academic year from dataset (note that academic years in Northern Ireland start on 01/07 each year):

2004/05: 505,605 records to 503,754 records
2006/07: 547,570 records to 547,570 entries
2008/09: 589,691 records to 589,691 records

(ii) Limitation to relevant qualifications (see England dataset) in dataset:

2004/05: 503,754 records to 70,109 entries
2006/07: 547,570 entries to 70,933 entries
2008/09: 589,691 records to 68,625 entries

(iii) Removal of duplicate entries (potential 'resits' with same or different result)

- Same subject, same result—duplicate removed
- Same subject, different result—result with highest grade retained

2004/05: 69,436 entries to 69,436 entries
2006/07: 68,608 entries to 68,608 entries
2008/09: 67,878 entries to 67,878 entries

(iv) Exclusion of entries for previous years where a candidate has not taken a relevant qualification¹⁶ in 2004/05, 2006/07 or 2008/09. (A large number of entries found were for candidates entering GCE/VCE A-level (and applied) in a previous year. These were removed from the dataset as they distorted the results.

2004/05: 69,436 entries to 37,390 entries
2006/07: 68,608 entries to 35,644 entries
2008/09: 67,878 entries to 36,608 entries

¹⁵ Attainment data exclude records of students with X, U, P and N grades in selected combinations.

¹⁶ Regardless of the result.

N.4 Dataset preparation—entries and combinations

(i) Dataset transposed from Entries to Combinations by student and institution (one row per student)

2004/05: 37,390 entries to 13,995 students
2006/07: 35,644 entries to 12,569 students
2008/09: 36,608 entries to 12,839 students

(ii) Identification of school type by merging in institution list details provided by DENI (Grammar, Secondary, FE). There was no information available for 268 students (eight institutions). These were coded as 'other'.

(iii) Definition of analysis variables at candidate level (*same for Wales and England*):

- the number of examinations.¹⁷
- the number of GCE A-level examinations [code: 110,111].¹⁸
- the number of vocational qualifications (GCE applied and VCE [code: 112,221,223,224,226]).
- the combination of examinations taken (GCE, VCE, GCE/VCE).
- subject group combinations taken, including:
 - number of subjects taken within each group.
- Core science variables (biology subjects, chemistry, physics) (BCP), including:
 - number of core science subjects taken;
 - combination of core science subjects taken (biology, chemistry, physics);
 - number of core science and mathematics subjects taken;
 - combination of core sciences with mathematics subjects (BCP(M));
 - combination of core sciences and mathematics subjects (BCPM).
- Mathematics variables including:
 - number of mathematics subjects taken;
 - combination of mathematics subjects taken (mathematics/further mathematics).
- Other science variables including:
 - number of other science subjects taken.

¹⁷ Re-sits were excluded. Where duplicate subject entries for pupils were found, only one entry was retained and the highest grade achieved recorded.

¹⁸ A few records indicated students took 111 coded GCE A levels in vocational subjects. (The dataset classification rules listed them as 'GCE A', not as vocational.)

- Applied science variables including:
 - applied science subjects taken (VCE).

N.5 Dataset preparation—attainment

- Definition of attainment variables for BCP, BCP(M) and BCPM combinations for students with a) 3 or more A Levels and b) 2 or more core science/mathematics subjects.
 - Definition of unique attainment categories:
 - All A (any student achieving A grade only).
 - A–B (any student achieving A and B grades only).
 - A–C (any student achieving A, B and C grades).
 - Other (any student achieving grade combinations including D and E).¹⁹

Scotland dataset entries, combinations and attainment

S.1 Data request

Following a consultation with members of the Scottish Government’s Education Directorate, we received two main datasets and two additional data tables for the years data had been requested for.

S.2 Data received

- School leavers in Scotland (2004/05, 2006/07 and 2008/09) by gender, stage and institution attended**
Data were received for school leavers in publicly funded schools for all years. The dataset also included leavers from independent schools for 2004/05. Data for 2006/07 and 2008/09 were provided subsequently.
- FE students in Scotland (2004/05, 2006/07 and 2008/09) by gender and FE institution**
FE data were provided separately. The data were received for students registered at an FE college in Scotland in all years.
- Attainment data for all candidates in Scotland by course(s) taken and grade(s) achieved**
The data received included details of all candidates from 2003 to 2009 who had taken Intermediate II, Higher and/or Advanced Higher examinations by institution code (where an examination was taken), grade, examination and subject code. Data for school leavers for the years under analysis were subsequently extracted from the overall attainment dataset to form the basis of the Scotland dataset.

¹⁹ Attainment data exclude records of students with X, U, P and N grades in selected combinations.

(iv) Additional data tables for institution type and qualification code

These cross-reference tables provided institution type details for secondary sector institutions (state-funded and independent) and FE centres in Scotland and examination and subject codes for SCQF Level 5 qualifications and above (Intermediate II, Higher, and Advanced Higher).

S.3 Data selection

- School leaver details from the School leaver dataset were merged into the attainment dataset to identify attainment data for these candidates only. Valid cases remained in the dataset. Institution details and examination code details were merged into the dataset to identify institutions and qualification details.
- Selection of those candidates who took *at least one Higher/Advanced Higher subject* together with their Intermediate II and/or Advanced Higher qualification (see table below). All other cases were removed from the dataset.

(iii) Qualification codes included for selection	
(iv) Code	(v) Description
(vi) 11	(vii) Intermediate II
(viii) 12	(ix) Higher
(x) 13	(xi) Advanced Higher

- Removal of duplicate awards (same subject), with the highest grade award retained.
- Identification of institutions at which students were registered at (*school only [publicly funded/independent], FE college only, or both school and FE college*).
- Identification of qualifications awarded to school leavers and FE students who left/attended school and/or FE centres in the years 2004/05, 2006/07 and 2008/09 by feeding school leaver and FE registered students details into the attainment data. Awards made to students who were school leavers in the specified academic years or were registered at an FE college remained in the dataset; awards made to students who were neither school leavers nor registered in an FE college within the specified years were discarded.
- Identification of FE college registered students to be included in the dataset. Criterion for selection:
 - these students were awarded any of their qualifications at an FE college.
 - whether any of these qualifications awarded at an FE college were completed in the year of registration.
 - whether any of these qualifications awarded at an FE college were Highers and/or Advanced Highers.

If failing any of these checks, records were removed from the dataset. For those registered at both a school and an FE college, only FE-related awards were removed.²⁰

- (vii) Final identification of academic year for analysis (a minority of students were registered in different years with different institutions. In these cases, the year of award was checked and records amended where necessary).²¹ Awards reported after the academic year a leaver was registered leaving a school/FE college were discarded.
- (viii) A final check to ensure all students remaining within the dataset had at least one Higher and/or Advanced Higher entry.
- (ix) Incorporation of student data (gender, stage) and institution type into entries dataset.

S.4 Dataset preparation—entries and combinations

- (i) **Dataset transposed from Entries to Combinations by candidate** (one row per candidate)
- (ii) Definition of analysis variables at candidate level:
 - **Number of qualifications awarded**
 - all qualifications (SCQF Level 5 and above).
 - number of Intermediate II awards.
 - number of Higher awards.
 - number of Advanced Higher awards.

- **Combination of qualifications awarded**
- Core Science (biology, human biology, chemistry, physics):
 - qualification levels of core science awards;
 - core science taken with/without mathematics;
 - core Science subject combination (Intermediate II, Higher, Advanced Higher);
 - count of core science awards at Intermediate II, Higher and Advanced Higher.
- Core science and mathematics
- Subject combination (Intermediate II, Higher, Advanced Higher)

S.5 Dataset preparation—attainment

- (i) Definition of attainment variables for BCP, BCP(M) and BCPM combinations for students with a) five or more Highers, b) mathematics Higher, and c) two or more core science subjects (biology, human biology, chemistry, physics).
 - a. Definition of unique attainment categories:
 - All A (any student achieving A grade only).
 - A–B (any student achieving A and B grades only).
 - A–C (any student achieving A, B and C grades).
 - Other (any student achieving grade combinations including D and N).²²

²⁰ For example, a student who left secondary school in 2007 could also have subsequently completed more qualifications in an FE centre in 2008. In this case, the qualifications taken at the FE centre would not be taken into consideration (as the report is concerned with the academic years 2004/05, 2006/07 and 2008/09) and the student would be regarded just as a school leaver. In another example, a student who left school in 2005 and completed Highers at an FE centre in 2007 would be regarded as an FE registered student.

²¹ If, for example, a student was registered in different institutions in 2007 and 2009, but did not complete any of their awarded qualifications in 2009, this student was labelled as a 2007 student.

²² Attainment data exclude records of students with P grades in selected combinations. N grades in Scotland stand for 'No award' and are deemed equivalent to 'ungraded' in the rest of the UK.

Figure A3.1. The popularity of Higher core sciences combinations across Scotland (2009)



Source: Scottish Government.

Figure A3.2. The popularity of Higher core sciences combinations (with or without mathematics) across Scotland (2009)



Source: Scottish Government.

Electronic appendix: Supplementary evidence

England

Numbers of subjects examined (all subjects)

Table AE3.1 shows the division by number of subjects taken by the total cohort of students that took A-level examinations (only) in England split by institution type. It shows that:

(i) VCE qualifications are scarcely taken by students in independent schools, and that uniformly the numbers

taking VCE qualifications plunged between 2005 and 2007, particularly in the maintained and FE sectors (where they fell 82% and 97%, respectively, during this interval) and have recovered but slightly since.

(ii) Across all institution types, the vast majority of students take three A-levels, and the number of students taking three A-levels or more has increased.

(iii) In percentage terms, albeit from a low base, the numbers of students taking A-levels has grown fastest in the academies sector, owing to the expansion of the academies programme, which was launched in 2001.

Table AE.1. Number of students taking GCE A-levels (all subjects) by number of A-levels entered and institution type (England, 2005, 2007, 2009).

No. of GCE A-levels	Academy/CTC			FE sector			Independent		
	2005	2007	2009	2005	2007	2009	2005	2007	2009
0 ^(a)	367	71	347	15,518	487	1,183	82	17	35
1	324	430	971	7,106	5,259	5,894	2,242	2,172	2,560
2	309	404	845	6,825	6,400	7,205	1,791	1,721	1,809
3	733	788	1,481	14,463	14,340	16,982	21,634	22,320	24,371
4 (or more)	186	233	566	3,535	3,982	3,874	9,441	9,580	9,535
Total no. of students taking GCE A-level examinations	1,552	1,855	3,863	31,929	29,981	33,955	35,108	35,793	38,275
Total number of students taking combinations of GCE and vocational A-levels	1,919	1,926	4,210	47,447	30,468	35,138	35,190	35,810	38,310
No. of GCE A-levels	Maintained			Other ^(b)			Sixth Form Centres and Colleges		
	2005	2007	2009	2005	2007	2009	2005	2007	2009
0	11,076	2,029	4,872	75	27	85	7,507	760	1,269
1	14,756	15,936	18,256	163	150	433	6,020	5,943	7,416
2	21,782	22,507	24,410	202	200	609	6,832	7,235	8,305
3	62,084	64,694	71,890	415	369	1,558	20,076	21,214	23,520
4 (or more)	34,658	35,649	34,335	506	339	779	15,827	16,620	16,194
Total no. of students taking GCE A-level examinations	133,280	138,786	148,891	1,286	1,058	3,379	48,755	51,012	55,435
Total number of students taking GCE and vocational A-levels	144,356	140,815	153,763	1,361	1,085	3,464	56,262	51,772	56,704

Source: DCSF.

(a) No GCE A-levels taken.

(b) Includes students coded in multiple institutions.

Table AE.2. Numbers of 16–18 year old students taking core sciences subjects^(a) in relation to the number of GCE A-level subjects taken in academies/CTCs (England, 2005, 2007, 2009).

Number of core sciences subjects taken	Year	Number of GCE A-levels taken				Grand total
		1	2	3	4 (or more)	
1	2005	19	62	166	40	287
	2007	10	60	185	51	306
	2009	26	97	271	109	503
2	2005		18	138	48	204
	2007		14	145	57	216
	2009		22	236	128	386
3 (or more)	2005			13	17	30
	2007			13	21	34
	2009			13	44	57

Source: DCSF.

(a) Core science subjects include: biology, human biology, chemistry and physics.

Table AE.3. Numbers of 16–18 year old students taking core sciences subjects^(a) in relation to the number of GCE A-level subjects taken in maintained schools (England, 2005, 2007, 2009).

Number of core sciences subjects taken	Year	Number of GCE A-levels taken				Grand total
		1	2	3	4 (or more)	
1	2005	531	2,544	12,592	8,173	23,840
	2007	525	2,382	12,734	8,113	23,754
	2009	510	2,522	14,165	7,851	25,048
2	2005		434	7,655	6,026	14,115
	2007		369	8,142	6,719	15,230
	2009		396	9,151	6,841	16,388
3 (or more)	2005			730	1,289	2,019
	2007			617	1,344	1,961
	2009			600	1,352	1,952

Source: DCSF.

(a) Core science subjects include: biology, human biology, chemistry and physics.

Table AE.4. Numbers of 16–18 year old students taking core sciences subjects^(a) in relation to the number of GCE A-level subjects taken in independent schools (England, 2005, 2007, 2009).

Number of core sciences subjects taken	Year	Number of GCE A-levels taken				Grand total
		1	2	3	4 (or more)	
1	2005	50	230	4,495	2,234	7,009
	2007	43	167	4,479	2,292	6,981
	2009	27	183	4,982	2,425	7,617
2	2005		59	3,629	2,483	6,171
	2007		31	3,628	2,567	6,226
	2009		28	3,690	2,565	6,283
3 (or more)	2005			388	669	1,057
	2007			329	657	986
	2009			263	661	924

Source: DCSF.

(a) Core science subjects include: biology, human biology, chemistry and physics.

Table AE.5. Numbers of 16–18 year old students taking core sciences subjects^(a) in relation to the number of GCE A-level subjects taken in sixth form centres and colleges (England, 2005, 2007, 2009).

Number of core sciences subjects taken	Year	Number of GCE A-levels taken				Grand total
		1	2	3	4 (or more)	
1	2005	174	600	3,082	2,973	6,829
	2007	169	600	3,116	3,105	6,990
	2009	139	583	3,473	3,090	7,285
2	2005		94	1,960	2,148	4,202
	2007		92	2,150	2,465	4,707
	2009		100	2,359	2,635	5,094
3 (or more)	2005			133	264	397
	2007			102	341	443
	2009			121	356	477

Source: DCSF.

(a) Core science subjects include: biology, human biology, chemistry and physics.

Table AE.6. Numbers of 16–18 year old students taking core sciences subjects^(a) in relation to the number of GCE A-level subjects taken in FE sector colleges (England, 2005, 2007, 2009).

Number of core sciences subjects taken	Year	Number of GCE A-levels taken				Grand total
		1	2	3	4 (or more)	
1	2005	247	640	2,173	684	3,744
	2007	196	536	1,963	708	3,403
	2009	187	569	2,105	659	3,520
2	2005		177	1,371	511	2,059
	2007		134	1,324	566	2,024
	2009		110	1,386	537	2,033
3 (or more)	2005			151	142	293
	2007			112	134	246
	2009			97	133	230

Source: DCSF.

(a) Core science subjects include: biology, human biology, chemistry and physics.

Table AE.7. Numbers of 16–18 year old students taking core sciences subjects^(a) in relation to the number of GCE A-level subjects taken in other institutions^(b) (England, 2005, 2007, 2009).

Number of core sciences subjects taken	Year	Number of GCE A-levels taken				Grand total
		1	2	3	4 (or more)	
1	2005	X ^(c)	X ^(c)	94	129	250
	2007	X ^(c)	X ^(c)	84	72	181
	2009	X ^(c)	X ^(c)	250	149	446
2	2005		X ^(c)	X ^(c)	106	154
	2007		6	46	53	105
	2009		10	137	112	259
3 (or more)	2005			5	15	20
	2007			X ^(c)	X ^(c)	14
	2009			9	29	38

Source: DCSF.

(a) Core science subjects include: biology, human biology, chemistry and physics.

(b) 'Other' institutions are for students reported as entering GCE/VCE A-levels in more than one institution and institutions not included in the categories listed above.

(c) Data suppressed owing to confidentiality constraints.

Tables AE.8. Numbers of 16–18 year old students taking core sciences GCE A-level combinations in academies/CTCs (England, 2005, 2007, 2009).

Core science(s)	Academy/CTC			% of students taking each combination		
	2005	2007	2009	2005	2007	2009
B ^(a)	141	143	230	27.1	25.7	24.3
P	116	126	182	22.3	22.7	19.2
C	30	37	91	5.8	6.7	9.6
BC	149	159	269	28.6	28.6	28.4
BP	17	11	24	3.3	2.0	2.5
CP	38	46	93	7.3	8.3	9.8
BCP	30	34	57	5.8	6.1	6.0
Grand total	521	556	946	100.0%	100.0%	100.0%

Source: DCSF.

(a) Includes biology and human biology.

Tables AE.9. Numbers of 16–18 year old students taking core sciences GCE A-level combinations in maintained schools (England, 2005, 2007, 2009).

Core science(s)	Maintained			% of students taking each combination		
	2005	2007	2009	2005	2007	2009
B ^(a)	13,173	13,270	13,572	33.0	32.4	32.2
P	7,624	7,196	7,895	19.1	17.6	18.3
C	3,045	3,289	3,581	7.6	8.0	8.0
BC	9,712	10,794	11,591	24.3	26.4	25.8
BP	1,273	1,154	1,325	3.2	2.8	3.0
CP	3,128	3,283	3,472	7.8	8.0	8.0
BCP	2,019	1,959	1,952	5.1	4.8	4.8
Grand total	39,974	40,945	43,388	100.0%	100.0%	100.0%

Source: DCSF.

(a) Includes biology and human biology.

Tables AE.10. Numbers of 16–18 year old students taking core sciences GCE A-level combinations in independent schools (England, 2005, 2007, 2009).

Core science(s)	Independent schools			% of students taking each combination		
	2005	2007	2009	2005	2007	2009
B ^(a)	3,075	3,064	3,156	21.6	21.6	21.3
P	2,667	2,752	3,114	18.7	19.4	21.0
C	1,267	1,165	1,347	8.9	8.2	9.1
BC	4,312	4,385	4,333	30.3	30.9	29.2
BP	341	356	339	2.4	2.5	2.3
CP	1,520	1,488	1,611	10.7	10.5	10.9
BCP	1,055	983	924	7.4	6.9	6.2
Grand total	14,237	14,193	14,824	100.0%	100.0%	100.0%

Source: DCSF.

(a) Includes biology and human biology.

Tables AE.11. Numbers of 16–18 year old students taking core sciences GCE A-level combinations in sixth form centres and colleges (England, 2005, 2007, 2009).

Core science(s)	Sixth Form Centres and Colleges			% of students taking each combination		
	2005	2007	2009	2005	2007	2009
B ^(a)	3,946	3,857	3,759	34.5	31.8	29.2
P	2,056	2,247	2,303	18.0	18.5	17.9
C	828	886	1,223	7.2	7.3	9.5
BC	3,361	3,851	3,999	29.4	31.7	31.1
BP	190	188	225	1.7	1.5	1.8
CP	650	669	870	5.7	5.5	6.8
BCP	397	442	477	3.5	3.6	3.7
Grand total	11,428	12,140	12,856	100.0%	100.0%	100.0%

Source: DCSF.

(a) Includes biology and human biology.

Table AE.12. Numbers of 16–18 year old students taking core sciences GCE A-level combinations in FE sector colleges (England, 2005, 2007, 2009).

Core science(s)	FE sector			% of students taking each combination		
	2005	2007	2009	2005	2007	2009
B ^(a)	2,168	1,942	1,946	35.6	34.2	33.7
P	1,169	1,026	1,092	19.2	18.1	18.9
C	415	443	483	6.8	7.8	8.4
BC	1,478	1,512	1,530	24.2	26.7	26.5
BP	145	122	134	2.4	2.2	2.3
CP	435	385	368	7.1	6.8	6.4
BCP	286	243	230	4.7	4.3	4.0
Grand total	6,096	5,673	5,783	100.0%	100.0%	100.0%

Source: DCSF.
(a) Includes biology and human biology.

Table AE.13. Numbers of 16–18 year old students taking core sciences GCE A-level combinations in other institutions (England, 2005, 2007, 2009).

Core science(s)	Other institutions			% of students taking each combination		
	2005	2007	2009	2005	2007	2009
B ^(a)	142	100	236	33.5	33.3	31.8
P	71	49	154	16.7	16.3	20.7
C	37	32	56	8.7	10.7	7.5
BC	110	81	201	25.9	27.0	27.1
BP	10	8	12	2.4	2.7	1.6
CP	35	16	46	8.3	5.3	6.2
BCP	19	14	38	4.5	4.7	5.1
Grand total	424	300	743	100.0%	100.0%	100.0%

Source: DCSF.
(a) Includes biology and human biology.

Table AE.14. Numbers of 16–18 year old students taking GCE A-level core sciences (with or without) mathematics at maintained schools, ranked in order of popularity (England, 2005, 2007, 2009).

Subject combination	% of students taking core sciences			% of students taking core sciences			% of students taking core sciences		
	2005	% All GCE A	Subject combination	2007	% All GCE A	Subject combination	2009	% All GCE A	Subject combination
B	11,362	28.4%	B	11,088	27.1%	B	10,602	24.4%	B
BC	6,087	15.2%	BC	6,202	15.1%	P(M)	6,330	14.6%	P(M)
P(M)	5,425	13.6%	P(M)	5,530	13.5%	BC	5,851	13.5%	BC
BC(M)	3,625	9.1%	BC(M)	4,592	11.2%	BC(M)	5,740	13.2%	BC(M)
CP(M)	2,551	6.4%	CP(M)	2,779	6.8%	CP(M)	3,069	7.1%	CP(M)
P	2,199	5.5%	B(M)	2,182	5.3%	B(M)	2,970	6.8%	B(M)
B(M)	1,811	4.5%	C(M)	1,798	4.4%	C(M)	2,161	5.0%	C(M)
C	1,564	3.9%	P	1,666	4.1%	P	1,565	3.6%	P
C(M)	1,481	3.7%	C	1,491	3.6%	C	1,420	3.3%	C
BCP	1,348	3.4%	BCP	1,177	2.9%	BCP	1,066	2.5%	BCP
BCP(M)	671	1.7%	BCP(M)	782	1.9%	BCP(M)	886	2.0%	BCP(M)
BP	648	1.6%	BP(M)	663	1.6%	BP(M)	821	1.9%	BP(M)
BP(M)	625	1.6%	CP	504	1.2%	BP	504	1.2%	BP
CP	577	1.4%	BP	491	1.2%	CP	403	0.9%	CP
Total no. of students taking core sciences combinations only	23,785	59.5%	Total no. of students taking core sciences combinations only	22,619	55.2%	Total no. of students taking core sciences combinations only	21,411	49.3%	Total no. of students taking core sciences combinations only
Total no. of students taking core sciences with mathematics	16,189	40.5%	Total no. of students taking core sciences with mathematics	18,326	44.8%	Total no. of students taking core sciences with mathematics	21,977	50.7%	Total no. of students taking core sciences with mathematics
Total no. of students taking core sciences combinations with/ without mathematics	39,974	100.0%	Total no. of students taking core sciences combinations with/ without mathematics	40,945	100.0%	Total no. of students taking core sciences combinations with/ without mathematics	43,388	100.0%	Total no. of students taking core sciences combinations with/ without mathematics
Total no. of students taking GCE A-levels	133,280	100.0%	Total no. of students taking GCE A-levels	138,786	100.0%	Total no. of students taking GCE A-levels	148,891	100.0%	Total no. of students taking GCE A-levels

Source: DCSF.

Table AE.15. Numbers of 16–18 year old students taking GCE A-level core sciences (with or without) mathematics at independent schools, ranked in order of popularity (England, 2005, 2007, 2009).

Subject combination	% of students taking core sciences			% of students taking core sciences			% of students taking core sciences		
	2005	% All GCE A	Subject combination	2007	% All GCE A	Subject combination	2009	% All GCE A	Subject combination
B	2,553	17.9%	B	2,497	17.6%	P(M)	2,677	18.1%	P(M)
BC	2,469	17.3%	P(M)	2,308	16.3%	BC(M)	2,408	16.2%	BC(M)
P(M)	2,175	15.3%	BC	2,206	15.5%	B	2,380	16.1%	B
BC(M)	1,843	12.9%	BC(M)	2,179	15.4%	BC	1,925	13.0%	BC
CP(M)	1,326	9.3%	CP(M)	1,402	9.9%	CP(M)	1,511	10.2%	CP(M)
C(M)	731	5.1%	C(M)	762	5.4%	C(M)	932	6.3%	C(M)
BCP	603	4.2%	B(M)	567	4.0%	B(M)	776	5.2%	B(M)
C	536	3.8%	BCP	511	3.6%	BCP(M)	541	3.6%	BCP(M)
B(M)	522	3.7%	BCP(M)	472	3.3%	P	437	2.9%	P
P	492	3.5%	P	444	3.1%	C	415	2.8%	C
BCP(M)	452	3.2%	C	403	2.8%	BCP	383	2.6%	BCP
CP	194	1.4%	BP(M)	198	1.4%	BP(M)	213	1.4%	BP(M)
BP(M)	178	1.3%	BP	158	1.1%	BP	126	0.8%	BP
BP	163	1.1%	CP	86	0.6%	CP	100	0.7%	CP
Total no. of students taking core sciences combinations only	7,010	49.2%	Total no. of students taking core sciences combinations only	6,305	44.4%	Total no. of students taking core sciences combinations only	5,766	38.9%	Total no. of students taking core sciences combinations only
Total no. of students taking core sciences with mathematics	7,227	50.8%	Total no. of students taking core sciences with mathematics	7,888	55.6%	Total no. of students taking core sciences with mathematics	9,058	61.1%	Total no. of students taking core sciences with mathematics
Total no. of students taking core sciences combinations with/without mathematics	14,237	100.0%	Total no. of students taking core sciences combinations with/without mathematics	14,193	100.0%	Total no. of students taking core sciences combinations with/without mathematics	14,824	100.0%	Total no. of students taking core sciences combinations with/without mathematics
Total no. of students taking GCE A-levels	35,108	100.0%	Total no. of students taking GCE A-levels	35,793	100.0%	Total no. of students taking GCE A-levels	38,275	100.0%	Total no. of students taking GCE A-levels

Source: DCSF.

Table AE.16. Numbers of 16–18 year old students taking GCE A-level core sciences (with or without) mathematics at sixth form colleges and centres, ranked in order of popularity (England, 2005, 2007, 2009).

Subject combination	% of students taking core sciences			% All GCE A			% of students taking core sciences			% All GCE A		
	2005	% of students taking core sciences	% All GCE A	Subject combination	2007	% of students taking core sciences	% All GCE A	Subject combination	2009	% of students taking core sciences	% All GCE A	
B	3,391	29.7%	7.0%	B	3,258	26.8%	6.4%	B	2,970	23.1%	5.4%	
BC	2,107	18.4%	4.3%	BC	2,297	18.9%	4.5%	BC	2,079	16.2%	3.8%	
P(M)	1,563	13.7%	3.2%	P(M)	1,742	14.3%	3.4%	BC(M)	1,920	14.9%	3.5%	
BC(M)	1,254	11.0%	2.6%	BC(M)	1,554	12.8%	3.0%	P(M)	1,881	14.6%	3.4%	
B(M)	555	4.9%	1.1%	B(M)	599	4.9%	1.2%	B(M)	789	6.1%	1.4%	
CP(M)	524	4.6%	1.1%	CP(M)	585	4.8%	1.1%	C(M)	775	6.0%	1.4%	
P	493	4.3%	1.0%	P	505	4.2%	1.0%	CP(M)	712	5.5%	1.3%	
C	416	3.6%	0.9%	C(M)	450	3.7%	0.9%	C	511	4.0%	0.9%	
C(M)	412	3.6%	0.8%	C	436	3.6%	0.9%	P	422	3.3%	0.8%	
BCP	253	2.2%	0.5%	BCP	240	2.0%	0.5%	BCP	256	2.0%	0.5%	
BCP(M)	144	1.3%	0.3%	BCP(M)	202	1.7%	0.4%	BCP(M)	221	1.7%	0.4%	
CP	126	1.1%	0.3%	BP(M)	125	1.0%	0.2%	BP(M)	147	1.1%	0.3%	
BP(M)	109	1.0%	0.2%	CP	84	0.7%	0.2%	CP	95	0.7%	0.2%	
BP	81	0.7%	0.2%	BP	63	0.5%	0.1%	BP	78	0.6%	0.1%	
Total no. of students taking core sciences combinations only	6,867	60.1%	14.1%	Total no. of students taking core sciences combinations only	6,883	56.7%	13.5%	Total no. of students taking core sciences combinations only	6,411	49.9%	11.6%	
Total no. of students taking core sciences with mathematics	4,561	39.9%	9.4%	Total no. of students taking core sciences with mathematics	5,257	43.3%	10.3%	Total no. of students taking core sciences with mathematics	6,445	50.1%	11.6%	
Total no. of students taking core sciences combinations with/ without mathematics	11,428	100.0%	23.4%	Total no. of students taking core sciences combinations with/ without mathematics	12,140	100.0%	23.8%	Total no. of students taking core sciences combinations with/ without mathematics	12,856	100.0%	23.2%	
Total no. of students taking GCE A-levels	48,755	100.0%	100.0%	Total no. of students taking GCE A-levels	51,012	100.0%	100.0%	Total no. of students taking GCE A-levels	55,435	100.0%	100.0%	

Source: DCSF.

Table AE.17. Numbers of 16–18 year old students taking GCE A-level core sciences (with or without) mathematics at FE colleges, ranked in order of popularity (England, 2005, 2007, 2009).

Subject combination	% of students taking core sciences			% of students taking core sciences			% of students taking core sciences				
	2005	% All GCE A	Subject combination	2007	% All GCE A	Subject combination	2009	% All GCE A	Subject combination		
B	1,948	32.0%	B	1,681	29.6%	B	1,642	5.6%	B	28.4%	4.8%
BC	950	15.6%	BC	967	17.0%	B (C)	884	3.2%	B (C)	15.3%	2.6%
P(M)	852	14.0%	P(M)	811	14.3%	P(M)	874	2.7%	P(M)	15.1%	2.6%
BC(M)	528	8.7%	BC(M)	545	9.6%	BC(M)	646	1.8%	BC(M)	11.2%	1.9%
CP(M)	354	5.8%	CP(M)	319	5.6%	CP(M)	322	1.1%	CP(M)	5.6%	0.9%
P	317	5.2%	B(M)	261	4.6%	B(M)	304	0.9%	B(M)	5.3%	0.9%
C	231	3.8%	C	239	4.2%	C(M)	264	0.8%	C(M)	4.6%	0.8%
B(M)	220	3.6%	P	215	3.8%	C	219	0.7%	C	3.8%	0.6%
BCP	191	3.1%	C(M)	204	3.6%	P	218	0.7%	P	3.8%	0.6%
C(M)	184	3.0%	BCP	153	2.7%	BCP	134	0.5%	BCP	2.3%	0.4%
BCP(M)	95	1.6%	BCP(M)	90	1.6%	BCP(M)	96	0.3%	BCP(M)	1.7%	0.3%
CP	81	1.3%	BP(M)	67	1.2%	BP(M)	80	0.2%	BP(M)	1.4%	0.2%
BP	77	1.3%	CP	66	1.2%	CP	54	0.2%	BP	0.9%	0.2%
BP(M)	68	1.1%	BP	55	1.0%	CP	46	0.2%	CP	0.8%	0.1%
Total no. of students taking core sciences combinations only	3,795	62.3%	Total no. of students taking core sciences combinations only	3,376	59.5%	Total no. of students taking core sciences combinations only	3,197	11.3%	Total no. of students taking core sciences combinations only	55.3%	9.4%
Total no. of students taking core sciences with mathematics	2,301	37.7%	Total no. of students taking core sciences with mathematics	2,297	40.5%	Total no. of students taking core sciences with mathematics	2,586	7.7%	Total no. of students taking core sciences with mathematics	44.7%	7.6%
Total no. of students taking core sciences combinations with/without mathematics	6,096	100.0%	Total no. of students taking core sciences combinations with/without mathematics	5,673	100.0%	Total no. of students taking core sciences combinations with/without mathematics	5,783	18.9%	Total no. of students taking core sciences combinations with/without mathematics	100.0%	17.0%
Total no. of students taking GCE A-levels	31,929	100%	Total no. of students taking GCE A-levels	29,981	100%	Total no. of students taking GCE A-levels	33,955	100%	Total no. of students taking GCE A-levels	33,955	100%

Source: DCSF.

Table AE3.18. Numbers of 16–18 year old students taking GCE A-level core sciences (with or without) mathematics at academies/CTCs, ranked in order of popularity (England, 2005, 2007, 2009).

Subject combination	% of students taking core sciences			% of students taking core sciences			% of students taking core sciences		
	2005	% All GCE A	Subject combination	2007	% All GCE A	Subject combination	2009	% All GCE A	Subject combination
B	124	23.8%	B	120	21.6%	B	190	20.1%	B
BC	103	19.8%	BC	96	17.3%	BC(M)	141	14.9%	BC(M)
P(M)	78	15.0%	P(M)	91	16.4%	P(M)	136	14.4%	P(M)
BC(M)	46	8.8%	BC(M)	63	11.3%	BC	128	13.5%	BC
P	38	7.3%	CP(M)	40	7.2%	CP(M)	82	8.7%	CP(M)
CP(M)	33	6.3%	P	35	6.3%	C(M)	47	5.0%	C(M)
BCP	18	3.5%	B(M)	23	4.1%	P	46	4.9%	P
B(M)	17	3.3%	C(M)	22	4.0%	C	44	4.7%	C
C(M)	17	3.3%	BCP	19	3.4%	B(M)	40	4.2%	B(M)
C	13	2.5%	C	15	2.7%	BCP(M)	38	4.0%	BCP(M)
BCP(M)	12	2.3%	BCP(M)	15	2.7%	BCP	19	2.0%	BCP
BP	9	1.7%	BP(M)	7	1.3%	BP(M)	16	1.7%	BP(M)
BP(M)	8	1.5%	CP	10	1.8%	CP	11	1.2%	CP
CP	5	1.0%	BP			BP	8	0.8%	BP
Total no. of students taking core sciences combinations only	310	59.5%	Total no. of students taking core sciences combinations only	295	53.1%	Total no. of students taking core sciences combinations only	446	47.1%	Total no. of students taking core sciences combinations only
Total no. of students taking core sciences with mathematics	211	40.5%	Total no. of students taking core sciences with mathematics	261	46.9%	Total no. of students taking core sciences with mathematics	500	52.9%	Total no. of students taking core sciences with mathematics
Total no. of students taking core sciences combinations with/without mathematics	521	100.0%	Total no. of students taking core sciences combinations with/without mathematics	556	100.0%	Total no. of students taking core sciences combinations with/without mathematics	946	100.0%	Total no. of students taking core sciences combinations with/without mathematics
Total no. of students taking GCE A-levels	1,552	100.0%	All students taking GCE A	1,855	100.0%	Total no. of students taking GCE A-levels	3,863	100.0%	Total no. of students taking GCE A-levels

Source: DCSF.

Table AE.19. Numbers of 16–18 year old students taking GCE A-level core sciences (with or without) mathematics at other institutions, ranked in order of popularity (England, 2005, 2007, 2009).

Subject combination	% of students taking core sciences			% of students taking core sciences			% of students taking core sciences		
	2005	% All GCE A	Subject combination	2007	% All GCE A	Subject combination	2009	% All GCE A	Subject combination
B	122	28.8%	B	87	29.0%	B	206	27.7%	B
BC	79	18.6%	BC	50	16.7%	P(M)	120	16.2%	P(M)
P(M)	58	13.7%	P(M)	31	10.3%	BC	109	14.7%	BC
BC(M)	31	7.3%	BC(M)	31	10.3%	BC(M)	92	12.4%	BC(M)
CP(M)	28	6.6%	C	21	7.0%	CP(M)	41	5.5%	CP(M)
C(M)	20	4.7%	P	18	6.0%	C(M)	38	5.1%	C(M)
B(M)	20	4.7%	B(M)	13	4.3%	P	34	4.6%	P
C	17	4.0%	BCP	13	4.3%	B(M)	30	4.0%	B(M)
BCP	15	3.5%	CP(M)	12	4.0%	BCP	19	2.6%	BCP
P	13	3.1%	C(M)	11	3.7%	BCP(M)	19	2.6%	BCP(M)
BP(M)	7	1.7%	BP(M)	4	1.3%	C	18	2.4%	C
CP	7	1.7%	BP	4	1.3%	BP	9	1.2%	BP
BCP(M)	7	1.6%	CP	5	1.7%	CP	8	1.1%	CP
BP			BCP(M)			BP(M)			BP(M)
Total no. of students taking core sciences combinations only	256	60.4%	Total no. of students taking core sciences combinations only	197	65.7%	Total no. of students taking core sciences combinations only	400	53.8%	Total no. of students taking core sciences combinations only
Total no. of students taking core sciences with mathematics	168	39.6%	Total no. of students taking core sciences with mathematics	103	34.3%	Total no. of students taking core sciences with mathematics	343	46.2%	Total no. of students taking core sciences with mathematics
Total no. of students taking core sciences combinations with/without mathematics	424	100.0%	Total no. of students taking core sciences combinations with/without mathematics	300	100.0%	Total no. of students taking core sciences combinations with/without mathematics	743	100.0%	Total no. of students taking core sciences combinations with/without mathematics
Total no. of students taking GCE A-levels	1,286	100.0%	Total no. of students taking GCE A-levels	1,058	100.0%	Total no. of students taking GCE A-levels	3,379	100.0%	Total no. of students taking GCE A-levels

Source: DCSF.

Wales

Table AW.1. Numbers of 16–18 year old students taking core sciences GCE A-level combinations in maintained schools (Wales, 2005, 2007, 2009).

Core science(s)	Maintained			% of students taking each combination		
	2005	2007	2009	2005	2007	2009
B ^(a)	1,061	934	844	33.6	31.3	27.8
P	477	522	524	15.1	17.5	17.2
C	257	247	296	8.1	8.3	9.7
BC	837	810	841	26.5	27.2	27.7
BP	105	80	76	3.3	2.7	2.5
CP	277	229	285	8.8	7.7	9.4
BCP	144	158	174	4.6	5.3	5.7
Grand total	3,158	2,980	3,040	100.0%	100.0%	100.0%

Source: Welsh Assembly Government.

(a) Includes biology and human biology.

Table AW.2. Numbers of 16–18 year old students taking core sciences GCE A-level combinations in independent schools (Wales, 2005, 2007, 2009).

Core science(s)	Independent			% of students taking each combination		
	2005	2007	2009	2005	2007	2009
B ^(a)	70	66	63	20.5	20.1	21.6
P	59	64	75	17.3	19.5	25.8
C	26	35	22	7.6	10.7	7.6
BC	105	113	67	30.7	34.5	23.0
BP	16	6	9	4.7	1.8	3.1
CP	34	22	27	9.9	6.7	9.3
BCP	32	22	28	9.4	6.7	9.6
Grand total	342	328	291	100.0%	100.0%	100.0%

Source: Welsh Assembly Government.

(a) Includes biology and human biology.

Table AW.3. Numbers of 16–18 year old students taking core sciences GCE A-level combinations in FE sector colleges (Wales, 2005, 2007, 2009)^(a).

Core science(s)	FE sector colleges			% of students taking each combination		
	2005	2007	2009	2005	2007	2009
B ^(a)	–	210	176	–	29.5	26.0
P	–	137	113	–	19.2	16.7
C	–	65	82	–	9.1	12.1
BC	–	196	199	–	27.5	29.4
BP	–	19	13	–	2.7	1.9
CP	–	41	52	–	5.8	7.7
BCP	–	44	42	–	6.2	6.2
Grand total	–	712	677	–	100.0%	100.0%

Source: Welsh Assembly Government.

(a) No data for 2005 are available.

Northern Ireland

Table ANI.1. Numbers of students taking core sciences, mathematics and other sciences (Northern Ireland, 2005, 2007, 2009).

Core science	Mathematics and other sciences				Grammar				Secondary				Further Education			
	2005	2007	2009	2009	2005	2007	2009	2009	2005	2007	2009	2009	2005	2007	2009	2009
No core sciences	No mathematics or other sciences	2,965	2,842	2,961	1,604	1,729	2,031	384	253							
	Mathematics	377	460	505	66	127	115	8	10							
	Mathematics and other sciences	147	170	176	17	16	15	24	5							
	Other sciences	1,289	1,068	953	228	234	294	99	41							
	Total nos. not taking core sciences	4,778	4,540	4,595	1,915	2,106	2,455	507	304							
Core sciences	No mathematics or other sciences	1,627	1,518	1,525	381	401	355	102	61							
	Mathematics	1,296	1,413	1,560	115	145	160	23	26							
	Mathematics and other sciences	216	203	209	11	15	23	31	17							
	Other sciences	508	458	418	58	53	51	26	37							
	Total no. taking core sciences	3,647	3,592	3,712	565	614	589	151	104							
	Total numbers in student cohort	8,425	8,132	8,307	2,480	2,720	3,044	658	408							

Source: DENI.

Table ANI.2. Number of 16–18 year old students taking core sciences subjects by number of GCE A-level subjects and number of core science subjects taken (Northern Ireland, grammar schools, 2005, 2007, 2009).

Institution type	Number of core science subjects taken	Year	Number of core science subjects taken				Total no. of students
			1–2	3	4 (or more)		
	1	2005	123	1,772	114	2,009	
		2007	143	1,701	163	2,007	
		2009	255	1,638	189	2,082	
Grammar schools	2	2005	15	1,169	216	1,400	
		2007	13	993	329	1,335	
		2009	14	922	423	1,359	
	3 (or more)	2005		96	142	238	
		2007		65	185	250	
		2009		67	204	271	

Source: DENI.

Table ANI.3. Changes in the number of educational institutions and size of the student population in Northern Ireland where students entered for any GCE and/or VCE subject (2005, 2007, 2009).

Institution type	Institutions						Nos. of 16–18 year old students taking GCE and vocational A-level examinations						Number of students taking core sciences and/or mathematics GCE A-levels						Percentage of students taking core sciences and/or mathematics GCE A-levels by institution type					
	2005	2007	2009	2005	2007	2009	2005	2007	2009	2005	2007	2009	2005	2007	2009	2005	2007	2009	2005	2007	2009			
Grammar school	70	69	69	8,495	8,181	8,345	3,647	3,592	3,712	42.9%	43.9%	44.5%												
Secondary school ^(a)	101	105	103	3,554	3,657	3,909	565	614	589	15.9%	16.8%	15.1%												
FE college	16	13	11	1,761	711	522	151	145	104	8.6%	20.4%	19.9%												
Total	187	187	183	13,995	12,569	12,839	4,363	4,351	4,405	31.6%	34.7%	34.5%												

Source: DENI.

(a) Some institutions in Northern Ireland could not be identified. The figures in these tables exclude students taking qualifications in these institutions.

Scotland

Table AS.1. Numbers of students taking Higher core sciences with (or without) mathematics (2005, 2007, 2009).

Subject combination	2005		2007		2009		% all students entering Highers	% all students entering Highers	% all students entering Highers
	% students entering core sciences Highers	% all students entering Highers	% students entering core sciences Highers	% all students entering Highers	% students entering core sciences Highers	% all students entering Highers			
B	2,356	11.0%	2,232	6.7%	2,157	6.7%	11.0%	9.7%	5.9%
BC	478	2.2%	425	1.4%	475	1.3%	2.1%	2.1%	1.3%
BC(M)	1,628	7.6%	1,598	4.6%	1,840	4.8%	7.9%	8.3%	5.0%
BCE	50	0.2%	75	0.1%	69	0.2%	0.4%	0.3%	0.2%
BCE(M)	1,217	5.7%	1,304	3.5%	1,399	3.9%	6.4%	6.3%	3.8%
BH	64	0.3%	46	0.2%	66	0.1%	0.2%	0.3%	0.2%
BHC	14	0.1%	18	0.0%	28	0.1%	0.1%	0.1%	0.1%
BHC(M)	47	0.2%	42	0.1%	50	0.1%	0.2%	0.2%	0.1%
BHCP	16	0.0%	X ^(a)	0.0%	X ^(a)	0.0%	0.0%	0.0%	0.0%
BHCP(M)	42	0.1%	29	0.0%	35	0.1%	0.1%	0.2%	0.1%
BH(M)	42	0.2%	34	0.1%	48	0.1%	0.2%	0.2%	0.1%
BHP	4	0.0%	5	0.0%	4	0.0%	0.0%	0.0%	0.0%
BHP(M)	1,541	7.2%	1,506	4.4%	1,681	4.5%	7.4%	7.6%	4.6%
BP	45	0.2%	52	0.1%	63	0.2%	0.3%	0.3%	0.2%
BP(M)	290	1.4%	317	0.8%	399	1.0%	1.6%	1.8%	1.1%
C	457	2.1%	477	1.3%	415	1.4%	2.4%	1.9%	1.1%
C(M)	1,004	4.7%	917	2.8%	945	2.8%	4.5%	4.3%	2.6%
CP	108	0.5%	128	0.3%	122	0.4%	0.6%	0.6%	0.3%
CP(M)	1,950	9.1%	1,740	5.5%	1,956	5.3%	8.6%	8.8%	5.3%
H	1,144	5.3%	986	3.2%	1,122	3.0%	4.9%	5.1%	3.1%

(Continued)

<i>Table AS.1. (Continued).</i>																		
Subject combination	2005		% students entering core sciences Highers		% all students entering Highers		2007		% students entering core sciences Highers		% all students entering Highers		2009		% students entering core sciences Highers		% all students entering Highers	
HC	175	0.8%	0.5%	0.8%	165	0.5%	0.8%	187	0.5%	0.8%	187	0.5%	0.8%	187	0.8%	0.5%	0.5%	0.5%
HC(M)	467	2.2%	1.3%	3.0%	602	1.8%	3.0%	665	1.8%	3.0%	665	1.8%	3.0%	665	3.0%	1.8%	1.8%	1.8%
HCP	24	0.1%	0.1%	0.2%	34	0.1%	0.2%	26	0.1%	0.1%	26	0.1%	0.1%	26	0.1%	0.1%	0.1%	0.1%
HCP(M)	388	1.8%	1.1%	2.1%	428	1.3%	2.1%	501	1.3%	2.3%	501	1.3%	2.3%	501	2.3%	1.4%	1.4%	1.4%
H(M)	506	2.4%	1.4%	2.4%	495	1.5%	2.4%	648	1.5%	2.9%	648	1.5%	2.9%	648	2.9%	1.8%	1.8%	1.8%
HP	19	0.1%	0.1%	0.1%	27	0.1%	0.1%	26	0.1%	0.1%	26	0.1%	0.1%	26	0.1%	0.1%	0.1%	0.1%
HP(M)	102	0.5%	0.3%	0.6%	123	0.4%	0.6%	136	0.4%	0.6%	136	0.4%	0.6%	136	0.6%	0.4%	0.4%	0.4%
M	3,973	18.6%	11.3%	17.4%	3,529	10.7%	17.4%	3,916	10.7%	17.7%	3,916	10.7%	17.7%	3,916	17.7%	10.7%	10.7%	10.7%
P	490	2.3%	1.4%	2.4%	477	1.4%	2.4%	495	1.4%	2.2%	495	1.4%	2.2%	495	2.2%	1.4%	1.4%	1.4%
P(M)	2,797	13.1%	7.9%	12.0%	2,436	7.4%	12.0%	2,663	7.4%	12.0%	2,663	7.4%	12.0%	2,663	12.0%	7.3%	7.3%	7.3%
Core science combinations only	5,427	25.4%	15.4%	25.4%	5,145	15.5%	25.4%	5,252	15.5%	23.7%	5,252	15.5%	23.7%	5,252	23.7%	14.3%	14.3%	14.3%
Core science with mathematics	11,996	56.1%	34.0%	57.2%	11,575	35.0%	57.2%	12,970	35.0%	58.6%	12,970	35.0%	58.6%	12,970	58.6%	35.4%	35.4%	35.4%
All students entering core sciences and/or mathematics	21,396	100.0%	60.7%	100.0%	20,249	61.2%	100.0%	22,138	61.2%	100.0%	22,138	61.2%	100.0%	22,138	100.0%	60.4%	60.4%	60.4%
All students entering Highers	35,257		100.0%		33,105	100.0%		36,654	100.0%		36,654	100.0%		36,654		100.0%	100.0%	100.0%

Source: Scottish Government.
(a) Data suppressed.

Note on tables AS.2 and AS.3. When added together, the total number of males and females taking Highers in 2007 and 2009 gives a slightly different total to the composite totals reported elsewhere. This is because the gender of a few students was either unavailable or miscoded in the original data.

Table AS.2. Number of male students taking core sciences subject combinations (with or without mathematics) at Higher (2005, 2007, 2009).^(a)

Subject combination	2005			2007			2009		
	% males taking core science Higher	Subject combination	2005	% males taking core science Higher	Subject combination	2007	% males taking core science Higher	Subject combination	2009
B	6.3%	B	626	6.5%	B	629	6.5%	B	603
BC	1.6%	BC	159	1.5%	BC	148	1.5%	BC	168
BC(M)	4.2%	BC(M)	423	4.9%	BC(M)	468	4.9%	BC(M)	529
BCP	0.2%	BCP	21	0.3%	BCP	33	0.3%	BCP	36
BCP(M)	5.8%	BCP(M)	579	7.1%	BCP(M)	678	7.1%	BCP(M)	766
BH	0.2%	BH	15	0.1%	BH	8	0.1%	BH	16
BHC	0.0%	BHC		0.1%	BHC	5	0.1%	BHC	7
BHC(M)	0.0%	BHC(M)	9	0.1%	BHC(M)		0.1%	BHC(M)	
BHCP	0.0%	BHCP		0.0%	BHCP	12	0.0%	BHCP	17
BHCP(M)	0.0%	BHCP(M)		0.2%	BHCP(M)	15	0.2%	BHCP(M)	18
BH(M)	0.1%	BH(M)		0.1%	BH(M)		0.1%	BH(M)	
BHP	0.0%	BHP	11	0.0%	BHP	14	0.0%	BHP	13
BHP(M)	0.0%	BHP(M)		0.0%	BHP(M)		0.0%	BHP(M)	
B(M)	3.4%	B(M)	341	3.7%	B(M)	357	3.7%	B(M)	396
BP	0.3%	BP	30	0.3%	BP	26	0.3%	BP	39
BP(M)	1.5%	BP(M)	150	1.8%	BP(M)	174	1.8%	BP(M)	234
C	2.6%	C	254	2.9%	C	280	2.9%	C	226
C(M)	5.3%	C(M)	531	4.9%	C(M)	470	4.9%	C(M)	469
CP	0.8%	CP	80	1.2%	CP	118	1.2%	CP	102
CP(M)	15.4%	CP(M)	1,536	14.4%	CP(M)	1,386	14.4%	CP(M)	1,567
H	2.3%	H	226	2.0%	H	191	2.0%	H	252

(Continued)

Table AS.2. (Continued).

Subject combination	2005		2007		2009	
	Number of students	% males taking core science Higher	Number of students	% males taking core science Higher	Number of students	% males taking core science Higher
HC	46	0.5%	46	0.5%	64	0.6%
HC(M)	129	1.3%	166	1.7%	191	1.8%
HCP	7	0.1%	16	0.2%	14	0.1%
HCP(M)	178	1.8%	228	2.4%	255	2.4%
H(M)	107	1.1%	99	1.0%	145	1.4%
HP	7	0.1%	13	0.1%	11	0.1%
HP(M)	44	0.4%	60	0.6%	86	0.8%
M	1,819	18.3%	1,629	17.0%	1,721	16.5%
P	409	4.1%	391	4.1%	411	3.9%
P(M)	2,218	22.3%	1,944	20.2%	2,096	20.1%
Numbers taking core sciences only	1,886	18.9%	1,905	19.8%	1,950	19.8%
Numbers taking core sciences with mathematics	6,250	62.8%	6,070	63.2%	6,781	64.9%
Numbers taking core sciences with/without mathematics	8,136	81.7%	7,975	83.0%	8,731	83.5%
Numbers taking core sciences and/or mathematics	9,955	100.0%	9,604	100.0%	10,452	100.0%
Total size of male Adv. Highers cohort	15,441		14,788		15,958	

Source: Scottish Government.

(a) Data include students who entered any Higher or Advanced Higher, and include entries in previous academic years.

Table AS.3. Number of female students taking core sciences subject combinations (with or without mathematics) at Higher (2005, 2007, 2009).^(a)

Subject combination	2005	% females taking core science Higher	Subject combination	2007	% females taking core science Higher	Subject combination	2009	% females taking core science Higher
B	1,730	15.1%	B	1,603	15.1%	B	1,554	13.3%
BC	319	2.8%	BC	277	2.6%	BC	307	2.6%
BC(M)	1,205	10.5%	BC(M)	1,130	10.6%	BC(M)	1,311	11.2%
BCP	29	0.3%	BCP	42	0.4%	BCP	33	0.3%
BCP(M)	638	5.6%	BCP(M)	626	5.9%	BCP(M)	633	5.4%
BH	49	0.4%	BH	38	0.4%	BH	50	0.4%
BHC	10	0.1%	BHC	13	0.1%	BHC	21	0.2%
BHC(M)	43	0.4%	BHC(M)	30	0.3%	BHC(M)	34	0.3%
BHCP		0.0%	BHCP		0.0%	BHCP		0.0%
BHCP(M)	12	0.1%	BHCP(M)	16	0.1%	BHCP(M)	17	0.1%
BH(M)		0.3%	BH(M)		0.2%	BH(M)		0.3%
BHP	38		BHP	25	0.0%	BHP	39	0.0%
BHP(M)		0.0%	BHP(M)		0.0%	BHP(M)		0.0%
B(M)	1,200	10.5%	B(M)	1,149	10.8%	B(M)	1,285	11.0%
BP	15	0.1%	BP	26	0.2%	BP	24	0.2%
BP(M)	140	1.2%	BP(M)	143	1.3%	BP(M)	165	1.4%
C	203	1.8%	C	197	1.9%	C	188	1.6%
C(M)	473	4.1%	C(M)	447	4.2%	C(M)	476	4.1%
CP	28	0.2%	CP	10	0.1%	CP	20	0.2%
CP(M)	414	3.6%	CP(M)	353	3.3%	CP(M)	389	3.3%
H	918	8.0%	H	795	7.5%	H	870	7.4%
HC	129	1.1%	HC	119	1.1%	HC	123	1.1%
HC(M)	338	3.0%	HC(M)	436	4.1%	HC(M)	474	4.1%

(Continued)

Table AS.3. (Continued).

Subject combination	2005	% females taking core science Higher	Subject combination	2007	% females taking core science Higher	Subject combination	2009	% females taking core science Higher
HCP	17	0.1%	HCP	18	0.2%	HCP	12	0.1%
HCP(M)	210	1.8%	HCP(M)	200	1.9%	HCP(M)	246	2.1%
H(M)	399	3.5%	H(M)	396	3.7%	H(M)	503	4.3%
HP	12	0.1%	HP	14	0.1%	HP	15	0.1%
HP(M)	58	0.5%	HP(M)	63	0.6%	HP(M)	50	0.4%
M	2,154	18.8%	M	1,900	17.9%	M	2,195	18.8%
P	81	0.7%	P	86	0.8%	P	84	0.7%
P(M)	579	5.1%	P(M)	492	4.6%	P(M)	567	4.9%
Numbers taking core sciences only	3,541	31.0%	Numbers taking core sciences only	3,240	30.4%	Numbers taking core sciences only	3,301	28.2%
Numbers taking core sciences with mathematics	5,746	50.2%	Numbers taking core sciences with mathematics	5,504	51.7%	Numbers taking core sciences with mathematics	6,189	53.0%
Numbers taking core sciences without mathematics	9,287	81.2%	Numbers taking core sciences without mathematics	8,744	82.1%	Numbers taking core sciences without mathematics	9,490	81.2%
Numbers taking core sciences and/or mathematics	11,441	100.0%	Numbers taking core sciences and/or mathematics	10,644	100.0%	Numbers taking core sciences and/or mathematics	11,685	100.0%
Total size of female Highers/Advanced Highers cohort	19,816		Total size of female Highers/Advanced Highers cohort	18,316		Total size of female Highers/Advanced Highers cohort	20,693	

Source: Scottish Government.

(a) Data include students who entered any Higher or Advanced Higher, and include entries in previous academic years.

Table AS.4. Numbers of students taking core sciences subject combinations at Higher by institution type (2005, 2007, 2009).

Subject combination	FE sector						Other ^(a)		
	2005		2007		2009		Subject combination		
	2005	2007	2007	2009	2009	2005	2007	2009	
B	66	62	56	438	361	541			
BC	21	15	20	184	147	242			
BCP	54	34	26	58	51	93			
BH				43	17	56			
BHC			12	24	17	32			
BHCP	5	10				6			
BHP				11	6				
BP	5		8	28	20	60			
C	38	20	23	124	106	160			
CP	20	14	17	85	63	112			
H	387	274	228	205	156	331			
HC	34	45	29	69	77	110			
HCP	19	12	22	28	24	42			
HP	7	6	5	13	16	21			
P	45	27	28	202	129	222			
Grand total	701	519	474	1,512	1,190	2,028			

Source: Scottish Government.

(a) This category accounts for students registered at more than one institution or at unidentified institutions.

