

# Uptake of ICT and computing qualifications in schools in England 2010-2011

Carmen L. Vidal Rodeiro

Statistics Report Series No. 40

(Update of Statistics Report Series No. 25)

June 2012

Research Division  
Assessment Research and Development  
Cambridge Assessment  
1 Regent Street, Cambridge, CB2 1GG

The number of students taking ICT (information and communication technology) and computing-related GCSE and A level qualifications has dropped in recent years, with a fall of 33% in just three years in ICT GCSE students, a fall of 33% in six years in A level ICT students and a fall of 57% in eight years in A level computing students in England (The Royal Society, 2009; The Royal Society, 2012)\*.

However, National Pupil Database extracts of ICT and computing qualifications analysed by Cambridge Assessment in recent years (e.g. Vidal Rodeiro, 2010) illustrate a shifting landscape where qualifications have come and gone within very short time-spans. For example, in recent years many alternatives to GCSEs and A levels have been offered by the English awarding bodies (e.g. vocationally related qualifications such as the diploma in digital applications or the OCR Nationals). Some of these qualifications have become very popular among 14-19 year olds and some schools have moved away from GCSEs and A levels to take on vocational courses.

The present report, an update of Statistical Report no. 25 (Vidal Rodeiro, 2010), investigates the numbers of students in England obtaining qualifications in ICT and computing (or any related subjects) at Key Stage 4 and at Key Stage 5 over the years 2010 and 2011.

## **Data and methods**

Data for the analyses presented in this report were extracted from the National Pupil Database (NPD), compiled by the Department for Education (DfE), for examination years 2010 and 2011 (academic years 2009/10 to 2010/11). Attainment data is supplied to the DfE by awarding bodies and contains individual attainment records and student-level information (e.g. month and year of birth, gender, school identification number) for all students in schools within England.

To investigate the uptake of ICT and computing-related subjects by students' ability, a measure of the students' overall performance at school was used.

For students at Key Stage 4, ability was measured by a concurrent measure of attainment: the average GCSE points score. By assigning marks to the GCSE grades (A\*=8, A=7, B=6, C=5, D=4, E=3, F=2, G=1, U=0) it was possible to calculate a total GCSE score for each student. The average GCSE points score was calculated by dividing the total score by the number of subjects attempted. If a subject had been attempted twice the highest grade was considered. The distribution of this measure was used to divide the students into three attainment groups: low, medium and high. It should be noted that Statistics Report no. 25 (Vidal Rodeiro, 2010) measured Key Stage 4 students' ability using their performance at Key Stage 3. Until 2008, performance at this level was assessed by a series of externally-marked tests. However, from 2009, these tests have been abolished and therefore an alternative measure of students' ability had to be used in this report.

---

\* 33% fall in ICT GCSEs between 2006 to 2009;  
33% fall in A Level ICT between 2003 to 2009;  
57% fall in A Level Computing between 2001 to 2009.

For students at Key Stage 5, ability was also measured by the average GCSE points score (in other words using prior attainment at school). Again, the distribution of this score was used to divide the students into three attainment groups: low, medium and high.

To investigate the uptake of ICT and computing-related subjects by the students' level of deprivation, the Income Deprivation Affecting Children Index (IDACI), available in the NPD, was used. This index measures the proportion of children in a small area (Local Super Output Area or LSOA) who live in families that are income deprived (in receipt of Income Support, Income based Jobseeker's Allowance, Working Families' Tax Credit or Disabled Person's Tax Credit below a given threshold)<sup>†</sup>. The distribution of this index was used to divide the students into three deprivation groups: low, medium and high.

The three categories of the attainment and the deprivation variables (low, medium and high) were created to give the most even split of students. This was achieved by calculating the 33.3 and 67.7 percentile values for each variable and classifying students accordingly.

To investigate the uptake of ICT and computing-related subjects by type of school, school information was obtained from a database maintained by the OCR awarding body. This information was matched to the NPD using the national centre number of the school that the student attended. At Key Stage 4 schools were categorised into seven groups: comprehensive schools, grammar schools, independent schools, secondary modern schools, academies, colleges (sixth form, further education and tertiary) and other. At Key Stage 5, schools were categorised into seven slightly different groups: comprehensive schools (includes secondary modern schools), grammar schools, independent schools, academies, sixth form colleges, further education and tertiary colleges and other. For each Key Stage, the proportions of entries in each type of school are presented in Appendix A.

In this report, qualifications in ICT and computing-related subjects have been classified as follows:

- GCSE Full Course in ICT
- GCSE Full Course in Computing<sup>1</sup>
- GCSE Short Course in ICT
- GCSE Short Course in Digital Communications Studies
- IGCSE in ICT<sup>2</sup>
- Vocational GCSE Double Award in Applied ICT
- GCE A level in Computer Studies/Computing
- GCE A level in ICT
- GCE AS level in Computer Studies/Computing
- GCE AS level in ICT
- IB (standard and higher level) in Computer Science<sup>3</sup>
- IB (standard and higher level) in Information Technology in a Global Society<sup>3</sup>
- Applied GCE A level Award (single and double) in ICT

---

<sup>†</sup> See page 19 of <http://www.communities.gov.uk/documents/communities/pdf/733520.pdf> for an explanation of this index.

- Applied GCE AS level Award (single and double) in ICT
- Functional Skill<sup>4</sup>
- Key Skill<sup>4</sup>
- NVQs<sup>5</sup>
- VRQs<sup>6</sup>
- DiDA<sup>7</sup>
- BTEC Firsts for ICT practitioners
- BTEC Nationals for IT practitioners
- OCR Nationals in ICT
- BCS<sup>8</sup>
- Principal Learning (Diploma)<sup>9</sup>
- Other

Notes:

Some qualifications are at levels 1 or 2 on the National Qualifications Framework, depending on the grade obtained. For more information, see [http://www.direct.gov.uk/en/EducationAndLearning/QualificationsExplained/DG\\_10039017](http://www.direct.gov.uk/en/EducationAndLearning/QualificationsExplained/DG_10039017).

<sup>1</sup> A new GCSE in Computing has been developed by the OCR awarding body. Around 100 centres participated in a pilot from September 2010 and the qualification was rolled out nationally from September 2011.

<sup>2</sup> In 2010 and 2011 only Cambridge International GCSEs (IGCSEs), known as Cambridge International Certificates, were accredited for teaching in UK state schools and therefore were the only IGCSE qualifications included in the NPD. The Edexcel IGCSEs, now known as Edexcel Certificates, have been available to state schools since September 2011 (although independent schools had been offering Edexcel IGCSEs prior to this) and the first examinations for those will take place in June 2012. Results from Edexcel Certificates will be included in the NPD from 2012.

<sup>3</sup> Computer Science and Information Technology in a Global Society can be studied as part of the IB Diploma. The IB Diploma is an academically challenging and balanced two-year programme which prepares students, normally aged 16 to 19, for success at university and life beyond. Candidates study six courses at higher level or standard level ensuring breadth of experience in languages, social studies, the experimental sciences and mathematics.

<sup>4</sup> Functional Skills and Key Skills are in computer appreciation/introduction.

<sup>5</sup> NVQs (National Vocational Qualifications) at levels 1 to 3 can be obtained in the following subjects: systems/network management, computer appreciation/introduction, computer hardware/firmware.

<sup>6</sup> VRQs (Vocationally Related Qualifications) at levels 1 to 3 can be obtained in the following subjects: computer appreciation/introduction, computer architecture/systems, systems/network management, telematics, computer help desk operations, software development, graphics software, multimedia, multimedia software, website development, word processing.

<sup>7</sup> DiDA is a suite of qualifications that promotes the creative use of digital applications. Its real-life, outcome-driven approach inspires and challenges learners to demonstrate what they know and are able to do in authentic contexts. There are four qualifications in the DiDA suite: Award in Digital Applications, Certificate in Digital Applications, Extended Certificate in Digital Applications and Diploma in Digital Applications.

<sup>8</sup> BCS are qualifications awarded by The Chartered Institute for IT, formerly known as the British Computer Society.

<sup>9</sup> The Principal Learning component of the diploma is part of the IT line of learning.

## Results

The results of the analyses carried out in this report are presented in two sections:

1. Qualifications obtained by pupils reaching the end of Key Stage 4, typically those starting the academic year aged 15 in schools in England.
2. Qualifications obtained by students aged 16-18 at the beginning of the academic year in schools and colleges in England.

For each of the two sections, tables showing the uptake of ICT and computing-related qualifications by gender, by students' attainment, by students' level of deprivation and by school type are presented. Some of the main findings are summarised below.

Appendix B contains population estimates of 15 year-olds to 18 year-olds for the years 2010 to 2011 for England. These figures can be used to check for an increase or a decline in the population of students.

### **Key Stage 4**

#### *Overall entries*

- Across all the qualifications listed, entries in ICT and computing-related subjects have fallen from 400359 in 2010 to 399889 in 2011, a mere 0.1%.
- Entries in GCSE ICT dropped both for the full course and for the short course in the period of study (28% and 40% respectively), following year-on year decreases since 2007 (Vidal Rodeiro, 2010). There was also a fall of about 42% in just two years (from 2010 to 2011) in the entries for the vocational GCSE in applied ICT.
- In 2011, the number of entries for the GCSE in computing was very small (55). This was expected as the qualification was available for first teaching in September 2011 and the majority of the students who started at that time are expected to certificate in summer 2012.
- The entries for the IGCSE in ICT have been rising slowly (from 323 in 2010 to 467 in 2011) and figures from the awarding bodies show a continuous rise in the provision of this qualification (see, for example, CIE (2011)).
- The uptake of functional skills at levels 1 and 2 increased from 2010 to 2011 and the uptake of key skills decreased in the same period.

- The uptake of vocationally related qualifications (VRQs) at level 2, as well as the uptake of the BTEC First Certificate and the OCR Nationals experienced a substantial increase from 2010 to 2011. However, entries for the BTEC First Diploma decreased slightly in the same period.
- After having increased almost year-on-year since 2007 (Vidal Rodeiro, 2010) entries for qualifications in the DIDA suite decreased, both at levels 1 and 2, from 2010 to 2011.

#### *Entries by students' attainment*

- Both in 2010 and 2011, the uptake of GCSE in ICT was higher among the high attaining students than among the low or medium attaining ones. The majority of the entries for the GCSE in computing (first certificated in 2011) were among medium and high ability students.
- The drop in GCSE ICT entries from 2010 to 2011 was more evident among the low attaining students than among the other two attainment groups (drops of 40%, 32% and 20% among low, medium and high attaining students, respectively). The fall in the vocational GCSE in Applied ICT followed the same pattern (52%, 41% and 36%, respectively).
- The entries for the IGCSE in ICT were much lower among low and medium ability students than among high ability students.
- At level 1, entries for qualifications in the DiDA suite were higher among the low attaining students than among the medium and high attaining students. In contrast, at level 2, entries for these qualifications were higher among the medium and high attainers.
- The entries for VRQs at level 1 decreased with increasing student attainment. Furthermore, in all three attainment groups, entries decreased over time. In contrast, at level 2 the uptake of VRQs, which was higher among the medium and high ability students, increased in all attainment groups from 2010 to 2011.
- BTEC Firsts and OCR Nationals at level 2, generally more popular among students of medium ability, increased from 2010 to 2011.
- The Diploma principal learning component and the qualifications offered by the Chartered Institute for IT (BCS qualifications) were slightly favoured by the medium and high attaining students.
- Overall, entries among low ability students increased over the period of study (2%) but decreased among the medium and high ability ones (2% and 0.2%, respectively).

#### *Entries by students' level of deprivation*

- The uptake of GCSE in ICT and the uptake of the new GCSE in computing were higher among the low deprived students than among the highly deprived ones. In contrast, the uptake of the vocational GCSE in applied ICT was higher among students with medium or highly deprived backgrounds.
- The majority of the entries for the IGCSE in ICT were among low deprived students.
- At level 1, the uptake of VRQs was higher among the low deprived students than among the highly deprived ones. However, at level 2, the uptake was higher among the low deprived students than among the highly deprived ones in 2010

and lower in 2011. The entries for these qualifications at level 2 increased in the period of study particularly among the highly deprived students.

- The entries for BTEC Firsts and OCR Nationals were higher among students from medium and high deprivation backgrounds than among low deprived students.
- The entries for the BTEC First Certificate experienced a slight decrease among the low deprived students and an increase among the other two groups of students. On the other hand, for the BTEC First Diploma, there were similar increases in all groups of students independent of their level of deprivation.
- Qualifications in the DiDA suite were slightly favoured by students with medium or high levels of deprivation. Both at levels 1 and 2, entries for the DiDA qualifications decreased slightly from 2010 to 2011, particularly for low deprived students.
- Overall, entries among students with a low deprivation background decreased over the period of study (17%) but increased among the students from medium and high deprivation backgrounds (9% and 6%, respectively).

#### *Entries by school type*

- There were slight decreases in the uptake of ICT and computing-related subjects from 2010 to 2011 in all types of schools, being more noticeable in grammar and independent schools (8% and 12% decreases, respectively) than in academies (1%), secondary modern schools (2%) and comprehensive schools (2%).
- The uptake of the GCSE in ICT was higher in comprehensive schools than in any other type of school (it should be taken into account, as shown in Appendix A, that about 70% of the students considered in this report attended comprehensive schools). The entries in academies and independent schools were fairly similar, although the percentages of students in those types of schools were fairly different (16% vs. 3%).
- The new GCSE in computing was mainly obtained in comprehensive schools and academies.
- BTEC Firsts, OCR Nationals and qualifications in the DiDA suite were mainly taken in comprehensive schools, secondary modern schools and academies.
- VRQs, taken mainly in academies, independent schools and comprehensive schools, increased their entries considerably in comprehensive schools and academies. However, there was hardly any increase in the entries for these qualifications in independent schools.

#### **Key Stage 5**

##### *Overall entries*

- Across all the qualifications listed, entries in ICT and computing-related subjects increased from 80287 in 2010 to 85492 in 2011, an increase of just above 6%.
- In particular, in the period of study, entries for the AS level qualifications in ICT and in computer studies/computing increased 12% and 15%, respectively. The entries for the applied AS level in ICT (both single and double award) also experienced increases.

- However, entries in the A levels in ICT and computer studies/computing dropped 3% and 1% respectively. The entries for the applied A level in ICT (both single and double award) also dropped in the same period.
- Entries for VRQs at level 3 increased considerably in the period of study.
- Entries for BTEC National Award and Certificate experienced substantial declines from 2010 to 2011 (37% and 10%, respectively). This contrasts with year-on-year increases since 2007 (Vidal Rodeiro, 2010).
- OCR Nationals increased their popularity, with entries increasing in the three qualifications on offer (increase of 110% in the Certificate, 114% in the Diploma and 2% in the Extended Diploma).
- Entries for the IB certificates in computer science and IT were very small and fairly constant in the period of study.

#### *Entries by students' attainment*

- Entries for the A level and AS level in ICT were higher among the medium attaining students than among low or high attaining ones. The same pattern was observed in the AS level in computer studies/computing. However, entries for the A level in this subject were higher among the high attaining students.
- The uptake of applied A level and applied AS level qualifications in ICT (single and double awards) was generally lower among the high attaining students.
- At level three, the entries for NVQs, VRQs and BTEC Nationals, were much higher among the low attaining students than among the medium or high attaining ones.
- From 2010 to 2011, the entries for the BTEC National Award for IT practitioners experienced a big drop among low attaining students. However, the entries for the Certificate remain almost constant in the three attainment groups and the entries for the Diploma increased slightly.
- Entries for the OCR National Certificate and the OCR National Diploma in ICT were higher among the low attaining students than among other groups of students and almost doubled from 2010 to 2011. The entries for the Extended Diploma, also higher among the low attaining students than among the medium or high ones, remained more or less constant from 2010 to 2011.

#### *Entries by students' level of deprivation*

The National Pupil Database provides the IDACI index for students in maintained schools only (sourced from the School Census). Students studying at sixth form colleges or further education colleges are not covered by the School Census. At Key Stage 5, and in each of the two years considered in this report, between 45% and 50% of the students did not have a value for this index. Therefore, entries in ICT and computing-related subjects by students' level of deprivation were not calculated.

#### *Entries by school type*

- Overall entries for ICT and computing-related subjects increased, from 2010 to 2011, in comprehensive schools, grammar schools and academies (9%, 12% and 18%, respectively) and decreased in independent schools (4%), sixth form colleges (11%) and FE/Tertiary colleges (7%).

- Entries for AS and A levels were higher in comprehensive schools and colleges than in grammar and independent schools (but note the proportions of entries in each type of school, shown in Appendix A).
- In the period of study, entries for the AS level qualifications in ICT and in computer studies/computing increased similarly in all types of schools. Likewise, entries in the A levels in ICT and computer studies/computing decreased similarly in all types of schools.
- The uptake of VRQs at level 3 increased in comprehensive schools, academies and colleges in the period of study and remained almost constant in other types of schools.
- BTEC Nationals and OCR Nationals were predominant in comprehensive schools and, in both 2010 and 2011, there were hardly any entries in grammar and independent schools.
- Entries for the BTEC National Award increased only in comprehensive schools and experienced the biggest drop in sixth form colleges and academies; entries for the BTEC National Certificate and the National Diploma decreased in colleges (sixth form and FE/Tertiary) and remained almost constant in all other types of schools.
- Entries for the OCR National Certificate and Diploma increased in comprehensive schools and academies and remained almost constant in the other types of schools.

## Key Stage 4

The figures shown in the following tables are based on pupils reaching the end of Key Stage 4, typically those starting the academic year aged 15 in schools in England.

### Overall entries

Level	Qualification	Entries	
		2010	2011
<b>Entry</b>	Functional Skill	1103	4064
	Other	5886	4040
<b>1</b>	Functional Skill	3687	5588
	Key Skill	1573	290
	NVQs	30	14
	VRQs	2765	1975
	Award in digital applications	6562	4123
	Certificate in digital applications	1723	1078
	Diploma in digital applications	79	38
	Extended Certificate in digital applications	197	163
	OCR National First Award in ICT	612	869
	OCR National Award in ICT	48	114
	OCR National Certificate in ICT	14	11
	BCS	3255	1573
	Principal Learning (Diploma)	114	91
<b>1/2</b>	GCSE Full Course in computing	0	55
	GCSE Full Course in ICT	41347	29783
	GCSE Short Course in ICT	31008	18497
	GCSE Short Course in digital communication studies	100	0
	IGCSE in ICT	323	467
	Vocational GCSE Double Award in applied ICT	4938	2871
<b>2</b>	Functional Skill	9516	12189
	Key Skill	3140	1270
	NVQs	52	40
	VRQs	4439	11250
	Award in digital applications	36848	33110
	Certificate in digital applications	24100	21897
	Diploma in digital applications	3730	2811
	Extended Certificate in digital applications	6656	6062
	BTEC First Certificate for ICT practitioners	12396	13939
	BTEC First Diploma for ICT practitioners	5395	4994
	OCR National First Award in ICT	96174	106140
	OCR National Award in ICT	55481	69737
	OCR National First Certificate in ICT	16584	18883
	OCR National Certificate in ICT	14180	15355
BCS	4402	3289	
Principal Learning (Diploma)	662	1888	
<b>3</b>	GCE AS level in computer studies/computing	218	314
	GCE AS level in ICT	672	697
	Applied GCE AS level in ICT	350	320
<b>All levels</b>		400359	399889

Entries by gender

Level	Qualification	2010		2011	
		Female	Male	Female	Male
<b>Entry</b>	Functional Skill	423	680	1475	2589
	Other	2091	3795	1301	2739
<b>1</b>	Functional Skill	1464	2223	2480	3108
	Key Skill	654	919	116	174
	NVQs	16	14	3	11
	VRQs	1250	1515	836	1139
	Award in digital applications	2604	3958	1596	2527
	Certificate in digital applications	588	1135	396	682
	Diploma in digital applications	14	65	5	33
	Extended Certificate in digital applications	44	153	54	109
	OCR National First Award in ICT	268	344	392	477
	OCR National Award in ICT	20	28	40	74
	OCR National Certificate in ICT	3	11	2	9
	BCS	1848	1407	788	785
	Principal Learning (Diploma)	28	86	20	71
<b>1/2</b>	GCSE Full Course in computing	0	0	22	33
	GCSE Full Course in ICT	18052	23295	13391	16392
	GCSE Short Course in ICT	16941	14067	10854	7643
	GCSE Short Course in digital communication studies	29	71	0	0
	IGCSE in ICT	90	233	129	338
	Vocational GCSE Double Award in applied ICT	2197	2741	1230	1641

Entries by gender (continued)

Level	Qualification	2010		2011	
		Female	Male	Female	Male
<b>2</b>	Functional Skill	4245	5271	5988	6201
	Key Skill	1615	1525	639	631
	NVQs	29	23	15	25
	VRQs	1842	2597	4824	6426
	Award in digital applications	17313	19535	15689	17421
	Certificate in digital applications	10511	13589	9328	12569
	Diploma in digital applications	1289	2441	977	1834
	Extended Certificate in digital applications	2554	4102	2306	3756
	BTEC First Certificate for ICT practitioners	5299	7097	6030	7909
	BTEC First Diploma for ICT practitioners	2229	3166	1988	3006
	OCR National First Award in ICT	48924	47250	54113	52027
	OCR National Award in ICT	25663	29818	32528	37209
	OCR National First Certificate in ICT	7532	9052	8530	10353
	OCR National Certificate in ICT	5899	8281	6376	8979
	BCS	2315	2087	1696	1593
	Principal Learning (Diploma)	173	489	397	1491
<b>3</b>	GCE AS level in computer studies/computing	79	139	123	191
	GCE AS level in ICT	236	436	312	385
	Applied GCE AS level in ICT	149	201	158	162
<b>All levels</b>		137896	157099	152017	172168

Entries by students' attainment

Level	Qualification	2010			2011		
		Low	Medium	High	Low	Medium	High
<b>Entry</b>	Functional Skill	553	39	14	2108	103	45
	Other	3009	425	177	2024	163	63
<b>1</b>	Functional Skill	2543	739	140	3565	1120	274
	Key Skill	748	296	77	197	68	9
	NVQs	23	2	0	3	1	0
	VRQs	1182	542	712	1048	281	414
	Award in digital applications	4604	1658	268	3026	942	129
	Certificate in digital applications	1123	466	124	743	256	71
	Diploma in digital applications	50	15	2	22	6	3
	Extended Certificate in digital applications	147	45	1	121	28	10
	OCR National First Award in ICT	525	50	4	730	80	8
	OCR National Award in ICT	47	0	0	100	10	2
	OCR National Certificate in ICT	9	0	1	3	0	0
	BCS	542	1053	1624	159	428	950
Principal Learning (Diploma)	86	22	2	71	19	0	
<b>1/2</b>	GCSE Full Course in computing	0	0	0	7	22	26
	GCSE Full Course in ICT	7665	14751	18919	4601	9963	15217
	GCSE Short Course in ICT	7689	10255	12983	3948	5550	8937
	GCSE Short Course in digital communication studies	72	28	0	0	0	0
	IGCSE in ICT	29	74	220	22	119	326
	Vocational GCSE Double Award in applied ICT	1182	1939	1816	564	1148	1159

Entries by students' attainment (continued)

Level	Qualification	2010			2011		
		Low	Medium	High	Low	Medium	High
<b>2</b>	Functional Skill	2217	4234	2999	3815	5260	3024
	Key Skill	404	1170	1473	186	498	580
	NVQs	38	8	3	29	10	1
	VRQs	777	1709	1907	3759	4188	3099
	Award in digital applications	8987	14696	13116	8320	13092	11665
	Certificate in digital applications	4811	10132	9143	4560	9125	8206
	Diploma in digital applications	754	1660	1306	572	1221	1016
	Extended Certificate in digital applications	1355	2850	2444	1257	2430	2373
	BTEC First Certificate for ICT practitioners	4836	4890	2644	5046	5670	3209
	BTEC First Diploma for ICT practitioners	1712	2421	1190	1560	2242	1173
	OCR National First Award in ICT	32860	36612	26461	35400	39587	30960
	OCR National Award in ICT	16681	23183	15538	20645	28481	20550
	OCR National First Certificate in ICT	4703	6944	4926	5231	7946	5696
	OCR National Certificate in ICT	4341	6295	3523	4688	6500	4161
	BCS	888	1746	1739	785	1060	1410
Principal Learning (Diploma)	151	320	180	417	979	490	
<b>3</b>	GCE AS level in computer studies/computing	3	27	188	0	21	292
	GCE AS level in ICT	6	135	531	3	76	618
	Applied GCE AS level in ICT	9	134	207	5	88	227
	VRQs	4	6	3	0	0	0
<b>All levels</b>		117365	151571	126605	119340	148781	126393

Entries by students' level of deprivation

Level	Qualification	2010			2011		
		Low	Medium	High	Low	Medium	High
<b>Entry</b>	Functional Skill	390	232	481	1798	825	1441
	Other	1467	1627	2792	850	1184	2006
<b>1</b>	Functional Skill	737	955	1995	1293	1760	2535
	Key Skill	722	386	465	55	95	140
	NVQs	12	8	10	4	5	5
	VRQs	1299	762	704	859	469	647
	Award in digital applications	1436	2383	2743	656	1612	1855
	Certificate in digital applications	371	614	738	211	440	427
	Diploma in digital applications	38	18	23	12	7	19
	Extended Certificate in digital applications	46	75	76	56	61	46
	OCR National First Award in ICT	75	160	377	103	246	520
	OCR National Award in ICT	2	2	44	13	0	67
	OCR National Certificate in ICT	7	4	3	10	34	1
	BCS	1633	895	727	964	405	204
Principal Learning (Diploma)	25	28	61	21	33	37	
<b>1/2</b>	GCSE Full Course in computing	0	0	0	24	20	11
	GCSE Full Course in ICT	19129	13165	9053	13001	9987	6795
	GCSE Short Course in ICT	14003	10655	6350	8023	6671	3803
	GCSE Short Course in digital communication studies	13	21	66	0	0	0
	IGCSE in ICT	319	3	1	464	1	2
	Vocational GCSE Double Award in applied ICT	1636	1864	1438	801	1168	902

Entries by students' level of deprivation (continued)

Level	Qualification	2010			2011		
		Low	Medium	High	Low	Medium	High
2	Functional Skill	2503	3006	4007	2524	4832	4833
	Key Skill	1441	1094	605	494	530	246
	NVQs	17	13	22	17	19	4
	VRQs	1811	1355	1282	2884	3822	4544
	Award in digital applications	11679	13342	11827	8758	13226	11126
	Certificate in digital applications	7683	8311	8106	5675	8337	7885
	Diploma in digital applications	1014	1139	1577	597	854	1360
	Extended Certificate in digital applications	2075	2262	2319	1670	2234	2158
	BTEC First Certificate for ICT practitioners	2598	4035	5763	2740	4804	6395
	BTEC First Diploma for ICT practitioners	1102	1405	2888	836	1341	2817
	OCR National First Award in ICT	27915	34593	33666	25595	42004	38541
	OCR National Award in ICT	14777	19647	21057	15393	27336	27008
	OCR National First Certificate in ICT	4337	5766	6481	4012	7323	7548
	OCR National Certificate in ICT	2746	4777	6657	2638	5353	7364
	BCS	1510	1269	1614	1178	1038	1073
Principal Learning (Diploma)	133	218	311	350	755	783	
3	GCE AS level in computer studies/computing	118	70	30	150	121	43
	GCE AS level in ICT	281	257	134	240	286	171
	Applied GCE AS level in ICT	105	156	89	105	134	81
<b>All levels</b>		127205	136572	136582	105074	149372	145443

Entries by school type

Level	Qualification	2010						
		Comprehensive	Grammar	Independent	Secondary Modern	Academy	College	Other
<b>Entry</b>	Functional Skill	205	0	14	5	49	68	278
	Other	1274	0	86	39	94	151	3699
<b>1</b>	Functional Skill	2272	0	5	183	566	116	243
	Key Skill	720	0	3	6	86	56	36
	NVQs	21	0	0	0	0	0	1
	VRQs	1182	0	393	50	232	46	385
	Award in digital applications	4971	3	42	235	1159	4	111
	Certificate in digital applications	1137	1	15	103	435	1	23
	Diploma in digital applications	38	0	0	8	4	22	7
	Extended Certificate in digital applications	158	0	0	23	13	3	0
	OCR National First Award in ICT	326	0	3	48	1	45	174
	OCR National Award in ICT	45	0	0	0	0	0	1
	OCR National Certificate in ICT	6	0	1	0	0	0	1
	BCS	1900	14	893	84	208	8	45
Principal Learning (Diploma)	84	0	0	4	3	16	7	
<b>1/2</b>	GCSE Full Course in computing	0	0	0	0	0	0	0
	GCSE Full Course in ICT	26067	2012	5099	1382	6446	74	223
	GCSE Short Course in ICT	19940	2251	2705	552	4462	52	962
	GCSE Short Course in digital communication studies	84	0	0	0	11	0	0
	IGCSE in ICT	5	0	293	0	1	20	4
	Vocational GCSE Double Award in applied ICT	3869	88	199	179	485	20	89
<b>2</b>	Functional Skill	7125	157	205	305	1548	54	39
	Key Skill	2369	4	84	19	454	26	41
	NVQs	43	0	0	0	3	0	3
	VRQs	2717	197	439	210	594	16	193
	Award in digital applications	28425	763	505	1083	5954	7	37
	Certificate in digital applications	18522	278	277	950	4043	7	8
	Diploma in digital applications	2853	14	26	180	640	13	4
	Extended Certificate in digital applications	5223	127	82	394	815	5	10
	BTEC First Certificate for ICT practitioners	8611	0	238	510	2582	11	26
	BTEC First Diploma for ICT practitioners	3777	0	151	285	882	14	1
	OCR National First Award in ICT	73543	1276	1206	3531	14720	196	670
	OCR National Award in ICT	40838	261	677	2569	10486	7	118
	OCR National First Certificate in ICT	12258	40	421	625	3052	0	23
	OCR National Certificate in ICT	9530	21	243	876	3250	3	8
BCS	3292	10	584	132	239	8	10	
Principal Learning (Diploma)	483	7	16	54	88	13	0	
<b>3</b>	GCE AS level in computer studies/computing	50	97	14	3	54	0	0
	GCE AS level in ICT	314	104	45	0	182	1	26
	Applied GCE AS level in ICT	274	0	11	0	65	0	0
<b>All levels</b>		284551	7725	14975	14627	63906	1083	7506

Level	Qualification	2011						
		Comprehensive	Grammar	Independent	Secondary Modern	Academy	College	Other
Entry	Functional Skill	484	0	1	27	70	168	942
	Other	590	0	50	32	58	47	3036
1	Functional Skill	3278	0	65	122	420	217	785
	Key Skill	225	0	0	0	4	2	11
	NVQs	5	0	0	0	0	0	1
	VRQs	799	0	270	25	106	36	323
	Award in digital applications	3082	7	17	203	656	4	105
	Certificate in digital applications	567	0	12	216	248	2	30
	Diploma in digital applications	28	0	0	1	1	6	2
	Extended Certificate in digital applications	147	0	0	1	2	2	11
	OCR National First Award in ICT	393	3	11	77	61	2	256
	OCR National Award in ICT	75	0	0	29	0	0	3
	OCR National Certificate in ICT	1	0	0	0	0	1	0
	BCS	723	0	643	6	61	4	41
Principal Learning (Diploma)	68	0	0	2	3	5	13	
1/2	GCSE Full Course in computing	28	0	1	0	26	0	0
	GCSE Full Course in ICT	16752	1837	4679	1172	5039	55	176
	GCSE Short Course in ICT	10976	1875	1848	60	2936	33	728
	GCSE Short Course in digital communication studies	0	0	0	0	0	0	0
	IGCSE in ICT	2	0	440	1	2	13	9
	Vocational GCSE Double Award in applied ICT	1955	127	173	150	414	0	52
2	Functional Skill	9316	90	120	559	1683	43	241
	Key Skill	945	0	103	1	193	0	9
	NVQs	36	0	0	0	0	0	0
	VRQs	7418	173	491	474	1228	73	434
	Award in digital applications	26019	496	336	1229	4708	2	70
	Certificate in digital applications	17083	151	191	876	3523	1	13
	Diploma in digital applications	2018	13	42	152	555	2	29
	Extended Certificate in digital applications	4874	88	115	297	676	1	9
	BTEC First Certificate for ICT practitioners	9411	0	232	500	2681	4	17
	BTEC First Diploma for ICT practitioners	3223	0	168	187	716	2	2
	OCR National First Award in ICT	80520	1537	1155	3475	15565	186	452
	OCR National Award in ICT	49858	286	843	2636	13799	2	144
	OCR National First Certificate in ICT	13862	35	252	759	3177	1	33
	OCR National Certificate in ICT	9643	68	142	913	3494	0	96
BCS	2001	90	595	17	302	3	26	
Principal Learning (Diploma)	1457	16	32	84	276	2	0	
3	GCE AS level in computer studies/computing	97	123	2	1	74	1	15
	GCE AS level in ICT	256	107	47	0	284	1	2
	Applied GCE AS level in ICT	220	20	39	1	40	0	0
All levels		278435	7142	13115	14285	63081	921	8116

## Key Stage 5

The figures shown in the following tables are based on pupils aged 16-18 at the beginning of the academic year in schools and colleges in England.

### Overall entries

Level	Qualification	Entries	
		2010	2011
1	NVQs	214	277
	VRQs	9	0
2	NVQs	20	0
	VRQs	7	0
3	GCE A level in computer studies/computing	3606	3561
	GCE A level in ICT	9133	8819
	GCE AS level in computer studies/computing	6333	7264
	GCE AS level in ICT	15048	16805
	Applied GCE A level in ICT	10445	9158
	Applied GCE A level Double Award in ICT	1066	616
	Applied GCE AS level in ICT	14150	14604
	Applied GCE AS level Double Award in ICT	923	767
	Applied GCE A level / AS level combined in ICT	22	34
	Key Skill	3160	496
	NVQs	236	37
	VRQs	1558	7676
	BTEC National Award for IT practitioners	3624	2288
	BTEC National Certificate for IT practitioners	2207	1989
	BTEC National Diploma for IT practitioners	4630	5277
	OCR National Certificate in ICT	1511	3170
	OCR National Diploma in ICT	219	468
	OCR National Extended Diploma in ICT	44	45
	IB (standard level) in computer science	11	8
	IB (standard level) in IT in a global society	17	12
	IB (higher level) in computer science	22	42
	IB (higher level) in IT in a global society	48	46
BCS	10	22	
Principal Learning (Diploma)	4	0	
<b>All levels</b>		<b>80287</b>	<b>85492</b>

Entries by gender

Level	Qualification	2010		2011	
		Female	Male	Female	Male
1	NVQs	50	164	49	228
	VRQs	2	7	0	0
2	NVQs	0	20	0	0
	VRQs	0	7	0	0
3	GCE A level in computer studies/computing	264	3342	247	3314
	GCE A level in ICT	3292	5841	3307	5512
	GCE AS level in computer studies/computing	517	5816	566	6698
	GCE AS level in ICT	5300	9748	5926	10879
	Applied GCE A level in ICT	3989	6456	3539	5619
	Applied GCE A level Double Award in ICT	181	885	119	497
	Applied GCE AS level in ICT	5233	8917	5367	9237
	Applied GCE AS level Double Award in ICT	167	756	114	653
	Applied GCE A level / AS level combined in ICT	8	14	10	24
	Key Skill	1803	1357	184	312
	NVQs	52	184	3	34
	VRQs	800	758	2450	5226
	BTEC National Award for IT practitioners	864	2760	735	1553
	BTEC National Certificate for IT practitioners	312	1895	324	1665
	BTEC National Diploma for IT practitioners	558	4072	594	4683
	OCR National Certificate in ICT	537	974	1224	1946
	OCR National Diploma in ICT	58	161	129	339
	OCR National Extended Diploma in ICT	8	36	6	39
	IB (standard level) in computer science	1	10	0	8
	IB (standard level) in IT in a global society	7	10	3	9
	IB (higher level) in computer science	1	21	4	38
	IB (higher level) in IT in a global society	23	25	16	30
	BCS	1	9	9	13
Principal Learning (Diploma)	0	4	0	0	
<b>All levels</b>		<b>24028</b>	<b>54249</b>	<b>24925</b>	<b>58556</b>

Entries by students' attainment

Level	Qualification	2010			2011		
		Low	Medium	High	Low	Medium	High
1	NVQs	135	59	9	184	76	15
	VRQs	0	4	4	0	0	0
2	NVQs	5	2	0	0	0	0
	VRQs	18	2	0	0	0	0
3	GCE A level in computer studies/computing	408	1461	1669	506	1449	1543
	GCE A level in ICT	2141	4387	2377	2338	4159	2137
	GCE AS level in computer studies/computing	1327	2702	2174	1509	3029	2589
	GCE AS level in ICT	5218	6603	2877	5930	7359	3201
	Applied GCE A level in ICT	4014	4601	1680	3687	3837	1545
	Applied GCE A level Double Award in ICT	640	327	82	395	179	37
	Applied GCE AS level in ICT	6523	5489	1943	6871	5693	1866
	Applied GCE AS level Double Award in ICT	617	235	48	514	198	43
	Applied GCE A level / AS level combined in ICT	10	10	2	23	10	1
	Key Skill	482	1041	1584	132	179	182
	NVQs	165	53	13	29	6	1
	VRQs	879	460	187	5170	1777	520
	BTEC National Award for IT practitioners	2546	743	161	1510	625	125
	BTEC National Certificate for IT practitioners	1809	291	32	1652	250	51
	BTEC National Diploma for IT practitioners	3522	801	110	4228	773	94
	OCR National Certificate in ICT	822	514	150	1764	1087	290
	OCR National Diploma in ICT	147	53	13	328	112	16
	OCR National Extended Diploma in ICT	34	9	0	34	11	0
	IB (standard level) in computer science	0	1	5	0	2	1
	IB (standard level) in IT in a global society	1	6	4	1	8	3
	IB (higher level) in computer science	0	5	15	4	12	22
	IB (higher level) in IT in a global society	12	15	4	15	12	8
	BCS	4	4	2	8	3	11
Principal Learning (Diploma)	3	1	0	0	0	0	
<b>All levels</b>		<b>31482</b>	<b>29879</b>	<b>15145</b>	<b>36832</b>	<b>30846</b>	<b>14301</b>

Entries by school type

Level	Qualification	2010						
		Comprehensive	Grammar	Independent	Sixth Form College	Academy	FE/Tertiary College	Other
1	NVQs	69	5	0	13	27	83	7
	VRQs	4	0	0	3	0	2	0
2	NVQs	0	0	0	0	1	2	0
	VRQs	0	0	0	4	2	0	0
3	GCE A level in Computer Studies/Computing	847	218	208	1482	356	475	16
	GCE A level in ICT	3478	455	707	2086	1101	1144	155
	GCE AS level in Computer Studies/Computing	1528	226	205	2725	589	1003	48
	GCE AS level in ICT	5387	487	686	4085	1408	2606	344
	Applied GCE A level in ICT	5984	183	392	1706	1647	487	24
	Applied GCE A level Double Award in ICT	442	11	0	324	130	158	1
	Applied GCE AS level in ICT	7995	255	277	2797	1963	710	40
	Applied GCE AS level Double Award in ICT	384	8	1	248	116	166	0
	Applied GCE A level / AS level combined in ICT	19	0	0	2	1	0	0
	Key Skill	55	29	51	2429	66	202	4
	NVQs	17	0	2	8	3	4	1
	VRQs	212	2	43	255	45	76	12
	BTEC National Award for IT practitioners	888	3	5	256	307	88	12
	BTEC National Certificate for IT practitioners	216	4	1	265	59	101	1
	BTEC National Diploma for IT practitioners	59	1	1	109	15	93	1
	OCR National Certificate	998	2	5	18	263	47	2
	OCR National Diploma	108	0	0	15	31	0	0
	OCR National Extended Diploma	5	0	0	0	2	0	0
	IB (Standard level) in Computer Studies/Computing	3	1	2	0	0	0	0
	IB (Standard level) in ICT	3	1	2	0	1	0	0
IB (Higher level) in Computer Studies/Computing	0	10	2	0	1	0	0	
IB (Higher level) in ICT	15	0	0	0	7	0	0	
BCS	1	0	0	2	0	1	0	
Principal Learning (Diploma)	0	0	0	0	0	0	0	
<b>All levels</b>		28717	1901	2590	18832	8141	7448	668

Level	Qualification	2011						
		Comprehensive	Grammar	Independent	Sixth Form College	Academy	FE/Tertiary College	Other
1	NVQs	73	14	0	12	47	125	1
	VRQs	0	0	0	0	0	0	0
2	NVQs	0	0	0	0	0	0	0
	VRQs	0	0	0	0	0	0	0
3	GCE A level in Computer Studies/Computing	860	188	201	1410	403	457	24
	GCE A level in ICT	3340	376	626	2079	1047	1115	169
	GCE AS level in Computer Studies/Computing	1852	377	251	2854	840	977	81
	GCE AS level in ICT	6393	672	669	4155	2004	2449	357
	Applied GCE A level in ICT	5107	167	358	1466	1471	342	9
	Applied GCE A level Double Award in ICT	249	14	3	178	97	74	0
	Applied GCE AS level in ICT	8168	258	269	2626	2375	691	35
	Applied GCE AS level Double Award in ICT	310	14	1	250	111	81	0
	Applied GCE A level / AS level combined in ICT	17	0	1	13	2	0	0
	Key Skill	105	0	27	190	10	57	1
	NVQs	3	0	0	0	0	0	0
	VRQs	1196	14	36	1211	301	416	3
	BTEC National Award for IT practitioners	1163	0	8	122	260	62	7
	BTEC National Certificate for IT practitioners	216	4	15	37	62	8	1
	BTEC National Diploma for IT practitioners	61	0	7	8	21	10	0
	OCR National Certificate	1911	8	9	88	541	36	0
	OCR National Diploma	213	0	0	7	24	0	0
	OCR National Extended Diploma	18	0	0	0	0	0	0
	IB (Standard level) in Computer Studies/Computing	1	0	1	0	0	0	0
	IB (Standard level) in ICT	4	1	3	0	0	0	0
	IB (Higher level) in Computer Studies/Computing	4	13	5	0	2	0	0
	IB (Higher level) in ICT	11	2	1	0	7	0	0
	BCS	0	0	1	14	0	1	0
Principal Learning (Diploma)	0	0	0	0	0	0	0	
<b>All levels</b>		31275	2122	2492	16720	9625	6901	688

## References

- CIE (2011). *Cambridge IGCSE: Update for schools ~ Issue 3, 2011*. Cambridge: University of Cambridge International Examinations. Available at: [http://www.cie.org.uk/docs/qualifications/igcse/newsletters/IGCSE\\_newsletter\\_v3\\_oct\\_2011.pdf](http://www.cie.org.uk/docs/qualifications/igcse/newsletters/IGCSE_newsletter_v3_oct_2011.pdf).
- The Royal Society. (2009). *Current ICT and Computer Science in schools - damaging to UK's future economic prospects?* London: The Royal Society.
- The Royal Society. (2012). *Shut down or restart? The way forward for computing in UK schools*. London: The Royal Society.
- Vidal Rodeiro, C.L. (2010). *Uptake of ICT and computing qualifications in schools in England 2007-2009*. Statistical Report Series no 25. Cambridge: Cambridge Assessment.

## Appendix A

These tables present, for each Key Stage, the proportions of entries in each type of school in the two years of study.

### Key Stage 4

Year	School type						
	Comprehensive	Grammar	Independent	Secondary Modern	Academy	College	Other
2010	72.15	1.96	3.80	3.71	16.22	0.26	1.90
2011	72.30	1.85	3.41	3.71	16.38	0.24	2.11

### Key Stage 5

Year	School type						
	Comprehensive	Grammar	Independent	Academy	Sixth Form College	FE/Tertiary College	Other
2010	42.05	2.78	3.79	11.92	27.57	10.91	0.98
2011	44.79	3.04	3.57	13.78	23.95	9.88	0.99

## Appendix B

The following table presents, from 2010 to 2011, the mid-year population estimates for England (estimated resident population) by age.

Year	Age			
	15	16	17	18
2010	615200	633000	646000	674700
2011 <sup>‡</sup>				

Source: Office for National Statistics

---

<sup>‡</sup> The annual mid-year population estimates for 2011 were not available at the time of publishing this report. Check <http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Population> for updates.