

*Determination of subject and level*

**Table 13.1 Proportion of pupils taking selected subjects<sup>a</sup>, by sex**

*Column percentages*

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	Male	Female
Physics	51	20
Chemistry	29	25
Biology	25	55
Computing	26	14
History	33	36
Geography	55	32
Social studies	14	16
French	19	32
German	5	7
Typing	3	38
Home economics	5	20
Graphical communication	44	5
Craft design and technology	8	1
Art	27	30
Drama	10	12
Base: pupils	1,005	834

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a The subjects selected for these analyses are the more common ones.

**Table 13.2 Proportion of pupils taking selected subjects, by country of origin**

*Column percentages*

	UK/Eire	India	Pak- istan	Bangla- desh	African Asian	West Indies	Other
Physics	37	43	29	20	54	30	32
Chemistry	21	43	31	33	44	16	33
Biology	36	30	44	48	38	38	34
Computing	21	21	20	3	21	22	20
History	35	35	37	16	29	35	29
Geography	49	45	36	28	41	36	42
Social studies	15	16	23	6	13	30	18
French	26	23	15	6	31	23	22
German	7	4	1	--	7	9	6
Typing	19	21	22	39	21	10	13
Home economics	14	8	5	2	7	12	18
Graphical communication	28	21	11	3	26	27	21
Craft design and technology	9	7	4	1	11	11	7
Art	29	21	22	16	26	24	24
Drama	11	6	3	6	9	17	9
Textiles	3	1	3	30	4	5	2
Base: pupils	817	159	109	64	68	94	348

**Table 13.3 Proportion of pupils taking selected subjects, by sex and country of origin**

*Column percentages*

	Males				Females			
	UK/ Eire	South Asian	West Ind.	Other	UK/ Eire	South Asian	West Ind.	Other
Physics	51	54	39	55	19	22	16	18
Chemistry	23	42	20	36	20	34	11	25
Biology	24	31	15	20	53	47	71	43
Computing	26	25	30	26	15	14	13	4
History	32	36	24	27	36	29	50	37
Geography	60	52	35	54	35	27	34	29
French	19	14	24	20	36	25	21	43
Social studies	17	21	31	20	12	14	26	14
Typing	4	4	--	1	38	44	24	24
Graphical communication	45	35	41	47	7	1	5	10
Metalwork	20	14	15	23	1	--	3	2
Woodwork	25	16	13	23	3	3	5	4
Home economics	6	1	4	3	23	11	24	18
Childcare	-	-	-	-	25	12	18	18
Art	28	21	24	22	32	22	26	33
Drama	9	7	19	12	12	5	16	16
Basic skills	1	7	19	12	12	5	16	16
Base: pupils	437	202	54	74	360	187	38	51

**Table 13.4 Proportion of pupils taking a subject in each group, by school**

Column percentages

	School							
	12	14	15	21	22	23	24	25
Science I	61	75	63	76	50	88	79	70
Science II	18	17	16	10	37	10	14	24
Humanities	81	89	79	99	99	87	88	97
European languages	51	11	10	57	20	25	35	41
Asian languages	--	11	46	--	--	--	--	--
Commerce	-	-	51	25	59	39	28	13
Practical I	52	71	-	36	42	46	35	37
Practical II	-	33	8	25	33	47	26	18
Creative	48	40	48	44	28	89	65	47
Remedial/ESL	8	33	27	2	3	--	--	3
Social, careers	72	44	54	29	5	15	12	9
Physical	79	69	8	55	100	82	52	88
Base: pupils	121	75	106	134	155	171	170	176

As maths and English were part of the compulsory core in all schools, they are not included in the table.

	31	32	33	34	35	41	42	43	44	45
Science I	81	72	65	71	46	74	75	77	96	85
Science II	13	26	37	26	41	24	35	51	4	16
Humanities	89	93	92	86	84	84	86	90	89	87
European languages	25	28	58	27	14	30	11	26	11	8
Asian languages	2	--	--	--	--	20	15	8	4	2
Commerce	24	27	39	44	32	34	18	--	4	10
Practical I	20	45	50	57	32	1	49	54	50	74
Practical II	24	61	36	39	20	60	10	48	32	46
Creative	48	52	36	18	55	20	59	50	29	58
Remedial, ESL	8	--	--	--	--	--	10	9	--	15
Social, careers	51	52	9	84	54	52	1	81	21	46
Physical	64	79	22	92	79	57	40	74	89	84
Base: pupils	170	92	107	77	56	94	80	90	28	156

As maths and English were part of the compulsory core in all schools, they are not included in the table.

**Table 13.5 Level of course taken, by subject groups**

*Row percentages*

	Non-exam	CSE/ non-exam	CSE	CSE/O	16+	O level	Other	Base <sup>a</sup>
Maths	1	2	38	28	6	21	3	1,537
English	2	2	39	27	9	22	*	1,570
Science I	1	1	25	28	9	35	*	1,906
Science II	16	7	61	8	1	4	2	340
Humanities	10	3	37	20	4	25	1	2,472
European languages	1	1	29	23	6	40	1	579
Asian languages	3	3	31	47	--	16	--	73
Commerce	4	2	42	18	*	12	20	461
Practical I	3	2	39	25	5	23	3	1,152
Practical II	5	3	48	18	3	19	4	646
Creative	5	2	35	21	10	26	1	947
Remedial, ESL	23	5	39	8	--	8	18	93
Social education, careers	66	3	22	3	*	1	5	641
Physical education	77	1	13	4	*	2	3	967

a The base is subjects taken (and falling within each group).

**Table 13.6 Percentage of subjects for which pupils will directly enter an O level course, by country of origin**

	UK/Eire		South Asian		West Indies	
	Per cent	Base	Per cent	Base	Per cent	Base
Maths	22	657	14	334	14	73
English	26	668	12	351	15	73
Science I	33	748	31	482	24	74
Science II	4	143	5	80	12	17
Humanities	28	1,051	19	516	20	117
European languages	36	291	36	80	12	25
Asian languages	--	1	13	75	--	--
Commerce	9	185	10	123	11	9
Practical I	24	531	15	175	15	46
Practical II	21	297	18	106	14	22
Creative	23	417	16	153	28	51
Social education, careers	--	286	1	146	--	35
Physical education	3	427	3	154	2	52

This table shows only the 'O level' column from Table 13.5, but with analysis by country of origin. To simplify the table, 'other' minorities are not shown. The base is in each case the subjects (in the relevant subject group) taken by pupils belonging to the relevant ethnic group.

**Table 13.7 Mean course level score<sup>a</sup>, by school**

School	Mean	Base <sup>b</sup>	Standard deviation	Standard error
12	3.34	91	0.37	0.04
14	3.31	50	0.45	0.06
15	3.10	81	0.40	0.04
21	3.47	116	0.71	0.07
22	3.64	73	0.54	0.06
23	3.65	145	0.67	0.06
24	3.40	158	0.65	0.05
25	3.73	111	0.53	0.05
31	3.12	150	0.78	0.06
32	3.38	83	0.56	0.06
33	3.85	106	0.75	0.07
34	3.42	73	0.66	0.08
35	3.41	13	0.79	0.22
41	3.32	83	0.62	0.07
42	3.34	57	0.54	0.07
43	3.07	50	0.54	0.08
44	3.87	20	0.60	0.14
45	3.33	147	0.55	0.05
Total	3.40	1,756	0.66	0.02

a For an explanation of the course level score, see the text.

b The base for each mean is the number of pupils for whom the course level data are complete.

**Table 13.8 Correlation between course level score and second-year test scores, by school**

School	Maths			Reading		
	r	F	Base	r	F	Base
12	0.16	2.10	82	0.15	1.81	81
14	0.30	4.05	43	0.18	1.37	43
15	0.42	3.42	18	0.44	12.72 <sup>a</sup>	55
21	0.57	50.05 <sup>a</sup>	106	0.65	81.93 <sup>a</sup>	114
22	0.31	7.22 <sup>a</sup>	70	0.31	7.33 <sup>a</sup>	71
23	0.58	62.89 <sup>a</sup>	126	0.58	65.90 <sup>a</sup>	132
24	0.66	104.19 <sup>a</sup>	137	0.64	100.59 <sup>a</sup>	147
25	0.37	11.57 <sup>a</sup>	75	0.36	14.47 <sup>a</sup>	101
31	0.59	67.28 <sup>a</sup>	128	0.62	79.92 <sup>a</sup>	130
32	0.66	60.19 <sup>a</sup>	80	0.56	21.52 <sup>a</sup>	71
33	0.77	128.16 <sup>a</sup>	90	0.80	172.44 <sup>a</sup>	99
34	0.68	55.90 <sup>a</sup>	67	0.29	4.68 <sup>a</sup>	53
35	0.53	3.90	12	0.42	2.14	12
41	0.58	38.52 <sup>a</sup>	78	0.44	14.16 <sup>a</sup>	61
42	0.33	6.72 <sup>a</sup>	57	0.42	98.04 <sup>a</sup>	52
43	-0.02	0.01	46	0.28	3.40	42
44	0.43	3.85	19	0.39	3.04	19
45	0.40	25.33 <sup>a</sup>	135	0.38	22.44 <sup>a</sup>	135
All schools	0.43		1,369	0.42		1,418

a The correlation coefficient is significantly different from zero at better than the 95 per cent level of confidence.

**Table 13.9 Variance components model: outcome – course level score**

<b>FIXED PART</b>	Estimate	Standard error
<b>Sex</b>		
Male	0.000	0.000
Female	-0.017	0.036
Socio-economic group	0.031	0.014
Second-year reading score	0.014	0.001
<b>Country of origin</b>		
UK/Eire	0.000	0.000
South Asian	0.225	0.044
Other	0.082	0.053
Grand mean	2.222	
Standard deviation = 0.54		

**RANDOM PART**

The best fit model (fixed part estimates above) has socio-economic group, second-year reading score and country of origin in the random part. There is a reduction in deviance, significant at better than the 99.9 per cent level of confidence, when the grand mean is placed in the random part. There are further significant reductions in deviance when socio-economic group, second-year reading score and country of origin are added to the random part.

	Deviance	Decrease of deviance	Degrees of freedom	Significant at 95% level
Initial	1475.0			
Grand mean in random part1	392.1	82.9		Yes
<b>Additional variables fitted in turn in random part</b>				
Socio-economic group	1384.4	7.7	2	Yes
Sex	1390.7	1.4	3	No
Second-year reading score	1349.6	42.5	2	Yes
Country of origin	1370.9	21.2	4	Yes

**Table 13.10 Variance components model: outcome – course level score: examples of scores predicted by the model**

*Predicted course level scores*

	Second year reading score		
	40	75	110
<b>Male, UK/Eire</b>			
Unskilled family	2.81	3.30	3.79
Skilled family	2.90	3.40	3.89
Professional or managerial family	2.97	3.46	3.95
<b>Male, from professional or managerial family</b>			
UK/Eire	2.97	3.46	3.95
South Asian	3.19	3.68	4.17
	Second-year maths score		
	15	30	45
<b>Male, UK/Eire</b>			
Unskilled family	2.97	3.13	3.30
Skilled family	3.19	3.35	3.52
Professional or managerial family	3.34	3.50	3.67
<b>Male, professional or managerial family</b>			
UK/Eire	3.34	3.50	3.67
South Asian	3.42	3.59	3.75

The first part of the table shows estimates derived from the fixed part of the variance components model shown in Table 13.9. The second part of the table shows estimates derived from another variance components model, in which the second-year maths score took the place of the second-year reading score as an independent variable.