

## Suffolk maintained schools: attainment patterns in relation to sixth form size

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This research looks only at data based on Year 13 leavers summer 2005, and any conclusions it suggests would need to be tested more thoroughly against comparable data for at least two previous years. The findings should be read in conjunction with the attached dataset *Value Added Factors 2005*.

- In 2004/5 there were just over **6200** students in Suffolk maintained schools sixth forms, of whom **2558** (41%) were in Year 13.
- The average size of sixth form (aggregating numbers for Y12 & Y13) in the 30 relevant Suffolk high/upper schools was **207**.
- The average size of cohort in Y13 – i.e. students completing two years of post-GCSE study via A/AS/VCE qualifications – was **85**.

The figures on average cohort size however hide significant differences in numbers enrolled at different schools: in the smallest sixth form post 16 numbers in 2004/5 amounted in total to 74, with 22 in Y13, whilst at the other extreme in the largest the total numbers were 514, with 227 in Y13.

For this research sixth forms were divided into three size-based groups: those with Y13 numbers of 70 or fewer (group A), those between 71-100 (group B), and those with more than 100 (group C). The focus was on Y13 simply because attainment by the end of Y13 is recognised as a measure of sixth form effectiveness and it has the advantage of being readily available for analysis.

**Group A (Y13 <70)** consisted of 14 schools, almost 50% of the total, yet containing only 30.5% of all post 16 school students and just under 28% of Y13 students.

1. The average sixth form size overall was 135, with 50 students in Y13. The smallest Y13 cohort was 22 (Castle Manor), the largest 67 (Hartismere).
2. Year 13 attainment as measured by average points scored per A/AS/VCE entry (one of the key DfES indicators, and published as such in the January SCAAT) was on average 5.2 points (**73.2**) below the Suffolk 2005 average (**78.4**), itself still 1.5 points below the national average (**79.9**).
3. Measuring value added per entry via EPAS data, the average across the 14 sixth forms was **-4.8** – meaning that the 700 Y13 students within the relevant schools on average achieved almost a quarter of a grade per entry poorer than their prior attainment would statistically indicate.
4. The group averages hide some significant differences. So whilst the average points per entry is lower than the county/national figures, four schools within the group have averages that take them to and beyond the national average for points per entry, whilst six have average points per candidate at or above the national average. Similarly with the value added data, five schools either have neutral or positive figures for value added at average points level.

**Group B (Year 13 71-100)** consisted of 7 schools, just under 25% of the total, with 22.5% of all post 16 students and 22.9% of Y13 students.

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1. The average size of sixth form overall was 200, with 84 students in Y13. The smallest Y13 cohort was 71 (Great Cornard), the largest 100 (County Upper).
2. Year 13 attainment was on average 1.3 points (**77.1**) below the Suffolk figure and so 2.8 points below the national.
3. Measuring value added via EPAS, the average per entry across the 7 sixth forms was **-1.0**, a significantly higher outcome than group A.
4. Interestingly, whilst points per entry in this middle group are higher than with the smallest group, points per candidate are actually lower, associated with lower volumes of level 3 qualification-based activity in at least one of the schools – average entries per candidate in group B were 3.3, compared with 3.5 for group A and 3.8 for group C.

**Group C (Year 13 101>)** consisted of 9 schools, 30% of the total, with 47% of all post 16 students and just under 50% of Y13 students.

1. The average size of sixth form overall was 324, with 141 students in Y13. The smallest Y13 cohort was 106 (Kirkley), the largest, by some way, 227 (Northgate).
2. Y13 attainment was on average 3.5 points (**81.9**) better than the Suffolk average and 2 points better than the national.
3. Measuring value added via EPAS, the average per entry across the 9 sixth forms was **-0.5**, marginally better than group B but again significantly better than group A.
4. This group of larger sixth forms is also characterised by much higher average points per candidate – nearly 35 points – than the Suffolk average, which in 2004/5 was itself higher than the national. If Kirkley were excluded from this group, average performance against county/national standards would significantly rise. Linked to the fact that students within this group of schools are on average taking more level 3 qualifications than students in the two smaller groups (see point 4 under group B), this suggests that opportunities for following a broader curriculum with more subject choice at level 3 (including a range of AS courses to complement A-level study) is a feature of larger as opposed to smaller sixth forms.

### Conclusion

The available data suggests there is a direct positive correlation between larger post 16 cohorts and levels of attainment at level 3. This may well be the case, and it would mirror national patterns, but a key gap in the currently available data is the sort of contextualised value added information available up to Key Stage 4. Some of the poorest performing sixth forms are not only small, they also serve communities where indices of multiple deprivation point to low aspirations and all the educational challenges associated with this. Their location, size and levels of attainment are thus directly linked. So it is at least arguable that attainment in Lowestoft, Haverhill and SW Ipswich will not improve simply through the introduction of larger sixth forms.

In terms of attainment, it is also worth remembering that there are smaller sixth forms where points per candidate/per entry/EPAS value added per entry indicate outcomes comparable with those achieved in the largest sixth forms. Eight of the smallest sixth forms in 2005 performed at or above national average in at least one

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of these three attainment measures. This would support the conclusion that whilst size can be a critical factor in determining the effectiveness of provision, it is not necessarily the most decisive. The performance of smaller sixth forms in communities where the socio-economic data does not suggest concentrations of deprivation (e.g. Newmarket, Deben, Stowupland, Leiston) shows that good attainment is not dependent on large Y13 cohorts.

Conversely, it is unquestionable that the weakest sixth forms in terms of attainment measures happen to cluster in groups A & B. In the group C sixth forms, only Kirkley, the smallest of the nine, is below national averages for points per candidate and/or points per entry: six of the other schools are above the national on both measures and in addition produce either neutral or positive residuals for value added on a per entry basis. The nearly 50% of Y13 students in Suffolk who attend the group C schools on average do at least as well at A/AS level as their prior attainment would indicate, and on average they clearly do better against both total and average points than their peers in the group A & B schools – as well as doing better than students nationally.

The other important aspect of larger sixth forms is the greater breadth of choice they ought to be able to provide, given the larger resource base. This is suggested by the data on average A/AS entries per student. Students on average take larger volumes of accredited learning, with the likelihood that a wider subject choice ensures motivation and commitment can be sustained. And the resource base available to larger providers probably also means more opportunity for subject staff to specialise exclusively or largely in post 16 teaching. It is incontestable too that developing and sustaining a distinctive post 16 ethos is more easily achieved in larger sixth forms. So a virtuous circle can be seen appearing, where good outcomes are linked to very focussed teaching and a comprehensive level 3 offer, enhanced by a recognisably “adult” atmosphere possible where post 16 learners work and socialise in significant numbers. These positive factors in turn enhance the reputation of such sixth forms and encourage application from students who might otherwise have attended smaller, and less well performing, sixth forms at their own schools.

These are probably among the critical factors that help explain higher levels of performance in such sixth forms - as well as helping to explain the poorer patterns of attainment in some smaller providers.

PF  
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Sixth forms grouped by size Y13: Value added factors 2005

below Suffolk average     
  va neutral or positive  
 at or above Suffolk average

**GROUP A: Y13 entry fewer than 70**

Name	Y12+13	Y13			av entries	tot ppc	tot ppe
	Pupils	Entered	Points/cand	Points/entry			
Castle Manor Business and Ent	74	22	156.4	48.1	3.3	3440.8	1058.2
The Denes High School	110	34	216.8	63.3	3.4	7371.2	2152.2
Samuel Ward Arts and Technol	113	37	188.9	58.3	3.2	6989.3	2157.1
Orwell High School	105	42	219	70	3.1	9198	2940
<b>Newmarket Upper School</b>	143	46	317	79.7	4.0	14582	3666.2
Westbourne High School	143	46	163.5	55.5	2.9	7521	2553
Mildenhall College of Technolo.	179	47	307.4	72.1	4.3	14447.8	3388.7
Deben High School	125	50	259.2	86.1	3.0	12960	4305
Benjamin Britten High Scho...	160	60	219.5	67.4	3.3	13170	4044
St Benedict's Catholic School	136	61	315.1	76.6	4.1	19221.1	4672.6
<b>Stowupland High School</b>	142	61	294.3	85.3	3.5	17952.3	5203.3
St Alban's Catholic High School	139	64	344.5	77.2	4.5	22048	4940.8
Leiston Community High School	160	65	259.7	81	3.2	16880.5	5265
Hartismere High School	166	67	279	75.4	3.7	18693	5051.8
<b>group averages 2005</b>	<b>135</b>	<b>50</b>			<b>3.5</b>	<b>262.8</b>	<b>73.2</b>

EPAS tot	EPAS av	grp EPAS av
-61	-21	-462.0
-32	-13	-442.0
-35	-11	-407.0
-72	-11	-462.0
11.8	-1.3	-59.8
-56	-12	-552.0
24.9	-5.4	-253.8
-13	5.9	295.0
-30	-5.6	-336.0
19	-6.6	-402.6
3.3	4.1	250.1
41.5	-7.3	-467.2
-15	1.4	91.0
1.3	-2.5	-167.5
		-3375.8
<b>GRP AV</b>		<b>702.0</b>
		<b>-4.81</b>

**GROUP B: Y13 BETWEEN 70 - 100**

Name	Y12+13	Y13			av entries	tot ppc	APC group
	Pupils	Entered	APC	APE			
Great Cornard Upper School an	158	71	281.1	78.3	3.6	19958.1	5559.3
Chantry High School and Sixth	191	76	202.6	65.8	3.1	15397.6	5000.8
Claydon High School	194	76	224.7	78.9	2.8	17077.2	5996.4
Bungay High School	226	79	275.9	78.4	3.5	21796.1	6193.6
Sudbury Upper School & Arts C	222	89	270.1	80.4	3.4	24038.9	7155.6
Stowmarket High School	214	95	232.3	72.4	3.2	22068.5	6878
<b>County Upper S...</b>	194	100	288	84.2	3.4	28800	8420
<b>group averages 2005</b>	<b>200</b>	<b>84</b>			<b>3.3</b>	<b>254.5</b>	<b>77.1</b>

EPAS tot	EPAS av	grp EPAS av
47	4.8	340.8
-55	-14.6	-1109.6
-36	1.3	98.8
-6	-3	-237.0
-4.8	4.3	382.7
-40	-6	-570.0
3.7	5.2	520.0
		-574.3
<b>GRP AV</b>		<b>586.0</b>
		<b>-1.0</b>

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**GROUP C: Y13 100 PLUS**

Name	Y12+13	Y13	APC	APE	av entries	tot ppc	APC group	tot ppe
	Pupils	Entered						
Kirkley Community High School	232	106	212.8	65.2	3.3	22556.8	6911.2	
<b>Farlingaye High School</b>	272	119	395.5	90.8	4.4	47064.5	10805.2	
Sir John Leman High School	297	123	302.2	75.8	4.0	37170.6	9323.4	
<b>Kesgrave High School</b>	272	130	342.2	79	4.3	44486	10270	
<b>Thomas Mills High School</b>	301	131	315	83.6	3.8	41265	10951.6	
Copleston High School	334	135	277.3	79.1	3.5	37435.5	10678.5	
<b>Thurston Community College</b>	361	147	306.5	85.4	3.6	45055.5	12553.8	
<b>King Edward VI Church of En</b>	336	152	314.7	85	3.7	47834.4	12920	
<b>Northgate High School</b>	514	227	342.8	86.5	4.0	77815.6	19635.5	
<b>group averages 2005</b>	<b>324</b>	<b>141</b>			<b>3.8</b>	<b>315.5</b>	<b>81.9</b>	

EPAS tot	EPAS av	grp EPAS av
-32	-8	-848.0
76	3	357.0
13	-5.5	-676.5
72	2.6	338.0
-9	-2.6	-340.6
14	2.9	391.5
-4.5	2.7	396.9
-2.4	-0.9	-136.8
8.4	-0.5	-113.5
		-632.0
<b>GRP AV</b>		<b>1270.0</b>
		<b>-0.5</b>