

## SECTION THREE

### SCHOOL VISITS TO MUSEUMS

#### 3.0 Introduction

This section presents information about the schools, teachers, pupils and school-aged children's visits to the 69 museums in this study. In relevant cases, comparisons are made to the data from the first study in 2003.

Form C provided information about the numbers of school-aged children (5-16 years) visiting the 69 museums in September and October 2003-2005. Contacts with school-aged children have increased between 2003 and 2005 for the months of September and October by 40% overall; in the Phase 1 museums by 47% and in the Phase 2 museums by 29% (although the data for Phase 2 museums is incomplete). The increase is variable across the museums, as might be expected.

The section goes on to present the data concerning the use of the 69 museums by schools during the period September and October 2005, using Q.1-9 in Form A. 1,643 usable Form As were returned to RCMG, which, after identifying those that might have been completed by more than one teacher with a single group, represent 1594 distinct museum visits (single visits). Primary schools make the largest number of visits to museums, as in 2003. The pattern of schools using museums is matched to the distribution of schools in England and it is clear that the relative proportions of schools using museums more or less match the relative proportions of schools in England, with the exception of special schools which form a disproportionately large group within the museum audience (12% of the museum audience compared to 5% of schools in England).

As in 2003, the school addresses were analysed according to their post-codes to ascertain to what extent museums were working with schools in areas of high social deprivation. In 2005, in addition, an analysis using free school meals data was carried out. The results of both analyses in 2005 confirm that museums are working with a disproportionately high level of schools located in areas of high deprivation where children may be at risk of social exclusion.

An analysis of the schools involved in focus groups and case-studies shows how these schools follow a similar pattern in relation to indices of deprivation, thus demonstrating a very strong relationship between the quantitative and the qualitative research.

The pupils who completed Form Bs are also discussed. About half of the pupils are visiting the Phase 1 museums and half are visiting the Phase 2 museums, with slightly more girls than boys overall. Comparing the sample of pupils who completed these pupils' questionnaires in 2003, in 2005 there are a significantly higher number of older pupils who have completed the forms.

### 3.1 Volume of school-aged children visiting or using museums in September and October 2005

Form C provided information about the numbers of school-aged children (5-16 years) visiting museums in September and October 2002–2005. Following advice from MLA, the figures for 2002 were put aside and only the data from 2003-2005 was considered. The categories of use included:

- Visits to Hub museum by school-aged children in educational groups accompanied by teacher(s)
- Visits to the Hub museums by school-aged children with SEN or from SEN schools
- Organised activities at Hub museums involving school-aged children but not visiting with a school e.g. homework clubs, out of school clubs, Brownies
- Outreach activities involving school-aged children which take place in schools (loan boxes count as outreach where facilitated by an education officer or a teacher trained by an education officer)
- Outreach activities not organised by their school but in the context of a youth group or community centre activity.

Not all the museums were able to provide the necessary data and so the data for Phase 2 museums is incomplete. The numerical data has been carefully checked to ensure that the data given to RCMG by the museums has been carefully recorded but it has not been possible to verify the accuracy of the numbers actually provided.

From this information it is possible to see that contacts with school-aged children have increased in both the Phase 1 and Phase 2 museums between 2003 and 2005 for the months of September and October.

**Table 3.1a: Total number of school-aged children based on information provided by Phase 1 and Phase 2 museums for September and October 2003-2005**

<b>Total each year</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Phase 1 museums	72,438	102,247	106,368
Phase 2 museums	45,802	58,763	58,974

Table 3.1b: Number of contacts with school-aged children for the Phase 1 museums, September and October 2003- 2005

Hub	Museum / Museum Service	September				October		
		2003	2004	2005		2003	2004	2005
North East	Tyne and Wear Museums	3431	5819	7478		7633	10994	13834
	Beamish	4468	6729	5908		6444	7475	9804
	Hartlepool Museums	0	501	187		25	1170	635
	The Bowes Museum	208	530	224		569	1201	822
	<b>NE HUB TOTAL</b>	<b>8107</b>	<b>13579</b>	<b>13797</b>		<b>14671</b>	<b>20840</b>	<b>25095</b>
South West	Bristol's Museums, Galleries and Archives	1516	2204	4055		4978	9247	6841
	Russell-Cotes Art Gallery	36	130	142		115	368	583
	Royal Albert Museum and Art Gallery	831	1060	1779		2359	2816	2047
	Plymouth City Museum and Art Gallery	1218	1997	2640		2721	3120	3546
	Royal Cornwall Museum	1072	659	703		1607	1024	1737
	<b>SW HUB TOTAL</b>	<b>4673</b>	<b>6050</b>	<b>9319</b>		<b>11780</b>	<b>16575</b>	<b>14754</b>
West Midlands	Birmingham City Museums and Art Gallery	2758	7160	5896		3336	10780	8132
	Wolverhampton Art Gallery	756	953	1085		1053	1512	1517
	Ironbridge	7548	6359	5713		13216	11133	9034
	Coventry Arts and Heritage	525	808	1031		1337	1057	2080
	Potteries Museums and Art Gallery	824	2814	5049		1854	2627	3866
	<b>WM HUB TOTAL</b>	<b>12411</b>	<b>18094</b>	<b>18774</b>		<b>20796</b>	<b>27109</b>	<b>24629</b>
	<b>Phase 1 museums Total</b>	<b>25191</b>	<b>37723</b>	<b>41890</b>		<b>47247</b>	<b>64524</b>	<b>64478</b>

Table 3.1c: Number of contacts with school-aged children for the Phase 2 museums, September and October 2003– 2005

Hub	Museum / Museum Service	September				October		
		2003	2004	2005		2003	2004	2005
East Midlands	Leicester City Museums	2174	1623	1647		3237	2576	2189
	The Collection, Lincoln	250	425	1233		750	100	438
	<b>EM HUB TOTAL</b>	<b>2424</b>	<b>2048</b>	<b>2880</b>		<b>3987</b>	<b>2676</b>	<b>2627</b>
East of England	Roots of Norfolk	378	456	395		1047	821	1040
	Colchester Castle	4498	5265	5638		7012	7481	7854
	Wardown Park Museum, Luton	683	552	607		969	535	1243
	<b>EE HUB TOTAL</b>	<b>5559</b>	<b>6273</b>	<b>6640</b>		<b>9028</b>	<b>8837</b>	<b>10137</b>
London	Museum of London	1219	2471	3297		4491	10975	9372
	Horniman Museum	1570	1981	2080		3264	3958	<sup>1</sup>
	<b>LO HUB TOTAL</b>	<b>2789</b>	<b>4452</b>	<b>5377</b>		<b>7755</b>	<b>14933</b>	<b>9372</b>
North West	Manchester Art Gallery	296	667	1140		1178	2563	2870
	Bolton Museum and Art Gallery							
	Tullie House Museum and Art Gallery	512	423	327		868	931	1047
	<b>NW HUB TOTAL</b>	<b>808</b>	<b>1090</b>	<b>1467</b>		<b>2046</b>	<b>3494</b>	<b>3917</b>
South East	Milestones, Basingstoke	380	488	290		1496	1388	979
	Brighton Museum and Art Gallery	1925	2066	2075		1857	2137	4045
	<b>SE HUB TOTAL</b>	<b>2305</b>	<b>2554</b>	<b>2365</b>		<b>3353</b>	<b>3525</b>	<b>5024</b>
Yorkshire	York Castle Museum	300	867	603		856	2612	2452
	Ferens Art Gallery	253	64	347		475	316	619
	Leeds Heritage Services	1161	2139	2070		2703	2883	3077
	<b>YO HUB TOTAL</b>	<b>1714</b>	<b>3070</b>	<b>3020</b>		<b>4034</b>	<b>5811</b>	<b>6148</b>
<b>Phase 2 museums total</b>		<b>15599</b>	<b>19487</b>	<b>21749</b>		<b>30203</b>	<b>39276</b>	<b>37225</b>

<sup>1</sup> Horniman Museum figures for October 2005 (4453) were received after the deadline and so are not included in the total figures.

### 3.1.1 Increase in contacts with school-aged children for Phase 1 and 2 museums

The DCMS target for Renaissance in the Regions is to increase the number of contacts between children and regional Hub museums by 25% by 2005/6.

*What did you learn at the museum today?* 2003 study found that based on the figures from the Phase 1 museums between September and October 2002 and 2003 there was an increase in pupil contacts of 28%.

This figure is not directly comparable to the data collected from Form C for the second study. In 2003 Form C was limited to 'pupil' numbers, as opposed to the 2005 data where numbers of 'school-aged children' were collected. The decision was made not to use the figures from 2002.

Using the data supplied to RCMG by the museums involved in the research survey it can be seen that for both the Phase 1 and the Phase 2 museums there has been an impressive increase in the amount of contact with school-aged children between 2003 and 2005.

Overall it can be calculated that the Phase 1 museums have increased their number of contacts with school-aged children for the months of September and October, between the years 2003 and 2005 by 47%. These have increased from 72438 contacts with school-aged children in 2003 to 106368 contacts in 2005, an increase of 33930 overall.

The rate of percentage increase for individual museums is highly variable; see Table 3.1.1a following.

It was more problematic to calculate rates of percentage change for the Phase 2 museums in terms of contact with school-aged children as Bolton Museum's and Horniman Museum's figures for October 2005 were not available.

Overall it can be estimated that the Phase 2 museums have increased their number of contacts with school-aged children for the months of September and October, between the years 2003 and 2005 by 29%. They increased from 45802 contacts with school-aged children in 2003 to 58974 contacts in 2005, an increase of 13172 overall.

Similar to the Phase 1 museums, the rate of percentage increase for individual museums is highly variable; see Table 3.1.1b following.

If the figures for the Phase 1 and 2 museums are combined, the overall percentage increase for September to October 2003– 2005 is estimated at 118240 contacts with school-aged children in 2003 to 165342 contacts in 2005, an increase of 47102 contacts (40%).

**Table 3.1.1a: Percentage change in number of contacts with school-aged children for the Phase 1 museums 2003-2005**

Museum	Total contacts with school-aged children			Percentage change for each year		Cumulative % change 2003-2005
	2003	2004	2005	2003-2004	2004-2005	
Tyne and Wear Museums	11064	16813	21312	52%	27%	93%
Beamish	10912	14204	15712	30%	11%	44%
Hartlepool Museum	25	1671	822	6584%	-51%	3188%
The Bowes Museum	777	1731	1046	123%	-40%	35%
<b>Total</b>	<b>22778</b>	<b>34419</b>	<b>38892</b>	<b>51%</b>	<b>13%</b>	<b>71%</b>
Bristol's Museums and Art Gallery	6494	11451	10896	76%	-5%	68%
Russell-Cotes Art Gallery	151	498	725	230%	46%	380%
Royal Albert Museum	3190	3876	3826	22%	-1%	20%
Plymouth Museum and Art Gallery	3939	5117	5760	30%	13%	46%
Royal Cornwall Museum	2679	1683	1727	-37%	3%	-36%
<b>Total</b>	<b>16453</b>	<b>22625</b>	<b>24073</b>	<b>38%</b>	<b>6%</b>	<b>46%</b>
Birmingham Museums and Art Gallery	6094	17940	14028	194%	-22%	130%
Wolverhampton Art Gallery	1809	2465	2602	36%	6%	44%
Ironbridge Museums Trust	20764	17492	14747	-16%	-16%	-29%
Coventry Museums	1862	1865	3111	0.2%	67%	67%
Potteries Museums and Art Gallery	2678	5441	8915	103%	64%	233%
<b>Total</b>	<b>33207</b>	<b>45203</b>	<b>43403</b>	<b>36%</b>	<b>-4%</b>	<b>31%</b>
<b>Phase 1 museums Total</b>	<b>72438</b>	<b>102247</b>	<b>106368</b>	<b>41%</b>	<b>4%</b>	<b>47%</b>

**Table 3.1.1b: Percentage change in number of contacts with school-aged children for the Phase 2 museums 2003-2005**

Museum	Total contacts with school-aged children			Percentage change for each year		Cumulative % change
	2003	2004	2005	2003-2004	2004-2005	2003-2005
Leicester Museums	5411	4199	3836	-22%	-9%	-29%
The Collection	1000	525	1671	-48%	218%	67%
<b>Total</b>	<b>6411</b>	<b>4724</b>	<b>5507</b>	<b>-26%</b>	<b>17%</b>	<b>-14%</b>
Roots of Norfolk	1425	1277	1435	-10%	12%	0.7%
Colchester Castle	11510	12746	13492	11%	6%	17%
Luton Museums	1652	1087	1850	-34%	70%	12%
<b>Total</b>	<b>14587</b>	<b>15110</b>	<b>16777</b>	<b>4%</b>	<b>11%</b>	<b>15%</b>
Museum of London	5710	13446	12669	135%	-6%	122%
Horniman Museum	4834	5939	2080 <sup>2</sup>	23%	-	-
<b>Total</b>	<b>10544</b>	<b>19385</b>	<b>14749</b>	<b>84%</b>	<b>-</b>	<b>-</b>
Manchester Art Gallery	1474	3230	4010	119%	24%	172%
Bolton Museum	<sup>3</sup>			-	-	-
Tullie House Museum	1380	1354	1374	-2%	1%	-0.4%
<b>Total</b>	<b>2854</b>	<b>4584</b>	<b>5384</b>	<b>-</b>	<b>-</b>	<b>-</b>
Milestones	1876	1876	1269	0	-32%	-32%
Brighton Museum	3782	4203	6120	11%	46%	62%
<b>Total</b>	<b>5658</b>	<b>6079</b>	<b>7389</b>	<b>7%</b>	<b>22%</b>	<b>31%</b>
York Castle	1156	3479	3055	201%	-12%	164%
Ferens Art Gallery	728	380	966	-48%	154%	33%
Leeds Heritage Services	3864	5022	5147	30%	2%	33%
<b>Total</b>	<b>5748</b>	<b>8881</b>	<b>9168</b>	<b>55%</b>	<b>3%</b>	<b>59%</b>
<b>Phase 2 museums total</b>	<b>45802</b>	<b>58763</b>	<b>58974</b>	<b>28%</b>	<b>0.4%</b>	<b>29%</b>

<sup>2</sup> Incomplete, as figures for October 2005 were unavailable from Horniman Museum.

<sup>3</sup> Figures were unavailable for Bolton Museum.

### 3.1.2 Using Form C to estimate the number of teachers

In the first study the data from Form C was limited to 'pupil' numbers, as opposed to numbers of 'school-aged children'. It was possible to take the average class size and divide the total number of pupils by this to get a rough estimate of numbers of teachers.<sup>4</sup> In the 2005 study, the category of user for Form C has changed from 'pupil' to 'school-aged children' and this may well include children visiting outside a school context. Accordingly, it is not judged possible in this study to calculate a figure for the numbers of teachers using the museums in September and October 2005.

---

<sup>4</sup> During the development of the 2003 study, museums told us they could not provide a figure for the numbers of teachers using their services as this was not recorded.

### 3.2 Numbers of teachers completing Form A, the Teachers' Questionnaire

The Teachers' Questionnaires (Form A) provide information about the schools using all the museums in the study in September and October 2005. One thousand six-hundred and forty-three (1,643) usable Form As were returned within the time-frame. Not all teachers completed the Teachers' Questionnaire (Form A). Museum education staff told us that it was difficult to get all teachers to agree to complete Form A because:

- they didn't have enough time
- they refused to use time they had paid for to complete a questionnaire
- they had completed a questionnaire in 2003 and could not see why it needed to be done again.

However, a total of 1,643 teachers did complete Form A in September and October 2005 in the 69 museums. This can be compared with a total of 936 teachers completing Form A in the same time period in 2003, when only the Phase 1 museums were involved. In 2005, 782 teachers completed Form A in the Phase 1 museums, and 861 teachers completed Form A in the Phase 2 museums.

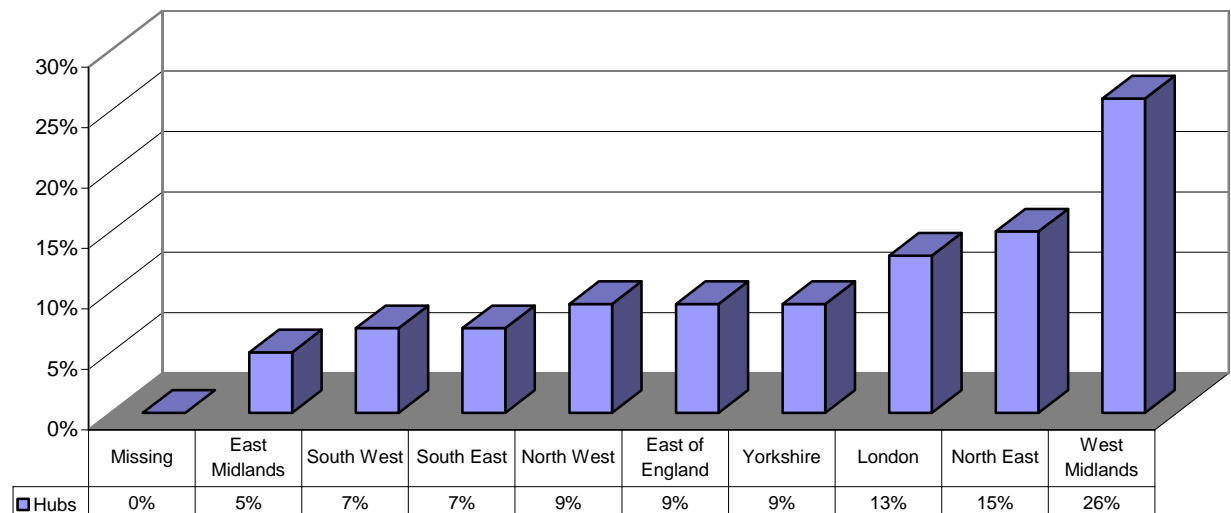
**Table 3.2a: All teachers completing Form A in 2005/2003 by Phase 1 and 2 museums**

	<b>2003</b>	<b>2005</b>
All teachers	936	1,643
All Phase 1 teachers	936	782
All Phase 2 teachers	n/a	861

### 3.2.1 The teachers completing Form A in each of the Hubs

Teachers completing Form A in each of the Hubs are shown below.

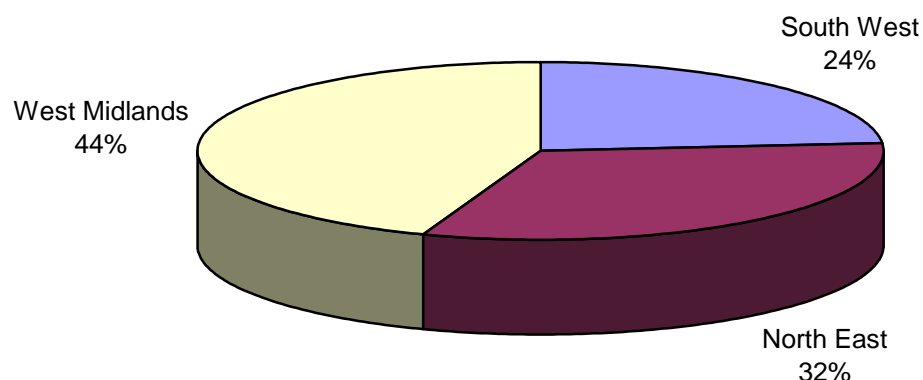
**Fig 3.2.1a: Proportions of teachers completing Form A by Hub, 2005**



Base: all teachers completing Form A, 2005 (1632)

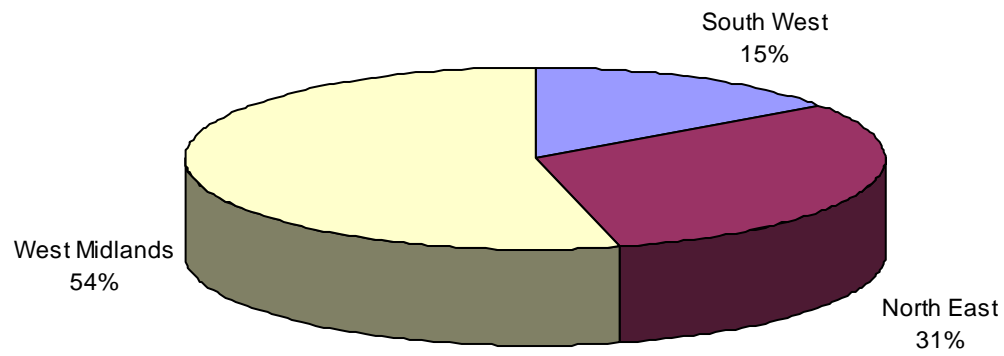
In the first study in 2003, when the teachers in the Phase 1 Hubs were considered according to numbers of teachers responding in each Hub, it became clear that more teachers had responded in the West Midlands (44%) than in the North East (32%) or in the South West (24%). Of the 936 teachers, 417 were from schools in the West Midlands, 220 from schools in the South West and 299 from schools in the North East. This can be compared to the returns from the three Phase 1 Hubs in 2005, which show the West Midlands still providing the largest number of returns from teachers, with the North East's responses remaining at almost the same level and the South West decreasing by 9%.

**Fig 3.2.1b: Teachers completing Form A in the Phase 1 Hubs, 2003**



Base: all teachers completing Form A, 2003 (936)

Fig 3.2.1c: Teachers completing Form A in the Phase 1 Hubs, 2005



Base: all teachers completing Form A, in Phase 1 museums, 2005 (782)

### 3.3 The schools using the 69 museums - the number of 'single visits'

The first part of the questionnaire contained nine questions about the school and the museum visit.

Form A, Q.6-9 asked teachers about the numbers of classes, pupils, teachers and accompanying adults visiting the museum on that day. The returns were scrutinised to take out any that might lead to any double-counting, by checking the museum, date, theme, school and year-group data. Where it was thought that there might be a possibility of more than one teacher accompanying a single group and completing a questionnaire, only one of the relevant questionnaires was used for this part of the analysis. (All Teachers' Questionnaires were, however, included for the rest of the analysis). The number of 'single visits' were calculated on this basis. From the 1,643 forms returned, 1,594 single visits have been identified. This data was then further reviewed to provide a new category - single visits by schools - to allow us to analyse Q.8: 'teachers visiting from the school today' and Q.9: 'total number of accompanying adults with your school'. School visits were calculated by removing multiple visits by a school to the same museum on the same day.

In the table below, the total numbers of pupils, teachers and accompanying adults are based on 1,594 single visits. Number of children in 2005 was calculated using the school visits dataset according to an average class, as teachers' responses to Q.7: 'How many pupils in each class' proved unreliable. Average class size was worked out by removing any class with over 40 pupils as this was assumed to be due to teachers completing the question incorrectly. In order to check that removing these cases did not seriously skew the analysis the mean class size was checked with and without these cases. Removing these cases made very little difference to mean class size which was calculated as 25.67 with all cases included and 24.84 when classes with over 40 pupils were removed. The average class size was then multiplied by Q.6: 'How many classes from your school are visiting this museum today?' to work out the number of children visiting.

**Table 3.3a: Form A, Q.6, 7, 8, 9: 'How many classes from your school are visiting this museum today?', 'How many pupils in each class?', 'How many teachers are at the museum today from your school?', 'What is the total number of accompanying adults with your school (excluding teachers)?', 2005**

	Number of children	Number of accompanying teachers <sup>5</sup>	Number of accompanying adults
<b>TOTAL</b>	36,489	2594	4833

---

<sup>5</sup> The number of teachers here is the number of teachers who were involved in the completion of Form A (teachers extra to those completing the Teachers' Questionnaire, Form A).

The comparative figures from 2003 are shown below.

**Table 3.3b: Form A, Q.8, 9, 10: 'Total number of pupils in the visiting group?', 'Total number of teachers accompanying the visiting group?', 'Total number of accompanying adults with the group?', 2003**

	<b>Number of children</b>	<b>Number of accompanying teachers<sup>6</sup></b>	<b>Number of accompanying adults</b>
<b>TOTAL</b>	27, 273	1613	2883

Base: 843 teachers

---

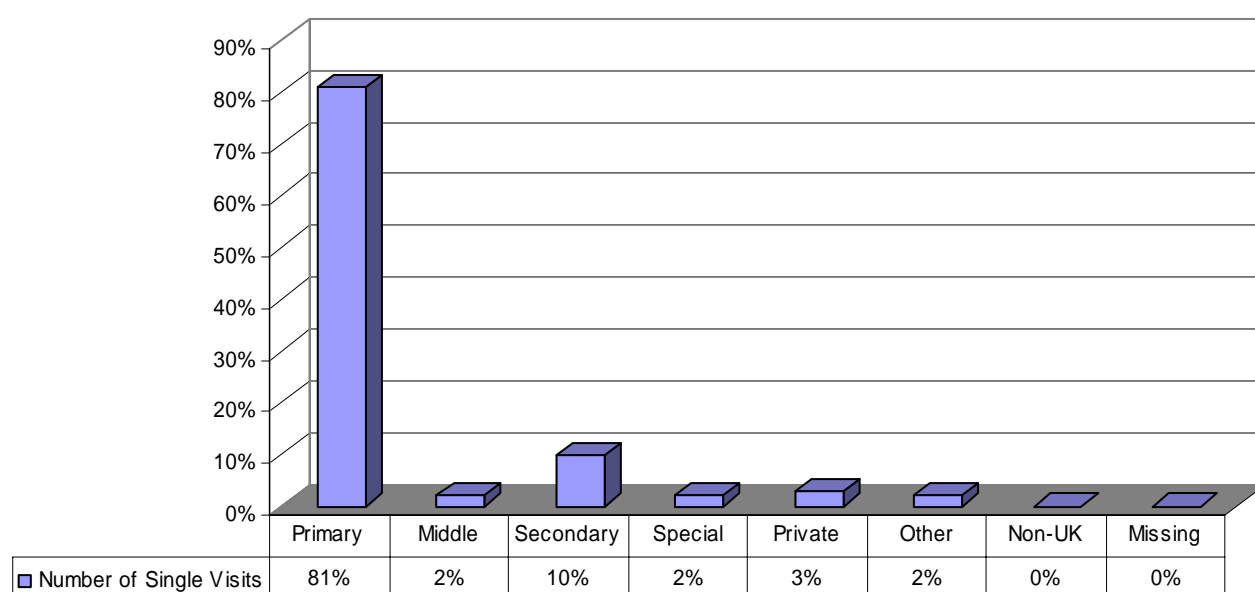
<sup>6</sup> The number of teachers here is the number of teachers who were involved in the completion of Form A (teachers extra to those completing the Teachers' Questionnaire, Form A).

### 3.4 The schools using the 69 museums - the types of school

When a comparison is made of the types of schools using museums in the first study (2003) and this study (2005), the results are remarkably consistent. The vast bulk of school visits are made by primary schools, with far fewer visits made by secondary schools. There are surprisingly few visits made by private schools. The 'other' category includes, for instance, home schoolers and Brownies. Where the figures vary from those in 2003, these variations are significant.<sup>7</sup> Thus the number of secondary schools in this sample involving 69 Phase 1 and Phase 2 museums is slightly smaller than the number visiting the Phase 1 museums in 2003 (10% compared with 13%), and the percentage of primary schools is correspondingly larger in 2005.

However, this collective figure does mask some considerable regional differences which are made clear when the 2005 data is broken down into figures for each Hub (Figure 3.4e below).

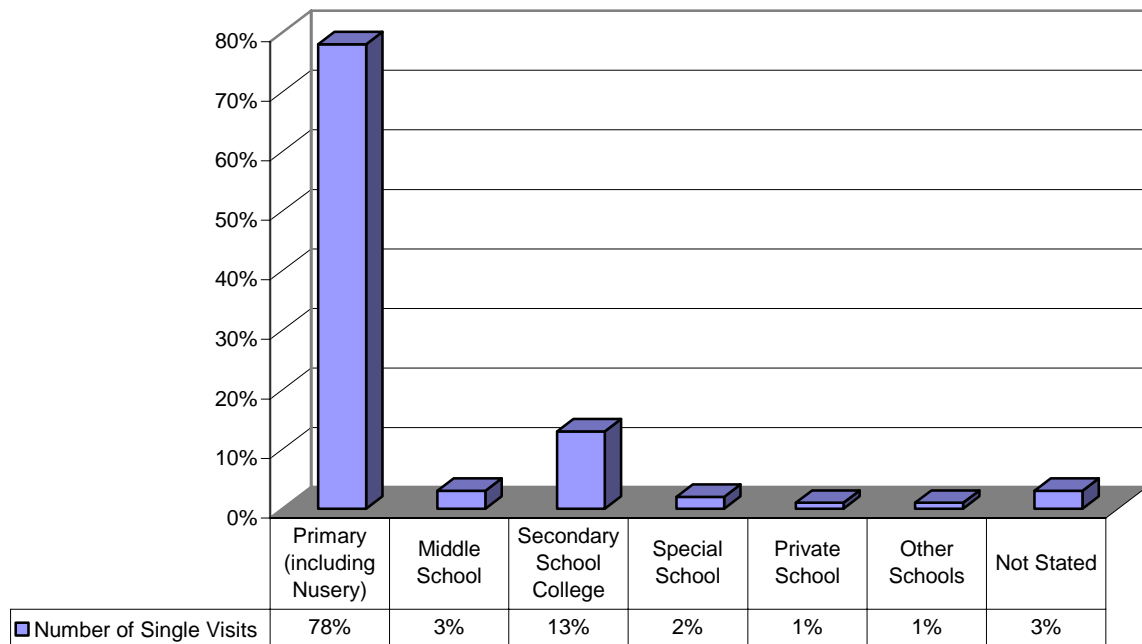
**Fig 3.4a: Form A, Q.5: 'Type of school', by single visit, 2005**



Base: all teachers' responses Q.5: 'Type of school', 2005 (1594)

<sup>7</sup> There is a significant difference in school type between 2003 and 2005 ('missing' and 'Non-UK schools' excluded). Chi square (degrees of freedom 5, n=2409)= 22.1,  $p \leq 0.001$  ( $<0.05$ ).

Fig 3.4b: Form A, Q.6: 'Type of school', single visits, 2003

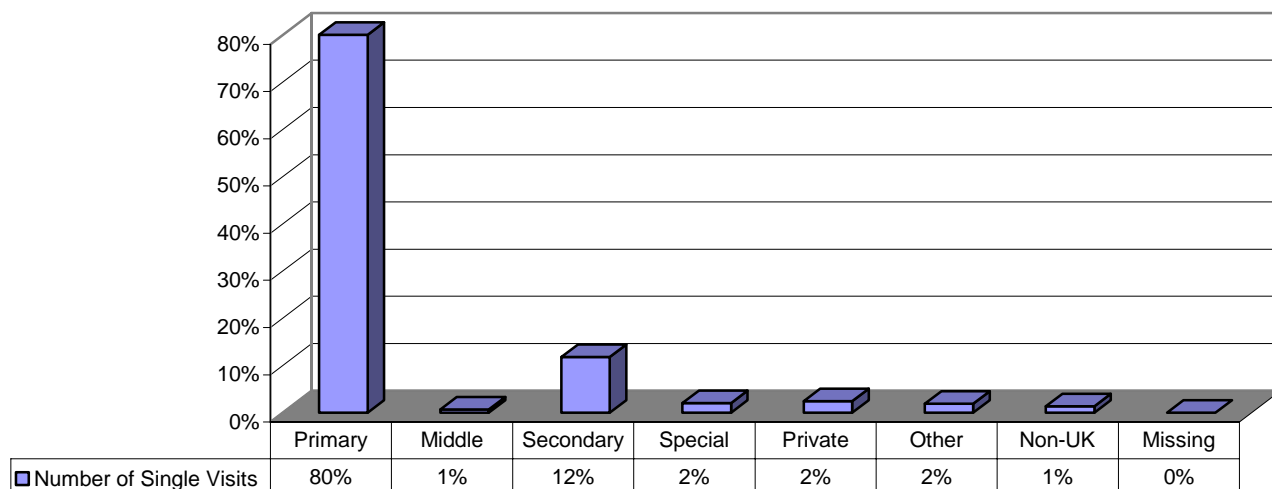


Base: all teachers' responses Q.6: 'Type of school', 2003 (843)

There is some difference in the composition of school type visiting museums between the Phase 1 and Phase 2 museums. The percentage of primary schools visiting museums in this study remains the same in both Phase 1 and Phase 2 museums, but secondary schools make up a slightly smaller portion of schools using museums in Phase 2 museums. While this difference is small at 3% it is statistically significant.<sup>8</sup>

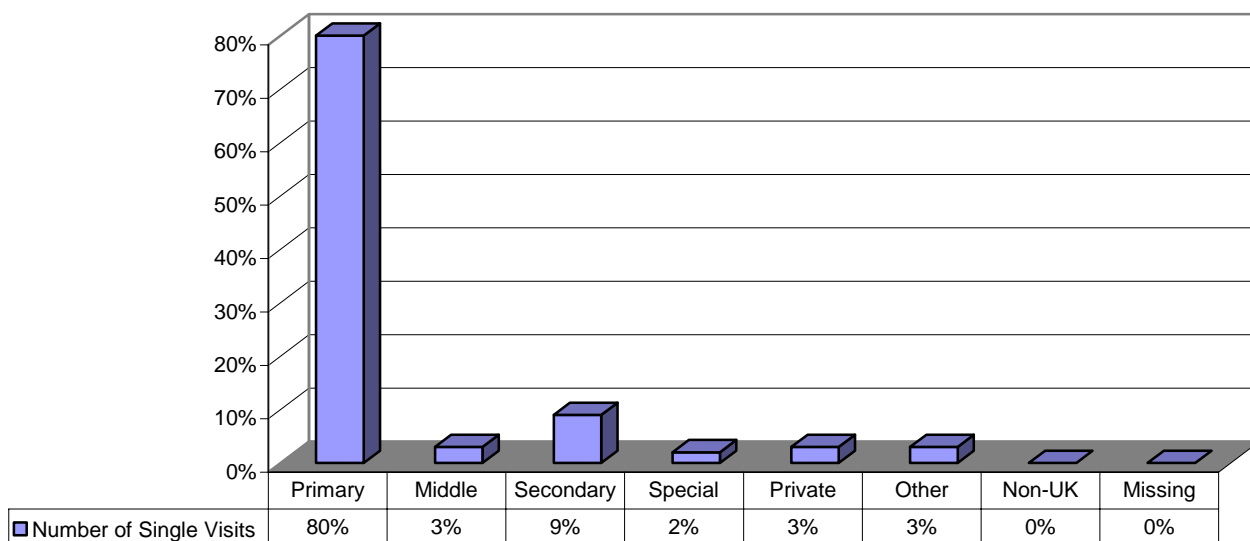
<sup>8</sup> There is a significant difference in school type by Phase 1 and Phase 2 museums in 2005 ('missing' excluded). Chi square (degrees of freedom 6, n= 1590)= 19.17,  $p \leq 0.01$  ( $<0.05$ ).

Fig 3.4c: Form A, Q.5: 'Type of school' by Phase 1 museums, single visits, 2005



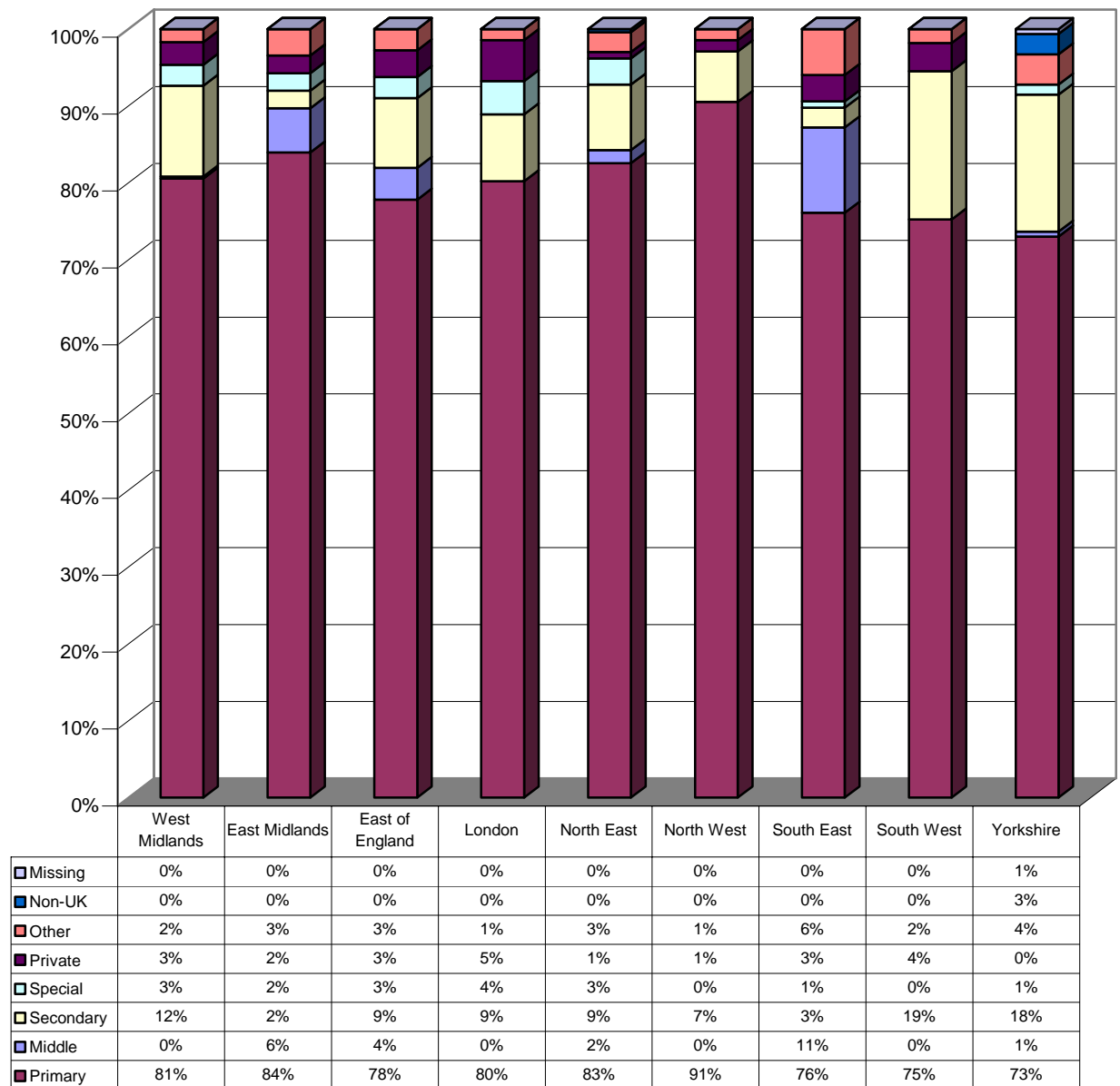
Base: all teachers' responses Q.5: 'Type of school' in Phase1 museums (747)

Fig 3.4d: Form A, Q.5: 'Type of school' by Phase 2 museums, single visits, 2005



Base: all teachers' responses Q.5: 'Type of school' in Phase 2 museums (844)

Fig 3.4e: Form A, Q.5: 'Type of school' considered by Hub, single visits, 2005



Base: all teachers' responses Q.5: 'Type of school' (1594)

Breaking down the figures in relation to the regional Hubs, shows some interesting variations. As with the other comparisons by type of school, primary schools still remain the principle users, making up between 73% and 91% of museum users. Secondary schools are the second largest group of museum users in the majority of Hubs, with particularly high numbers in the South West and Yorkshire compared with the other regions. 'Other' refers to home schoolers and similar groups.

### 3.5 Matching the proportion of school types in this study with the national breakdown of schools by type

From the DfES, *School and Pupils in England January 2005* data,<sup>9</sup> actual numbers of the different types of schools in England can be ascertained. This gives the proportions of the various different types of school in England as percentages of the total number of establishments as follows:

**Table 3.5a: Total number of schools in England, 2005**

2005	Primary	Secondary including City Technology Colleges & Academies	Special	Independent	Total
<b>Number</b>	17,642	3,416	1,122	2,250	24,430 <sup>10</sup>
<b>Percentage</b>	72%	14%	5%	9%	100%

The schools in this research study (2005) were coded in a slightly different way to the DfES, *School and Pupils in England January 2005* data.<sup>11</sup> Nevertheless, it is possible to use the DfES data to consider in broad terms the proportions of primary and secondary schools that museums reached during the research period and to compare these to the overall breakdown of school types in England. The figures used are based on the number of teachers responding to Q.5: 'Type of school' which uses the 'single visit' figures to avoid counting school visits more than once. Figure 3.5b below compares school visits to the 69 museums with the distribution of types of schools in England.

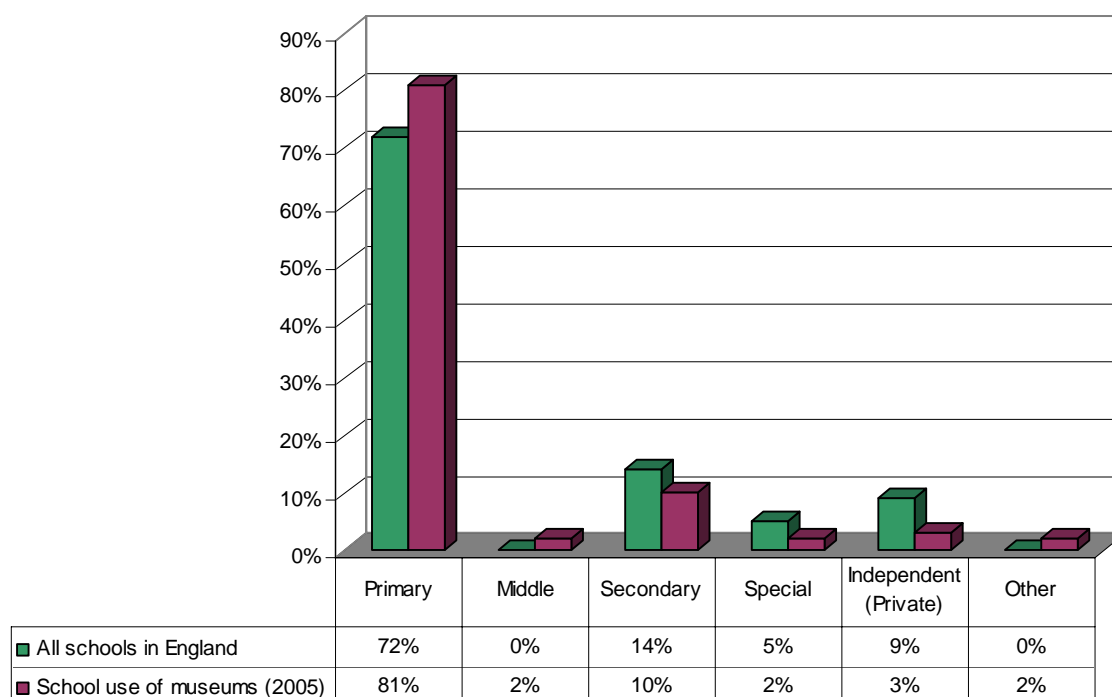
---

<sup>9</sup> Department for Education and Skills, 2005, *Schools and Pupils in England: January 2005 (Final)*, <http://www.dfes.gov.uk/rsgateway/DB/SFR/s000606/index.shtml>

<sup>10</sup> Figures exclude nursery schools and pupil referral units.

<sup>11</sup> For example, in the DfES study, middle schools have not been included in a separate category, as we did in this study, but included where appropriate with primary or secondary schools.

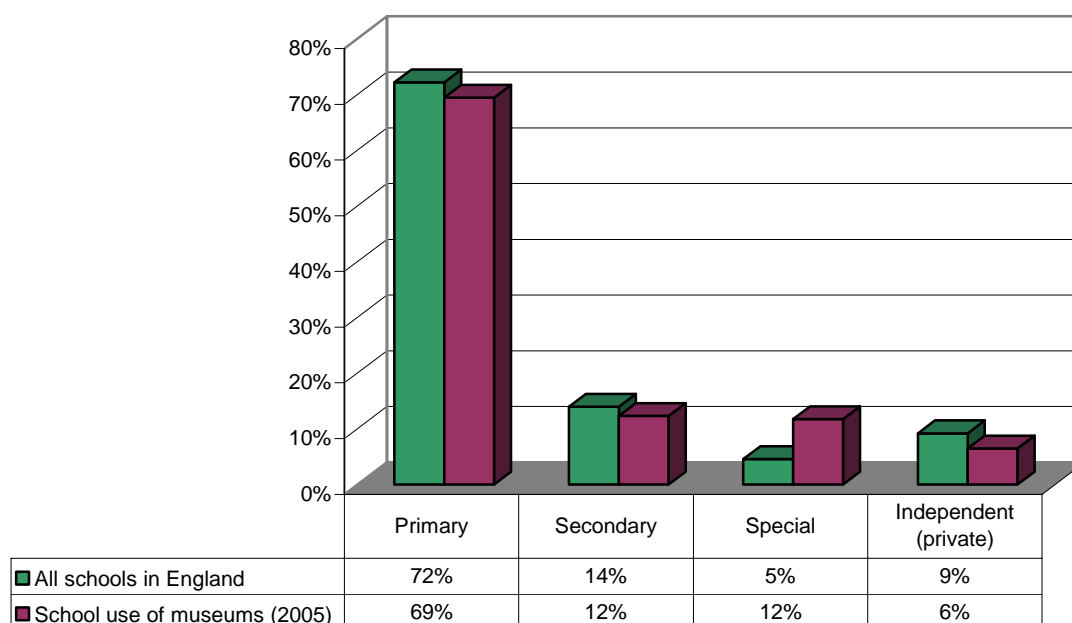
**Fig 3.5b: The distribution of types of schools in England according to the DfES, *School and Pupils in England January 2005*, data matched against school visits to the 69 museums in this study, 2005**



Base: all schools in England (24,430); all teachers answering Q.5: 'Type of school' 2005 (1594)

Another way to consider this issue is to compare the actual schools visiting the 69 museums, looking at schools rather than school visits. In order to do this, we recoded the schools which the teachers who completed Form As came from to match the coding used by the DfES more closely. Middle schools were split 50/50 into the primary and secondary categories, and special schools were considered as a separate category, where previously we had added them to either the primary or secondary categories if this was indicated by the teacher completing the questionnaire. We removed any non-UK schools and any entries in the 'other' category.

Fig 3.5c: The distribution of types of schools in England according to the DfES, *School and Pupils in England January 2005*, data matched against the schools visiting the 69 museums in this study, 2005



Base: all schools in England (24,430); all teachers answering Q.5: 'Type of school', 'non-UK' and 'other' categories excluded, 2005 (835)

In both comparisons, primary schools emerge as the largest category of school users of museums, and comparing the percentages in the two graphs, it can be seen that many primary schools make repeat visits. Secondary schools are very well represented as users of these 69 museums in relation to their numbers in England, possibly rather better than is customarily believed. Special schools figure much more highly in the museum sample than they do in the national figures, reflecting a very high level of use by schools in this category.

### 3.6 Where did the schools come from? What do the post-codes tell us?

*What did you learn at the museum today?* 2003 addressed the issue of social exclusion through an evaluation of the extent to which museums were attracting visits from schools located in areas with differing levels of social deprivation. Drawing on the DETR<sup>12</sup> IMD 2000, the research revealed that a surprisingly high percentage of schools were located in wards classified as highly deprived. Forty-six percent of visits were made from schools located in the 20% most deprived wards in England.

#### 3.6.1 *What did you learn at the museum today?* Second study 2005

Since 2003, new indices of multiple deprivation have been compiled by the Social Disadvantage Research Centre at the University of Oxford for the Office of the Deputy Prime Minister. The Indices of Multiple Deprivation 2004 (IMD 2004), like the IMD 2000, is a composite index derived from a series of other indices. The 2004 indices adopt the same approach and methodology employed in the DETR IMD 2000 but through using up to date information, largely from the 2001 Census, and incorporating additional resources.

The conceptual framework of the IMD 2004 is based on the premise that deprivation is ultimately experienced by individuals. For the IMD 2004 there are seven sub-indices which relate to:

- Income
- Employment
- Health and disability
- Education, skills and training
- Barriers to housing and services
- Living environment
- Crime.

Unlike the IMD 2000, which measured deprivation at ward level, the IMD 2004 measures multiple deprivation at Super Output Area level (SOA). SOAs are aggregates of Census output areas with units of, on average, 1500 individuals. The intent is to identify smaller pockets of deprivation that might otherwise be hidden at ward level.<sup>13</sup>

The advantage is that a more spatially fine grained dataset like the SOAs will provide a more consistent basis for the output of socio-demographic information than provided by the use of electoral wards, which varied considerably in size, area, extent and population size.<sup>14</sup>

---

<sup>12</sup> Former Department for Environment, Transport and the Regions.

<sup>13</sup> Neighbourhood Renewal Unit, 2004, *The English Indices of Deprivation 2004: Report to the Office of the Deputy Prime Minister*, Stationary Office, London.

<sup>14</sup> See p.107 in Hooper-Greenhill, E., Dodd, J., Phillips, M., O'Riain, H., Jones, C., and Woodward, J., 2004, *Inspiration, Identity, Learning: The Value of Museums, The evaluation of the impact of DCMS/DfES Strategic Commissioning 2003-2004: National/Regional Museum Education Partnerships*, DCMS and RCMG, University of Leicester, <http://www.le.ac.uk/museumstudies/rcmg/rcmg.htm>

However the dataset provided by the IMD 2004 is not unproblematic. Social exclusion and deprivation are multi-dimensional problems which even multiple criteria indices may fail to represent adequately.

A further issue is that the levels of deprivation indicated by the school's post-code may not necessarily represent the levels of deprivation experienced by the pupils themselves. Schools do not always draw their pupils in from the immediate area and their catchment area may in fact extend over multiple SOAs. This is felt to be particularly problematic for independent schools, secondary schools, rural schools and other schools where pupils may have to travel. However it was not possible in the timeframe of the research to investigate the catchment area of the schools involved so the decision was made to include all possible schools within the data. It was agreed to also categorise schools in relation to the percentage of pupils known to be eligible for free school meals in order to further understand the relationship between school post-code and deprivation experienced by individual pupils.

A similar analysis was therefore conducted with regard to school visits in September and October 2005. The post-code data collected during 2003 was also re-categorised using the IMD 2004 in order to enable a direct comparison to be made between the two studies.

### **3.6.2 Using the data from Form A**

The teachers were asked to complete the names and addresses of their schools on Form A.

For the purposes of the research we were granted access, through MLA, to a database of schools compiled by DfES.<sup>15</sup> This database is compiled of the following information for each individual school:

- LEA number
- Full school address
- Number and percentage of pupils known to be eligible for free school meals
- Number of pupils on roll
- IMD 2004 rank.

It enabled the matching of data from Form A to the DfES database where school post-codes were complete or matched those given on the database.

Where post-codes or addresses were missing or incomplete, systematic searches of the DfES database and Internet resources were undertaken to confirm school names and addresses. Despite this not all the schools were able to be matched to their IMD 2004 rank and some were therefore excluded. The restriction of the IMD 2004 data to England necessitated the

---

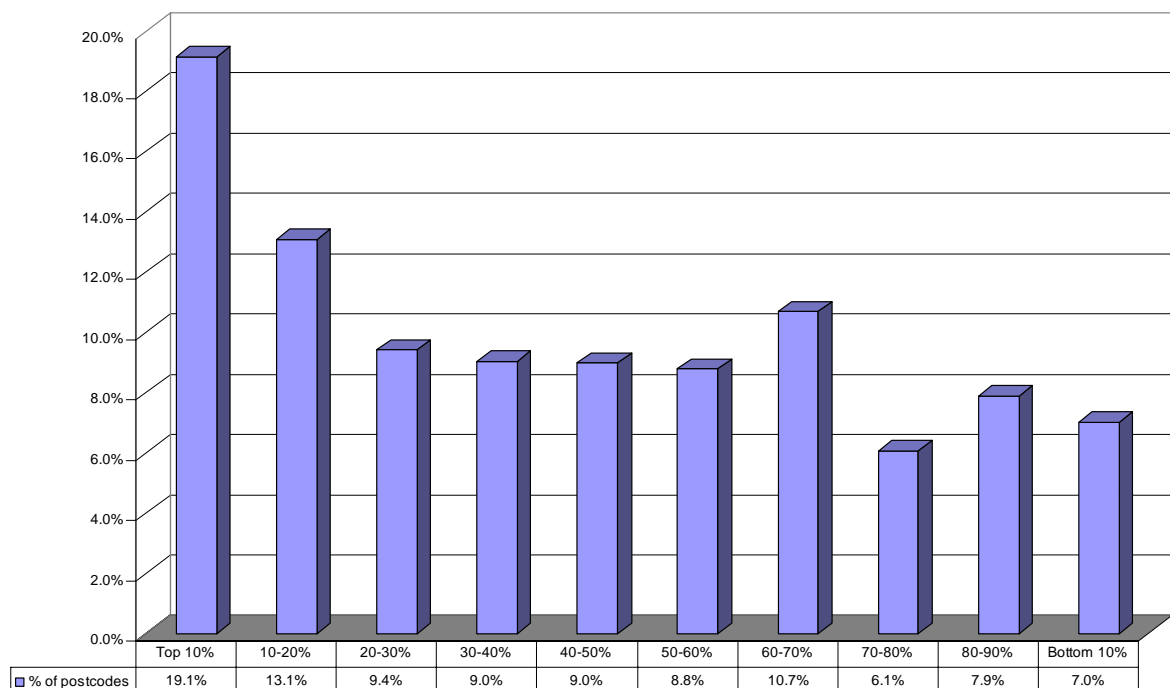
<sup>15</sup> Made available by Nicky Morgan, Strategic Commissioning National Project Manager.

removal of schools from Scotland, Wales and overseas, along with entries that did not conform to the single visit criteria.

In total, from 1594 single visits we were able to match the IMD 2004 rank to the post-codes of 1584 schools. For the IMD 2004, the more deprived a ward the lower its ranking. The most deprived ward in England is given a rank of 1 and the least deprived ward a rank of 32,482.

From an analysis of the post-codes of the schools, where each IMD 2004 rank was categorised according to rank<sup>16</sup> and presented below, it can be ascertained where the schools come from in relation to indices of deprivation.

**Fig 3.6.2a: Form A, Percentages of class visits ranked by IMD 2004, SOA rankings, from top 10% most deprived to bottom 10% least deprived, 2005**



Base: all post-codes fitting the criteria described, 2005 (1584)

Schools visiting Phase 1 and Phase 2 museums during the research period are located in areas that experience a range of deprivation. The most deprived SOA included in the analysis was ranked 2 out of 32,482 (in Monsall, Manchester) and the least deprived was ranked 32,458 out of 32,482 (in Saffron Walden, Essex).

<sup>16</sup> Categories of 10% were defined from 1 to 32,482 and each IMD 2004 rank was allocated to a category. Top 10% refers to the SOAs that are ranked the most deprived in England and bottom 10% refers to those ranked least deprived.

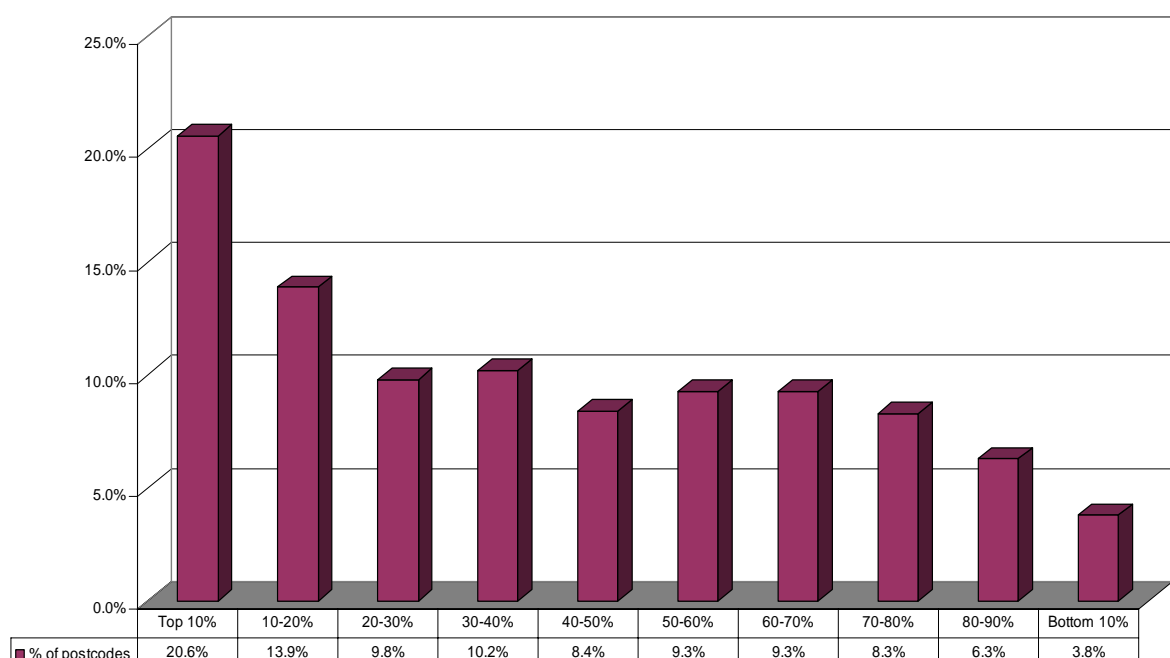
Nineteen percent of recorded single visits came from SOAs classified as being amongst the 10% most deprived in England, and 32% of the visits were made by schools located in the 20% most deprived SOAs in England.

### 3.6.3 Re-categorising the 2003 data

The data from 2003 was re-categorised for this study using the IMD 2004 to enable direct comparisons with the 2005 data.<sup>17</sup> During this re-categorisation it was found that not all the post-codes that could be ranked using the IMD 2000 were able to be categorised using the IMD 2004. This was due to differences in the criteria used to calculate the different indices of deprivation and issues with linking some of the post-codes to their relevant SOA. Therefore the proportions of post-codes used for the IMD 2000 and IMD 2004 are not directly comparable, although this should not affect the comparison with the 2005 data.

When comparing the 2003 data (Fig 3.6.3a) with the 2005 data (Fig 3.6.2a above) there is a remarkable similarity in terms of proportions of schools from areas of high deprivation making visits to museums. This is particularly noticeable amongst schools visiting from the Top 10% and the 10-20% most deprived SOAs.

**Fig 3.6.3a: Form A, Percentages of class visits ranked by IMD 2004, SOA rankings, from top 10% most deprived to bottom 10% least deprived, 2003**



Base: all post-codes fitting the criteria, 2003 (664)

<sup>17</sup> The 2003 data was originally categorised using the IMD 2000 which considered deprivation at Ward rather than SOA level.

Museums are continuing to reach a considerable number of pupils who are experiencing social deprivation and in similar proportions in 2005 to 2003.

### 3.6.4 Free school meals

As outlined above, it may be considered that the levels of deprivation indicated by the school's post-code may not necessarily represent the levels of deprivation experienced by the pupils themselves. The IMD 2004 is an aerial measure, being produced as a weighted area level aggregation of measures related to individuals inhabiting a delimited area in the 2001 Census. Such measures should not be seen to characterise all individuals within an area (an error commonly described as the 'ecological fallacy'), and it is also important to recognise potential incongruities between a school's location and the social circumstances of its pupils. A school might be located in an area classified as deprived but this does not mean all children attending the school from this area will come from deprived households and indeed a school's effective 'catchment area' may encompass very little of the designated area of deprivation and instead extend into adjacent areas where indices of deprivation are very low. For such reasons, a pupil-centred indicator of social deprivation is often seen to be preferable over aerial-based deprivation indices.

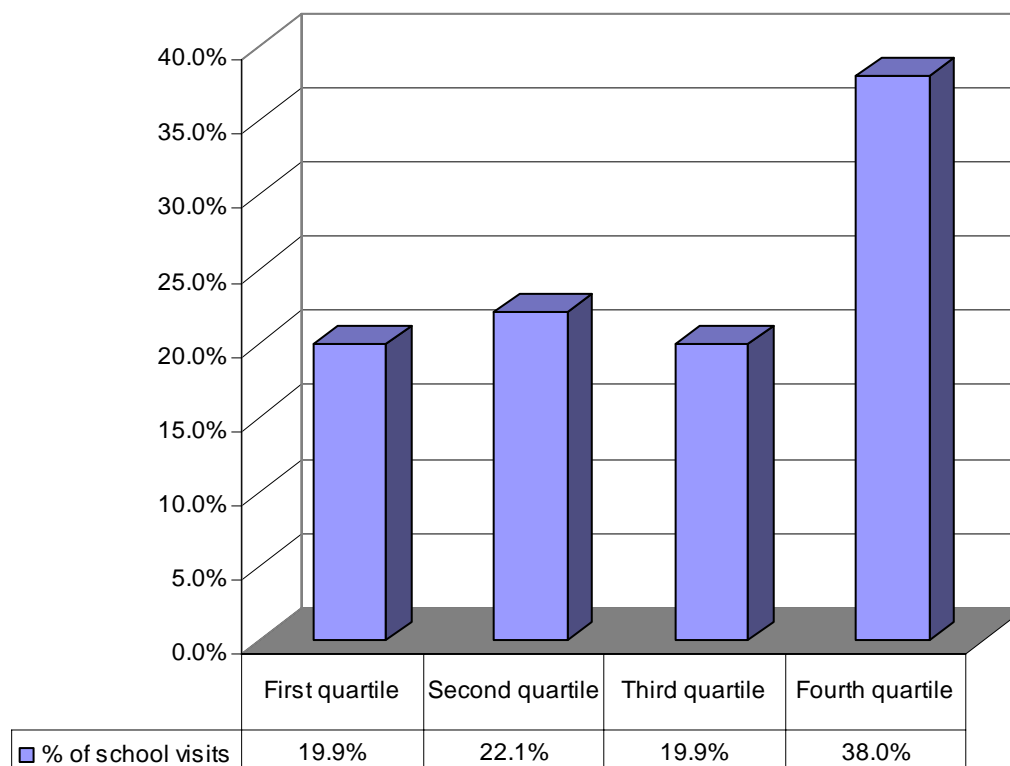
Access to the DfES database allowed us to address this issue via records of the proportion of pupils eligible for free school meals. The distribution of pupils eligible is highly skewed, with large numbers of schools containing very low percentages of pupils eligible for free school meals, while a small number of schools have very high numbers of eligible pupils. To take account of this distribution, it was decided to classify schools appearing in the survey according to their positions within 'quartiles' within the national distribution as calculated from the DfES database.

**Table 3.6.4a: Percentage of school visits ranked by DfES national quartiles for range of pupils (%) eligible for free school meals**

National quartile	Range of % of pupils known to be eligible for free school meals	Number of school visits to museums	% of school visits
First	0 – 4.6	287	19.9
Second	4.7 - 10.9	319	22.1
Third	11.0 – 24.2	287	19.9
Fourth	24.3-100	548	38.0

Base: single school visits to museums, 2005 (1441)

**Fig 3.6.4b: Percentage of school visits ranked by DfES national quartiles for range of pupils (%) eligible for free school meals**



Base: single school visits to museums, 2005 (1441)

Given that the boundaries of the national quartiles are set to each encompass a quarter of schools, it can be seen that the schools in the survey are drawn disproportionately from schools in the upper most quartile (38%). This would seem to confirm the findings of the post-code analysis that museums are attracting visits from schools serving children from more socially deprived circumstances.

### **3.6.5 Comparing the schools in the focus groups and case-studies with all schools in the sample, 2005**

A direct comparison can also be made for the schools whose teachers participated in the focus groups and case-study visits, showing in greater detail the relationship between IMD 2004 rank and percentage of pupils known to be eligible for free school meals.

**Table 3.6.5a: Schools that participated in the focus groups and case-studies showing a comparison of percentage of pupils known to be eligible for free school meals and the IMD 2004 rank based on the school post-code**

School	% pupils known to be eligible for free school meals	IMD 2004 rank	Focus group / case-study
Bickleigh on Exe Primary	3.9	18,586	Exeter
Sandford School	5.8	17,080	Exeter
Downham Market High School	7.8	19,769	Norfolk
Kentisbeare Primary School	7.9	20,852	Exeter
Budleigh Salterton Primary School	8.6	19,400	Exeter
Clyst Honiton Primary School	10.9	21,468	Exeter
Okehampton Primary School	14.7	12,050	Exeter
Millwater School	18.7	21,897	Exeter
St Gabriel's Roman Catholic High School	19.2	11,596	Manchester
Trinity Church of England High School	20.2	3110	Manchester
Levenshulme High School	21.4	12,340	Manchester
Lampard Community School	22.4	11,402	Exeter
St Cuthbert Mayne Secondary School	22.6	11,628	Exeter
St Cuthbert's Catholic Primary School	23.2	699	Birmingham
Canterbury Cross Primary School	28.4	990	Birmingham
Bells Farm Junior School	38.5	3788	Birmingham
Springfield Primary School	38.8	4380	Birmingham
Uffculme (Special) School	39.1	12,793	Birmingham
Yarnfield Primary	43.3	4,187	Birmingham
St Thomas More Catholic Primary School	47.8	215	Birmingham
Whitgreave Junior School	49.5	906	Wolverhampton
Chivenor Junior School	55.1	2259	Birmingham
Brookfields Primary School	57.1	283	Birmingham
Aston Tower Community Primary School	60.6	786	Birmingham
Mansfield Green Primary School	65.9	1005	Birmingham

Following Table 3.6.5a, it does appear that the schools with the IMD 2004 rank that indicate significant deprivation do tend towards a higher percentage of pupils known to be eligible for free school meals.

Based on the national quartiles, 11 of the 25 schools listed (44%) can be categorised in the fourth quartile, very similar to the pattern identified in the overall research.

From this data it can be seen that using the post-code as an analysis for experience of deprivation is fairly reliable, although the percentage of pupils eligible for free school meals makes the case stronger.

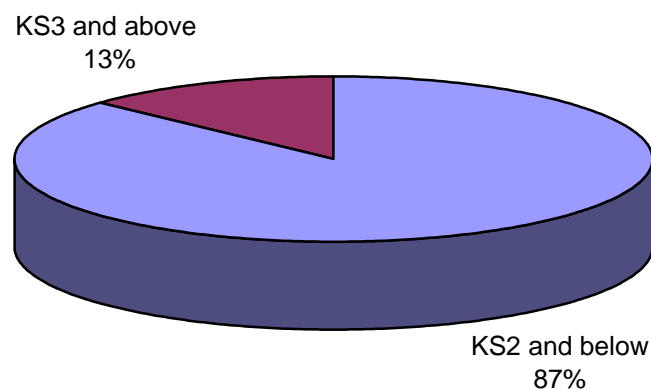
### 3.7 Key Stages of pupils from Form A

Form A gives us information on the pupils that are accompanying the teachers on the visits to the 69 museums.

In response to Q.10: 'Years of pupils in this class', it can be seen that 87% of pupils fell into the KS2 and below band, and 13% of pupils fell into the KS3 and above band.

There has been very little change to the pupil profile since 2003.

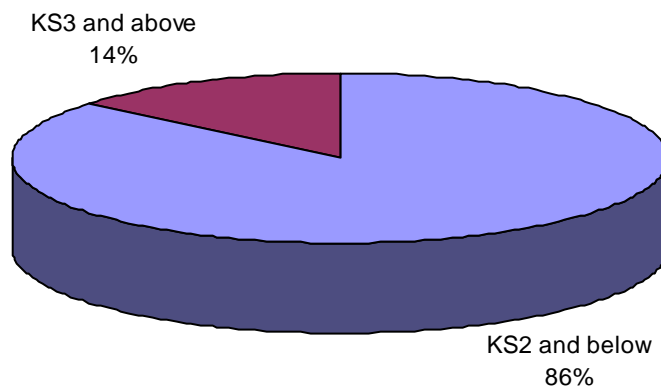
**Fig 3.7a: Form A, Q.10: 'Years of pupils in this class', 2005**



Base: all teachers' responses, Q.10: 'Years of pupils in this class', excludes 'missing' and mixed Key Stages, 2005 (1597)

In the first study in 2003, 86% of pupils fell into KS2 and below, while 14% of pupils fell into the higher age-band of KS3 and above.

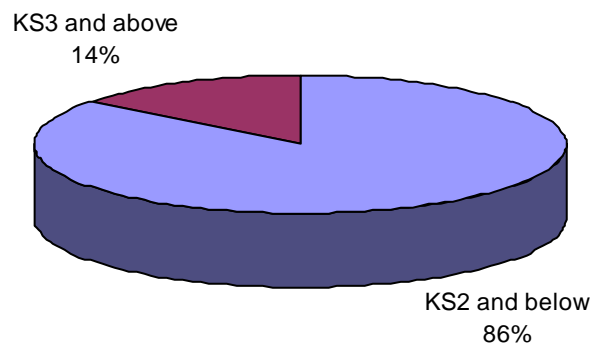
**Fig 3.7b: Form A, Q.6: 'Type of school', 2003**



Base: all teachers based on Q.6: 'Type of school' excluding those bringing classes from middle schools, and special or private schools who did not otherwise indicate age range, 'missing' excluded, 2003 (766)

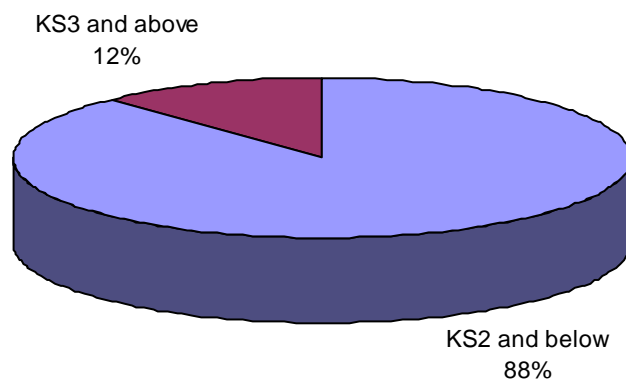
Comparing the relative proportions of pupils in the Phase 1 and the Phase 2 museums using the Form A data, no statistically significant<sup>18</sup> difference is found.

**Fig 3.7c: Form A, Q.10: Pupils visiting Phase 1 museums by Key Stage, 2005**



Base: all teachers' responses Q.10, mixed and 'missing' categories excluded, Phase 1 Museums, 2005 (759)

**Fig 3.7d: Form A, Q.10: Pupils visiting Phase 2 museums by Key Stage, 2005**



Base: all teachers' responses Q.10, mixed and 'missing' categories excluded, Phase 2 Museums, 2005 (835)

---

<sup>18</sup> Proportion of KS2 and below and KS3 and above pupils visiting shows no significant difference by Phase 1 and 2 museums, 2005. Chi square with continuity correction (degrees of freedom 1, n= 1594)=1.59, p 0.21 (>0.05).

### 3.8 The numbers of pupils who completed Form B

Pupils completed their own questionnaires, Form B.

The teachers visiting the 69 museums in this study were asked if their pupils would complete one of the Form Bs. Teachers sometimes refused to do this because:

- their pupils were too young
- their pupils would have found it too onerous and therefore distressing
- they thought this kind of activity (completing a questionnaire) smacked too much of classroom-type work and was therefore not appropriate in a museum.

Altogether, 26,791 pupils completed questionnaires, 13,176 in the Phase 1 museums and 13,615 in the Phase 2 museums. These figures are considered from various perspectives in the tables below.

The total number of pupils in this study in 2005 who completed Form B can be divided almost equally into two, with half in the Phase 1 museums and half in the Phase 2 museums. The numbers of pupils in the Phase 1 museums in the earlier study in 2003 were higher than in this study in 2005. In 2005, fewer teachers completed Form A and fewer pupils completed Form B.

**Table 3.8a: Pupils completing Form B by Phase, comparing 2005 and 2003**

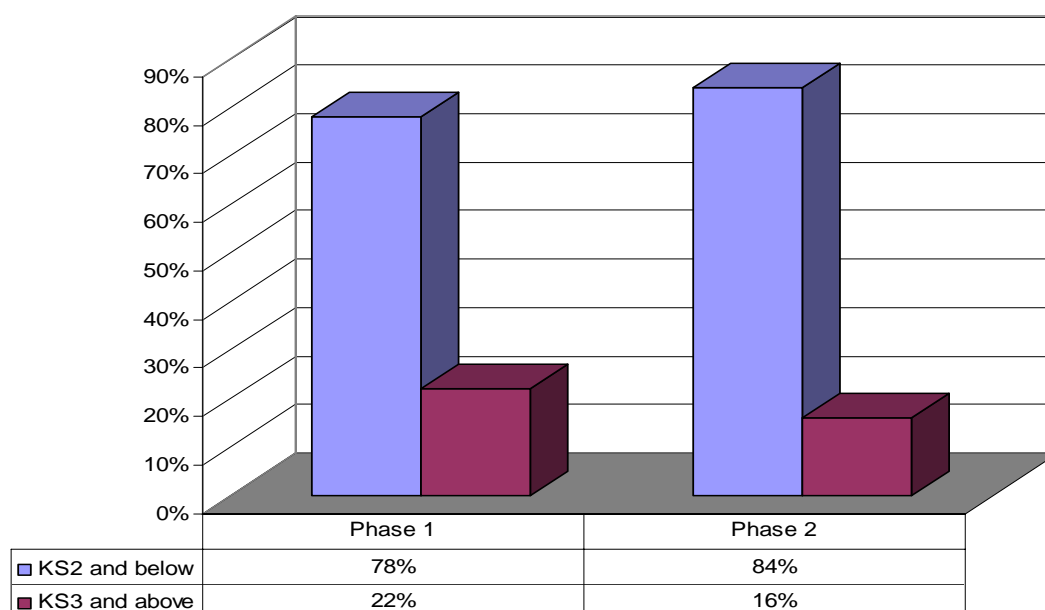
	<b>2003</b>	<b>2005</b>
Phase 1 museums	20,604	13,176
Phase 2 museums	n/a	13,615

The pupils can be considered in relation to Key Stage.

**Table 3.8b: All pupils completing Form B by Key Stage and Phase, 2005**

	<b>Total no. pupils</b>	<b>Phase 1</b>	<b>Phase 2</b>
All pupils	26,791	13,176	13,615
KS2 and below	21,845	10,342	11,503
KS3 and above	4,946	2,834	2,112

**Fig 3.8c: All pupils completing Form B by Key Stage and Phase, 2005**



Base: all pupils completing Form B, 2005 (26791)

While KS2 and below pupils remain by far the largest group of museums users, they make up a slightly larger proportion of those completing Form B in the Phase 2 museums when compared to the Phase 1 museums. This difference between the KS2 and below pupils completing Form Bs in Phase 1 and 2 museums is most apparent when the actual number of Forms Bs completed is considered (Fig 3.8c). When the teachers were asked the Key Stage of the class visiting the museum (Fig 3.7b and c), only a 2% difference in the number of KS2 and below pupils visiting Phase 1 and 2 museums can be seen (Phase 1 86%, Phase 2 88%). This suggests that a slightly larger proportion of KS2 and below pupils were visiting the Phase 2 museums and were also completing a significantly<sup>19</sup> larger number of Form Bs.

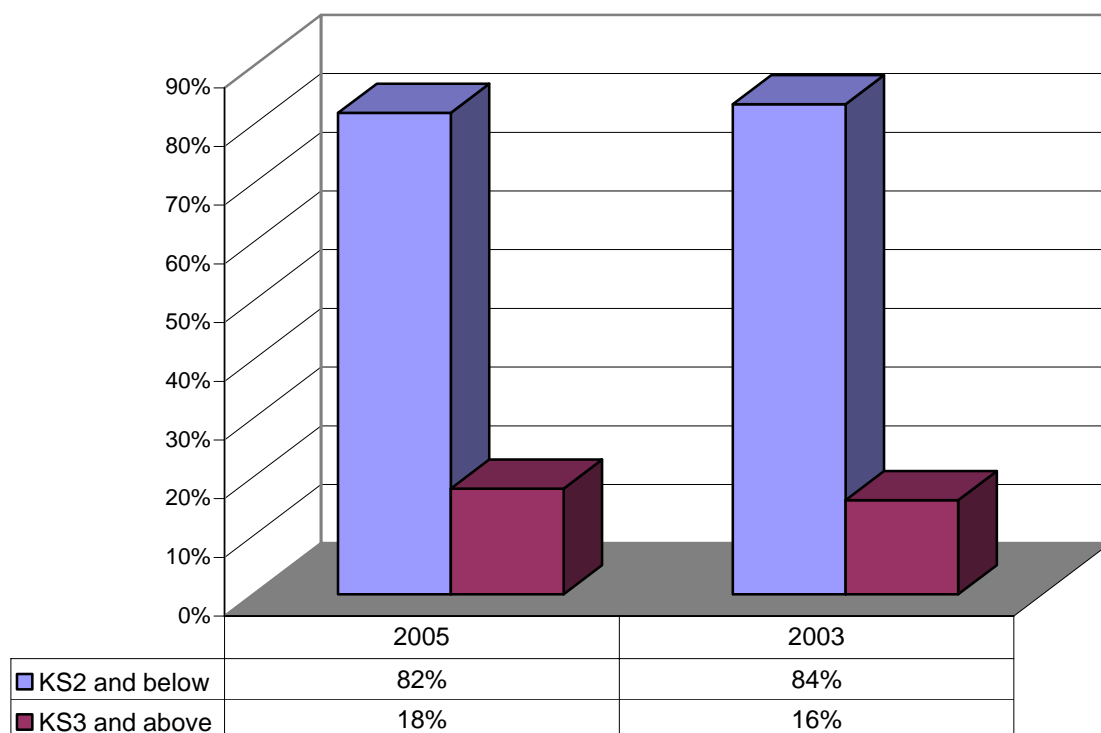
Considerably more older pupils completed forms in the Phase 1 museums, presumably at least in part because there were actually more secondary schools using the Phase 1 museums and therefore more pupils to be asked to complete the forms.

**Table 3.8d: Pupils completing Form B by Key Stage, comparing 2005 and 2003**

	2005	2003
All pupils	26,791	20,604
KS2 and below	21,845	17,198
KS3 and above	4,946	3,406

<sup>19</sup> There is a significant difference in the proportion of KS2 and below pupils completing Form B between Phase 1 and 2 museums in 2005. Chi square (degrees of freedom 1, n= 26791)=159.95, p 0.001 (<0.05).

**Fig 3.8e: Pupils completing Form B by Key Stage, comparing 2005 and 2003**



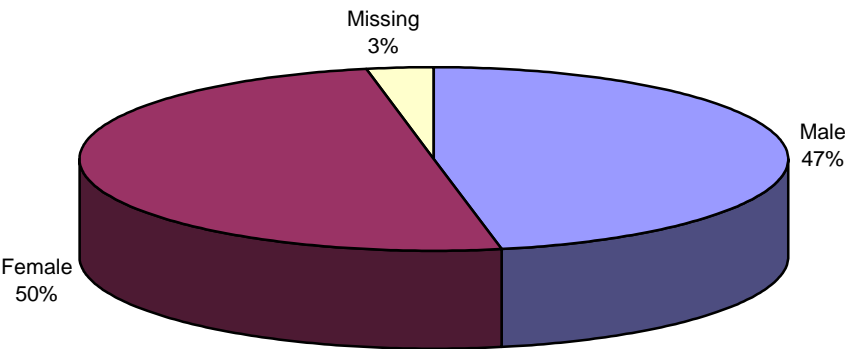
Base: all pupils completing Form B, 2005 (26791); all pupils completing Form B, 2003 (20604)

There are a significantly<sup>20</sup> larger proportion of older pupils completing Form B in 2005 than in 2003. This suggests that while secondary schools made up a smaller percentage of the school audience in 2005 they were still better represented in the percentage of pupils actually completing Form Bs.

The pupils can be analysed in relation to gender. Overall half the pupils visiting museums are female with the remaining proportion male and a small amount of missing data. Gender differences however are more evident when the figures are reviewed by Key Stage; the proportion of male KS2 and below pupils is slightly higher than females, whereas for KS3 and above there are a higher proportion of female pupils visiting museums.

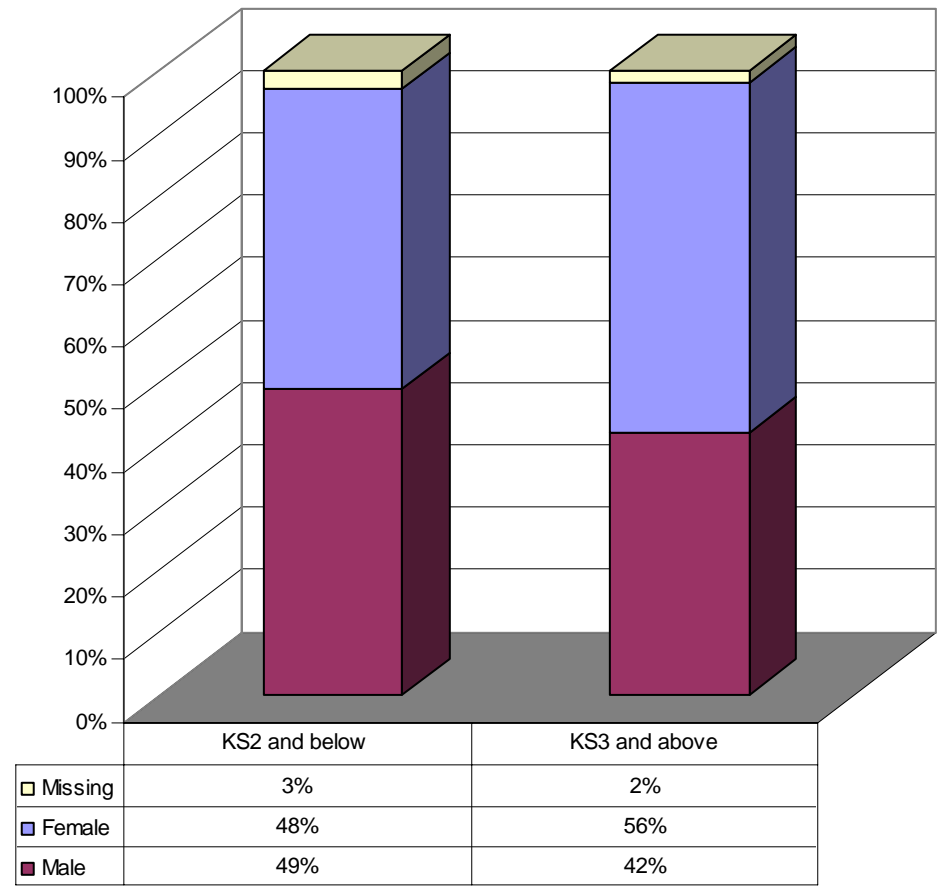
<sup>20</sup> There is a significant difference in the proportion of KS2 and below and KS3 and above pupils completing Form B between 2003 and 2005. Chi square (degrees of freedom 1, n= 47,395)=29.05, p 0.001 (<0.05).

Fig 3.8f: Pupils completing Form B by gender, 2005



Base: all pupils completing Form B, 2005 (26791)

Fig 3.8g: Pupils completing Form B by gender and Key Stage, 2005



Base: all pupils completing Form B, 2005 (26791)

### 3.9 Conclusion

Much of the evidence presented in this section echoes and expands on the evidence from the earlier study in 2003. The sample size for this study is considerably larger than for the 2003 study, but exhibits many of the same characteristics. The Key Stage and gender breakdown of the pupils is very similar to the 2003 study. The school breakdown according to the Teachers' Questionnaire is much the same, with the largest percentage coming from primary schools, although there is a suggestion that the Phase 1 museums are attracting more secondary schools than the Phase 2 museums. The analyses of post-codes and entitlement to free school meals continues to suggest, as in the first study, that museums work with disproportionately more schools from areas of high social deprivation than would be expected according to national statistics. One new piece of information is the relatively high percentage of special schools using museums (12%).

The numbers of school-aged children using museums has increased by 40% from 2003-2005. The Phase 1 museums have increased their contacts with school-aged children by 47% and in the Phase 2 museums, the increase is 29%. While there are considerable variations in the uplift achieved by each museum service, as a whole these are remarkable figures, showing that across England, museums are making great efforts to increase their value to schools and families. The figures also show that these efforts can be both sustained and improved over time with continued funding. The increase in use of museums is a major impact of the Renaissance programme. The DCMS target for the Renaissance programme was to increase the number of contacts between children and regional museums by 25% by 2005/6. This target was exceeded by the Phase 1 museums in 2003, and has been exceeded by the museums involved in this study as well.

As in 2003, the vast bulk of school visits are made by primary schools, which represent 81% of the total. Secondary schools make up about 10% of school visits. There appear to be slightly fewer secondary schools than in 2003, with a 3% decrease in relation to the 2003 figures, and a concomitant increase in primary schools. Comparing the types of schools using the Phase 1 and Phase 2 museums is interesting, as it shows that in the Phase 1 museums 12% of schools are secondary schools, while in Phase 2 museums, 9% are secondary schools. When analysing the type of school by Hub, some big differences appear in the proportions of secondary school, with, for example, secondary schools making up 19% of the schools visiting museums in the South West, which is well above the average of 12%.

As in 2003, the school addresses were analysed according to their post-codes to ascertain to what extent museums were working with schools in areas of high social deprivation. In 2005, in addition, an analysis using free school meals data was carried out. The results of both analyses in 2005 confirm that museums are working with a disproportionately high level of schools located in areas of high deprivation where children may be at risk of social exclusion.

Using the IMD 2004 from the Neighbourhood Renewal Unit, 19% of recorded single visits came from SOAs classified as being amongst the 10% most

deprived in England, and 32% of the visits were made by schools located in the 20% most deprived SOAs in England. An analysis of these schools in relation to free school meals, which is a commonly used measure and therefore useful for comparative purposes, shows that 38% of schools using the 69 museums in this study are located in the highest quartile, where the 25% of schools in England with the highest levels of free school meal entitlement are to be found. The evidence from both these analyses and the finding from the 2003 study are consistent.

The analysis of post-codes and entitlement to free school meals also enables a tying together of the evidence from the case-studies and the statistics arising from the questionnaires. Given that both sources of data conform to the same social patterns, strong relationships between the qualitative and quantitative evidence can be assumed.

Form B, the pupils' questionnaires, were completed by 26,791 pupils, with roughly half of the pupils visiting the Phase 1 museums and half visiting the Phase 2 museums. KS2 and below pupils were the main visitors to museums with a larger proportion of KS2 and below pupils visiting Phase 2 museums. Significantly larger numbers of KS2 and below pupils completed Form Bs in the Phase 2 museums.

More Form Bs were completed by older pupils in this 2005 study than in the previous study in 2003, despite the proportion of secondary schools visiting museums in 2005 falling.

The impressive increase of 40% in relation to pupil contacts includes a disproportionate percentage of schools located in areas with high levels of deprivation, where children may be at risk of social exclusion. Evidence of this capacity of museums, to work with schools where deprivation may be experienced by children, is strong and consistent.

The consistency of sample between the first and the second study means that they can be read together, giving useful comparisons over time.