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Projections of post-compulsory education learner numbers in the South East of England.

July 2008

A report to the Learning and Skills Council (South East), for the Regional Infrastructure Group (Capital Bids)

EXECUTIVE SUMMARY

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1. Introduction

We were commissioned by the LSC (South East) in March 2008 to develop a model to project forward participation in post-compulsory education, building on some existing work within the LSC. The brief asked for projections of population, participation rates and learner numbers to 2020, with a system of warnings where the forecasts were thought to carry a great deal of uncertainty. The purpose of the report is to provide a framework within which to make judgements about capital bids coming forward from schools and colleges in the coming years. This is pertinent because of the recent announcement of the raising of the compulsory participation age to 17 in 2013 and to 18 in 2015. Subject to trends in the age cohort, this will increase the demand on schools and colleges for education post-16. This raising of the school-leaving age is the main factor driving our forecasts of demand for post-16 education though, as we will show, this is moderated by anticipated changes in the population age cohort.

We have constructed a spreadsheet model to calculate projections of learner numbers at the level of district and unitary local authorities, and allow different assumptions or scenarios to be tested. It is important to be aware of the purpose of the model and also of its limitations. It is intended to provide a *consistent* framework for evaluating capital bids and therefore applies the same methodology to all districts in the South East, using the same data sources for all. It is quite possible therefore that our projections may differ from others produced by (e.g.) local councils or colleges, where different assumptions have been made and/or different data sources used.

Another limitation is the quality and consistency of the data. Where different data sources are used there is always a danger that differences in definitions, etc. will cause inconsistencies between different sets of figures. We have endeavoured to ensure the use of consistent data and methods and we do know that the results are at least internally consistent within our model, something which may not occur if projections are being made by a number of different parties.

In addition to the model, we have done a range of other research into the background of post-compulsory education, which will be useful in interpreting the output of the model. For example, part of this work illustrates the flows of students across local authority boundaries (including into and out of the South East as a whole), demonstrating that it is not sufficient only to forecast the growth of resident learners.

The structure of the report is as follows.

- Section 2 provides a review of relevant economics literature (see full report).
- Section 3 provides a brief account of our main data sources.

- Section 4 then explores a range of contextual issues using a variety of information sources. This provides useful background material for interpreting the output of the model.
- Section 5 then explains the methodology we have used in our model and how we have used the model to generate forecasts.
- Section 6 reveals the results of our modelling exercise and, importantly, shows how these may be interpreted in the light of the contextual information reported in section 4 above.
- Section 7 provides a conclusion.
- Section 8 provides some appendices, with references and fuller versions of some of the tables in the text.

Please note that Tables and Figures are not numbered sequentially in this briefing. This is deliberate, in order to keep the same numbers as in the main report. (If you do wish to see more detail, turn on “hidden text” in this document to see the full report.)

3. Data sources

We use four main sources of data in our research, which we briefly describe here. Other sources are noted in the text, as appropriate. The four sources are:

1. Population figures and projections. We use the ONS sub-national population projections (SNPP) as our baseline data.
2. Participation rates. Again we rely on official figures, specifically those published by the Department for Children, Schools and Families in their *Statistical First Release* series.
3. The *Individual Learning Record (ILR)*. We use this data source to obtain data about the numbers of learners (in colleges) within each district and hence to estimate district level participation rates. As the database contains both the district of the learner and of the education provider, we can also use this source to examine movement across district borders, where a student resident in one district attends school in another.
4. The *Pupil Level Annual School Census (PLASC)* serves a similar role as the *ILR*, but for schools. Again, we can estimate participation rates and cross-border flows.

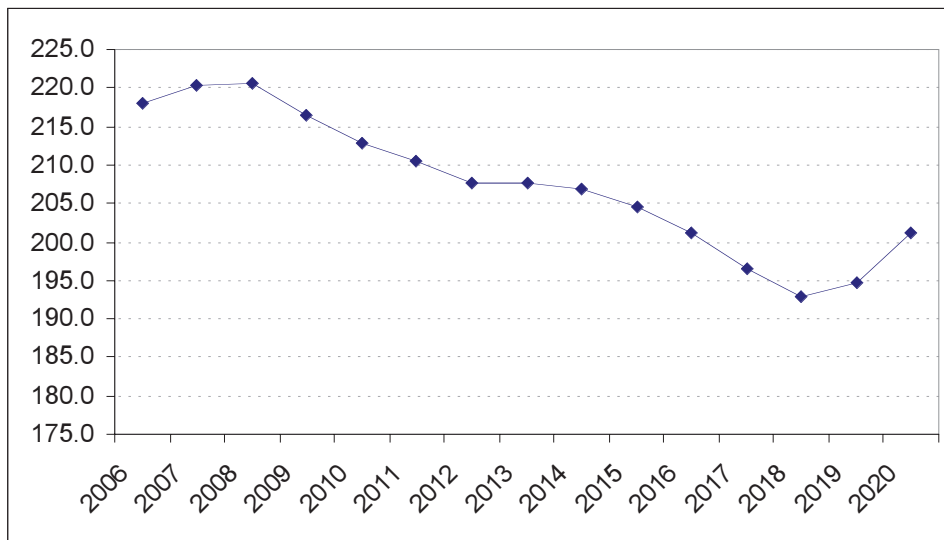
In most of our analyses we focus attention on the 16 and 17 year old age groups though in places we include 18 year olds where this is relevant or unavoidable. Supplementary data sources are described when encountered.

4. Contextual information relevant to the forecasts

4.1 Population

The population projections from the ONS suggest that overall there will be a modest reduction in the population between now and 2013, continuing to decline thereafter to 2020. The trend for 16 and 17 year olds is shown in Figure 1:

Figure 1: Trend in the 16 and 17 year old population in South East England (000s).



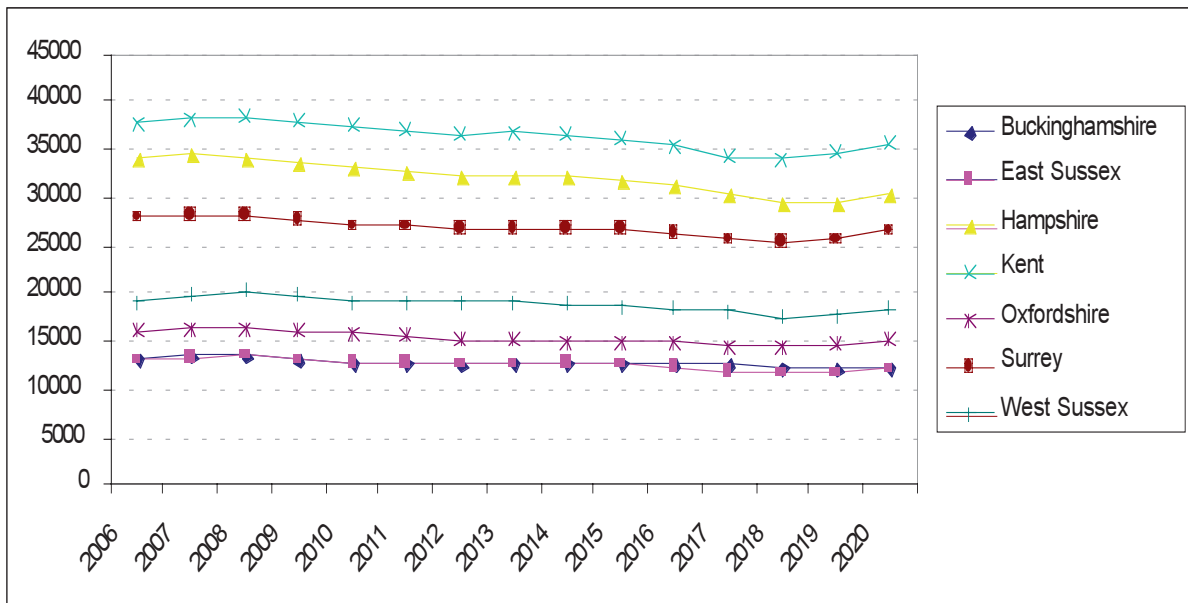
Source: ONS and LSC

Thus it can be seen that 2008 is expected to be a peak in terms of population for this age group with a more or less continuous decline through to 2020. The population declines by 4.7% between 2006 (our baseline year) and 2013 when it is expected that the school leaving age will be raised to 17. By 2015, the population will have declined by 6.1% and by 2020 the decline is 7.7%.

Thus even if the participation rate rises substantially, the increase in student numbers may be modest. For example, supposing that the 16 year old participation rate rises from 86% in 2006 to 98% in 2013, the number of students should rise by only $98 \times (1 - 0.047) - 86 \times 1 = 7.4\%$. If the 98% participation rate holds true through to 2020, the number of 16 year olds in the system will only be 6.0% above the level in 2006. Individual authorities will, of course, vary around this average.

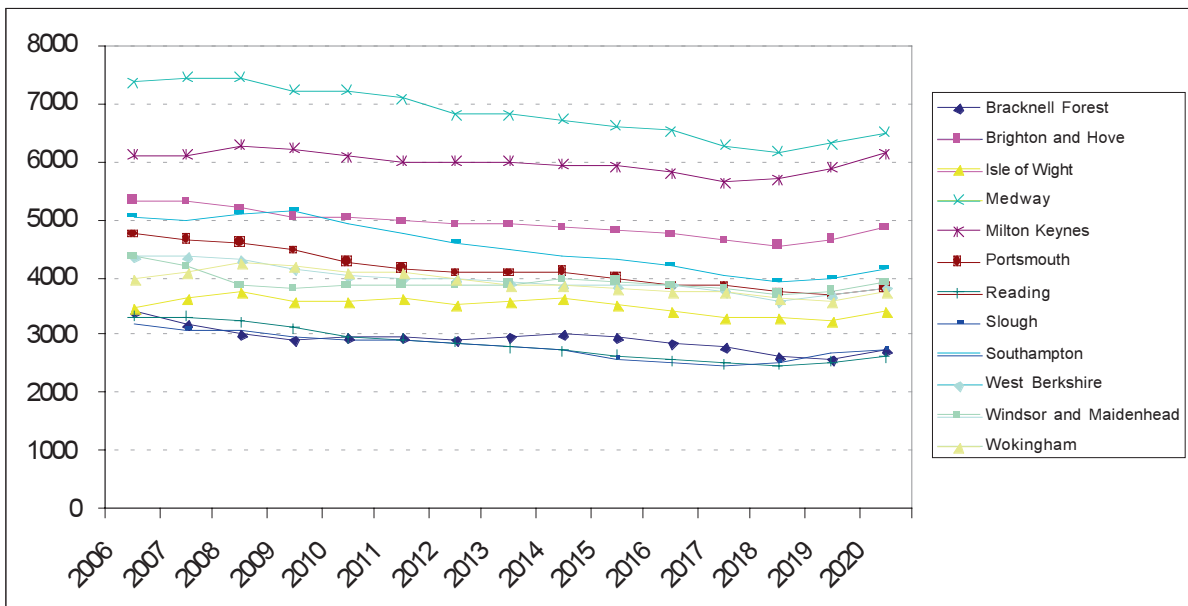
The dispersion of population trends by counties is shown in Figure 2 below, where it is evident that the trends are similar across all the counties of the SE but differ from the experience of unitary authorities.

Figure 2: Trends in 16 and 17 year old population in SE Counties (000s).



Up until the year 2013, the population of 16 and 17 year olds in counties declines gently by an average of 3.5%, the range being from West Sussex, with a roughly constant population, to Oxfordshire, with an expected fall of 6.1%. From there through to 2020 the population is expected to decline with all being below their 2006 level of population.

Figure 3: Trends in 16 and 17 year old population in SE unitary authorities (000s).



For the unitary authorities (Figure 3) we see a different picture, with consistent falls in population.

On the basis of this evidence therefore, we would expect growth in student numbers to occur more outside the unitary authorities.

In Figure 5 below we show a map of the South East district and unitary authorities¹, coloured according to the absolute growth in population of 16 and 17 year olds over the period 2006 to 2013. The map reveals that there are a few more authorities with decreases (38) than with increases (25).

Figure 5: Growth in numbers of 16 and 17 year olds, 2006-2013

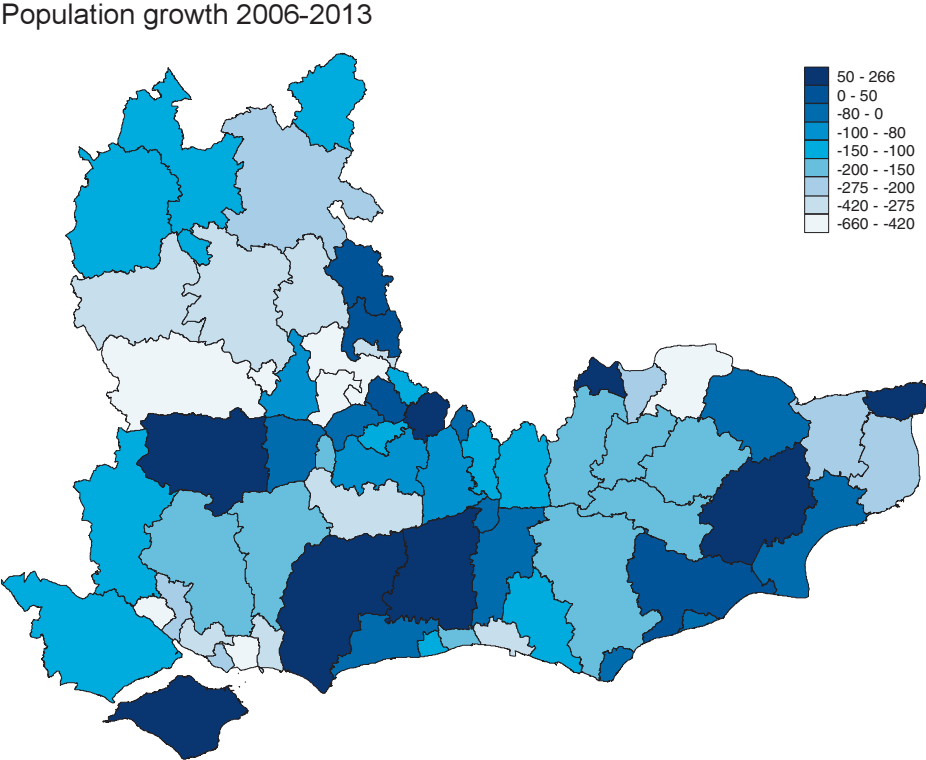


Table 1 below lists the authorities with the highest absolute growths of population.

¹ Appendix 5 contains a map with an associated list of district and unitary authorities, to assist identification.

Table 1: Authorities with the largest predicted increase in the 16 and 17 year old population, 2006-2013

Authority	2006	Growth	% growth
Ashford	2843	266	9%
Chichester	2365	136	6%
Elmbridge	3033	156	5%
Horsham	3331	128	4%
Basingstoke and Deane	3810	103	3%
Isle of Wight	3494	92	3%
Thanet	3461	86	2%
Rother	2070	48	2%
Dartford	2360	54	2%
Runnymede	1656	33	2%
Chiltern	2373	29	1%
South Bucks	1618	11	1%
Arun	3408	-5	0%
Eastbourne	2296	-6	0%
Surrey Heath	2079	-8	0%

In addition, we note that some of these areas are ones identified by SEEDA in its regional plan as 'growth diamonds'.

It is also interesting to note that many of the areas on (but within) the South East border, have quite low predicted increases in population, particularly around London. Only Dartford, Elmbridge and South Bucks are listed in Table 1 above.

4.2 Other sources of information regarding population projections

The ONS figures for population are trends which may not reflect all the information available at a more local level, such as planned new towns or housing developments, etc. (The ONS figures do take account of population migration both internationally and internally, though it is recognised that there can be a great deal of uncertainty about some of these data.) We have therefore researched local authority web sites, the South East Plan, SEEDA's Regional Economic Strategy and other possible sources of information to supplement the ONS projections.

Table 2 shows the authorities which have the largest anticipated growth of the housing stock and compares this to their projected population growth figures.

Table 2: Growth in housing stock and growth of population*

Authority	Housing Stock 2004	Housing stock 2015	% growth in housing stock	Population 2006 (000)	Population 2015 (000)	% growth in population
Milton Keynes	89000	110960	25%	6096	5912	-3%
Ashford	44000	54215	23%	2843	3089	9%
Dartford	36000	43065	20%	2360	2307	-2%
Aylesbury Vale	67000	76540	14%	4867	4674	-4%
Basingstoke and Deane	64000	71425	12%	3810	3891	2%
Mid Sussex	53000	59345	12%	3464	3314	-4%
Bracknell Forest	44000	48851	11%	3408	2952	-13%
Winchester	44000	48698	11%	3420	3199	-6%
Gravesham	39000	43185	11%	2750	2508	-9%
Vale of White Horse	47000	52175	11%	3468	3104	-10%
Horsham	52000	57580	11%	3331	3449	4%
Test Valley	45000	49014	9%	3102	2871	-7%
Tonbridge and Malling	45000	48825	9%	3362	3165	-6%
Cherwell	56000	61310	9%	3587	3498	-2%
South Oxfordshire	52000	56590	9%	3396	3032	-11%
Reading	57000	61689	8%	3328	2658	-20%
West Berkshire	58000	62725	8%	4349	3857	-11%
Wokingham	58000	62707	8%	3978	3807	-4%
Portsmouth	81000	87615	8%	4726	3989	-16%
Rushmoor	35000	37790	8%	2330	2075	-11%
Southampton	94000	101335	8%	5035	4304	-15%
Isle of Wight	60000	64680	8%	3494	3550	2%
West Oxfordshire	40000	43015	8%	2628	2478	-6%
Chichester	47000	50870	8%	2365	2430	3%
Crawley	41000	44150	8%	2545	2432	-4%

* Note to table: The population growth figures are based on the ONS projections

Although there are many reasons why the housing stock may grow independently of population growth (e.g. smaller family units), the table does suggest that districts

such as Milton Keynes and Ashford might well have population growth rates higher than those projected by ONS.

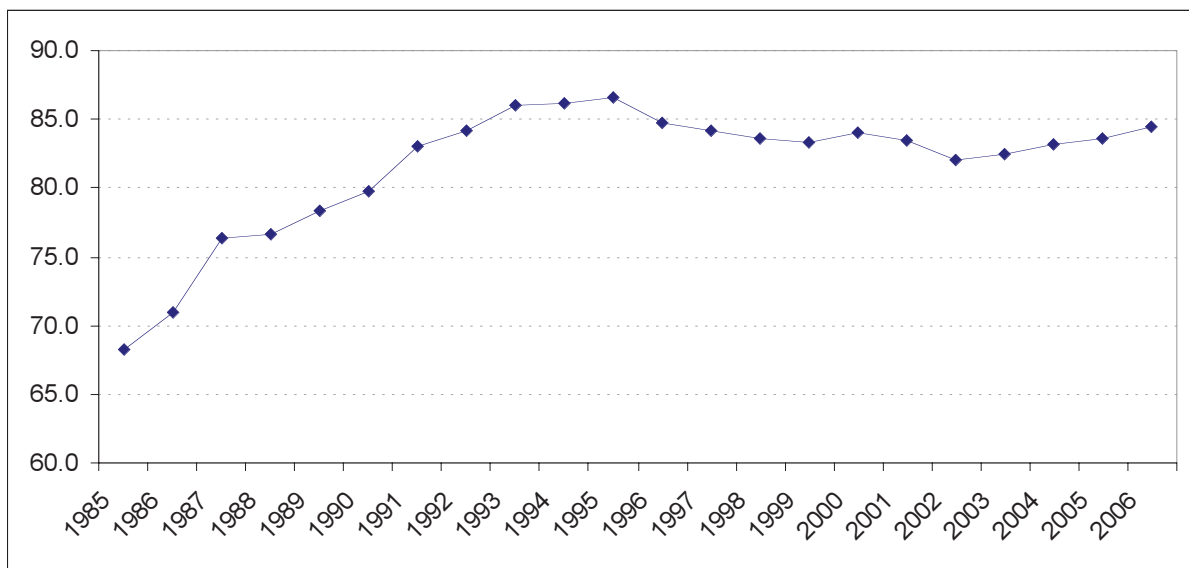
We now turn our attention to a review of participation rates.

4.3 Participation rates

The main policy driver of likely future changes in post-16 participation rates is legislation, with the government recently (May 2008) announcing an increase in the legal school-leaving age, to 17 in 2013 and 18 in 2015. These proposals therefore form the centrepiece of our forecast and these are the main drivers of changes in participation rates. First however, we look at some of the evidence regarding trends in participation rates in the recent past.

From a rate of around 10% in 1950, post-compulsory participation increased steadily until reaching a rate of around 85% by 2006². The experience since 1985 is shown in Figure 6 below.

Figure 6: Participation rate (1985-2006) in education and training of 16 and 17 year olds in England



The main features are the steady growth from 1985 to 1995, but a level performance since then.

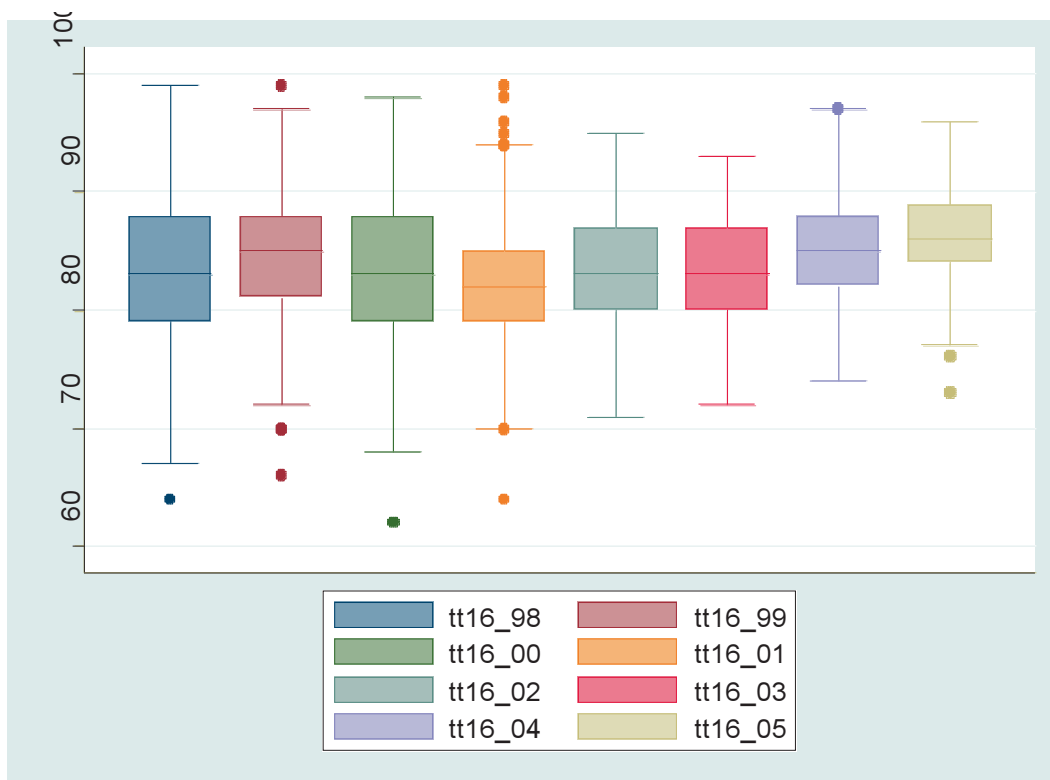
To obtain a more nuanced picture of the recent trends in participation we examine briefly the data at education authority level across the whole of England. We examine the data from 1998 to 2005 (for which the data are complete and consistent).

4.4 The total participation rate

We begin by looking at 16 year old students. The overall participation rate rises only slightly, from 83.5% to 86.0%, over the seven years. The distribution across authorities tells an interesting and not unexpected story: the distribution is squeezed from below as the poorer performers catch up and, of course, the rate is limited above by 100%.

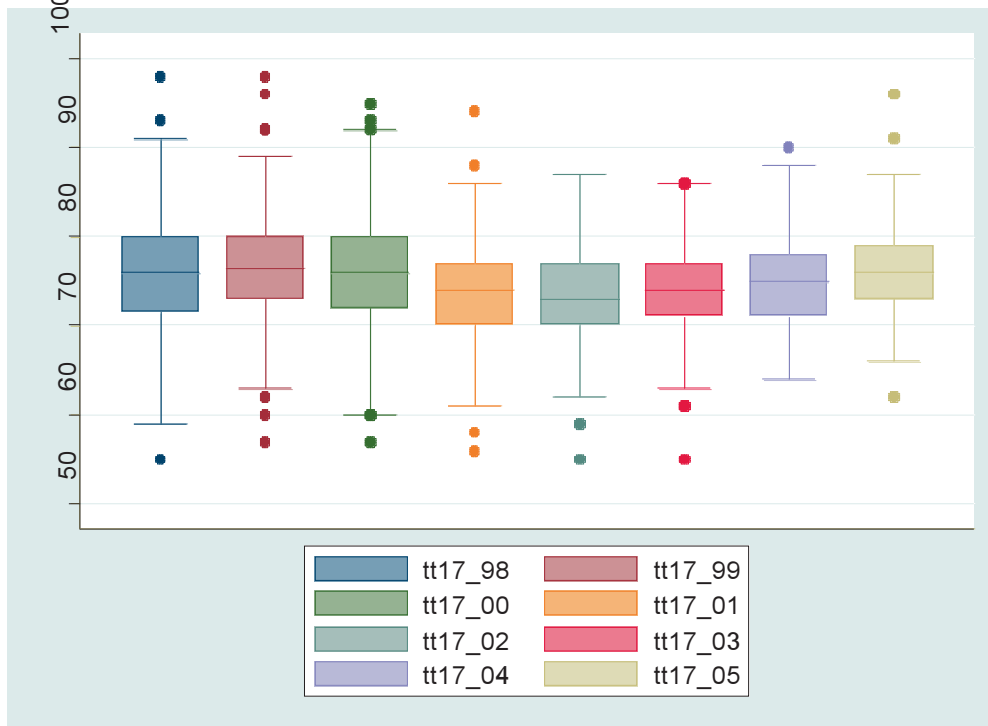
A useful way of looking at the data is via a multiple box plot. From left to right (1998 to 2005) we observe a fluctuating average participation rate but with a steadily declining spread (Figure 8 below). (Note: The central box of the box plot shows the central 50% of the data, i.e. between the first and third quartiles. For 1998 this can be seen as lying between 79 and 88, approximately. The horizontal line within the box represents the median – the value at the centre of the distribution. This would be the local authority in the middle of the distribution of participation rates. The ‘whiskers’ extending above and below the box contain all ‘reasonable’ values and beyond the whiskers lie the extreme values or outliers, represented by dots. The height of each whisker is, by convention, 1.5 times the height of the box.)

Figure 8: Box plots of 16 year old total participation rate, 1998-2005



We can perform the same analysis for 17 year olds, capturing the relevant features of the data in similar box plots:

Figure 9: Box plots of 17 year old total participation rate, 1998-



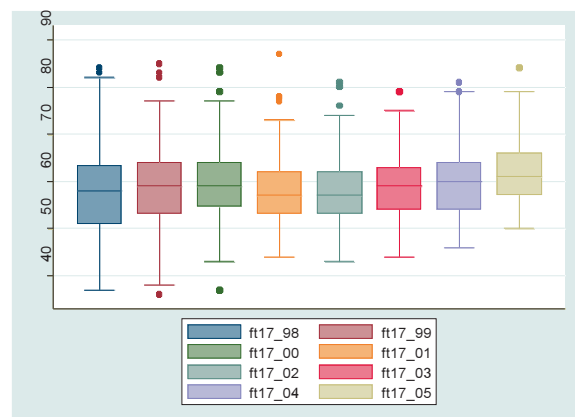
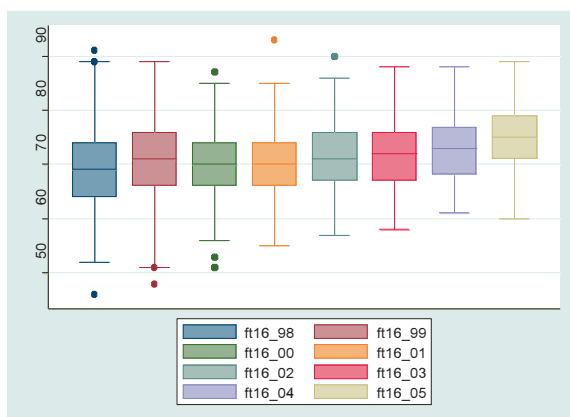
2005

We observe a similar pattern, though the average participation rate is lower: 75.8% in 1998 and 76.2% in 2005.

We can look in the same way at the individual components of the overall figure. In this briefing we just examine the full time participation rate.

4.5 Full time participation rates

Figures 10 and 11: Box plots of 16 and 17 year old full time participation rate, 1998-2005



There is a more clearly discernable upward trend to the full time figures and there is a consistent difference of around 12% points between the figures for 16 year olds and 17 year olds. Since the *total* participation rate drops by 8-10% between 17 and 16 year olds, it follows that much of the decline in full-time participation results in non-participation rather than a switch to part-time or WBL.

4.8 Summary of findings for population and participation trends

For the purposes of our modelling exercises we have learned the following stylised facts, which will inform the assumptions we make for the future regarding participation rates:

- The overall participation rate has not changed much over the recent past
- There has been an increase in full-time participation and a fall in part-time participation, the latter due largely to falls from high levels in some authorities.
- There is a fall in participation between 16 and 17, a small part of which is a switch from full-time to part-time education.

Combining these findings with the falling size of the 16-18 cohort over time, it suggests that without a change in external factors we would not expect the numbers of students participating post-16 to increase.

4.9 Travel to learn patterns

The participation rates we will calculate from our model are on the basis of residence, but these figures do not indicate where students actually attend school or college as there may be substantial cross-border movement. We can gain insight into such movements by analysis of the ILR (college) and PLASC (school) databases, using data for 2006-7. Large numbers of students crossing district boundaries imply a need to be more careful about translating any increases in participation by residents into a need for additional supply within the same authority, especially as this pattern of transfers may change over time.

Transfers across the South East boundary

First we look at the transfers into and out of the South East as a whole. The numbers of transfers can be seen in Table 3 below.

Table 3: Numbers of students crossing the South East border – 16 and 17 year olds

	Number of learners resident in the SE	Exports	Imports	Net imports	Number taught in SE	Net imports as % of learners
Full-time - school	56,772	46	3,196	3,150	59,922	6%
Full-time - college	74,392	2,119	7,560	5,441	79,833	7%
Part-time	22,015	3,033	2,294	-739	21,276	-3%
Total	153,179	5,198	13,050	7,852	161,031	5%

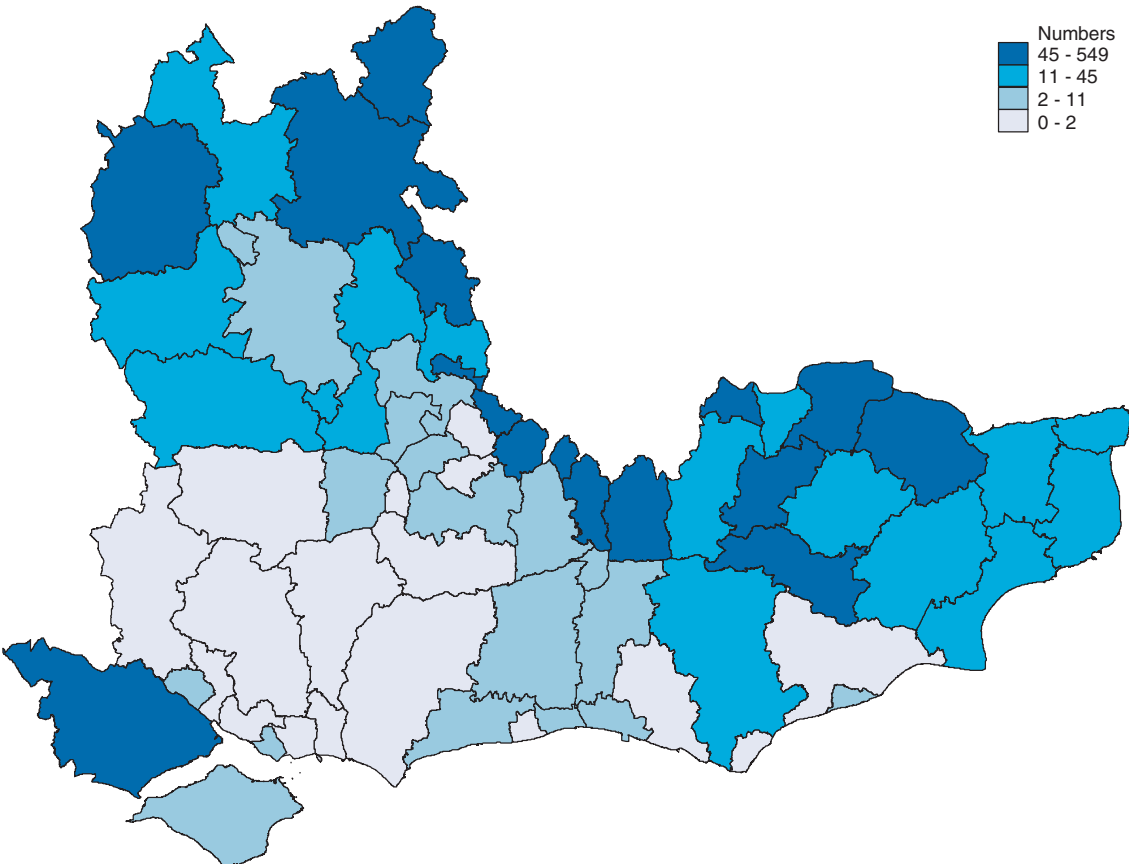
We see that the SE region is a net importer of full-time students, to the order of 6.5%. For part-time education, there is modest export of about 3% of the students. Not surprisingly, colleges engage in more trade than schools.

Figure 16 illustrates these figures on a map of the South East, for schools and colleges separately. Note that the map illustrates the actual number of students imported, not imports as a percentage of the resident population.

Figure 16: Students (16 and 17) received from outside the South East

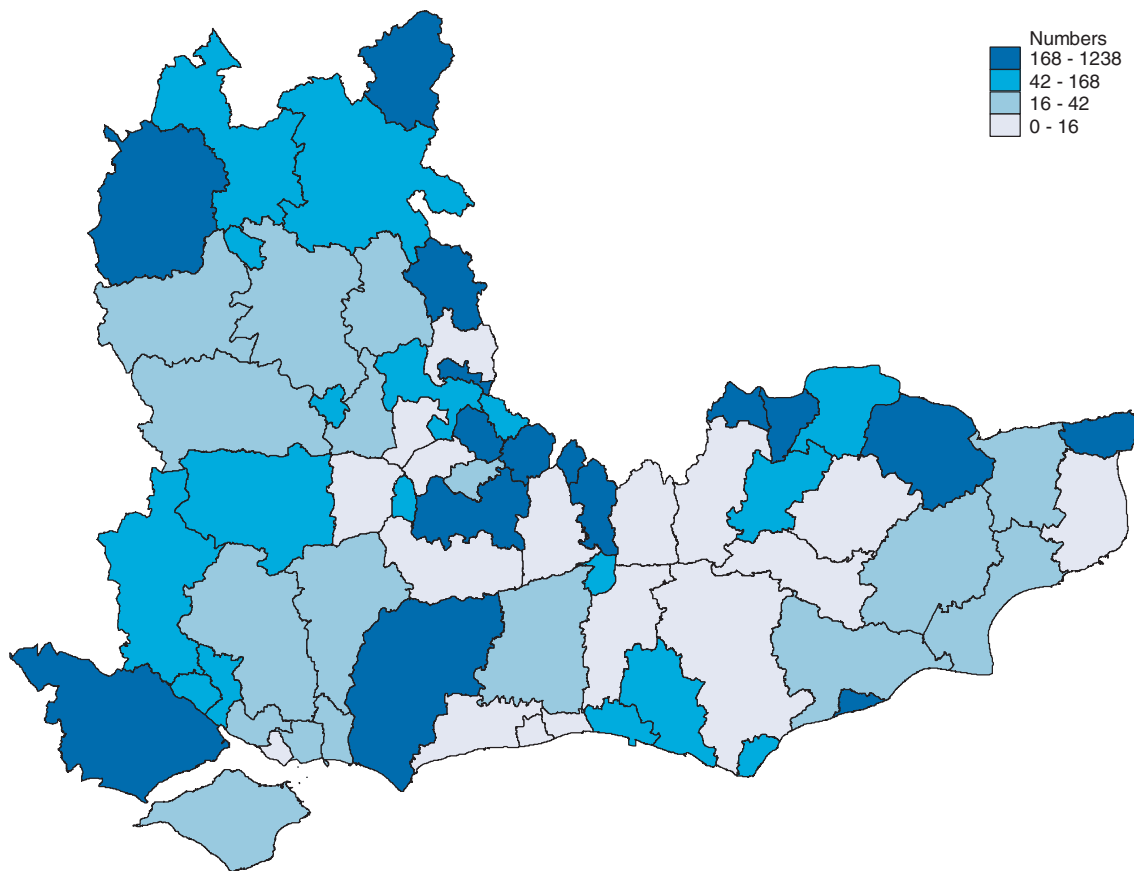
(a) Schools (all full time)

School students received from outside SE



(b) Colleges (full time and part time)

College students received from outside SE



Imports into schools are heaviest on the northern borders of the SE, especially around south west London. The college map shows a more even geographical distribution, with fewer transfers into the SE amongst some of the boroughs bordering London. Boroughs which are not on the boundary generally do not receive large numbers of students from outside the SE (one exception is Chichester, where large numbers from outside the SE attend Chichester College).

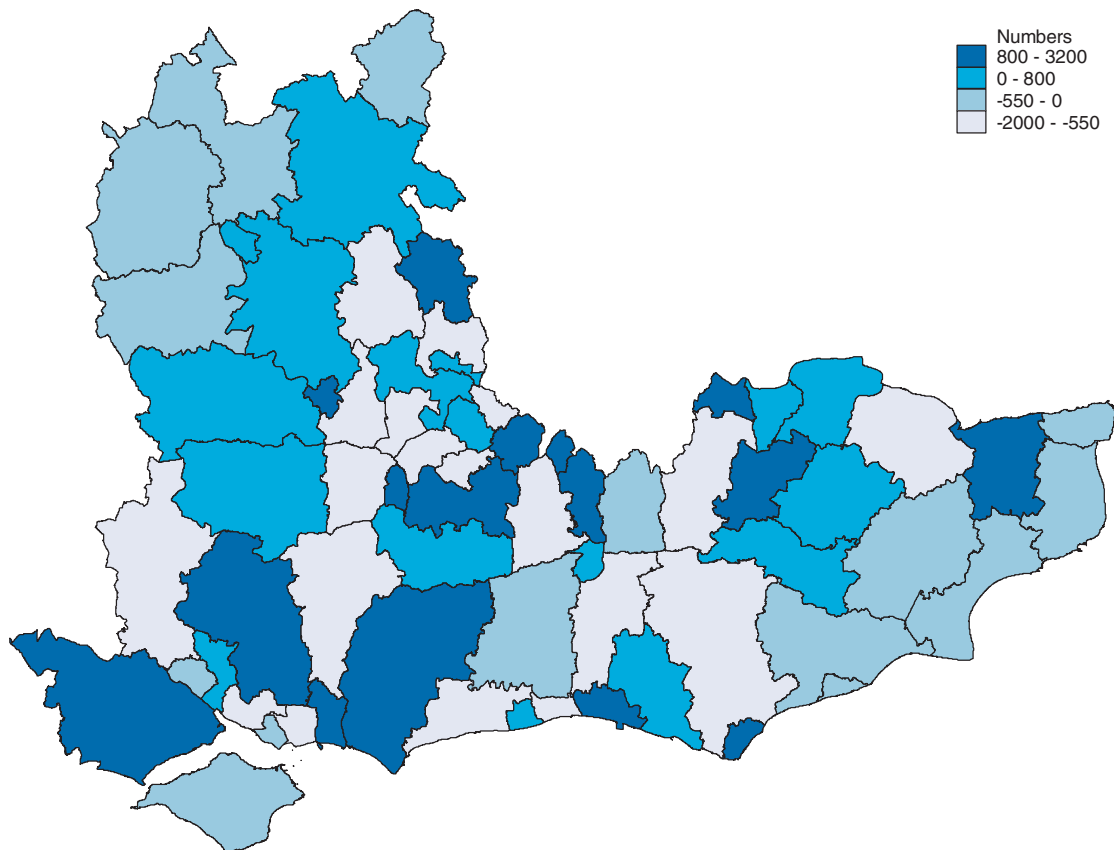
In contrast, exports (which are almost exclusively from colleges, not schools) are more evenly spread and no authority exports more than 7% of 16-17 year olds outside the SE, apart from Spelthorne (12%).

We conclude that imports are a more important feature than exports when forecasting student numbers; not only are imports larger, they are also more concentrated in a few authorities. It is also noticeable that, unsurprisingly, it is the colleges which have higher proportions of students from outside the SE.

In terms of the need to supply education, it matters little if the imports to an authority are from another authority inside or outside the SE. Hence Figure 18 shows the figures in terms of numbers of imports from whatever district, with the darker blue areas indicating a higher level of net imports. This shows a variegated pattern, with less of a 'SE border effect'.

Figure 18: Net imports of students by local authorities

Net imports between LAs



4.10 Implications of travel to learn patterns for forecasting

The overall evidence suggests that calculating population growth rates and participation rates for district level authorities is only part of the information required. We also need to take account of travel patterns, as illustrated in Figure 18 above.

5. Modelling

Having written in some detail about the context of future participation rates we now move on to describe how we have modelled future events and then present our results. First we briefly describe the data used.

5.3 Forecasting participation rates

For participation rates, we have data for 2006 and earlier at the level of counties and unitary authorities, but not for the districts. We therefore need to (a) find a way of estimating 2006 participation rates for districts and (b) projecting forward the participation rates.

Our methodology to calculate future participation rates is as follows:

1. Estimate participation rates for districts in 2006, varying around the relevant county averages.
2. Disaggregate those participation rates into full time school, full time college, part time, work-based learning and the independent sector.
3. Estimate the overall participation rates for 2013/2015 for each district
4. Estimate the overall participation rate for intervening years
5. Project forward the component parts (full-time, etc) of the overall participation rate, consistent with the overall rate in each year.
6. Project forward beyond 2013/2015.

6. Results

The result of our modelling are contained in our spreadsheet model and there are many outputs which could be produced (e.g. for different age groups, or exploring different scenarios), so we will present a 'central' forecast here. Alternative outputs can be explored by the user of the spreadsheet model.

Table 7 below presents our estimates of learner numbers (16 and 17 year olds combined), by district and unitary authority, for the years 2006 and 2013. We break these figures down by school (full time), college (full time), independent school, part time (in colleges, not schools) and WBL. It is difficult to comment on particular details as there are so many different numbers; however, there are a couple of points worth noting:

1. The greatest reliance can be placed upon the figures for total learners. Once we break this down into its component parts we introduce another element of estimation and hence of uncertainty.
2. The growth figures should be read in the context of the travel to learn numbers that we derived earlier and also the earlier comments about housing. To incorporate these, Table 8 reports the authorities with the largest projected increases in learner numbers, along with the figure for net imports calculated earlier, plus the figure for projected new housing, where this was significantly higher than the population projection.

Thus we see that judgement is needed when interpreting the figures and that, in particular, one cannot simply look at a district in isolation.

Table 7 : Numbers of 16 and 17 year old resident learners, by district, 2006 and 2013

District	2006						2013						Increase 2006-2013					
	School	College	Indep	Part time	WBL	Total	School	College	Indep	Part time	WBL	Total	School	College	Indep	Part time	WBL	Total
Aylesbury Vale	2046	852	116	232	319	3565	2440	1016	111	222	437	4226	394	164	-5	-10	117	661
Chiltern	1412	341	246	68	92	2158	1545	373	248	69	134	2369	133	32	3	1	42	211
South Bucks	831	277	91	70	96	1364	961	320	91	70	138	1581	130	43	1	0	42	217
Wycombe	2160	917	338	157	217	3789	2255	957	315	147	289	3962	95	40	-23	-11	72	173
Bracknell Forest	906	914	528	188	103	2639	1019	1029	463	164	126	2802	113	114	-65	-24	23	163
Milton Keynes	2572	1563	61	214	367	4778	3033	1843	60	210	512	5657	460	280	-1	-4	145	879
Cherwell	1118	1008	709	183	169	3188	1203	1083	681	176	232	3375	84	76	-28	-7	62	187
Oxford	1165	514	535	155	144	2513	1295	571	511	147	194	2718	130	57	-25	-7	50	205
South Oxfordshire	745	1168	398	287	267	2866	789	1237	364	262	346	2999	44	69	-34	-25	79	133
Vale of White Horse	1159	760	486	247	225	2877	1272	834	451	227	298	3082	113	74	-35	-20	72	205
West Oxfordshire	861	496	362	172	158	2048	1030	594	342	163	214	2342	169	98	-20	-9	56	294
Reading	1212	901	416	200	183	2912	1145	852	347	167	216	2727	-67	-50	-69	-33	33	-185
Slough	1308	1031	0	222	159	2720	1308	1031	0	195	199	2733	0	0	0	-27	40	13
West Berkshire	1812	672	631	216	216	3549	1969	730	567	196	278	3740	156	58	-64	-21	62	191
Windsor and Maidenhead	1527	655	916	131	130	3369	1765	758	812	116	164	3614	238	102	-104	-15	33	255
Wokingham	1699	853	497	239	221	3479	1850	945	485	234	302	3816	181	92	-11	-6	82	337
Brighton & Hove	757	2538	746	266	346	4652	782	2624	687	245	459	4756	26	86	-59	-21	113	144
Eastbourne	20	1371	146	74	111	1721	24	1709	145	74	157	2110	5	339	0	0	46	389
Hastings	416	1168	147	90	136	1957	477	1338	145	88	188	2236	61	170	-2	-2	52	279
Lewes	205	1326	160	81	121	1893	238	1536	150	76	161	2162	33	210	-9	-5	40	268
Rother	203	1182	141	75	112	1713	244	1417	146	76	161	2043	41	236	4	1	48	330
Wealden	1455	1165	446	70	105	3241	1615	1294	427	67	142	3544	160	128	-18	-3	37	303
Adur	378	588	115	65	65	1211	436	678	103	58	83	1359	58	90	-12	-6	18	148
Arun	1016	1272	243	169	169	2870	1173	1468	243	169	242	3294	156	196	-1	0	73	424
Chichester	671	1013	205	113	113	2114	776	1170	217	119	171	2453	105	158	12	6	58	339
Crawley	989	701	156	137	137	2120	1129	800	156	136	195	2416	140	99	0	-1	58	296
Horsham	704	1544	326	125	125	2824	845	1855	341	131	186	3358	141	310	15	6	62	534

District	School	College	Indep	Part time	WBL	Total	School	College	Indep	Part time	WBL	Total	School	College	Indep	Part time	WBL	Total
	2006						2013						Increase 2006-2013					
Mid Sussex	714	1526	307	134	134	2815	840	1795	302	131	187	3255	126	269	-5	-2	53	440
Worthing	34	1621	181	119	119	2075	36	1725	174	114	163	2212	2	104	-8	-5	44	137
Basingstoke and Deane	162	2700	37	197	345	3441	176	2942	38	203	504	3865	15	243	1	6	159	424
East Hampshire	37	2078	132	105	184	2537	42	2366	126	99	246	2880	5	288	-6	-6	62	343
Eastleigh	13	2325	112	130	228	2808	13	2383	104	121	300	2921	0	58	-9	-9	72	113
Fareham	110	1986	133	106	186	2521	112	2020	120	96	238	2566	2	34	-13	-10	52	65
Gosport	261	1061	12	93	162	1590	282	1147	11	83	207	1730	21	86	-1	-10	44	141
Hart	226	1470	189	56	97	2039	266	1733	188	55	137	2379	40	262	-1	-1	40	341
Havant	152	2060	79	131	229	2651	158	2135	71	117	290	2770	6	75	-8	-14	61	119
New Forest	623	2180	118	164	287	3371	714	2501	114	160	396	3865	92	321	-3	-4	109	514
Rushmoor	105	1443	82	83	145	1860	115	1569	77	77	192	2029	9	126	-6	-6	46	169
Test Valley	9	2045	76	121	212	2463	10	2338	75	116	287	2825	1	293	-2	-5	75	363
Winchester	19	1917	23	183	323	2466	23	2263	21	176	435	2917	3	346	-2	-7	112	451
Isle of Wight	1311	940	122	123	315	2812	1577	1131	125	125	460	3418	266	191	3	2	146	606
Portsmouth	28	2988	331	143	285	3775	29	3088	265	122	348	3873	1	100	-46	-21	63	98
Southampton	60	3078	252	228	355	3973	64	3271	223	203	446	4207	4	193	-28	-26	91	234
Ashford	1315	745	250	95	158	2563	1560	884	273	106	248	3070	245	139	23	10	89	507
Canterbury	1580	774	281	109	183	2927	1882	922	263	102	243	3413	302	148	-18	-7	61	486
Dartford	774	594	130	77	127	1702	1009	774	132	80	186	2181	235	180	2	3	59	479
Dover	1333	646	231	93	155	2458	1467	712	213	86	204	2681	134	65	-18	-7	48	223
Gravesham	1168	682	229	82	136	2297	1226	716	209	75	175	2400	58	34	-20	-8	39	102
Maidstone	1706	717	315	103	174	3015	1932	812	300	98	237	3379	226	95	-15	-5	63	364
Sevenoaks	1254	512	237	73	120	2197	1483	606	221	69	160	2539	229	94	-16	-4	40	342
Shepway	940	648	188	75	125	1977	1144	789	166	74	176	2371	205	141	-2	-1	51	394
Swale	1544	847	276	113	189	2970	1795	985	274	114	269	3456	251	138	-3	0	79	466
Thanet	1248	929	108	157	264	2706	1529	1139	111	161	385	3325	281	210	3	3	121	618
Tonbridge and Malling	1508	610	272	91	153	2634	1737	703	268	87	207	2992	229	93	-14	-4	54	358
Tunbridge Wells	1517	480	323	62	106	2487	1734	548	306	59	143	2789	217	69	-17	-3	37	302
Medway	2930	1743	185	258	406	5522	3340	1987	170	238	530	6266	411	244	-15	-20	124	744
Elmbridge	441	1063	449	78	91	2121	631	1521	471	82	137	2842	190	458	23	4	46	720
Epsom and Ewell	659	399	319	52	61	1490	779	472	306	50	83	1689	120	73	-14	-2	23	200

District	2006						2013						Increase 2006-2013					
	School	College	Indep	Part time	WBL	Total	School	College	Indep	Part time	WBL	Total	School	College	Indep	Part time	WBL	Total
Guildford	947	994	551	116	131	2739	1149	1207	537	113	184	3190	202	212	-14	-3	53	451
Mole Valley	842	475	438	48	56	1859	948	534	421	46	77	2026	106	60	-17	-2	21	167
Reigate and Banstead	621	1403	546	131	156	2858	654	1477	522	125	212	2991	33	74	-24	-6	55	133
Runnymede	359	676	291	61	71	1458	406	765	297	62	104	1635	48	90	6	1	32	177
Spelthorne	188	1240	406	82	97	2013	183	1208	384	78	132	1985	-5	-32	-22	-4	35	-27
Surrey Heath	670	910	380	54	65	2079	655	880	380	54	92	2071	-15	-20	0	0	27	-8
Tandridge	697	527	371	61	71	1727	865	655	348	57	95	2021	168	128	-23	-4	24	294
Waverley	86	1613	528	79	91	2398	114	2133	471	70	116	2904	28	520	-57	-9	25	507
Woking	366	1146	402	76	88	2077	349	1094	378	71	118	2010	-17	-52	-24	-5	30	-67

Notes on sources of data used to construct this table:

- (a) Learner numbers are calculated as number of 16/17 year olds in the local population × participation rate.
- (b) Population figures for each district and year are obtained from the Office for National Statistics.
- (c) Participation rates for 2006 are based on DCFS data (for counties and unitary authorities). Disaggregating to district level is done using information from PLASC and ILR databases, as described in the Methodology section.
- (d) Participation rates for 2013 are based on projections forwards from 2006 rates, consistent with the target of full participation in 2013 or 2015 (16 and 17 year olds respectively). More detail is in the Methodology section.
- (e) Please note also the caution about census dates mentioned on page 27.

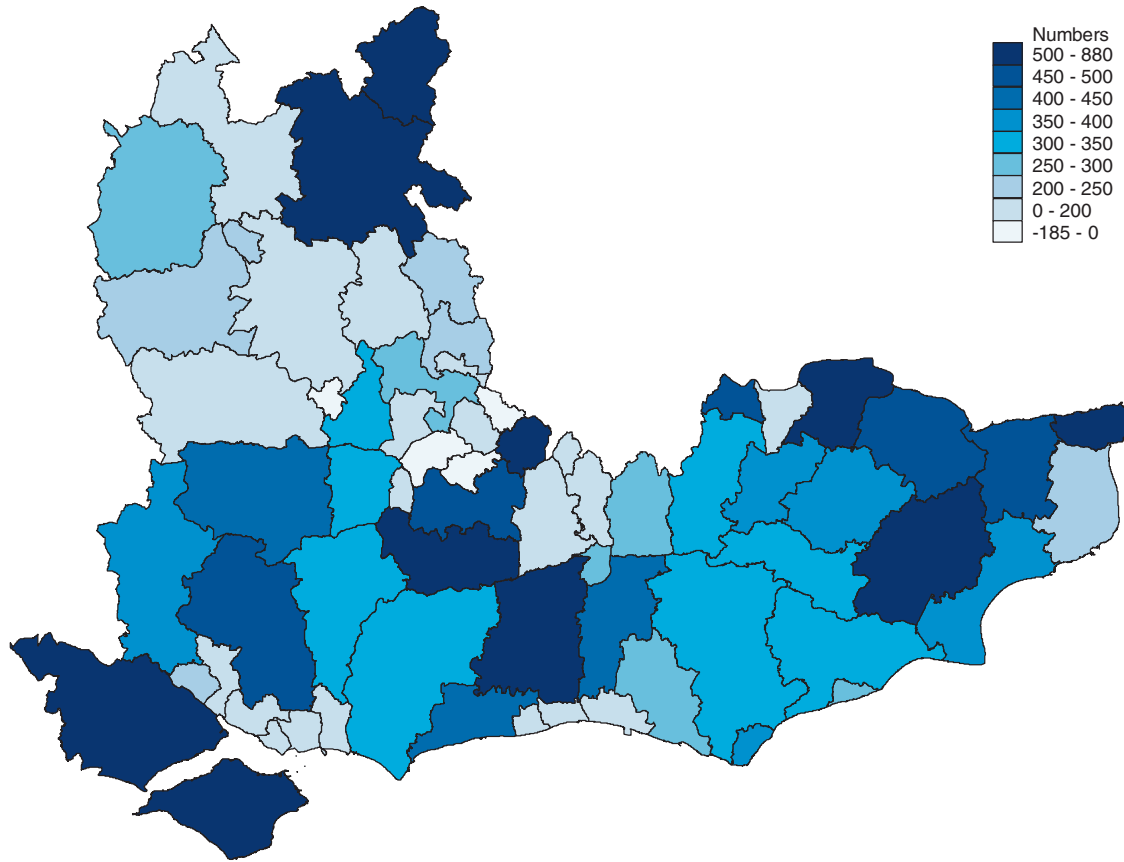
Table 8: Districts with the largest projected increases in learners

District	Increase 2006-2013							Net imports	% growth of housing stock
	School	College	Total school plus college	Indep	Part time	WBL	Total		
Milton Keynes	460	280	740	-1	-4	145	879	-46	25%
Medway	411	244	655	-15	-20	124	744	185	
Elmbridge	190	458	648	23	4	46	720	3124	
Aylesbury Vale	394	164	559	-5	-10	117	661	111	14%
Waverley	28	520	548	-57	-9	25	507	256	
Thanet	281	210	491	3	3	121	618	-186	
Isle of Wight	266	191	457	3	2	146	606	-117	8%
Horsham	141	310	452	15	6	62	534	-52	11%
Canterbury	302	148	451	-18	-7	61	486	1943	
Dartford	235	180	416	2	3	59	479	2250	20%
Guildford	202	212	415	-14	-3	53	451	1646	
New Forest	92	321	412	-3	-4	109	514	2062	
Mid Sussex	126	269	394	-5	-2	53	440	-891	12%
Swale	251	138	389	-3	0	79	466	-801	
Ashford	245	139	385	23	10	89	507	-385	23%
Arun	156	196	352	-1	0	73	424	-1714	
Winchester	3	346	349	-2	-7	112	451	1983	11%
Shepway	205	141	346	-2	-1	51	394	-189	
Eastbourne	5	339	343	0	0	46	389	834	
Windsor and Maidenhead	238	102	340	-104	-15	33	255	228	
Sevenoaks	229	94	323	-16	-4	40	342	-1635	
Tonbridge and Malling	229	93	322	-14	-4	54	358	1398	9%
Maidstone	226	95	321	-15	-5	63	364	514	
Hart	40	262	302	-1	-1	40	341	-1530	
Tandridge	168	128	296	-23	-4	24	294	-280	
Test Valley	1	293	294	-2	-5	75	363	-1352	9%
East Hampshire	5	288	293	-6	-6	62	343	-567	
Wealden	160	128	288	-18	-3	37	303	-1335	
Tunbridge Wells	217	69	285	-17	-3	37	302	146	
Rother	41	236	276	4	1	48	330	-172	
Wokingham	181	92	273	-11	-6	82	337	-1327	8%
West Oxfordshire	169	98	267	-20	-9	56	294	-65	8%
Chichester	105	158	262	12	6	58	339	2151	8%
Basingstoke and Deane	15	243	257	1	6	159	424	506	12%
Lewes	33	210	243	-9	-5	40	268	787	
Crawley	140	99	239	0	-1	58	296	684	8%
Hastings	61	170	231	-2	-2	52	279	-217	
Bracknell Forest	113	114	228	-65	-24	23	163	-576	11%
West Berkshire	156	58	214	-64	-21	62	191	92	8%
Dover	134	65	200	-18	-7	48	223	-498	

Because we should go beyond looking at a particular district in isolation, it may be helpful to look at a map of the projected increases in numbers, shown in Figure 19 below. The darker colours represent larger increases in learner numbers.

Figure 19: Map of growth in total learner numbers

Growth in total learner numbers



Note that this map includes learners in the independent sector as well as those following a WBL route. Using this map we get an idea of where there are groups of neighbouring authorities with large increases in numbers, for example in North Kent and in the north of Buckinghamshire.

7. Conclusions

Our work has provided a mass of contextual information regarding post-16 participation and has derived a methodology for making projections of learner numbers (with various degrees of disaggregation) up to the year 2020. We have identified possible reasons for adjustments to our basic specification and we have demonstrated how the results may be interpreted. In particular we noted that transfers across local authority borders mean it is important to take these into account when interpreting the results of the model.

In the light of this, it would be dangerous simply to take the predicted increase in learner numbers in a district as a guide to the need for additional provision. That decision would need to take account of other factors such as:

- the flows of students between districts in the vicinity
- the plans of neighbouring districts and colleges
- the split of students into the various components such as full-time or part-time learners

It is also important to continue monitoring changes as time goes on. For example, it may become apparent that the assumptions made in this model regarding the growth of WBL participation turn out to be wrong. In this case the forecasts should be revised in the light of new

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