

## **MOVEMENT OF LEARNERS BETWEEN DISTRICTS**

### **An analysis of commuting to school in Essex, Southend and Thurrock**

#### **Background**

By 2013 all learners will be entitled to study for any of the new Specialised Diplomas being introduced as part of the government's 14-19 initiatives. Only exceptionally will any one school, college or other provider be able to offer all of the new diplomas. It is likely therefore that some learners will have to travel to schools or colleges other than their current or nearest school or college, for all or part of their studies. These schools or colleges may be inside the district in which the learners reside, or in another – usually adjoining – district. It is difficult at this stage to forecast the numbers of learners who will commute in this way as that will depend on a number of factors including the number of learners opting for the new diplomas, and the willingness and preparedness of providers to offer them.

Two major concerns of the 14-19 Planning Groups are:

- The need to identify which providers should offer which diplomas so as to provide the optimum geographical coverage.
- The need to plan for the transport that learners will need if they are to receive their entitlement to study any of the new diplomas no matter where they reside.

This document analyses the current movement of learners between districts in Essex, Southend and Thurrock (EST) and will assist Planning Groups by informing their decisions regarding the above concerns.

#### Note

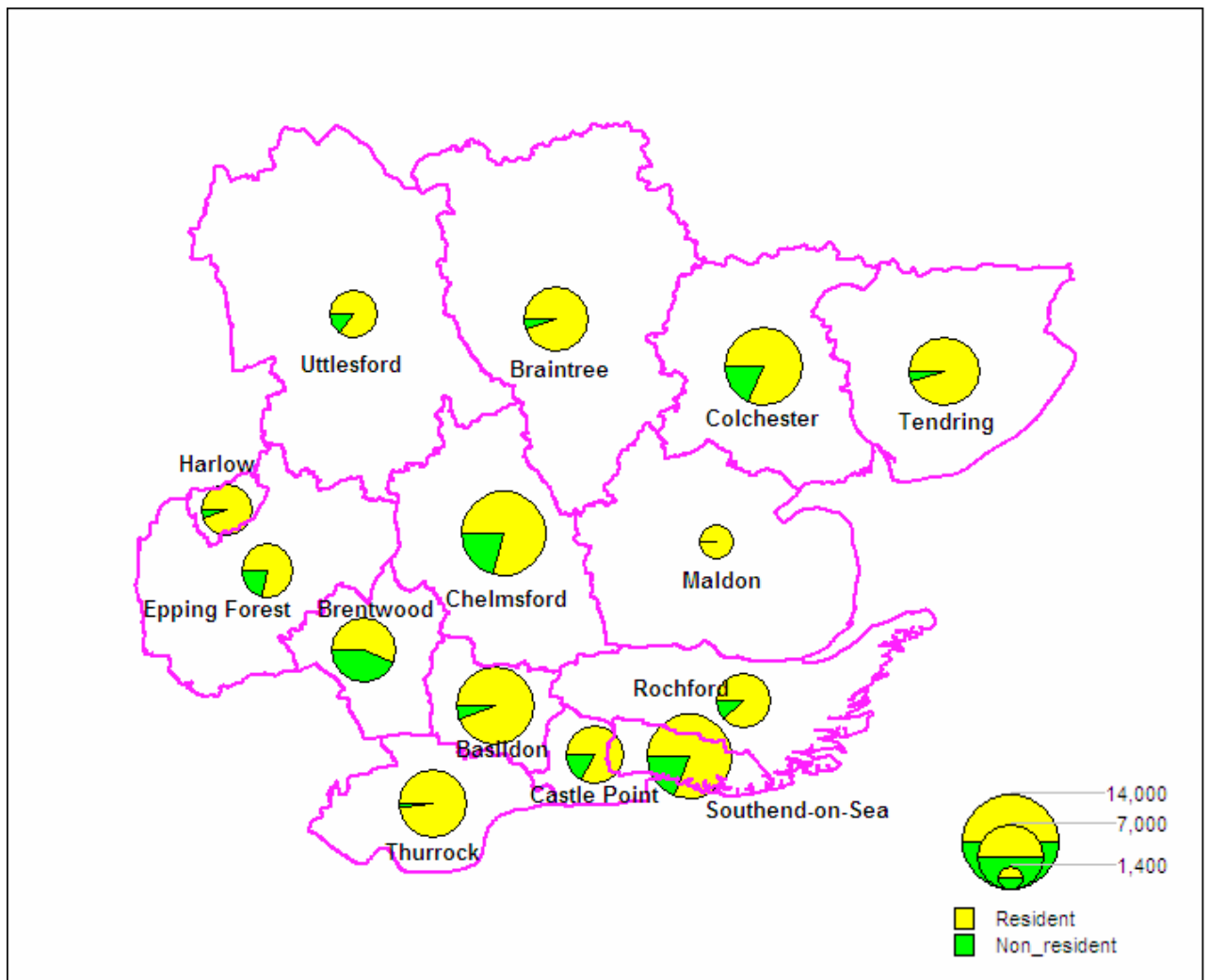
The analysis in this paper includes *only* learners in years 7 - 14 at schools within EST. Learners at colleges and other providers are not included. This is because the data available for analysis is from the Pupil Level Annual Census (PLASC) which includes only schools.

## Analysis - summary

### Where do learners come from?

On the map below, the size of each pie chart represents the total number of learners studying in each district. The segments on each pie chart represent the split between the number of learners who reside in the district and the number who travel into the district to learn.

Map 1 – breakdown of learners by resident/non-resident



Movement of learners between districts

The table that follows shows the numbers from which the map was drawn:

Table 1 – breakdown of learners by resident/non-resident

	<b># Learn in district</b>	<b># Resident in district</b>	<b># Not resident in district</b>	<b>% Resident in district</b>	<b>% Not resident in district</b>
<b>Thurrock</b>	8846	8622	224	97.5%	2.5%
<b>Southend</b>	12884	10353	2531	80.4%	19.6%
<b>Basildon</b>	11037	10360	677	93.9%	6.1%
<b>Braintree</b>	8108	7625	483	94.0%	6.0%
<b>Brentwood</b>	8260	4655	3605	56.4%	43.6%
<b>Castlepoint</b>	6652	5458	1194	82.1%	17.9%
<b>Chelmsford</b>	13468	10607	2861	78.8%	21.2%
<b>Colchester</b>	11029	8945	2084	81.1%	18.9%
<b>Epping</b>	6029	4676	1353	77.6%	22.4%
<b>Harlow</b>	5300	4971	329	93.8%	6.2%
<b>Maldon</b>	2642	2598	44	98.3%	1.7%
<b>Rochford</b>	5724	4978	746	87.0%	13.0%
<b>Tendring</b>	9045	8558	487	94.6%	5.4%
<b>Uttlesford</b>	4913	4147	766	84.4%	15.6%

A more detailed analysis is presented as Table 3 in Appendix 1. That table identifies where learners who commute into districts commute from. The following comments are based on that more detailed table:

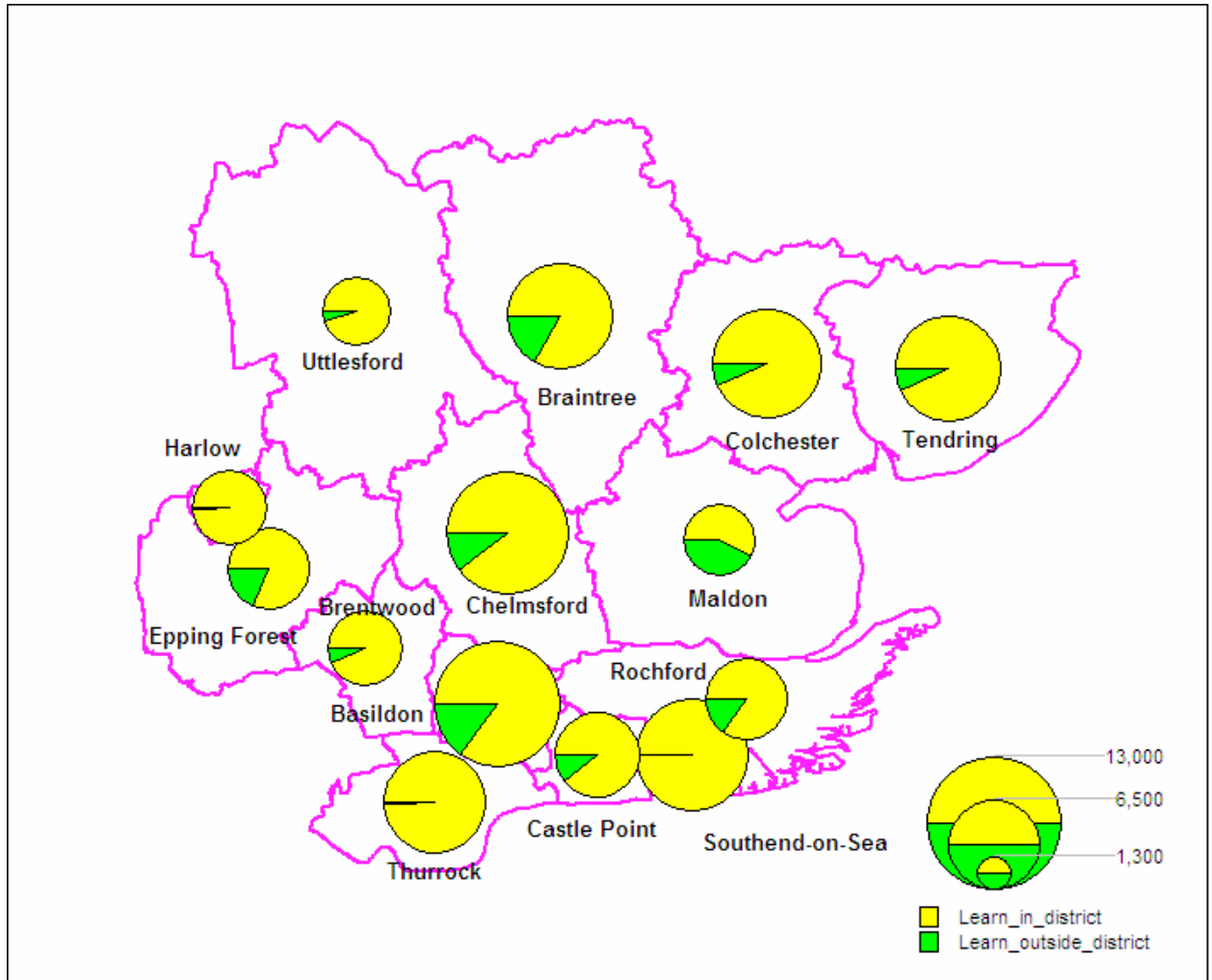
- Across EST as a whole, of nearly 114,000 learners about 17,000 or 15% commute into their school from another EST district or from outside EST completely.
- The largest “commuter districts” in terms of numbers commuting in are Brentwood, Chelmsford, Southend and Colchester:
  - In Brentwood, most commuters inwards are residents of Epping, Basildon and Chelmsford or come from outside EST.
  - In Chelmsford, 38% of the learners commuting inwards are residents of Maldon. Most of the rest are residents of Braintree, Brentwood and Basildon or come from outside EST.
  - In Southend, commuters inwards are drawn mainly from Rochford, Castlepoint, Basildon and Chelmsford.
  - In Colchester, most commuters inwards are from Tendring, Maldon and Braintree or from outside EST.

## Movement of learners between districts

### Where do residents go to?

On the map below, the size of each pie chart represents the total number of learners studying in each district. The segments on each pie chart represent the split between the number of residents who remain in the district to learn and the number who travel into another district to learn.

Map 2 – breakdown of residents learning inside or outside home district



The table that follows shows the numbers from which the map was drawn:

Table 1 – breakdown of learners by resident/non-resident

	<b>#</b>	<b>#</b>	<b>%</b>	<b>%</b>
<b>Learners from...</b>	<b>Learn in home district</b>	<b>Learn outside home district</b>	<b>Learn in home district</b>	<b>Learn outside home district</b>
<b>Thurrock</b>	8622	77	99.1%	0.9%
<b>Southend</b>	10353	4	100.0%	0.0%
<b>Basildon</b>	10360	1817	85.1%	14.9%
<b>Braintree</b>	7625	1569	82.9%	17.1%
<b>Brentwood</b>	4655	339	93.2%	6.8%
<b>Castlepoint</b>	5458	699	88.6%	11.4%
<b>Chelmsford</b>	10607	1279	89.2%	10.8%
<b>Colchester</b>	8945	690	92.8%	7.2%
<b>Epping</b>	4676	1102	80.9%	19.1%
<b>Harlow</b>	4971	79	98.4%	1.6%
<b>Maldon</b>	2598	1896	57.8%	42.2%
<b>Rochford</b>	4978	911	84.5%	15.5%
<b>Tendring</b>	8558	655	92.9%	7.1%
<b>Uttlesford</b>	4147	221	94.9%	5.1%

A more detailed analysis is presented as Table 3 in Appendix 1. That table allows the reader to identify where residents of a district commute to in order to learn. Note the limitation of the data: residents who commute to another EST district can be identified, but residents of EST who commute to a district outside EST are "lost" and are excluded from the analysis (because the PLASC for EST does not include these learners, who will appear on the PLASC for other LAs for example Suffolk or Hertfordshire).

Some comments can be drawn from the table above and from Table 3:

- Across EST as a whole, of nearly 108,000 residents in the population considered more than 11,000 or almost 11% commute to a school outside the district where they reside.
- In Southend and Thurrock it appears that almost no residents commute out of their home districts to learn.
- A very high percentage of Maldon residents commute out of their home district to learn.

### **Suggestions for further analysis**

Planning Groups might wish to consider the following suggestions and might like to request:

- A lower level of analysis that shows the inflows and outflows at the level of individual schools.
- An analysis of learners who commute into EST to identify where they reside.
- An analysis of where learners commute to where this is outside EST (the data for this however may not be readily available).
- An analysis showing the inflows to grammar schools in particular.

Movement of learners between districts

**Appendix 1 – detailed analysis**

This appendix contains a more detailed table of results, followed by a description of the method used to carry out the analysis and some caveats on the data quality.

Table 3 – analysis of learners by school attended and district of residence

**Learners come from.....**

<b>In schools in</b>	<b>Thurrock</b>	<b>Southend</b>	<b>Basildon</b>	<b>Braintree</b>	<b>Brentwood</b>	<b>Castlepoint</b>	<b>Chelmsford</b>	<b>Colchester</b>	<b>Epping</b>	<b>Harlow</b>	<b>Maldon</b>	<b>Rochford</b>	<b>Tendring</b>	<b>Uttlesford</b>	<b>Outside EST</b>	<b>Total</b>
<b>Thurrock</b>	8622	4	58	0	1	8	2	0	0	0	0	2	0	0	149	8846
<b>Southend</b>	77	10353	416	14	41	600	342	3	1	0	125	789	0	3	120	12884
<b>Basildon</b>	0	0	10360	7	19	33	379	8	0	1	11	18	0	0	201	11037
<b>Braintree</b>	0	0	2	7625	0	2	30	229	0	1	28	2	8	27	154	8108
<b>Brentwood</b>	0	0	561	81	4655	8	357	2	725	6	80	30	3	2	1750	8260
<b>Castlepoint</b>	0	0	472	1	0	5458	9	0	0	0	2	52	0	2	656	6652
<b>Chelmsford</b>	0	0	250	670	271	12	10607	18	111	17	1078	13	8	135	278	13468
<b>Colchester</b>	0	0	15	397	1	3	70	8945	6	7	569	4	634	16	362	11029
<b>Epping</b>	0	0	1	0	3	0	0	0	4676	33	1	0	2	3	1310	6029
<b>Harlow</b>	0	0	0	1	1	0	0	1	225	497	0	0	0	33	68	5300

Movement of learners between districts

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<b>Maldon</b>	0	0	1	8	0	0	16	6	0	0	259 8	1	0	0	12	2642
<b>Rochford</b>	0	0	41	1	2	32	46	2	0	0	0	497 8	0	0	622	5724
<b>Tendring</b>	0	0	0	10	0	0	0	421	0	0	1	0	855 8	0	55	9045
<b>Uttlesford</b>	0	0	0	379	0	1	28	0	34	14	1	0	0	414 7	309	4913
<b>Totals</b>	8699	10357	1217 7	919 4	499 4	615 7	1188 6	963 5	577 8	505 0	449 4	588 9	921 3	436 8	604 6	11393 7

## **Method used for analysis**

### Procedure

A list of schools within districts was created from the DfES website (see Appendix 2).

Pupils were associated with their schools by matching the DfES number ("Estab") on their PLASC records with the list of schools in Appendix 2.

The districts within which pupils reside were identified using the pupils' postcodes from their PLASC records.

The numbers of learners in each district were totalled. For each district, the number of learners resident in that district, any other EST district, or outside EST were totalled based on the district assigned to the pupils using their postcodes.

Maps were drawn using MapInfo GIS software based on the above analysis.

### Data quality

A key step in the process uses the pupils' postcodes from PLASC to assign their residence to a district. In some cases postcodes were missing or invalid. In many more cases, the postcodes were valid but were not accepted by the GIS software.

It was not practical to try to correct the postcode tables used by the GIS software, therefore an exercise was carried out to establish whether the errors would materially affect the results of the analysis.

PLASC postcodes not appearing on the GIS postcode tables were either outside EST or were invalid:

- Taking the Thurrock PLASC first: there were no blank postcodes on PLASC; a sample of 16 "not found" postcodes was analysed – 8 were invalid postcodes and 8 were valid postcodes not recognised by the GIS software.
- For Southend, there were 2 blank postcodes on PLASC; a sample of 16 "not found" postcodes was analysed – 7 were invalid postcodes and 9 were valid postcodes not recognised by the GIS software.
- For Essex, there were 3 blank postcodes; a sample of 16 "not found" postcodes was analysed – 1 was an invalid postcodes and 15 were valid postcodes not recognised by the GIS software.

The number of blank PLASC postcodes was so low that it can be ignored.

Of 48 "not found" postcodes, 32 or 75% were valid addresses. All "not found" postcodes were assigned to "Outside EST" in the analysis. This would lead to the "Outside EST" figures in the analysis being inflated. These cases do not seem to be associated with any particular school or district and it is therefore believed that if correctly assigned to districts they would be randomly distributed across districts.

The conclusion of this exercise to establish data quality is therefore that the figures for "Outside EST" in Table 3 are probably too high by about 75%; the "excess" numbers included in the "Outside EST" column should be distributed proportionately across the districts in the other columns, including the "home district".

Redistributing the "not found" postcodes proportionately would not materially affect the tables on which the maps are based as these are percentage based (i.e. also proportional).

**Appendix 2 - list of schools included within each district**

Years 7 - 14 from the following schools were included in the analysis, based on PLASC 2005:

<b>Dfes Number</b>	<b>District</b>	<b>School</b>
5456	Basildon	Barstable School
5406	Basildon	Beauchamps High School
7045	Basildon	Castledon special
5400	Basildon	Chalvedon School
4680	Basildon	De La Salle School
4471	Basildon	Mayflower High School
5468	Basildon	The Billericay School
5407	Basildon	The Bromfords School
4000	Basildon	The James Hornsby High School
4431	Basildon	Woodlands School
4350	Braintree	Alec Hunter Humanities College
7048	Braintree	Edith Borthwick special
4026	Braintree	Hedingham School
4420	Braintree	Notley High School
7013	Braintree	Southview special
4470	Braintree	Tabor Science College
4400	Braintree	The Honywood Community Science School
5451	Braintree	The John Bramston School
4025	Braintree	The Ramsey School
5412	Braintree	The Rickstones School
5442	Brentwood	Anglo European School
5459	Brentwood	Brentwood County High School
5461	Brentwood	Brentwood Ursuline Convent High School
5951	Brentwood	Endeavour special
5425	Brentwood	Sawyers Hall College of Science and Technology
5467	Brentwood	Shenfield High School
5433	Brentwood	St Martin's School
5419	Castlepoint	Castle View School
7036	Castlepoint	Cedar Hall special
5417	Castlepoint	Furtherwick Park School
7054	Castlepoint	Glenwood special
5418	Castlepoint	The Appleton School
5420	Castlepoint	The Cornelius Vermuyden School and Arts College
5424	Castlepoint	The Deanes School
5403	Castlepoint	The King John School
5429	Chelmsford	Chelmer Valley High School
5410	Chelmsford	Chelmsford County High School for Girls

Movement of learners between districts

<b>Dfes Number</b>	<b>District</b>	<b>School</b>
4390	Chelmsford	Great Baddow High School
5455	Chelmsford	Hylands School
5411	Chelmsford	King Edward VI Grammar School, Chelmsford
4480	Chelmsford	Moulsham High School
7021	Chelmsford	Ramsden Hall special
4701	Chelmsford	St John Payne Catholic Comprehensive School, Chelmsford
4735	Chelmsford	St Peters College
5416	Chelmsford	The Boswells School
7034	Chelmsford	The Hayward special
5463	Chelmsford	The Sandon School
7063	Chelmsford	Thriftwood special
5427	Chelmsford	William de Ferrers School
7052	Chelmsford	Woodlands special
5464	Colchester	Alderman Blaxill School
5454	Colchester	Colchester County High School for Girls
5443	Colchester	Colchester Royal Grammar School
7028	Colchester	Homestead special
7030	Colchester	Kingwode Hoe special
7069	Colchester	Lexden Springs special
5404	Colchester	Philip Morant School and College
5450	Colchester	Sir Charles Lucas Arts College
5466	Colchester	St Benedict's Catholic College
5448	Colchester	St Helena School
5441	Colchester	The Gilbert School
7037	Colchester	The Heath special
5462	Colchester	The Stanway School
4020	Colchester	The Thomas Lord Audley School and Language College
5413	Colchester	Thurstable School
5426	Epping Forest	Davenant Foundation School
4001	Epping Forest	Debden Park High School
5415	Epping Forest	King Harold School
7044	Epping Forest	Oak View special
4499	Epping Forest	Roding Valley High School
4530	Epping Forest	St John's Church of England Voluntary Controlled School
5405	Epping	West Hatch High School

Movement of learners between districts

<b>Dfes Number</b>	<b>District</b>	<b>School</b>
	Forest	
4333	Harlow	Burnt Mill Comprehensive School
7070	Harlow	Harlow Fields special
4263	Harlow	Mark Hall School
4323	Harlow	Passmores School and Technology College
5458	Harlow	St Mark's West Essex Catholic School
4343	Harlow	Stewards School
4303	Harlow	The Brays Grove Community School
5402	Maldon	Plume School
4290	Maldon	St Peter's High School
5435	Rochford	Greensward College
5422	Rochford	The FitzWimarc School
5421	Rochford	The King Edmund School
4011	Rochford	The Sweyne Park School
5434	Southend	Belfairs High School
5452	Southend	Cecil Jones College
7001	Southend	Kingsdown special
7005	Southend	Lancaster special
7003	Southend	Priory special
4034	Southend	Shoeburyness High School
5446	Southend	Southend High School for Boys
5428	Southend	Southend High School for Girls
5465	Southend	St Bernard's High School and Arts College
7004	Southend	St Nicholas special
5447	Southend	St Thomas More High School for Boys
5414	Southend	The Eastwood School (11-18)
4492	Southend	The Prittlewell Technology College
5950	Southend	The St Christopher special
5430	Southend	The Thorpe Bay School
5401	Southend	Westcliff High School for Boys
5423	Southend	Westcliff High School for Girls
4002	Tendring	Bishops Park College
5444	Tendring	Clacton County High School
5445	Tendring	Colbayns High School
5460	Tendring	Colne Community School
5470	Tendring	Manningtree High School
7065	Tendring	Market Fields special
7060	Tendring	Shorefields special
5432	Tendring	Tendring Technology College
5453	Tendring	The Harwich School A Language College
4394	Thurrock	Chafford Hundred Campus - Secondary School
5439	Thurrock	Gable Hall School
4733	Thurrock	Grays Convent High School

Movement of learners between districts

<b>Dfes Number</b>	<b>District</b>	<b>School</b>
5449	Thurrock	Hassenbrook School Specialist Technology College
4292	Thurrock	St Chad's School
5440	Thurrock	St Clere's School
4392	Thurrock	The Aveley School
4029	Thurrock	The Gateway Community College
5437	Thurrock	The Grays School Media Arts College
4299	Thurrock	The Ockendon School
5409	Thurrock	Torells School
5438	Thurrock	William Edwards School and Sports College
5457	Uttlesford	Helena Romanes School and Sixth Form Centre
4360	Uttlesford	Mountfitchet High School
5436	Uttlesford	Newport Free Grammar School
5408	Uttlesford	Saffron Walden County High School