*This guide discusses in more detail the datasets clients need to supply to Knowledge Mappers to undertake the School Travel Health Check Service, and is divided into the following sections:-*

1. Introduction
2. School Census & Mode of Travel Data
3. School Gazetteer
4. Digital Mapping Data
5. And Finally …
6. Summary Mindmaps

It is one of a series supporting the delivery of the STHC to existing and potential users. The latest versions, along with sample data, are available to download from our website www.sthc.co.uk.
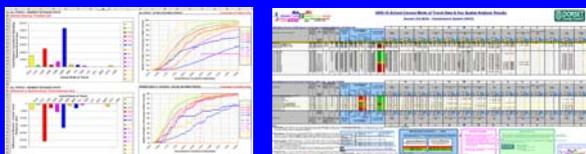
"The School Travel Health Check is, in my opinion, an invaluable tool for all those interested in improving the health and wellbeing of children. It provides such crucial information that I don't see how we can do without it."
Dr Gabriel Scally - Regional Director of Public Health for the South West

On the 29th July 2011 the Department for Education announced that in order to "reduce bureaucracy", Pupil Usual Mode of Travel had been immediately dropped as a data field from the National School Census. Thus if local authorities wish to continue to have an authority-wide view of how pupils travel to school, they now have to make alternative arrangements to collect pupil mode of travel data directly from all their schools themselves (academies as well as ones still under their control) on an individual basis. (For more detail on the DfE decision see the STHC website at www.sthc.co.uk/SchoolCensus.aspx).

Despite the resultant increase in bureaucracy to themselves, many authorities are doing just that as they appreciate the value of this data for transport planning and many other purposes. We therefore continue to offer the School Travel Health Check Service to all. Indeed as is our custom we have adapted and improved the process so that we can now provide much useful information from spatial analysis of just the remaining School Census data extract on its own without Pupil Usual Mode of Travel, though if authorities have it all the better. Furthermore we can analyse incomplete datasets as we understand that some schools are refusing to collect the data now that is no longer required for National School Census (even though there is no technical reason why they can't continue to do so).

We do appreciate that, during the transition process between collecting regimes, the situation within an authority may be patchy and confused. We would however ask that, when providing their Input Data to us, clients are clear about its completeness and let us know what schools (if any) are missing from it. This will save any unnecessary delay in processing due to data failing initial quality control checks.

1. Introduction

1.1 Purpose of Document
This document has been produced to **inform clients**:-
- what datasets we require
- how they fit into our analysis process
- whom they need to contact within their authority to get hold of them.

However it has also been designed to be read by **Data Holders** to inform them why this data is

being requested from them and what they need to supply at a technical level (they need only read the sections about the datasets they are concerned with). This latter requirement means that some may consider this document to be "overburdened" with information. For those people we refer you to Professor Einstein's comment at the foot of each page!

If there are any further queries or concerns around the contents of this document then don't hesitate to get in touch with us directly at support@sthc.co.uk.

1.2 Summary of Data Required
By way of a checklist, this section summarises the data we required to be supplied to us in order to undertake the School Travel Health Check (the "Client Input Data"). Each is discussed in more detail in the sections 2, 3 and 4 of this document.

1.2.1 Pupil-Level School Census & Usual Mode of Travel Data
The following fields are required for each pupil in the authority:-
- Unique ID
- LEA Code
- Home Postcode
- Actual School DE Establishment Number
- Usual Mode of Travel*
- National Curriculum Year
- Gender
- Free School Meal Entitlement
- Ethnicity Code

Note we would be grateful if authority MIS officers could merge pupil mode of travel data with the School Census extract into a single file to supply to us. If there is no mode of travel recorded for particular pupils then just leave the field blank but still include the data fields from the School Census. That way we still have a record of the pupil and can at least map where they are in relation to the school.

1.2.2 School-Level School Census & Gazetteer Data
The following fields are required for each school in the authority:-
- School Name
- LEA Code
- DE Establishment Number
- School Type (DfE Census School Type Code and/or LEA-Specific School Type)
- School Phase of Education (PoE)
- National Curriculum Year (NCY) Range (Minimum NCY Year Group and Maximum NCY Year Group in separate fields)
- Ordnance Survey Grid Reference (Easting & Northing in separate fields)*
- School Postal Address
- School Telephone Number
- School Email Address
- School Website Address
- Intake Type
- Free School Meals Taken
- Number of Full Time Equivalent Staff
- LEA-specific Unique School ID (if routinely used)

PLEASE MAKE SURE THAT THE GRID REFERENCES CONTAINED IN THE SCHOOL GAZETTEER FILE YOU SUPPLY TO US ARE CURRENT AND ACCURATE – In particular ensure that for any schools that have been merged & relocated, or are new builds, that the grid references have been updated accordingly. Likewise please bring any split-campus schools to our attention as obviously their existence complicates the spatial analysis process.

Whilst we make every effort to look out for potential sources of errors and inaccuracies as we are going along, we are not responsible for the accuracy of any of the grid references supplied to us. We can quality check your data before processing and carry out any remedial corrections of the grid references as an Additional Service if required.

1.2.3 Digital Mapping Data

Due to revised practices client authorities no longer need to supply us with the Ordnance Survey map data we require in order to undertake the STHC analysis as it is now supplied to us directly by Ordnance Survey.

If you are commissioning STHC School Packs however we will still require your authority's digital aerial photography coverage, copyright permitting, along with any specific copyright message (this will usually be covered by a separate licensing agreement with a supplier that is not Ordnance Survey). We can deal with your authority GIS Team directly to sort this out if required.

1.3 Availability Of Data

1.3.1 General Availability

As explained already (see also section 2.2.2 for detailed discussion) the collection of Pupil Usual Mode of Travel data may or may not be re-established for your authority. However **all** the other datasets we require in order to undertake our standard geoanalysis process are "standard issue" within UK local authorities so should be readily obtainable internally.

If clients have not worked with this data before they will need to establish the internal supply process with the various data holders identified herein (in the knowledge that it will be that much easier next year as a result of their efforts!).

1.3.2 Consistent Availability

Since the STHC began two major initiatives in the school sector have had an increasing impact on the consistency and integrity of the Client Input data we need in order to undertake our spatial analysis:-

- **School re-locations & mergers -** Many schools have physically re-located to new, modern facilities in new locations (sometimes it is just a few hundred metres to what was once the car park / sports field, but it has changed its' grid reference none-the-

less). This may also be accompanied by official closures and mergers of schools, that may, or may not, create a new school at the new site. Or it may just be the case that school managements merge to form a single school that operates on a split-site basis.

- **Some state schools no longer reporting to the local authority -** The advent of Academies has resulted in large numbers of schools taking themselves out of local authority control. In practical terms this means they no longer have to supply their School Census data to the local authority but instead report it directly to the DfE. It also means that they do not have to collect data that is not part of the School Census, even if the local authority would like them to.

Thus keeping track of what schools are still open and where they are is now more difficult, as is compiling complete datasets covering all the state schools in the authority. This is obviously now further compounded by the DfE decision to remove Pupil Usual Mode of Travel from the School Census. **It is essential therefore that clients are wise to these issues within their authority and work together with colleagues to maintain data integrity at a local level.**

2. Pupil-Level School Census & Usual Mode of Travel Data

2.1 Description

This is the data we require at pupil level so that we know:-

- **who they are** (using their authority / national pupil identifier, not any personal data like name etc.) so the analysis results can be cross-referenced with other data.
- **where they live** (using their home postcode centroid, not their actual address) so we can plot their home location on a map reasonably accurately and undertake our spatial analysis process.

- **How old they are** (using their National Curriculum Year year group, not their date of birth) so we know what schools they could also go to.
- **how they travel to school** (using the Pupil Usual Mode of Travel data if available) so we can see if distance from school is the main factor determining how they get there.
- **essential facts about them** (using various socio-demographic data like age, sex, gender etc.) so we can analyse and split the data in different ways to figure out if any of these factors influence the observed pupil travel behaviour.

We therefore require the following data fields for each pupil in the authority (see section 2.4 for a full discussion about each):-

- Unique ID
- LEA Code
- Home Postcode
- Actual School DE Establishment Number
- Usual Mode of Travel*
- National Curriculum Year
- Gender
- Free School Meal Entitlement
- Ethnicity Code

No longer part of National School Census (see section 2.2)

2.2 Source
Previously all the data we needed about pupils was contained in the National School Census, which is collected 3 times a year by local authorities from their schools and passed on to Department for Education. However as explained already, since July 2011 the Pupil Usual Mode of Travel is no longer collected by the DfE as part of the School Census process. We therefore need to separate this out from the rest of the School Census data to discuss how it is sourced.

2.2.1 Pupil-Level School Census Data
There is only one source of pupil-level National School Census data within an authority and that

is the **LEA Administration / Information Team.** If clients have not worked with this data before they will need to initiate an annual supply process with them. It is worth clients while to establish a good working relationship with the Management Information System (MIS) Officer in charge of collecting the School Census, as the data will need to be re-supplied every year.

Note that because the Pupil Usual Mode of Travel data was not collected until the January census, the extract of School Census data that we require for analysis was not available to supply to us until late February / March of the school year. The delay enabled the data to be checked and cleaned by the LEA Administration / Information Team and as far as we are aware this is still the case.

2.2.2 Pupil Usual Mode of Travel Data
Because of the DfE decision the situation within local authorities with regard to Pupil Usual Mode of Travel Data is complex and very variable due to the number of factors and players involved. To ensure that there is a complete, authority-wide Pupil Usual Mode of Travel dataset available for analysis by us, the local authority must:-

1. actively decide at a strategic policy level that they want to continue collecting the data on an authority-wide basis.

2. tell the state schools still under the authoritys' control to continue collecting it and give them the technical means to pass it on to the LEA Administration / Information Team. Technically this is often not as difficult as it sounds as they are usually automatically collecting data from the schools MIS on a very regular basis (sometimes every night) anyway as part of their statutory duties.

3. inform the state schools not still under their control (ie. Academies) that the authority "would like" them to still collect the data and pass it back to them. Assuming the school agree, and the authority cannot insist on it,

they will almost certainly have to establish a formal Data Sharing Agreement if they don't have one already and again work out the technical details of how the data will be passed on. Again this may not be as difficult as it could be if there is a good relationship between the school and the authority. They may also already have an agreement in place for sharing other data. They may even have the technical infrastructure in place because the academy has "bought back in" to the back-office support services offered by the local authority. But then again maybe not … and often maybe not for every academy in the local authority area (we have heard of academies who still refuse to collect the mode of travel data, despite the benefits).

This latter point about academies is non-trivial as in some authorities over half the pupils may be attending academy schools (for example we know of at least one authority where all the secondary schools are now academies).

Thus there are a lot of hurdles to overcome for the collection of a complete, authority-wide Pupil Usual Mode of Travel dataset to be re-established. That said in some authorities this has been done so it is not impossible. **What is certain though is that it is not a technical issue as the capability of the school MIS to record the Pupil Usual Mode of Travel has not been affected by the DfE decision.**

If your authority has not yet re-established collecting Pupil Usual Mode of Travel data from it's schools there are plenty of arguments for it articulated on our website at www.sthc.co.uk/SchoolCensus.aspx. Good luck!

2.3 Format
The following formats are acceptable for the Pupil-Level School Census & Usual Mode of Travel data file supplied to us:-

- **Microsoft Excel Spreadsheet (.xls) -** First row should contain the column headings. Note however that there is a maximum limit of 66,000 rows in a single spreadsheet so if the data consists of more pupil records than that then either :-
  o split the records between two or more spreadsheets in a single workbook e.g. by gender or school type
  o use an alternative file type like a comma separated text file
  It may be part of the same workbook containing the School Gazetteer data.

- **Comma Separated Value (.csv or .txt) text file -** Each 'field' of values should be separated by either commas or tabs and the first line of the file should contain the field titles.

- **Microsoft Access database (.mdb) –** Note however that the file size of the data may be much larger in this format.

Our understanding is that, because Pupil Usual Mode of Travel is collected in a different data gathering process than the School Census, it is usually stored separately on the LEA schools data system. **We would be very grateful if authority MIS officers could merge the Pupil Usual Mode of Travel data field with the data fields that are still part of School Census into a single file to supply to us. If there is no mode of travel recorded for particular pupils then just leave the field blank but still include the data fields from the School Census. That way we still have a record of the pupil and can at least map where they are in relation to the school.**

2.4 Fields Required For Distance Analysis Process
The data fields discussed in the following section must be present in the Pupil-Level School Census & Usual Mode of Travel file supplied to us in order for us to carry out the Distance Analysis Process.

Note
i) We are aware that the inclusion of particular data fields will have different "resonance" in

different authorities and are live to the sensitivities. Our aim at all times is to develop a standardised analysis process that can be carried out in all local authorities nationally whilst operating within Data Protection guidelines and best practice. Please refer to Quick Guide 1 for a fuller discussion of Data Protection Issues, or contact us directly.

2.4.1 LEA Code
3 character DfE assigned code for the LEA. Its inclusion will enable us to differentiate records when processing data from more than one LEA at a time.

2.4.2 Student Unique ID
Each student record must contain a unique identifier field that distinguishes it from all the others in order for us to process the data. It makes most sense if the LEA supplies the existing code that they use to uniquely identify students within their own information systems as this means that our Output Analysis Data can be subsequently cross-referenced to other LEA pupil datasets if required.

Alas though life is not as straight-forward as that. There are Data Protection issues surrounding the use of the UPN, the nationally Unique Pupil Number, especially by 3rd parties. Unfortunately it is sometimes the case that the UPN is the only unique student identifier in use within an authority. It is also the case that some LEA-specific pupil IDs have too many characters to be used in the GIS software we use.

To counter these issues, and to absolutely ensure that the pupil ID we use in our process is nationally unique without relying on the UPN, we also assign our own to each pupil record from the outset. The LEA supplied ID is retained within our database however so that a look-up table can be supplied back to the LEA along with the Analysis Output Data to ensure that it can be cross-referenced with the authorities other pupil datasets.

Notes
i) Further information and official guidance on the use of the national Unique Pupil Number is available from the UPN web site -
www.teachernet.gov.uk/management/tools/ims/upn/.

ii) Without any additional information it is impossible for us, or indeed anybody else, to personally identify any pupil (see section 4 of STHC Guide 1 in this series for a fuller discussion of Data Protection issues and the re-assurance of MIS Officers).

2.4.3 Student Home Postcode
This is used by us to assign an OS grid reference to the pupil record (by cross-referencing with the OS CodePoint dataset) so that it can be plotted on a map. The grid reference assigned is the centroid of the unit postcode so that when viewed publicly on a map the pupils' actual home location is not disclosed. The format of the postcodes must be EH32 0HR i.e. 3 or 4 characters followed by a space followed by the remaining 3 characters.

Note
i) Inevitably there will be some records with incomplete, missing all-together or just plain wrong postcodes in your dataset. This comes with the territory so don't panic (see section 5 of this guide for re-assurance!). Please speak to us directly if you wish more detailed information on any aspect of the geocoding process or use of postcodes.

2.4.4 Actual School DFE Establishment Number
This is the reference ID number assigned by the DfE to every educational establishment in England & Wales, which we use to cross-reference with the Schools Gazetteer file. Unfortunately it is a shortcoming of the current system that the DfE Establishment Number is only unique within that LEA e.g. there may be schools with Establishment Numbers "1234" in neighbouring authorities. This is not a problem for our process however as we use a combination

of the LEA code and the Establishment Number to create a nationally unique School ID (essential when analysing data from multiple LEAs simultaneously)

Note
i) We create our unique school ID automatically as part of the process, please do not do this yourself before supplying the data to us.

2.4.5 Pupil Usual Mode of Travel

For the sake of continuity, even though the DfE no longer collect the data as part of School Census authorities should still collect according to the same practice. Thus Pupil Usual Mode of Travel data field should contain one of the standard 3 character codes previously specified by DfE to denote the mode of travel. These are listed in the table below along with the symbols we use to depict them in the "GIS Analysis Output Data" (MapInfo) files:-

School Census Code	Mode of Travel Description	Symbol used in MapInfo GIS files
WLK	Walk	
CYC	Cycle	
CAR	Car or Van	
CRS	Car Share (with a child / children from a different household)	*
PSB	Public Service Bus	
DSB	Dedicated School Bus	
BNK	Bus (Type Not Known)	
TXI	Taxi	
TRN	Train	
LUL	London Underground	
MTL	Metro/Tram/Light Rail	
BDR	Boarding	*
OTH	Other	*
UNK	Unknown	*+

Note
*i) * denotes a customised symbol designed by Knowledge Mappers*

In an ideal world all the pupil travel modes would be known and properly recorded. Unfortunately this is not the case and in many records the mode of travel field may be empty. We therefore code any blank entries as "UNK" for "Unknown". For example in Somerset in 2006-07, the modes in the table below were recorded.

ALL SCHOOLS - ACTUAL DISTANCE STATS					
			Total Pupils		
		Number	%	%	Number
Mode	Description	Actual	All	Known Only	Adjusted
WLK	Walking	22936	33.31%	47.86%	32954
CYC	Cycling	1503	2.18%	3.14%	2159
CAR	Car or Van	13946	20.25%	29.10%	20037
CRS	Car Sharing	1211	1.76%	2.53%	1740
PSB	Public Service Bus	955	1.39%	1.99%	1372
DSB	Dedicated School Bus	6575	9.55%	13.72%	9447
BNK	Bus Type Not Known	63	0.09%	0.13%	91
TXI	Taxi	409	0.59%	0.85%	588
BDR	Boarding	156	0.23%	0.33%	224
OTH	Other	169	0.25%	0.35%	243
UNK	Unknown	20932	30.40%		
Total		**68855**	**100.00%**		
Total - Known only		*47923*		*100.00%*	*68855*

The fact that 30.40% of the records are "Unknown" really skews the relative proportions of the rest of the real modes of travel. To get round this, part of our analysis process involves "adjusting" the data by proportionately redistributing these "Unknown" records to the other travel modes that are known to give you a better idea of actual pupil numbers. Thus we can see from the example above that 33.31% of all recorded pupils cycle, but this rises to 47.88% if only the known travel modes are considered. This means that instead of there just being 22,936 pupils cycling to school, the number is more likely to be around 32,954 (ie. half as many again, which is a lot!). This is a pragmatic way of getting more useful figures for target setting out of the data that is provided.

Notes
i) To avoid ambiguity there should be no blank entries for the Mode of Travel field in the data file to be supplied to us. If there are they should be populated with the value "UNK" (for Unknown).

ii) We appreciate that, in theory, only schools

with a formal travel plan are required to populate the mode of travel field in their management information system (MIS). In practice though we have found that many schools collect mode of travel data anyway because there is a field for it in the school MIS software. Thus do not think that because your authority has a low take up of school travel plans that it is not worth the effort to undertake our analysis!

iii) We understand from anecdotal evidence that, for a small number of schools in a few authorities, there is some concern about the quality of the mode of travel data collected for the Census. All we can say in response is that:-

* This does not invalidate the whole dataset (a bit of variability is inevitable in large datasets collected from multiple sources at a local level)
* By putting the mode of travel data back into schools in the form of the School Travel Health Check report (ideally as part of the full 'STHC pack' with colourful, site-cemtred, large format, paper plots and summary spreadsheets as well), the people who actually collect the data will see that it *is* actually being used to do "good things" and therefore it needs to be as accurate as possible. Any pupils walking or cycling from ridiculously large distances will be immediately obvious from the maps and hopefully this will prompt the school to make sure those pupils are coded correctly for the next census. This will also be true for pupils driving large distances, but then again that is kind of the point of the exercise. Not specifically to "name and shame" those individuals but to make the school community as a whole aware that the "whole sustainable travel thing" is a local issue that affects them, but they can actually do something about it by making better travel choices.

2.4.6 National Curriculum Year (NCY)

This field is required in order to identify the nearest eligible school to the pupils' home postcode location (in order for a school to be considered as a candidate for "nearest" it must offer the same National Curriculum Year of education as the pupils recorded NCY). By way of reference in this confusing world of national curriculum years, phases of education and plethora of school types (even within the same LEA), we have attempted to map them all in the one table below:-

NCY	Phase of Education	Approx. Age	2-Tier School	School Type 2
N1	Nursery (Year 1)	3	Nursery	
N2	Nursery (Year 2)	4	Infant	
R	Primary (Year 1)	5	Infant	First
1	Primary (Year 2)	6	Junior	First
2	Primary (Year 3)	7	Junior	First
3	Primary (Year 4)	8	Junior	First
4	Primary (Year 5)	9	Junior	Middle
5	Primary (Year 6)	10	Junior	Middle
6	Primary (Year 7)	11	Junior	Middle
7	Secondary (Year 1)	12	Secondary	Middle
8	Secondary (Year 2)	13	Secondary	Middle
9	Secondary (Year 3)	14	Secondary	Upper
10	Secondary (Year 4)	15	Secondary	Upper
11	Secondary (Year 5)	16	Secondary	Upper
12	Secondary	17	Secondary	Upper

"Things should be made as simple
as possible, but no simpler"
- Albert Einstein

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	(Year 6)		Sixth Form	
13	Secondary (Year 7)	18	Secondary Sixth Form	Upper
14	Secondary (Year 8)	19	Secondary Sixth Form	Upper

2.4.7 Gender
Yes gender is an issue, even in the world of school travel! It is known for instance that there is drop off in the proportion of girls cycling as they progress through secondary school.

2.4.8 Free School Meal (FSM) Entitlement
The use of FSM information has been used in the past to great effect to give far greater accuracy in identifying areas of deprivation at the sub-ward level (Index of Mass Deprivation (IMD) data only being ward-level makes pinpointing the actual areas of deprivation in any but the smallest of wards impossible). To date in Somerset, FSM Entitlement data has been used to identify the optimum locations for Children's Centres and in the identification of areas to target for child casualty reduction - unfortunately there is a direct link between deprivation and accidents. The need to be able to accurately identify areas of deprivation to enable informed spatial planning and targeted intervention is of paramount importance.

2.4.9 Ethnicity Code
As far as we are aware there have been no specific studies of how ethnicity affects travel choices but it is only through inclusion of ethnicity in the census extract supplied to us that any links can be analysed for. This will allow authorities to target the "sustainable travel choice" message in the most appropriate way if there are any issues.

2.5 Supply Process
The file size of the School Census Mode of Travel data is likely to be small enough that it can be sent to us by email attachment.

Note
i) As a further Data Protection measure we recommend that Pupil Census data files sent to us are password-protected (though obviously you need to let us know what the password is!).

3. School-Level School Census & School Gazetteer Data

3.1 Description
This is the data we require at school level so that we know:-
- **which school they are** (using the official DfE Establishment Number, not just the name) so the analysis results can be unambiguously cross-referenced with other data.
- **where the school is located** (using the Ordnance Survey grid reference, not just the postal address) so we can unambiguously and very accurately plot their position on a map and measure pupil travel distances to it during our spatial analysis process.
- **essential qualifying facts about them** (what type of school they are and crucially what age range of pupils they accept) so we know if any given pupil is eligible to attend them during our spatial analysis process.
- **other facts about them** (practical things like contact details, websites etc. and some socio-demographic stuff) so we can incorporate it into our analysis output data for the benefit of the end user.

At the very least the "School Gazetteer" file sent to us must be **the official, definitive list of all the schools in the LEA along with their accurate Ordnance Survey grid references**:-
- By "official" and "definitive" we mean supplied and maintained by (or on behalf of) the LEA administration / information team. This means that if a school is closed / merged / relocated / newly opened etc. this file is automatically updated (including the grid references).
- By "accurate" we mean the grid reference

falls within the boundaries of the main school building. In technical "GIS-Speak" it needs to be of AddressPoint standard – your GIS team will know the answer to this. We can assess the suitability of your school gazetteer file if you have any doubts.

We therefore require the following data fields for each school in the authority (see section 3.4 for a full discussion about each):-

- School Name
- LEA Code
- DE Establishment Number
- School Type (DfE Census School Type Code and/or LEA-Specific School Type)
- School Phase of Education (PoE)
- National Curriculum Year (NCY) Range (Minimum NCY Year Group and Maximum NCY Year Group in separate fields)
- Ordnance Survey Grid Reference (Easting & Northing in separate fields)*
- School Postal Address
- School Telephone Number
- School Email Address
- School Website Address
- Intake Type
- Free School Meals Taken
- Number of Full Time Equivalent Staff
- LEA-specific Unique School ID (if routinely used)

3.2 Source

3.2.1 National
Firstly it needs to be stated that in an ideal, 'joined-up' world **Edubase**, the DfE online database of all educational establishments in England & Wales (see www.education.gov.uk/edubase), would be the single, definitive school gazetteer for all of our work as it does contain OS grid references as well as much (though not all e.g. NCY range) of the census data we require about the school. Unfortunately however there are quality issues with the grid references of a small, but

nonetheless significant, number of schools.

These errors come about because the DfE does not simply ask schools to include grid references when they provide all the other descriptive data about the school for the annual census, but instead geocode it themselves using a partially automated process. This process is more sophisticated than the one that we use for geocoding the pupil data because it needs to identify the actual building. Unfortunately in some instances the wrong property is identified as the school (usually something with "school" in the title e.g. "The Old School House"), and consequently the "wrong" grid reference assigned to it. **Until these issues are resolved therefore we would recommend that clients do not use Edubase as the school gazetteer file for our spatial analysis.**

3.2.2 Local Authority
This leaves us with no option but to source a School Gazetteer file from individual local authorities themselves. The problem with this approach however is that authorities differ markedly in what constitutes a School Gazetteer and how they make this file available at a corporate level – if at all! This obviously makes it rather difficult for us to be able to give specific instructions to clients on where to lay their hands on a single School Gazetteer file that is fit for our purpose.

As stated already all the extra information we require apart from the OS Grid Reference is gathered during the School Census process. Thus the **LEA Administration / Information Team** should be able to provide it at the same time as the Mode of Travel data. If not from the same MIS Officer then they should certainly be able to point clients in the right direction. The problem then may be however that this dataset may not contain the OS grid references we require in order to undertake our distance analysis process. It will depend on how "spatially aware" the LEA Administration / Information Team are. Clients will therefore need to ascertain from the MIS Officer :-

a) If their school census data routinely contains fields for OS grid references of the required standard (ie. it falls within the boundaries of the main school building)? *If yes, great! If not …*

b) Does the LEA Administration / Information Team have them elsewhere in another file that could be easily cross-referenced with the census data in the one file that they could give to us (for example in some authorities GIS is now used in the School Admissions process, which means that somebody in the LEA has a school gazetteer file of sufficient accuracy)? *If yes, great! If not …*

c) Is there an Authority GIS Team that hold a geocoded school gazetteer file, even if it doesn't contain all the information we require? *If yes …*

d) Could they persuade the LEA Administration / Information Team of the value of having their school census data georeferenced in this way and together sort out a way for it to routinely happen in the future? *If yes, great! If not …*

e) Could they give Clients the file to give to us along with the school census data from the MIS Officer?

Option d) is preferable as remember, authorities are going to have to go through all this again next year so they might as well bite the bullet now! If for whatever reason none of the above options are viable, then Knowledge Mappers can geocode the available list of schools as an Additional Service.

Notes
i) If there are any doubts as to the accuracy / currency / quality of the School Gazetteer file then clients should check with the LEA administration team first before sending it to us.

ii) If ALL the grid references in the school gazetteer file have not been updated in the last couple of years then we recommend they are re-assessed. Over the last 5 years or so the Ordnance Survey has undertaken a major national program of "Positional Accuracy Improvement" (PAI), which has resulted in some map features shifting grid reference by as much as a few 10's of metres (although typically the shift is less than a few metres, if at all).

3.3 Format
The following formats are acceptable for the School Gazetteer file supplied to us :-

- **Microsoft Excel spreadsheet (.xls) -** First row should contain the column headings. It may be part of the same workbook containing the Pupil Census data.

- **Comma Separated Value (.csv) text file -** Each 'field' of values should be separated by either commas or tabs and the first line of the file should contain the field titles.

- **GIS coverage -** Ideally this would be a MapInfo (.TAB) file but other GIS software formats may be acceptable.

- **Microsoft Access database (.mdb)** - Note however that the file size of the data may be much larger in this format.

3.4 Fields Required For Distance Analysis Process
The following data fields must be present in the School Gazetteer file supplied to us in order for us to carry out the Distance Analysis Process. As mentioned already all but the OS Grid Reference are automatically contained in the School Census data :-

3.4.1 School Name
This is for ease of reference only. The actual cross-referencing of the School Gazetteer with the Pupil Census data is done on the DfE Establishment Number rather than on the school name because of the inevitable inconsistencies in spelling of names in different datasets. For example St Johns Primary School could be spelt a variety of ways :-
- *St Johns Primary School*
- *St. Johns Primary School*

- *Saint Johns Primary School*
- *St Johns' Primary School*
- *St. Johns' Primary School*
- *Saint Johns' Primary School*

3.4.2 LEA Code
3 character, DfE assigned code for the LEA. Its' inclusion will enable us to differentiate records when processing data from more than one LEA at a time.

3.4.3 DfE Establishment Number
See previous description of this in section 2.4.4.

3.4.4 School Type
School Type is one of those things that is a lot more complicated in reality than theory, especially when more than one LEA is involved. These complications are the reason we need several similar, but subtly different, data fields describing the school for our analysis process (in particular to determine the "nearest school" and enable the reporting of results by generic "school type"). The main problems are:-

- The range of school types and system of pupil progression through them varies both between different LEAs and sometimes within the area covered by a single authority (e.g. in Somerset LEA even though there is a First, Middle and Upper system it only exists in some parts of the county).
- Some of these different "types" may be combined in the same physical establishment e.g. an Infant and Junior school, a Secondary School with a Sixth Form Annexe.
- The type descriptions used internally by the LEA usually differ from the DFE national type system that is used in the School Census.

Thus in an effort to create a process that can be applied nationally to any LEA but still maintain local relevance, we ask authorities for 2 "school type" fields:-

- **DfE Census School Type Code** – This is the 2 character code number from the school

level census data that forms the national standard school type set. As of March 2007 the type codes and corresponding text descriptions are as follows:-

Code	DFE School Type Description
01	First School, 5-8
02	First School, 5-9
03	First School, 5-10
04	First and Middle School, 5-12
05	Middle School, 8-12, deemed Primary
06	Middle School, 9-13, deemed Primary
07	Middle School, 9-13, deemed Secondary
08	Middle School, 10-13, deemed Secondary
09	Comprehensive Upper School, 12-15/16
10	Comprehensive Upper School, 12-18
11	Comprehensive Upper School, 13-16
12	Comprehensive Upper School, 13-18
16	Infant School, 5-7/8
17	Junior School, 7/8-11
18	Infant and Junior school, 5-11
21	Comprehensive All-Through, 11-16
22	Comprehensive All-Through, 11-18
25	Junior Comprehensive, 11-13, automatic transfer
26	Junior Comprehensive, 11-14, automatic transfer
27	Junior Comprehensive, 11-16, optional transfer at 13
28	Junior Comprehensive, 11-16, optional transfer at 14
29	Senior Comprehensive, 13-16, automatic transfer
30	Senior Comprehensive, 13-18, optional transfer
31	Senior Comprehensive, 13-18, automatic transfer
32	Senior Comprehensive, 14-18, optional transfer
33	Senior Comprehensive, 14-18, automatic transfer
36	Non-Comprehensive Secondary - Modern
37	Non-Comprehensive Secondary - Grammar
38	Non-Comprehensive Secondary - Technical
39	Non-Comprehensive Secondary - Other
41	Middle School, 10-14, deemed Secondary
42	First School, 5-7
43	First School, 7-10

44	Comprehensive Upper School, 14/15-18
45	Middle School, 9-12, Deemed Primary
46	Comprehensive, Middle and Upper, 10-16
47	CTC
48	Comprehensive Upper School, 11-16
49	Academies
50	Maintained Nursery
51	Direct Grant Nursery

Unfortunately however there is no type code for Special Schools, hence our requirement for additional data fields to unambiguously identify them as part of the automated process.

Note
i) There is no need to supply the text description field in addition to the code field.

- **LEA-Specific School Type** – This is the text description of the different school types used as standard within the LEA. In our experience the local type description is usually less specific than the standard DfE school type descriptions listed above. For example within Somerset LEA the following school types are recorded in their School Gazetteer:-
  - o Infant
  - o First
  - o Junior
  - o Primary
  - o Middle
  - o Secondary
  - o Upper
  - o Special
  - o Pupil Referral Units (PRUs)

Client authorities may be slightly different in the range of school types and what they are all called. No matter though, as long as we are supplied with the definitive list we will ensure that our Analysis Data is reported to fit in with the LEA-specific set-up.

3.4.5 Phase of Education
Inclusion of this field allows us to report analysis results to a common generic school type. As of March 2007 the PoE codes and corresponding

text descriptions are as follows:-

Code	DFE School PoE Description
NS	Nursery
PS	Primary
MP	Middle (Deemed Primary)
MS	Middle (Deemed Secondary)
SS	Secondary (including CTCs and Academies)
SP	Special
EY	Early Years Settings
PR	Pupil Referral Unit (PRU)
XX	Multiple Phases (not Middle, Special or PRU)

Note
i) There is no need to supply the text description field in addition to the code field.

3.4.6 National Curriculum Year (NCY) Range
Due to the complications with the range of school types discussed above, particularly where more than one type share a common establishment, we now use the NCY to determine the "nearest eligible school" to a pupil (all schools in the gazetteer catering for the pupils' recorded NCY are assessed for their 'nearness' during data processing). Thus we need the following fields to determine the range of NCYs covered by each school :-
- **Minimum (NCY) Year Group**
- **Maximum (NCY) Year Group**

Notes
i) It is crucial that we know the NCY range, and not the Statutory Age range such as that quoted in Edubase for example. In the absence of any age or date of birth information about pupils, chronological ages are not helpful in our analysis process.

ii) In the School Gazetteer files from some LEAs in the past we have encountered the problem of a pupils' NCY from the census data record being more or less than the stated NCY range for the school they attend according to the School Gazetteer file (mainly seems to happen for NCYs of N1 and 14). This then gives rise to the curious state of affairs whereby the pupil is ineligible to go to their own school according to the logical rules of our analysis process and so the nearest school is calculated as being further away!

Please therefore ensure that the recorded minimum and maximum NCYs do encompass all the pupils that attend the school.

3.4.7 Ordnance Survey Grid Reference
This must be to AddressPoint standard i.e. the point must fall within the boundaries of the actual school building itself.

PLEASE MAKE SURE THAT THE GRID REFERENCES CONTAINED IN THE SCHOOL GAZETTEER FILE YOU SUPPLY TO US ARE CURRENT AND ACCURATE – In particular ensure that for any schools that have been merged & relocated, or are new builds, that the grid references have been updated accordingly. Whilst we make every effort to look out for potential sources of errors and inaccuracies as we are going along, we are not responsible for the accuracy of any of the grid references supplied to us. We can quality check your data before processing and carry out any remedial corrections of the grid references as an Additional Service if required.

If you wish more information about our methodology behind use of grid references then please get in touch and we will be happy to enlighten you (you are advised to have a comfortable chair and a nice cup of tea to hand before ringing us though!).

3.4.8 School Contact Information
Inclusion of these fields makes it easier for Clients to follow up the analysis process with individual schools:-
- **Postal Address** (including the postcode).
- **School Telephone Number**
- **School Email Address**
- **School Website Address** (if available)

3.4.9 Intake Type
This will help in the analysis of travel patterns. As of March 2007 the intake type codes and corresponding text descriptions are as follows:-

Code	Intake Type Description
COMP	Comprehensive
SEL1	Selective (Grammar)
SEL2	Secondary Modern
SEL3	Selective (Technical)
SEL4	Religious School
SPEC	Special

Note
i) Again there is no need to supply the text description field in addition to the code field.

3.4.10 Free School Meals Taken
Socio-economic indicators like this will help users interpret the Analysis Output Data.

3.4.11 Number of Full Time Equivalent Staff
In Somerset knowing the number of Full Time Equivalent (FTE) members of staff has been useful when looking at the overall travel needs assessment of a school. In order to calculate an overall FTE figure your MIS Officer will need to combine data contained in the School Staffing Module within the School Census data (the Census official guidance covers the number of hours that constitute a full time member of staff). In short this will involve establishing FTE's for the teaching and non-teaching elements of the school staffing module and then bringing them together to form an overall 'All FTE Staff' figure.

Note
i) It sounds complicated but is in fact a very routine calculation (we've never had any problems obtaining it so far from MIS Officers). We can, on request, supply worked examples from Somerset showing the process of extracting the data from Census and how the All FTE Staff figure is being used.

3.4.12 LEA-specific Unique School ID (if routinely used)
It is sometimes the case that an LEA routinely use their own internal, unique school reference ID (such as a Finance Dept. cost centre code) on a day-to-day basis rather than the DFE Establishment Number. If so then as long as this field is supplied as part of the School Gazetteer

file then the LEA specific school ID can be incorporated into the output analysis data to enable future cross-referencing.

Note
*i) Any LEA-specific school IDs should be supplied **in addition to** the DFE Establishment Number, not instead of it.*

3.5 Supply Process

The file size of the School Gazetteer data is likely to be small enough that it can be sent to us by email attachment.

Note
i) Given that the school level census data is not personal there is no need to password-protect the School Gazetteer file before sending it. If it is part of the same Excel workbook as the Pupil census data however this will not be a problem.

4. Digital Mapping Data

4.1 Description

This covers the range of datasets we require in order to:-

- **geocode** (ie. assign a grid reference to) the pupil-level Client Input Data
- **perform spatial analysis** using GIS software
- **provide background imagery** (either cartographic maps or aerial photography) for our STHC analysis results maps that are viewed digitally or on paper.

4.1.1 Ordnance Survey Data

For reference the Ordnance Survey (OS) datasets we use include:-

- **CodePoint** - contains the grid references of the centroid of each unit postcode in the UK, as well useful "look-up" information about them such as which local authority, NHS area, parliamentary constituency etc. they are in
- **BoundaryLine** - contains the definitive administrative and political boundaries for Great Britain down to electoral ward level
- **OS Base Mapping** – Various scales are required as background imagery on any results maps we produce such as those in the STHC School Packs:-
  - o OS 1:10,000 Colour raster
  - o OS 1:50,000 Colour raster
  - o OS 1:250,000 Colour raster

4.1.2 Digital Aerial Photography

In addition to "traditional" maps, we also plot analysis results on an **aerial photography** background for STHC packs, when it's available (as it is in most local authorities). Aerial photography however is usually covered by a separate, unrelated license agreement to that for the OS data as it will have been supplied by a specialist aerial imagery company (such as GetMapping or GeoPerspectives).

Also due to the expense, authority-wide aerial photography is usually only commissioned / acquired every few years. For example it may be tied in with National Census collection ie. 1991, 2001, 2011 etc. Thus even the most recently acquired imagery may not show newly built features that are on the Ordnance Survey map. We can only use what you've got but as long as users are made aware of the date the imagery was taken they can make allowances for this!

4.2 Source

4.2.1 Ordnance Survey Data

The good news is that as we are now part of the Ordnance Surveys Contractors Scheme which

means that they automatically supply us with national coverage of all the OS datasets we need. **Thus local authority clients no longer need to physically send us their Ordnance Survey data.**

The bad (well not that bad) news is that we will still need to sign a Contractors Agreement issued by your authority in order to use the OS data we have on your behalf. However the good news here is that it is a standard contract document and it should be readily available from your **Authority Liaison Officer (ALO)**, the person responsible for managing the digital map data supplied to the authority under the Public Service Mapping Agreement (PSMA) (and incidentally a very useful person to know anyway if you are undertaking any sort of mapping work). This can be emailed to us to sign and email (or post) back to you by return.

The even better news is that this only needs to be done once the first year. **After the initial set up clients do not need to do anything else with regards to supplying us with Ordnance Survey datasets so this administrative requirement needn't delay any other aspect of the processing.**

Thus we don't need to consider OS Data any further in this section.

4.2.2 Digital Aerial Photography
There are usually 2 ports of call for any mapping / aerial photography requirements within an authority, depending on the internal digital mapping / GIS setup:-

- **Authority Liaison Officer (ALO) -** This is the named officer in each local authority responsible for the receipt, management and internal distribution of all digital data supplied under the PSMA. Thus they are the ultimate source for the digital mapping data we require. Incidentally this is also true for everybody in the authority so, if you are new to the world of digital mapping and GIS, the ALO is a good person to speak to initially to find out who is doing what and therefore

might be interested in the STHC analysis output. However how the ALO function is carried out varies greatly between authorities in terms of whom the person is, their technical experience, seniority and time available to devote to the role. This may mean that the actual day-to-day, hands-on management of the MSA data may be delegated elsewhere, which is where source #2 comes in…

- **Authority GIS Team -** If the authority has a dedicated, corporate GIS Team then they will probably be the people that actually give us the digital aerial photography files we require. Again they are worth making contact with anyway as they will probably be:-
  o interested in the output analysis data we will eventually supply back to you
  o involved at a technical level in enabling Clients to visualise the GIS data we send them, either using the corporate GIS setup, perhaps via their intranet, or stand-alone software installed on their computer.

4.3 Format
The following formats are acceptable for the aerial photography files supplied to us:-
- **TIFF**
- **JPEG**
- **ECW**

Due to the specialised nature of aerial photography we will try to accommodate more exotic formats if we have to so please speak to us!

4.4 Supply Process
Due to the large size of the digital aerial photography files, especially for authority-wide coverage (we're talking 100s of megabytes), we will need to sort out the logistics of obtaining the data directly with your GIS Team. Normally we would send them a portable hard drive for them to transfer the data onto and post back to us to

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as possible, but no simpler"
- Albert Einstein

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save them the hassle of having to write it onto multiple data disks.

Note
i) As the aerial photography is supplied under a different licensing agreement than the Ordnance Survey data, authorities must check that the terms and conditions of use enable them to supply us with the data in order to produce paper maps on their behalf. They will also need to supply us with the correct copyright acknowledgement statement to include on the paper maps we produce.

5. And Finally …

5.1 A Brief Word About The Perils of Postcode-Based Mapping Analysis

Although an updated version of CodePoint is re-supplied to local authorities every 6 months by Ordnance Survey, inevitably there will be some instances where the postcode recorded in the pupil record from the School Census data file does not match. In such cases we cannot assign a grid reference to the record and so it cannot form part of the analysis dataset. This can arise for a variety of reasons:-

- Postcode has been incorrectly or incompletely recorded by the school or parent and therefore does not exist in CodePoint
- Postcode has since been changed by Royal Mail - either re-assigned to other delivery points (which may or may not be close by), or deleted altogether.
- Postcode is for a new-build property and it has not made it through the system to the CodePoint database yet (this can be a problem with School Admissions where the LEA has to plan to provide services to pupils in houses on estates that aren't fully built yet and so aren't in the OS map data!).

However if the "incorrect" postcode recorded by the school really does exist, a grid reference will be assigned to the record and it will form part of

the analysis dataset. If the assigned postcode is far away from where it should be then this will inevitably skew the distance statistics for both that particular travel mode and the school. For example in 2006-07 in Somerset one pupil apparently travelled 648 km to school on a daily basis by means "unknown" (presumably they travelled the same distance back again!). That said there are some cases that may be "legitimately ambiguous", for instance in the case of "Boarders" whose family, rather than term-time, postcode has been supplied (yes, some LEAs really do operate boarding schools!).

Unfortunately there is no way of telling from the data whether a postcode is legitimate or not. To try and mitigate their effects on the resulting statistics, our process automatically removes from further analysis all the records where the calculated distance from home postcode to school is more than 40 km. They are not deleted from the database however and so can be reported on for any subsequent remedial action. The screenshots below show this process in action in Somerset:-

"They come from where?!!!? …"
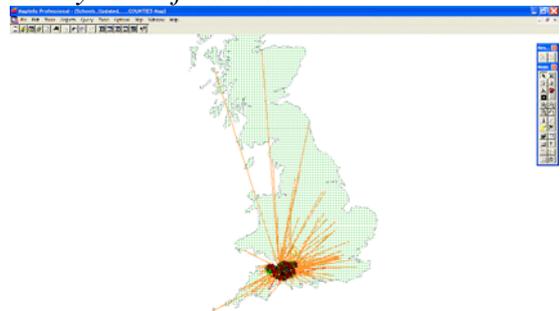
"I can't show this map to anybody else and expect them to take me seriously" …

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as possible, but no simpler"
- Albert Einstein

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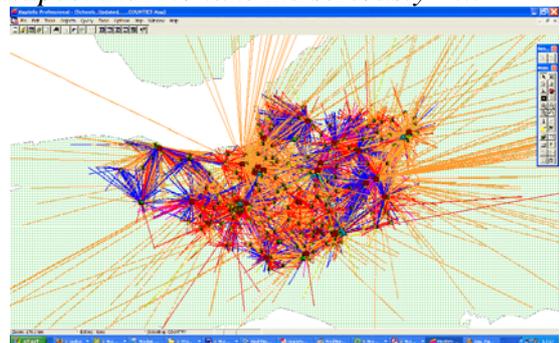
"That's better. I least I can share the map now with more confidence!" …
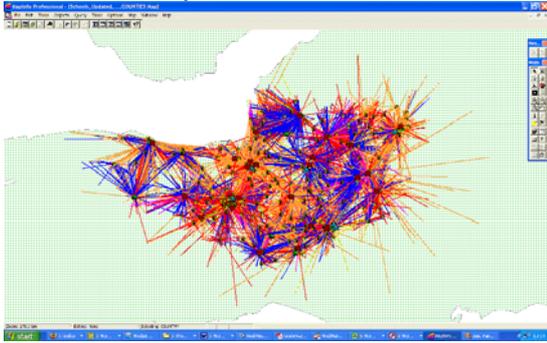
A few spurious postcodes are inevitable when dealing with such large datasets. Although their numbers are usually numerically very small (for the above example of Somerset only 90 of the 68,945 records were removed from further analysis), the distances involved can soon rack up. Their effects on the resulting distance calculations can be very disproportionate depending on the mode of travel involved so they have to be treated seriously. The 648 km mentioned in the example above is a lot more significant in terms of total walking or cycling distance collectively travelled than car distance.

Also as you can see from the above examples, another reason for removing these rogue records is so that confidence in the data as a whole is not undermined when it is plotted onto maps that may be seen by managers and colleagues in other service areas.

Note
i) A very good laymans' guide to the mapping of statistical data in the UK using postcodes and the perils therein is contained in the Geography section of the UK Office of National Statistics (ONS) website (see www.ons.gov.uk/ons/guide-method/geography/beginner-s-guide/index.html)

5.2 What You Can Do About Postcode Errors To Improve Data Quality For Future Years
All this stuff comes with the territory of mapping with postcodes so there is no need to get to hung-up about it. There are however some things that authorities can do to try and minimise problems and improve data quality in general:-

- Ensure that postcodes are recorded in the correct format - EH32 0HR i.e. 3 or 4 characters followed by a space followed by the remaining 3 characters.

- Feedback the records with the discounted postcodes to the LEA Administration Team (our analysis data includes a report file logging these records). They can take up the case with individual schools to at least investigate them and perhaps take remedial action.

- The "School Travel Health Check packs" have proven to be very good vehicles for improving data quality at school (ie. source) level. When the school management sees their pupil distribution plotted on a map, the spuriously placed records that have still made it through our processing are very apparent to those with local knowledge and they can take remedial action. Also when they see all those "Unknowns" on a map they are motivated (albeit sometimes at a subconscious level!) to turn them into "Knowns" for next time.

6. Summary Mindmaps

Summary mindmaps of each of the "Client Input Data" datasets for the Knowledge Mappers Pupil Mode of Travel Geospatial Analysis Service are shown below. Each provides a single, page-at-a-glance summary of the required dataset for quick reference and sharing with colleagues.

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as possible, but no simpler"
- Albert Einstein

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School Travel Health Check Service
Client Input Data
Pupil-Level School Census & Usual Mode Of Travel Data

Description

Pupil Mode of Travel Data contained in annual census data collected from schools

'Snapshot' taken at start of new school year in September but usually released until following February half term

Source

LEA Administration / Information team | Management Information System (MIS) Officer

Acceptable File Formats

Microsoft Excel Spreadsheet (.xls) | Upper limit of 66,000 rows per spreadsheet!

Comma Separated Value (.csv) text file

Microsoft Access database (.mdb)

Supply Process

Required annually so best to establish supply process from the outset

Data file will be small enough to be sent as an e-mail attachment

Data Fields Required

This is necessary as there are Data Protection issues around the widespread sharing of UPN

Will add our own nationally unique pupil ID as part of process so doesn't matter if it's the Unique Pupil Number (UPN)

Will supply a "look-up" table between the two unique IDs as part of the Analysis Data Output

LEA-specific Unique Student ID ("Stud_ID")

LEA Code

Enables future cross-referencing with other LEA pupil datasets

Student Home Postcode ("Home_Postcode")

Enables cross-referencing with CodePoint to assign pupil:-

Grid Reference

Home LEA

Not unique between authorities so we amend it to create our own nationally unique school ID as part of our process

Actual School DfE Establishment Number ("Estab_No")

Enables cross-referencing with School Gazetteer

No longer part of National School Census so must be collected separately from schools

Pupil Usual Mode of Travel ("Travel_Mode")

Walk = WLK
Cycle = CYC
Car/Van = CAR
Car Share = CRS
Public Service Bus = PSB
Dedicated School Bus = DSB
Bus (type not known) = BNK
Taxi = TXI
Train = TRN
London Underground = LUL
Metro/Tram/Light Rail = MTL
Boarder = BDR
Other = OTH
Unknown = UNK

Enables us to match pupil with their 'nearest' school

National Curriculum Year ("NCY")

Gender ("Gender")

Free School Meal Entitlement ("FSM")

Ethnicity Code ("Ethnicity")

School Travel HealthCheck.co.uk
Spatial Intelligence Supporting Sustainable Travel

School Travel Health Check Service
Client Input Data
School-Level School Census & School Gazetteer Data

Description

Will change quite often due to school re-locations and mergers so needs to be updated on a regular basis

Official, definitive list of all LEA schools with accurate OS grid references.

Poor Quality Grid References

Not Edubase

Source

LEA Administration / Information team

School Census Data

Combine if required

OS Grid Reference

Authority GIS Team

Acceptable File Formats

Microsoft Excel spreadsheet (.xls)

Comma Separated Value (.csv) text file

GIS coverage — Ideally MapInfo (.TAB)

Microsoft Access database (.mdb)

Supply Process

Required annually so best to establish supply process from the outset

Data file will be small enough to be sent as an e-mail attachment

Data Fields Required

School Name

LEA Code

DfE Establishment Number

Enables cross-referencing with pupil data

National standard school type-set

DfE Type Code

School Type

Enables more locally relevant reporting of analysis results by school type

LEA-specific Type Description

Enables easier comparison of results between authorities

School Phase of Education

Cannot use age to find match with 'nearest' eligible school

Not Statutory Age Range

National Curriculum Year (NCY) Range

Minimum Year Group

Maximum Year Group

Easting

Northing

OS Grid Reference

School Postal Address

School Telephone Number

School Email Address

School Website Address

Intake Type

Free School Meals Taken

Number of Full Time Equivalent (FTE) Staff

LEA-specific Unique School ID

If routinely used

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as possible, but no simpler"
- Albert Einstein

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School Travel HealthCheck.co.uk
Spatial Intelligence Supporting Sustainable Travel

School Travel Health Check Service
Client Input Data
Ordnance Survey Digital Mapping Data

Pre-requisite

All Authorities must supply official MSA Contractors License issued by ALO for Knowledge Mappers to sign

Even if they are a regional consortium member not actually supplying OS data

Description

All datasets are:-

"Standard Issue" under MSA

Designed as national (GB) look-up files to enable cross-referencing of datasets via geographic location

- CodePoint
  - National (GB) Postcode Gazetteer
    - Enables cross-referencing with Home Postcode to assign pupil:-
      - Grid Reference
      - Home LEA

- BoundaryLine
  - National (GB) Administrative & Political Boundaries
    - For interpretation of Analysis Output Data

Source

- Authority Liaison Officer (ALO)
  - Officer ultimately responsible for OS data supplied under MSA
  - May delegate day-to-day management to
    - Authority GIS Team

Acceptable File Formats

- Comma Separated Value (.csv) text file (CodePoint)
- As Originally Supplied by OS
  - National Transfer Format (NTF) (BoundaryLine)
- GIS coverage — Ideally MapInfo (.TAB)
- Microsoft Access Database (.mdb)

Data Fields Required

- All!
  - Most Immediately Useful
    - Postcode
      - Unit Postcode Easting
      - Grid Reference
      - Unit Postcode Northing
    - Administrative & Political Area ID Codes
    - Number of delivery points

Supply Process

- If Single authority
  - Single copy from one authority only required as both are released as national datasets
  - Supply single copy of each dataset (usually Easiest to send copy of original data disk by post)

- If Part of Regional Consortium
  - 'Lead' Authority (usually host of Regional STA)
    - Supply single copy of each dataset
  - Other
    - Do not need to supply any OS data