RM Data Solutions

## Knowing Your School

A series of briefing notes for school governors from the National Governors' Association produced in association with partners


## RAISEonline for Governors of Secondary Schools

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This is the second briefing note in the NGA's Knowing Your School series; the first 'RAISEonline for Governors of Primary Schools: November 2011' was also produced with RM Education.

## National Governors Association

The National Governors' Association aims to improve the well-being of children and young people by promoting high standards in all our schools and improving the effectiveness of their governing bodies. NGA represents governors across England in both maintained schools and Academies. In these notes schools includes Academies.

The NGA is a membership organisation: governing bodies can join at a standard or GOLD rate. To join NGA and receive regular updates, visit the following website:

Website: www.nga.org.uk Telephone: 0121-237-3780
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## RM Education

RM Education is the leading provider of education data services to schools, local authorities and government in the UK, and has contracts with the Department for Education and Ofsted to manage the collection and matching of pupil examination results, the National Pupil Database, school performance tables and RAISEonline.

## RM Beyond Data

RM's data analysis service for schools - Beyond Data - provides headteachers, governors and subject leaders with an expert, independent analysis of their school's performance using data from a range of sources including RAISEonline.

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#### Abstract

About the Author Dave Thomson is Head of Data Analysis at RM Education and has over 10 years' experience in the analysis of school attainment data working with schools, local authorities and government. Before joining RM Education in 2009, he was Head of Research and Statistics in a Local Authority and a consultant to the Fischer Family Trust.


## What is RAISEonline?

RAISEonline is a secure web-based system that provides schools, local authorities and inspectors with a range of analyses including:

- Attainment at the end of Key Stage 4;
- Progress from Key Stage 2 to 4;
- Absence and exclusions; and
- The characteristics (often referred to as 'context') of pupils.

For each type of analysis, your school is compared to national averages for secondary schools. Some analyses also show you where your school sits in the national distribution of schools (e.g. top $20 \%$, bottom $5 \%$ etc.). Tests of statistical significance are used to highlight results that are atypical. Statistical significance, which is not necessarily synonymous with educational importance, will be covered in more depth in a later guide.

## What is it for?

The purpose of RAISEonline is twofold. Firstly, it is an important (but by no means the only) source of data for schools to use in retrospective self-evaluation and development planning, to be used alongside other sources such as Fischer Family Trust (FFT) data and the schools' own pupil tracking data.

Secondly, the analyses are used by inspectors in their pre-inspection briefings. It is therefore critical that you are able to interpret your school's data from an inspector's perspective and can identify apparent areas of under-performance in order to:

- explain why they occurred; or
- demonstrate that you recognise them and have set out the action you are taking to address them.


## How do we get access to it?

The data is presented in a range of interactive tables and charts which can be viewed online. To access the system, you need a username and password. Each school has a designated School Administrator who is responsible for generating user names and passwords. Governors can be added as users but, unlike teachers at the school, are unable to view data about individual pupils.

In addition, a set of the key tables and charts have been collated into a single document known as the "summary report". This can also be downloaded from RAISEonline but requires a user name and password to do so. It is this document that inspectors use in their pre-inspection briefings. Although there is a lot of information in the summary report, data for previous years is rather limited. Much more is available, however, in the online system (including summary reports for previous years).

The NGA would not expect all governors to want online access, but each governing body should nominate a couple of governors to have access as a minimum. Each year in the autumn term, the school's RAISEonline Summary Report should be presented by a member of the school leadership team to a full Governing Body meeting. The governing body must decide how it will consider and analyse the more detailed data, and may set up a committee to consider this or ensure the monitoring of school performance data is within the remit of another committee, such as curriculum committee.

## How often is it updated?

RAISEonline is updated several times in the academic year. 2011 Key Stage 4 data was made available on the $6^{\text {th }}$ December. At the time of publication, the data was unvalidated. This means it had not been checked or corrected by schools. Once the process of checking is complete and Performance Tables ${ }^{1}$ have been published in January 2012, validated data will subsequently be made available in RAISEonline.

To be effective, school self-evaluation should be undertaken and any necessary actions put in place in the Autumn term. For that reason, unvalidated data tends to be the most widely used. School users can amend data in RAISEonline in a "school's own" copy of the database if there are a large number of corrections to be made to the unvalidated data. The system will then recalculate attainment measures which can be viewed in the online reports. However, "school's own" data can be viewed only by school users, and a "summary report" based on such data is not available.

## Key questions you should ask of the data

The data are provided to inform and support discussion about school improvement rather than to make absolute judgments about the effectiveness of any school. The questions you can ask of the wide range of data available in your school are almost inexhaustible. However, we limit ourselves to five key questions for this introductory guide.

1. How does attainment and progress at my school compare to national averages and the Government's floor standards?
2. Do we have any under-performing groups of pupils, or are there wide gaps in attainment between some groups of pupils?
3. How might the context of our school affect our performance?
4. Are we relatively stronger or weaker in some subjects compared to others?
5. How does pupil attendance compare to national averages?
[^0]
## 1a How does attainment at my school compare to national averages?

There are a number of different measures of pupil attainment and progress in RAISEonline. For a school with Key Stage 4 pupils, the three key measures are:

- The percentage of pupils who achieved 5 or more $\mathrm{A}^{*}-\mathrm{C}$ grades at GCSE (or equivalent) including English and mathematics;
- The percentage of pupils who made expected progress in English between Key Stage 2 and Key Stage 4; and
- The percentage of pupils who made expected progress in mathematics between Key Stage 2 and Key Stage 4.

In 2011, $57 \%$ of pupils in state-funded schools nationally achieved 5 or more A*-C grades including the "basics" (passes in both GCSE English and mathematics at grade C or higher). In other words, they achieved the basics plus at least 3 other GCSE or equivalent qualifications. Although GCSEs (including International GCSEs) are the most common type of qualification achieved by Key Stage 4 pupils, other types of qualification are also counted. Pupils nationally in 2011 achieved over 1,500 different qualifications equivalent to a grade $\mathrm{A}^{*}-\mathrm{C}$ at GCSE. Other common types of qualification include BTEC, Basic Skills and Key Skills.

The measures of expected progress in English and mathematics take account of pupils' prior attainment as measured by National Curriculum tests at the end of Key Stage 2. A pupil who achieved level 4, considered the norm for a pupil at the end of Key Stage 2, would be expected to achieve a grade C or higher at GCSE. However, a pupil with a higher level of prior attainment, i.e. level 5 at Key Stage 2, would be expected to achieve a grade B or higher at GCSE. The table below illustrates how expected progress is defined.


The dark green cells in the table on the left show the combinations of Key Stage 2 test levels and GCSE grades that constitute making expected progress. Light blue cells indicate making less than expected progress. Grey cells denote pupils for whom there is insufficient information to determine whether they made expected progress or not.

## 1b How does attainment at my school compare to the Government's floor standards?

The Government's "floor standard" for secondary schools is that at least 35\% of pupils should have achieved 5 or more $\mathrm{A}^{*}$-C grades at GCSE (or equivalent) including English and mathematics. However, a school will only be considered to be below the floor standard (and therefore be targeted for intervention) if rates of expected progress are below the national average as well.

It should be noted that schools will only be designated as below floor standards based on validated data. However, in the Autumn term you may wish to consider how close your school is to the floor standard.

Firstly, check the proportion of pupils who achieved 5 or more $A^{*}-C$ grades at GCSE (or equivalent) including English and mathematics ${ }^{2}$.

| \% achieving 5 or <br> more A* to C (inc <br> English and Maths) | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ |
| :--- | :---: | :---: | :---: |
| Cohort |  |  | In this example, 74\% of <br> pupils at the School <br> achieved 5 or more $A^{*}-C$ |
| School | 169 | 176 | 175 |
| grades including English |  |  |  |
| and maths. This was |  |  |  |
| National | 70 | 62 | 74 |
| Dignificantly above the   <br> Significance 50 54 <br> national average of 57\%   <br> given the number of pupils   <br> (175) in the cohort.   |  |  |  |

Secondly, check the percentages of pupils who achieved expected progress in each of English and mathematics. These can be found in the Expected Progress Summary Report ${ }^{3}$, an example of which is shown below.

| All Pupils | English |  |  |  | Mathematics |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cohort | School | National | Sig | Cohort | School | National | Sig |
|  | 138 | 78 | 71 |  | 143 | 56 | 64 | Sig- |
|  |  | The example above shows that although the percentage of pupils making expected progress in English at this School was above average, it was below average (significantly so) in mathematics. |  |  |  |  |  |  |

Although national averages ${ }^{4}$ for pupils are shown in RAISEonline, national medians ${ }^{5}$ for secondary schools are used in defining floor standards for progress. In 2010 these were $72 \%$ for English and 65\% for mathematics.

Always check the number of pupils on which percentages are based. Remember that in a group of 20 pupils, one pupil is equivalent to $5 \%$.

[^1]
## 2. Do we have any under-performing groups of pupils, or are there wide gaps in attainment between some groups of pupils?

There are a number of reports in RAISEonline which show attainment, progress and absence for different groups of pupils. Even in schools with above average levels of attainment there can be "gaps" in attainment between some groups of pupils. For example, the Government's White Paper The Importance of Teaching sets out to narrow the "gap" between pupils eligible for free school meals (FSM) and their peers.

Ofsted's draft evaluation schedule ${ }^{6}$ for school inspections from January 2012 lists a number of pupil groups whose attainment you may wish to look at. They include:

- Pupils who are eligible for free school meals (FSM)
- Children Looked After (CLA)
- Boys and girls, particularly in English
- Pupils whose first language is not English
- Minority ethnic pupils
- Pupils with special educational needs (SEN), particularly comparing such pupils at your schools to pupils with SEN nationally
- Pupils of different ability levels as measured by attainment at the end of Key Stage 2

Comparing the attainment of pupil groups is only worthwhile - and valid - if you have a sufficient number of pupils in each group. Fewer than 10 pupils in a single year would be insufficient, and any comparisons based on 10-20 pupils should be interpreted with caution. However, examination of data over a number of years may reveal a persistent pattern of atypical attainment for small pupil groups.

In the example overleaf ${ }^{7}$, the school had 101 pupils eligible for free school meals (FSM) and 73 pupils who were not eligible in Year 11 in the previous academic year. $68 \%$ of the FSM group achieved the equivalent of 5 or more $\mathrm{A}^{*}-\mathrm{C}$ grades including English and mathematics. In RAISEonline, the attainment of the FSM group can be:

- Compared to the attainment of other pupils at the school (also 68\%); and
- Compared to the attainment other pupils eligible for free school meals nationally (34\%).

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| Free School Meals | Percentage of cohort gaining 5 or more $A^{*}$ to C (inc Englisand Maths) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cohort | School | National | Difference | Significance |
|  |  |  |  |  |  |
| FSM | 101 | 68 | 34 | 34 | Sig+ |
| Non FSM | 73 | 68 | 61 | 7 |  |
|  | This example shows that $68 \%$ of the 101 pupils eligible for free school meals at the School achieved 5 or more $A^{*}$-C GCSEs including English and maths. This was double the national average rate for such pupils. Importantly, no "gap" between FSM and non-FSM pupils is apparent on this measure at the School, unlike nationally. |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |


|  | Percentage of cohort gaining 5 or more A* to C (inc Englis and Maths) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cohort | School | National | Difference | Significance |
| Free School Meals |  |  |  |  |  |
| FSM | 32 | 16 | 34 | -18 | Sig- |
| Non FSM | 104 | 63 | $61$ | $2$ |  |
|  | In contrast, in this example just $16 \%$ of the 32 FSM pupils at this School achieved 5 or more $A^{*}$-C GCSEs including English and mathematics. This was well below the average of non FSM pupils at the School (63\%) and significantly below the average for FSM pupils nationally (34\%). |  |  |  |  |

A similar exercise can be performed using expected progress reports ${ }^{8}$. Were some groups less likely than others to make expected progress?

[^3]
## 3. How might the context of our school affect our performance?

Decades of research into school effectiveness have shown that some groups of pupils, particularly those from less advantaged backgrounds, tend to achieve less well than other groups. This has led to a range of Government interventions to raise attainment, including City Challenge under Labour or the Pupil Premium under the current Coalition.

Economic disadvantage should not excuse low attainment. However, it should be recognised that apparent variations in levels of attainment between schools are influenced by variations in intakes. Such variations are often caricatured by descriptions of the areas served by schools such as "tough inner-cities" and "leafy suburbs".

Moreover, even within a school, there may be significant variation (especially in attainment and prevalence of special educational needs) between one year group and the next.

Simply comparing a school's attainment to the national average will not necessarily identify those schools which are performing extraordinarily well in challenging circumstances. Or will it identify those schools in more advantaged circumstances which could be doing better.


In the example above, the school might be slightly disappointed that it has fallen short of the national average for the percentage of pupils achieving 5 or more $\mathrm{A}^{*}-\mathrm{C}$ grades at GCSE including English and mathematics by 4 percentage points (equivalent to seven pupils). However, it can be seen that attainment among both the FSM and non-FSM groups at the School was above national averages for corresponding groups.

Such a situation arises when the composition of the school cohort is substantially different to the "average" school. It can be seen that 116 of the 169 pupils (69\%) were eligible for free school meals. This compares to a national average of $16 \%$. If the School had an average proportion of FSM pupils ( $16 \%$ of $169=27$ pupils) but attainment for both groups remained unchanged, the school's overall average would have been 66\%.

## 4. Are we relatively stronger or weaker in some subjects compared to others?

Just as the attainment of different groups of pupils can vary within a school, so too can attainment in different subjects. Within RAISEonline, there are three key reports that will help to identify relative strengths and weaknesses between departments:

- Attainment in the five subject areas composing the English Baccalaureate; and
- Attainment in full-course and vocational GCSEs by subject; and
- The relative performance indicator (RPI).


## The English Baccalaureate

A pupil is considered to have achieved the English Baccalaureate if $\mathrm{s} /$ he achieved a grade $\mathrm{A}^{*}-\mathrm{C}$ pass at GCSE (or AS Level) in all of the following five subject areas:

- English
- Mathematics
- 2 Sciences
- One of the humanities
- A language

A new report ${ }^{9}$ showing attainment in each of the five subject areas, and the English Baccalaureate overall, was added to RAISEonline in 2011.


In the example above, $17 \%$ of pupils achieved the English Baccalaureate. Percentages of pupils achieving $A^{*}-C$ grades in English and mathematics were significantly above national averages. The percentage of pupils who entered languages who achieved $A^{*}$ - $C$ grades was also significantly above average. However, attainment in science and humanities was slightly below the national average.

[^4]
## Attainment by Subject

RAISEonline contains a breakdown of attainment in full course (and vocational) GCSEs by subject ${ }^{10}$. As well as showing the percentage of pupils who achieved $A^{*}-C$ grades, it also shows percentages who achieved $A^{*}-A$ and $A^{*}-G$ grades.

| Subject |  | Number of entries | Entry as a percentage of cohort | \% ${ }^{*}$ - ${ }^{\text {a }}$ | \% ${ }^{*}$-C | \%A*-G | \% Fail | Average Point Score |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ENGLISH/ENGLISH LANGUAGE - SINGLE | School | 196 | 99 | 7.1 | 77.6 | 99.5 | 0.5 | 39.8 |
|  | National | 557,277 | 96.1 | 15.8 | 68.1 | 98.9 | 1.1 | 39.9 |
| FRENCH | School | 118 | 59.6 | 2.5 | 33.1 | 100.0 | 0.0 | 34.1 |
|  | National | 135,271 | 23.3 | 21.0 | 67.4 | 99.5 | 0.5 | 40.8 |
| GEOGRAPHY | School | 9 | 4.5 | 11.1 | 66.7 | 100.0 | 0.0 | 38.0 |
|  | National | 147,312 | 25.4 | 24.1 | 66.3 | 98.1 | 1.9 | 40.5 |
| HISTORY | School | 20 | 10.1 | 15.0 | 75.0 | 100.0 | 0.0 | 41.2 |
|  | National | 174,585 | 30.1 | 27.5 | 66.9 | 98.0 | 2.0 | 40.7 |
| MATHEMATICS | School | 198 | 100 | 9.6 | 73.2 | 100.0 | 0.0 | 40.0 |
|  | National | 566,014 | 97.7 | 18.0 | 63.6 | 98.2 | 1.8 | 38.7 |

In the example above, the percentage of pupils achieving $A^{*}-C$ in English at the School is highlighted green to indicate that it is significantly above the national average. However, the percentage achieving $A^{*}-A$ is highlighted in blue to indicate that it is significantly below the national average.

The final column in the table above shows another method of summarising attainment data- an average point score (APS). This is calculated having converted pupils' grades into "points" using the table on the right ${ }^{11}$. In the example above, the school APS in mathematics is exactly 40 , indicating that pupils at the School achieved grade C on average. However, the APS in French was 34.1, indicating that pupils achieved grade D on average.

| Grade | Points |
| :---: | :---: |
| A $^{*}$ | 58 |
| A | 52 |
| B | 46 |
| C | 40 |
| D | 34 |
| E | 28 |
| F | 22 |
| G | 16 |

Some care must be exercised in interpreting this report. With the exception of English and mathematics, most subjects are optional. In the example above, whilst all 198 pupils in Year 11 at the School entered mathematics, just 9 entered Geography and just 20 entered History. In some schools, some options may have only been available to certain groups of pupils, for instance the most academically able.

[^5]
## Relative Performance Indicator (RPI)

The RPI report in RAISEonline ${ }^{12}$ shows how pupils' results in one subject compare with their average attainment in other subjects. They provide an indication of relative strengths and weaknesses of subjects within the school but not in comparison to the national average.

Imagine a pupil who achieved a grade $B$ ( 46 points) in mathematics but who achieved a grade $\mathrm{C}(40$ points) in all his other subjects. His relative performance in mathematics was 6 points higher. In RAISEonline this calculation is performed for every pupil in every subject. These scores are averaged at subject level, and presented on the RPI report. An adjustment is made to reflect the fact that, nationally, attainment in some subjects tends to be higher than in other subjects.

| Subject | Entries | School Average | Average In All Other Subjects | School Difference | National Difference | Relative Performance Indicator |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ENGLISH/ENGLISH LANGUAGE - SINGLE | 196 | 39.8 | 37.4 | 2.4 | 1.7 | 0.7 |
| FRENCH | 118 | 34.1 | 41.0 | -7.0 | -3.7 | -3.3 |
| GEOGRAPHY | 9 | 38.0 | 38.7 | -0.7 | -1.9 | 1.2 |
| HISTORY | 20 | 41.2 | 39.3 | 1.9 | -2.0 | 3.9 |
| MATHEMATICS | 198 | 40.0 | 37.4 | 2.6 | 0.3 | 2.3 |

In the example above, pupils at the School achieved an average point score in mathematics 2.6 points higher than their average across all other subjects. Nationally, pupils achieved an APS 0.3 points higher in mathematics. The Relative Performance Indicator at the School is therefore 2.6-0.3 = 2.3.

As the RPI report compares attainment in each subject with other subjects within the School, then in every School there will be some subjects with above average RPI scores (and some with below average scores). However, this does not imply that a School is doing well (or poorly) in a particular subject compared to other schools. In a school with overall low attainment, above average RPI scores merely indicate that pupils are achieving less badly than in other subjects.

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## 5. How does pupil attendance compare to national averages?

In RAISEonline a number of analyses are provided that compare pupils' overall absence from your school with:

- The national average for all secondary schools; and
- A derived average for "similar" schools based on levels of free school meal eligibility.

This data can be viewed from the School Level Absence and Exclusions report ${ }^{13}$ in RAISEonline. An example is shown below.


The report also shows the proportion of pupils classified as "persistent absentees". Historically they have been defined as missing at least $20 \%$ of possible sessions (half days) during the course of the academic year. In some cases this may be due to a prolonged bout of illness. However, in other cases it arises as a result of frequent, short bouts of absence or truancy.

For 2011 a second, more stringent, measure of persistent absence has been introduced based on missing $15 \%$ of sessions.

[^7]
[^0]:    ${ }^{1}$ http://www.education.gov.uk/performancetables

[^1]:    ${ }^{2}$ See report KS4.3C in the online system, or Table 4.1.1 of the summary report
    ${ }^{3}$ See report KS4.EPRS in the online system, or Table 5.7.1 of the summary report
    ${ }_{5}^{4}$ Averages here refers to the classic (arithmetic) mean
    ${ }^{5}$ If all secondary schools nationally were ranked according to the proportion of pupils who made expected progress, the median school would be ranked exactly half way down the list

[^2]:    ${ }^{6}$ Page 5 of http://www.ofsted.gov.uk/sites/default/files/documents/inspection--forms-andguides/t/The\%20evaluation\%20schedule\%20for\%20school\%20inspections\%20from\%20Janu ary\%202012.doc
    ${ }^{7}$ See report KS4.4A in the online system

[^3]:    ${ }^{8}$ See report KS4.EPRS in the online system, or Table 5.7.1 of the summary report

[^4]:    ${ }^{9}$ See report KS4.THR in the online system, or Table 4.1.25 of the summary report

[^5]:    ${ }_{11}^{10}$ See report KS4.21 in the online system or Table 4.1.17 of the summary report
    ${ }^{11}$ Although the table shows GCSE grades, grades in other types of qualification also have point score values

[^6]:    ${ }^{12}$ See report KS4.20 in the online system or Table 4.1.19 of the summary report

[^7]:    ${ }^{13}$ See Report Trend_1 in the online system or Table 2.1.1 of the summary report.

