Notes on spreadsheet for school DfE Progress	s 8 data for June 2018
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Summary

This spreadsheet has been produced to analyse the pupillevel data for June 2018 supplied by DfE in Oct 2018 and then Jan 2019 to each individual school through the Tables Checking website. Progress 8 - Jun 16 Attainment 8 - Jun 16 A

Scattergraphs are produced for P8 and A8 for each of the elementsexample to the right so that the performance of each and every pupil can be clearly seen, which is a key feature of Progress 8. There is also an overall analysis of the data (right).

Sample (anonymised) data for 200 P8 pupils (218 overall) are supplied for practice [with an average KS2 score and distribution similar to the national], but this should be replaced by your own school data for actual use. Please note that the values of this test data are still

2014, but this does not matter as the data gets overwritten when you paste your own data in.



Because it is supplied as a spreadsheet into which schools insert their data, it is very easy for schools to look at the data in more detail.

Information made available by DfE

www.tableschecking.education.gov.uk DfE Tables Checking website

Pupil -level information in datafile

The first part of the information is very similar to that previously in the Sept & Jan Forvus DfE Tables Checking pupil datafiles.

col. I = 1 if pupil is included in P8 calculations col. BF is the 1 d.p. KS2 prior attainment



score use as the basis of P8

Note if there is no KS2 En & Ma score, then a pupil is not (and cannot be) assigned a Progress 8 but they are assigned an (arbitrary) KS2 score (prior attainment) = 1.5

Other points regarding the DfE supplied information

Note in the Summary, that the Attainment 8 score is for the total of pupils (the overall total of all scores for all pupils), and that includes ALL pupils, not just the P8 ones The useful number is the Attainment 8 score per pupil (and converted to a grade), although that too is for all pupils, not just Progress 8

National estimates for Attainment 8 - June 2016 ("P8KeyFigures.pdf")

The text below and the table are taken from the DfE doc "Secondary accountability measures" on the Performance Tables website under GUidance :

2018 Attainment 8 estimates

The estimated Attainment 8 score is the average Attainment 8 score of all pupils nationally in the same key stage 2 (KS2) prior attainment fine level band. The table on page 7 shows the Attainment 8 estimates for each key stage 2 average fine level, based on the 2016 cohort averages. Please note:

pupils with mean key stage 2 fine grade score of <=1.5 are assigned a key stage 2 score of 1.5
 pupils with mean key stage 2 fine grade score between 1.6 and 2.0 are assigned a key stage 2 score of 2.0

 $\hfill\square$ pupils with mean key stage 2 fine grade score between 2.1 and 2.5 are assigned a key stage 2 score of 2.5

 $\hfill\square$ pupils with mean key stage 2 fine grade score between 2.6 and 2.8 are assigned a key stage 2 score of 2.8

 \Box pupils with mean key stage 2 fine grade score of >=5.8 are assigned a key stage 2 score of 5.8

Changes to national subject entry patterns and performance will cause these estimates to change in future years, as they will be derived from averages from later cohorts. As such they should be treated with caution if extrapolating.

Note that pupils with no test score are deemed to have a KS2 ave of 1.5, but they are not included in the P8 calculation (i.e. column I = 0 for those pupils in the data file)

Table C.1 Revised 2018 Attainment 8 average and average number of EBacc and open slots filled (out of 3) in Attainment 8 for each KS2 fine level

In the table below, the total values both overall and for each element are given, and also (on the right) divided by their weighting so that they are on a 8-1 scale to allow for comparisons between the elements.

KS2 fine level	Attainment 8 average	English average	Maths average	EBacc average	Open average	Average number of EBacc slots filled (out of 3)	Average number of open slots filled (out of 3)
1.5	13.65	2.99	1.92	3.7	5.04	1.44	1.83
2	15.83	3.58	2.29	4.26	5.7	1.72	2.1

divide by weitghting to get comparable

Mean KS2 Fine Grade	A8 - nat.	Eng - nat.	Maths - nat.	EBacc - nat.	Other - nat.	Open GCSE	Open Non- GCSE	Average Number of Ebacc Slots	Average Number of Open Slots	Mean KS2 Fine Grade	A8 / 10 - nat.	Eng / 2 - nat.	Mat / 2 - nat.	EBacc / 3 - nat.	Other /3- nat.
(En+maths)	13 44	2 97	1 92	3 67	4 87	Estimate	Estimate	Filled1	Filled1	(En+ma) 1.5	1 34	1 49	0.96	1 22	1 62
2	15.63	3 56	2 27	4 22	5 58					2	1.54	1.40	1 14	1 41	1.86
2.5	17.35	4.27	2.29	4.47	6.32					2.5	1.74	2.14	1.15	1.49	2.11
2.8	18.87	4.68	2.64	4.68	6.86					2.8	1.89	2.34	1.32	1.56	2.29
2.9	20.13	4.93	3.00	4.99	7.20					2.9	2.01	2.47	1.50	1.66	2.40
3	21.26	5.06	3.47	5.32	7.41					3	2.13	2.53	1.74	1.77	2.47
3.1	22.63	5.43	3.61	5.77	7.81					3.1	2.26	2.72	1.81	1.92	2.60
3.2	22.74	5.43	3.66	5.72	7.93					3.2	2.27	2.72	1.83	1.91	2.64
3.3	23.80	5.69	3.86	6.06	8.19					3.3	2.38	2.85	1.93	2.02	2.73
3.4	24.76	5.86	4.18	6.32	8.40					3.4	2.48	2.93	2.09	2.11	2.80
3.5	25.71	6.09	4.37	6.59	8.65					3.5	2.57	3.05	2.19	2.20	2.88
3.6	27.06	6.33	4.60	6.97	9.16					3.6	2.71	3.17	2.30	2.32	3.05
3.7	27.92	6.59	4.79	7.18	9.37					3.7	2.79	3.30	2.40	2.39	3.12
3.8	28.79	6.76	4.95	7.44	9.64					3.8	2.88	3.38	2.48	2.48	3.21
3.9	29.95	6.96	5.26	7.80	9.93					3.9	3.00	3.48	2.63	2.60	3.31
4	31.31	7.23	5.55	8.23	10.29					4	3.13	3.62	2.78	2.74	3.43
4.1	32.45	7.46	5.82	8.54	10.63					4.1	3.25	3.73	2.91	2.85	3.54
4.2	33.68	7.71	6.12	8.90	10.95					4.2	3.37	3.86	3.06	2.97	3.65
4.3	35.33	8.02	6.50	9.45	11.36					4.3	3.53	4.01	3.25	3.15	3.79
4.4	36.92	8.33	6.87	9.93	11.78					4.4	3.69	4.17	3.44	3.31	3.93
4.5	38.74	8.66	7.28	10.55	12.26					4.5	3.87	4.33	3.64	3.52	4.09
4.6	40.90	9.06	7.79	11.27	12.78					4.6	4.09	4.53	3.90	3.76	4.26
4.7	42.76	9.42	8.16	11.90	13.28					4.7	4.28	4.71	4.08	3.97	4.43
4.8	44.86	9.79	8.63	12.64	13.81					4.8	4.49	4.90	4.32	4.21	4.60
4.9	47.30	10.25	9.15	13.47	14.43					4.9	4.73	5.13	4.58	4.49	4.81
5	49.69	10.68	9.67	14.29	15.04					5	4.97	5.34	4.84	4.76	5.01
5.1	52.34	11.15	10.27	15.20	15.72					5.1	5.23	5.58	5.14	5.07	5.24
5.2	55.02	11.59	10.88	16.15	16.40					5.2	5.50	5.80	5.44	5.38	5.47
5.3	57.63	12.01	11.53	17.07	17.04					5.3 E 4	5.76	6.01	5.77	5.69	5.68
5.4	60.62	12.47	12.25	18.11	17.80					5.4 5.5	6.06	6.24	6.13	6.04	5.93
5.5 F.G	63.87	12.98	13.03	19.24	18.62					5.5 5.6	6.39	6.49	6.52	6.41	6.21
5.0 5.7	01.50	13.59	13.83	20.51	19.63					5.0	0./0	0.80	0.92	0.84	6.54
5./ E 0	/1.96	14.36	14./6	22.00	20.85					5.1 5.0	7.20	7.18	7.38	1.33	6.95
5.8	76.97	15.24	15.75	23.61	22.37					5.8	7.70	7.62	7.88	7.87	7.46

These values on the right-hand half can then be plotted. Note that in the graph, the overall and each element have been divided by their weighting so that they can be compared.

It is also helpful to look at the National Subject Transition Matrices, as for example, they show that nationally there were twice as many A* in Maths as English for a given KS2 starting point.

Using the Spreadsheet

Offered in good faith - see disclaimer at end Setup so that 500 pupils can be automatically displayed in the graphs - see end for details on how to expand to include more

Preparation

1. Download school data from DfE Checking website

Schools should download their data (as a .csv file). This .csv file should be saved as an Excel file for convenience.

Within the overall spreadsheet (workbook), there is a sheet (tab)

"data" for your data, and where initially 200 P8 pupils (218 overall) data graphs analysis (anonymised) are supplied for practice [with an average KS2 score and distribution similar to the national], but this should be replaced by your own school data for actual use.

The names of the first columns are the same for all schools, but the exam results data column headings after that vary from school to school, and then at the very end are some additional KS2 results.

2. One-off operation to copy your own school data into the main spreadsheet

Some users have experienced problems with the method below with points on the graph not appearing etc so an alternative is given

A. Simple way as with Subject TM spreadsheet

- 1. Clear Contents (DO NOT DELETE) all the contents of **this test data** in "data" (by clicking on top-left grey square to the left of A and above 1 to select the whole sheet – it all goes blue - right-click - Clear Contents)
- 2. select all data in **your own school datafile** (by clicking on top-left grey square)
- 3. Copy.
- 4. Then Paste Special Values into this sheet "data" using top-left grey square
- 5. Save the main spreadsheet, perhaps with a new name. .

B. Alternative

1. switch off Filtering - go to Data ribbon and click on Filter to turn from Orange to Grey



Clear Contents (DONOT DELETE) all the contents of this test data (by clicking on top-let ge quare to the left of A and above 1, then right-click - Clear Contents) select all data in your own datafile (by clicking on top-let grey square to the left of A and above 1)

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▲ - Group
▲ 2 Prior Bc

Drivation indicator

Prior Band
 Student's ethnicity

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P8: A8 & elements - national estim. - Jun 2018

Indidate Number

ndex

SUN

XXX School incl

25mar15 from DfE

elements - downloaded

F - Date of - -

- 2. Clear Contents (DO NOT DELETE) all the contents of this test data in "data" (by clicking on top-left grey square to the left of A and above 1 to select the whole sheet it all goes blue right-click Clear Contents)
- 3. select all data in **your own school datafile** by finding the bottom right-hand corner of the data and highlighting it
- 4. right-click Copy (or CTRL V)
- 5. Then click in cell A1.
- 6. Then Paste Special Values into this sheet "data"
- 7. Switch Filtering back on
- 8. Save the main spreadsheet, perhaps with a new name. .

Interpreting the Analysis

This section includes a series of Questions for the **user** to help them gain an understanding of what their data really means for **their school**. These are indicated by a bold **Question** text. There is also a commentary on the *sample* data supplied with the spreadsheet

Analysis table

"All" data: rows 4 to 6 count and analyse all the data, including those who are not in P8 calculation, and are useful for comparing with other wholeschool figures.

"P8" data: (rows 7-11) there is a section for each element, followed by the overall values.

The numbers in this section should correspond to those in the DfE Summary (below right) as displayed in the Tables Checking website

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3	al ex	29			Score actended in English	Progress I score for English	Score achieved in mathematics	Progress 2 score for maths	Score achieved in 1st (Date sol	Score acheved in 2nd Clacc sol	Score actieved in 3rd EBacc slot	Total score achieved in Ebacc sids	Progress 2 score for Ellact slots	Score achieved in 1st open soft	Score attreved in 2nd open sol	Score activited in 2rd open sist	Total score achieved in open slots	Progress I score for open slots	Total socre activeed in open slots - GCSEs only	Total some achieved in open slots - non-GCSEs only	Alltairement & score	no. of EBacc sids filled	no. of Open slots their	Pupil progress & score			KS2 English point score	KS2 mathematics point score	Price diament score in English and
ii.	18	avers	ige -		10.9	0.041	10.4	0.1	5.58	5.002	4,313	:14.9	0.58	6.37	6.36	4.76	16.24	-0.2	13.7	2.63	52.30	2.68	2.86	0.16					-
6	18	court	1		218	200	217	200	217	217	217	-210	200	212	216	217	218	200	210	218	210	218	210	200			-		
é.	18	8.10			254	116	211	116	206	198	101	206	144	212	209	203	212	111	210	72	216	206	212	128			200	200	210
7	P8 no.	20	1.125	6									1.1.1								11,421	10							27.9
8	in PE calo	avers	QR.		10.60	0.04	10.34	0.10	5.53	5.00	4.25	14.77	0.58	6.21	6.29	4.71	16.20	-0.15	13.67	2.53	52.24	2.69	2.85	4.55			27.6	28.1	4.65
9	in P8 calo	: 00urt			200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200			200	200	200
10	in PE calo	214.1	dinon-	det	11.15	0.04	10.66	0.10	5.82	5.49	5.15	15.55	0.61	6.40	5.54	\$.00	15.70	-0.16	14.09	2.61	\$2.77	2.83	2.94	0.24			27.6	28.1	4.05
11	in PE call	f 100	0<0		196	116	194	195	190	182	155	190	184	194	191	185	194	111	192	- 66	198	190	194	128	-		200	200	200
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15		10	1.00	1 40	17	. 16	20	27	40	18	14	17	15	46	9	0	8		7	0	17	.16			- 10	De1	3	1	
10		7	4.4	118	-45	40	27	22	36	37	27	37	32	68	49	31	55	-52	40	0	40	34			1	Lx3	20	22	. 10
17	6	6	1.1	4.8	43	30	-41	35	51	43	37	47	. 44	- 36	45	33	58	82	31	. 0	53	-60		-	24	Lr4	106	- 99	503
18	0	5	43	11	66	65	杨	63	- 20		48	40	36	29	49	53	49	43	- 26	- 3		- 46			-00	ixf+	70	. 72	73
18		4	1.6	4.5	25	22	50	57	- 24	- 28	22	- 28	28	7	- 20	38	20	17	30	- 6	22	-21			**	Tot	199	-200	200
20		3	1.8.8	1.0	53		37	17	11	14	20	21	19	10	12	17	11	11	25	21	10	17							
21		2	18	4.5	4	3	8	1	3	3	12	- 8	1	1	. 6	8		6	. 18	33	12	10			13	hohe	18	18	. 18
22	0	1	4.5	15	0	1.0	T	6	- 2	1	t	- 4	. 4	0	- 2	- 3	5	5	13	2	1	- 3							
22		50.	1.0	63	6	1.4	- 0	- 4	11	19	- 26	12	11	. 0		14	· 8	. 4	- 8	126	- 7	3							_
24	and and a	10.100	212 - 244 18-1, AK	1	218	200	217	200	217	217	217	216	200	194	196	192	218	200	200	200	217	200							

It is important to read the Guidance to understand exactly what counts in each of the elements, and the weighting.

Question: Do the numbers in the DfE Summary (on right) for your school match those in the spreadsheet table:

- a) numbers of pupils end KS4 and incl in measures = row 5 and row 9 in col U
- b) the P8 and A8 scores overall and for each element = row 8 "P8 only average"?
- c) the Total A8 score is in cell U7

There may be a rounding error in the 2^{nd} decimal place.

We strongly recommend that you also look at the National Subject Transition Matrices when analysing these results spreadsheet available on the ASCL website to do analysis using the DfE Tables Checking website download file for the publication data. This will enable you to take the national distribution for each subject into account, esp for English and Maths.

Each element of Progress 8 is considered separately first, and then finally the overall values.

Home Summary Documents Opt in

To help inform your decision regarding opting in to the new accountability system one year ec results to calculate the new Progress 8 measures. These measures have been calculated usi accepted amendment requests made in the September schools checking exercise.

For help understanding these measures please refer to the guidance on the documents page

Summary table

Number of pupils at the end of key stage 4	
Number of pupils included in the measures	
Percentage of pupils included in the Progress 8 measure	
Progress 8	
Progress 8 score	
Progress 8 lower confidence interval	
Progress 8 upper confidence interval	
Attainment 8	
Attainment 8 score	
Average Attainment 8 score per pupil	
Average Attainment 8 grade per subject	
Disadvantaged pupils	
Number of disadvantaged pupils in the Progress 8 measure	
Average Attainment 8 score per disadvantaged pupil	
Progress 8 measure for disadvantaged pupils	
Progress 8 lower confidence interval for disadvantaged pupils	
Progress 8 upper confidence interval for disadvantaged pupils	
Progress 8 element breakdown	
English	
Mathematics	
English Baccalaureate element	
Open element	
Attainment 8 element breakdown	
English	
Mathematics	
English Baccalaureate element	
Open element	
Open element - GCSE only	
Open element Non-GCSE only	

English and Maths

These figures (on right) show that of the overall total of 218 pupils, 200 had a KS2 score and were included in the P8 calculation (see data column I for value of 1).

Of these P8 pupils, their average "**English**" element Attainment 8 score incl double weighting where appropriate was **10.93** (blue) ($A^* = 8$ etc), and **196** (purple) of them had an score >0 i.e. 4 scored U or did not enter.

Their P8 English score was **0.04** (red) and **116** (green) of them (out of 200) had a P8 score >0 i.e. a positive score i.e. they gained a higher score than national estimate given their KS2 score.

Of these P8 pupils, their average "**Maths**" element Attainment 8 score incl double weighting where appropriate was 10.34 [N.B. nationally in 2014, Maths is below English], and 194 of them had an score >0 i.e. 6 scored U or did not enter.

Their P8 Maths score was 0.10 and 116 of them had a P8 score >0 i.e. a positive score i.e. they gained a higher score than national estimate given their KS2 score.

Questions:

- What are the comparable figures for your school?
- How much is the average affected by negative outliers?
- Are there many in English who only have single weighting? What impact does that have?

The distribution by grades is also given - note that these are in ranges e.g. a grade A = 7 = range greater or equal to 6.5 and less than 7.5 to get comparable values for each of the elements. N.B. note that at national level there are around half as many A* in English as Maths, so in the example above English is actually comparable to Maths!! See national Subject Transition

Matrices. Note that for some reason a few pupils have blank values rather than 0

The individual data is displayed in scattergrams. Note how the **horizontal** rows of dots in the right-hand **Attainment 8** e.g. 16 = all those with GCSE grade A* and double weighting, become **tilted lines in P8** because those scoring an A* from a lower KS2 score gain a higher P8 score. The red line denotes the national estimate; the vertical difference between the A8 value and the line is the P8 value.



all no.	218			Score achieved in English	Progress 8 score for English	Score achieved in mathematics	Progress 8 score for maths						
all	averag	je		10.9	0.041	10.4	0.1						
all	count			218	200	217	200						
all	if >0			214	116	211	116						
P8 no.	200	92%											
in P8 calc	averag	je		10.93	0.04	10.34	0.10						
in P8 calc	count			200	200	200	200						
in P8 calc	ave. of	f non-:	zero	11.15	0.04	10.66	0.10						
in P8 calc	if score	e >0		196	116	194	116						
			wqt	2		2							
note that each	h column i	s divide	ď										
be compared	on 8 -1 s	cale		Eng.	attain	Ma.	attain						
or equiv		ran	ne	all	in P8 calc	all	in P8 calc						
A*	8	7.5	99	17	16	28	27						
A	7	6.5	7.5	46	40	27	22						
В	6	5.5	6.5	43	39	41	35						
С	5	4.5	5.5	66	65	65	63						
D	4	3.5	4.5	25	22	18	17						
E	3	2.5	3.5	13	11	17	17						
F	2	1.5	2.5	4	3	8	7						
G	1	0.5	1.5	0	0	7	6						
U	0	0	0.5	4	4	6	6						
different for some pup	mula for U= vils have bla	0; noteti nk, not0		218	200	217	200						



Look at the "Attainment 8" scattergram for English on the right. The x-axis in both scattergrams is the Average KS2 En & Ma score. The y-axis for A8 is the English score (usually double-weighted), so $16 = A^*$ (8) double-weighted, 14 = A, 12 = B etc. The red line is the national average score obtained by all pupils with the same Ave KS2 En &Ma score to 1 d.p, i.e. the interval = 0.1. The Progress 8 score for a pupil is the difference (residual) between their actual score, and the national average for pupils with their KS2 prior attainment, denoted by the arrows in the diagrams.

The pupils with green dot and pink dot both scored 16 (their A8 element score), but their Progress 8 English element score is different because pink dot has a higher KS2 prior attainment, and so has a lower P8 score. Orange dot has a similar KS2 prior attainment to pink dot, but only scores A8 = 12 (grade B double-weighted), and so has a negative P8 score, because pupils nationally with KS2 prior = 5.4 gain an average of 13.44 (see table above). The diagrams make it clear why the horizontal lines of dots in A8 become diagonal in P8.

Sample data:

- Note how the low outliers in English (perhaps because of not getting double weighting have dragged down the English P8 even though both Maths and English have the same number (116) with a positive P8 score.
- Note that 58% (116 of 200) have a positive score in both, but the English P8 score is only just positive because of the outliers.
- Note how the national average line in red is much higher for English than Maths for lower KS2 prior attainment this is consistent with the national Subject TMs, which show that the national average for Maths for Level 3b was 22.1, whereas for English it was 28.4 a whole grade different. Nationally only 4% score grades F (= 2 / 4 doubled), G or U, whereas in Maths it is 12%, so the greater proportion of dots on the score = 2 and score = 4 lines for Maths are not atypical. See graph on p.5 to see a plot for each of the "elements" i.e. national average against KS2 prior attainment
- This is taken care of by the calculation of P8 against national average, so you can see that although the dots for lower KS2 prior attainment have lower attainment scores in Maths than English, for this school, the English P8 score for lower prior attainers are better than the Maths. The English P8 score is hit by the mid-range outliers.

"Ebacc 3 element"

Note that helpfully, the workings underpinning the calculations for the score for each pupil are shown in the datafile with the value in the 1^{st} EBacc slot, then the 2^{nd} , then the 3^{rd} . These will be in decreasing (or equal) order, both in terms of value and of the number filled.

This is clearly illustrated in the example, where for example, the score for P8 pupils is

5.53 in 1st slot, 5.00 in 2nd and 4.25 in 3rd, and the number of non-zero entries is

190 in 1st slot, 182 in 2nd and 165 in 3rd. -There are 25 pupils (190 - 165) who scored 1 EBacc subject >0 but whose 3rd was zero

This leads to the Total EBacc3 Attainment score of 14.77, and a P8 score for this element of 0.58

To help distinguish between "quantity" and "quality" of entries, to use the FFT terminology, there is an additional line "P8 only - ave of non-zero". For this the score for P8 pupils is 5.82 in 1st, 5.49 in 2nd and 5.15, so less of a drop between 2nd and 3rd.

The column to the rights confirms how many Ebacc (and Open) slots were filled out of 3 (2.69 and 2.85 respectively).

Questions:

- What are the comparable figures for your school?
- How do they compare with the national figures (see below)?
- What is the quality of each of the EBacc subjects when compared using the national Subject Transition Matrices?

Sample data:

The positive value of the EBacc P8 score is illustrated in the graphs, as well as the impact of a few pupils who scored 0

									+		
all no.	all no. 218			Score achieved in 1st EBacc slot	Score achieved in 2nd EBacc slot	Score achieved in 3rd EBacc slot	Total score achieved in Ebacc slots	Progress 8 score for EBacc slots		EBacc slots filled	Open slots filled
all	averag	je		5.58	5.032	4.313	14.9	0.58	Ì	2.68	2.86
all	count			217	217	217	218	200		218	218
all	if >0			206	198	181	206	144	Ì	206	212
P8 no.	200	92%									
in P8 calc	averag	je		5.53	5.00	4.25	14.77	0.58		2.69	2.85
in P8 calc	count			200	200	200	200	200		200	200
in P8 calc	ave. of	f non-:	zero	5.82	5.49	5.15	15.55	0.61		2.69	2.85
in P8 calc	if score	e >0		190	182	165	190	144		190	194
			wat	1	1	1	3				
note that each	h column i	is divide	4		EE	Bacc3 att	ain				
be compared	on 8 -1 sc	cale		1st	2nd	3rd	Tot	Tot			
or equiv		*2*	10	in P8	in P8	in P8	all	in P8			
A*	8	7.5	39	40	carc 18		17	15	ŀ		
A	7	6.5	7.5	36	37	27	37	32			
В	6	5.5	6.5	51	43	37	47	44			
С	5	4.5	5.5	39	54	48	40	36			
D	4 3.5 4		4.5	24	28	22	28	28			
E	3 2.5 3		3.5	11	14	20	21	19			
F	F 2 1.5		2.5	3	3	12	8	8			
G	G 1 0.5				1	1	6	6			
U	0	0	0.5	11	19	36	12	12	[
different for some pup	mula for U≓ vils have bla	0; noteti nk, not0		217	217	217	216	200			

10

- This is a school where above average numbers are filling the EBacc3 slots - what is not clear from the analysis is the "quality" of those results, and the impact as other schools "fill the bucket"



Nationally the EBacc3 values are

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Leadership of Data

dominated by the extent to which schools have "filled the bucket", especially for pupils of lower prior attainment - see graph on p.5.

Also Mike Treadaway of Fischer Family Trust presented an analysis at the ASCL Advanced Leadership of Data conferences in February, which demonstrated this clearly (slides to the right)



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"Other 3 element"

There is a very similar arrangement for the Other 3 element. The key difference is that there is also a separation into GCSE and non-GCSE as they do not have the same grading structure and so it is not a like-for-like comparison. However this spreadsheet does not calculate which if the entries come from GCSE and which from non-GCSE, and so does not give a score for this breakdown - this is available in the FFT analysis.

The score for P8 pupils is 6.21 in 1^{st} , 5.29 in 2^{nd} and 4.71, and the number of non-zero entries is 194 in 1^{st} , 191 in 2^{nd} and 185 in 3^{rd} . This leads to the Total score of 16.20, and a P8 score for this element of -0.15

But the GCSE and non-GCSE totals are given for each pupil, and so these are plotted in the scattergrams, along with the usual P8 and A8 scattergrams as



N.B. look carefully at the value of the axes on these 3 Attainment 8 graphs for the Other3 element (total, GCSE, non-GCSE) as they may be different scales

Questions:

- What are the comparable figures for your school?
- How do they compare with the national figures (see above)?
- What is the shape & pattern of the Other3 GCSE compared with the Other3 non-GCSE?

Sample data:

- The negative value of the Other3 P8 score is illustrated in the graphs to be coming from mid-range pupils who have not taken many non-GCSE, as well as the impact of a few pupils who scored 0.

all no.	218			Score achieved in 1st open slot	Score achieved in 2nd open slot	Score achieved in 3rd open slot	Total score achieved in open slots	Progress 8 score for open slots	Total score achieved in open slots - GCSEs only	Total score achieved in open slots - non-GCSEs only
all	averaç	je		6.37	5.35	4.76	16.24	-0.2	13.7	2.53
al	count			212	216	217	218	200	218	218
al	if >0			212	209	203	212	111	210	72
P8 no.	200	92%								
in P8 calc	averag	je		6.21	5.29	4.71	16.20	-0.15	13.67	2.53
in P8 calc	count			200	200	200	200	200	200	200
in P8 calc	ave. of	fnon-:	zero	6.40	5.54	5.09	16.70	-0.16	14.09	2.61
in P8 calc	if score	e >0		194	191	185	194	111	192	66
			wgt	1	1	1	3	3	3	
note that each by its weight	h column i	s divide	4			Othe	r 3 attair	1		non-
be compared	on 8 -1 s	cale		1st	2nd	3rd	Tot	Tot	GCSE	GCSE
or equiv		ran	10	in P8	in P8	in P8	all	in P8	in P8	in P8
A*	8	7.5	39	46	carc 9		8	calc 8	7	
A	7	6.5	7.5	65	49	31	55	52	40	0
B	6	5.5	6.5	36	45	33	58	52	31	0
C	5	4.5	5.5	29	49	53	49	43	26	3
D	4	3.5	4.5	7	20	35	20	17	33	6
E	3	2.5	3.5	10	12	17	11	11	26	21
F	2	1.5	2.5	1	5	6	6	6	16	33
G	1 0.5 1.5		1.5	0	2	3	5	5	13	2
U	0	0	0.5	0	7	14	6	6	8	135
different fo	mula for U sik hour ble	0; notet) nk nat0	đ	194	198	192	218	200	200	200

- You can see that there are a number of middle and higher prior attainment pupils who score zero on non-GCSE, i.e. only their GCSE are counting
- There are a few scoring zero on the GCSE graph

Two other graphs are provided to help with understanding the data.

- 1) a plot of the total Other3 score against the GCSE only score. There is a strong diagonal line of those pupils who only scored with GCSE, i.e. their Other3 GCSE score = their Other3 total score. Sometimes, the non-GCSE completely compensates for the drop-off in GCSE as the prior attainment drops, but not here
- 2) a plot superimposing the Other 3 Total score and the Other3 GCSE score, both against KS2 prior attainment. To help with the interpretation, each pupil's total score is plotted with a blue circle and their GCSE score is plotted with a green cross. Therefore, IF they have zero non-GCSE, the circle and cross will be on top of each other, and the circle will appear to be filled with the cross. (Note that the logic does not work the other way round as there may be two pupils with the same KS2 prior attainment, and the circle of one is filled with the cross of the other)





slots filled

no. of EBacc s Attainment a

218 206

52 77 283 294

190 194

52.24 2.69

200

198 10

A8 tot A8 to

score

all no 218 average count if >0 200 929 all all all

P8 no. 200 s in P8 calc average

in P8 calc ave. of nor

n P8 calc if score >0

in P8 calc count

lots filled

Į,

0.24

18 LV 3 24 LV 4

s point score score in Englist

point score

KS2 English

200 200

27.6 28.1

27.6

199

18

Overall

Combining the individual element scores gives an A8 total per pupil of 52.24. The P8 figures are calculated using the national figures for the overall, and this gives a value of 0.16.

Note that the A8 total, (here 11421) is for all pupils, and should match the figure in the DfE Summary, and that it is the "all" figure for A8 average (here 52.39) which appears.



Exploring sub-groups

Because the data sheet has filter set to be on, you can set the filter to see on the graphs. For example, by selecting "1" for "Has the pupil been eligible for FSM in the last 6 years?", the graphs display only those pupils in that category. Note that only the graphs, not the numbers in the analysis, change through simple use of filtering





To get the analysis for just those being filtered, one way is (having made a working copy), use the filtering and then delete all those NOT meeting the criteria, but don't save the sheet / do Save As. Below is example from the sample data

	Anal	ysis	s of XXX school figures from DfE shadow file - June 2014														v1/	i - as a	t Tues 2	6 May	2015							
	using "	eleme	ents"	download from DfE Tables Checking of 25th Mar																								
all no.	38			Score achieved in English	Progress 8 score for English	Score achieved in mathematics	Progress 8 score for mathematics	Score achieved in 1st EBacc slot	Score achieved in 2nd EBacc slot	Score achieved in 3rd EBacc slot	Total score achieved in Ebacc slots	Progress 8 score for EBacc slots	Score achieved in 1st open slot	Score achieved in 2nd open slot	Score achieved in 3rd open slot	Total score achieved in open slots	Progress 8 score for open slots	Total score achieved in open slots - GCSEs only	Total score achieved in open slots - non-GCSEs only	Attainment 8 score	EBacc slots filled	Open slots filled	Pupil progress 8 score			KS2 English point score	KS2 mathematics point score	Prior attainment score in English and mathematics
al	averag	e		9.34	-0.23	8.42	-0.2	4.71	3.974	3	11.7	0.4	5.93	4.63	3.97	14.22	-0.4	10.4	3.78	43.67	2.42	2.74	-0.1					
al	count			38	37	38	37	38	38	38	38	37	36	38	38	38	37	38	38	38	38	38	37					
al	if >0			37	16	37	17	35	31	26	35	24	36	35	33	36	19	35	20	37	35	36	21			37	37	38
P8 no.	37	97%																		1659.5	=tot							25.8
P8 only	averag	e		9.27	-0.23	8.32	-0.18	4.70	3.95	2.95	11.59	0.40	5.64	4.62	3.95	14.20	-0.36	10.32	3.88	43.39	2.41	2.73	-0.07			25.8	25.7	4.29
P8 only	count			37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37			37	37	37
P8 only	ave. of	non-z	zero	9.53	-0.23	8.56	-0.18	5.12	4.87	4.36	12.62	0.43	5.64	4.62	3.95	15.01	-0.38	10.32	3.88	44.60	2.41	2.73	-0.07			25.8	25.7	4.29
P8 only	if>0			36	16	36	17	34	30	25	34	24	35	34	32	35	19	34	20	36	34	35	21			37	37	37
			wat	2		2		1	1	1	3		1	1	1	3		3	3	10								
				r	note that	each co	lumn i	s divide	dbvits	weighting	so that	each o	an be	compan	ed on 8	3-1 scale	e		-									(*******
or equiv	L	rang	e	all	P8	all	P8		-		all	P8				all	P8	P8	P8	all	P8							
A*	8	7.5	33	0	0	1	1	2	1	0	1	1	4	1	1	1	1	0	0	1	1			10	Lv<3	2	4	4
A	7	6.5	7.5	2	2	1	1	4	2	1	2	2	10	4	1	6	6	2	0	1	1			18	Lv 3	4	6	4
В	6	5.5	6.5	6	5	7	6	9	6	5	5	5	5	10	6	9	9	4	0	8	8			24	Lv 4	22	21	21
С	5	4.5	5.5	18	18	11	11	10	11	8	10	9	10	9	10	9	8	4	1	11	10			30	Lv 5+	8	6	8
D	4	3.5	4.5	6	6	6	6	5	8	6	5	5	1	5	9	5	5	9	0	5	5			99	Tot	36	37	37
E	3	2.5	3.5	4	4	5	5	2	1	2	5	5	2	4	3	3	3	8	5	7	7							
F	2	1.5	2.5	1	1	3	3	2	1	3	3	3	1	1	2	1	1	3	14	3	3			1.5	none	1	1	1
G	1	0.5	1.5	0	0	3	3	1	1	1	3	3	0	1	1	2	2	4	0	1	1							
U	0	0	0.5	1	1	1	1	3	7	12	3	4	0	3	5	2	2	0	3	1	1							
different	formula	for U	=0	38	37	38		38	38	38	37		33	38	38													

Technical Notes

Intro tab

This contains information about the spreadsheet including the disclaimer below and also a record of the changes made in each version

Labels

It would be nice if hovering over one of the dots on the graphs gave you the name of the pupil, but Excel seems to only be able to give you the X and Y value. There are a number of free "add-ins" which enable you to add the names to the graph for printing out which is very helpful. I use XY Chart Labeler Version 7.1.05 by Rob Bovey, available from www.appspro.com

More than 500 pupils

The spreadsheet is set up with the formula and graphs looking for rows 2 to row 501 giving 500 pupils. To use it for more pupils insert the required number of rows somewhere in the middle of the supplied datafile BEFORE pasting in the data. That way Excel will automatically adjust its formulae. You may wish to make row 502 yellow to indicate to limit of the data before inserting rows so that it is clear what the analysed range is.

Points re the datafile

Looking at the datafile in detail, there are some idiosyncrasies: some pupils have blank rather than zero

Disclaimer

This spreadsheet has been prepared by David Blow (Headteacher of The Ashcombe School) on behalf of the ASCL Data Group as an open, unprotected spreadsheet to assist schools in calculating and analysing Progress 8 data. This spreadsheet is offered in good faith but will need to be adapted for each school. No responsibility can be accepted for any errors or omissions. Copyright is retained by David Blow, but the spreadsheet may be copied and shared provided no charge is made and acknowledgement made of its source.