

Guide to Benchmarking in ESR BI

Benchmarking in ESR BI allows users to compare key measures (such as absence % FTE or turnover %) against those of the organisation, their region, country (England/Wales) or the NHS in total. A full list of measures available via benchmarking is available in the appendix of this document.

Overview

The benchmarking data is 'refreshed' once per month and updates the previous two years' worth of data to allow trending. Figures are aggregated at month level because lower level analysis is considered less useful.

The data is calculated with a number of key 'groupings' in mind called 'domains' in ESR BI. These include Staff Group, Assignment Category and Job Role. These can be found within the Benchmark Domain folder in the relevant ESR BI subject area:



An analysis using benchmarking must be created using the 'Month' item from the time folders, rather than the usual 'Date' item used in other regular ESR BI analyses. This is due to the fact that the data is only calculated at month level, rather than at a lower 'date' level as mentioned above.



Because the benchmarking figures are calculated at Trust, Region and National level, if users wish to create an analysis to compare their measures against regional or national level figures, this can be done in a single analysis using the trust level measures available in the benchmarking folders (left).



Where organisations wish to allow managers to compare their figures to those of the organisation, it will require two different queries to be run (because the supervisor hierarchy security is not applied on the benchmarking figures). Therefore the 'Set Operation' or 'Union' functionality may be used to create an analysis that runs two queries and combines them into a single analysis to allow the user to compare.

It's your ESR

Creating a simple analysis to compare Organisation level measures with regional or national measures

In this example we will use the Absence % FTE measure. We want to compare our organisation's Absence % FTE figure with those of our region.

Step	Screenshot	Description
1	Dashboards ▼ Image: New ▼ Image: Deen ▼ Signed In As NH Select Subject Area Human Resources - Absence Human Resources - Absence Human Resources - Annual Leave Balance Human Resources - Applicant EIT Details	Create a new analysis based on the absence subject area
2	Untitled Criteria Results Prompts Advanced Subject Areas Image: Advanced Image: Advanced Image: Building of the second of the seco	Add a filter for the Time.Month item to filter months required to compare. In this example we wish to compare January – March 2018. Also add the Month item as a column to group the absence % FTE figure by month.
3	 Facts - Human Resources - W Study Leave Benchmark Domain Absence Category Absence Reason Absence Type Area of Work Assignment Category Assignment Type Employee Category 	Add the 'Absence Type' item <u>from</u> <u>the Benchmark Domain</u> folder as a filter, and filter to a value of 'Sickness' (the data in benchmarking cannot be combined with the regular folders unless in a union/set operation covered later in this document).



Step	Screenshot	Description
4	NHS Bechmarking Example Criteria Results Prompts Advanced Subject Areas Q Q Q Q Crigarization Organization Cost Centre > Development Cost Period of Placement Band > Period of Placement Band > Self-Service Comments > Self-Service Comments > Subject Areas Ouble click on column names in the Subject Areas pane to add them to the anal Time Benchmark Domain Subject Areas Month Employee Catagory Absence Type Add filters to the analysis criteria by clicking on Filter option for the specific colum Assignment Catagory Assignment Type Month is equal to / is in 2018 / 01; 2018 / 02; 2018 / 03 AND Absence Type Staff Group No Assignment Type Staff Group No Staff Group V Staff Group No	Add any grouping items required from the Benchmark Domain folder.
5	NHS Beckmarking Example Criterin Reading Pompin Advance Subject Areas 0 0 * 0 10 10 10 10 10 10 10 10 10 10 10 10 1	Expand the facts folder, and expand the Benchmark Facts folder. Add the trust level and regional level absence % FTE measures.
6	Criteria Results Prompts Advanced Subject Areas Q </td <td>Save the analysis, and select the 'Results' tab. The analysis will now run.</td>	Save the analysis, and select the 'Results' tab. The analysis will now run.



Step	Screenshot							Description
7	Pivot Table					A XYZ	/ 🗙	Add the Pivot view to allow for e comparison. You may also want
		2018/01		2018 / 02		2018/03		rename the measures to make it
	Staff Group	Organisation	Region	Organisation	Region	Organisation	Region	clear which measure relates to the
	Add Prof Scientific and Technic		0.52		0.55		0.56	organisation level, and which to
	Additional Clinical Services	1.43	0.95	0.47	0.95	0.96	0.94	regional lovel
	Administrative and Clerical	0.25	0.65	0.24	0.61	0.25	0.60	regional level.
	Allied Health Professionals	1.83	0.58	1.34	0.45	2.41	0.45	
	Estates and Ancillary	0.18	0.79	0.44	0.80	0.33	0.81	
	Healthcare Scientists	0.05	0.26	0.16	0.24	0.22	0.26	
	Medical and Dental	0.32	0.48	0.13	0.49	0.03	0.45	
	Nursing and Midwifery Registered	1.66	0.96	0.69	0.93	1.24	0.89	
	Students							

Creating a union-type analysis to return results from benchmarking and comparing with non-benchmarking figures

In this example we will create an analysis that calculates the absence % FTE figures from the regular ESR BI subject area, and compare it with the figures for the Organisation calculated in the benchmark folder. This would then allow the analysis to be shared with managers in Manager Self Service. The supervisor hierarchy security will only be applied to the calculations from the 'regular' calculations, and not the Benchmark figures.

Step	Screenshot	Description
1	Dashboards ▼ Image: New ▼ Image: Open ▼ Signed In As NH Select Subject Area Human Resources - Absence Human Resources - Absence Human Resources - Annual Leave Balance sorting, or dele Human Resources - Applicant EIT Details	First we will create the 'regular' query to return absence figures from the non- benchmark folders. Create a new analysis based on the Absence subject area.
2	Criteria Results Prompts Advanced Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Sub	Add a filter for Time.Date for the period 01/01/2018 – 31/03/2018
3	Criteria Results Prompts Advanced Subject Areas 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Add a filter for Absence Type to only return 'Sickness' absence.

In this example we will return the figures for the period 01-Jan-2018 to 31-Mar-2018



Step	Screenshot	Description
4	Criteria Results Prompts Advanced Subject Areas Q 0 < Q 0	Add any grouping items. In this example, we only want to group by Month.
5	Criteria Results Prompts Advanced Subject Areas O Performance Bad Selected Columns Deriod of Placement Band Selected Column names in the Subject Areas pane to add them to the analysis. Once i Deriod of Placement Band Selected Columns Deriod of Work Band Selected Columns Description of Work Band Selected Columns Description of Work Band Selected Column sames in the Subject Areas pane to add them to the analysis. Once i Description of Work Band Selected Column Same in the Subject Areas pane to add them to the analysis. Once i Description of Work Band Selected Column Same in the Subject Areas pane to add them to the analysis. Once i Description of Work Band Selected Column Same in the Subject Areas pane to add them to the analysis. Once i Absence Fits Absence Fits Assignment Count% Date is between 01/01/2018 00:00:00 and 31/03/2018 00:00:00 Absence Fits Date is between 01/01/2018 00:00:00 and 31/03/2018 00:00:00 A	Add the Absence % FTE Measure from the facts, compound facts folder.
6	Criteria Results Prompts Advanced Subject Areas C C C Human Resources - Absence Image: Compound Layout Ima	Click the results tab to view the results. You should return the absence FTE % for the organisation. In the following steps, we will create another query similar to the one in the first section of this document to return the benchmark figures to compare against. However once we have done that, we need a method to identify which figures are our Organisation level figures calculated by us, and which are our Benchmark figures.
7	Criteria Results Prompts Advanced Subject Areas Image: Comparison of the subject Areas pane to add them to the analysis. Once Image: Comparison of the subject Areas pane to add them to the analysis. Once Image: Compound Facts - Operations and Absence Type / Reason Image: Compound Facts - Operations and Absence Type Reason Image: Compound Facts - Operations and Absence Type / Reason Image: Absence Type Absence Type Category Comparison Absence Type / Reason Image: Absence Type Absence Type Reason Image: Compound Facts - Operations and Absence Type / Reason Image: Absence Type Absence Type Reason Image: Compound Facts - Operations and Absence Type / Reason Image: Absence Type Reason Image: Compound Facts - Operations and Absence Type / Reason Image: Compound Facts - Operations and Absence Type / Reason Image: Absence Type Reason Image: Compound Facts - Operations and Absence Type / Reason Image: Compound Facts - Operations and Absence Type / Reason Image: Absence Type Reason Image: Compound Facts - Operations and Absence Type / Reason Image: Compound Facts - Operations and Absence Type / Reason Image: Absence Type Reason Image: Compound Facts - Operations and Absence Type / Reason Image: Compound Facts - Operations and Absence Type / Reason Image: Absence Type Reason Absence Type Reason Image:	Add a new column to the analysis. It doesn't really matter which item you add as we will be changing it anyway. In this example we have added Absence Reason.



Step	Screenshot	Description
8	Bins Folder Heading Absence Type / Reason Column Heading Absence Reason Column Headings Contains HTML Markup Aggregation Rule (Totals Row) Default (None) Available Column Formula Subject Areas Non-Benchmarking Figures'	Edit the formula of the item added, and replace it with a name, encased in single quotes. In this example we'll use 'Non-Benchmarking Figures'
9	Criteria Results Prompts Advanced Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject Areas Image: Subject	You should now have three columns. The grouping(1), the measure(2) and the name(3).
10	ame.	Select the Set Operations icon at the top right. This icon means we'll add another query to the analysis. In this example we'll use the query to obtain the benchmarking figures.
11	Select Subject Area Human Resources - Absence Human Resources - Annual Leave Balance Human Resources - Applicant EIT Details	In the list of subject areas that is displayed, select the same subject area we used for the first query. In this example – Absence.



Step	Screenshot	Description
12	Criteria Results Prompts Advanced Subject Areas Q </td <td>BI now displays an empty query. Placeholders are displayed – we need to add similar columns to those previously added under the other query, i.e. a grouping, a measure and a name.</td>	BI now displays an empty query. Placeholders are displayed – we need to add similar columns to those previously added under the other query, i.e. a grouping, a measure and a name.
13	Criteria Results Prompts Advanced Subject Areas Image: Selected Columns Image: Selected Columns Selected Columns Image: Selected Columns Selected Columns Selected Columns Combine criteria from one or more subject areas. Click on the Result Column Assignment Selected Columns Selected Columns Criteria ("Human Resources - Absence") Assignment Cost Centre Employee Organization Criteria ("Human Resources - Absence") Deriod of Placement Band Edit Deriod of Viork Band Edit Double click on column names in the Subject Areas pane to add them to the. Time Trust Level Month Benchmarking Absence Facts Workforce Profile Fact Add Column Benchmarking Absence FTE % Add Solum Figures Add filters to the analysis criteria by clicking on Filter option for the specific o Benchmarking Ion Filters Add filters to the analysis criteria by clicking on Filter option for the specific o	From the Time folder, add the 'Month' item by double-clicking it. Expand the facts folder, then the benchmark facts, then expand the level of benchmark required. We'll use Trust level in this example. Add the Benchmarking Absence FTE % item by double-clicking it.
14	Edit Column Formula Bins Folder Heading 'Benchmarking Figures' Column Heading 'Benchmarking Figures' Column Heading 'Benchmarking Figures' Column Headings Custom Headings Contains HTML Markup Contains HTML Markup Aggregation Rule (Totals Row) Default (None) Available Column Formula Subject Areas Column Formula Image Band Image Band Image Assignment Assignment	In the same way as we added a title for this query in step 8, we need to do the same here. Add any column and replace the formula with a title. We've used the title 'Benchmarking Figures' here.



Step	Screenshot	Description
15	Set Operations Set Operations Combine criteria from one or more subject areas. Click on the Result Columns or Criteria links below to edit the or consistent across all criteria and Result Columns. Result Columns Criteria ("Human Resources - Absence") Criteria ("Human Resources - Absences") Criteria ("Human	You should now have three columns in each query. You will notice however that we have yet to add any filters to the analysis.
	Add filters to the analysis criteria by clicking on Filter option for the specific column in the Selected Columns pane, add button after selecting its name in the catalog pane.	or by
16	Benchmarking Figures' Benchmarking Figures'	 With the second query selected (Query 2 in the above diagram), click the 'New Filter' icon on the right of the screen. Select 'More Columns' from the dialogue.
17	 Human Resources - Absence Time Date Day Name Month Month Wonth Name Year Week Absence 	Because this query is for the benchmarking figures, we must use 'Month' as the time filter. Select 'Month' from the list, then click OK.



Step	Screenshot	Description
18	New Filter ⓐ × Column Month Operator is equal to / is in Value 2018 / 01;2018 / 02;2018 / 03 Add More Options Clear All Protect Filter Convert this filter to SQL	Select the months to include. We've used the first three calendar months of 2018 in this example. Click OK
20	Study Leave Column Absence Type Benchmark Domain Operator Absence Category Sickness Absence Type Add More Options Add More Options Clear Protect Filter 2 ×	Create another filter in the same way - this time select the 'Absence Type' item within the 'Benchmark Domain' folder. Enter 'Sickness' as the filter value.
	Column Date Operator is between ✓ Value 01/01/2018 ✓ Value 31/03/2018 ✓ Add More Options ▼ Clear All Protect Filter Convert this filter to SQL	another new filter based on the 'Date' item within the 'Time' folder.
21	Edit Filter ② × Column Absence Type Ø Operator is equal to / is in ✓ Value Sickness Add More Options ▼ Clear All Protect Filter Convert this filter to SQL	Add another filter for Absence Type within the Absence Type / Reason folder, and enter 'Sickness' as the value.



Step	Screenshot			Description
22	Table	u 🔀 🔀 🥢	×	We now have two queries defined. The first one is similar to a normal absence query in BI – it filters using Time.Date
	Month	Absence FTE % 'Non-Benchmarking Figu	res'	and uses standard measures.
	2018 / 01	4.84 Benchmarking Figures		The second query reports
	2019 / 02	3.04 Non-Benchmarking Figu	es	benchmarking figures against the
	2018/02	2.46 Non-Renchmarking Figures		Time.Month item, rather than date. It
	2018 / 03	3 71 Benchmarking Figures	C 3	uses measures from the benchmarking
	2010703	1.85 Non-Benchmarking Figures	es	facts folder.
				Click the results tab to run the analysis.
23	Non-Ber	nchmarking Figures' Benchmarking Figures'		You will notice that the title of the final column doesn't make sense. Return to the criteria tab and update it to something more meaningful. We've renamed it to 'Type' here.
	Sty	e Column Format Data Format Co adings Folder Heading 'Non-Benchmarking Figures' folumn Heading Type Custom Headings Contains HTML Markup		
24				The figures are now returned. In this
	Month	Absence FTE % Type		example we're running as a manager
	2018/01	4.84 Benchmarking Figures		differ from the benchmarking figures
		3.04 Non-Benchmarking Fig	ures	uner nom the benchmarking lightes.
	2018/02	4.44 Benchmarking Figures		
	2242 (22	2.46 Non-Benchmarking Fig	ures	We can also add another view to
	2018/03	3.71 Benchmarking Figures		compare.
		1.85 Non-Benchmarking Fig	ures	
25	Absence FTE %			
	6.00			
	5.00			
	% 4.00 H 3.00 2.00 1.00		lenchmarking igures igures	
	0.00 2018 / 01	2018 / 02 2018 / 03 Month		

Appendix – List of Measures Available via Benchmarking

Below is a list of all the measures and their location in ESR BI for use in benchmarking:

Human Resources – Workforce Profile

Appraisal % (6m)	Professional Registration Matching %
Appraisal % (12m)	Right to Work %
Appraisal % (13m)	Turnover Rate % (12m) FTE
Average Length of Service in Current Org	Turnover Rate % (12m) Headcount
Average Length of Service in NHS	Turnover Rate (FTE) %
DBS Matching %	Turnover Rate (Headcount) %

Human Resources – Absence

Absence FTE %	Long Term Absence FTE %
Rolling Absence FTE%	Short Term Absence FTE %

Human Resources – Learning Enrollment and Completion

DNA	Rate	%	
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Human Resources - Personal Competence and Qualifications Profile

Competency Matching %	Competency Matching %		