From: Halliday R (Roger) <Roger.Halliday@gov.scot>
Sent: 30 April 2019 16:12
To: [redacted]
Cc: [redacted]; National Performance <NationalPerformance@gov.scot>; [redacted]; Wilson M (Mick) <Mick.Wilson@gov.scot>
Subject: RE: UPDATE: Educational attainment: seeking advice from NPFTAG

Hi [redacted]

I'm happy with this proposal.

Roger

Roger Halliday
Chief Statistician & Data Officer, Scottish Government, Room 2W.02, St. Andrews House, Edinburgh. EH1 3DG
t: [redacted], **e:** roger.halliday@gov.scot [redacted]

From: [redacted]
Sent: 30 April 2019 14:05
To: [redacted] Halliday R (Roger) <Roger.Halliday@gov.scot>; [redacted] National Performance <NationalPerformance@gov.scot>; [redacted]; Wilson M (Mick) <Mick.Wilson@gov.scot>
Subject: RE: UPDATE: Educational attainment: seeking advice from NPFTAG

[redacted]

The basis for the arrow seems reasonable to me.

Thanks.

[redacted].

From: [redacted]
Sent: 30 April 2019 11:48
To: Halliday R (Roger) <Roger.Halliday@gov.scot>; [redacted]
Cc: [redacted]; National Performance <NationalPerformance@gov.scot>; [redacted]; Wilson M (Mick) <Mick.Wilson@gov.scot>
Subject: UPDATE: Educational attainment: seeking advice from NPFTAG

Dear NPFTAG,

Please see below an update on the discussion regarding the criteria for change for Educational Attainment. A reminder that this indicator is made of 7 submeasures and we are currently discussing the best way to assess change of the indicator as whole (one performance arrow).

Can we please have your feedback on **[redacted]** suggestions to previous comments by Roger and NPFTAG listed in the email thread below.

Changes to the technical text has been made and attached.

Kind regards,
[redacted]

From: [redacted]
Sent: 26 April 2019 09:16
To: [redacted]
Cc: [redacted] National Performance <NationalPerformance@gov.scot>; Wilson M (Mick) <Mick.Wilson@gov.scot>
Subject: RE: UPDATE: Educational attainment: seeking advice from NPFTAG

Hi **[redacted]**,

Based on Roger's comments I've made some changes to the technical text for the Educational Attainment NPF. See what you think.

The criteria for change for the sub-measures now varies depending on whether the current value of the measure is above or below 90%. There is 1 sub-measure that is currently above 90% and so the change criterion for this is now +/- 0.5 percentage points. The other 6 sub-measures are currently below 90% and so the change criteria here is +/- 1 percentage point.

A couple of thoughts: while I probably agree with the point that measures that are above 90% are unlikely to change much and so a narrower change criterion should be used it is a bit strange and complicated that we have a different criterion for 1 sub-measure than for all the others. Also, there are 1 or 2 other sub-measures that are currently slightly below 90%. I've suggested we might change the criteria for these sub-measures if they go on to rise above 90% but this is also complicated and I'm not sure how you feel about making such a change in the middle of measuring progress.

Kind regards
[redacted]

From: [redacted]
Sent: 03 April 2019 11:36
To: [redacted]
Cc: [redacted] National Performance <NationalPerformance@gov.scot>; Halliday R (Roger) <Roger.Halliday@gov.scot>; **[redacted]**
Subject: UPDATE: Educational attainment: seeking advice from NPFTAG

Hi **[redacted]**,

I hope you are well.

We had a meeting with Roger at the end of last week. I have responded to your queries/comments below.

On the equality characteristics I'm not even clear on what the requirement is. I know that areas I have worked in before have provided equality characteristic breakdowns for indicators in the past but I don't think there was ever a judgement about whether these had changed from one year to the next which I assume is what Roger is referring to? NPFTAG will be looking to assess the feasibility of determining change in trends for each indicators equality characteristics in the future, not just the

absolute measure of the indicator. For example, how attainment has changed across SIMD classes over time. This is something that will be discussed in the near future. The next step will likely be a proposal over the criteria for change for these equality data and discussion with NPFTAG.

On the 0.5% point change question I think I agree in principle although I think there are some indicators around the suggested 90% cut-off so we'd have to think about how to deal with these. Roger has mentioned that the criteria needs to be proportionate to how close the indicator is currently to 1 or 0.

In terms of displaying the 7 sub measures, **[redacted]** and I will have to come up with a way to display them on the website. We are thinking a separate page with an overarching performance arrow followed by a grid of the 7 measures. If you have a look at the website indicator page you will see that allocating 7 graphs in this format wouldn't work. What we need is a substantiate name for each of the seven sub measures – currently I have just labelled them Educational Attainment 1-7.

Thanks **[redacted]**.

Kind regards,
[redacted]

From: Halliday R (Roger) <Roger.Halliday@gov.scot>
Sent: 04 March 2019 11:00
To: [redacted]
Cc: [redacted] National Performance <NationalPerformance@gov.scot>
Subject: RE: Educational attainment: seeking advice from NPFTAG

Hi **[redacted]**

You asked for views from NPFTAG on the proposed approach to measuring educational attainment. I'm broadly happy with the proposed approach. I'd suggest tightening up on the wording about improving/worsening: I'm assuming that it would require 4 of the indicators to be improving by more than 1% point for the overall arrow to be improving and similarly 4 indicators worsening by more than 1% point for the overall arrow to be worsening. Only one question here – are any of the indicators >90% or <10%. If so, we should probably cut down the criteria for improvement for those specific cases to perhaps 0.5% point change, otherwise the overall indicator is likely to always be maintaining.

This is an area where we are going to have to work out a method for change in equality characteristics pretty soon. Would be good to get ideas from **[redacted]**, given FM's interest they may well have done this thinking.

On presenting the data, I'm more in favour of putting the different series on a single graph, though could be two if that really doesn't work.

Roger

Roger Halliday

W3C®
MEMBER

From: [redacted]
Sent: 26 February 2019 11:51
To: Halliday R (Roger) <Roger.Halliday@gov.scot>; [redacted]; National Performance <NationalPerformance@gov.scot>
Subject: Educational attainment: seeking advice from NPFTAG

Dear NPFTAG,

We have recently had discussions with [redacted] and [redacted] who are responsible for the Educational Attainment indicator. This indicator is made of 7 sub-measures which are equally weighted, therefore do not form a single continuous, composite measure.

We are looking for advice on how to determine an overall performance measure for this indicator. This is detailed in the technical template attached. Therefore, each sub-measure will not have its own performance arrow but will be taken into account for an overall performance arrow for Educational Attainment across the sub-measures. This approach was agreed during the NPF refresh.

One other confounding factor of Educational Attainment not being a single measure, is the ability to display these data appropriately. As all sub-measures are of equal weighting we cannot display one measure over the other. The only option I see is to have the seven sub measures displayed individually, but bear in mind that they will all be displayed with the overall performance arrow. This will lead to conflicting evidence. This indicator is currently not displayed on the NPF website, as all indicators have just one graphical data output. [redacted] has also drawn on some options within the technical template.

Advice and guidance would be much appreciated. Thank you for your time.

Kind regards,
[redacted]

[redacted] | [redacted]
Outcomes and Sustainable Development Goals
2W St Andrew's House|Regent Road|Edinburgh|EH1 3DG
[redacted]
[redacted]

Outcomes and Sustainable Development Goals

Twitter: @ScotGovOutcomes

Indicator name (What is the name of the National Indicator)

Education Attainment

Description (A description of the measure)

This indicator is comprised of seven sub-measures mirroring the National Improvement Framework for Education key measures for monitoring the attainment gap, and covering the key components of Curriculum for Excellence and key stages of school education:

- Proportion of Primary pupils achieving expected levels in all three Literacy organisers
- Proportion of S3 pupils achieving Third Level or better in all three Literacy organisers
- Proportion of Primary pupils achieving expected levels in Numeracy
- Proportion of S3 pupils achieving Third Level or better in Numeracy
- Proportion of school leavers attaining 1 or more award at SCQF Level 4 or above
- Proportion of school leavers attaining 1 or more award at SCQF Level 5 or above
- Proportion of school leavers attaining 1 or more award at SCQF Level 6 or above

Source (The data source)

Achievement of Curriculum for Excellence Level statistics
School leaver attainment statistics

Definitions (Descriptions of terminology used)

Proportion of pupils achieving expected levels in Literacy and Numeracy is based on the Achievement of Curriculum for Excellence Levels data collection.

The annual Achievement of Curriculum for Excellence (CfE) Levels data collection includes all Primary 1, Primary 4, Primary 7 and Secondary 3 pupils in publicly funded mainstream schools, and all pupils based in publicly funded special schools/units.

The collection covers performance in the three literacy organisers (i.e. reading, writing, and listening and talking) and numeracy, and reports on the proportion of pupils who have achieved the expected CfE Level, based on teacher professional judgements, relevant to their stage. The Primary measures included in the National Improvement Framework for Scottish Education and the National Performance Framework are based on a calculation derived from combining the P1, P4 and P7 data. The Literacy measure is calculated based on pupils achieving all three literacy organisers.

Proportion of school leaver attaining 1 or more award at Scottish Credit and Qualification Framework (SCQF) Level 4 or above, Level 5 or above and Level 6 or above are from school leaver attainment statistics. The presentation of school leaver attainment data by Scottish Government takes an outcomes-based approach; leavers are classified by identifying the highest SCQF Level at which they achieved one or more passes by the time they leave school.

Criteria for change (What change in the data constitutes a change in performance)

The evaluation is based on: any difference within +/- 1 percentage points of last years' figures suggests that the position is more likely to be stable. A change of more than +/- 1 percentage will be classified an increase/decrease.

The overall Education Attainment indicator arrow will reflect the underlying sub-measures. If the majority of sub-measures have seen an increase, the Education Attainment indicator arrow will show Performance Improving. If the majority of sub-measures have seen a decrease the indicator arrow will show Performance Worsening. In all other cases the indicator arrow will show Performance Maintaining.

The Achievement of CfE Level data are currently classified as Experimental Statistics. Achievement of CfE Level data continue to be data under development and caution should be applied when making comparisons to previous Achievement of CfE Level results. Comparisons across local authorities should not be made without full knowledge of local authorities' underlying approach to CfE.

Justification (Why has this indicator been chosen/ What's it's importance)

The Scottish Government vision for education in Scotland is
- Excellence through raising attainment: ensuring that every child achieves the highest standards in literacy and numeracy, set out within Curriculum for Excellence levels, and the right range of skills, qualifications and achievements to allow them to succeed; and
- Achieving equity: ensuring every child has the same opportunity to succeed, with a particular focus on closing the poverty-related attainment gap.

As part of the development of the National Improvement Framework (NIF), Scottish Government worked with key stakeholders to explore and agree what specific measures were felt to drive improvement most usefully across all stages of a child or young person's life. The National Improvement Framework includes a basket of key measures based on this work. The measures chosen for this indicator are a subset of the attainment measures in the NIF.

Curriculum for Excellence is intended to help children and young people gain the knowledge, skills and attributes needed for life in the 21st century, including skills for learning, life and work. This indicator reflects progress towards one of the four capacities of Curriculum for Excellence – successful learners.

The use of 7 sub-measures (not a composite)

During the development of the NIF, and based on discussions with stakeholders, a number of key principles emerged relating to the way in which Educational attainment should be monitored. These included:

- The focus should be across all age ranges – from 3-18;
- Focusing on a single measure could provide a false and limited picture;
- They should be a credible set of measures – understood to fairly reflect progress

In particular it was determined that it was not possible to assess Educational attainment via a single measure. Such a measure, for example one focused on senior phase or leavers' data, would not be sufficient to demonstrate progress across Educational attainment as a whole. Similarly, the approach of using a complex algorithm to bring together a range of measures to produce a single indicator of progress was seen as being neither straightforward nor transparent.

For that reason, the educational attainment indicator consists of a range of measures that reflect the breadth of issues that can impact on attainment. These measures allow for assessment of progress across the 3-18 age range.

The Achievement of CfE Level data are currently classified as Experimental Statistics. Achievement of CfE Level data continue to be data under development and caution should be applied when making comparisons to previous Achievement of CfE Level results. Comparisons across local authorities should not be made without full knowledge of local authorities' underlying approach to CfE.

Displaying the data
- guidance needed on creating an accurate display of this indicator to describe overall performance

- no one sub-measure is more important that the other, therefore displaying one would lead to a false picture

Options for displaying the data include:

- displaying all 7 measures on 7 separate charts;
- displaying all 7 measures across, perhaps, 2 charts with multiple measures on each chart
- possibly displaying the aggregate performance of **the indicator** which might display how many measures are improving, worsening or maintaining. [WA(1]