

REPORT TO: Education Committee

MEETING DATE: 21 April 2015

BY: Depute Chief Executive (Resources and People Services)

SUBJECT: Reporting on the National Benchmarking Measures (Senior Phase) to 2014 and the new National Benchmarking Tool, "Insight"

1 PURPOSE

- 1.1 To inform the Committee of the release of the new Scottish Government senior phase (S4 to S6) national benchmarking tool, "Insight" across Scotland.
- 1.2 To inform the Committee of the changes to reporting on the attainment and achievement of pupils in the senior phase in East Lothian, using information from Insight.
- 1.3 To inform the Committee of the trends in attainment and achievement in the Senior Phase, including Scottish Qualifications Authority (SQA) performance, in East Lothian for academic session 2013/2014, using the "National Benchmarking Measures" from Insight.

2 RECOMMENDATIONS

- 2.1 The Committee is asked to:-
 - i. Note the change in the benchmarking tool used to analyse SQA Attainment data in the senior phase from Standard Tables & Charts (STACs) to Insight.
 - ii. Note the change in the way we analyse and evaluate levels of attainment and achievement in the senior phase in our secondary schools using Insight and the new Local and National Benchmarking Measures.
 - iii. Note that the data contained within the report is based on the four "National Benchmarking Measures", focusing on the performance of Leavers cohorts over the last five years to 2014.

- iv. Note that the four new National Benchmarking Measures reported by the Scottish Government Insight tool in February 2015 show that attainment and post school participation in East Lothian has improved over the five-year period to 2014.
- v. Note that further improvements still need to be made in Literacy and Numeracy at SCQF Levels 5 and 6 or better and overall in the Middle 60% attaining grouping to bring East Lothian's performance more in line with the Virtual Comparator.
- vi. Note the results contained within the report and that the examination results inform and guide actions in each of the six secondary schools' School Improvement Plans.

3 BACKGROUND

- 3.1 Each year young people in secondary schools are presented for National Courses and Units certificated by the Scottish Qualifications Authority (SQA).
- 3.2 In 2013/14, young people in secondary schools across Scotland were presented for the first time for the new National qualifications (National 1 to 5) introduced under Curriculum for Excellence (CfE):
 - National 1 and 2 qualifications are designed to meet the need of young people with additional support needs. They are internally assessed by the school and verified by SQA.
 - National 3 and 4 qualifications are also internally assessed.
 - National 5 Courses have both internal assessments and a final externally set examination in the May diet. Young people sitting National 5 qualifications can achieve an A-D pass. If they fail the external examination, they can achieve a qualification at National 4 if they have successfully passed all the internal National 5 assessments and completed a 'value-added' unit at National 4 level. If they haven't completed the 'value-added' unit, they have until March the following year to do so and this attainment will be included in the February or the following August updates.
- 3.3 In addition to the National 5 courses, externally set examinations are also sat at Higher to achieve an A-C pass and at Advanced Higher to achieve an A-C pass.
- 3.4 The Scottish Credit and Qualifications Framework (SCQF) is used as the basis for reporting attainment and achievement and allows comparison of the wide range of Scottish qualifications and covers achievements from school, college, university and many work-based qualifications.

- 3.5 There are 12 SCQF Levels. SCQF Level 1 is the least demanding and SCQF Level 12 the most demanding. In schools, students work towards qualifications from SCQF Level 1 to 7 through a range of SQA courses.
- 3.6 **Table 1** below shows where the different SQA awards that our school pupils work towards, including the new National Qualifications, sit within the SCQF framework and in relation to previous or existing qualifications that they have or will replace.

Table 1: Scottish Credit and Qualifications Framework (SCQF)

SCQF Level	New Qualification	Previous/ existing qualification
SCQF 1	National 1	Access 1
SCQF 2	National 2	Access 2
SCQF 3	National 3	Access 3, Standard Grade Foundation Level (Grades 5 and 6)
SCQF 4	National 4	Standard Grade General Level (Grades 3 and 4) Intermediate 1
SCQF 5	National 5	Standard Grade Credit Level (Grades 1 and 2) Intermediate 2
SCQF 6	Higher (new)	Higher
SCQF 7	Advanced Higher (new)	Advanced Higher

- 3.7 The first cohort of CfE leavers from S4 in 2014 form part of the leavers' cohort for the national benchmarking measures.
- 3.8 Young people achieve qualifications at different stages throughout the senior phase (S4 to S6). In almost all our secondary schools in East Lothian, young people at S4 achieved a range of qualifications at National 3, 4 and 5. One secondary school, with the agreement of parents, opted to by-pass National 5 qualifications in some subjects at the end of S4 in 2014 with those young people sitting a two-year Higher course for examination in May of S5, 2015. Presentation approaches also differed between schools and from previous years. Therefore, it is not possible to fully compare previous year's performance by the end of S4 with this year's.
- 3.9 **New approach to analysing SQA attainment & other achievement data through "Insight" nationally and within East Lothian**
- 3.9.1 Previously, the Scottish Government Education Department provided a detailed analysis of the SQA attainment data through ScotXed (Scottish Exchange of Educational Data) in the form of the "Standard Tables and Charts" (STACs) publication.
- 3.9.2 As part of the Scottish Government's commitment to updating STACs so that it is fully aligned to CfE, a new online senior phase benchmarking tool called "Insight" has been developed in partnership with Education Scotland, SQA, Association of Directors of Education (ADES),

Educational Institute (EIS), School Leaders Scotland (SLS) as well as secondary school and local authority representatives to replace STACs.

3.9.3 General information on Insight is available at <http://www.gov.scot/Topics/Education/Schools/curriculum/seniorphasebenchmarking>

3.9.4 Insight was made live to secondary schools and Education authorities for the first time in September 2014. There will be two releases of Insight each year, as detailed in **Table 2**.

Table 2: Insight Release Schedule

August	February
<p>Local Benchmark Measures:</p> <ul style="list-style-type: none"> • Literacy & Numeracy (stage cohorts) • Attainment for All (stage cohorts) • Attainment vs Deprivation (stage cohorts) <p>Local Course Measures:</p> <ul style="list-style-type: none"> • Whole School Course Summary • Curricular Areas • Breadth & Depth: All Candidates 	<p>Updated to include:</p> <p>National Benchmark Measures:</p> <ul style="list-style-type: none"> • Literacy & Numeracy (leavers) • Attainment for All (leavers) • Attainment vs Deprivation (leavers) • Leaver Initial Destinations (leavers) <p>Local Measures:</p> <ul style="list-style-type: none"> • Candidate Initial Destinations • Breadth & Depth: Leavers

3.9.5 The following extract from the Scottish Government’s ‘Insight Help & support: Frequently Asked Questions’ explains how Insight will support CfE: *“Insight aims to support the key principles and purposes of CfE by helping local authorities and schools to focus on understanding and reducing the gap between higher and lower attainers and raising attainment for all. Insight’s key benchmarking features measure attainment at the point of exit from school, reflecting a key ambition of Curriculum for Excellence, in which schools are encouraged to consider the best and most flexible progression routes for their pupils within the senior phase..”*

3.9.6 There are a number of differences between STACs and Insight in terms of access and usability but the most significant difference is that Insight includes a wider range of SCQF credit-rated qualifications and learning programmes, capturing the focus on achievement as well as attainment within CfE.

3.9.7 Previously, STACs focused on thirteen measures related to performance in SQA attainment by the end of S4, S5 and S6:

- 5 + Awards at Level 3, 4 and 5
- 1+, 3+ and 5+ Awards at Level 6; and
- 1+ Awards at Level 7.

As schools are no longer following the same processes for course entry, year group threshold measures above are not considered within Insight and therefore the thirteen measures are no longer applicable or reported on.

3.9.8 Instead, Insight focuses on performance in the senior phase across four nationally agreed “National Benchmarking Measures”:

- Increasing post-school participation (shown as the percentage of School Leavers in a Positive Destination)
- Improving attainment in literacy and numeracy (shown as the percentage of School Leavers attaining Literacy and Numeracy)
- Improving attainment for all (shown as the Average Total Tariff Score of School Leavers)
- Tackling disadvantage by improving the attainment of lower attainers relative to higher attainers (shown as the Average Total Tariff Score versus Deprivation)

3.9.9 These four national measures focus on the total achievements recorded at the point at which the young person leaves school instead of at the end of S4, S5 and S6.

3.9.10 In addition, “Local Benchmarking Measures” allow schools and Education Authorities to report and reflect on the cumulative attainment of all young people at the end of S4, S5 and S6 in relation to literacy and numeracy, attainment for all and attainment versus deprivation as well as ‘Course Measures’.

3.9.11 As previously noted in paragraph 3.8, the Local Benchmark Measures are influenced by a school’s curricular model (presentations policy) and it is, therefore, not possible to fully compare previous year’s performance in East Lothian by the end of S4 with this year’s.

3.9.12 As referred to in paragraph 3.9.6 above, Insight uses data from a wider range of sources than just the SQA in the measures: post-school destinations from Skills Development Scotland, socio-economic and characteristic data from the annual Pupil Census and wider achievement accredited through organisations other than the SQA. See **Appendix 1** for a list of Wider Achievement Awards currently included in Insight. For wider achievement awards to be included in the measures they must be on the SCQF, fit with CfE principles and able to meet the technical requirements of Insight.

- 3.9.13 Attainment data in Insight is based on the result date of learners' qualifications (**Resulted Entries**). This is different from STACs and SQA published data where the data is based on course entries expected to be completed within an academic session. This will mean that there are differences between the total number of 'Resulted Entries' in Insight and the total number of 'entries' reported in published SQA data or previously in STACs. This may also mean that some awards may be reported in a different academic session in Insight than by the SQA or previously in STACs.
- 3.9.14 Not all of the data used in the Insight measures is released at the same time of the year, e.g. while the 2014 SQA pre-appeal data is available for the September 2014 release, the 2013/2014 leavers destinations data was not available until December and did not appear in Insight until February 2015.
- 3.9.15 The four National Measures will therefore be updated every February and the Local Measures updated at the end of August. The February update will also include any changes through the results administrative review process and later awards from the previous exam diet (e.g. National 4 awards where National 5 units plus the Value added unit have been achieved).
- 3.9.16 A further key difference from STACs is that schools and Education Authorities are no longer benchmarked against a set of comparator schools or authorities. Instead, Insight creates a Virtual Comparator for each school and Education Authority made up of pupils from schools in other local authorities around Scotland who have similar background characteristics to the pupils in the school or Education Authority in question offering a fairer comparison.
- 3.9.17 The Virtual comparator is, therefore, considered to be the key benchmark rather than the National Establishment (i.e. national average) for helping schools and Education Authorities understanding of their strengths and areas of improvement.
- 3.9.18 A detailed note on the Virtual Comparator Methodology provided by the Scottish Government can be found in **Appendix 2**. A national review of the methodology will take place in 2017 in light of data from the first CfE cohort of pupils.
- 3.9.19 One of the ways Insight analyses performance is through the use of a tariff scale, developed specifically for the tool. This allows a meaningful comparison between schools, Education Authorities and virtual comparators. Each qualification (unit and course) included in Insight is accredited to the SCQF. The qualification is awarded tariff points based on its SCQF level and credit points.
- 3.9.20 The Insight tariff scale has been developed to take account of the new qualifications available through Curriculum for Excellence and previous or pre-existing qualifications (such as Higher and Standard Grades) are

mapped to the new tariff points in a way which allows historical comparison.

- 3.9.21 A detailed note on the Tariff scale provided by the Scottish Government can be found in **Appendix 3**. A national review of the tariff scale will take place in 2017 in light of data from the first CfE cohort of pupils.
- 3.9.22 Filters within the Insight tool allow users to 'drill down' into the data within each measure at authority and individual school level to view and analyse the data based on gender, age, additional support need, English as an additional language and looked after status.
- 3.9.23 As a result of these changes in the benchmarking tool, schools and officers within East Lothian are currently changing the processes for analysing and evaluating attainment and achievement locally and how we report on this to Elected Members.
- 3.9.24 Insight will be used by schools and Education Authority staff to benchmark, analyse and compare data relating to performance in the senior phase to help identify where improvements can be made as well as areas of success and best practice.
- 3.9.25 Analysis of the East Lothian Performance based on the Local Benchmarking Measures and National Benchmarking Measures from Insight will be reported to Elected Members in November and March respectively each year.
- 3.9.26 Individual school performance will be analysed and discussed with Head Teachers during the bi-annual attainment meetings in November and March, attended by the Head Teacher of the school presenting the performance analysis, the Head Teacher of their partner school, the Head of Education, the link Quality Improvement Officer and, where possible, an officer from the Education MIS team.
- 3.9.27 At the November Attainment Meetings, Head Teachers will present their analysis of performance at S4 to S6 based on the Local Benchmarking Measures and Course Measures in Insight and SEEMiS, identifying areas of strength and areas for development. Head Teachers will also present information and developments to monitor and improve attainment at S1 to S3 and how this will inform transition into the senior phase, including developments happening at cluster level to support the raising attainment agenda. Any actions being taken to address areas for development in order to improve attainment will also be discussed.
- 3.9.28 At the March Attainment Meetings, Head Teachers will present their analysis of the performance of School Leavers based on the National Benchmarking Measures in Insight and report on progress on action points identified at the previous meeting.
- 3.9.29 Changes to local processes are likely to continue throughout this academic session and over the next two academic sessions while school and authority staff become more familiar with Insight and as the

tool itself continues to be developed nationally as the new CfE qualifications embeds in the senior phase.

3.10 INSIGHT NATIONAL BENCHMARKING MEASURES

- 3.10.1 As mentioned in paragraph 3.9.25, this report will focus on the four “National Benchmarking Measures” based on the cumulative achievements of all young people who have left school in the five years to 2014 and will explore how the Education Authority has performed over this five-year period.
- 3.10.2 The national and Virtual Comparator percentages and scores presented in this report for 2014 are unofficial statistics. The Scottish Government will publish the official National Benchmark Measure data in June 2015 as per the revised arrangements following changes implemented to the School Handbook legislation in 2012.
- 3.10.3 The leavers' cohort is the most important since it is the most consistent point of comparison given the various routes and pathways available to schools for using with their young people as they progress through the senior phase.
- 3.10.4 The leavers' cohort will include a mixture of pupils from S4, S5 and S6.
- 3.10.5 The data in this report is taken from the February 2015 release of Insight and reflects the most up to date position on school leaver's attainment.
- 3.10.6 The following extract from the Scottish Government's 'Insight Help & support: Frequently Asked Questions' defines how candidates are classified as school leavers in Insight - *'A pupil is defined as a school leaver in Insight if they have one or more School Leaver Destination Return (SLDR - initial) records for the year and a Pupil Census record for the same academic year (1 August to 31 July), and no Pupil Census record in the following academic year for a stage within the senior phase (S4-S6)'*.
- 3.10.7 The Pupil Census dataset is the primary dataset for the Insight tool as it is the key set for identifying the characteristics of pupils for the filters and for linking to attainment data. Therefore the Leavers cohort in Insight will not be exactly the same as the Leavers Cohort as reported by Skills Development Scotland (SDS). A more detailed note explaining the differences between SDS and Insight Leavers Cohorts can be found in **Appendix 4**.
- 3.10.8 The Leavers Destinations data is matched from the Skills Development Scotland School (Initial) Leaver Destination Returns.
- 3.10.9 The attainment figures in this report are based on the 'Latest and Best' achievement of School Leavers in the Senior Phase and do not include attainment gained prior to S4. The figures only include attainment in SCQF credit-rated qualifications that have been matched to an individual pupil via their Scottish Candidate Number (SCN).

- 3.10.10 For each measure, three year averages and a 'Trend' are presented along with the annual performance to provide an indication of an overall declining or improving trend by East Lothian schools in relation to the Virtual Comparator and/or the National Establishment.
- 3.10.11 The 'Trend' is the average annual percentage point change over the number of years given. A positive value indicates an improving trend on average over the period and a negative value indicates a declining trend.
- 3.10.12 When the cohort being compared relates to a small number of pupils (less than 20 as a rule of thumb provided by the Scottish Government), the trends are more likely to fluctuate over time and, therefore, are less likely to be significant.
- 3.10.13 As per the Insight protocol, data is suppressed publicly where it relates to a cohort or part of a cohort of fewer than five to prevent the identification of individuals.
- 3.10.14 In East Lothian we operate inclusive schools and there are some pupils who pass examinations at SCQF levels 1 and 2, which are not included in the analysis though as key benchmark measures.

3.11 EAST Lothian PERFORMANCE TO 2014

Highlights

- 3.11.1 Overall, the four National Benchmarking Measures reported by the Scottish Government Insight tool in the February 2015 update indicate that attainment and post school participation in East Lothian has improved over the five-year period to 2014.
- 3.11.2 Further improvements still need to be made in Literacy and Numeracy at SCQF Levels 5 and 6 or better and overall in the Middle 60% attaining grouping to bring East Lothian's performance more in line with the Virtual Comparator.
- 3.11.3 In 2014, East Lothian's performance was at its highest to date across the Increasing Post-School Participation, Improving Attainment for All and Improving Attainment in Literacy & Numeracy measures.
- 3.11.4 East Lothian's performance across the four measures in 2014 is typically higher than the national trend with the exception of the percentage of school leavers in positive destinations.
- 3.11.5 East Lothian's performance in 2014 across the four measures in relation to the Virtual Comparator is typically in line with or lower than its comparator with the exception of the total average tariff scores of the Lowest attaining 20% and Highest attaining 20% groups and the percentage of school leavers attaining both Literacy & Numeracy at SCQF Level 3 and 4 or better which is higher.

3.11.6 The following charts (Figures 1 to 6), tables (3 to 11) and commentary detail the progress made by East Lothian schools against our Virtual Comparator and National Establishment in relation to each National Benchmarking Measure by school leavers over the last 5 years.

3.12 National Benchmarking Measure: Increasing Post-School Participation

3.12.1 East Lothian's percentage performance shows an improving trend over the last five years with its highest performance to date in 2014.

3.12.2 Despite improving its percentage performance, East Lothian is lower than both the Virtual Comparator and National Average over the five years.

3.12.3 The following chart and tables detail the progress made by East Lothian against our Virtual Comparator and the National Establishment in relation to the percentage of school leavers in an initial positive destination (i.e. approximately three months after leaving school).

3.12.4 The 'Increasing Post-School Participation' measure features as one of the Strategic long-term outcome indicators in Outcome 4 of our Single Outcome Agreement, with a focus on all school leavers and looked after (LAC) young people. It also features as an indicator in Contributory Outcome 4.1 with a focus on school leavers with ASN (additional support needs). As such, this section includes additional analyses of school leavers in a positive destination for LAC and ASN pupils.

3.12.5 **Table 3** and **Figure 1** show the percentage of all the pupils who left East Lothian schools in each year who went on to a positive destination. **Tables 4 to 6** show the percentage of pupils who were looked after or had additional support needs who left East Lothian schools and went on to a positive destination.

3.12.6 The percentages in tables 3 to 6 may not agree with those from the SDS SLDR report as a different cohort of leavers is included in the calculations. In each year there will be leavers from different stages and so each year will contain leavers from a range of cohorts.

3.12.7 The data relating to looked after school leavers in East Lothian is based on small cohorts on average of only 10 or 11 school leavers. As stated previously in paragraph 3.10.12, when the cohort being compared relates to a small number of pupils (less than 20 pupils), the trends are more likely to fluctuate over time and, therefore, are less likely to be significant. Therefore care must be taken when drawing any conclusions about performance over time in relation to looked after pupils.

3.12.8 Positive Destinations include Higher Education, Further Education, Training, Voluntary Work, Employment and Activity Agreements. Higher Education includes degree courses, HNDs, HNCs, teacher training or any programme above SCQF level 7, including those with a deferred unconditional place; Further Education is any full-time education that is

not Higher Education (e.g. National Certificates or National Qualifications) and where the pupil is not on a school roll; Training is where the leaver receives a grant or allowance (e.g. national training programme, Get Ready for Work, Local Authority or 3rd sector programmes); and Employment includes pupils in training while in employment such as Modern Apprenticeships.

Figure 1: Percentage of all school leavers in a positive destination (initial destinations) since 2009/10

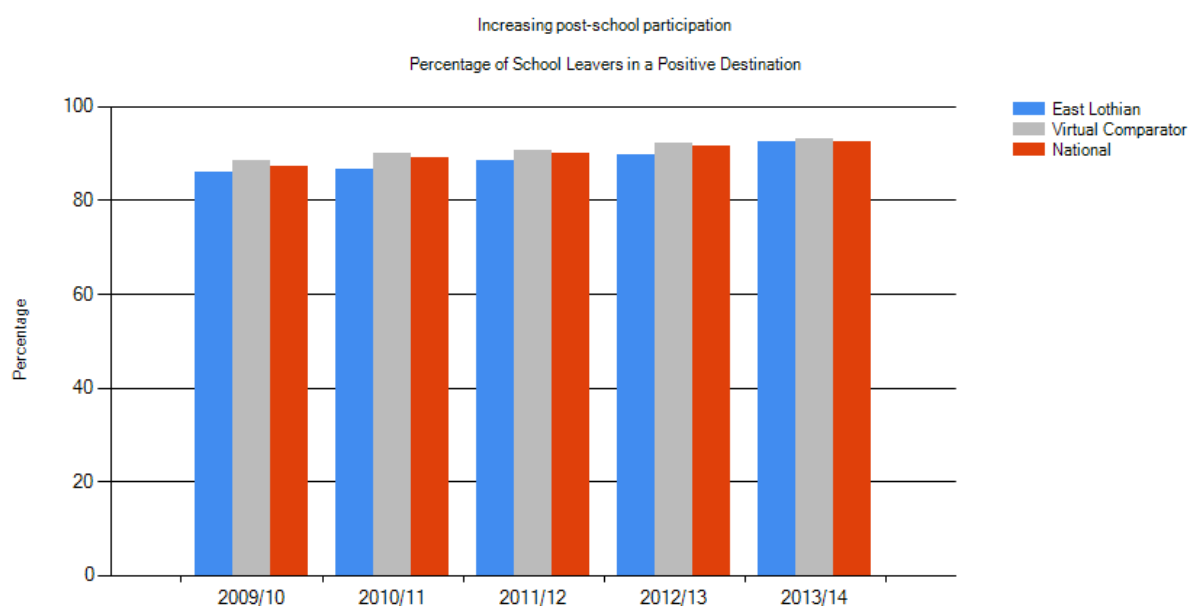


Table 3: Percentage of all school leavers in a positive destination (initial destinations)

	% school leavers in a positive destination						
	2009/10	2010/11	2011/12	2012/13	2013/14	3 yr ave	5 yr trend ¹
East Lothian	86.2	86.5	86.5	89.9	92.5	89.6	1.6
Virtual Comparator	88.4	90.1	90.1	92.3	93.2	91.9	1.2
National	87.2	89.1	89.1	91.7	92.6	91.1	1.3

¹ 'Trend' is the average annual percentage point change over the number of years given.

- 3.12.9 In 2013/14 East Lothian's performance shows a 2.6% increase on the previous year and is 0.7% and 0.1% below the Virtual Comparator and national average respectively.
- 3.12.10 The percentage of leavers in a positive destination is lower than both the Virtual Comparator and the National Average over the five years but shows an improved trend over the same period, at a higher rate than both the Virtual Comparator and the National average.

3.12.11 Since 2009/10 the percentage gap between East Lothian and its Virtual Comparator has reduced by 2.9 percentage points and the gap with the National average has reduced by 2.5 percentage points.

Table 4: Percentage of LAC At Home school leavers in a positive destination (initial destinations)

	% LAC at home leavers in a positive destination						
	2009/10	2010/11	2011/12	2012/13	2013/14	3 yr ave	5 yr trend ¹
East Lothian	37.5	50.0		44.4		44.0	3.5
Virtual Comparator	70.0	77.5		82.2		76.6	6.1
National	51.2	58.1	61.5	64.0	70.3	65.3	4.8

¹ 'Trend' is the average annual percentage point change over the number of years given.

3.12.12 There were no leavers within this category in 2013/14. Leavers who were looked after at home account for 0.5% of the total leavers' cohort on average in East Lothian. Due to the small numbers involved in the calculations, the trends fluctuate widely within East Lothian from year to year.

Table 5: Percentage of LAC Away from Home school leavers in a positive destination (initial destinations)

	% LAC away from home leavers in a positive destination						
	2009/10	2010/11	2011/12	2012/13	2013/14	3 yr ave	5 yr trend ¹
East Lothian	77.8	40.0	85.7	64.3	70.0	73.3	-1.9
Virtual Comparator	80.6	76.0	77.1	82.1	92.0	83.8	2.9
National	63.8	69.3	72.4	78.0	76.7	75.7	3.2

¹ 'Trend' is the average annual percentage point change over the number of years given.

3.12.13 In 2013/14 East Lothian leavers who were looked after away from home show a 5.7% increase on the previous year and are 22 and 6.7 percentage points below the Virtual Comparator and national average respectively.

3.12.14 East Lothian shows an overall negative trend over the last 5 years, in contrast to the Virtual Comparator and National Average which show a positive 5 year trend. Leavers who were looked after away from home account for 1.0% of the total leavers' cohort on average in East Lothian.

3.12.15 The data in Table 5 for East Lothian is based on an average cohort of 10 school leavers a year over the five-year period. As stated previously in paragraph 3.10.12, when the cohort being compared relates to a small number of pupils (less than 20 pupils), the trends are more likely to fluctuate over time and, therefore, are less likely to be significant.

Table 6.../

Table 6: Percentage of ASN school leavers in a positive destination (initial destinations)

	% ASN leavers in a positive destination						
	2009/10	2010/11	2011/12	2012/13	2013/14	3 yr ave	3 yr trend ¹
East Lothian	40.9	78.7	82.2	79.7	86.2	82.7	2.0
Virtual Comparator	75.0	79.9	83.8	88.1	87.9	86.6	2.0
National	77.8	81.6	84.4	87.2	87.5	86.4	1.5

¹ 'Trend' is the average annual percentage point change over the number of years given.

3.12.16 In 2013/14 East Lothian leavers with an additional support need show a 6.5% increase on the previous year and are 1.7 and 1.3 percentage points below the Virtual Comparator and national average respectively.

3.12.17 The 3 year trend indicates an improved trend at a higher rate than the National average and in line with the Virtual Comparator. Leavers with an additional support need account for 19% of the total leavers' cohort on average in East Lothian over the last three years.

3.12.18 *Note: In 2010, the Scottish Government started to collect information on additional support needs in a different way. Information on reasons for support and nature of support was collected separately for each type of additional support need. There was also inclusion of a new category, 'other' which include child plans (separate category for child plans introduced in 2011), short term or temporary support and any other support not covered under IEP and CSP. The inclusion of 'other' category contributed to a rise in additional support needs pupil numbers. As a result we have used a three year trend for ASN in this measure instead of a five year trend.*

3.13 National Benchmarking Measure: Improving Attainment for All

3.13.1 This measure groups school leavers according to their whole-school attainment as measured by their total tariff points into three attainment groups. The three groups are the lowest-scoring 20 per cent of pupils, the highest-scoring 20 per cent and the middle 60 per cent. For each pupil the tariff score is the total of the tariff points associated with each of the eligible latest and best awards they have achieved at the point of leaving school. Awards that have been superseded by the pupil progressing to a higher-level award in the same subject are excluded, as are awards achieved when the pupil was in S1–S3. For example if a pupil has National 5 English and Higher English then only the points for the Higher are included. These tariff scores are then averaged over all the pupils in the particular attainment group.

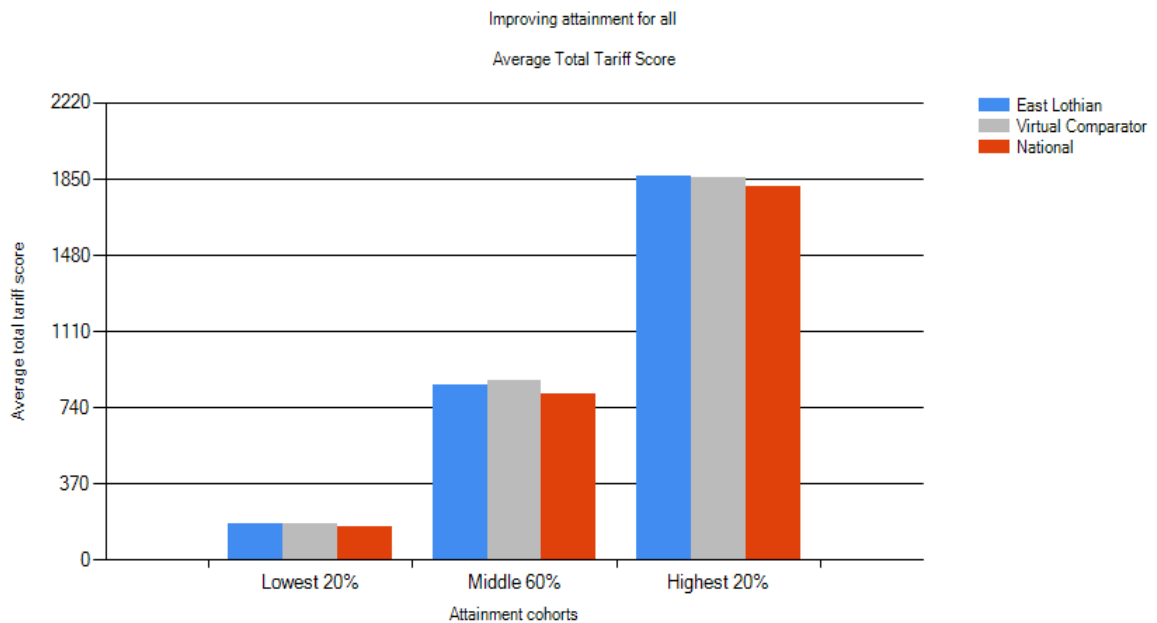
3.13.2 East Lothian's performance shows an overall improving trend over the last five years with its highest performance to date in 2014 within each of the three attainment groups.

3.13.3 The 'Improving Attainment for All' measure features as one of the Strategic long-term outcome indicators in Outcome 4 of our Single Outcome Agreement, with a focus on all school leavers. It also features

as an indicator in Contributory Outcome 4.1 with a focus on school leavers who were looked after (LAC). As such, this section includes additional analyses of school leavers in a positive destination who were looked after.

3.13.4 **Figure 2** below and **Table 7** overleaf detail the progress made by East Lothian against our Virtual Comparator and the National Establishment in relation to the average total tariff scores of all school leavers within each attainment group. **Figures 3 to 4** and **Table 8** details the progress made by East Lothian school leavers who were looked after by the local authority against our Virtual Comparator and the National Establishment.

Figure 2: the average total tariff score of all school leavers within each attainment group in 2013/14.



3.13.5 Figure 2 shows the tariff scores for the performance of the highest performing 20%, the middle performing 60% and the lowest performing 20% in 2013/14. East Lothian’s performance is just above its Virtual Comparator for the lowest attaining 20% and highest attaining 20% cohorts and just below for the Middle 60% attaining group. East Lothian performance is higher than the national average across the 3 attainment cohorts.

Table 7.../

Table 7: Average Total Tariff Scores of each Attainment Group by Year of Leaving (All School Leavers)

Establishment	Year of Leaving	Lowest 20%	Middle 60%	Highest 20%	Number in Cohort
East Lothian	2009/10	118	728	1700	1047
	2010/11	125	695	1712	1092
	2011/12	132	769	1810	953
	2012/13	139	774	1817	1036
	2013/14	179	852	1867	1034
	3yr ave	150	798	1831	1008
	5yr trend ¹	15	31	42	
Virtual Comparator	2009/10	136	758	1780	10470
	2010/11	138	761	1771	10920
	2011/12	140	815	1817	9530
	2012/13	139	793	1824	10360
	2013/14	174	875	1855	10340
	3yr ave	151	828	1832	10077
	5yr trend ¹	10	29	19	
National	2009/10	117	676	1711	52833
	2010/11	127	701	1736	53209
	2011/12	141	756	1779	49744
	2012/13	151	754	1784	51632
	2013/14	163	805	1817	50035
	3yr ave	152	772	1793	50470
	5yr trend ¹	12	32	27	

¹ 'Trend' is the average annual percentage point change over the number of years given.

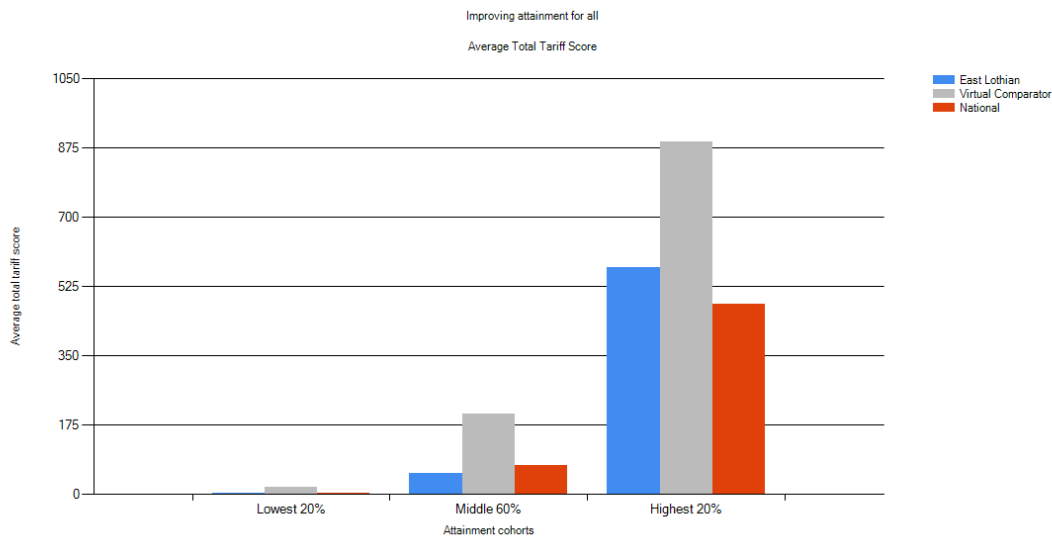
3.13.6 **Lowest 20%** - East Lothian shows an improving trend year on year over the five years at a higher rate than both the Virtual Comparator and National Average. The three-year average is just below both the Virtual Comparator and National Average.

3.13.7 **Middle 60%** - East Lothian shows a fluctuating but improved trend since 2010. The rate of change in East Lothian over the last five years has been at a higher rate than the Virtual Comparator. The three-year average is below the Virtual Comparator but above the National Average.

3.13.8 **Highest 20%** - East Lothian shows an improving trend year on year over the five years at a higher rate than both the Virtual Comparator & National Average. The three-year average is in line with the Virtual Comparator but above the National Average.

Figure 3.../

Figure 3: The average total tariff score of all school leavers who were looked after at home within each attainment group in 2010/11.



3.13.9 Figure 3 above shows the 2010/11 tariff scores for the performance of the highest performing 20%, the middle performing 60% and the lowest performing 20% groups of school leavers who were looked after at home as the most recent year's worth of data available in Insight. Note there were no leavers from East Lothian looked after at home in 2013/14. East Lothian's performance in 2010/11 was lower than the Virtual Comparator across all three attaining groups.

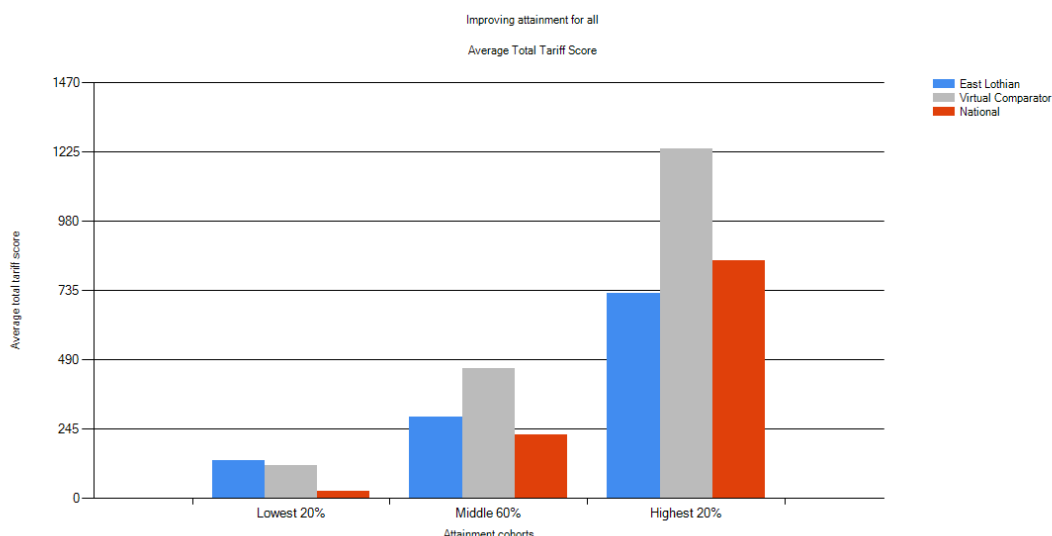
3.13.10 In relation to the National Establishment, East Lothian's performance was higher in both the Lowest 20% and Highest 20% groups but lower than the National average for the Middle 60% group.

3.13.11 The data for East Lothian in 2010/11 is based on a cohort of only 12 school leavers. As stated previously in paragraph 3.10.12, when the cohort being compared relates to a small number of pupils (less than 20 pupils), the trends are more likely to fluctuate over time and, therefore, are less likely to be significant.

3.13.12 While there were leavers looked after at home in 2009/10 and 2012/13, there is no tariff score data in Insight available to view or download for them within any of those years. Therefore, it is not possible to get a picture of progress made by school leavers looked after at home over the five-year period and therefore not table of data has been included in this section.

Figure 4.../

Figure 4: The average total tariff score of all school leavers who were looked after away from home within each attainment group in 2013/14.



3.13.13 Figure 4 above shows the 2013/14 tariff scores for the performance of the highest performing 20%, the middle performing 60% and the lowest performing 20% groups of school leavers who were looked after away from home. East Lothian’s performance in 2013/14 is lower than the Virtual Comparator for both the Middle 60% and Highest 20% but higher for the Lowest attaining 20% group.

3.13.14 In relation to the National Establishment, East Lothian’s performance is higher in both the Lowest 20% and Middle 60% groups but lower than the National average for the Highest 20% group.

3.13.15 The data above for East Lothian is based on a cohort of only 10 school leavers. As stated previously in paragraph 3.10.12, when the cohort being compared relates to a small number of pupils (less than 20 pupils), the trends are more likely to fluctuate over time and, therefore, are less likely to be significant. Table 9 explores the performance of the Looked After Away from Home Leavers’ Cohorts since 2009/10.

Table 9: Average Total Tariff Scores of each Attainment Group by Year of Leaving (Looked after away from home)

Establishment	Year of Leaving	Lowest 20%	Middle 60%	Highest 20%	Number in Cohort
East Lothian	2009/10	17	142	638	18
	2010/11				5
	2011/12				7
	2012/13	47	134	481	14
	2013/14	134	290	725	10
	3yr ave	91	212	603	10
	5yr trend ¹	59	74	44	
Virtual Comparator	2009/10	75	274	1264	180
	2010/11				50

Establishment	Year of Leaving	Lowest 20%	Middle 60%	Highest 20%	Number in Cohort
	2011/12				70
	2012/13	31	163	545	140
	2013/14	118	458	1238	100
	3yr ave	75	311	892	103
	5yr trend ¹	22	92	-13	
National	2009/10	12	129	564	412
	2010/11	11	138	606	381
	2011/12	15	172	619	399
	2012/13	27	175	701	445
	2013/14	25	224	842	437
	3yr ave	22	190	721	427
	5yr trend ¹	3	24	70	

¹ 'Trend' is the average annual percentage point change over the number of years given.

3.13.16 Table 9 above shows the performance of the Looked After Away From Home School Leavers' Cohort over the five-year period. Data for years 2010/11 and 2011/12 is suppressed in Insight due to the size of the cohorts. It is therefore not possible to get a full picture of progress over the five-year period. However the data available for the remaining years would suggest an improved trend overall across the three attainment groups between 2009/10 and 2013/14.

3.14 National Benchmarking Measure: Improving Attainment in Literacy and Numeracy

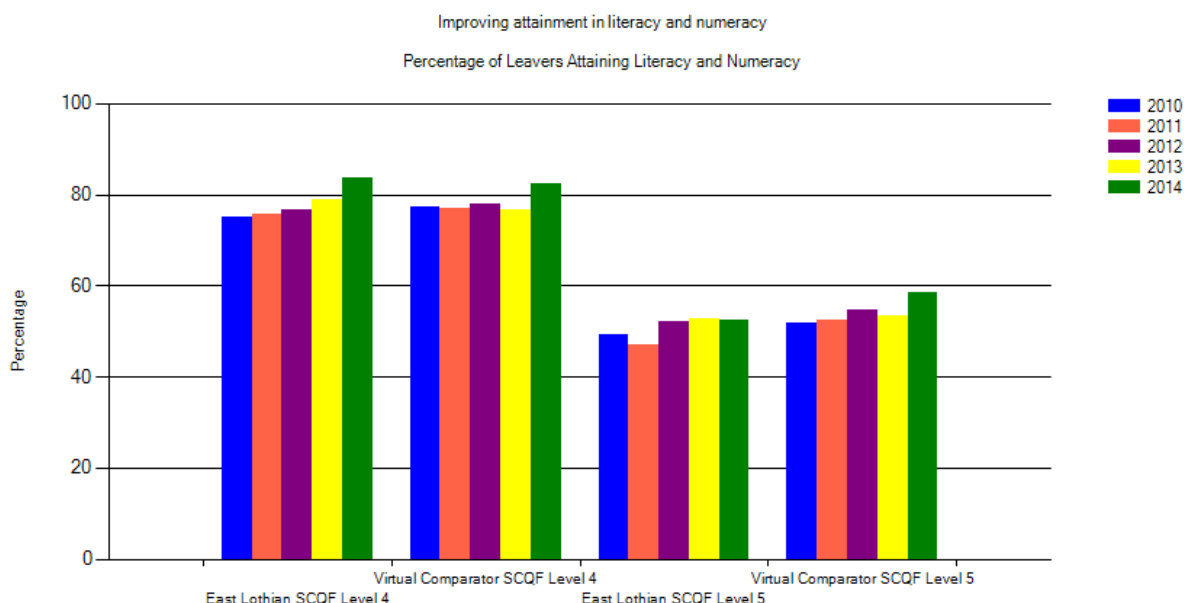
3.14.1 East Lothian's performance shows an improving trend over the last five years at SCQF Level 4 with its highest performance to date in 2014. At SCQF Level 5 the trend has fluctuated performance over the five years but shows a slight improvement.

3.14.2 **Figure 5** overleaf details the progress made by East Lothian against our Virtual Comparator in relation to the percentage of the pupils who left in each year who had achieved both literacy and numeracy at SCQF level 4 or better or SCQF level 5 or better (as being the agreed national benchmarks). **Table 9** further breaks the data down to those who achieved Literacy and/or numeracy over the same five-year period to at least SCQF Levels 3 to Level 6.

3.14.3 To achieve the given level of literacy a pupil needs to achieve the literacy unit at that level, or English or Gaidhlig course at that level. For numeracy the pupil needs to achieve the numeracy unit at that level or a Mathematics or Lifeskills Maths at that level.

Figure 5.../

Figure 5: Percentage of all school leavers attaining both Literacy and Numeracy to at least SCQF Level 4 or SCQF Level 5 since 2009/10



3.14.4 Figure 5 above shows the percentage of school leavers achieving literacy and numeracy levels. East Lothian's performance at SCQF Level 4 or better shows an improving trend over the five-year period with the 2013 and 2014 performance higher than the Virtual Comparator.

3.14.5 At SCQF Level 5 or better, East Lothian's performance in Literacy & Numeracy in 2013/14 is lower than its Virtual Comparator and this is a consistent trend over the five-year period.

3.14.6 Table 9 below shows the percentage of school leavers achieving literacy and numeracy cumulatively or separately since 2009/10 at each SCQF Level or better. Figures are provided for both the Virtual Comparator and the National Establishment.

Table 9: Literacy and Numeracy achievement for all pupils that left² the school in each year from 2009/10 to 2013/14.

Year	Literacy & Numeracy ³				Literacy ³				Numeracy ³				
	3+	4+	5+	6+	3+	4+	5+	6+	3+	4+	5+	6+	
East Lothian	2009/10	87.97	75.07	49.28	23.69	90.54	88.06	64.37	44.32	92.26	77.65	51.29	28.27
	2010/11	87.73	75.64	47.16	18.50	90.84	87.64	64.47	41.12	92.12	79.58	49.63	23.63
	2011/12	91.19	76.81	52.05	24.03	93.49	89.30	66.00	46.27	93.60	79.22	54.88	28.12
	2012/13	89.58	79.05	52.90	22.97	93.15	90.93	68.15	44.69	93.92	81.37	55.02	26.93
	2013/14	93.81	83.85	52.61	23.60	96.52	94.00	70.79	45.07	94.68	84.91	55.90	29.98
	3yr ave	91.53	79.90	52.52	23.53	94.39	91.41	68.31	45.34	94.07	81.83	55.27	28.34
	5yr trend ¹	1.46	2.20	0.83	-0.02	1.50	1.49	1.61	0.19	0.61	1.82	1.15	0.43
Virtual Comparator	2009/10	89.86	77.28	51.77	26.57	93.63	90.85	64.32	43.79	92.39	78.86	55.96	32.00
	2010/11	89.81	77.12	52.60	26.58	93.63	90.32	65.42	43.96	92.37	78.87	56.67	31.80
	2011/12	90.07	77.91	54.69	28.04	93.60	90.51	68.50	47.56	92.62	79.60	58.33	32.82

Year	Literacy & Numeracy ³				Literacy ³				Numeracy ³			
	3+	4+	5+	6+	3+	4+	5+	6+	3+	4+	5+	6+
2012/13	90.42	76.64	53.39	27.09	93.95	90.47	67.08	46.45	92.78	78.25	56.88	31.75
2013/14	92.21	82.37	58.42	29.87	95.46	92.90	72.76	50.96	93.87	83.73	62.09	34.94
3yr ave	90.90	78.97	55.50	28.33	94.34	91.29	69.45	48.32	93.09	80.53	59.10	33.17
5yr trend ¹	0.59	1.27	1.66	0.83	0.46	0.51	2.11	1.79	0.37	1.22	1.53	0.73
National												
2009/10	89.07	73.93	47.91	23.60	92.73	88.93	60.58	39.59	91.84	75.70	52.00	28.60
2010/11	89.45	74.89	49.31	24.29	93.27	89.47	62.60	41.21	92.09	76.73	53.37	29.19
2011/12	90.75	76.69	52.23	26.14	94.32	90.75	66.09	44.19	93.17	78.30	56.06	31.04
2012/13	91.62	77.92	52.47	25.39	94.96	91.70	66.90	44.29	93.76	79.39	56.13	29.95
2013/14	92.38	81.28	55.68	27.19	95.54	92.33	70.33	47.19	94.11	82.83	59.42	32.11
3yr ave	91.58	78.63	53.46	26.24	94.94	91.59	67.77	45.22	93.68	80.17	57.20	31.03
5yr trend ¹	0.83	1.84	1.94	0.90	0.70	0.85	2.44	1.90	0.57	1.78	1.86	0.88

¹ 'Trend' is the average annual percentage point change over the number of years given.

² In each year there will be leavers from different stages and so each year will contain leavers from a range of cohorts.

³ Literacy and/or numeracy by SCQF level achieved. Thus the literacy 3+ column shows the percentage of the cohort that have achieved literacy at SCQF level 3 or above.

3.14.7 As an aggregated measure Table 9 shows an improving trend in East Lothian at SCQF Level 3+, SCQF Level 4+ and SCQF Level 5+ over the 5 year period. At SCQF Level 6+ the trend has been more static. In relation to its Virtual Comparator, East Lothian's performance has moved from being below to above the Virtual Comparator at SCQF Levels 3 and 4 or better as the trend has improved at a higher rate than both the Virtual Comparator and National trend. At SCQF Levels 5 and 6 or better East Lothian's performance is on average 3% to 4% below the Virtual Comparator as the rate of improvement has been slower.

3.14.8 Separately, the trend for Literacy and for Numeracy in East Lothian is similar to the aggregate trend with the performance at SCQF Level 6 or better also showing a slight improvement over the five-year period.

3.14.9 Again, similar to the aggregate measure, Literacy and Numeracy performance separately in East Lothian has improved at a higher rate than the Virtual Comparator and National trend at SCQF Levels 3 and 4. As such, East Lothian's performance in Literacy and in Numeracy at SCQF Levels 3 and 4 or better is now above the Virtual Comparator and National Average.

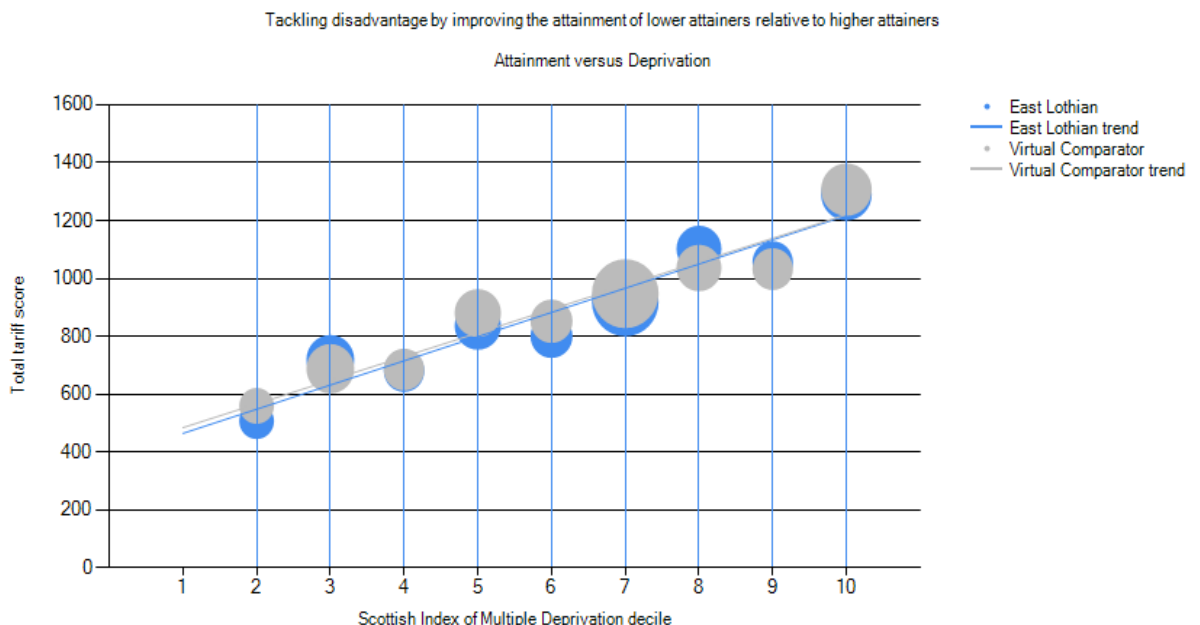
3.14.10 At SCQF Level 5 and 6 or better, East Lothian's performance in Literacy has improved at a lower rate to the Virtual Comparator and National Trend but has been typically above the National Average although has dropped below the National average in 2014 at SCQF Level 6 or better.

3.14.11 In Numeracy at SCQF Level 5 and 6 or better, East Lothian's performance has improved over the five-year period but at a lower rate to the Virtual Comparator and National Trend and as such, the performance in East Lothian has been consistently below the Virtual comparator and National Average over the last five years.

3.15 National Benchmarking Measure: Attainment versus Deprivation

- 3.15.1 This measure considers attainment of school leavers (measured using the same tariff point scale referred to in paragraph 3.9.19) broken down into ten deciles according to the 2012 Scottish Index of Multiple Deprivation (SIMD). Decile 1 refers to the attainment of school leavers whose postcodes are in the 10% most deprived datazones in Scotland, while decile 10 refers to school leavers with post codes in the top 10% of the least deprived (most affluent) datazones according to SIMD.
- 3.15.2 East Lothian's performance shows an improving trend over the last five years in eight out of the ten SIMD deciles.
- 3.15.3 The 'Attainment versus Deprivation' measure features as an indicator in Contributory Outcome 4.1 of our Single Outcome Agreement with a focus on all school leavers.
- 3.15.4 **Figure 6** and **Table 10** detail the progress made by East Lothian against our Virtual Comparator in relation to the average total tariff scores within each SIMD decile band for all school leavers.
- 3.15.5 The grey circles in Figure 6 below represent the Virtual Comparator and the blue circles represent East Lothian. The circles change in size and broadly represent the proportion of young people from the total cohort appearing in each of the circles.

Figure 6: Average tariff scores for all school leavers within each SIMD Band in 2013/14 compared with the Virtual Comparator



- 3.15.6 The position of East Lothian's circles in Figure 6 above compared to the virtual comparator circles along the trend line would suggest that East Lothian's performance in 2013/14 is roughly in line with its Virtual Comparator across the ten SIMD deciles.

3.15.7 It is important to be aware of the numbers of young people appearing in each of these deciles. This is represented proportionately in the graph by the area of the circles. The circles in decile 2 is relatively small, reflecting the fact that it represents only 5% of the leavers' cohort in East Lothian. Table 10 below shows the full breakdown of school leavers living within each of the ten SIMD deciles in East Lothian over the last five years.

Table 10: Percentage of School Leavers' cohort in East Lothian within each SIMD Decile Band since 2009/10

Establishment	Year of leaving	% of Total Cohort within each SIMD Decile Band										
		Total No. in Cohort	Most Deprived 1	2	3	4	5	6	7	8	9	Least Deprived 10
East Lothian	2009/10	1047	0.0	5.6	11.3	9.6	10.9	7.7	26.7	9.4	6.3	12.6
	2010/11	1092	0.0	4.3	10.5	10.4	9.9	8.8	27.2	9.8	6.6	12.5
	2011/12	953	0.1	4.6	11.0	9.8	11.4	9.0	25.3	10.4	6.2	12.2
	2012/13	1036	0.1	5.2	10.7	9.9	10.5	7.5	27.8	8.8	7.2	12.3
	2013/14	1034	0.0	4.5	11.4	7.4	10.9	7.9	27.4	9.5	7.2	13.9
	3 Yr Ave	1008	0.1	4.8	11.0	9.0	11.0	8.2	26.8	9.6	6.9	12.8
	5 Yr Ave	1032	0.0	4.8	11.0	9.4	10.7	8.2	26.9	9.6	6.7	12.7

3.15.8 Table 10 above shows that only 16% of the leavers' cohort on average lies within deciles 1-3 (30% most deprived areas in Scotland according to SIMD), 29% within deciles 8-10 (30% least deprived areas in Scotland) and 55% within deciles 4-7 (the remaining middle 40% of SIMD areas).

Table 11: The average total tariff scores within each SIMD decile band for all school leavers since 2009/10

Establishment	Year of leaving	SIMD Decile Band										
		Total No. in Cohort	Most Deprived 1	2	3	4	5	6	7	8	9	Least Deprived 10
East Lothian	2009/10	1047	0	538	500	554	732	925	804	947	963	1164
	2010/11	1092	0	392	555	562	613	799	784	1007	967	1160
	2011/12	953	122	549	497	615	734	870	899	1060	896	1272
	2012/13	1036	414	475	572	555	757	735	893	1145	1031	1283
	2013/14	1034	0	507	720	680	837	800	919	1102	1056	1291
	3 Yr Ave		179	510	596	617	776	802	904	1102	994	1282
	5 Yr Trend ¹			292	-8	55	32	26	-31	29	39	23
Virtual Comparator	2009/10	10470	0	518	511	627	737	871	863	991	1099	1204
	2010/11	10920	0	433	541	645	659	841	854	1041	1030	1235

	2011/12	9530	285	494	539	664	727	900	957	1034	1017	1288
	2012/13	10360	617	466	582	565	737	782	921	1042	1118	1307
	2013/14	10340	0	560	688	685	881	852	948	1036	1032	1307
	3 Yr Ave		301	507	603	638	782	845	942	1037	1056	1301
	5 Yr Trend ¹		332	11	44	15	36	-5	21	11	-17	26

¹ 'Trend' is the average annual percentage point change over the number of years given.

3.15.9 Table 11 above shows an improving trend overall in the average total tariff scores for school leavers' within East Lothian, with a positive trend showing in eight out of the ten decile bands. East Lothian's scores are typically lower than the Virtual Comparator across the ten SIMD deciles over the five-year period with the exception of decile 8 which has been consistently above the Virtual Comparator over the last three years.

4 POLICY IMPLICATIONS

4.1 There are no policy implications in this report.

5 EQUALITIES IMPACT ASSESSMENT

5.1 This report is not applicable to the well being of equalities groups and an Equalities Impact Assessment is not required.

6 RESOURCE IMPLICATIONS

6.1 Financial - None

6.2 Personnel - None

6.3 Other - None

7 BACKGROUND PAPERS

7.1 List of Appendices:

Appendix 1 – Wider Achievement Awards in 'Insight'

Appendix 2 – Technical note on Virtual Comparators Methodology

Appendix 3 – Technical note on Tariff Scale taken from Insight Tool Online Help & Support: Technical Guide [downloaded on 9th March 2015]
<http://insight-guides.scotxed.net/content/documents/InsightTariffNote.pdf>

Appendix 4 – Differences between 'Insight' & SDS Leavers' Cohorts

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DATE	9 March 2015

Excerpt from Insight Tool Online Help & Support: Frequently Asked Questions [9th March 2015] <http://insight-guides.scotxed.net/content/documents/InsightAwards.pdf>

Wider Achievement

The following wider awards are currently included in Insight

Award provider	Award
ASDAN	Certificate of Personal Effectiveness Employability Award Employability Certificate
Borders College	Developing Individual Performance in Sport (Football) The following units will also be included: Developing Individual Performance in Sport (Practical Performance) Developing Practical Performance in Sport (Analysis and Evaluation) Developing Practical Performance in Sport (Codes of Conduct Law, Health and Safety)
Duke of Edinburgh	Youth Leadership Award
Lift Off	Lift Off Learning Skills
Playback ICE	Moving on - Transition in Action
Youth Scotland	Youth Achievement Award Dynamic Youth Award
Skills Development Scotland	Certificate in Work Readiness
Cooperative Education	Certificate in Co-operative Studies
Falkirk Council	Falkirk Employability Award

Virtual Comparator Methodology

Extract from Insight Tool Online Help & Support: Technical Guide [9th March 2015] http://insight-guides.scotxed.net/technical.htm#Virtual_comparators

Virtual Comparators

Insight allows schools to compare their performance to the performance of a virtual comparator. The virtual comparator is made up of pupils from schools in other local authorities who have similar characteristics to the pupils in your school. It allows you to see how the performance of your pupils compares to a similar group of pupils from across Scotland to help you undertake self-evaluation and improvement activities.

a) Methodology for leavers-based Virtual Comparators

For each pupil in the cohort of interest (e.g. S4 pupils in School A), 10 matching pupils are randomly selected without replacement from other local authorities based on the following characteristics:

- Gender
- Additional support needs (No, Yes - 80% or more mainstream, Yes - less than 80% mainstream)
- Latest stage (before 1st May in S5 (includes S4 leavers), After 1st May in S5, S6). This is defined as 'stage of leaving' for leavers and 'latest stage attained in current year' for August attainment.
- Scottish Index of Multiple Deprivation vigintile.

This allows virtual comparators to be produced for the target cohort of interest. So, if school B has 20 school leavers all of which have the same characteristics, 200 different pupils with these same characteristics from schools in the other 31 local authorities will be selected to compare them to. The maximum cohort in a school for which a virtual comparator is produced is the senior phase (S4 to S6).

The leavers-based virtual comparator is created from all of the matched pupils meaning that it will have ten times as many pupils and that the characteristics of the virtual comparator will match its target group. Analysis revealed that four matches per target pupil would have been perfectly adequate but we have chosen to select ten matches for even greater precision.

The characteristics were selected due to their significance in explaining variation in the attainment and destinations of leavers. Independent advice concluded that these variables were highly statistically significant and that they seem to strike a reasonable balance between matching a pupil appropriately and not having so many variables that matching some individuals is hard to achieve. There are few instances of pupils having missing data for these characteristics. Where data is missing, this is most commonly data zone (affecting less than 0.5% of records) which is used to calculate SIMD vigintile.

Missing data zones are due to missing or invalid postcodes and in these cases, the data zone for the pupil's base centre is used as a proxy.

The latest stage is included even though it is a combination of an input and an output measure, as if you do not stay on to S5 you do not have the option of taking higher or advanced higher qualifications, so will have lower attainment (but conversely if you have lower attainment you are less likely to stay on). In addition, in some local authorities, college provision is widely available and preferred so many pupils leave at the end of S4 and continue their education at college instead of staying on to S5 and S6.

Note that filtering for characteristics which aren't used for Virtual Comparator matching (e.g. LAC) will display the school filtered for that characteristic and the Virtual Comparator pupils which match those school pupils. However the Virtual Comparator pupils may not have the same LAC category.

b) Methodology for stage-based Virtual Comparators

The virtual comparator for stage based measures is more complicated. When considering attainment within one stage (e.g. calculation stage = S5 and basis stage = S5), the VC will be based on 10 matches to each pupil in S5. For measures where the calculation stage and basis stage are different (e.g. S6 based on S4) this is less straightforward. In defining the virtual comparator for these measures, consideration was given to whether the VC should be built from the matches for the pupils when they were in S4 or at their point of exit from school. Following consultation through the Statistics Working Group, it was felt that the leaver based measures already adequately capture a comparison at the point of exit. It was therefore agreed that these types of measure should be compared with the S4 virtual comparators to consider how both sets of pupils' progress by the time of reaching S5 or S6. This means that the matched pupils can have left at different points in the senior phase when compared to your own pupils, offering a richer understanding of the situation in the school. However this also results in the situation where sometimes, within a decile, the number of candidates is not 10 times the number in the school. This happens because some pupils move between S4 and S6 and therefore change decile. As a result, whilst these pupils would have been matched to the same decile in S4, by the time we reach S6 some of their datazones and therefore deciles have changed. You will still find that the total number of VCs for the school is always 10 times the number of pupils.

c) Methodology where insufficient pupils match characteristics

For a very small number of pupils (most likely those with additional support needs that are less than 80% mainstream), we may run out of pupils to match to. Where this happens, we:

- Collapse by gender in the first instance (so that we are picking from both male and female pupils that match the other characteristics)
- Move into the neighbouring SIMD vigintiles.

- For pupils with ASN who are less than 80% mainstream it may also be necessary to collapse by stage.

Learning from the preview editions of the tool, we have strengthened the implementation of the selection methodology to reduce the number of instances in which the characteristics for matching need to be widened in this way resulting in many fewer inexact matches.

d) Difference between leavers and August attainment methods

It is not possible to carry forward August attainment virtual pupils picked on the latest stage in current year into the leavers' matches. This is because some of the virtual comparators will not have left school and so will have no destination (there will also be issues of bias as the comparators could have stayed on, so may have had better attainment to start with). It is also not possible to use stage of leaving when picking virtual comparators for August attainment as we do not have leaver information at that time. Virtual comparators for these two groups are therefore picked separately.

This means that stage of leaving is not controlled for in the stage-cohort analysis and therefore, in certain cases, a school could perform consistently above its VC on the leavers' analysis and consistently below it on the cohort analysis. In the stage based measures when you are considering, for example, S6 of S4, the matched pupils in your virtual comparator may have left at different points in the senior phase when compared to your own pupils. The difference between the two offers a richer understanding of the situation in the school.

e) Development of the Methodology

The methodology implemented in the tool was developed by the Scottish Government in consultation with stakeholders, which includes independent advice from Professor John McColl at the University of Glasgow. Other options were considered and we have taken forward a methodology which was found to be both appropriate and easily accessible for end users.

We will be continuing to test the virtual comparator methodology and plan to ensure a full review in 2016/2017 once some years of CfE data are available.



Tariff Scale Applied in Insight

Background

Insight is a new online tool for benchmarking, analysing and comparing the senior phase. It is a professional tool available to secondary schools and local authorities to allow them to look at specific cohorts of pupils and help identify areas of success and where improvements can be made. Insight replaces the previous STACs system.

Designed to support Curriculum for Excellence, Insight focuses on the leavers cohort in any given year by measuring best achievement at point of exit. It has a dashboard providing data on four national benchmarking measures aimed at:

- increasing post-school participation
- improving attainment in literacy and numeracy
- improving attainment for all
- tackling disadvantage by improving the attainment of lower attainers relative to higher attainers.

Insight then allows users to drill down to other measures and cohorts, helping them to understand the outcomes for their school or local authority in support of improvement.

Role of the Tariff Scale

One of the features in Insight is the tariff scale. The purpose of this is to aid the analyses of attainment data so that schools and local authorities can compare attainment between schools, local authorities, the virtual comparator or other breakdowns of cohorts in the senior phase. They provide a summary view of a wide range of achievement and different awards from a range of providers. This feature is useful for benchmarking purposes because it can help prompt questions about particular aspects of performance. These questions can then be investigated further using the rich and rounded information available within the tool. This rich view of attainment will continue to develop as CfE embeds in the senior phase.

The Insight tariff scale and the tariff points accrued by particular schools, local authorities and cohorts should not be viewed as the only way of measuring performance and should be considered in the context of the other outcome measures included in the tool, for example, improving post-school participation and raising attainment in literacy and numeracy. In addition, the tariff scale should not be viewed as a reflection on the value of the qualifications achieved to the learner, nor should it be used to inform decisions about the particular courses that individual learners pursue.

The tariff scale implemented in the tool will continue to be monitored as the new qualifications are embedded, with a full review of the scale in 2017 as agreed with the Project Board.

Insight Tariff Scale

Each qualification (unit and course) included in the tool must be accredited to the Scottish Credit and Qualifications Framework (SCQF) and meet criteria related to the aims of Curriculum for Excellence and technical requirements. The qualification can then be awarded tariff points based on its SCQF level. This allows any qualification that is SCQF levelled to be included in the tariff score in an open and transparent way.

With the introduction of Curriculum for Excellence, it was agreed that it would be essential to implement a new tariff scale to ensure that it is capable of addressing the full range of possible journeys of learners in the senior phase whilst striving to avoid perverse incentives (e.g. quantity over quality).

The key principles underpinning the development of the new tariff scale are as follows:

- **Calculation** - Tariff points are calculated on the basis of SCQF credit points and a multiplier based on the SCQF level plus a weight for attaining the full course (0 if the award is a single unit or combination of units making up an ungraded course, or a variable weight if a course assessment element is involved i.e. added value unit at National 4 or course assessment at National 5 and above) and a weight differentiating between the grade achieved (A,B,C,D). Bands within grades are not differentiated in the tariff scale. A grade D achieves more points than units alone, recognising that a learner has achieved the course.
- **No gap** - the total units at a given SCQF level should be worth the same as an A at the level below. This recognises the high value of the overall course assessment - integration, challenge and application of learning - compared to achieving units alone.
- **Tariff points for Units and Courses** - Units attract tariff points as well as full courses. The achievement of a course (with a course assessment / added value unit) will get more credit than the achievement of the same number of standalone units at the same level. This reflects the additional application of learning that occurs across the course as a whole. Tariff points for a course award at the level below with units at the level above, attract fewer points than any grade at the level above.
- **Ungraded courses** - A pass (in a pass / fail course with its own course assessment / added value unit) is equivalent to a Grade C in a graded course at the same level. Ungraded courses without a course assessment / added value element will receive tariff points for the units alone with no additional weighting. A small number of courses which do not have an assessment or added value unit, such as Skills for Work, have been determined to contain an added value element delivered through the accumulation of units and are treated for tariff as having equivalence to a Grade C.

- **Existing qualifications** - Existing qualifications are mapped to the new tariff points based on their SCQF level and credit points. To avoid advantaging or disadvantaging any sector, as National courses at SCQF level 4 and below are ungraded, any courses at or below SCQF level 4 receive tariff points set at the pass level regardless of grade e.g. Intermediate 1 at A-D and Standard Grades 3 and 4 receive points equivalent to a National 4 pass.

Calculation of Points for each Qualification

The tariff points for a unit or course are currently calculated as follows:

(SCQF credit points * multiplier) + course weight + result weight

Where:

- Multiplier – is the multiplier for the SCQF level.
- Course weight – is the weight for attaining the full course at that SCQF level (0 for a single unit or combination of units making up an ungraded course, or a variable weight if a course assessment element is involved i.e. added value unit at National 4 or course assessment at National 5 and above).
- Result weight – is the weight which differentiates between the grade achieved (A, B, C, D) for the course at the SCQF level. The weight is such that a grade D receives more points than units alone, recognising that a learner has achieved the course.

Multipliers

The multipliers being applied are as follows:

SCQF Level	Multiplier
1	1/6
2	1/3
3	2/3
4	1
5	11/6
6	14/3
7	17/2

Course Weights

The course weights for qualifications with a course assessment / added value element are as follows:

SCQF Level	Course Weight
4	9
5	20
6	48
7 -	128

Advanced Higher	
7 – IP	64

If the qualification is a combination of units making up an ungraded course without a course assessment element, its course weight is 0.

Result Weights

Result weights vary by SCQF level and type as follows:

SCQF Level	Grade	Result Weight
7	A	80
	B	40
	C	0
	D	-20
6	A	44
	B	22
	C	0
	D	-11
5	A	20
	B	10
	C	0
	D	-5

Exceptional Cases

A small number of qualifications included in the tool have a structure which requires adjustments to their treatment in the tariff scale. These are:

- Baccalaureate – this award is built up from a number of Higher and Advanced Higher courses plus the completion of an Interdisciplinary Project. Since receiving points for the individual courses and the full baccalaureate award would be duplication, in these cases no points are received for the Baccalaureate award but the pupil receives points for the contributing courses as well as the Interdisciplinary Project which is treated as equivalent to half an Advanced Higher.
- Scottish Group Award and National Certificate Group Awards – similar to above, these awards are built up from a combination of courses and / or units. To avoid duplication, no points are included for these awards but each of the constituent courses and units will be counted within the methodology described.
- Skills for Work – this course has been determined to contain an added value element delivered through the accumulation of units and achievement of the award is treated in the tariff as equivalent to a Grade C in a graded course at the same level.

Please note that, in the current implementation of the tariff scale, a course assessment undertaken without the completion of the units and the

attainment of the full course will receive the same points as any other unit at that SCQF level and will not receive additional weight.

Examples

- Youth Scotland's Youth Achievement Award at SCQF level 7 is an ungraded course without a course assessment / added value unit attracting 16 SCQF credit points. It therefore receives $16 \times 17/2$ tariff points i.e. 136.
- A Science Baccalaureate built up from Advanced Higher Mathematics at Grade B (32 SCQF credit points), Advanced Higher Physics at Grade A (32 SCQF credit points) and an Interdisciplinary Project at Grade B (16 SCQF credit points) would receive $(32 \times 17/2 + 128 + 40) + (32 \times 17/2 + 128 + 80) + (16 \times 17/2 + 64 + 20) = 440 + 480 + 220 = 1140$ tariff points.
- National 5 English at Grade B would receive $(24 \times 11/6 + 20 + 10) = 74$ tariff points.

Calculation of Tariff Point Measures

The Project Board has agreed that measures based on tariff points will be built up from total pupil tariff points based on 'latest and best achievements'. The national dashboard measures using tariff points are measured at exit from secondary school. This means that all subjects studied by the pupil will be included but higher level qualifications and better grades will receive more points. In this way both breadth and depth of attainment are promoted in line with the CfE aims.

Basing a pupil's tariff points on latest and best qualifications in a subject is intended to ensure that there is no incentive or dis-incentive to go through every level – someone undertaking a National 5 in Maths and then a Higher in Maths will receive the same points as someone who has only taken the Higher Maths (assuming they receive the same grade at Higher).

The methodology to be employed for calculating the total tariff score for a learner in a subject is therefore intended to be the sum of the tariff points for their best course result in the subject plus any extra points because of unit attainment at level(s) above.

"Extra points" is intended to be defined as the difference between the unit values at the two levels. Insight handles this as follows:

- Units which are fully standalone (i.e. cannot contribute to a course) are directly linked to subject and can therefore be compared with the highest course attainment in that subject. If they are the only unit in that subject the full points are counted and if they are at a lower level then the unit will not contribute points to the tariff score. However, if the unit is at a higher level then points are added according to the difference between the points for the unit and the points which a similar sized unit at the level of the lower course would achieve.
- Other units are assigned a subject according to 'popularity reference data'. Attainment information is used to determine the range of courses which the unit can contribute to, and to rank these according

to the frequency with which the unit is a contributor. If the candidate has other attainment in one of these subjects, the unit is assumed to also be relevant to that subject. If the candidate has no attainment in any of the subjects then the 'most popular' subject is used.

Handling of unit attainment is therefore a best estimation approach which may be revisited in future.

The points to be added for the higher value unit are demonstrated as follows. For a best course result of B at National 5 and one higher level unit at level 6, where units at both levels are worth 6 SCQF credit points, the difference between the two units is therefore $(6*14/3)-(6*11/6)=17$. The result of grade B at National 5 attracts 74 tariff point, as shown in the following table, therefore the tariff points for the subject are $74+17=91$.

All attainment in the senior phase, up to and including the year in question, is considered in the calculation regardless of the centre at which attainment was originally achieved or the centre at which the candidate was based at the time of the attainment e.g. in the case of school-college partnerships or candidates moving schools.

The total tariff points for the candidate across all of their subjects is calculated as a cumulative measure of their latest and best attainment in each subject to the given point in time plus points for any standalone units which are un-related to any other subject qualification.

Measures presented in the tool are then an average of the total tariff points for the relevant candidates in the cohort, for example, in the 'tackling disadvantage' and 'average total tariff points' measures.

Example

Suppose a school leaver attained the following in the senior phase:

- 5 National 5s in English (A), Maths(C), French (A), German (A), History (B)
- 2 Highers in English (A) and French (B), 2 Higher units in German (but not completed the course).
- 1 Advanced Higher in English (C).
- 1 Youth Scotland Youth Achievement Award at level 5.

It is necessary to first calculate the latest and best result in each subject:

- English – Advanced Higher C – 400 points.
- Maths – National 5 C – 64 points.
- French – Higher B – 182 points.
- German – National 5 A = 84 points. But they have achieved 2 units at Higher so we deduct 2 National 5 units (22 points) and add on 2 Higher units (56). So, a total of 118 points.
- History – National 5 B – 74 points.
- Youth Scotland Youth Achievement Award at level 5 – 20 points.

The total tariff points for this school leaver is therefore:

$$400+64+182+118+74+20 = 858.$$

Further Information

As noted above, the tariff implemented in the Tool will continue to be monitored as the new qualifications are embedded, with a full review of the scale in 2017 as agreed with the Project Board.

For more information about the Insight project please visit www.scotland.gov.uk/insightbenchmarking or email insight@scotland.gsi.gov.uk

Examples of tariff points for National Qualifications

SCQF Level	Grade	SCQF Points	Tariff Score
7	A	32	480
	B	32	440
	C	32	400
	D	32	380
	Individual units	Varies	17/2*SCQF Points
6	A	24	204
	B	24	182
	C	24	160
	D	24	149
	Individual units	Varies	14/3*SCQF Points
5	A	24	84
	B	24	74
	C	24	64
	D	24	59
	Individual units	Varies	11/6*SCQF Points
4	Course – Pass	24	33
	Added value unit	6	15
	Individual units	Varies	1*SCQF Points
3	Total units	18	12
	Individual units	Varies	2/3*SCQF Points
2	Total units	18	6
	Individual units	Varies	1/3*SCQF Points
1	Individual units	6	1

Please note that:

- Skills for Work and Ungraded National Courses receive points equivalent to a C in a graded course at the same SCQF level. This reflects the fact that added value has been demonstrated to the Project Board.
- All other ungraded courses included in the tool are treated as collections of units without a course assessment / added value element and therefore receive tariff points equivalent to their SCQF credit points * SCQF multiplier.
- Standard Grade 7 does not receive tariff points under since it is not SCQF levelled.
- SCQF credit points received for an award are included in the data submitted by award providers.

Differences Between Insight & SDS Leavers' Cohorts

Extract from Insight Tool Online Help & Support: Frequently Asked Questions [9th March 2015] <http://insight-guides.scotxed.net/faq.htm>

How is the Insight Leavers' Cohort defined?

A pupil is defined as a school leaver in Insight if they have one or more School Leaver Destination Return (SLDR - initial) records for the year and a Pupil Census record for the same academic year, and no Pupil Census record in the following academic year for a stage within the senior phase (S4-S6). The centre associated with the leaver record in Insight is the pupil's base centre from the Pupil Census in September at the start of the academic year.

For the February 2015 update, this methodology has been further improved through:

- Excluding less robust matches between the SLDR and the pupil Census
- Ensuring that young people with a destination of 'excluded' are not counted as leavers (in line with SDS' approach). Reasons for these young people being excluded include moving outwith Scotland or returning to school. The young people may therefore not actually have reached the end point of their schooling
- Improving the overall methodology for matching between the SLDR and the Census. This is expected to reduce the number of instances where a leaver is wrongly identified as S3 and address the known issue of wrong stages feeding into the virtual comparator methodology
- Including leavers matched to a different prior Census e.g. for leavers in the 2012-13 SLDR who are not found in the September 2012 Census but are found in the September 2011 Census, record these pupils as leavers in 2011-12 with the appropriate destination from the 2012-13 SLDR

Why is this cohort slightly different to that published by SDS?

Within Insight, the concept of a leaver is not just important for the reporting of destinations. It is also the basis on which other key attainment statistics are presented, such as all four of the benchmarking measures on the National Dashboard, including school leavers' literacy and numeracy, attainment and also attainment in the context of deprivation.

To make this possible, the Pupil Census is the primary dataset on which the rest of the tool is based. It is necessary for identifying the characteristics of pupils (for filters) and for linking to attainment. The SLDR data must therefore be successfully matched to the Pupil Census. Without such a match it is not possible to identify the characteristics and attainment of the pupil, and so they are not included in the Insight leavers' cohort.

In addition, Insight is designed to focus on the senior phase (S4-S6) of publicly funded secondary schools. SDS published data takes account of leavers from all stages (i.e. including S3 and adult leavers) at publicly funded schools.

The flow chart *[over]* illustrates how the Insight leavers' cohort is defined and how it differs from the SDS data. Green borders indicate leavers who are included in the Insight

definition whilst red indicate leavers who are not. The amber border indicates leavers who are not currently included in the definition but are expected to be counted in the future.

