

Achievement of Curriculum for Excellence (CfE) Levels 2022/23

December 2023

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12th December 2023

This statistical publication:

- Provides information on national performance of school pupils in the **literacy organisers** (i.e. reading, writing, and listening and talking) and **numeracy**.
- Reports on the percentage of pupils who have achieved the expected Curriculum for Excellence level in these organisers, based on teachers' professional judgements.
- Covers all Primary 1 (**P1**), Primary 4 (**P4**), Primary 7 (**P7**) and Secondary 3 (**S3**) pupils in publicly funded mainstream schools, and all pupils based in publicly funded special schools/units.

Full results are available from the [supplementary tables](#).

School level results (where available) are accessible from the [School Information Dashboard](#).

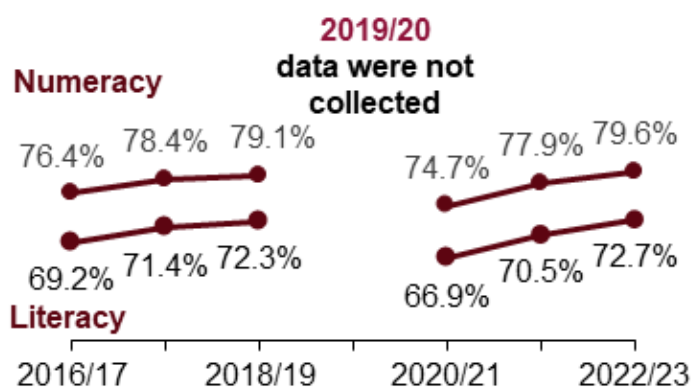


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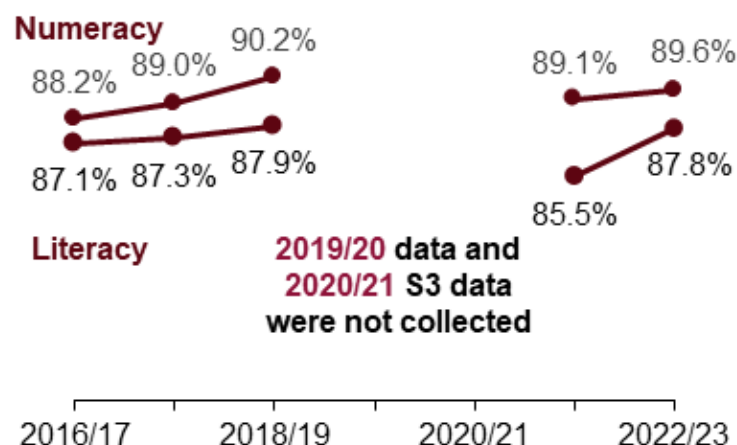
TREND

The percentage of pupils achieving the expected CfE Level has increased in 2022/23 across all organisers and stages, as compared to 2021/22. For P1, P4 and P7 combined both literacy and numeracy have risen slightly above 2018/19 levels whilst for S3 (Third Level or better) they remain slightly lower.

Percentage of **P1, P4 and P7 pupils** combined achieving expected level, 2016/17 to 2022/23.



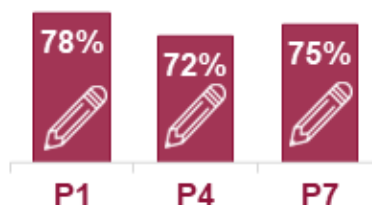
Percentage of **S3 pupils** achieving Third Level or better, 2016/17 to 2022/23.



KEY STATISTICS



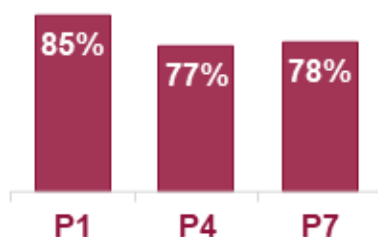
Around **80%** of primary school pupils achieved the expected CfE Level for **reading**.



For **writing**, **78%** of pupils achieved the expected CfE Level in **P1**. This compares to **72%** in **P4** and **75%** in **P7**.



Around **87%** of primary school pupils achieved the expected CfE Level for **listening and talking**.



For **numeracy**, **85%** of pupils achieved the expected CfE Level in **P1**. This compares to **77%** in **P4** and **78%** in **P7**.



Around **nine out of ten S3 pupils** achieved Third Level or better for **listening & talking** (91%), **reading** (90%) and **writing** (89%).



Around **nine out of ten S3 pupils** achieved Third Level or better for **numeracy** (90%).



Female pupils outperform male pupils across almost all stages and organisers.

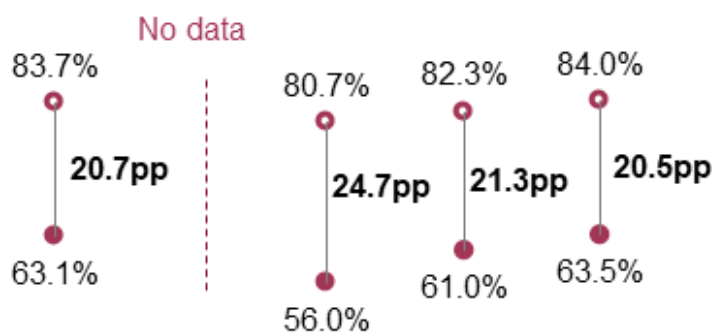
Across all stages and organisers the proportion of pupils achieving the expected level was lower for pupils with an **Additional Support Need** than for those without.



Across all stages and literacy organisers the proportion of pupils achieving the expected level was lower for pupils who have **English as an Additional Language** than for pupils who do not.

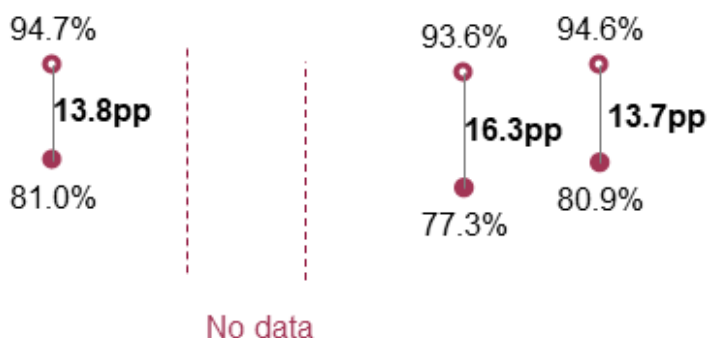
The attainment gap between school pupils in the most and least deprived areas, 2018/19 to 2022/23.

Primary Literacy



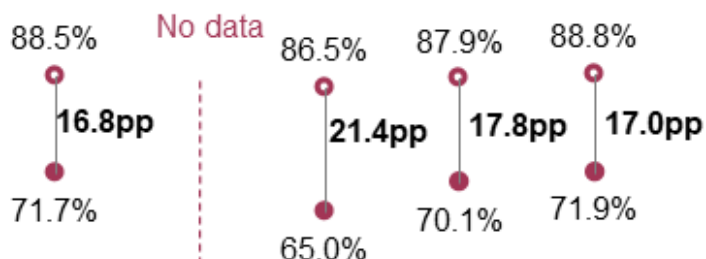
2018/19 2019/20 2020/21 2021/22 2022/23

Secondary Literacy (Third Level or better)



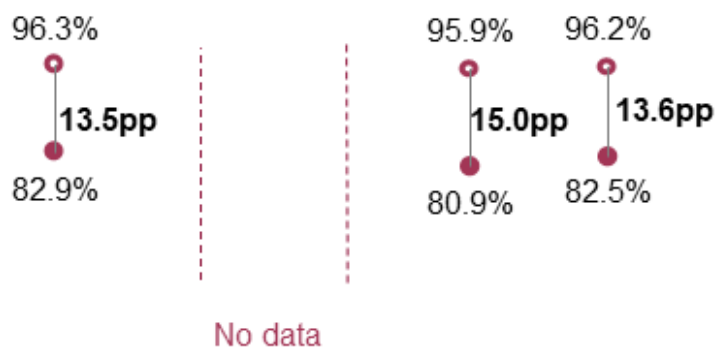
2018/19 2019/20 2020/21 2021/22 2022/23

Primary Numeracy



2018/19 2019/20 2020/21 2021/22 2022/23

Secondary Numeracy (Third Level or better)



2018/19 2019/20 2020/21 2021/22 2022/23

○— Least Deprived ● Most Deprived

○— Least Deprived ● Most Deprived

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Chapter 1: Introduction

1.1 An Official Statistics Publication for Scotland

These statistics are official statistics. Official statistics are statistics that are produced by crown bodies, those acting on behalf of crown bodies, or those specified in statutory orders, as defined in the [Statistics and Registration Service Act 2007](#).

Scottish Government statistics are regulated by the Office for Statistics Regulation (OSR). OSR sets the standards of trustworthiness, quality and value in the [Code of Practice for Statistics](#) that all producers of official statistics should adhere to.

At the request of the Scottish Government, OSR have recently concluded an assessment of these statistics against the Code of Practice for Statistics. The [assessment report](#) is published on their website. OSR have identified four actions for Scottish Government to fulfil in order for the statistics to become [accredited official statistics](#) (formerly called National Statistics) These are outlined in full within the assessment report but in summary are as follows:

- Providing more detail on the quality assurance processes that are undertaken at each stage of data collection and processing.
- Identifying and proactively engaging with users outside of the education sector, to raise awareness and increase the credibility of the statistics, and to publicly seek the input of users on potential developments.
- Exploring and, where possible, producing new analysis to provide additional insights into the data and maximise the value of the School Information Dashboards.
- Promoting the reuse of the statistics, for example, making them available through a secure platform allowing for data linkage and external research.

Once it is demonstrated that these steps have been undertaken, OSR will recommend that the UK Statistics Authority confirm the accredited official statistics status. The Scottish Government will aim to take these actions in time for the release of 2023/24 data in December 2024. In response to the first action some new material on the quality assurance processes associated with these statistics has been included in Chapter 10.

1.2 Achievement of Curriculum for Excellence (CfE) Levels Data

This publication provides information on the proportion of school pupils who have achieved the **expected Curriculum for Excellence (CfE) Levels** in literacy and numeracy relevant to their stage.

Achievement of CfE level data are based on **teachers' professional judgements** of individual pupil performance (see Section 9.1 for more information). This report refers to the **school year 2022/23**; the data reflect what pupils had achieved by the end of the school year – i.e. June 2023.

Figures are based on pupils in **publicly funded mainstream schools** in the **32 local authorities and one grant aided school**. Pupils' stages are based on approximate age ranges. Data are collected for pupils in the stages:



From these, a combined primary figure (P1, P4 and P7) has also been calculated.

The national and local authority data within this report cover pupils within mainstream schools, including those in special units integrated within mainstream schools. Pupils attending standalone special schools or standalone special units are excluded from the national and local authority data and are reported on separately in Chapter 6.

A small number of pupils (in both mainstream and special schools) for whom the teacher has been unable to make a professional judgement are not included.

Data are collected on pupil performance in four areas, known as **organisers**:



Reading
(English and Gàidhlig)



Writing
(English and Gàidhlig)



Listening and Talking
(English and Gàidhlig)



Numeracy

The achievement of **‘literacy’** is also included in the publication (for English and for Gàidhlig). A pupil is reported to have achieved the expected level in Literacy if they have achieved the expected level in all three of the literacy organisers: reading, writing, and listening and talking. For more information on how this has been calculated, see Section 9.4.

This publication mainly focuses on the organisers based in the English language and Numeracy. For pupils based in Gaelic medium schools/classes, the English language organisers are collected at relevant stages and are included in the national and local authority data. Information on achievement of CfE levels in Gàidhlig can be found in Chapter 5. For more information about Gaelic medium education, see Section 9.5.

1.3 Curriculum for Excellence Levels

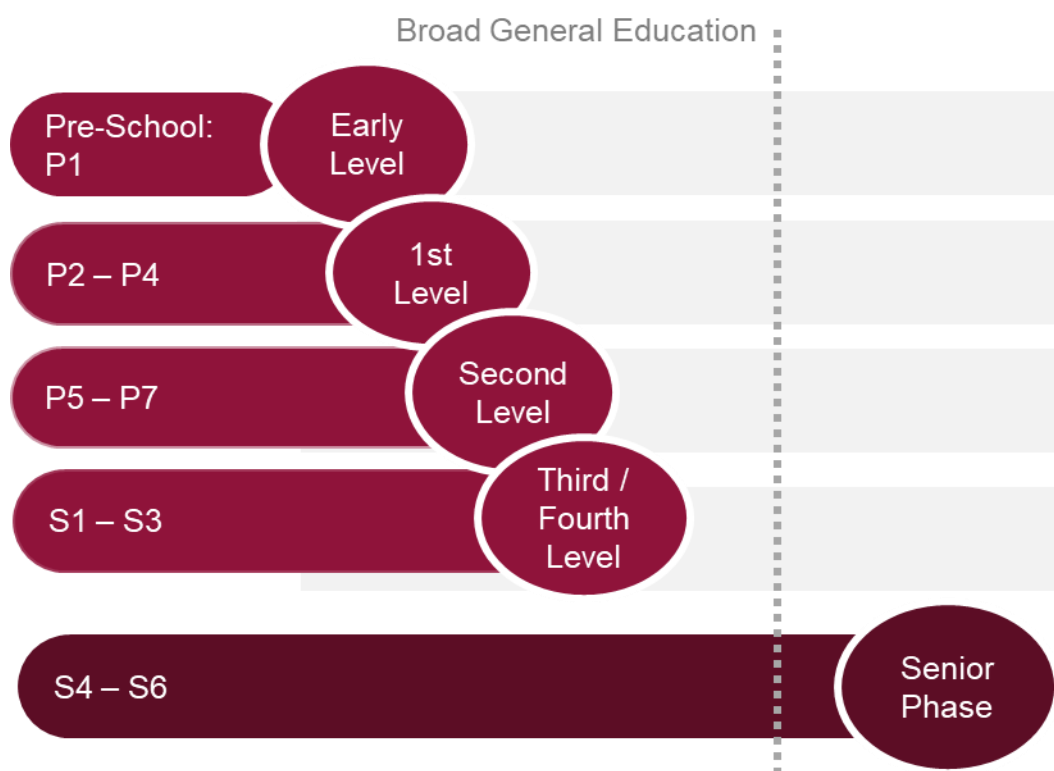
[Curriculum for Excellence](#) is designed to provide a coherent, flexible and enriched curriculum for children and young people aged from 3 to 18. The curriculum includes the totality of

experiences which are planned for children and young people through their education, wherever they are being educated.

Curriculum for Excellence defines five levels of learning. The first four levels in the Broad General Education (BGE) phase are described in [Experiences and Outcomes](#) – a set of statements about children’s learning and progression in each curriculum area which are used to help plan learning and to assess progress. Progression to qualifications is described under a fifth level, the [Senior Phase](#).

The path most children and young people are expected to follow through the levels reflects the stages of maturation of children and young people and the changing ways in which they engage with learning as they develop.

Some children and young people will start learning at these levels earlier and others later, depending upon individual needs and aptitudes. The framework is, however, designed to be flexible in order to permit careful planning for those with additional support needs, including those who, for example, have a learning difficulty or those who are particularly high attaining. The diagram below shows the five curriculum levels.



This publication focuses on the BGE phase which covers children from pre-school through to the end of S3. It is intended that all children should have opportunities to experience all of the Experiences and Outcomes up to and including the Third Level where appropriate for individual learning needs. Most learners will progress into the Fourth Level in many aspects of their learning before the end of S3. For S3 pupils this publication reports on both Third Level or better and Fourth Level although focuses more on Third Level or better.

Scottish Government statistics on the attainment of young people in the senior phase are based on point of leaving; these statistics can be found in the [School education statistics](#).

1.4 Pupils with complex needs

The majority of school pupils in Scotland follow CfE. For a very small percentage of pupils it is unlikely that they will progress through the CfE levels during their time in education. This is due to pupils having long-term significant and complex additional support needs. The way in which these young people are recorded in this publication can vary depending on whether they are integrated into mainstream schools or attend a standalone special school and also on the nature of their needs. Further information can be found in Section 9.3.

1.5 Pupils for whom the teacher was unable to make a judgement

Children for whom the teacher has been unable to make a professional judgement are not included in the calculations of the proportions of pupils achieving the expected CfE Levels. This may happen if, for example, a pupil has recently moved to the school, and the teacher feels there has not been sufficient time to form a professional judgement of a pupil's performance. This is the case for less than one per cent of pupils within the Achievement of CfE Levels data.

1.6 Impact of the coronavirus (COVID-19) pandemic

Impact on 2019/20 and 2020/21 data collections

The Scottish Government did not collect Achievement of CfE Levels data for any pupils in 2019/20 as schools were closed on the planned ACEL census date of 8th June 2020.

For 2020/21, data were collected for Primary school (P1, P4 and P7) pupils only. Secondary school and special school data were not collected due to other pressures on these schools including implementation of the SQA National Qualifications Alternative Certification Model.

Impact on children's learning

The closures of schools between March 2020 and January 2021 because of the pandemic are likely to have had a negative effect on some pupils' progress and attainment. It is therefore likely to have had an impact on the CfE levels some children achieved in 2020/21. The impact of this disruption will also have affected young people covered by the 2021/22 publication and it is possible that the impact of the pandemic will continue to affect the CfE levels some children and young people achieved in 2022/23.

Chapter 2: Achievement of CfE Levels at Scotland level

Key Findings

- The percentage of primary school pupils achieving the expected CfE levels in 2022/23 was higher than in 2021/22, for all primary school stages and across all the organisers, with increases generally in the range of one to two percentage points.
 - For many organisers and stages, particularly at P7, the proportions of primary school pupils achieving the expected levels have risen up to or beyond 2018/19 (pre-pandemic) levels. However there remain some cases where 2022/23 figures are slightly below those of 2018/19.
 - For P1, P4 and P7 pupils combined, the proportion achieving the expected level in literacy is the highest on record. This is also true for numeracy.
 - For S3 pupils, the proportions achieving Third Level or better are higher than in 2021/22 across all organisers typically by around one to two percentage points. They are similar to, or slightly lower than in 2018/19.
 - The proportions of S3 pupils achieving Fourth Level have increased sharply in 2022/23 and are higher than in any previous year across all organisers.
-

2.1 Achievement of CfE Levels at Scotland level - primary stages

The percentages of primary school pupils achieving the expected CfE levels in 2022/23 have increased across all stages and organisers compared to 2021/22. These increases were generally in the range of one to two percentage points. They follow on from increases of between around two and four percentage points between 2020/21 and 2021/22.

These figures represent a further recovery following the coronavirus (COVID-19) pandemic and for a number of organisers and stages the proportions of primary school pupils achieving the expected levels have risen above those of 2018/19 – the last data collected before the pandemic began.

For P7 pupils the proportions achieving Second Level in 2022/23 are higher (by between one and two percentage points) than they were in 2018/19 across all organisers. For P1 and P4 pupils the proportions achieving the expected level were generally the same or slightly below those in 2018/19 although P4 listening & talking has risen above the 2018/19 level.

Looking at P1, P4 and P7 pupils combined, more than seven in ten (73 per cent) achieved the expected CfE Level for literacy in 2022/23. This is the highest figure on record and compares to 71 per cent in 2021/22, to 67 per cent in 2020/21 and to 72 per cent in 2018/19.

In numeracy, four-fifths (80 per cent) of primary school pupils (P1, P4 and P7 combined) achieved the expected CfE levels in 2022/23. This is again higher than in any previous

year and compares to 78 per cent in 2021/22, to 75 per cent in 2020/21 and to 79 per cent in 2018/19.

As in previous years, in 2022/23 the proportion of pupils achieving the expected CfE level across each primary school stage (P1, P4 and P7) was highest in listening and talking, and lowest in writing. For listening and talking, 87 per cent of pupils in each of P1, P4 and P7 achieved the expected CfE level. Meanwhile for writing, 78 per cent of P1 pupils, 72 per cent of P4 pupils and 75 per cent of P7 pupils achieved the expected level.

2.2 Achievement of CfE Levels at Scotland level - S3 stage

Around nine out of ten S3 pupils achieved Third Level or better in each of the literacy organisers in 2022/23: reading (90 per cent), writing (89 per cent) and listening and talking (91 per cent). For literacy as a whole, 88 per cent of S3 pupils achieved Third Level or better whilst for numeracy 90 per cent achieved this level. In each case this was higher than in 2021/22 by up to two percentage points. Compared to 2018/19 the proportions were the same or slightly lower. Data for S3 pupils were not collected in 2020/21 (or in 2019/20).

In 2022/23, the percentage of S3 pupils achieving Fourth Level was higher than in any previous year. For the literacy organisers (reading, writing and listening and talking) the proportions of pupils achieving Fourth Level have grown by between seven and eight percentage points since 2021/22 and were also higher than in 2018/19, by between six and seven percentage points. For numeracy the proportion achieving Fourth Level in 2022/23 was higher than in both 2021/22 and 2018/19 by around four percentage points.

Table 1 shows the proportions of pupils achieving the expected CfE levels for all stages and organisers for 2018/19 to 2022/23. The full time series, back to 2016/17 can be found in table 1 of the [supplementary tables](#).

Table 1: Percentage of pupils achieving expected CfE levels, 2018/19 to 2022/23

Year	Stage/Level	Reading	Writing	List./ Talk	Literacy	Numeracy
2022/23	P1 - Early Level	81	78	87	76	85
	P4 - First Level	78	72	87	70	77
	P7 - Second Level	81	75	87	73	78
	P1, P4 and P7 combined	80	75	87	73	80
	S3 - Third Level or better	90	89	91	88	90
	S3 - Fourth Level	62	60	63	56	63
2021/22	P1 - Early Level	79	77	86	74	84
	P4 - First Level	76	70	85	67	75
	P7 - Second Level	79	73	86	71	76
	P1, P4 and P7 combined	78	73	85	71	78
	S3 - Third Level or better	88	87	89	86	89
	S3 - Fourth Level	54	52	55	48	59
2020/21	P1 - Early Level	77	74	84	71	81
	P4 - First Level	73	67	82	64	72
	P7 - Second Level	76	69	82	66	72
	P1, P4 and P7 combined	75	70	83	67	75
	S3 stage/all levels	[no data]	[no data]	[no data]	[no data]	[no data]
2019/20	All stages/levels	[no data]	[no data]	[no data]	[no data]	[no data]
2018/19	P1 - Early Level	82	79	87	76	85
	P4 - First Level	78	73	85	70	77
	P7 - Second Level	80	74	86	71	76
	P1, P4 and P7 combined	80	75	86	72	79
	S3 - Third Level or better	91	90	91	88	90
	S3 - Fourth Level	55	52	57	48	59

Chapter 3: Achievement of CfE Levels by Deprivation

Key Findings

- The gap between the proportion of primary school pupils (P1, P4 and P7 combined) from the most and least deprived areas who achieved the expected level in literacy narrowed from 21.3 percentage points in 2021/22 to 20.5 percentage points in 2022/23 – the smallest on record (since 2016/17).
 - The gap between the proportion of primary school pupils (P1, P4 and P7 combined) from the most and least deprived areas who achieved their expected level in numeracy narrowed from 17.8 percentage points in 2021/22 to 17.0 percentage points in 2022/23 – slightly wider than in 2018/19 (16.8pp).
 - The gap between the proportion of S3 pupils from the most and least deprived areas who achieved Third Level or better in literacy reduced from 16.3 percentage points in 2021/22 to 13.7 percentage points in 2022/23 – similar to pre-pandemic levels.
 - The gap between the proportion of S3 pupils from the most and least deprived areas who achieved Third Level or better in numeracy narrowed from 15.0 percentage points in 2021/22 to 13.6 percentage points in 2022/23 – similar to the level in 2018/19 (13.5pp).
-

This chapter provides an overview of Achievement of CfE Levels by pupils based on the deprivation level of the area they live in, as measured by the [Scottish Index of Multiple Deprivation \(SIMD\)](#). It provides information on literacy and numeracy for P1, P4 and P7 pupils combined and for S3 pupils. Full details (including all stages, organisers and SIMD quintile categories) are available in the [supplementary tables](#).

When considering data by SIMD as a measure of multiple deprivation, it is important to note that the data show the difference between young people living in the most and least deprived areas. What SIMD does not show is the difference between young people from poor or rich backgrounds.

The figures shown in Charts 1, 2, 3 and 4 provide four of the 13 key [National Improvement Framework](#) measures used to measure the poverty-related attainment gap. These key measures are:

- Percentage of P1, P4 and P7 pupils combined achieving expected Level in Literacy;
- Percentage of P1, P4 and P7 pupils combined achieving expected Level in Numeracy;
- Percentage of S3 pupils achieving Third Level or better in Literacy and;
- Percentage of S3 pupils achieving Third Level or better in Numeracy.

The charts show Achievement of CfE Levels by SIMD since 2016/17, with the 'pp' abbreviation indicating percentage point difference between pupils from the most and least deprived areas (referred to as the attainment gap).

3.1 Achievement of CfE Levels by Deprivation – P1, P4 and P7 pupils

Chart 1 provides information on the percentages of P1, P4 and P7 pupils combined who achieved the expected levels in literacy.

The attainment gap between pupils from the most and least deprived areas narrowed from 21.3 percentage points in 2021/22 to 20.5 percentage points in 2022/23. This is very slightly narrower than in 2018/19 (20.7 percentage points) and also narrower than in 2017/18 (21.6pp) or 2016/17 (22.1pp).

The proportions of P1, P4 and P7 pupils combined achieving the expected level in literacy increased in 2022/23 compared to 2021/22 for pupils in both the most and least deprived areas. Both are now at their highest level since 2016/17 – the first year for which comparisons can be made. Between 2021/22 and 2022/23 the proportion increased more for pupils from the most deprived areas which has led to the gap narrowing.

Chart 1: Percentage of P1, P4 and P7 pupils (combined) achieving expected CfE level in Literacy by SIMD, 2016/17 to 2022/23

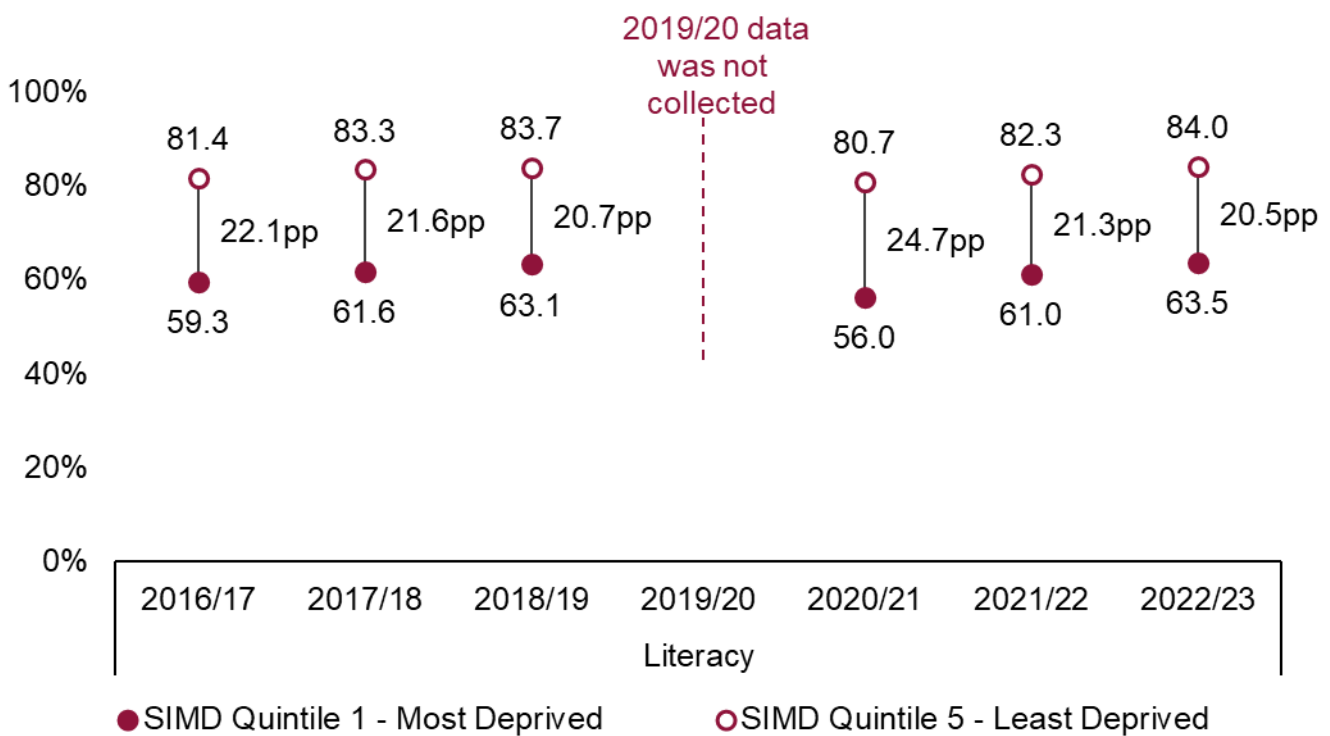
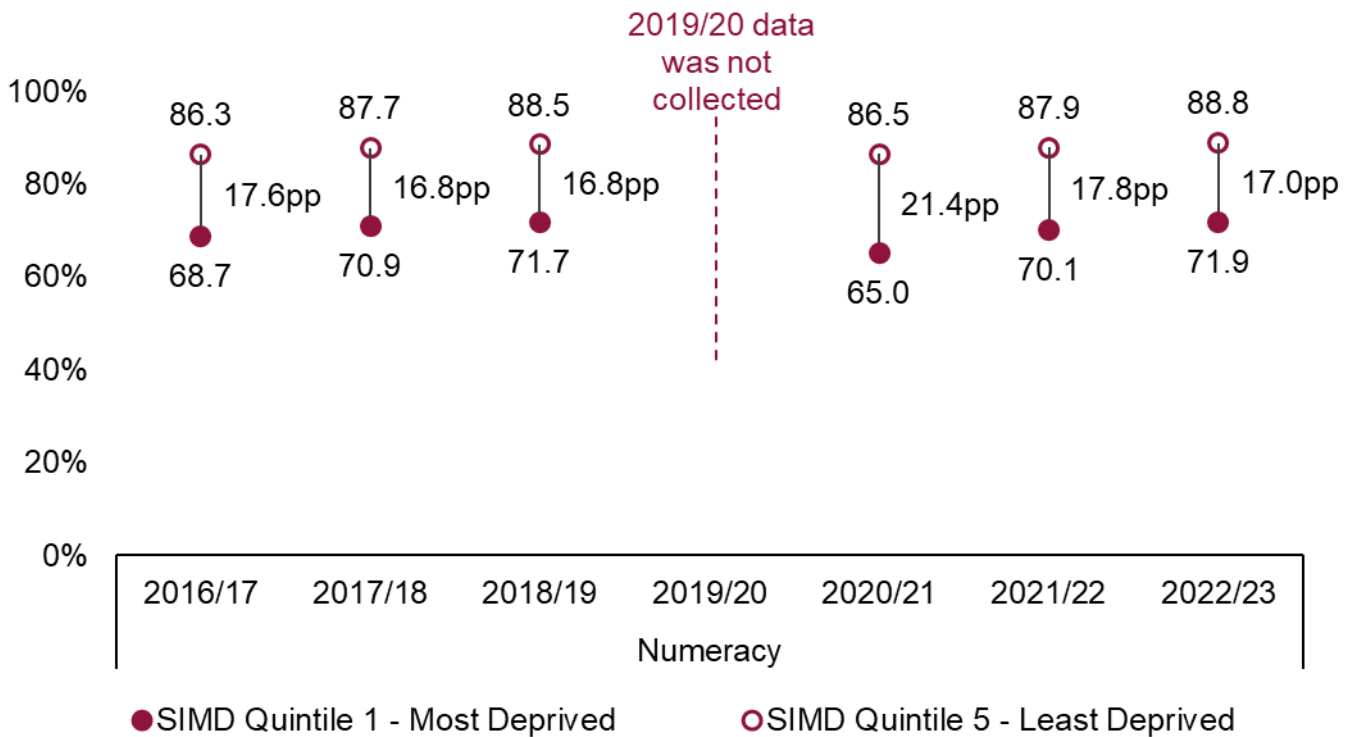


Chart 2 provides information for P1, P4 and P7 pupils combined who achieved the expected levels in numeracy.

The numeracy attainment gap narrowed from 17.8 percentage points in 2021/22 to 17.0 percentage points in 2022/23. This is slightly wider than it was in 2017/18 and 2018/19.

Compared to 2021/22, the proportions of P1, P4 and P7 pupils combined achieving the expected numeracy levels have increased for both pupils in the most and least deprived areas in 2022/23. Both are now slightly higher than in 2018/19 and at their highest levels since 2016/17 – the first year for which comparisons can be made. The gap has narrowed since 2021/22 as the proportion increased by nearly twice as much for pupils from the most deprived areas.

Chart 2: Percentage of P1, P4 and P7 pupils (combined) achieving expected CfE level in Numeracy by SIMD, 2016/17 to 2022/23



3.2 Achievement of CfE Levels by Deprivation – S3 pupils

Chart 3 shows the proportion of S3 pupils who achieved Third Level or better in literacy, for pupils in the most and least deprived areas.

The chart shows that the proportion of S3 pupils who achieved Third Level or better in literacy remained broadly stable between 2016/17 and 2018/19, for pupils from both the most and the least deprived areas. The proportions then decreased for both groups in 2021/22, falling by more for pupils from the most deprived areas. In 2022/23 they have returned to around the levels seen prior to the pandemic for both groups.

The S3 pupils attainment gap in literacy has narrowed from 16.3 percentage points in 2021/22 to 13.7 percentage points in 2022/23. This is similar to the level seen in 2018/19.

Chart 3: Percentage of S3 pupils achieving Third Level or better in Literacy by SIMD, 2016/17 to 2022/23

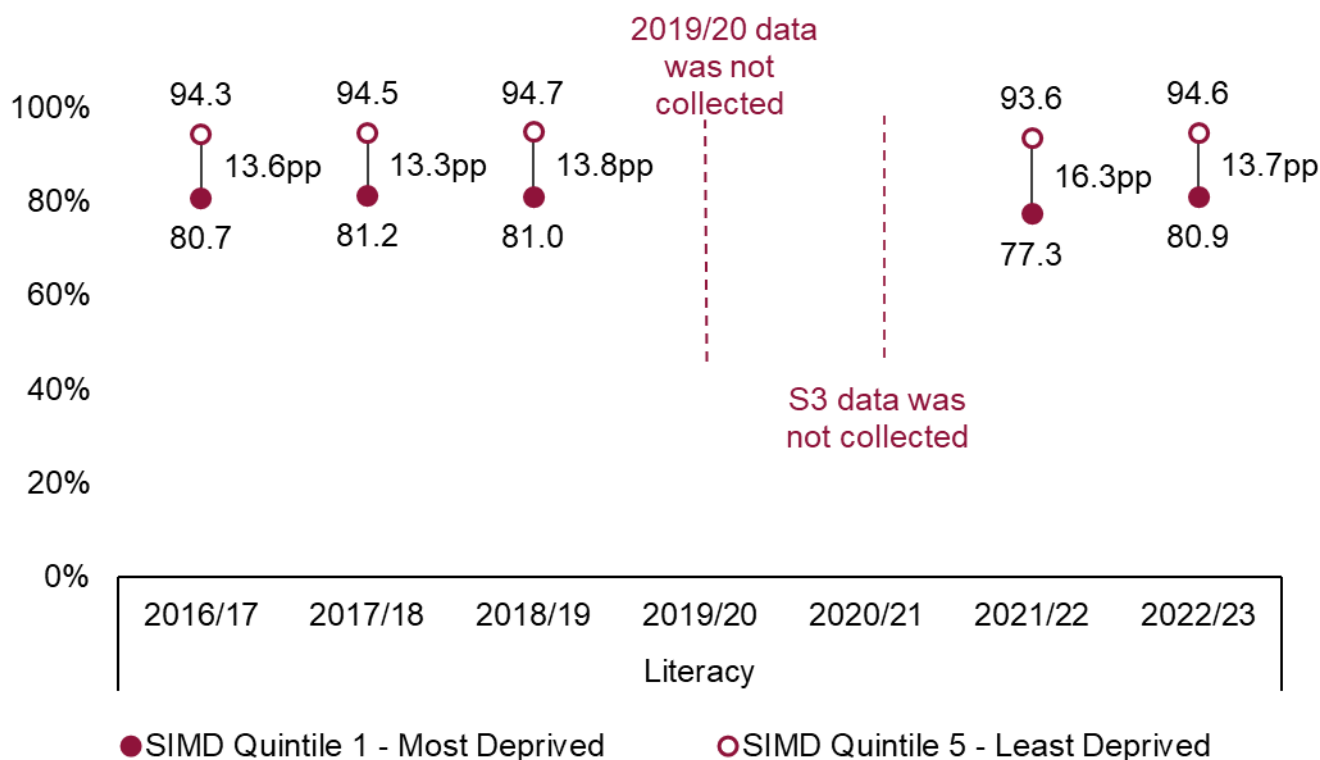
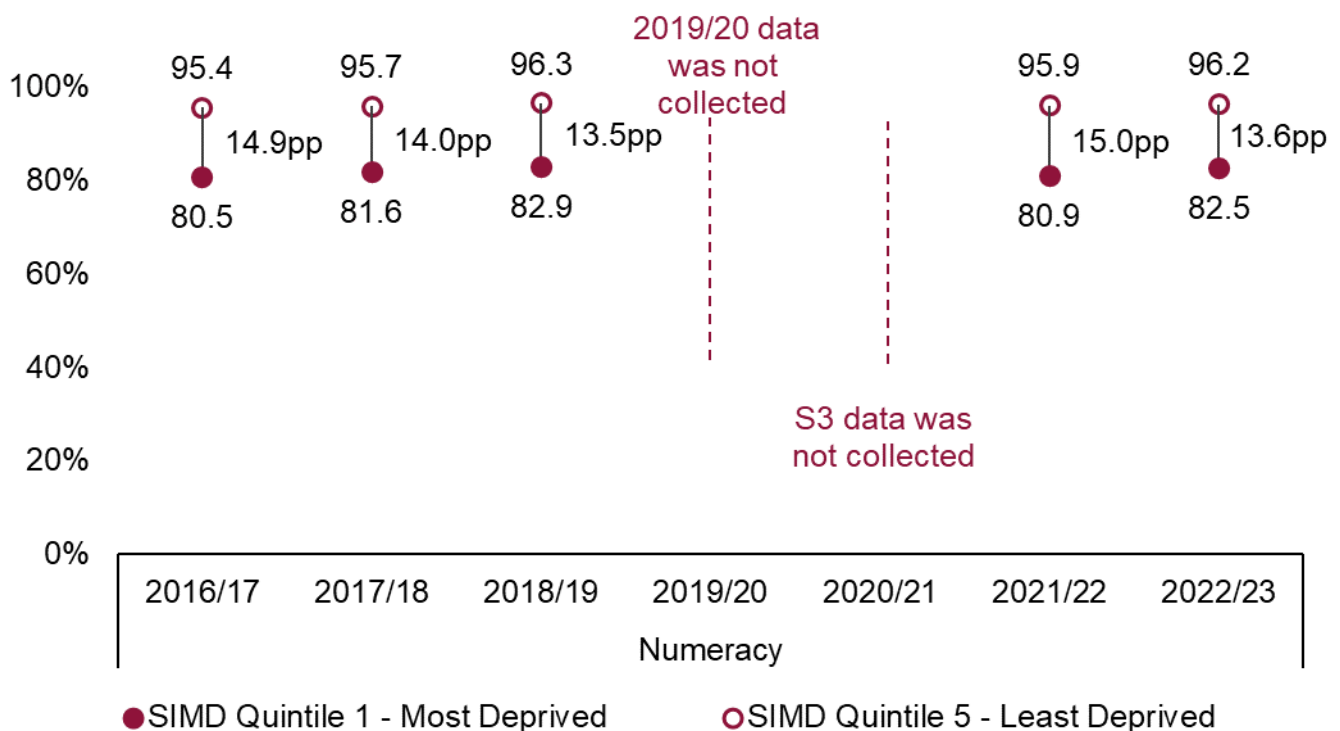


Chart 4 shows the proportion of S3 pupils who achieved Third Level or better in numeracy, for pupils in the most and least deprived areas.

The S3 pupils attainment gap for Third Level or better in numeracy narrowed from 14.9 percentage points in 2016/17 to 14.0 percentage points in 2017/18 and to 13.5 percentage points in 2018/19 (see Chart 4 below). In 2021/22, the gap widened to 15.0 percentage points. 2022/23 has seen the gap reduce to 13.6 percentage points – very similar to the level seen in 2018/19.

The proportion of S3 pupils who achieved Third Level or better in numeracy in 2022/23 is higher than in 2021/22 for pupils from both the most and the least deprived areas although both remain slightly below the 2018/19 levels.

Chart 4: Percentage of S3 pupils achieving Third Level or better in Numeracy by SIMD, 2016/17 to 2022/23



Chapter 4: Achievement of CfE Levels by pupil characteristics

Key Findings

- Female pupils continue to outperform male pupils across all literacy organisers at all stages.
 - Across all stages and organisers, the proportion of pupils achieving the expected level was lower for pupils with an Additional Support Need than for those without.
 - For most stages and organisers the proportion of pupils achieving the expected level was lower for pupils with English as an Additional Language than for those for whom English is the main language.
 - The percentage of pupils achieving the expected CfE levels in numeracy was generally highest for pupils of Asian-Chinese ethnic background.
 - For most stages and organisers the proportions of pupils achieving the expected level were highest for pupils from accessible rural areas and lowest for pupils from remote small towns.
-

4.1 Achievement of CfE Levels by Sex

Chart 5 shows performance in literacy and numeracy by sex for each organiser and stage.

In 2022/23, female pupils outperformed male pupils across all literacy organisers at all primary stages and at S3. At each stage the biggest difference was in writing. Female pupils also outperformed male pupils in numeracy in P1, P7 and S3. This pattern of differences in levels of performance between male and female pupils has been largely consistent since 2016/17.

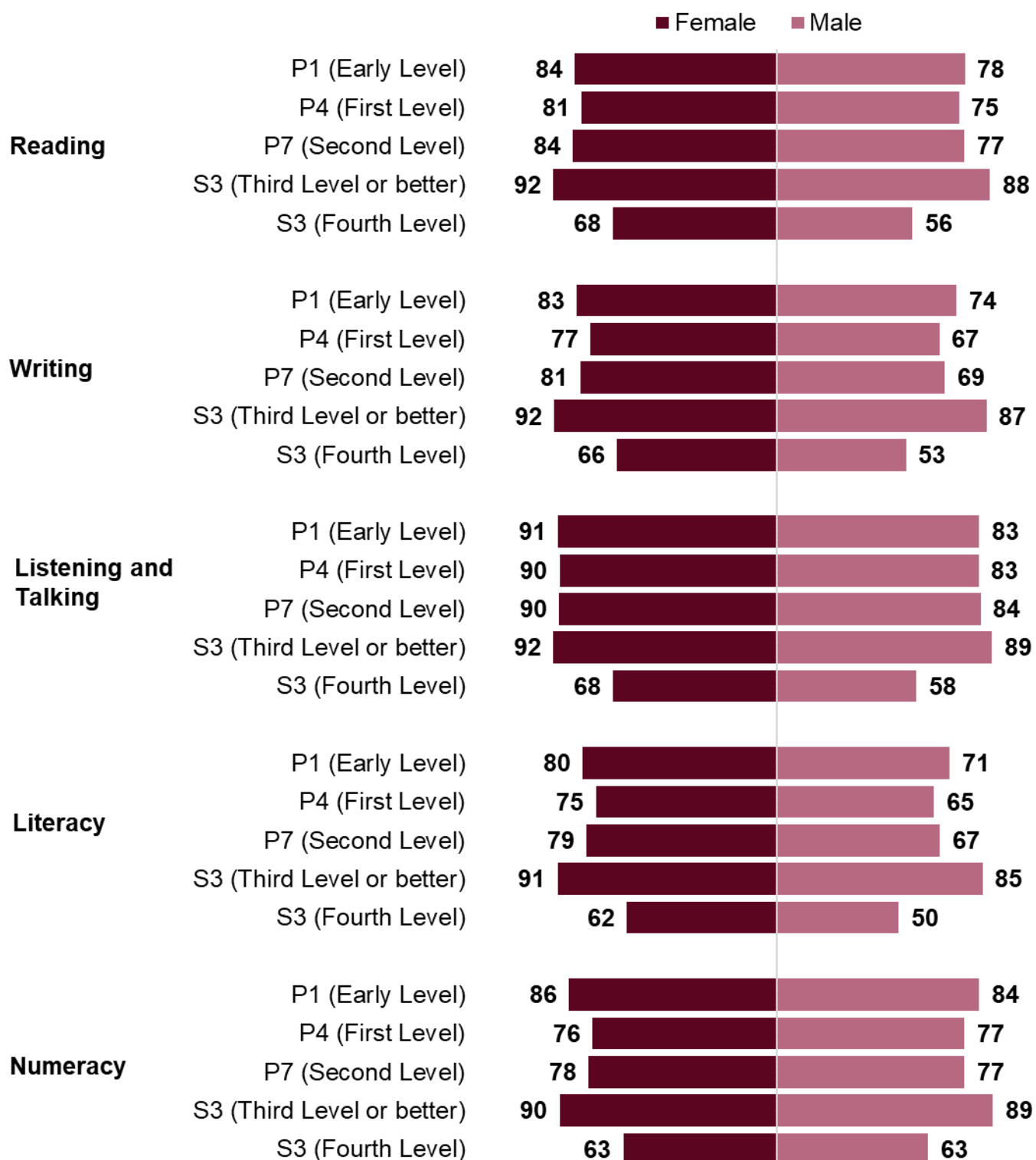
For literacy, female pupils outperformed male pupils by nine percentage points in P1, 10 percentage points in P4 and 11 in P7. A broadly similar pattern was observed in previous years. The gap in literacy performance by sex amongst S3 pupils at Third Level or better was six percentage points.

Across all stages the smallest difference in performance by sex was in numeracy. In 2022/23, female pupils outperformed male pupils by two percentage points at P1 and by one percentage point in P7 and S3. However, male pupils performed slightly better than female pupils at P4.

Compared to 2021/22 (see Table 3 in the [supplementary tables](#)), the proportion of pupils achieving the expected CfE levels in 2022/23 has increased across all primary stages and organisers, for both male and female pupils.

The sizes of these increases were broadly similar for male and female pupils. However, compared to 2018/19, the proportions of P7 male pupils achieving Second level are now higher by between two and three percentage points across the organisers. Female pupils in P7 have also recovered to 2018/19 levels but have not yet moved above them.

Chart 5: Percentage of pupils achieving expected CfE levels, by sex and stage, 2022/23



4.2 Achievement of CfE Levels by Ethnicity

For context, the majority of pupils in the Achievement of CfE Levels data collection were White – Scottish (73 per cent of all pupils), followed by White – non-Scottish (13 per cent of all pupils). The remaining ethnic groups each made up two per cent or less of all pupils. The relative sizes of these groups of pupils should be kept in mind when interpreting results.

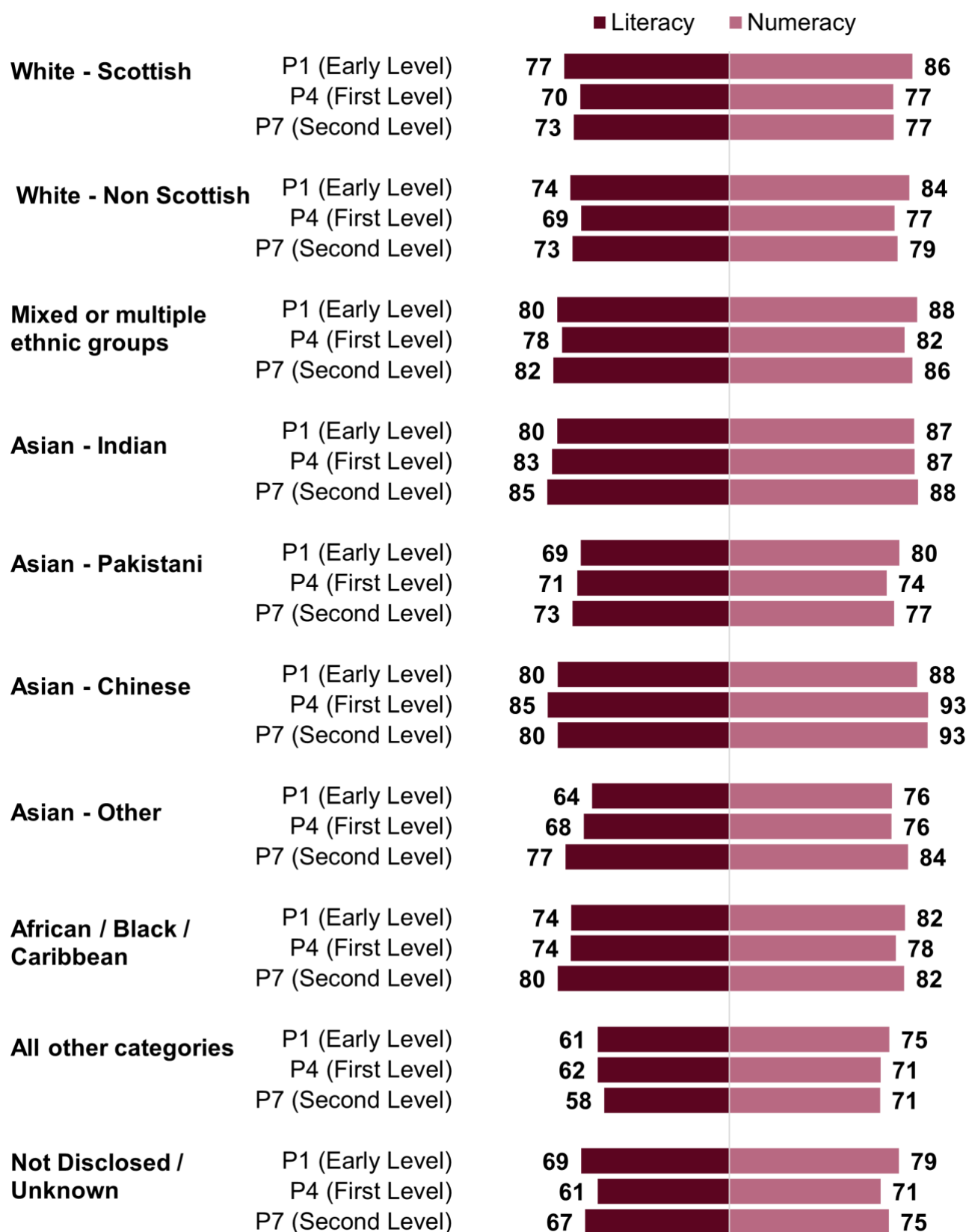
In 2022/23, the percentage of primary school pupils achieving the expected CfE Level in literacy and numeracy increased across most ethnic groups compared to 2021/22 (see Table 4 in the [supplementary tables](#)). The main exceptions were pupils with an Asian – Chinese or Asian – Other background in P1.

Performance in numeracy was highest for pupils of an Asian – Chinese background, across all primary stages. This pattern has been consistent since 2016/17. In 2022/23, 88 per cent of Asian – Chinese pupils achieved the expected level in P1 whilst 93 per cent of Asian – Chinese pupils achieved the expected level in both P4 and P7.

In P1, performance in literacy was highest for pupils from mixed or multiple ethnic backgrounds, Asian – Chinese and Asian – Indian (all 80 per cent); pupils from Asian – Chinese backgrounds performed best at P4 (85 per cent) and Asian – Indian pupils performed best in P7 (85 per cent).

Chart 6 shows performance in literacy and numeracy by ethnicity for each primary stage.

Chart 6: Percentage of P1, P4 and P7 pupils achieving literacy and numeracy CfE levels, by ethnicity and stage, 2022/23



At S3 (Third Level or better), performance in literacy was highest for pupils from Asian – Indian and Asian – Pakistani backgrounds. In numeracy performance was highest for pupils from Asian – Indian and Asian – Chinese backgrounds (Table 2 below).

Table 2: Percentage of S3 pupils achieving Third Level or better by ethnicity, 2022/23

Ethnicity	Reading	Writing	Listening & Talking	Literacy	Numeracy
White - Scottish	90	89	91	88	89
White - Non Scottish	90	90	91	88	91
Mixed or multiple ethnic groups	94	93	94	92	94
Asian - Indian	97	96	97	95	98
Asian - Pakistani	96	95	96	94	96
Asian - Chinese	95	94	94	92	98
Asian - Other	92	92	93	91	96
African / Black / Caribbean	92	93	94	91	95
All other categories	82	82	82	80	90
Not Disclosed / Unknown	79	78	79	76	85
All pupils	90	89	91	88	90

4.3 Achievement of CfE Levels by Additional Support Need (ASN) status

For context, the percentage of pupils recorded as having an Additional Support Need increased throughout the stages: 13, 29, 37 and 41 per cent for P1, P4, P7 and S3 pupils respectively.

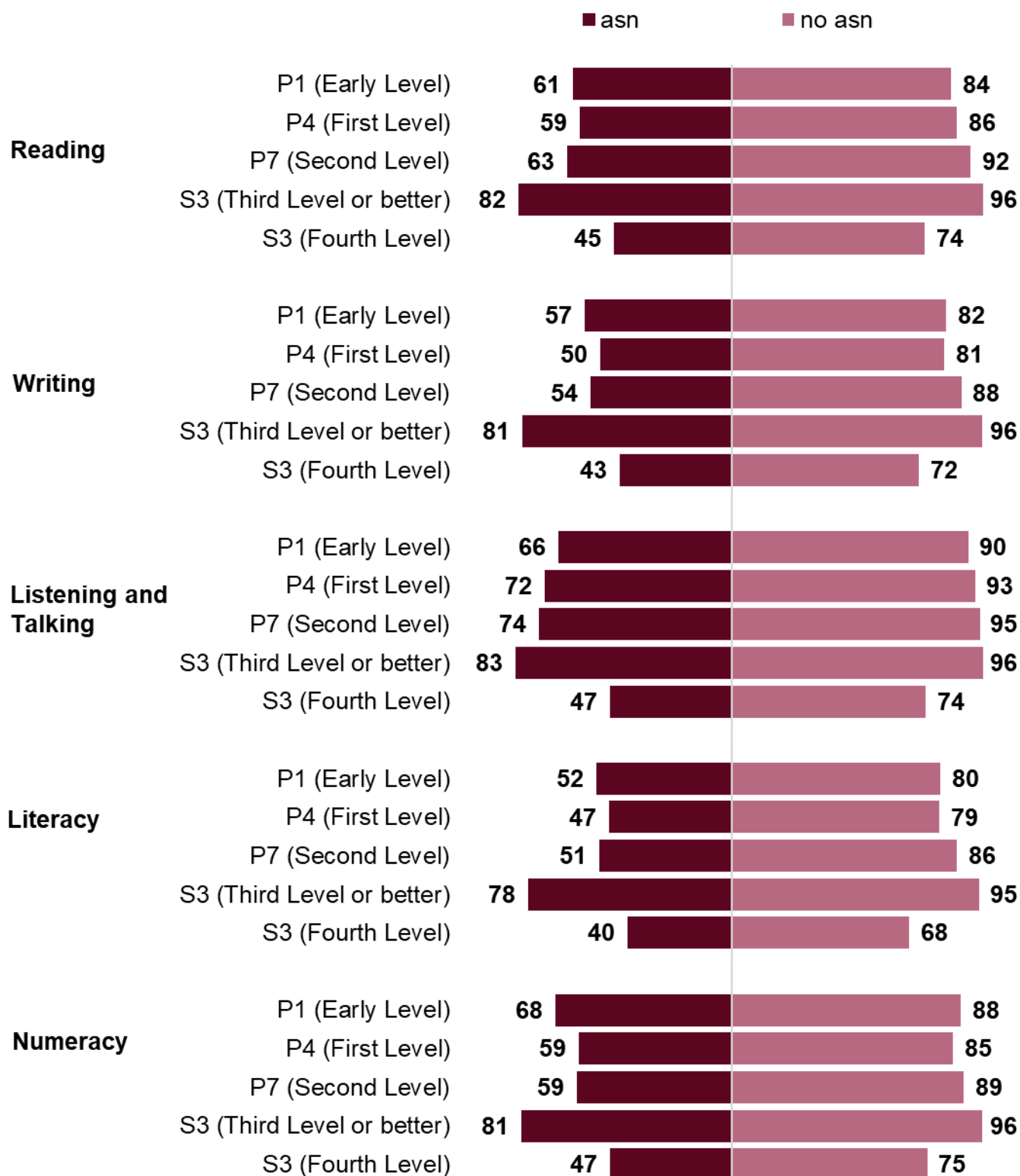
The number of pupils identified with additional support needs (ASN) has increased markedly over a number of years and there continues to be year on year increases (see Table 1.5 of the pupil census [supplementary tables](#)). These increases were likely due in part to continued improvements in recording and the introduction of the additional need types 'Child plans' and 'Other' in 2011. This should be kept in mind when interpreting Achievement of CfE Levels data by Additional Support Needs.

Chart 7 shows that the percentage of pupils achieving the expected CfE level was higher for pupils recorded as not having an Additional Support Need (ASN) compared to pupils with a recorded ASN, across all stages and organisers.

Considering the four organisers – reading, writing, listening and talking and numeracy - the difference in performance in P1 was lowest for numeracy (20 percentage points). At both P4 and P7 stages, the difference was lowest for listening and talking (both 21 percentage points).

At S3 (Third Level or better), the lowest difference was in listening and talking (13 percentage points), with 96 per cent of pupils with no ASN achieving this level, compared to 83 per cent of pupils with a recorded ASN.

Chart 7: Percentage of pupils achieving CfE levels, by Additional Support Need (ASN) status and stage, 2022/23



The greatest difference in performance between primary pupils with a recorded ASN and primary pupils with no recorded ASN was in writing for all three stages (25 percentage points for P1, 31 percentage points for P4 and 34 percentage points for P7).

At S3 (Third Level or better), the greatest difference in performance was also in writing (15 percentage points).

Time series data (available in Table 6 in the [supplementary tables](#)) shows that the percentage of primary pupils achieving expected CfE levels in 2022/23 was greater than in 2021/22 across all stages and organisers both for pupils with a recorded ASN and for those without. For all primary stages and for S3 Third Level or better, the sizes of these increases were either the same or slightly larger for those with a recorded ASN than for those without.

4.4 Achievement of CfE Levels by English as an Additional Language (EAL) status

For context, around seven per cent of pupils in the 2022/23 data collection were recorded as having English as an Additional Language (EAL).

The percentage of pupils achieving the expected CfE level was higher for pupils with English as their main language than for those with English as an additional language across most stages and organisers (Chart 8).

In 2022/23, the gap in performance between EAL pupils and pupils with English as their main language was lowest in numeracy. At primary stages the gaps in numeracy performance ranged from one percentage point for P7 pupils to eight percentage points for P1 pupils. However, S3 pupils with EAL outperformed their counterparts by three percentage points at Third Level or better.

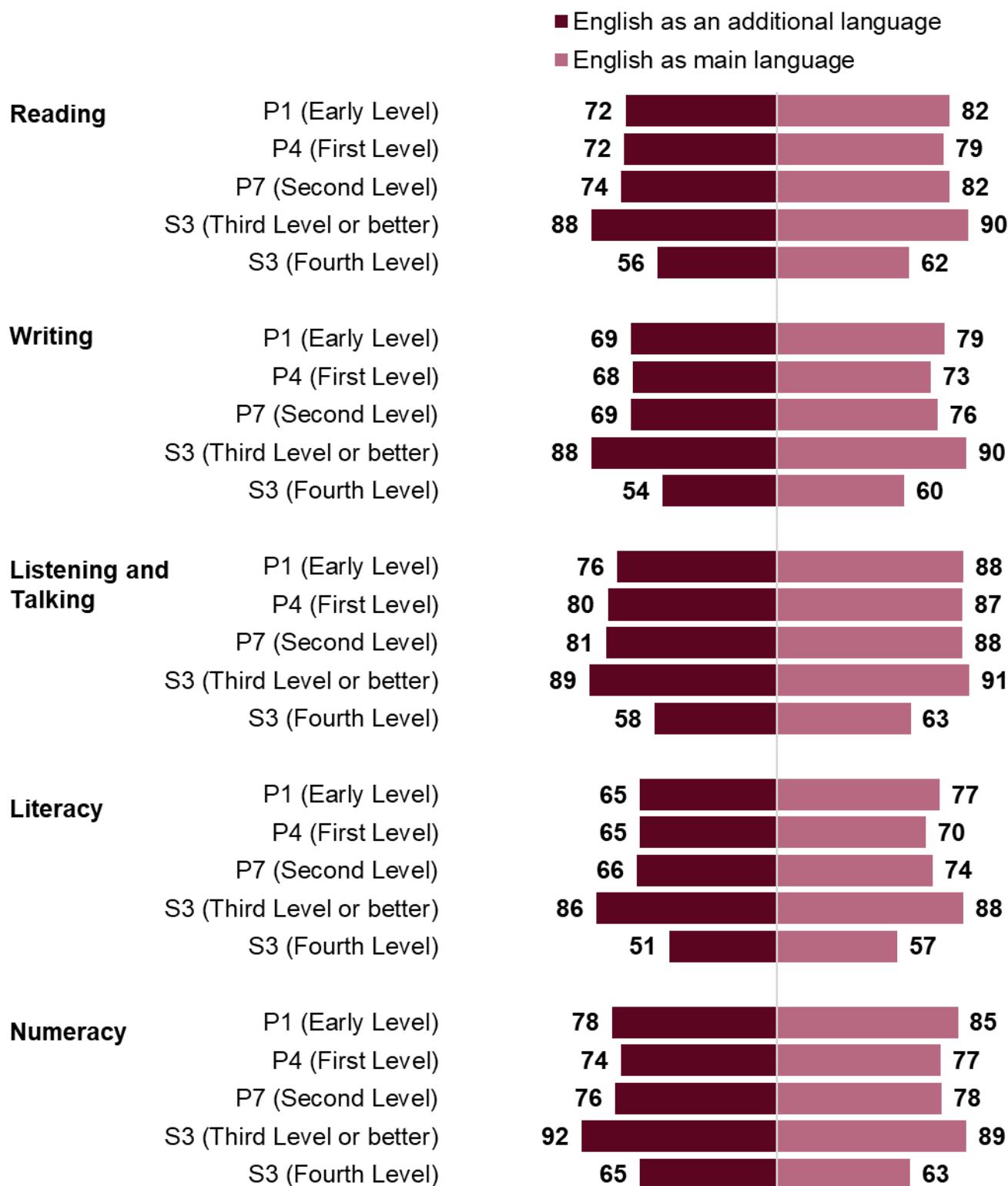
EAL pupils performed better in listening and talking than they did in the other literacy organisers at all three primary stages (76, 80 and 81 per cent for P1, P4 and P7 respectively); with the same pattern being observed in the overall results for all pupils. However, the largest gap in performance between EAL and English as main language was also in listening and talking (12 percentage points at P1).

Compared to 2021/22, the proportions of P4 and P7 school pupils achieving the expected levels in literacy and numeracy increased for both pupils with English as their main language and pupils with English as an Additional Language. In P1 the proportions increased for pupils with English as their main language but remained at around the same as in 2021/22 for pupils with English as an Additional Language.

For S3 pupils (Third level or better) the proportions of pupils achieving the expected levels in literacy and numeracy increased for pupils with English as an additional language, by four percentage points in literacy and by one percentage point in numeracy.

When compared to 2018/19, the proportion of EAL pupils achieving the expected levels had increased across all organisers for pupils in P4, P7 and S3 (both levels). For P1 pupils it had increased in Listening and Talking, decreased in Writing and Numeracy and remained the same in Reading (See Table 7 in the [supplementary tables](#)).

Chart 8: Percentage of pupils achieving expected CfE levels, by English as an Additional Language status and stage, 2022/23



4.5 Achievement of CfE Levels by Urban Rural Classification

The Urban Rural Classification used in this publication has six classifications as shown in Table 3. The pupils in the Achievement of CfE Levels 2022/23 data collection were distributed as follows:

Table 3: Percentage of pupils in P1, P4, P7 and S3 combined by Urban Rural Classification, 2022/23

Urban Rural Classification	Percentage of pupils
Other urban areas	34
Large urban areas	34
Accessible rural areas	15
Accessible small towns	8
Remote rural areas	5
Remote small towns	2
Unknown	2

Chart 9 shows a summary of the percentage of pupils achieving expected CfE levels in literacy and numeracy, by Urban Rural Classification and stage. Detailed results by Urban Rural Classification can be found in the [supplementary tables](#).

In P1 and P4, performance across all organisers was highest for pupils from accessible rural areas and lowest for pupils from remote small towns (excluding pupils for whom the Urban Rural Classification was 'Unknown').

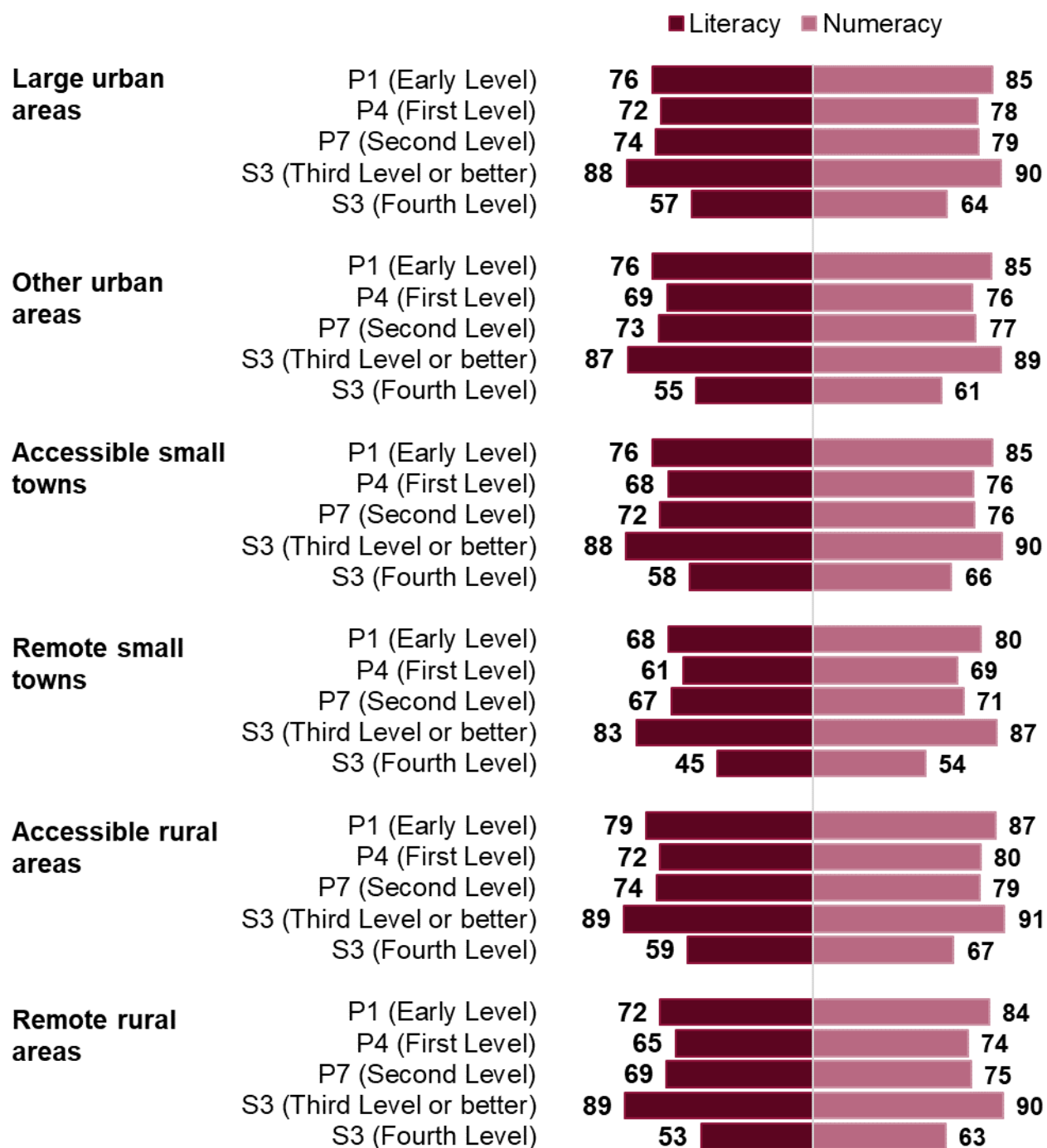
In P7 performance was again lowest for pupils from remote small towns across all organisers. Performance was highest for pupils from accessible rural areas and large urban areas across all organisers.

In 2022/23, the percentage of primary school pupils achieving the expected CfE levels in literacy and numeracy increased across almost all urban and rural categories, compared to 2021/22. In the small number of cases where they did not increase they remained unchanged (See Table 5 in the [supplementary tables](#)).

In S3, as in the primary stages, the percentage of pupils achieving Third Level or better was lowest in remote small towns across all organisers. It was highest in remote rural areas for reading and listening & talking, in accessible rural areas for numeracy, and in remote rural areas and accessible rural areas for writing.

As generally seen at other stages and levels, the proportion of S3 pupils achieving Fourth Level was lowest in remote small towns and highest in accessible rural areas, across all organisers.

Chart 9: Percentage of pupils achieving expected CfE levels, by Urban Rural Classification and stage, 2022/23



Chapter 5: Achievement of CfE Levels in Gàidhlig

Key Findings

- The percentage of primary pupils in Gaelic medium schools/classes achieving the expected CfE level was highest for Gàidhlig listening and talking.
 - 96 per cent of S3 pupils in Gaelic medium schools/classes achieved Third Level or better in each of Gàidhlig reading, writing, and listening and talking.
-

Information on the Gàidhlig data collected as part of the Achievement of CfE Levels data collection can be found in Section 9.5. A combined literacy variable for Gàidhlig has been created; this has the same methodology as the English literacy variable. Numeracy and English literacy data for pupils learning in Gàidhlig are included in the other chapters of this report.

Around 1,666 primary school pupils (612 pupils at P1, 579 at P4 and 475 at P7) and 326 S3 pupils included in the Achievement of CfE Levels data are in Gaelic medium schools/classes.

The percentage of pupils achieving expected CfE levels in Gàidhlig reading and writing was lower in P4 and P7 than in P1 and was highest in S3 (Third Level or better; see Table 4 below). Similarly, for Gàidhlig listening and talking, performance was highest at S3 with 96 per cent achieving the expected CfE level, and lower at P1 (86 per cent), followed by P7 (85 per cent) and P4 (76 per cent).

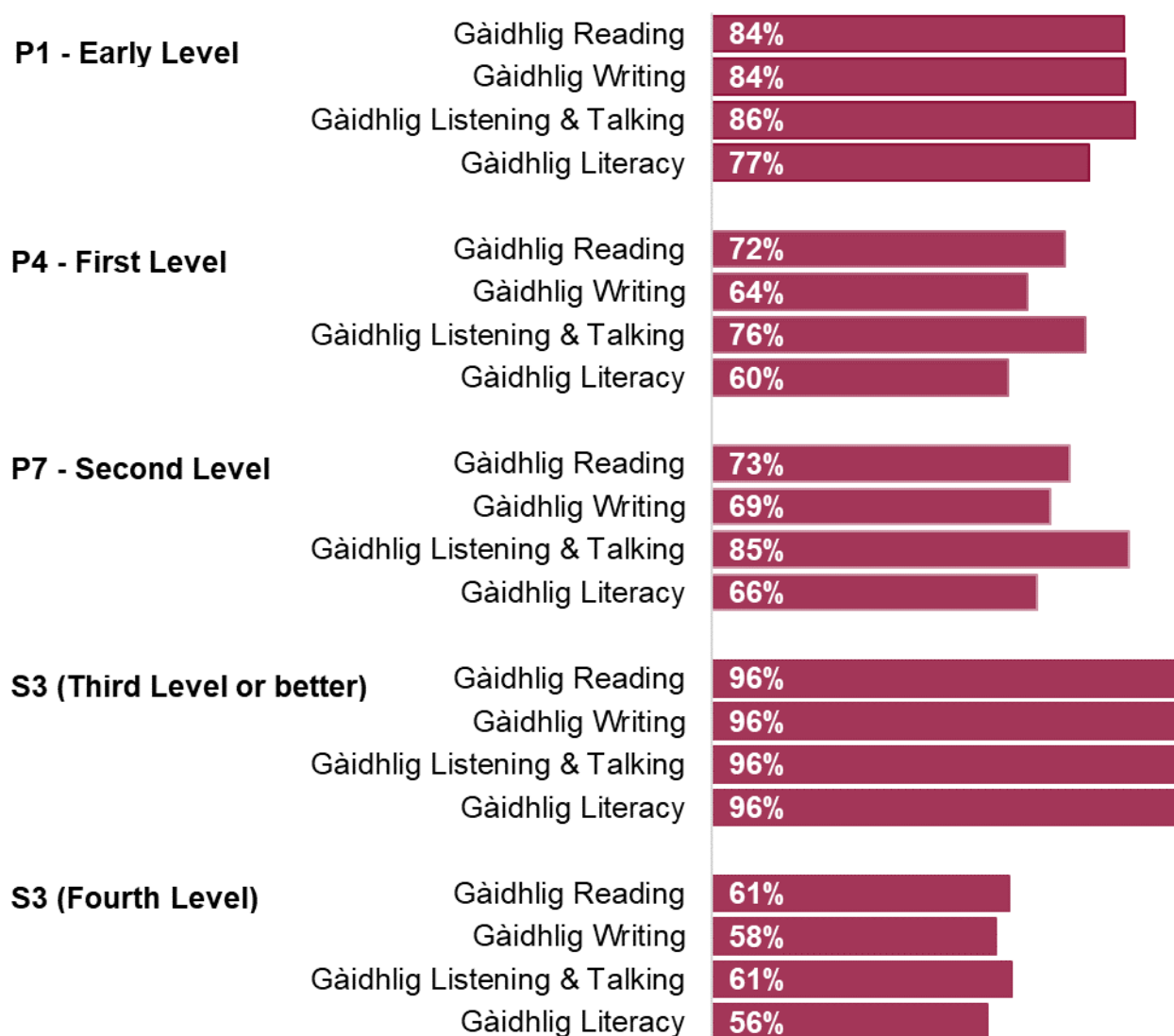
Table 4: Percentage of pupils achieving expected CfE levels in Gàidhlig, 2018/19 to 2022/23

Year	Stage/Level	Reading	Writing	Listening & Talking	Literacy
2022/23	P1 - Early Level	84	84	86	77
	P4 - First Level	72	64	76	60
	P7 - Second Level	73	69	85	66
	P1, P4 and P7 combined	77	73	82	68
	S3 – Third Level or better	96	96	96	96
	S3 – Fourth Level	61	58	61	56
2021/22	P1 - Early Level	83	80	84	72
	P4 - First Level	71	63	80	61
	P7 - Second Level	75	66	80	64
	P1, P4 and P7 combined	77	70	82	66
	S3 – Third Level or better	92	91	91	89
	S3 – Fourth Level	49	40	43	37
2020/21	P1 - Early Level	76	71	78	65
	P4 - First Level	73	61	80	58
	P7 - Second Level	66	59	78	53
	P1, P4 and P7 combined	72	64	79	59
	S3 stage/ levels	[no data]	[no data]	[no data]	[no data]
2019/20	All stages/ levels	[no data]	[no data]	[no data]	[no data]
2018/19	P1 - Early Level	78	71	83	68
	P4 - First Level	74	64	78	62
	P7 - Second Level	73	66	83	63
	P1, P4 and P7 combined	76	67	81	64
	S3 - Third Level or better	83	80	81	80
	S3 - Fourth Level	57	52	58	49

The proportions of pupils achieving expected levels in Gàidhlig were higher in 2022/23 than in 2021/22 across most stages and organisers with the biggest increases seen in S3. The proportions of pupils achieving expected levels in Gàidhlig were also generally higher than in 2018/19 across almost all stages and organisers. This was especially the case at S3 (Third Level or better) where the 2022/23 proportions were between 13 and 16 percentage points higher than in 2018/19.

For pupils in each of P1, P4 and P7, Gàidhlig listening and talking results were highest. In P4 and P7 Gàidhlig writing results were the lowest (see Chart 10), which is consistent with previous years. At S3 (Third Level), performance was consistent over the three Gàidhlig organisers.

Chart 10: Percentage of pupils achieving expected CfE levels in Gàidhlig, 2022/23



Chapter 6: Achievement of CfE Levels of pupils based in special schools/units

Key Findings

- Around a quarter of pupils based in special schools/units were reported as following their own individual milestones.
 - A further quarter of pupils were assessed as 'Not yet achieved Early Level'.
 - About 14 per cent of pupils were reported as studying beyond Broad General Education (BGE) level.
 - For each organiser, slightly less than one third of pupils based in special schools/units were reported as having achieved a CfE Level.
-

As in 2021/22, around one quarter of pupils within special schools and standalone special units were following their own milestones, a further quarter of pupils had Not Yet Achieved Early Level and five per cent of pupils in special schools and standalone special units were not assessed (see Table 5 below). For further information see Section 9.3.

Of the pupils who achieved a CfE level within special schools/units, this was highest for numeracy at 31 per cent, followed by writing (30 per cent), listening and talking (29 per cent) and reading (28 per cent). It should be noted that these proportions cannot be directly compared to those presented in other Chapters of this report. In order to show the full range of information recorded for pupils in special schools and standalone special units the calculations in this chapter include pupils recorded as Not Assessed. Pupils recorded as Not Assessed are excluded from the analysis in other chapters.

From 2021/22 onwards, a new recording option, 'studying beyond BGE level', has been introduced for pupils in special schools and standalone special units. In 2022/23, 14 per cent of pupils in standalone special schools and units were recorded in this way. This is slightly higher than in 2021/22 (12 per cent). This recording option was not available prior to 2021/22 and so caution should be exercised if making comparisons over time, particularly when comparing the proportions of pupils recorded as 'Not Assessed'. For further information see Section 9.3.

Table 5: Percentage of special schools/units pupils achieving CfE levels, 2018/19 to 2022/23

Year	CfE level	Reading	Writing	Listening & Talking	Numeracy
2022/23	Not Yet Achieved Early Level	28	26	27	26
	Achieved Early Level	15	16	15	17
	Achieved First Level	8	9	9	9
	Achieved Second Level	3	4	4	3
	Achieved Third Level	1	1	1	0
	Achieved Fourth Level	0	0	0	0
	Not Assessed	5	5	5	5
	Child following individual milestones	26	25	25	25
	Pupil studying beyond BGE level	14	14	14	14
2021/22	Not Yet Achieved Early Level	26	28	25	25
	Achieved Early Level	17	17	17	18
	Achieved First Level	10	9	10	11
	Achieved Second Level	4	3	4	3
	Achieved Third Level	2	1	2	1
	Achieved Fourth Level	0	0	0	0
	Not Assessed	5	5	5	5
	Child following individual milestones	25	26	25	25
	Pupil studying beyond BGE level	12	12	12	12
2020/22	All Levels	[no data]	[no data]	[no data]	[no data]
2019/20	All Levels	[no data]	[no data]	[no data]	[no data]
2018/19	Not Yet Achieved Early Level	26	28	25	26
	Achieved Early Level	18	18	19	20
	Achieved First Level	11	10	11	10
	Achieved Second Level	4	3	4	3
	Achieved Third Level	2	2	2	1
	Achieved Fourth Level	1	1	1	1
	Not Assessed	12	12	12	12
	Child following individual milestones	27	27	26	27

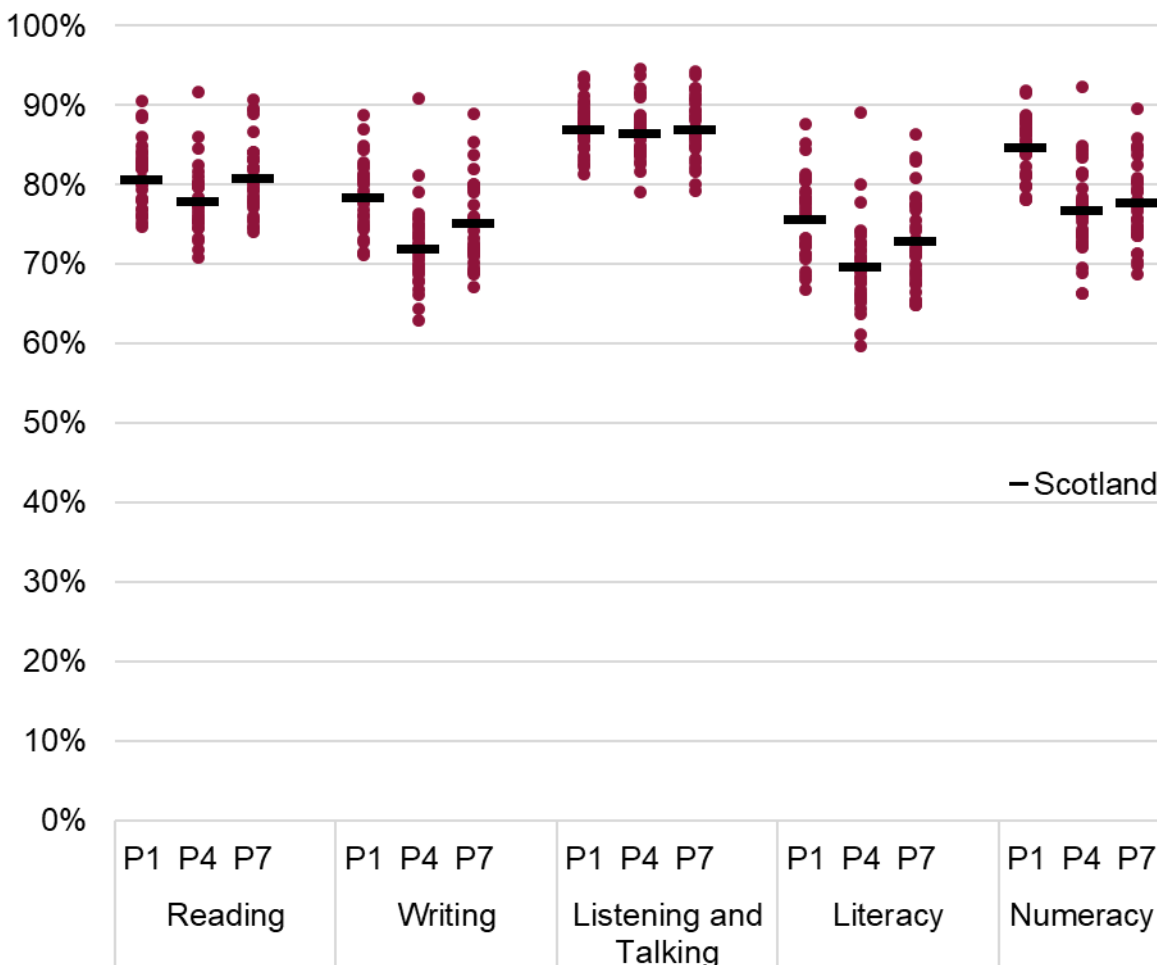
Chapter 7: Achievement of CfE Levels by local authority

If making comparisons between local authorities we recommend keeping in mind the context of the authorities and their approach to assessment. See Section 10.6 for more information.

This chapter describes the range of data reported by local authorities, and comparisons to the national level results. Full details of achievement of CfE levels by local authority (2016/17 to 2022/23) can be found in the [supplementary tables](#). The supplementary tables also include a breakdown of local authority achievement of CfE levels by deprivation.

Chart 11 illustrates the range in results between local authorities and organisers for P1, P4 and P7. The largest range in results across the four separate organisers (i.e. excluding literacy) can be seen in writing at P4 (ranging from 63 per cent to 91 per cent) – a difference of 28 percentage points. This is especially wide due to the influence of one local authority in which the proportion of pupils achieving the expected level is 10 percentage points higher than any other local authority.

Chart 11: Percentage of P1, P4 and P7 pupils achieving the expected CfE Levels by organisers and local authority, 2022/23



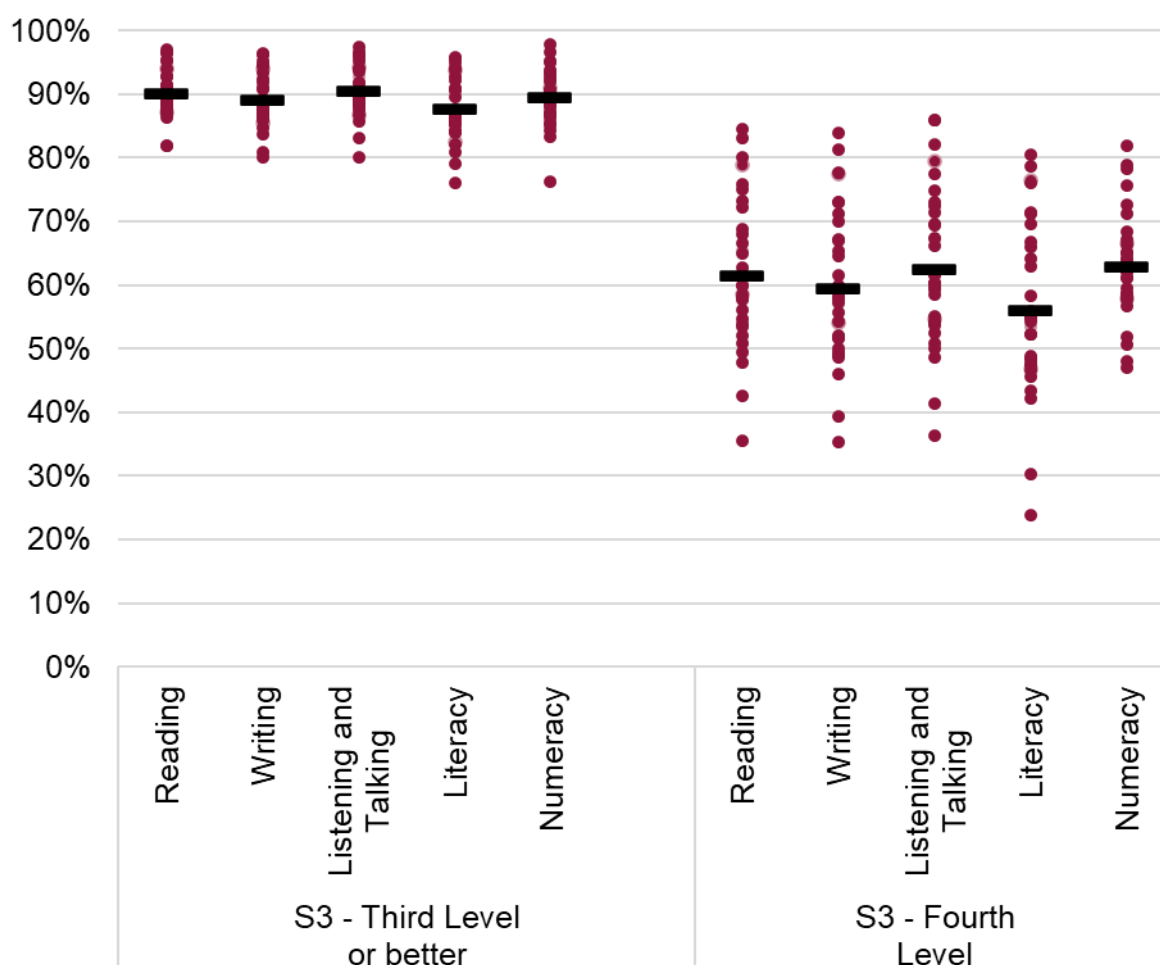
The smallest range in results between local authority across the four separate organisers (i.e. excluding literacy) is for listening and talking. The range in performance (between highest

and lowest) in listening and talking is 12 percentage points at P1, 16 percentage points at P4 and 15 percentage points at P7.

In both literacy and numeracy, the range of results at the primary stages between local authorities has generally decreased between 2021/22 and 2022/23. The only exception was in P4 numeracy where the range increased slightly from 25 to 26 percentage points. This follows larger decreases in the range of results between 2020/21 and 2021/22. These in turn followed generally large increases in the range between 2018/19 and 2020/21, reflecting variation in the impact of the COVID-19 pandemic on pupils across the country, as well as pandemic-related data quality concerns reported by some local authorities (for more information see Section 1.3 in [Achievement of Curriculum for Excellence \(CfE\) Levels 2020-21](#)). The ranges in 2022/23 are now mainly lower than they were in 2018/19.

At S3 (see Chart 12 below), the range in results between local authorities reporting attainment at Third Level or better was smaller than at Fourth Level. For Third Level or better, the smallest range in results by local authority across the four separate organisers was 15 percentage points for reading (82 to 97 per cent). The highest range was for numeracy at 22 percentage points (76 to 98 per cent).

Chart 12: Percentage of S3 pupils achieving CfE Levels by organisers and local authority, 2022/23



For Fourth Level in S3, the smallest range in results reported by local authorities was 35 percentage points for numeracy (47 to 82 per cent) and the largest was 50 percentage points

for listening & talking (36 to 86 per cent). These gaps are mainly bigger than in 2021/22 but are all smaller than in 2018/19.

Results for local authorities by SIMD quintiles are available in the [supplementary tables](#).

Chapter 8: Glossary

Additional Support Needs (ASN):

The Education (Additional Support for Learning) Scotland Act 2004 (as amended) states that a child or young person has an additional support need where they need additional support in order to benefit from school education.

Broad General Education (BGE):

[Broad General Education](#) is the first phase of Curriculum for Excellence. It begins in early learning and childcare and continues to the end of S3 (the third year of secondary school).

Code of Practice for Statistics:

The [Code of Practice for Statistics](#) provides producers of official statistics with the detailed practices they must commit to when producing and releasing official statistics.

Curriculum for Excellence (CfE):

[Curriculum for Excellence](#) is Scotland's curriculum. It helps our children and young people gain the knowledge, skills and attributes needed for life in the 21st century.

English as an Additional Language (EAL):

Refers to pupils for whom English is a second or additional language.

Gaelic Medium Education:

Gaelic Medium Education is a form of education in Scotland that allows pupils to be taught through the medium of Scottish Gaelic (Gàidhlig), with English being taught as the secondary language.

Grant Aided School:

Schools that are directly financially supported by the Scottish Government and follow the Curriculum for Excellence but are independent from local authorities. Grant aided schools are not equivalent to schools termed 'academies' in some parts of the UK.

Grant aided special schools provide for young people with a wide range of ASN. There are seven Grant aided special schools in Scotland.

Government Statistical Service:

The Government Statistical Service (GSS) is a cross-government network led by the National Statistician. The GSS works to provide advice, analysis and a statistical evidence base to help people make better decisions.

Scottish Index of Multiple Deprivation (SIMD):

The [Scottish Index of Multiple Deprivation](#) identifies small area concentrations of multiple deprivation across Scotland.

Least deprived:

Pupils whose home address is in the 20% of least deprived data zones (small areas) as defined by the [Scottish Index of Multiple Deprivation](#).

Most deprived:

Pupils whose home address is in the 20% of most deprived data zones (small areas) as defined by the [Scottish Index of Multiple Deprivation](#).

National Improvement Framework (NIF):

The [National Improvement Framework \(NIF\)](#) is Scottish Government policy to ensure children and young people develop a broad range of skills and capacities, whilst supporting them to thrive, regardless of their social circumstances or additional needs.

Organiser:

The ACEL data collection collects information on pupil performance in four areas, known as organisers. Organisers consist of Numeracy and the three literacy components: Reading, Writing and Listening and Talking. A combined literacy measure is also produced based on the three literacy organisers: reading, writing and listening and talking (see Section 9.4).

Pupil Census:

A Scottish Government data collection, collecting a range of information and statistics on school pupils in Scotland. For more information see [School education statistics](#).

Publicly funded mainstream school:

Schools which are run and financed by the local authority and grant-aided schools.

Special schools:

Most children with additional support needs are educated in mainstream schools but some with complex or specific needs are educated in special schools.

Urban Rural Classification:

The Urban Rural Classification is an Official Statistic used to distinguish between rural and urban areas. Within this publication the Urban Rural Classification 2020 has been used for analysis of 2022/23 data. For more information see [Scottish Government Urban Rural Classification 2020](#)

Scottish National Standardised Assessments (SNSA):

School children in P1, P4, P7 and S3 complete online standardised assessments in literacy and numeracy as part of everyday learning and teaching. The assessments help to identify children's progress, providing diagnostic information to support teachers' professional judgement. More information can be found on [Scottish National Standardised Assessments \(SNSA\) website](#).

Chapter 9: About these statistics

9.1 Sources

The data included in this publication are provided to Scottish Government by local authorities and grant-aided schools. Independent schools are not included in the data collection. The assessments of children's progress are based on teachers' professional judgements in schools.

Teacher professional judgements of achievement of a level are based on all of the evidence collected by teachers during the ongoing assessment of children and young people's learning. A wide range of evidence is collected in a variety of ways. This includes observing children and young people at work, assessing their work in class, standardised assessments and assessing children and young people's knowledge and understanding by talking to them about their learning.

The Achievement of CfE Level census date was Monday 12 June 2023. Data were submitted by local authorities to Scottish Government by Friday 25 August 2023. A process of quality assurance between Scottish Government, local authorities and schools occurs before the production of these statistics. Further information on this can be found in chapter 10.

9.2 Coverage

The data collected cover all pupils in Primary 1, Primary 4, Primary 7 and Secondary 3 in mainstream schools and all pupils based in special schools/units. Data were provided for 234,291 pupils. Teacher judgements cover the four organisers of reading, writing, listening and talking and numeracy. Pupils for whom the teacher has been unable to make a professional judgement are not included in the published results (less than one per cent of pupils).

A very small percentage (less than one per cent) of children have long-term significant and complex additional support needs that mean that it is unlikely they will progress through the CfE levels during their time in education. These children are included within the data as 'pupil following individual milestones'.

9.3 Pupils based in special schools or standalone special units

Within some local authorities school pupils with complex needs may attend a special school or standalone special unit.

Special schools and standalone special units cater for children of all ages. The information gathered as part of the ACEL return does not include a specific stage for these pupils (i.e. they are simply recorded as being a pupil based in a special school or standalone special unit and not as being in P1, P4, etc.). Therefore, it is not possible to calculate the percentage of pupils who have achieved the CfE level relevant to their stage. Results for pupils in standalone special schools or special units are presented in Chapter 6 but are not included in the analysis in other chapters.

A new category 'Studying beyond BGE level' was introduced in the 2021/22 data collection for use by standalone special schools and units. The category is for use where:

- (a) a pupil is in the senior phase and,
- (b) the pupil is being taught at least one qualification, other award, or work-based learning, at SCQF Level 1 and above and,
- (c) teachers would not normally make CfE level judgements for pupils in the senior phase.

This was in response to reports that some pupils in special schools and standalone special units were being recorded as 'Not Assessed' when these pupils were working towards national qualifications. In 2019, we consulted key stakeholders, including Education Scotland, special schools and standalone special units and local authorities, regarding how these pupils should be appropriately recorded. The introduction of this new code reflects their feedback.

However, in other local authorities, pupils with complex needs are integrated into mainstream schools; where this is the case, these pupils have been included throughout this publication. These differences in where pupils with complex needs receive their education across the different local authorities should be kept in mind when making comparisons between local authorities, or between individual schools. Based on the [supplementary tables associated with the Summary Statistics for Schools in Scotland publication](#), local authorities with no special schools are; Angus, East Lothian, Moray, Na h-Eileanan Siar, Orkney Islands, Scottish Borders and Shetland Islands.

Young people with long-term significant and complex additional support needs are included within the data as 'pupil following individual milestones'. Where these pupils are learning within a mainstream school or special unit integrated within a mainstream school they will be included in the national and local authority analysis and counted as not having achieved a CfE Level. Where these pupils are learning within a standalone special school or unit they will be included in Chapter 6 and displayed in the 'Child following individual milestones' category.

9.4 Derived variables: P1, P4, P7 combined and literacy variable

The publication tables include two derived variables: P1, P4 and P7 combined and literacy.

P1, P4 and P7 combined figures have been available on the [school level dashboard](#) since 2015/16 to provide data for small schools (where data for individual stages would potentially reveal information about individual pupils). P1, P4 and P7 combined figures are available at local authority and national level for comparison purposes.

The literacy variable has been created from the three literacy organisers: reading, writing and listening and talking. A pupil is deemed to have achieved the expected level in literacy if they have achieved the expected level in all three literacy organisers. A pupil is deemed not to have achieved the expected level in overall literacy if they have failed to achieve the expected level in one or more of the individual organisers. If a pupil has not been assessed in one or more of the organisers ('Not Assessed'), their results are not included in calculation of the overall literacy variable.

These two derived variables are used in the key measures in the [National Improvement Framework \(NIF\)](#):

- Percentage of P1, P4 and P7 pupils combined achieving expected Level in Literacy;
- Percentage of P1, P4 and P7 pupils combined achieving expected Level in Numeracy;
- Percentage of S3 pupils achieving Third Level or better in Literacy and;

- Percentage of S3 pupils achieving Third Level or better in Numeracy.

9.5 Gaelic medium education

Pupils based in Gaelic medium primary schools/classes will learn and develop their literacy and numeracy skills in both Gàidhlig and English.

Pupils in Primary 1 Gaelic medium primary schools will generally be immersed in developing their reading, writing, listening and talking and numeracy skills in the medium of Gaelic.

From around Primary 3, children based in Gaelic medium primary schools/classes will also start to develop their skills in reading, writing and listening and talking in the English language.

It is expected that by the end of Primary 7, most children who have been based in Gaelic medium primary schools/classes should be achieving Second Level in reading, writing, and listening and talking in both Gàidhlig and English.

For pupils based in Gaelic medium primary schools/classes, the following data are collected and published.

Gàidhlig Reading: collected for P1, P4, P7 and S3 pupils

Gàidhlig Writing: collected for P1, P4, P7 and S3 pupils

Gàidhlig Listening and Talking: collected for P1, P4, P7 and S3 pupils

English Reading: collected for P7 and S3 pupils only

English Writing: collected for P7 and S3 pupils only

English Listening & Talking: collected for P7 and S3 pupils only

Numeracy: collected for P4, P7 and S3 pupils only

Achievement of CfE levels in Gàidhlig can be found in Chapter 5.

9.6 Data matching

To reduce the burden on data providers, as per the Code of Practice for Statistics, pupil characteristic information was added to the Achievement of CfE Levels data by using previously collected data from the Pupil Census 2022. The following variables were added:

- Ethnicity
- Additional Support Needs
- English as an Additional Language
- Scottish Index of Multiple Deprivation
- 6-fold Urban Rural Classification

Achievement of CfE Level data and Pupil Census data were initially matched based on Scottish Candidate Number (SCN) and school or, where an initial match is not made, based on SCN and other demographic information (e.g. sex and date of birth).

9.7 Supplementary tables

The collection involves a large amount of data, which cannot be fully presented in this publication. This report seeks to highlight the key messages and give a flavour of the range of analysis possible. Detailed tables are published as supporting tables alongside this publication, and provide a fuller picture of the findings (see the [supplementary tables](#)). As with school level information, a disclosure control policy is applied to supplementary tables.

Within the supplementary tables for 2022/23, trend data for 2016/17 to 2022/23 has been included for pupil characteristics. This includes data by Additional Support Needs, English as an Additional Language, urban rural classification, sex, ethnicity and Gaelic education.

9.8 Revisions policy

Data submissions for the latest year can sometimes identify required revisions for previously submitted data. Scottish Government will revise the previous years' results at the time of publication of the latest year's results. Data revisions must be received by October for inclusion in the next publication. No revisions have been made to historic data for the 2022/23 publication.

9.9 Rounding

Figures used in the commentary of this report are based on the unrounded data which can be found in the [supplementary tables](#). This means that they may not always match with figures that are derived using the rounded data displayed in tables and charts.

9.10 International and UK comparability

England, Wales and Northern Ireland also report on literacy and numeracy performance based on teacher judgements, however, due to the differing education systems and curriculums, direct comparisons cannot be made.

England: [Statistics at the Department for Education](#)

Wales: [Examinations and assessments](#)

Northern Ireland: [Department of Education Statistics](#)

Scotland participates in the OECD's triennial Programme for International Student Assessment (PISA) survey. This assessment is undertaken by 15 year-olds in over sixty countries, including all OECD countries, and as such is a key international benchmark of performance. The results of [most recent PISA survey](#) are available on the Scottish Government website.

9.11 Further information on attainment

A range of other information on the performance of Scotland's school pupils is available.

The Scottish Government publishes analysis of school leaver attainment (qualifications) and destinations. The latest data are available [at the School education statistics website](#).

Further assessment and attainment information on schools can be found on the Scottish Government Education [dashboards](#).

The Scottish Qualifications Authority (SQA) publish attainment statistics which can be found [at the SQA website](#).

9.12 Transcript of the infographic

The Infographic presented on pages 2 and 3 show the following:

That 79.6 per cent of P1, P4 and P7 pupils combined achieved the expected level for numeracy in 2022/23. This compares to 77.9 per cent in 2021/22, 74.7 per cent in 2020/21, 79.1 per cent in 2018/19, 78.4 per cent in 2017/18 and 76.4 per cent in 2016/17.

That 72.7 per cent of P1, P4 and P7 pupils combined achieved the expected level for literacy in 2022/23. This compares to 70.5 per cent in 2021/22, 66.9 per cent in 2020/21, 72.3 per cent in 2018/19, 71.4 per cent in 2017/18 and 69.2 per cent in 2016/17.

That 89.6 per cent of S3 pupils achieved Third Level or better for numeracy in 2022/23. This compares to 89.1 per cent in 2021/22, 90.2 per cent in 2018/19, 89.0 per cent in 2017/18 and 88.2 per cent in 2016/17.

That 87.8 per cent of S3 pupils achieved Third Level or better for literacy in 2022/23. This compares to 85.5 per cent in 2021/22, 87.9 per cent in 2018/19, 87.3 per cent in 2017/18 and 87.1 per cent in 2016/17.

That around 80 per cent of primary pupils achieved the expected level for reading and 87 per cent achieved the expected level for listening and talking.

That 78 per cent of P1 pupils, 72 per cent of P4 pupils and 75 per cent of P7 pupils achieved the expected level in writing.

That 85 per cent of P1 pupils, 77 per cent of P4 pupils and 78 per cent of P7 pupils achieved the expected level in numeracy.

That Around nine out of ten S3 pupils achieved Third Level or better for listening & talking (91%), reading (90%) and writing (89%) and that around nine out of ten S3 pupils achieved Third Level or better for numeracy (90%).

That female pupils outperform male pupils across almost all stages and organisers.

That across all stages and organisers the proportion of pupils achieving the expected level was lower for pupils with an Additional Support Need than for those without.

That across all stages and literacy organisers the proportion of pupils achieving the expected level was lower for pupils who have English as an Additional Language than for pupils who do not.

That the Primary literacy gap reduced to 20.5 percentage points in 2022/23, the narrowest it has been since 2016/17 – the first year for which comparisons can be made. The previous narrowest gap was 20.7 percentage points in 2018/19.

That the Primary numeracy gap reduced to 17.0 percentage points in 2022/23, slightly wider than it was before the pandemic in 2018/19 (16.8 percentage points).

That the S3 gap for literacy at Third Level or better reduced to 13.7 percentage points in 2022/23, similar to the level in 2018/19 (13.8 percentage points).

That the S3 gap for numeracy at Third Level or better reduced to 13.6 percentage points in 2022/23, similar to the level in 2018/19 (13.5 percentage points).

Chapter 10: Data collection, data quality and timeliness

10.1 Data collection

ACEL data is collected from 32 local authorities, one grant-aided school and seven special schools.

The ACEL Census day falls on the second Monday of June each year. Each local authority or school will take a data cut on the Census date. They will perform their own quality assurance of the data in discussion with schools as necessary.

After this period of internal quality assurance, data is submitted to the Scottish Government by the final Friday of August. It is submitted using the [ProcXed system](#). In most cases the data comes directly from SEEMiS (an Education Management Information System).

The data specification, which outlines the data that should be provided and the format it should be provided in, can be found here: [Scottish Exchange of Data: achievement of Curriculum for Excellence levels - gov.scot \(www.gov.scot\)](#). Before the data can be submitted a number of automated validation checks take place. These are outlined in section 3 of the specification and include, for example:

- checks that each pupil for whom data is being provided is recorded as being in one of the relevant stages for which ACEL data is collected (i.e. P1, P4, P7, S3),
- checks that a judgement has been provided for all of the organisers (English Reading, English Writing, English Listening & Talking, Numeracy, Gaelic Reading, Gaelic Writing, Gaelic Listening & Talking) for which one is expected etc.

These checks are referred to as 'first stage validation'.

Upon receipt of the data from local authorities Scottish Government statisticians then perform further quality assurance checks throughout September. This is referred to as 'second stage validation'. The data provided by each authority or school is run through a series of checks in a statistical analysis software package. These checks include:

- ensuring that data has been provided for every school in a local authority (unless there are no pupils in the relevant stages within that school),
- checking that data for each pupil has been provided only once,
- considering data observations that are not in line with usual patterns,

- comparing the number of pupils for whom data have been provided to the number of pupils recorded as being in that school and stage in the Scottish Government's pupil census collection for that academic year,
- identifying cases where a pupil has been recorded as 'not assessed' (often used where a pupil has recently arrived at a school and so a teacher has not had enough time to make a judgement) but where the pupil was recorded as being at the same school at the time of the previous September's pupil census,
- comparing the proportion of pupils in a given school and stage who achieved the expected level against the figures provided for that same school and stage the previous year (recognising that this will be a different group of pupils and that the figures can legitimately change between years).

This validation includes identification of clear errors (such as more than one record being provided for the same pupil) with other cases which may not necessarily be errors but where Scottish Government statisticians believe local authorities may wish to double-check the submitted data.

While in some cases local authorities do not make any changes to their data at this stage, most do. Typically the number of changes made is relatively small compared to the total quantity of data that is provided.

Once local authorities and schools have completed their checks and made any necessary amendments to the data they re-submit it. Scottish Government statisticians then prepare summary information for each school in a local authority which is then sent to Directors of Education (or equivalent) for their final 'sign-off' of the data, usually by early to mid-October. It is unusual for any changes to be made to the data at this stage.

Once the data has been signed off for all local authorities it can then be analysed by statisticians in order to produce this document and the supplementary tables – which are published on the second Tuesday in December.

10.2 Data Quality

The data which is used in the ACEL publication undergoes rigorous quality assurance processes.

The quality assurance of the data itself is outlined in the 'Data collection' section above. However, prior to the data being submitted to the Scottish Government significant work is undertaken by teachers and schools to ensure that the judgements they are making about the level at which pupils are performing are accurate and consistent with expected standards.

The expected standards under CfE are embedded in the [Experiences and Outcomes](#). These are a set of statements about children's learning and progression in each curriculum area which are used to help plan learning and to assess progress. Further to this Education Scotland have published Curriculum for Excellence [Benchmarks](#) for literacy and numeracy to provide clarity on the national standards expected within each curriculum area at each level. They set out clear lines of progression in literacy and English and numeracy and mathematics in order to make clear what learners need to know and be able to do to progress through the levels, and to support consistency in teachers' and other practitioners' professional judgements.

Scottish National Standardised Assessments are also used to help inform teachers judgements.

Further to this, a national programme of Quality Assurance and Moderation has been put in place to provide more support and improve confidence and understanding amongst teachers.

Education Scotland continues to support training for current and new Quality Assurance and Moderation colleagues (QAMSOs). All local authorities have QAMSOs who support teaching colleagues in the moderation of work against CfE Levels. Teachers undertake regular moderation exercises to ensure the CfE levels provided for children and young people are accurate and the ACEL data is robust. More generally, a wide range of both local and national moderation activity takes place and further information on this is provided below.

In order to better understand how the submitted ACEL data has been determined and any quality assurance processes or issues that take place before the data is submitted, the Scottish Government oversees a qualitative collection of information from each local authority. This seeks information on:

- The types of evidence used by teachers to support the judgements being made (see section on **Evidence** below)
- The nature of moderation exercises undertaken by teachers and schools (**Moderation**)
- Quality assurance processes used by local authorities to validate and approve their data (**Quality Assurance**)
- Any data quality issues or concerns (**Data quality**)

For the 2022/23 data collection, returns were received for 30 of the 32 local authorities. A summary of the responses is provided below.

Evidence

Local Authorities reported a wide variety of evidence being used by teachers to reach their professional judgements. This included classwork, observation of pupils in class, discussions with children, reviewing pupil portfolios and learning logs, Scottish National Standardised Assessments and other assessment tools.

Moderation

It is clear from the information returned that many local authorities place a great deal of emphasis on the moderation of both planning and assessment of learning. A great deal of moderation activity takes place across the country to ensure that teacher judgements are robust and consistent.

Every local authority that responded to the survey indicated the availability of and/or use of moderation techniques and support. In some cases the evidence provided stated that moderation support was available to all schools but it was not clear the extent to which this was actually used at a school level. In others the evidence suggested significant moderation activity was taking place with some referring to mandatory events.

Moderation activity took place at a variety of different levels, often depending on the circumstances of that school (e.g. its size). The information received referred to moderation taking place between teachers within a school, between teachers and senior leaders within a school, across schools (either between teachers or between senior leaders), at a local authority wide level and in some cases between local authorities (for example between authorities in a Regional Improvement Collaborative (RIC)). Often schools were engaged in a number of these types of moderation.

The moderation activity itself involved collaborative working within these groups between teachers. It included, for example, reviewing borderline portfolios, sampling writing across schools in a local authority, working together to draw on guidance and toolkits which exemplify standards and correlation of teacher judgements against SNSAs.

The use of national benchmarking information was cited in a number of returns and many local authorities referenced making use of Quality and Moderation Support Officers (QAMSOs) and Education Scotland Attainment Advisers to support this work.

Quality Assurance

Information provided by local authorities indicates that schools and local authorities are employing a variety of methods to ensure the data provided is of high quality. These included:

- providing standardised data to schools and discussing this with them,
- using summary tables available via ProcXed to check summary data,
- regular, meetings and discussions between central education teams/quality improvement officers and headteachers/leadership teams,
- focussed quality assurance visits,
- local progress and achievement data collections and analysis throughout the session and comparison between this and final judgements,
- comparisons between predictions and submitted judgements,
- checks that all eligible pupils have a teacher judgement,
- investigations of cases where pupils were recorded as 'Not yet assessed' or as 'Following individual milestones',
- quality assurance of a sample of moderated work from establishments across the local authority,
- comparisons against previous year's figures and
- replication of the quality assurance process subsequently performed by Scottish Government analysts

Data quality

Many local authorities stated that they were fully confident in the teacher judgements that had been submitted. Some of these reported that they had identified concerns when the data was initially collated but had worked with schools to improve the quality of the judgements and were now confident. A small number of other local authorities indicated that they were confident in the teacher judgements for Primary school stages but felt there was still work to do for S3 judgements.

A small number of authorities indicated that while they were generally happy with the quality of the data that had been submitted they continued to have concerns about a small number of schools or about judgements at a particular level.

In cases where any doubts remained local authorities had identified the issues that needed to be addressed and had plans in place to further improve the quality of the data.

10.3 Timeliness

ACEL data relate to the second Monday of June (i.e. close to the end of the academic year) and are published around six months later on the second Tuesday of December (i.e. around four months into the following academic year).

During the first two and a half months of this period schools and local authorities collate the data and perform internal validation – the Scottish Government does not have the data at this point.

The data is submitted to the Scottish Government on the last Friday in August. Scottish Government statisticians then work with local authorities to perform further quality assurance (second stage validation) over the next month and a half (throughout September and the beginning of October).

The Scottish Government has a fully quality assured dataset by early to mid-October and the following two months are used to process and analyse the data and to prepare material for publication on the second Tuesday in December.

10.4 Data Limitations

Evidence from data suppliers along with analysis by Scottish Government statisticians indicates that the quality of ACEL data has improved since it was first collected in 2016/17. The availability of national guidance documents, Scottish National Standardised Assessments and a National programme of Quality Assurance and Moderation has supported this. Teachers have become more familiar with the process and have grown in confidence in making judgements. This fed into the decision to remove the 'Experimental Statistics' label from the 2018/19 publication.

Whilst it is acknowledged that judgements can be subjective, a wide range of supporting guidance, moderation activity and quality assurance checks are in place to ensure the teacher judgement data are consistent and reliable.

10.5 Development of these statistics

This publication, and the associated supplementary tables, provide comparisons back to 2016/17, at a national and local authority level. When making such comparisons, it should be noted that both analysis of the data, and evidence provided to us by local authorities, suggests the robustness and consistency of the data has changed during this period.

Developments in the ACEL data collection and publication since its introduction

2015/16 – 1st year of data collection

Analysis of 2015/16 data, alongside the 2016/17 data, highlighted inconsistencies between the two years. Due to this we do not recommend comparing 2015/16 data with data for subsequent years and therefore 2015/16 data is not presented in this publication or the associated supplementary tables.

2016/17 and 2017/18 – Experimental Statistics

These were new statistics in development, published to involve users and stakeholders in their development and build in quality and understanding at an early stage. The robustness and consistency of these statistics increased over time. This should be kept in mind when making comparisons between years.

2018/19 – Official Statistics

From 2018/19 it was decided that ACEL statistics would no longer be labelled as Experimental Statistics. The factors that led to the removal of the experimental label can be found in a paper available [here](#). The robustness and consistency of these statistics increased over time. This should be kept in mind when making comparisons between years.

2019/20 – Data collection was cancelled

The ACEL collection and publication was cancelled in 2019/20 due to the difficulties in collecting data whilst schools were closed due to COVID-19.

2020/21 – Primary pupils data collection only

The 2020/21 ACEL publication covers Primary school children (P1, P4 and P7) only. Secondary school and special school data was not collected due to other pressures on these schools including implementation of the SQA National Qualifications Alternative Certification Model which was used to award National 5s, Highers and Advanced Highers in 2021.

The time period covered by the 2020/21 statistics means that the results will be affected by the coronavirus (COVID-19) pandemic. This should be kept in mind when making comparisons between years.

2021/22 to date – complete data collections

The ACEL publications cover Primary school children (P1, P4 and P7), Secondary 3 pupils and all pupils based in special schools/units.

10.6 Comparing between local authorities

If making comparisons between local authorities we recommend keeping in mind the context of the authorities and their approach to assessment.

In particular, in some local authorities, pupils with complex needs are integrated into their mainstream schools; these pupils have been included throughout this publication. However, within other local authorities school pupils with complex needs may attend a special school or standalone special unit. See Section 9.3 for more information.

10.7 School level data

School level results are also being released alongside this publication. They are available in the [School Information Dashboard](#). Data will be published for all publicly funded primary and secondary schools subject to data protection limitations.

All school level results will be presented in ten per cent bandings (i.e. under 10 per cent, 10 per cent – under 20 per cent, ... , 90 per cent or more). To prevent potential disclosure of information relating to individual pupils, any results relating to a grouping of 20 pupils or fewer will be suppressed. This means that around 19 per cent of primary schools and five per cent of secondary schools will have no information published for them.

As with the national and local authority level data, school results include ‘Pupil following individual milestones’. This may have a particularly large impact on schools with an integrated special unit.

Children who were recorded as ‘Not Assessed’ are not included in the calculations.

The data quality considerations described in Section 10.6 also apply to school level data. There is greater likelihood that an individual school’s results are affected by variations in assessment approach, socio-economic context and school size (for example) than is the case at the more aggregated local authority or Scotland level. If making comparisons between schools we recommend keeping in mind the context of the authorities and their approach to assessment.

Tell us what you think

We are always interested to hear from our users about how our statistics are used, and how they can be improved.

Feedback survey

We'd appreciate it if you would complete our short [feedback survey](#) on this publication.

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