



Department  
for Education

# **Outcomes for Children in Need: 31 March 2018**

**Methodology document**

**28 March 2019**

# Contents

|                                      |    |
|--------------------------------------|----|
| Data sources                         | 3  |
| Children in need census              | 3  |
| National pupil database              | 3  |
| Matching process                     | 5  |
| Children in need population          | 5  |
| Removing looked after children       | 5  |
| Matching CIN to NPD                  | 5  |
| Duplicate records in the NPD extract | 6  |
| Data quality                         | 6  |
| Analysis                             | 7  |
| Changes to the time series           | 13 |
| Related publications                 | 14 |
| Looked after children                | 14 |
| All children                         | 14 |

## Data sources

### Children in need census

The children in need (CIN) census collects information at child level on:

- any child referred to children's social care services within the year; and
- any cases open at the beginning of the year for whom local authorities were providing a service.

The collection of data from each local authority allows the local and national level calculation of information on the numbers of referrals and assessments carried out by children's social care services, along with the identification of the number of children assessed to be in need and the numbers who were the subject of a child protection plan.

### National pupil database

The national pupil database (NPD) is a longitudinal database linking pupil/student characteristics to school and college learning aims and achievement information for all children in state-funded schools in England. Further information on the NPD, including a user guide, can be found [here](#). Information on requesting NPD extracts can be found [here](#).

The CIN census has been matched to the NPD to understand the characteristics, attainment, absence and exclusions of children in need. This is the seventh year the CIN census has been matched to the NPD. For years prior to 2011 to 2012, analysis was shared with local authorities but not published due to data quality concerns. Due to improved data quality, this is the sixth year DfE has published this analysis.

Looked after children have been removed from the analysis to align with measures included in the [children's safeguarding performance information framework](#). Further detail on the removal of looked after children can be found in the [Removing looked after children](#) section.

The analysis contained in the additional outcomes tables is based on the matched data and includes local authority and national level information on:

- matching rates between the CIN census and the NPD;
- prevalence of special educational needs (SEN) and free school meals (FSM);
- attainment at key stage 1, key stage 2, key stage 4 and progression between these key stages;
- absence and exclusion rates; and

- absence rates for children in need who were also the subject of a child protection plan.

## Matching process

### Children in need population

There were 404,710 children in need on the child-level CIN census file with open cases at 31 March 2018.

### Removing looked after children

Indicators N1, N2 and N3 of the children's safeguarding performance information framework cover the educational attainment, absence and exclusions of children in need. Comparable data is published for looked after children; therefore, they are excluded from this analysis to focus on other children in need.

The CIN census was matched to the children looked after (CLA) return (also known as SSDA903) using the local authority child ID. This is an ID assigned by the local authority for each child that is unique within that local authority and it should be retained from year to year. Local authorities use the same child IDs for the CIN and CLA returns which allows these datasets to be linked. Children who were looked after at any point during the year were removed from the children in need dataset; however, the following groups of children were retained:

- children who received only respite care during the year (these are not included in the looked after children education statistics); and
- looked after children who were also the subject of a child protection plan.

The removal of looked after children reduced the children in need dataset from 404,710 to 327,150.

### Matching CIN to NPD

The main matching key is the child's unique pupil number (UPN). A UPN is automatically allocated to each child in maintained schools in England and Wales. It is an identifier only for use in an educational context during a child's school career. Local authorities are required to return UPNs as part of the CIN census. Further details of what is collected in the children in need census can be found [here](#).

A record from the CIN census is matched into the NPD if there is enough identifiable or characteristic information (mainly UPN, but also gender and date of birth) available in that record which either:

- a) identifies the child as already being in the NPD via its appearance in other data sources (which includes the school census and the early years census and

previous CIN-NPD datasets) and from which the existing pupil ID can then be attributed to the new record from the 2017 to 2018 CIN census, or

- b) involves creating a new pupil ID for the child when the child's characteristics cannot be accurately determined as currently existing in the NPD.

Hence, even though a record from the CIN census has been matched into the NPD (i.e. given a pupil ID), it does not necessarily mean that it can be linked to other data in the NPD if there is no other information attributed to that pupil ID from other data sources. This is particularly relevant for the CIN census as a new child can appear, and therefore be matched into the NPD for the first time, before they start school if enough characteristic information is available in their CIN record to create a new pupil ID.

## **Duplicate records in the NPD extract**

There were duplicate records in the NPD, where the same child was listed as taking key stage 4 examinations in different schools. In order to analyse the attainment of children in need at key stage 4, only one record can be used. Where duplicate records occur in the NPD, the records are sorted on a child's key stage 4 attainment scores, with the highest scoring record being retained.

The children in need dataset, which had looked after children removed, was then matched to the NPD extract. This allowed the characteristics, attainment and absence of children in need to be analysed.

## **Data quality**

The CIN census was matched to the CLA return to remove looked after children from the children in need cohort.

Overall, 84.0% of school age children in need were matched to the NPD. There is considerable variation in matching rates at local authority level, from 11.9% to 100% (see table L1), with over 76% of local authorities having a match rate above 80%.

## Analysis

The analysis covers the number of school age (5 to 16 inclusive) children in need at 31 March 2018, with the exception of exclusions data, which covers the number of school age children in need at 1 April 2017. Exclusions information runs to a much later timetable than other information from the NPD due to the exclusions review process. Therefore, exclusions information for the 2016 to 2017 academic year was matched to the 2017 to 2018 CIN census. All children aged 5 to 16 years who were in need at 1 April 2017 were identified and exclusions information was provided for the previous year for this cohort.

In the national tables and local authority tables, national and regional figures have been rounded to the nearest 10. Percentages have been derived from unrounded numerators and denominators. Rounding conventions for percentages are consistent with those used in the individual national statistics publications, for example key stage 2 percentages are rounded to the nearest whole number, key stage 4 percentages are rounded to 1 decimal place and exclusions percentages are rounded to 2 decimal places. Values between 1 and 5 inclusive have been suppressed and replaced with 'c'. In addition, secondary suppression may have been applied to protect confidentiality, and in attainment tables figures of 0 children achieving the expected standard are also suppressed.

The following table provides definitions for the numerators and denominators used to calculate the percentages in the tables.

| Numerator(s)   | Denominator  | Percentage   |
|--|--|--|
| <b>Table L1: Matching rates</b>  |  |  |
| Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset  | Number of school age children in need in the CIN census at 31 March 2018   | Percentage of school age children in need matched to the NPD   |
| <b>Table L2: Special educational needs (SEN)</b>   |  |  |
| Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset with: <ul style="list-style-type: none"> <li>- no identified SEN</li> <li>- SEN support</li> <li>- SEN with a statement or EHC plan</li> </ul> | Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset with: <ul style="list-style-type: none"> <li>- no identified SEN</li> <li>- SEN support</li> <li>- SEN with a statement or EHC plan</li> </ul> | Percentage of school age children in need at 31 March 2018 in the matched CIN-NPD dataset with: <ul style="list-style-type: none"> <li>- no identified SEN</li> <li>- SEN support</li> <li>- SEN with a statement or EHC plan</li> </ul> |
| <b>Table L3: Free school meals (FSM) eligibility</b>   |  |  |

| <b>Numerator(s)</b>  | <b>Denominator</b>   | <b>Percentage</b>  |
|--|--|--|
| Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset and eligible for FSM | Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset with FSM information | Percentage of school age children in need at 31 March 2018 who were eligible for FSM |

**Table L4: Key stage 1 (KS1) attainment**

|  |   |  |
|--|---|--|
| Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset achieving the required level in KS1:<br><br><ul style="list-style-type: none"> <li>- English Reading</li> <li>- English Writing</li> <li>- Mathematics</li> <li>- Science</li> </ul> | Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset with KS1 information:<br><br><ul style="list-style-type: none"> <li>- English Reading</li> <li>- English Writing</li> <li>- Mathematics</li> <li>- Science</li> </ul> | Percentage of school age children in need at 31 March 2018 in the matched CIN-NPD dataset achieving the required level in KS1:<br><br><ul style="list-style-type: none"> <li>- English Reading</li> <li>- English Writing</li> <li>- Mathematics</li> <li>- Science</li> </ul> |
|--|---|--|

**Table L5: Key stage 2 (KS2) attainment**

|  |   |  |
|--|---|--|
| Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset achieving the required level in KS2:<br><br><ul style="list-style-type: none"> <li>- Mathematics (test)</li> <li>- Reading (test)</li> <li>- Writing (teacher assessment)</li> <li>- Grammar, punctuation and spelling (test)</li> <li>- Reading, writing and mathematics</li> </ul> | Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset with KS2 information:<br><br><ul style="list-style-type: none"> <li>- Mathematics (test)</li> <li>- Reading (test)</li> <li>- Writing (teacher assessment)</li> <li>- Grammar, punctuation and spelling (test)</li> <li>- Reading, writing and mathematics</li> </ul> | Percentage of school age children in need at 31 March 2018 in the matched CIN-NPD dataset achieving the required level in KS2:<br><br><ul style="list-style-type: none"> <li>- Mathematics (test)</li> <li>- Reading (test)</li> <li>- Writing (teacher assessment)</li> <li>- Grammar, punctuation and spelling (test)</li> <li>- Reading, writing and mathematics</li> </ul> |
|--|---|--|

**Table L6: Key stage 2 (KS2) average progress scores**

The KS2 progress measures aim to capture the progress that pupils make from the end of key stage 1 to the end of primary school. They are a type of value-added measure, which means that pupils' results are compared to the actual achievements of other pupils nationally with similar prior attainment.



| Numerator(s)  | Denominator | Percentage |
|---|-------------|------------|
| <p>We present:</p> <p><u>Reading progress</u></p> <ul style="list-style-type: none"> <li>- Number of pupils included in progress calculation</li> <li>- Average progress score</li> <li>- Lower confidence interval</li> <li>- Upper confidence interval</li> </ul> <p><u>Writing progress</u></p> <ul style="list-style-type: none"> <li>- Number of pupils included in progress calculation</li> <li>- Average progress score</li> <li>- Lower confidence interval</li> <li>- Upper confidence interval</li> </ul> <p><u>Mathematics progress</u></p> <ul style="list-style-type: none"> <li>- Number of pupils included in progress calculation</li> <li>- Average progress score</li> <li>- Lower confidence interval</li> <li>- Upper confidence interval</li> </ul> |             |            |

**Table L7: Key stage 4 (KS4) attainment**

|   |  |   |
|---|--|---|
| <p>Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset achieving:</p> <ul style="list-style-type: none"> <li>- Achieving grade 5 or above in English and Maths GCSEs</li> <li>- Achieving grade 4 or above in English and Maths GCSEs</li> <li>- Entering English Baccalaureate</li> <li>- Achieving English Baccalaureate at grade 5 or above</li> </ul> | <p>Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset with KS4 information.</p> | <p>Percentage of school age children in need at 31 March 2018 in the matched CIN-NPD dataset achieving:</p> <ul style="list-style-type: none"> <li>- Achieving grade 5 or above in English and Maths GCSEs</li> <li>- Achieving grade 4 or above in English and Maths GCSEs</li> <li>- Entering English Baccalaureate</li> <li>- Achieving English Baccalaureate at grade 5 or above</li> </ul> |
|---|--|---|

| Numerator(s)   | Denominator | Percentage  |
|--|-------------|---|
| <p>- Achieving English Baccalaureate at grade 4 or above</p> |             | <p>-Achieving English Baccalaureate at grade 4 or above</p> <p>- Average attainment 8 score*</p> <p>* Attainment 8 measures the achievement of a pupil across 8 qualifications including mathematics (double weighted) and English (double weighted), 3 further qualifications that count in the English Baccalaureate (EBacc) measure and 3 further qualifications that can be GCSE qualifications (including EBacc subjects) or technical awards from the DfE approved list. The average attainment 8 score per pupil is presented.</p> |

**Table L8: Progression between key stage 2 and key stage 4**

**Progress 8 measure**

A Progress 8 score is calculated for each pupil by comparing their achievement –their Attainment 8 score – with the average Attainment 8 score of all pupils nationally who had a similar starting point (or ‘prior attainment’), calculated using assessment results from the end of primary school. The greater the Progress 8 score, the greater the progress made by the pupil compared to the average of pupils with similar prior attainment.

We present:

- Number of eligible Children in Need at the end of Key Stage
- Number of pupils included in progress 8 calculation
- Average progress 8 score
- Lower confidence interval
- Upper confidence interval

| Numerator(s)  | Denominator   | Percentage  |
|---|---|---|
| <b>Table L9: Absence from school in the autumn, spring and summer term 2017/18 unauthorised / authorised / overall absence levels</b>   |   |   |
| Number of sessions of:<br>- unauthorised absence<br>- authorised absence<br>- overall absence<br>for school age children in need at 31 March 2018 in the matched CIN-NPD dataset, during the autumn, spring and summer terms of 2017/18 | Total number of sessions for school age children in need at 31 March 2018 in the matched CIN-NPD dataset, with absence information in a primary, secondary or special school in January 2018, during the autumn, spring and summer terms of 2017/18 | Absence rates for school age children in need at 31 March 2018 for:<br>-unauthorised absence<br>-authorised absence<br>-overall absence |
| <b>Persistent absence level<sup>1</sup></b>   |   |   |
| Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset who were persistent absentees   | Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset with absence information in a primary, secondary or special school in January 2018  | Percentage of school age children in need at 31 March 2018 in the matched CIN-NPD dataset who were persistent absentees                 |

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<sup>1</sup> Persistent absentees are defined as having an overall absence rate of around 10 per cent or more of all the sessions that individual was expected to attend.

| Numerator(s)  | Denominator   | Percentage   |
|---|---|--|
| <b>Table L10: Exclusions in 2016/17</b>   |   |  |
| Number of school age children in need at 1 April 2017 in the matched CIN-NPD dataset by: <ul style="list-style-type: none"> <li>- number with at least one fixed period exclusion</li> <li>- number with a permanent exclusion</li> </ul>   | Number of school age children in need at 1 April 2017 in the matched CIN-NPD dataset, with exclusions information in a primary, secondary or special school in January 2017   | Percentage of school age children in need at 1 April 2017 in the matched CIN-NPD dataset with: <ul style="list-style-type: none"> <li>- at least one fixed period exclusion</li> <li>- permanent exclusions</li> </ul>   |
| <b>Table L11: Child protection plans unauthorised / authorised / overall absence levels</b>   |   |  |
| Number of sessions of: <ul style="list-style-type: none"> <li>- unauthorised absence</li> <li>- authorised absence</li> <li>- overall absence</li> </ul> for school age children in need at 31 March 2018 who were also the subject of a child protection plan in 2017-18 in the matched CIN-NPD dataset, during the autumn, spring and summer terms of 2017/18 | Total number of sessions for school age children in need at 31 March 2018 who were also the subject of a child protection plan in 2017-18 in the matched CIN-NPD dataset, with absence information in a primary, secondary or special school in January 2018, during the autumn and spring terms of 2017/18 | Absence rates for school age children in need at 31 March 2018 who were the subject of a child protection plan in 2017-18 for: <ul style="list-style-type: none"> <li>- unauthorised absence</li> <li>- authorised absence</li> <li>- overall absence</li> </ul> |
| <b>Persistent absence levels<sup>2</sup></b>  |   |  |
| Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset who were also the subject of a child protection plan in 2017-18, who were persistent absentees  | Number of school age children in need at 31 March 2018 in the matched CIN-NPD dataset who were also the subject of a child protection plan in 2017-18, with absence information in a primary, secondary or special school in January 2018   | Percentage of children in need at 31 March 2018 in the matched CIN-NPD dataset who were the subject of a child protection plan, who were persistent absentees  |

<sup>2</sup> Persistent absentees are defined as having an overall absence rate of around 10 per cent or more of all the sessions that individual was expected to attend.

## Changes to the time series

Up until the publication of 2013-14 data, children in need outcomes data was published in February; with attainment figures based on provisional key stage 2 and key stage 4 data, and absence figures based on 2-term absence rates. From 2014-15 onwards, the data has been published in March, in order to align the versions of attainment and absence data with those used in the [outcomes for children looked after](#) statistics. As a result, data from 2014-15 onwards is based on revised key stage 2 and 4 attainment data, and 3-term absence rates.

Local authority key stage 2 attainment data has been updated to align with the main key stage 2 statistical publication. The national level data remains the same as in previous years and excludes pupils with missing or lost test results and pupils where results are suppressed pending the outcome of a maladministration investigation. The local authority level data excludes pupils with lost results but includes those with missing results or pending maladministration. It also excludes children that have recently arrived from overseas. As a result, national-level figures may differ slightly from England figures in the local authority data tables.

Local authority key stage 4 attainment data is aligned with the main key stage 4 statistical publication and therefore excludes children recently arrived from overseas. As a result, figures in the national-level tables may not match England figures in the local authority tables.

For the first time this year we have included attainment at key stage 1 in English Reading, English Writing, Mathematics and Science and Key stage 2 average progress in reading, writing and mathematics. Data is presented at both national and local authority level.

## Related publications

### Looked after children

[Outcomes for children looked after](#) includes educational attainment, special educational needs (SEN), and absence and exclusions from school. Data is published at national and local authority level on the outcomes for children who have been looked after continuously for at least 12 months at 31 March 2018.

### All children

[Special educational needs in England: January 2018](#) reports on children with Special Education Needs provision.

[Schools, pupils and their characteristics: January 2018](#) reports on the number and proportion of children eligible for free school meals.

Attainment of pupils at key stage 1 along with progress between key stages 1 and 2 can be found in Statistics: [key stage 1](#).

Revised key stage 2 results for 2016 to 2017 academic year can be found in [National curriculum assessments: key stage 2, 2018 \(revised\)](#).

Attainment of pupils at key stage 4 along with progression between key stages 2 and 4 can be found in [revised GCSE and equivalent results 2017 to 2018](#).

[Statistics: pupil absence](#) shows releases reporting levels of overall, authorised and unauthorised absence by school type and reason, with summary statistics on persistent absentees for both 2 term (autumn and spring) and full year absence.

Information about exclusions from school can be found in [permanent and fixed period exclusions from schools in England: 2016 to 2017 academic year](#).



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