

Data Calculation—Indicator C3: Early Childhood Outcomes



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Indicator and Measurement

Percent of infants and toddlers with IFSPs who demonstrate improved:

1. Positive social-emotional skills (including social relationships);
2. Acquisition and use of knowledge and skills (including early language/communication); and
3. Use of appropriate behaviors to meet their needs.

Progress categories for A, B, and C:

- a. Number of infants and toddlers who did not improve functioning
- b. Number of infants and toddlers who improved functioning but not sufficient to move nearer to functioning comparable to same-aged peers
- c. Number of infants and toddlers who improved functioning to a level nearer to same-aged peers but did not reach it
- d. Number of infants and toddlers who improved functioning to reach a level comparable to same-aged peers
- e. Number of infants and toddlers who maintained functioning at a level comparable to same-aged peers

Summary statements for each of the three outcomes:

Summary Statement 1: Of those infants and toddlers who entered early intervention below age expectations in each outcome, the percent who substantially increased their rate of growth by the time they turned 3 years of age or exited the program.

Measurement for Summary Statement 1: Percent = $\left[\frac{\text{(\# of infants and toddlers reported in Progress Category (c) plus \# of infants and toddlers reported in Progress Category (d))}{\text{(\# of infants and toddlers reported in Progress Category (a) plus \# of infants and toddlers reported in Progress Category (b) plus \# of infants and toddlers reported in Progress Category (c) plus \# of infants and toddlers reported in Progress Category (d))}} \right]$ multiplied by 100.

Summary Statement 2: The percent of infants and toddlers who were functioning within age expectations in each outcome by the time they turned 3 years of age or exited the program.

Measurement for Summary Statement 2: Percent = $\left[\frac{\text{(\# of infants and toddlers reported in Progress Category (d) plus \# of infants and toddlers reported in Progress Category (e))}}{\text{(total \# of infants and toddlers reported in Progress Categories (a) + (b) + (c) + (d) + (e))}} \right]$ multiplied by 100.

General Considerations

- Calculations for Indicator C3 involve five progress categories and two summary statements for each of the three child outcomes (Outcome A, Outcome B, Outcome C).
- The two summary statements are calculated for each of the three child outcomes using the progress category numbers. The data are aggregated in this way so that states have an overall view (i.e., summary) of the progress made by all children in their state who received early intervention.

- States select the approach they will use to measure child outcomes, which in turn determines the method for comparing exit data with entry data to assign children to one of the five progress categories.
- States must provide (1) the number of infants and toddlers who exited the Part C program during the reporting period and (2) the number of those infants and toddlers who exited prior to receiving six months of EI services, as reported in their IDEA Section 618 Part C Exiting data.

Numerator and Denominator Guidance for Summary Statement 1

- The numerator for Summary Statement 1 includes only Progress Categories (c) and (d)
 - In sum, children in the numerator substantially increased their rate of growth by the time they turned 3 years of age or exited the program.
 - NOT included: children who did NOT increase their rate of growth (reported in Progress Categories (a), (b), and (e)).
- The denominator for Summary Statement 1 includes only Progress Categories (a), (b), (c), and (d)
 - In sum, children in the denominator entered early intervention below age expectations, demonstrating the need for growth.
 - NOT included in the denominator are children who entered early intervention at or above age expectations, demonstrating no need for growth. These are children reported in Progress Category (e).

Summary Statement 1

The **numerator** includes:

- Number of infants and toddlers reported in Progress Categories (c) + (d)

The **denominator** includes:

- Number of infants and toddlers reported in Progress Categories (a) + (b) + (c) + (d)

Numerator and Denominator Guidance for Summary Statement 2

- Children in the numerator for Summary Statement 2 are those reported in Progress Categories (d) and (e)
 - In sum, children in the numerator were functioning within age expectations by the time they turned 3 years of age or exited the program.
 - Not included: children who were NOT functioning within age expectations by the time they turned 3 years of age or exited the program (reported in Progress Categories (a), (b), and (c)).
- Generally, the denominator should be equal to the total number of infants and toddlers who exited, minus those who exited before six months, during that FFY.
 - A state should provide "additional information" in the indicator if the total number assessed is not equal to the total who exited as described here.
- The denominator should be the same for the Summary Statement 2 calculations for all three outcomes (A, B, C) because all children should be assessed in all three outcome areas.
 - A state should provide "additional information" in the indicator if the denominators differ across the three outcomes.

Summary Statement 2

The **numerator** includes:

- Number of infants and toddlers reported in Progress Categories (d) + (e)

The **denominator** includes:

- All children reported (the number of infants and toddlers reported in Progress Categories (a) + (b) + (c) + (d) + (e))

Data Source

- State database
- Sampling of infants and toddlers with IFSPs is allowed. When sampling is used, the state must submit a description of the sampling methodology outlining how the design will yield valid and reliable estimates.

Data Points Needed for Calculation

- Outcomes data collected (e.g., through assessments or team-based consensus ratings) near the time of a child's (1) entry to and (2) exit from the early intervention program
- Dates of program entry (as defined by the state) and exit to determine length of time in the early intervention program

Example Calculations

Summary Statement 1

270 exiting infants and toddlers with at least six months of service whose functioning moved nearer to, but did not reach, the level of same-aged peers during the time they were in early intervention
[Progress Category (c)] +

300 exiting infants and toddlers with at least six months of service who improved functioning to reach a level comparable to same-aged peers during the time they were in early intervention
[Progress Category (d)]

40 exiting infants and toddlers with at least six months of service who did not improve functioning during the time they were in early intervention [Progress Category (a)] +

150 exiting infants and toddlers with at least six months of service who improved functioning, but not sufficient to move nearer to functioning comparable to same-aged peers, during the time they were in early intervention [Progress Category (b)] +

270 exiting infants and toddlers with at least six months of service whose functioning moved nearer to, but did not reach, the level of same-aged peers during the time they were in early intervention
[Progress Category (c)] +

300 exiting infants and toddlers with at least six months of service who improved functioning to reach a level comparable to same-aged peers during the time they were in early intervention
[Progress Category (d)]

OR

$(270 + 300) / (40 + 150 + 270 + 300) = 0.75 \times 100 = 75\%$ of children showed significant growth in a particular outcome

Summary Statement 2

300 exiting infants and toddlers with at least six months of service who improved functioning to reach a level comparable to same-aged peers during the time they were in early intervention [Progress Category (d)] +

240 exiting infants and toddlers with at least six months of service who maintained functioning at a level comparable to same-aged peers during the time they were in early intervention [Progress Category (e)]

1,000 children across all progress categories

OR

$(300 + 240) / 1,000 = 0.54 \times 100 = 54\%$ of children improved or maintained functioning at a level comparable to same-aged peers

Resources

- [ECTA Center: Child Outcomes Calculators and Graphing Templates](#): See this link for calculators to determine progress categories and templates for generating graphs.
- [Outcomes FAQs](#): This resource summarizes many questions frequently asked about the child and family outcomes measurement process and provides brief answers.

This data calculation document is one in a series of documents available at: <https://dasycenter.org/spp-apr-checklists-and-tips/>

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About Us

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To learn more about the DaSy Center, visit the DaSy Center website at <http://www.dasycenter.org/>.