How Measuring Your Preschool Child Outcomes Data Quality Can Lead to Data Use for Better Results

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Learning Outcomes

1. Understand what data quality means in the context of 619 child outcomes.
2. Learn about specific tools to measure your child outcomes data quality.
3. Feel empowered to speak about data quality during discussions about your child outcomes results.
4. Realize how data quality can impact results and the identification of root causes and contributing factors for improvement.

Agenda

1. Background on the OSEP Preschool Outcomes data
2. Data quality in the context of preschool outcomes data
3. Strategies and tools for analyzing data quality:
   a. Data Quality Profiles
   b. Issues of equity in data quality: disaggregating data by subgroups
4. How to consider disruptions to child outcomes data collection and use
5. Additional tools and resources for data quality analysis
6. Closing remarks

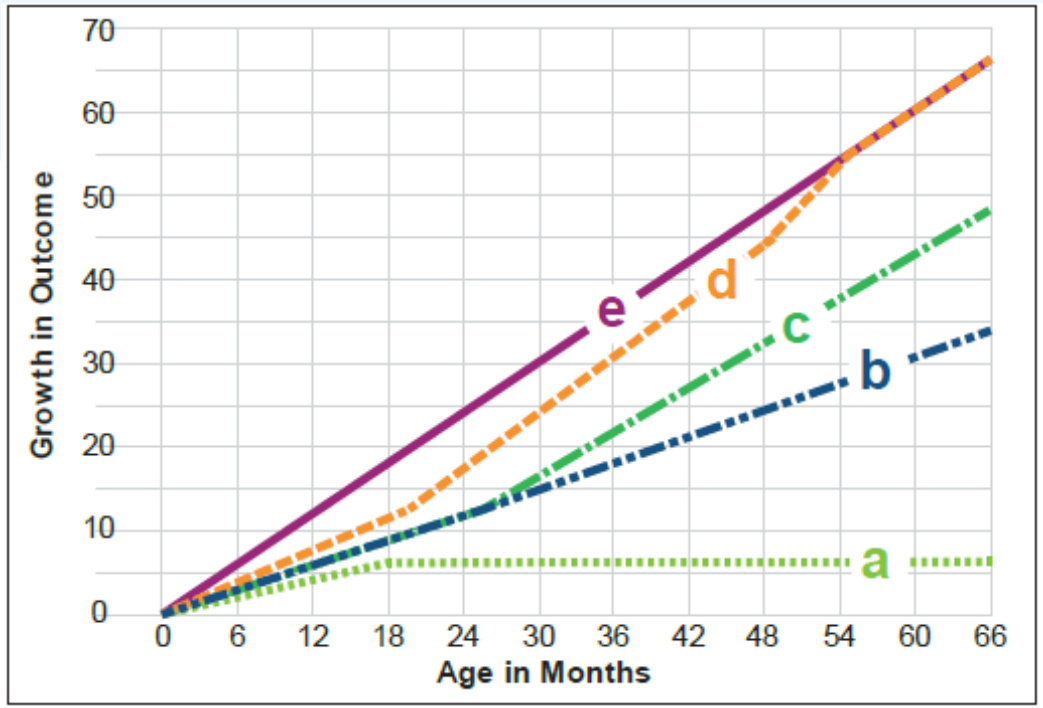
Poll Questions

Background on Preschool Outcomes (Indicator B7)

3 Global Child Outcomes:

1. **Social relationships**, which includes getting along with other children and relating well with adults
2. **Use of knowledge and skills**, which refers to thinking, reasoning, problem-solving, and early literacy and math skill.
3. **Taking action to meet needs**, which includes feeding, dressing, self-care, and following rules related to health and safety.

OSEP Progress Categories as Developmental Trajectories



a. Did not improve functioning
b. Improved in functioning, no change in trajectory
c. Moved closer to functioning like same-aged peers
d. Improved functioning to that of same-aged peers
e. Functioning like same-aged peers

From the progress category data, 2 summary statements per outcome are calculated:

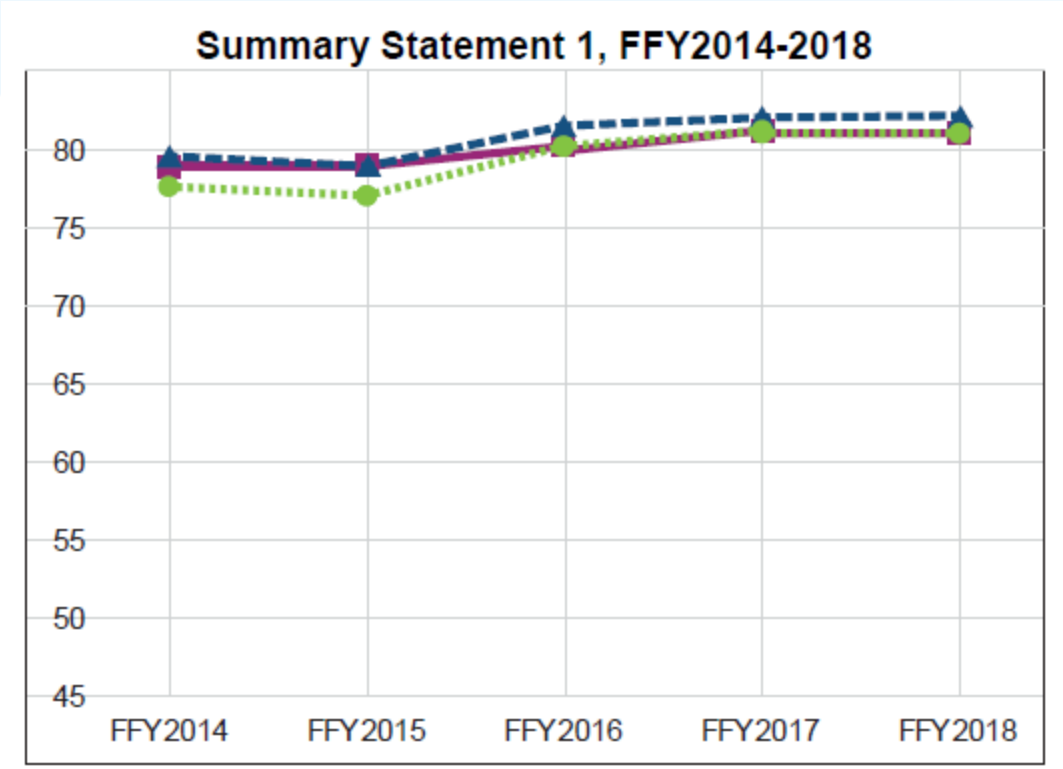
- **Summary Statement 1** is the percentage of children who made **greater than expected growth**.

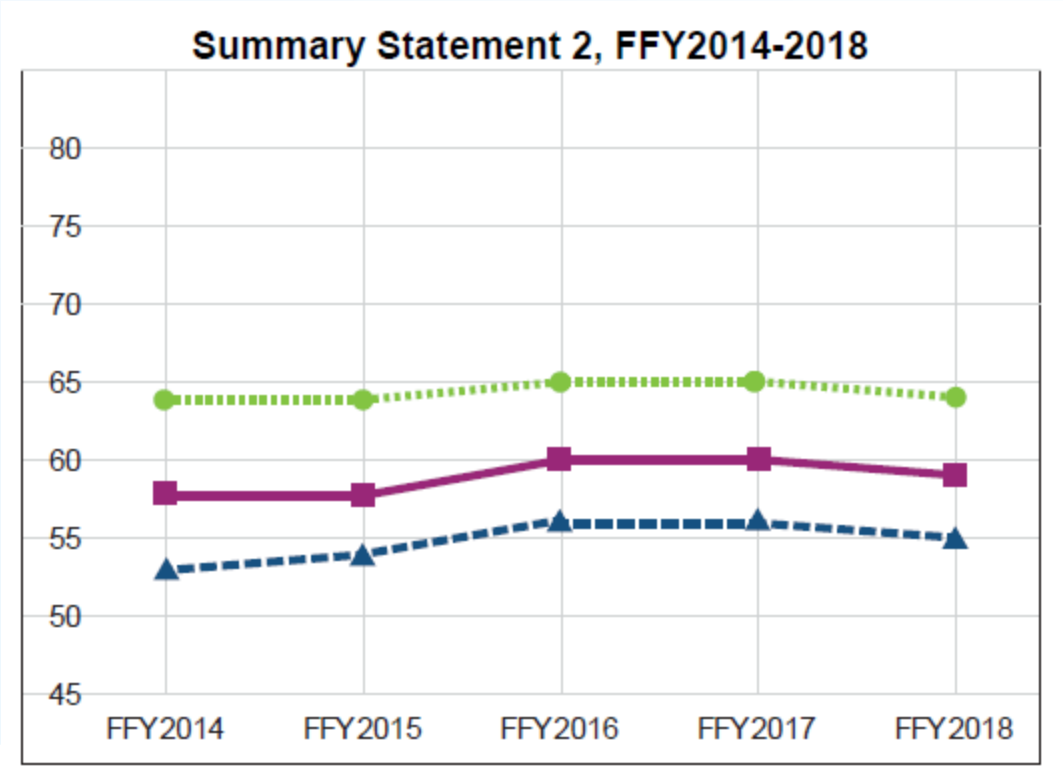
  Calculation = (c + d) / (a + b + c + d)

- **Summary Statement 2** is the percentage of children who exited at or above age expectations.

  Calculation = (d + e) / (a + b + c + d + e)

National Preschool Outcomes Trends Over Time: Summary Statements by Outcome





- *Represents weighted results from 40 states with high-quality data*
- *A fully accessible edition of these outcomes data are presented on this page: https://ectacenter.org/eco/pages/childoutcomeshighlights.asp*

What do we mean by “data quality”?

- ✓ Accurate
- ✓ Consistent
- ✓ Timely
- ✓ Complete

Many steps to ensuring quality data

- Before
  - Good data collection and training
  - Good data system and data entry procedures
- During
  - Ongoing supervision of implementation
  - Feedback to implementers
  - Refresher training
- After
  - Review of records
  - Data analyses for validity checks

Take Home Message

If you conclude the data are not (yet) valid, they cannot be used for program effectiveness, program improvement, or anything else.

Question: What do you if the data are not as good as they should be?

Answer: Continue to improve data collection through ongoing quality assurance

One way to look at data quality: State Child Outcomes Data Quality Profiles

State Child Outcomes Data Profile
State Part B 619
2018

Contents

Key Terms

- Outcome A = Social Relationships
- Outcome B = Knowledge and Skills
- Outcome C = Actions to Meet needs
- Summary Statement 1 = Showing greater than expected growth
- Summary Statement 2 = Exiting the program within age expectations
- Progress Category a = Did not improve functioning
- Progress Category b = Improving functioning, no change in trajectory
- Progress Category c = Moved closer to functioning like same aged peers
- Progress Category d = Improved funding to that of same aged peers
- Progress Category e = Functioning like same aged peers

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ecta Early Childhood Technical Assistance Center

DaSy The Center for IDEA Early Childhood Data Systems

https://tinyurl.com/y2w3859d

Breakout Groups: Data Quality Profiles

Guiding Questions to Discuss:

- What do you notice about the chart?
- Are there any red flags where you would want to expand upon the data quality?
- Do you notice any changes over time? (if applicable)
- What might be some next steps for the state?

Issues of Equity in the Data Quality?

- What might we look for in the child outcomes data?
- Data quality = representative of the different children served
- Examine your data completeness
- Where is your missing data? Is it random or is there a pattern to the missing data?

Completeness by Demographic Variables

Completeness by Local District								
	District A	District B	District C	District D	District E	District F	District G	Total
# Children Expected in Data	900	200	140	80	8	2	175	1505
# Children in Data	825	179	102	73	8	1	160	1348
Completeness	92%	90%	73%	91%	100%	50%	91%	90%

- Caution with small N sizes

Completeness by Demographic Variables

Completeness by Race							
	White	Black or African American	Asian	Native Hawaiian or Other Pacific Islander	American Indian or Alaska Native	Two or More Races	Total
# Children Expected in Data	1100	275	92	5	0	33	1505
# Children in Data	1054	197	70	2	0	25	1348
Completeness	96%	72%	76%	40%	N/A	76%	90%

- You can check for statistical significance
- Caution with small N sizes

Completeness by Demographic Variables

Completeness by Primary Language					
	English	Spanish	Chinese	Other	Total
# Children Expected in Data	1400	78	20	7	1505
# Children in Data	1273	55	15	5	1348
Completeness	91%	71%	75%	71%	90%

- You can check for statistical significance
- Caution with small N sizes

Small Group Discussion:

- What do you notice in the chart of completeness by race/ethnicity?
- What next steps would you take if this was your state?

- What analyses have you conducted in your state to examine differences by race? Language? Other demographic variables?
- What stakeholders have been engaged?

Discussion
Data Disruption to B7 Collection, Analysis and Use

- What **data disruptions** or other **challenges** is your state facing in collecting entry and exit data for B7?
- What **adjustments** have you made to collecting these data?
  - Have you **continued to collect Entry** data? **Exit data**?
- What **implications** do you see for **reporting B7 data** in February 2021 SPP/APR and in future years?

Data Disruption Considerations During COVID-19

Some Considerations To Remember

- Federally required measurement for B7 continues during COVID-19
- Data quality must continue to be a priority so these data can be used for improvement
- Trend data will be affected for years to come and effective analyses and use will depend on contextual data we collect
- Some entry data can be available from Part C transition
- Think about data notes and explanations to be included in submissions
- Plan and create as needed data reports to illustrate the COVID-19 impact on B7 data
- Collect **additional contextual data** through data system or other collection methods such as excel files to enhance the use of the data

Documenting strategies/adjustments/dates during COVID-19 provide essential context to inform data analyses and decision-making:

- Changes in decisions to conduct entry or exit assessments
- Changes in timelines for conducting assessments or accepting entry or exit data
- Changes in assessment tools and processes
- Use of virtual and/or F2F administration
- Use of other assessment data available
- Parent decisions regarding evaluations and services
- Changes in “open” status of districts and schools
- Schedule of IEP initial and annual meetings
- Technology availability for virtual services
- Whether change is statewide or district decided
- Referral and child count patterns

Additional Resources and Tools for Improving Data Quality

- ECTA Data Quality Materials
  - Data Patterns for COS Ratings: What to Expect and What Questions to Ask
- DaSy Data Governance Toolkit: Data Quality
  - Data Quality Policy Template
- Part C Data Considerations During COVID-19
- ECTA COVID Frequently Asked Questions: Child Outcomes
  - 4 more resources on assessments coming soon

Closing Remarks

- Data quality must continue to be a priority regardless of challenges in collecting and using B7 data due to COVID-19
- High-quality preschool child outcomes data are essential as states continue to enhance their Results Driven Accountability Systems
- States can continue to share tools and strategies throughout COVID-19
- OSEP funded TA Centers are here to support you in that important work

As we end this session today…

Put in the Chat box, one next step you can take as you continue to collect and report preschool child outcomes data?

Find out more at

ectacenter.org

dasycenter.org

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