Using Multiple Data Sources for Deeper Data Analysis
Presenters

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Nashville, TN – Cancelled Due to COVID-19
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Agenda

• Understanding
  ▪ Data literacy

• Comparing
  ▪ Relationships in data

• Analyzing
  ▪ Interpreting data
Understanding
First Things First

• Is the word “Education” in our title, our employer, our department name?
  ▪ Special education director
  ▪ Part B data manager in the Department of Education

• What is our shared responsibility?
  ▪ To improve outcomes for children with disabilities

• How do “data people” meet this responsibility?
  ▪ Enhancing understanding, making data useful, encouraging analysis and use of data from multiple sources
Data, Data, Everywhere: The Multiple Sources of Data

• IDEA data, EDFacts, and State Performance Plan/Annual Performance Report (SPP/APR)
• Consolidated State Performance Reports (CSPR)
• Office for Civil Rights (OCR)
• State data collections
• Qualitative data, anecdotal data
Who Is Interested in Data?

- Children and families
- LEA staff: leaders, teachers
- SEA staff: special education and other divisions
- Stakeholders: State Advisory Panels, higher education staff, community and business leaders, others
What Are These Data Communicating?

What are these data telling us?

What information is missing?

Graduation rate, a comparison

- Students with disabilities: 71.0%
- Students without disabilities: 87.0%
- All students: 85.2%
Do We All Understand?

Does this make data confusing?

Do we know what these percentages represent?

Two graduation rates, same students, same year

- SWD 4-year cohort grad rate: 71.0%
- SWD grad rate, exiting file: 77.8%

Students with disabilities (SWDs)
Understanding Before Analyzing

Do families, stakeholders, LEA staff, and SEA staff understand
• Terminology
• Acronyms
• Methodology
• Calculations
What Are These Data Telling Us?

Dropout rate

- SWD dropout rate: 4.2%
- SWOD dropout rate: 2.7%
- All students dropout rate: 2.9%

Students with disabilities (SWDs), students without disabilities (SWOD)
Do Data Users Understand This?

Option 1 SWD dropout rate

- 20.4%

Option 2 SWD dropout rate

- 4.2%

Students with disabilities (SWDs)
Have You Ever Been Asked This Question?

Where are the other 29.2% of the students?

<table>
<thead>
<tr>
<th>SY2018–2019</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SWD Graduation Rate</td>
<td>64.6%</td>
</tr>
<tr>
<td>SWD Dropout Rate</td>
<td>6.2%</td>
</tr>
</tbody>
</table>

Do stakeholders, LEA staff, and SEA staff understand what these data mean?
Comparing
Comparing Data

What does it mean to compare data?

• Linking
• Associating
• Relating
A Comparison

Gap data
The difference between the percentage of students with disabilities who graduated with a high school diploma and the percentage of all students who graduated with a high school diploma

Graduation rate, a comparison

- 71.0% for Students with disabilities
- 85.2% for All students

Collect, Report, Analyze, and Use High-Quality Part B Data
Comparing Academic Achievement

Math and ELA proficiency

ES & MS math: 51.5% SWD / 26.7% ALL
HS math: 49.0% SWD / 20.3% ALL
ES & MS ELA: 54.0% SWD / 24.5% ALL
HS ELA: 57.7% SWD / 26.0% ALL

Elementary school (ES), middle school (MS), high school (HS), English language arts (ELA)
Comparing Exiting Data

SWD exiters, by disability area

- Autism (AU): 8.5% total, 9.7% HS diploma, 1.9% dropout
- Emotional/behavioral disorder (EMN): 7.3% total, 4.8% HS diploma, 4.8% dropout
- Intellectual disability (ID): 4.5% total, 5.9% HS diploma, 4.5% dropout
- Specific learning disability (SLD): 51.3% total, 52.5% HS diploma, 1.4% dropout
- Speech or language impairment (SLI): 0.0% total, 1.4% HS diploma, 0.0% dropout
- Other health impairments (OHI): 25.4% total, 20.8% HS diploma, 1.8% dropout
- Orthopedic impairment (OI): 1.8% total, 1.9% HS diploma, 0.5% dropout

Autism (AU), emotional/behavioral disorder (EMN), intellectual disability (ID), other health impairments (OHI), orthopedic impairment (OI), specific learning disability (SLD), speech or language impairment (SLI)
Comparing Discipline Data

- Asian: SWD representation 2.7%, SWD total disciplinary removals 0.7%
- Black: SWD representation 33.7%, SWD total disciplinary removals 56.6%
- Hispanic: SWD representation 21.3%, SWD total disciplinary removals 17.3%
- Multiracial: SWD representation 3.7%, SWD total disciplinary removals 4.0%
- White: SWD representation 38.4%, SWD total disciplinary removals 21.5%
Analyzing
What Does It Mean to Analyze Data?

• A process of interpreting the meaning of data we have collected, reported, and displayed in the form of a table, chart, graph, or other representation.

• A process of cleaning, transforming, and modeling data to discover useful information for decisionmaking.

• A process whereby one obtains raw data and converts it into information useful for decisionmaking users; data are analyzed to answer questions, test hypotheses, or disprove theories.
Why Should Special Education Data Be Analyzed?

• To know what’s working and what isn’t working and why
• To determine the root cause of poor achievement, discipline issues, unacceptable graduation rates, and other issues
• To improve educational programming for children with disabilities
• Ultimately, to improve outcomes for children with disabilities
Data Analysis

Statistical analysis or problem solving?

• Must we be statisticians to analyze data?
  ▪ Conduct a correlation analysis
  ▪ Calculate and analyze the standard deviation
  ▪ Determine the distribution of variables

• Or be a problem solver?
  ▪ Understand what the data are telling us
  ▪ Determine root cause
  ▪ Keep asking questions
Analyzing Exiting Data

LEA SWD exiters, by race/ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>% Total exiters</th>
<th>% HS diploma</th>
<th>% dropouts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>1.8%</td>
<td>2.3%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Black</td>
<td>38.0%</td>
<td>36.3%</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>16.8%</td>
<td>15.6%</td>
<td>21.9%</td>
</tr>
<tr>
<td>Multiracial</td>
<td>2.6%</td>
<td>2.2%</td>
<td>4.2%</td>
</tr>
<tr>
<td>White</td>
<td>40.9%</td>
<td>43.6%</td>
<td>30.2%</td>
</tr>
</tbody>
</table>
Analyzing Discipline Data

- In-school suspensions (ISS), out-of-school suspensions (OSS)

### SWD representation and discipline

<table>
<thead>
<tr>
<th>Race</th>
<th>% Representation of SWD</th>
<th>% of ISS/OSS SWD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>2.7%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Black</td>
<td>33.8%</td>
<td>49.9%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>21.3%</td>
<td>18.8%</td>
</tr>
<tr>
<td>Multiracial</td>
<td>3.7%</td>
<td>3.9%</td>
</tr>
<tr>
<td>White</td>
<td>38.5%</td>
<td>26.6%</td>
</tr>
</tbody>
</table>
Analyzing Discipline and Attendance

SWD discipline and attendance

- **Asian**: 0.9% % of ISS/OSS SWD, 3.2% % SWD with > 15 days absent
- **Black**: 49.9% % of ISS/OSS SWD, 17.9% % SWD with > 15 days absent
- **Hispanic**: 18.8% % of ISS/OSS SWD, 12.1% % SWD with > 15 days absent
- **Multiracial**: 3.9% % of ISS/OSS SWD, 10.8% % SWD with > 15 days absent
- **White**: 26.6% % of ISS/OSS SWD, 7.6% % SWD with > 15 days absent
Next Steps

Data analysis is not an “individual sport,” rather a “team sport.”

IDC’s *Data Meeting Toolkit* provides an excellent guide

- **Before the meeting**
  - Identify, gather, prepare data from multiple sources

- **At the meeting**
  - Present the data
    - Discuss observations, interpretations, implications
      - The toolkit contains helpful guiding questions
    - Create a hypothesis
    - Work to determine the root cause, test the hypothesis
Why Is This Important Work?

- Sense of urgency
- Our work matters
- Our responsibility to children and families
IDC Resources

• *Data Meeting Toolkit*
  https://www.ideadata.org/resources/resource/2035/data-meeting-toolkit

• *EDFacts-IDEA Discipline Data Infographic*
  https://ideadata.org/discipline/

• *Enhanced Pre-submission Edit Check Tools for IDEA 618 Part B Data*
  https://ideadata.org/resources/resource/1578/enhanced-pre-submission-edit-check-tools-for-idea-618-part-b-data
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