Achievement Growth and Gaps for Students with Disabilities

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Purpose and Format of Presentation

- Purpose: Present and discuss implications of seven claims based on research at the National Center on Assessment and Accountability for Special Education (NCAASE), an IES funded center.
- Format:
 - Brief overview of NCAASE
 - Claims, following by supporting visuals
 - Discussant
 - Audience interaction

NCAASE

- In 2010, IES put out an RFA for a National Special Education Research and Development Center on Assessment and Accountability. The award of this RFA resulted in the National Center on Assessment and Accountability for Special Education (NCAASE)
- As specified by the IES call, NCAASE has focused "on conducting a program of research that identifies the academic growth trajectories of students with disabilities, and develops and tests practical and relevant methods of accurately measuring academic growth for students with disabilities to be used in accountability systems...(IES, 2010, p.11)

Six Areas for Research

- 1. What is the natural developmental progress in achievement for students with disabilities?
- 2. What models best characterize achievement growth for students with disabilities who are participating in general and alternate achievement tests?
- 3. How do various growth models represent school effects for students with and without disabilities, and how do results compare to those derived from status models now in use?
- 4. What are the reliability and validity of estimates of school effectiveness for students with disabilities produced by alternative growth models and how are these estimates influenced by contextual differences among schools and students?
- 5. How do results from different types of interim assessments of students' achievement meaningfully contribute to a model of academic growth for students with disabilities?
- 6. How can information about opportunity to learn and achievement growth be used to enhance academic outcomes for students with disabilities?

NCAASE Overview

- Four State Partners
 - □ States: OR NC AZ PA
 - Minimum 5 years of annual state data used to assemble longitudinal datasets representing 70,000 to 100,000 students per cohort
- Two universities UO•ASU
 - IHEs: UO (5 faculty 5 Doc Students) and ASU (3 faculty 2 Doc Students)
- Consultants (3) and Advisors (7)
- IES (NCSER), Jackie Buckley, Project Officer

Claims: Growth

Claim 1: Academic growth is generally curvilinear, slowing over grades for both students in general and special education.

Claim 2: Large differences in achievement growth exist among exceptionalities, and between SWD and nonSWD. These differences are primarily in absolute level (initial third grade intercept). With some small exceptions, growth rates among groups are quite similar.

















Claims: Achievement Gaps

Claim 3: Annual changes in SWD group membership affect outcomes for the group. Cross sectional reports of achievement gaps should not be assumed to represent outcomes for students followed longitudinally.

Claim 4: Examining whether achievement gaps are larger or smaller between students with and without disabilities who also differ on another characteristic (e.g., ethnicity or English language status) requires formally testing for an interaction of the two characteristics to avoid incorrect interpretations about group differences.

The Grade 3 LD Diaspora

Yr 1		Ger	n ED			ОНІ							LD 5,284	ЕМН					BEH						
2			154					4,544						85					36						
3	299	14	85	1	2	4	111	36	2	1	410	85	3,927	48	28	3	0	22	59	1	2	2	3	0	29



Yr	Gen ED					OHI					LD								BEH							
3	3										3,927															
4	423					60					3,347						43					20				
5	355	5	57	3	0	4	38	16	0	1	283	45	2,667	20	18	1	0	19	23	0	2	1	3	0	14	

Cross Sectional vs. Longitudinal Gaps in Mathematics



Mathematics Achievement Gap Across Grades



Reading Achievement Gap Across Grades



Testing for Differences in Achievement Gaps by Subgroup



Claims: Growth on Alternate Assessments

- Claim 5: For students taking alternate assessments based on alternate achievement standards, multilevel growth analyses are more sensitive in reflecting change than transition matrices.
- Claim 6: Achievement outcomes for SWD taking an alternate assessment where growth can be measured using longitudinal data appear to parallel those for SWD taking general assessments. That is, reading growth differs significantly by exceptionality group and is curvilinear over time.

Proficiency Category Transitions

Category Movement



Proficiency Stability



Changes in Proficiency on the Alternate Assessment



Modeling Reading Growth in Grades 3-5 with the Oregon Alternate Assessment

Reading Growth Trajectories Based on Disability



Discussion Questions

What are the implications of steady growth but the apparent intractability of closing achievement gaps for research and practice?

Should alternative ways to report SWD outcomes for accountability be considered given the instability of group membership and the diverse levels of achievement found among exceptionalities?

For More Information

http://ncaase.com

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Some Supporting Citations

- Farley, D., Anderson, D., Irvin, P. S., Saven, J. L., & Tindal, G. (2015). Modeling Reading Growth in Grades 3-5 with the Oregon Alternate Assessment. Paper presented at the annual meeting of the American Educational Research Association.
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