

Is Value-Added Accurate for Teachers of Students with Disabilities?

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Students with Disabilities in General and Special Education Teachers' Classes

- ❑ **61% of students with disabilities spent 80% or more of time in regular classes**
- ❑ **20% spent 40% to 79% of the day in the regular class**
- ❑ **In 2000, over 80% of teachers had one or more students with a disability in their classes**
- ❑ **Students with disabilities often receive instruction from general and special education teachers**
 - **Includes co-teaching where two teachers are in the classroom together**

Testing Students with Disabilities Poses Challenges for Value-added

- ❑ Many students with disabilities score very low on tests
- ❑ Students with disabilities may take an alternative assessment
 - Do not provide scores on the same scale as regular assessment
- ❑ Type of assessment used can vary across years
- ❑ Many students with disabilities receive accommodations
 - E.g., extra time or items may be read to the student
 - Accommodations received can vary from year to year for the same student

Low Scores and Value-added

- **Scores are less reliable**
 - **Tests designed to be most reliable for students near proficiency**
 - **Students with disabilities may have very few correct answers**
 - **Adds instability to value-added**
- **Misspecification of value-added model can result low scores being attributed to the teacher**
 - **Lower reliability in prior achievement scores is one source of misspecification**

Controlling for Disability Status Might Avoid Misattribution of Low Scores

	Math				
	General ed. only	% Students with Disabilities			Special ed. only
		0– < 20%	20 < 50%	50– < 100%	
Prior Score Only	49.7	51.1	47.5	20.0	25.5
Score, Background	49.5	51.0	48.5	23.4	27.0
Score, Background, Disability	47.6	50.9	52.4	38.3	48.6
	Reading				
Prior Score Only	50.0	50.5	47.9	25.4	33.3
Score, Background	48.4	50.4	51.5	35.3	48.1
Score, Background, Disability	47.9	50.3	52.7	40.1	54.4



Inconsistent Testing and Value-added

- ❑ Many students with disabilities might not contribute to value-added calculations because they are missing current or prior scores
- ❑ Teachers contributions to these student not captured in value-added
 - Value-added may provide incomplete pictures
- ❑ Special education teachers' value-added may depend on very few students
 - Makes it less stables
- ❑ Creates potential for negative consequences for students with disabilities

Inconsistent Use of Accommodations and Value-added

- ❑ Inconsistent use of accommodations can distort achievement growth

	Standardized gains	
	Math	Reading
Accommodation current year, none previous year	0.15	0.73
Accommodation previous year, none current year	-0.35	-0.09
Accommodation both years	-0.15	0.15
No accommodations	-0.05	0.02

Multiple Teachers and Value-added

- ❑ **Co-teaching is common**
- ❑ **For some special education teachers, all their students may be taught by another teacher**
- ❑ **Models to untangle contributions from multiple teacher exist, but these methods have limitations and it is unclear how well they work for special education teachers**

What more needs to be known on this issue?



Need Better Understanding of Achievement Growth of Students with Disabilities

- ❑ What kind of growth can be expected for students with different types of disabilities?**
- ❑ What types of measures adequately capture that growth?**
- ❑ How does classification change over time and how does this influence growth or respond to it?**
- ❑ How do services change time and how does this influence growth or respond to it?**

Need Better Understanding of Variation in Material and Instruction Given to Students with Disabilities

- **Some evidence that different instructional methods are appropriate for student with disabilities and other student**
 - **More structured instruction may be more beneficial for students with disabilities**
- **If students with disabilities receive different content, then standard tests might not measure achievement accurately potentially distorting value-added**

Need Better Understanding of Contributions of Multiple Teachers to Instruction of Students with Disabilities

- ❑ More information on what instruction is directly provided to students with disabilities in a co-teaching classroom and which teacher provides it
- ❑ More information on which teachers provide instruction on the tested material

Need Data on How Students with Disabilities will Score on New Common Core Tests

- **New tests aim to cover wide range of difficulty levels**
 - **Expected to provide more reliable score across wider range of student ability levels**
 - **Easier items do not necessarily cover the content taught to students with disabilities**
- **More students with disabilities will take the standard achievement**
- **New testing programs have new policies for accommodations**
 - **What accommodations will be offered**
 - **How they will affect scores**
 - **Consistency with which they are offered over years**

Need Data on Effect of Value-added on Special Education Referrals

- ❑ **Minority and low-income students have high rate of referrals for special education**
 - **Some referrals are believed to be excessive**
 - **Unnecessary referrals can have negative consequences**
- ❑ **Controlling for disability status creates an incentive for referring students to special education**
 - **Students classified with a disability need lower scores to make positive contribution to teachers' value-added**
- ❑ **Creates risk for unintended consequences**
 - **Teachers could influence special education referrals**
 - **Much evidence that people use unintended means to improve performance measures**
- ❑ **We do not know if teachers can or would use special education referrals in this way**

What cant be resolved by empirical evidence on this issue?



Some Issues Lack Data

- ❑ In theory many questions could be resolved with empirical data but those data do not currently exist
- ❑ Very difficult to determine how teachers affect students who are not tested with the standard test and how their contributions for these student compare with those for other students
 - Cannot create comparable measures

Some Issues Require Tradeoffs

- ❑ **Controlling for disability status in value-added calculations may be necessary to provide accurate measures for some teachers**
 - **Avoid unfairly providing low ratings**
- ❑ **Controlling for status might put students at risk for unnecessary referrals to special education**
- ❑ **Must decide which risk to take**

To what extent, and under what circumstances, does this issue impact decisions and actions that districts and states can make on teacher evaluation?



Impact for General Education Teachers Likely to be Limited

- ❑ Most general education teachers teach students with disabilities
- ❑ But they are a small fraction of all the students they teach
- ❑ Issues unique to using scores for students with disabilities in value-added calculations have little effect when these students make up a small fraction of a teacher's classroom
- ❑ As fraction grows they have greater impact and year-to-year variability in number of students with disabilities in classroom could create swings in value-added
 - Adding information about number of students with disabilities in a classroom might help with interpretation of performance measures

Choice of Tests Can Facilitate Including Students with Disabilities in Value-added

- ❑ **Excluding students with disabilities from value-added calculations creates a potential for unintended consequences for these students**

- ❑ **States and districts may want to**
 - **Choose tests that can provide accurate data for low-achieving students who include many students with disabilities**

 - **Ask test developers for tools with which to compare scores on alternative assessments with those on regular assessments**

 - **Promote consistent use of accommodations**

Monitoring Special Education Referrals May Be Valuable

- ❑ States and districts may choose to control for disability status in value-added calculations to avoid underestimating the performance of special education teachers
- ❑ This creates a potential motivation for increasing the number of special education referrals
- ❑ Monitoring numbers and rates of referrals after the introduction of performance measurement system might prevent unnecessary referrals and their negative consequences

Value-added Does Not Ensure Performance Measure Are Comparable for All Teachers

- ❑ Value-added for special education teachers and other teachers might not be comparable
 - Disproportionate number of missing students
 - Tests might not be equally good measures of achievement or teachers contributions to it
 - Risk of unrepresentative low value-added greater for special education teachers
 - Greater random errors due to small classes
- ❑ Observation protocol might not be aligned with practices recognized as best for students with disabilities
- ❑ Other measures might also perform differently for special and general education classes

Monitoring Value-added is Advisable

- ❑ **Careful monitoring of how special education teachers perform relative to other teachers could identify possible problems with performance measurement system**