

ADVANCED STUDENTS IN GROWTH MODELS

ERIC CALVERT, ED.D.

**NORTHWESTERN UNIVERSITY CENTER FOR TALENT
DEVELOPMENT**

CAROLYN WELCH, J.D.

ILLINOIS ASSOCIATION FOR GIFTED CHILDREN

DESIGN GOALS

As advocates for gifted and advanced students, what would we like to see in Illinois approach to growth in the accountability system?

- **A growth model that recognizes and values growth *beyond* proficiency and individual growth across the whole spectrum**
- **Assessment that is valid and reliable for all students, including high performing students**
- **An accountability framework that incentivizes expanding access to advanced academic programming, especially in lower income schools**
- **Assessments and growth metrics that are useful for evaluating the efficacy of gifted education/advanced academic programs to help identify and and spread statewide highly effective practices**
- **Advanced students are visible as a subgroup**

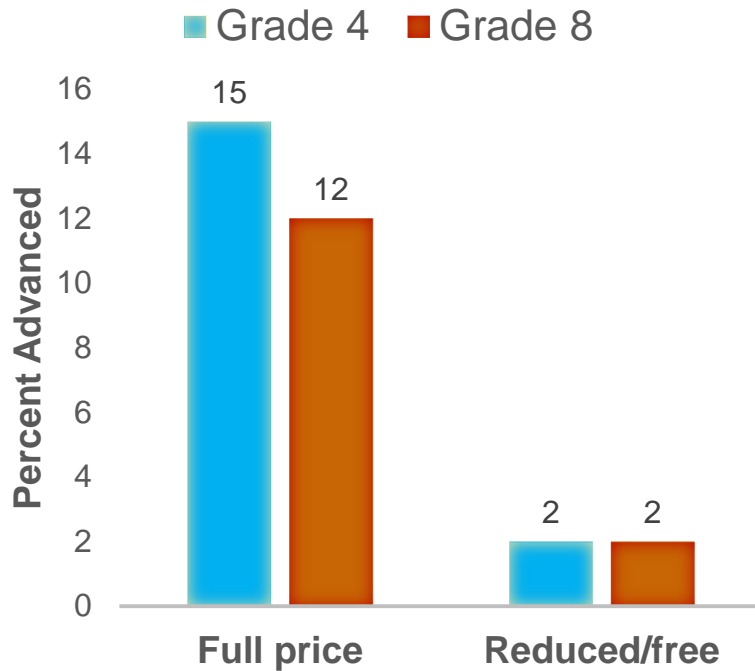
UNINTENDED CONSEQUENCES: GIFTED STUDENTS IN THE NCLB ERA

Advanced students lost ground in the era of proficiency-focused accountability:

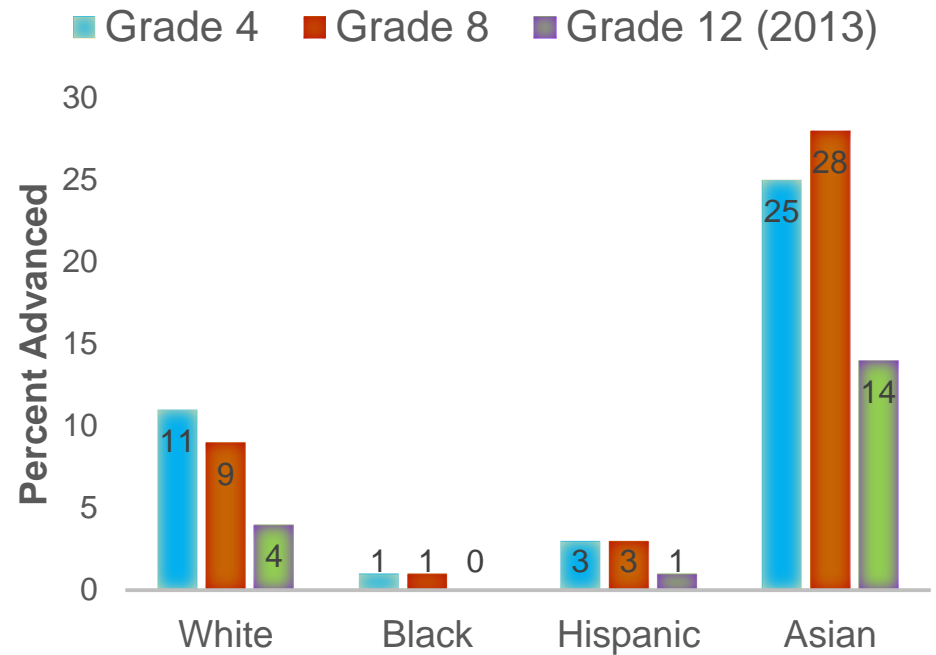
- **NAEP: Between 2000 and 2007 performance of the top students (highest 10%) was stagnant (Loveless 2008).**
 - **NCLB encouraged states to adopt models that valued reaching proficiency, but valued growth beyond proficiency much less, resulting in “bubble kid” syndrome.**
- **The 2011 NAEP results for science indicated scores were higher for all students *except for the highest achievers* (i.e., those who score at the 90th percentile or higher) (NCES, 2011).**
- **In many cases, top achievers actually lose ground as they progress through school. 30% to 48% of U.S. students scoring in the NAEP top 10% on reading or math tests descend out of the top decile as they continue through years of school. (Xiang et al., 2011)**

ILLINOIS EXCELLENCE GAPS

2013 NAEP MATH BY LUNCH STATUS



2015 NAEP MATH BY RACE



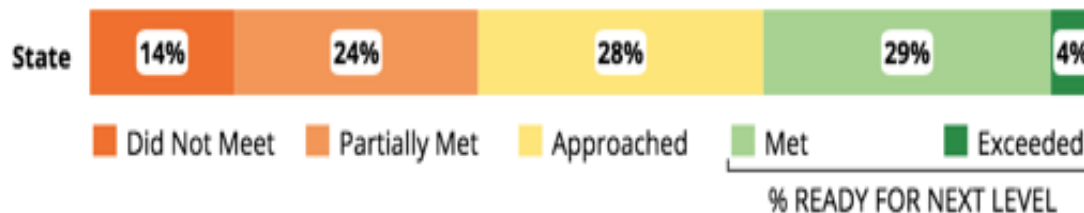
Plucker, J. A. (2016, February). *Excellence Gaps: What they are, why they're bad, and what you can do about them*. Session presentation at the Illinois Association for Gifted Children Annual Convention, Naperville, IL. Reprinted with permission.

OPPORTUNITY GAPS IN ILLINOIS

- *Excellence gaps are products of opportunity gaps.*
- In 2003, 85% of IL school districts offered programs for gifted and advanced students in elementary grades, and 78.9% of districts offered programs in middle school (ISBE).
- In 2016, only 27% of districts reported providing such programs (Dwyer & Welch, 2016).
 - Districts with *highest* percentages of minority and low-income students were *least likely* to provide programming. As a result, many low-income gifted students lack access to challenging coursework and appropriately trained teachers throughout their academic careers.

SHIFT

- A key design goal in ESEA reauthorization was to change carrots and sticks that encourage a “race to the middle.” “No Child Left Behind” to “Every Student Succeeds.”
 - States are required to disaggregate achievement levels by subgroup.
 - Title I, II, and IV funds can now be used to support gifted education and talent development.
- **Illinois data support aiming beyond proficiency:**
 - In Illinois, 33% of students already meet or exceed composite proficient level. 38% are already proficient or higher in ELA (Illinois Report Card).



OVERARCHING DESIGN GOALS

- **Provide useful information to stakeholders:**
 - **School leaders**
 - **Teachers**
 - **Families**
 - **Policymakers**
- **Evaluate teachers and schools fairly and accurately without unintentionally reinforcing an expectation that bright low income and minority students will regress toward the mean (or below) over time because of their subgroup status.**
 - **Take care not to endorse slower growth for smart disadvantaged students compared to non-disadvantaged peers**
- **Help identify effective practices, then**
- **Motivate action toward effective practices**

CHALLENGES REGARDING ADVANCED STUDENTS IN ACCOUNTABILITY SYSTEMS

- **Many students are already meeting grade level expectations on the first day of school. 20%-45% of students are achieving one full grade level or more beyond their age peers (Makel et al., 2016).**
- **Measures with high ceilings are needed to accurately assess advanced students and estimate their growth.**
 - **NWEA MAP reliability breaks down at the 95th percentile in grade 8 and 93rd percentile in grade 10. This results in growth estimates that are extremely noisy.**
 - **Non-adaptive grade-level assessments are often even worse, but adaptivity does not remove ceiling effect if item bank is limited.**
 - **Above-grade level testing produces more reliable growth patterns, but testing rules do not currently explicitly address administration of tests off-level.**
 - **Gains in a student's test score tend to be smaller if the student's initial score is toward the top end of the distribution. Ceiling effects will be most pronounced in minimum-competency tests and can compromise teacher "value added" estimates if he or she serves many students who have scored near the ceiling in the past (Koedel and Betts, 2009).**

ILLINOIS ASSOCIATION FOR GIFTED CHILDREN POSITIONS

- **Adopt a “true” growth model based on individual student growth, and do not diminish weight for students moving to achievement levels beyond proficient. DO address demographic differences in school rating, but keep student growth measure clean.**
- **Weight individual growth more heavily than proficiency rates across grade levels. Focusing primarily on growth to proficiency excludes 1/3 of Illinois students.**
- **Prioritize and incentivize the closing of racial and economic “excellence gaps.” Take care to ensure that the growth of advanced students from disadvantaged subgroups are not “underexpected.”**
- **Use assessments that evaluate students at the grade level of the instruction they receive and that have sufficiently high ceilings. Neutralize any disincentive to accelerate by crediting schools based on higher level of difficulty of more advanced tests.**
- **Make students who have scored within the top 10% *locally* in one or more years a disaggregated subgroup for reporting. Create a dedicated page within the Illinois Report Card to display the achievement data and growth of this group as a whole as well as ESSA-specified subgroups.**