‘The Set’: Does student proficiency equal student growth? A year-to-year comparison

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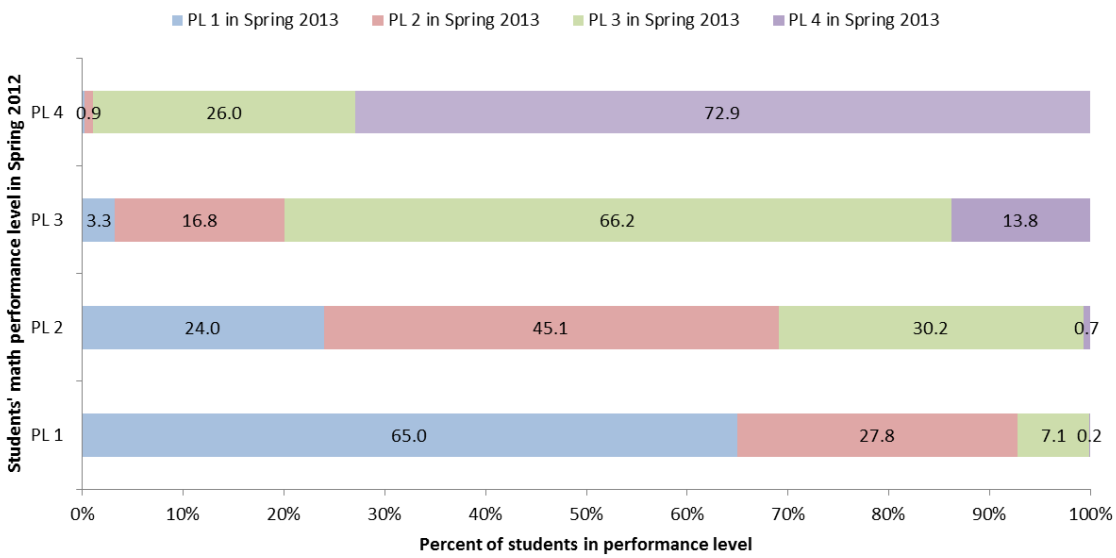
Monthly Data Briefs from the Delaware Dept. of Education’s Teacher and Leader Effectiveness Unit

This year about **78,000** Delaware students in grades 3 through 10 took the Delaware Comprehensive Assessment System (DCAS) exams. Students were measured for proficiency and, for the first time*, against individualized student growth targets. This brief uses DCAS data from 2011-12 through 2012-13 to examine the extent to which students met proficiency and growth targets and how consistent student performance is from year to year.

Figure 1: Students' DCAS math performance level in Spring 2013 by DCAS math performance level in Spring 2012



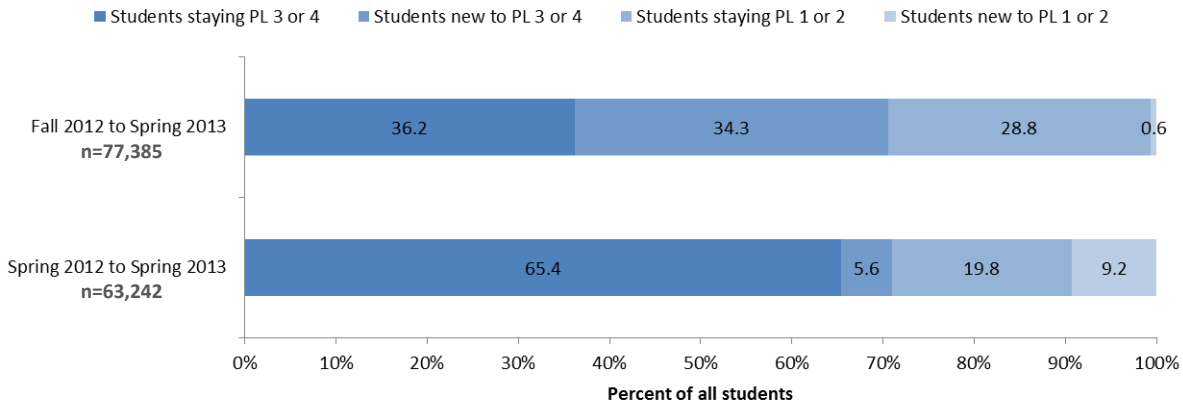
DCAS student proficiency: 2011-12 vs. 2012-13

- In 2012-13 for both math and English language arts (ELA), the rates of proficiency (Performance Level 3 or 4) on the DCAS are substantially higher than they were two years ago in 2010-11. These reading gains seen in 2011-12 were sustained through to 2012-13. However, the rates of students proficient in math decreased slightly (by 3 percentage points) between 2011-12 and 2012-13.
- Figure 1 shows students’ DCAS math performance levels in Spring 2013 broken down by those students’ DCAS math** performance levels achieved in Spring 2012.
- Generally the spring performance level achieved by students in 2012 is a strong predictor of their performance level in the spring 2013. Nearly three-fourths of students at PL-4 in DCAS math last spring were also at PL-4 this spring. 66% of last year’s PL-3 students in math were also PL-3 this year and 65% of PL-1 students stayed at the same level in Spring 2013.
- However, nearly half of PL-2 students in Spring 2012 remained at PL-2 in Spring 2013 but 31% moved into proficiency and 24% dropped down to PL-1.

Student proficiency status: movers or stayers?

- Figure 2 shows how DE students changed their proficiency status, or did not, from fall to spring of the 2012-13 school year and across the 2011-12 and 2012-13 school years.
- A little more than a third of students moved from not being proficient in math in Fall 2012 to proficiency in Spring 2013. A similar share of students (36%) stayed proficient in DCAS math from Fall 2012 to Spring 2013. 29% of students were not proficient in both the fall and spring of 2012-2013.
- When we compare proficiency status movement in DCAS math from Spring 2012 to Spring 2013, two-thirds of students (65%) retained their proficiency status and only 6% moved into proficiency. 20% of students were not proficient in DCAS math at the end of both years and 9% dropped down to PL-1 or PL-2 after being proficient in the prior spring.

Figure 2: Student Fall-to-Spring (2012-13) vs. Spring-to-Spring (2012 to 2013) proficiency movement (DCAS math)

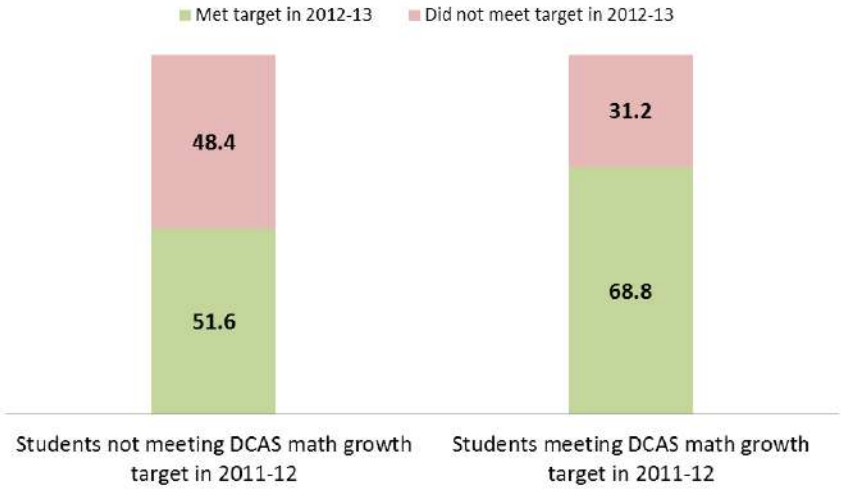


Notes: * These growth targets were piloted in 2011-12 but 2012-13 was the first year of statewide implementation.
**Since trends for the ELA and Math tests were similar, only data from the DCAS Math are shown in this brief.

Student growth targets: another measure of student achievement

- In 2011-12, student growth targets† using instructional scale scores were set for each student to provide an additional measure of success for students taking the DCAS. These targets take into account a given student's prior DCAS performance and the performance of similar students using two years of data.
- These student growth targets were piloted in 2011-12, and 2012-13 was the first year of statewide implementation, allowing for comparison across multiple years.
- From 2011-12 through 2012-13, the share of students statewide meeting their growth targets in math has increased from 60% to 62% and in reading from 65% to 68%.
- However, distinct from growth targets, certain populations grew more than others, with students in the lower grades growing more than their older peers, and students with disabilities growing more than comparable students without disabilities.
- In Figure 3, we consider the likelihood of meeting a student growth target in the current year based on whether or not growth targets were met in the prior year. 68.8% of students who met their DCAS math target in 2011-12 also met their math target in 2012-13. Students who did not meet their math target in 2011-12 met their math growth target in 2012-13 about half the time (51.6%).

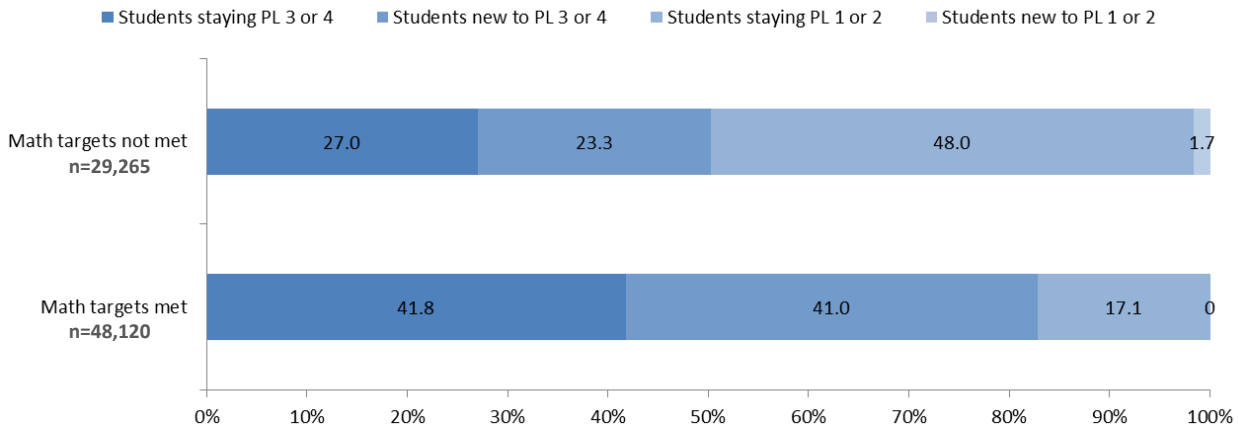
Figure 3: Share of Delaware students meeting DCAS math growth target in 2012-2013 by target met status in 2011-2012



Proficiency vs. growth?‡

- Figure 4, much like Figure 2, looks at the movers and stayers from fall to spring of 2012-13, comparing by those students who did and did not meet their student growth targets in that time period.
- For those students who did meet their growth targets, 42% stayed proficient between fall and spring 2012-13, 41% moved into proficiency and 17% of students remained at PL 1 or 2.
- On the other hand, half of the students who did not meet their math targets in 2012-13 were not proficient on DCAS math. Nearly a quarter of students who did not achieve the expected growth required to meet their math target moved into proficiency in spring 2013. 27% of students who did not make the expected growth were proficient in both the fall and spring of 2012-13.
- These data show that the students meeting their targets are doing so in large part by moving into proficiency.

Figure 4: Student Fall-to-Spring (2012-13) proficiency movement by 2012-13 growth target met status (DCAS math)



Notes: † A student's growth target is calculated using instructional scale scores and is based on that student's past performance as well as the prior performance of similar students.
‡ Performance levels and proficiency as measures are based on accountability scale scores, while growth targets are calculated using instructional scale scores.

Source: All data are from state administrative records. DCAS data are from 2011-12 and 2012-13. For more information contact: atnre.alleyne@doe.k12.de.us.
Data include students in 2012-13 school year (n= 77,385) and matched records for students in 2011-12 school year (n=63,242).