

### Poor PSSA scores presage poor Keystone Exam scores

**Background:** In *Policy Brief Vol. 22, No. 13*, the Keystone Exams as a graduation requirement were shown to be a very severe problem for Pennsylvania’s system of public education. In 2021, of the juniors taking the tests 37.6 percent failed to score at the proficient level in math and 50 percent in English (note that only 11 percent of 11<sup>th</sup> graders took the English portion of the exams.)

If the initial provision that required proficiency on the exams were still in effect, nearly 40 percent of 2022 seniors hoping to graduate would not have received diplomas. However, as the earlier *Brief* noted, the requirement has been postponed several times and now is slated to go into effect in 2023, barring yet another legislative postponement to go with the four that have already been enacted.

---

#### *PSSA scores as a leading indicator*

But the Keystone Exams are not the only state-required achievement tests that point to serious educational deficiencies in Pennsylvania’s public schools. Indeed, one explanation of why the high percentages of students scoring below proficient on Keystone tests in 2021—and preceding years—can be found in the surprisingly poor scores on the Pennsylvania System of School Assessment (PSSA) tests in earlier years dating to 2015. Bear in mind that 11<sup>th</sup>-grade Keystone test takers in 2021 would have been in 8<sup>th</sup> grade in 2018.

Making the reasonable assumption that the overwhelming majority of the 8<sup>th</sup>-grade cohort in 2018 made up the 11<sup>th</sup> grade test takers in 2021, the PSSA scores of those 8<sup>th</sup>-graders in 2018 should be fairly good predictor of 11<sup>th</sup>-grade Keystone Exams performance in 2021. And, indeed, they are. On the PSSA math test, 69 percent of 8<sup>th</sup>-grade test takers statewide in 2018 failed to score at the proficient level and 38.5 percent were below proficient on the English test.

Note that 2018 was not an anomaly for PSSA results. The 11<sup>th</sup> graders would have been in 7<sup>th</sup> grade in 2017. That year 62 percent of 7<sup>th</sup> graders failed to achieve the proficient level in math and 41.5 percent were below proficient in English. And the pattern

continues back to 2016 when the group was in the 6<sup>th</sup> grade. That year, 59 percent of 6<sup>th</sup>-grade test takers were below proficient in math and 38.4 percent were below proficient in English.

Thus, large percentages of below-proficient students in the 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> grades that went on to make up the preponderance of 11<sup>th</sup> graders taking the Keystone Exams in 2021 were simply moved up each year to the next grade despite not being able to do grade-level math or English or both. Why would it be a surprise that the 69 percent of students who were not proficient in 8<sup>th</sup>-grade math failed in large numbers to score at the proficient or higher level on the 11<sup>th</sup>-grade math test despite the test being given at the end of the Algebra I course they had presumably just passed?

It is important to mention here that the percent scoring below proficient on the 2019 math Keystone Exam was 36.7 percent, quite close to the 2021 level of 37.6 percent. Thus, any pandemic-induced effect was fairly minimal for the math exam. However, the number of test takers was down 31 percent, which might have affected the result. Over the longer period since 2015, the percentage below proficient, except for a dip in 2016, has moved upward marginally from the 35.5 percent figure posted in 2015 (the first publicly released numbers) to reach the 36.7 percent mark in 2019.

#### *Poor test scores point to a need for massive reforms*

All the forgoing recitation of unfortunate test scores suggests there is a huge failure of public education in Pennsylvania. Either that or the achievement tests being administered are far too hard and need to be re-designed. In that regard, consider that even schools with superb academic rankings do not have all students scoring proficient in 8<sup>th</sup>-grade math.

For instance, in 2018 Julia Masterman in Philadelphia, which perennially ranks near the very top in the state academically, had 7 percent of 8<sup>th</sup> graders failing to reach proficiency in math. Note, too, that according to School Digger rankings for 2021, Peters Township Middle School, 10<sup>th</sup> ranked of 797 middle schools in the state and the second best in Southwest Pennsylvania, had 17.9 percent of 8<sup>th</sup> graders score below proficient in math in 2018. Another strong school, Jefferson Middle in Mt Lebanon (11<sup>th</sup> ranked in the state), had 27 percent below proficient. In short, very good schools still posted what would normally be considered worrisome levels of below-proficient scores.

Meanwhile, in 2018, Pittsburgh Public Schools (PPS) had two schools with zero percent of test takers scoring proficient and three schools with under 5 percent of 8<sup>th</sup> graders scoring at the proficient level in math. The best performance in the PPS was at the Science and Technology Academy with 40.6 percent below proficient, which seems high but was significantly better than the state average of 69 percent.

Still, there can be little doubt that, notwithstanding the likelihood the tests may be difficult, many schools are performing very badly, both absolutely and relative to the average or better schools. To be sure, in order to average 69 percent below proficient

statewide, many schools had to be well above that level in the 80 and 90 percent range. This means huge numbers of students are being promoted year after year with little—and certainly an inadequate—grasp of mathematics.

Indeed, the state must address the problem head on. Reducing the difficulty of the tests could give a fairer reading of students' grade level achievement. But in the schools that currently have extraordinarily high rates of poor test performance and where major reforms in instruction and test taking are not carried out, there will undoubtedly remain an unacceptably high percentage of students exhibiting seriously inadequate evidence of learning.

### *Conclusion*

The practice of promoting children with an unacceptably poor grasp of the basic subjects on to higher grades each year simply condemns them to years of below-acceptable performance—and, eventually, a high school diploma that reflects little more than the years the students spent in school.

One thing is certain: Until the Governor and Legislature stand ready to take on teacher unions, entrenched state education department employees and school boards of districts with high percentages of inadequately prepared students and enact major reforms, the status quo of unsatisfactory results will continue and tens of thousands of students will graduate each year with serious deficits in literacy and numeracy. And the futures of many of these graduates will be diminished accordingly.

---

**Jake Haulk, Ph.D., President-emeritus**

---

*Policy Briefs may be reprinted as long as proper attribution is given.*

Allegheny Institute for Public Policy  
305 Mt. Lebanon Blvd.\* Suite 208\* Pittsburgh PA 15234  
Phone (412) 440-0079  
E-mail: [aipp@alleghenyinstitute.org](mailto:aipp@alleghenyinstitute.org)  
Website: [www.alleghenyinstitute.org](http://www.alleghenyinstitute.org)  
Twitter: [AlleghenyInstI](https://twitter.com/AlleghenyInstI)