

The Keystone Exams fiasco

Background: From the Pennsylvania Department of Education website: “In 2010, Pennsylvania passed a law that supported the creation of end-of-course assessments, known as ‘Keystone.’ These would serve two purposes: (1) establishing high school graduation requirements for students throughout the state; and (2) providing a way for the state and the federal government to hold high schools accountable for educating students. Students began taking the tests in 2012, with a plan to have Keystones become a graduation requirement in 2017.”

Early history of test experience

In the initial requirements for graduation a student had to achieve a score of proficient on the exams in three areas covering math, English and science. Test results for the end of course exams in Algebra, English and Biology were first posted for tests taken in in school year 2014-2015 for the graduating class of 2016. The results were far from good. On the Algebra test 35.5 percent were below proficient, 27 percent were below proficient in English and 41 percent were below proficient in Biology.

The large percentage of students statewide failing to show proficiency on the tests prompted the Legislature to enact Act 1 of 2016 that delayed the requirement of achieving scores of proficient on Keystone until the 2019 graduating class. Over the following six years test results for Algebra and English not only failed to improve but slightly worsened through 2019 (math 36.7 percent below proficient and English 28.5 percent below proficient), and following a COVID cancellation in 2020, fell again in 2021, especially in English with 50 percent below proficient. (Note that the number of students taking the English test statewide fell 91 percent from the 2019 count of 118,885).

Continuous legislative postponing of imposition of graduation requirement

True to form, the Legislature passed bills each year through 2020 further delaying by another year the use of the Keystone exams’ proficiency requirement for graduation. As

of now the year of requiring the use of the Keystone results has been postponed until 2023 by Senate Bill 1216 passed in November 2020 (Act 136).

However, to further complicate the issue, in 2018 the governor signed Senate Bill 1095 (Act 158 of 2018) into law that provides over 20 alternative accomplishments that can be used to meet graduation requirements for students who cannot reach proficiency levels on the end-of-course Keystone exams.

A few examples of the alternatives provided in the act that can be used to meet graduation requirements when a student does not attain proficiency on the Keystone exams are shown here to illustrate the range of options available.

- 1) successful completion of locally established, grade-based requirements for academic content areas associated with each Keystone exam on which the student did not achieve at least a proficient score and demonstration of one of the following: (i) attainment of an established score on an approved alternative assessment.
- 2) successful completion of a concurrent enrollment course in an academic content area associated with each Keystone exam on which the student did not achieve at least a proficient score.
- 3) successful completion of a pre-apprenticeship program.
- 4) a letter guaranteeing full-time employment.
- 5) satisfactory compliance with the National Collegiate Athletic Association's core courses for college-bound student athletes with a minimum GPA of 2.0 or the equivalent on an alternative grading scale.

Implications for Pittsburgh Public Schools

Thus, for the nearly 40 percent of students statewide who cannot achieve proficiency on the Keystone Algebra test or the 30 percent who have not adequately mastered English, there will be a large and extremely wide range of alternatives to be administered by the schools in conjunction, presumably, with state oversight.

However, as seen in Keystone test results from Pittsburgh Public Schools (PPS) high schools, the application of the huge array of enormously varied alternatives to meet graduation requirements will require a massive amount of time and expertise far beyond the schools' current capabilities.

In 2019 the PPS had nine high schools, not counting the Online Academy (which had only 16 test takers). The nine schools had 1,283 11th-grade students take the Keystone Algebra exam. Of that number, 49 percent (629 students) failed to score at the proficient level. Five of the nine schools had percentages scoring less than proficient that were above the state average of 36.7 percent below proficient. These schools with below

proficiency level scores ranged from 49.6 percent to 82 percent. The best performers were CAPA (25.8 percent) and the Science and Technology Academy (20.9 percent). Two schools, Obama and Allderdice, had scores in the 30 percent range.

This analysis looks only at the Algebra scores because English and Biology patterns are very similar. Moreover, while all test-takers in 2021 took the Algebra exam, a fairly large percentage of students taking the Keystone exams did not take the English test and many did not take the Biology test, so to compare the two years' results only the Algebra scores are truly meaningful.

In 2021, 968 11th-grade students took the Keystone Algebra exam. Of the test takers, 52 percent (502) failed to achieve a proficient score—a three percentage point rise from 2019. Statewide 37.6 percent of test-takers failed to score at the proficient level. Only two PPS schools—CAPA at 24.2 percent and the Science and Technology Academy at 14.5 percent—had better results than the state average. Indeed, both these schools had better results than in 2019. The other schools ranged from 44.4 percent to 100 percent failing to reach the proficient level. Three schools had over 90 percent scoring under the proficiency requirement.

Clearly, with the underperformance numbers displayed by roughly half of 11th-graders in both years, the efforts and cost to come up with a program every year to get 600 plus students to meet alternative schemes to meet graduation requirements will be massive—indeed, it might not be doable.

And whatever the bill for the remediation efforts amounts to will be on top of the nearly \$30,000 per student per year the PPS already spends. To have half of 11th-graders falling below proficient on the Keystone Algebra exam when a relatively poor district like Windber in Somerset County that spends a mere \$13,081 per student had only 11 percent below proficient in math is not just embarrassing, it is inexcusable.

State and other school comparisons

Note that statewide the number of 11th-graders failing to score at the proficient level in 2021 was 37.6 percent or 38,294 students. For the previous years the number of test takers below proficient on the Keystone Algebra exam has been over 40,000. Little wonder the Legislature has kept delaying implementation of the graduation requirement.

In 2021, only three high schools in the state had zero students scoring below proficient on the Algebra exam—Julia Masterman (Philadelphia City), Downingtown STEM Academy and the Wilkes-Barre STEM Academy, which had only 19 test takers. In the Pittsburgh region, the two highest academically ranked high schools—Peters in Washington County and Pine-Richland in Allegheny County—had 6.1 percent and 6.5 percent, respectively, below proficient on the Algebra exam in 2021.

Conclusions and recommendations

The major point is that the concept of achieving proficiency on Keystone exams as a graduation requirement as currently constructed has been a very costly failure. Implementation has been continuously postponed while more and more complicated and expensive-to-administer alternatives have been enacted into law.

But other than demonstrating the inadequacy of learning by large numbers of students, the Keystone tests have accomplished nothing other than being a source of angst for students, parents and teachers and school administrators and a waste of the Legislature's time and money. There can be little doubt that the performance on the Keystone exams will track very closely with scores on college entrance exams. Why not use those instead? Set a minimum score to graduate.

Clearly, this is a highly politically sensitive and corrosive issue and, unfortunately, is unlikely to be corrected by drastic steps such as eliminating the test scores (or one of a myriad options for those who fail the tests) as a graduation requirement. The convoluted process has made the Keystone exam requirement a mockery that only its progenitors can support in its current form.

Indeed, its very existence points to the failure that high school education has become for nearly 40 percent of Pennsylvania high school students. Something drastic needs to be done and soon. Continuation of the fiction that high school students are qualified for a diploma even when they perform very poorly on math, science or English tests undermines credibility and tells failing students they are educated when they are not and likely consigns them to menial jobs.

Jake Haulk, Ph.D., President-emeritus

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