



Policy Brief:
The Potential Effects of Opting Out of State
Tests in Pennsylvania: A Policy Brief

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For years parents across the country have expressed frustration with standardized tests, arguing that they are overly burdensome, anxiety-provoking for their children, and take time away from classroom instruction. Even those in high-ranking policy positions seem to agree. In a recent statement, Education Secretary Arne Duncan [lamented](#) that standardized testing was “sucking the oxygen out of the room” and was a “distraction from the work it is meant to support.”

Although Duncan stresses that the solution is to give states time to refine their testing strategies, parents across the country are beginning to respond more directly—requesting that their children be exempt from state tests altogether. In Pennsylvania, this “opt-out” process is guided by a state regulation that allows a parent to inspect state assessment materials and submit a written request for a religious exemption; the request is automatically granted with no consequences for the student or parents.¹

Numerous state and national advocacy groups have been formed to aid parents in these efforts, and their popularity suggests that the “opt-out movement” may be gaining momentum.² Whether this momentum involves sufficient numbers of students and parents to appreciably impact test-based accountability measures remains an open question.

This policy brief explores that question— at least for Pennsylvania – by examining the degree to which student opt-outs might influence the state’s new school rating system, the School Performance Profile (SPP). The state first unveiled SPPs for all public school buildings in fall 2013. New scores are scheduled to be released in the coming weeks, and will include two measures of student performance that did not factor into last year’s ratings. In this brief, we make no attempt to analyze the degree to which the new system is a valid gauge of school performance; rather, we look at the stability of the rating system with regard to one potential external event—student opt-outs. Our premise is that if performance ratings are vulnerable to relatively small numbers of student opt-outs, the rating system loses some explanatory power.

¹ PA Code Title 22 § 4.4, http://www.pacode.com/secure/data/022/chapter4/022_0004.pdf. The state that most closely mirror’s Pennsylvania’s policy is Oregon. Additionally, parents in a handful of other states have had success arguing the 14th amendment (equal protection) for opting their students out of testing, using religion as a basis for the argument.

² United Opt-Out and Fairtest.org are two prominent national advocacy group supporting opt-out efforts. United Opt-Out has seen membership on its Facebook group increase ten-fold from 2012 to 2013. Source: Personal interview with United Opt-Out co-founder T. Slekar on July 30, 2014.

In the following analysis, we employ a simulation for one Pennsylvania elementary school that tests how vulnerable the school's SPP is to a relatively small number of opt-outs. We summarize the potential impact of student opt-outs on federal accountability requirements, school flexibility, and educator effectiveness ratings.

To highlight our findings up front: Opt-outs can indeed affect SPP scores. These variations could have far-ranging effects – including, most notably, on teacher effectiveness ratings. For these reasons, it is important that educational stakeholders understand the implications of opt out decisions.

How Does Opting Out in Pennsylvania Compare to Other States?

The most recent data on opt outs in Pennsylvania is derived from the 2012-2013 administration of the Pennsylvania System of School Assessment (PSSA); that year, 260 students were exempted from the state tests. An additional, unspecified number opted out of end-of-course Keystone Exams.³ Yet the experiences of other states suggest opt-out movements can gain traction and expand quickly.

In 2011, New York instituted a new, more rigorous state test aligned to the Common Core State Standards; students performed significantly lower on these tests than on previous tests.⁴ Many parents and students argued that these scores were a reflection of a flawed assessment system, rushed implementation, or both. In response, New York parents developed a cohesive opt-out movement.⁵ New York Allies for Public Education, a statewide advocacy group, claims that as many as 37,000 students opted out from English/Language Arts tests, and as many as 43,000 from math tests in 2013-14 alone.⁶

In Colorado, more than 900 parents opted their children out of a least one portion of the state tests in the 2012-13 school year.⁷ The movement has attracted the attention of the state legislature, which recently debated a bill to establish a study of the state's standardized tests, including the feasibility of having entire districts opt out of testing.⁸

And in Washington State, thousands of students have opted out over the past few years, including an entire high school and its teachers in 2013.⁹

Pennsylvania's opt-out numbers are far from those of New York, Colorado, and Washington, and national organizations have only begun to collect data on this subject. Still, there is evidence

³ http://www.pennlive.com/midstate/index.ssf/2013/04/parents_can_keep_their_kids_ou.html

⁴ <https://www.engageny.org/resource/common-core-implementation-timeline/?au=network-teamsntes>

⁵ Note: There are no provisions around opting out in either New York state regulations or statute. For this reason, opt-outs in New York are technically called "refusals," since the process for opting out involves students pushing away and therefore refusing to complete their standardized tests.

⁶ New York Allies for Public Education, <http://www.nysape.org/>

⁷ <http://www.coloradoindependent.com/146615/opting-out>

⁸ <http://co.chalkbeat.org/2014/02/17/testing-opt-out-bill-morphing-into-testing-study/#.U9feBfldUmM>

⁹ <http://www.npr.org/2013/01/17/169620124/seattle-high-schools-teachers-toss-districts-test>

that the initiatives can begin suddenly, spread in unpredictable ways, and force the hands of policymakers.

How do Opt-Outs Affect School Performance Profile Scores?

To examine the potential effect of a growing number of opt-outs in Pennsylvania, we look at school performance ratings.

In 2013, Pennsylvania debuted school building-level SPP scores as a way to categorize school performance. The scoring system is based on six indicators of performance (see Table 1). Two of the indicators, referred to by the state as “closing the achievement gap,” were not in effect in 2012-13 because the calculation requires baseline data that had not yet been collected. As a result, other indicators accounted for slightly higher percentages in the 2012-13 ratings than they will in the future. Table 1 (below) displays the SPP score components for the 2013-14 school year and beyond.

Table 1. School Performance Profile Indicators

DATA ELEMENT	DETAILS	PERCENT OF TOTAL SPP SCORE*
Indicators of Academic Achievement	Percent scoring “proficient” or “advanced” on PSSA in math, reading, science, writing, industry standards-based competency assessments, grade 3 reading, and SAT/ACT College Ready Benchmark	40%
Indicators of Closing the Achievement Gap – based on performance of all students	Percent of required gap closures met in math, reading, science, and writing	5% (N/A for 2012-13)
Indicators of Closing the Achievement Gap – based on performance of historically-underperforming students	Percent of required gap closures met in math, reading, science, and writing	5% (N/A for 2012-13)
Indicators of Academic Growth/PVAAS	Meeting annual academic growth expectations in math, reading, science, and writing	40%
Other Academic Indicators	Cohort graduation rate, promotion rate, attendance rate, Advanced Placement/ International Baccalaureate or college credit, PSAT/Plan participation	10%
Extra Credit for Advanced Achievement	Percent PSSA advanced in math, reading, science, writing and industry standards-based competency assessments, percent 3 or higher on an AP exam	Up to 7 additional points

* Actual percentages vary depending on number of categories for which school is eligible

Student performance on state tests is the main driver of SPP scores. In fact, once data exist to measure the achievement gap factors, five of the six SPP indicators – accounting for 90% of a school’s base score as well as the extra-credit portions – will rely on state test scores.

Based on the SPP data currently available (corresponding to the 2012-13 school year), student opt-outs could have affected SPP scores in two ways: First, by altering academic achievement levels (PSSAs); and second, by changing the Pennsylvania Value-Added Assessment System (PVAAS) scores, which are based on the PSSA and Keystone Exams.¹⁰

How Opt-Outs Can Affect School-Level PSSA/Keystone Performance

The relationship between opt-outs and school-level PSSA/Keystone performance metrics is relatively straightforward. If higher-performing students – i.e., those who have historically scored proficient or above on the PSSAs and/or the Keystone Exams – opt out of the assessments, the Indicators of Academic Achievement score (first row on Table 1) will drop. If low-performing students – those scoring “basic” or “below basic” – opt out, it will rise. To understand the potential impact of opt-outs on this indicator, take the simple example of a school with 100 students in tested grades, 70 of whom score proficient or advanced. If 10 of these high-performing students opt out, the percentage of students scoring proficient on the PSSAs/Keystones declines from 70 percent (70 out of 100) to 66.7 percent (60 out of 90). As we discuss later in this brief, an SPP drop even this modest can have significant implications for a school.

How Opt-Outs Can Affect PVAAS

Determining the effect of opt-outs on PVAAS is more complicated. PVAAS is not a separate assessment system, but rather a statistical model that uses students’ prior assessment results to estimate future performance. These predictions are compared to actual performance in an attempt to measure teachers’ and schools’ contributions to student learning. Students who exceed their predicted performance increase their schools’ and teachers’ PVAAS scores; those who score lower than predicted decrease the scores.¹¹

Unlike the performance metrics above, where the goal of proficiency is the same for all students, it is not possible to calculate exactly how opt-outs would shift a school or teacher’s PVAAS scores without student-specific data. The complicated nature of the PVAAS calculation makes it much more difficult to predict how PVAAS scores would change when students opt-out. Therefore, our simulation refrains from any simulation of the PVAAS factor.

¹⁰

http://www.portal.state.pa.us/portal/portal/server.pt/document/1323747/pvaas_and_transition_of_pas_assessment_system_pdf

¹¹ For additional information about how PVAAS scores are calculated, see the PDE website:

[http://www.portal.state.pa.us/portal/server.pt/community/state_assessment_system/20965/pennsylvania_value_added_assessment_system_\(pvaas\)/1426500](http://www.portal.state.pa.us/portal/server.pt/community/state_assessment_system/20965/pennsylvania_value_added_assessment_system_(pvaas)/1426500).

Simulating the Effects of Opt-Outs

In this simulation, we determine how many opt-outs it would take to change a school's SPP rating.¹² According to the Pennsylvania Department of Education, an SPP score of 70 is “the mark of moving toward success.”¹³ Figure 1 shows how PDE categorizes SPP scores on its PA School Performance Profile website.

Figure 1. SPP Score Categories

Key:



Source: <http://paschoolperformance.org/>

To demonstrate how a critical mass of high-achieving students could swing a school into a lower tier, we use Eddystone Elementary in Delaware County. Eddystone is a K-5 school with 199 students in the 2012-13 school year, 95 of whom were in tested grades (grades 3, 4, and 5). Its SPP of 72.2 in 2012-13 was above the state's cutoff of 70, and a few points below the statewide average of 76.3.

Using information from the PA School Performance website, we conducted two simulations to illustrate what could happen if a few Eddystone students opted out.

A. When High-Performing Students Opt Out

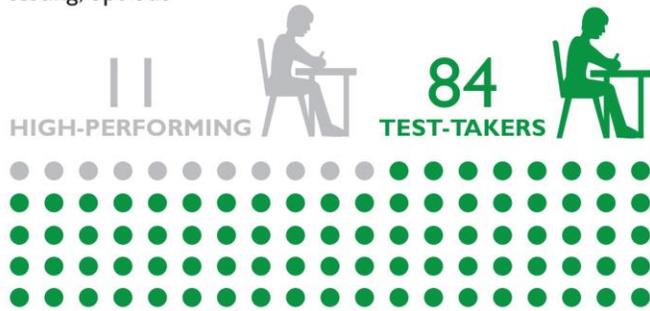
In the first manipulation, we examined how many high-performing students would need to opt out in order to push the school's 2012-13 performance rating of 72.2 below 70.0—the state's official threshold for progress towards success. We adjusted only the “Indicators of Academic Achievement category,” keeping the other components of SPP constant.

¹² Because PVAAS calculations require data that is not made public, we use the simple example of PSSA proficiency scores in our analysis. But, as noted above, the compounding effect of PVAAS score complications could potentially impact SPP scores even more drastically. Our analysis therefore serves as a conservative estimate of the effect of opt-outs at the school level.

¹³ <http://www.post-gazette.com/local/region/2013/12/11/Pennsylvania-updates-PSSA-and-Keystone-scores-for-schools-statewide/stories/201312110135>

If...

11 high-performing students, out of 95 students eligible for testing, opt out



Then...

the schools SPP score would drop below 70.



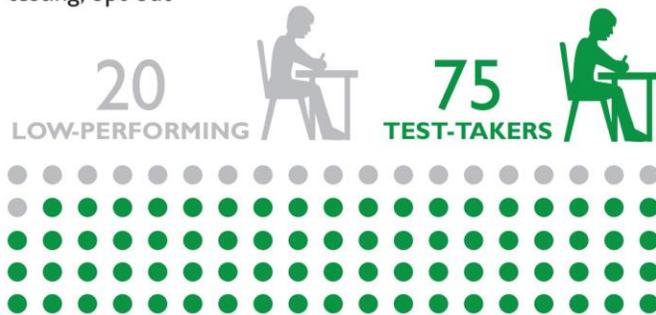
According to our simulation, it would only take 11 high-performing students opting out of the state tests to change Eddystone’s score from its 2012-13 rating of 72.2 to a 69.5.

B. When Low-Performing Students Opt Out

In the second manipulation, we determined how many low-performing students would need to opt out to push that score into a higher performance category. Again, we adjusted only the “Indicators of Academic Achievement category,” keeping the other components of SPP constant.

If...

20 low-performing students, out of 95 students eligible for testing, opt out



Then...

the schools SPP score would increase to 80.



If 20 low-performing students opted out, the school’s score could have increased to 80, which PDE places in a higher category of performance.

In short, our simulations demonstrate that between 10 and 20 percent of tested students could substantially alter state determinations of school performance.

Why Should Policymakers Worry?

The degree to which School Performance Profiles can be affected by opt-outs is important

because SPPs are centrally important in calculating the effectiveness of schools, teachers and principals. Table 2 summarizes how SPPs are used in each of these calculations.

Table 2. Broad Impact of SPP Scores

SCHOOL LEVEL	SPP contains some of the “Annual Measurable Objectives” for PA’s NCLB waiver
TEACHER LEVEL	SPP comprises the “building level data” that equal 15% of a teacher’s effectiveness rating
PRINCIPAL LEVEL	SPP comprises the “building level data” that equal 15% of a principal’s effectiveness rating

A. School Level

To comply with federal NCLB waiver provisions, Pennsylvania is required to meet a set of “Annual Measurable Objectives” (AMO) determinations for tested grades and subjects. These targets include two SPP indicators – Closing the Achievement Gap for All Students, and Closing the Achievement Gap for Historically Underperforming Students. A third AMO, test participation rates, can also be impacted by student opt-outs.

Pennsylvania’s accountability metrics place schools into three broad categories (reward, priority or focus schools) based largely on how students perform on tests and four performance targets. AMO indicators, along with their targets, are provided in Table 3.

Table 3. Pennsylvania’s Annual Measurable Objective Indicators and The Implications of Opt-Outs

INDICATOR	TARGET	OPT-OUT IMPLICATIONS
Test Participation	95 percent rate	Yes
Graduation or Attendance	85 percent graduation rate or, if not applicable, 90 percent attendance	No
Closing the Achievement Gap for All Students	Progress towards cutting the gap to 100% proficiency in half in six years	Yes
Closing the Achievement Gap for Historically Underperforming Students	Progress towards cutting the gap to 100% proficiency in half in six years for students with disabilities, economically disadvantaged students, and English Language Learners	Yes

As shown in Table 3 above, three of the four AMOs have the potential to be influenced by student opt-outs. The 95 percent test participation rate is an obvious obstacle if some students aren’t participating in the test. Closing the Achievement Gap indicators are impacted as well, because these use PSSA scores that can be affected by opt-outs.

This is important, as consequences for failing to meet AMOs for the lowest-performing schools can be substantial. PDE requires “Priority” schools, the state’s lowest performers, to implement seven “turnaround principles.” These include replacing or receiving state approval of a building principal, undergoing a curriculum audit, and school schedule redesign. Priority schools that do not meet all four AMOs for three consecutive years are subject to the more intensive reforms associated with a federal School Improvement Grant, including replacing the principal and at least half of the teaching staff and school closure.

B. Teacher Level

Opt outs could also impact teacher evaluations if students who are opting out are systematically different from those who are not. Teacher evaluations drive annual performance ratings that delineate areas of concern, recommendations for professional development, metrics for determining improvement, and, in the case of unsatisfactory performance, an observation schedule that involves intensive supervision. These ratings could also ultimately determine the process for furloughing teachers.

Under the state’s new educator evaluation system, 50% of teacher effectiveness will be derived from student data, including building-level data (15%), teacher or classroom-level data (another 15%), and elective data and student learning objectives (20%).¹⁴ The state defines building-level data as the school’s SPP score (converted to a 3-point scale), while “teacher specific data” is based on a three-year average of PVAAS scores. Both of these measures, as described earlier in this brief, could be effected by student opt-outs.

So how many student opt-outs would it take to flip a teacher from “Proficient” to “Needs Improvement”? While test scores account for a smaller percentage of teacher ratings than SPP scores, these teacher evaluations are based on a much smaller number of students. It is impossible for us to simulate the effects of opt-outs on individual teacher scores without more specific data, but it is true that opt-outs could easily change the rating of a teacher on the border between one rating and another.

C. Principal Level

Student opt-outs could impact principal evaluations as well. Beginning in the 2014-15 school year, 15% of principal evaluations will be determined by SPP.¹⁵ Another 15% of the effectiveness rating is derived from the relationship between school performance (as determined by PVAAS scores) and the classroom observations principals conduct of staff. Both of these factors are susceptible to shifts in student participation and performance, including relatively small changes as a result of opt-outs.

¹⁴ The other 50% is derived from classroom observations. For a full explanation of the Act 82 teacher effectiveness ratings, visit http://www.education.state.pa.us/portal/server.pt/directory/educator_effectiveness/180223?DirMode=1#

¹⁵ <http://paschoolperformance.org/FAQ>

Summary

Whenever students opt out from state testing, it will affect SPP scores—the only question concerns the magnitude and direction of that change. In certain cases, opt outs could impact requirements of or sanctions on a specific school.

At this point, there is no hard data available on which students are opting out. Knowing how many and what kinds of students are opting out in each school and district is important data that PDE should share. This information would help districts, in particular, put their SPP scores into perspective. For educators and district administrators, who are either personally or collectively impacted by their school's performance ratings, it is important to understand the degree of error inherent in those ratings. Furthermore, it is imperative that policymakers understand the potential impact of opt-outs as they continue to craft legislation attaching incentives and sanctions to school performance.

The authors are grateful to Julia Sappey for her help conducting background research for this policy brief.

Appendix: Simulation Methodology

The simulation in this policy brief manipulated only one set of factors of School Performance Profiles: the Indicators of Academic Achievement. Indicators in this category account for roughly 40% of a school's SPP (the actual percentage depends on the number of indicators a school is subject to), and are defined as the number of students scoring proficient or advanced on a given test as a percentage of the number of tested students.

In order to calculate the number of students needed to change Eddystone's rating, we reconstructed the school's score using state enrollment information and data from the state's SPP website, including the rate at which students scored advanced or proficient in each test, as well as the participation rate for each test. In order to figure out how many students took each test, we multiplied the participation rate by the number of Eddystone students in grades subject to each test. Since the advanced/proficient rate is simply the raw number of students scoring advanced or proficient divided by the number of students who took the test, we were able to reconstruct the raw number scoring advanced or proficient (the numerator) by reversing the calculation – that is, multiplying the rate by the raw number of students (the denominator). With both the numerator and the denominator in hand, we could estimate the effect of student opt-outs by simply adjusting the two numbers.

For instance, according to the state, there were 34 4th-graders at Eddystone. The school scored a 73.68 proficiency rate on the 4th-grade science test (which had a 100 percent participation rate). Multiplying 34 tested students by 73.68 percent yields 25 students scoring either proficient or advanced in science. If four high-achieving 4th-graders had not taken the test, then the school would have received a mark of 70 percent proficiency (21/30) instead of 73.68 percent. (Four 4th-graders is roughly one third of the 11 students that are opting out in this example; we spread the non-tested students evenly among grades.) Multiplying this new performance measure by the 7.5% factor weight yields a new, hypothetical score of 5.25 on science rather than the 5.52 the school earned in reality. Similarly, 11 proficient students opting out of the reading tests would have lowered Eddystone's proficient/advanced rate from 60.95 to 55.95, and dropped their factor score from 4.57 to 4.20.

This analysis did not include any adjustment of other SPP factors such as PVAAS scores or attendance rates.

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