

Research Brief: PSSA Exams

The School District of Philadelphia in Context: Changes in Statewide PSSA Performance, 2019-2022

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Background

The Pennsylvania System of School Assessment (PSSA) is a standards-based, criterion-referenced test administered to all School District of Philadelphia (SDP) students in grades 3-8 near the end of the school year. All students are assessed in English Language Arts (ELA) and Math, and students in grades 4 and 8 are also assessed in Science. Students score in one of four performance groups depending on how well they did on the assessment: Advanced, Proficient, Basic, and Below Basic. Each year, the Pennsylvania Department of Education (PDE) publicly releases the percentage of students in each school in Pennsylvania who performed in each of the four PSSA performance groups. In 2020, the PSSAs were not administered due to school closures caused by the Covid-19 pandemic. In 2021, the PSSAs were administered to a smaller than usual population, in part due to the continuing challenges of the Covid-19 pandemic, and thus results from 2021 are not considered generalizable.¹

This research brief highlights the changes in the percentage of students scoring in the Proficient or Advanced performance groups on the PSSA exams from 2019 (the last normal administration of the PSSAs before the Covid-19 pandemic) to 2022 (the most recent PSSA administration, and the first normal administration since the Covid-19 pandemic) in Pennsylvania school districts.

Data Sources and Methods

All data is publicly available from the Pennsylvania Department of Education (PDE).²

School districts³ are included in the ELA and Math performance analyses if they had 2,500 or more students take the ELA and Math PSSAs in 2022. For context, about 45,000 School District of Philadelphia students took the ELA and Math PSSAs in 2022. Thus, to be included in these analyses, other Pennsylvania districts needed to have about 5% or more of the School District of Philadelphia population who took the ELA or Math PSSAs. Out of 656 school districts that participated in the ELA

¹ For more information about the limitations of assessments administered during the 2019-2020 school year, see https://www.philasd.org/research/2022/02/18/summary-of-district-wide-assessments-administered-to-sdp-students-during-the-2020-21-school-year/

² Data is located: https://www.education.pa.gov/DataAndReporting/Assessments/Pages/PSSA-Results.aspx

³ For the purposes of this analyses, *school districts* were determined based on the *District Name* column in the PSSA files provided by PDE. Because of business rules excluding school districts with fewer than 2,000 ELA or Math PSSA participants, this analysis only includes large, public, school districts in Pennsylvania, and excludes charter or alternative schools.

and Math PSSAs in 2022, 47 are included in the ELA and Math performance analyses in addition to the School District of Philadelphia.⁴

School districts are included in the Science performance analysis if they had 750 or more students take the Science PSSA in 2022. For context, about 15,000 School District of Philadelphia students took the Science PSSA in 2022. Thus, to be included in this analysis, other Pennsylvania districts needed to have about 5% or more of the School District of Philadelphia population who took the Science PSSA in 2022. Out of 656 school districts that participated in the Science PSSA in 2022, 55 are included in the Science performance analysis in addition to the School District of Philadelphia.

English/Language Arts Performance

The School District of Philadelphia saw a smaller Proficient/Advanced performance decline on the ELA PSSA than 43 other districts from 2019 to 2022, but overall performance rates were lower than 35 districts in 2022.

Statewide, there was a decline in the number of Pennsylvania students participating in the ELA PSSA from 2019 (748,347) to 2022 (698,708). There was also a six-point decline in the percentage of students scoring in the Proficient or Advanced performance groups on the ELA PSSA from 2019 (61%) to 2022 (55%).⁵

When including only school districts that had 2,500 or more students take the ELA PSSA in 2019 and 2022 (about 17-19% of the total statewide test-taking population), there were similar declines in participation from 2019 (139,011) to 2022 (115,619) compared to the state overall (Table 1). When looking at the performance of just these school districts, there was a six-point decline in the percentage of students performing Proficient or Advanced on the ELA PSSA from 2019 (58%) to 2022 (52%). The averages are rather comparable to the statewide Proficient/Advanced performance in 2019 (61% statewide, 58% included in Table 1) and 2022 (55% statewide, 52% in Table 1). The performance of students in school districts included in Table 1 is slightly lower in 2022 than the performance statewide in 2022.

The School District of Philadelphia, the largest school district in Pennsylvania, with the greatest number of students taking the ELA PSSA in both years, saw a one-point decline in the percentage of students performing Proficient or Advanced on the ELA PSSA from 2019 (36%) to 2022 (35%). This was a smaller percentage point decline than 43 other Pennsylvania school districts with 2,500 or more students who took the ELA PSSA in 2019 and 2022 (Table 1 and Figure 1). However, the percentage of students scoring Proficient/Advanced was seven to 53 percentage points higher in 35 of these school districts than in the School District of Philadelphia. Despite declines in the Proficient/Advanced rate from 2019 to 2022, these 35 school districts still had a higher percentage of students who scored Proficient or Advanced on the ELA PSSA in 2022 than the School District of Philadelphia.

⁴ Based on the business rules in the PSSA files publicly available from PDE, school districts can be made up of a single charter school or community school.

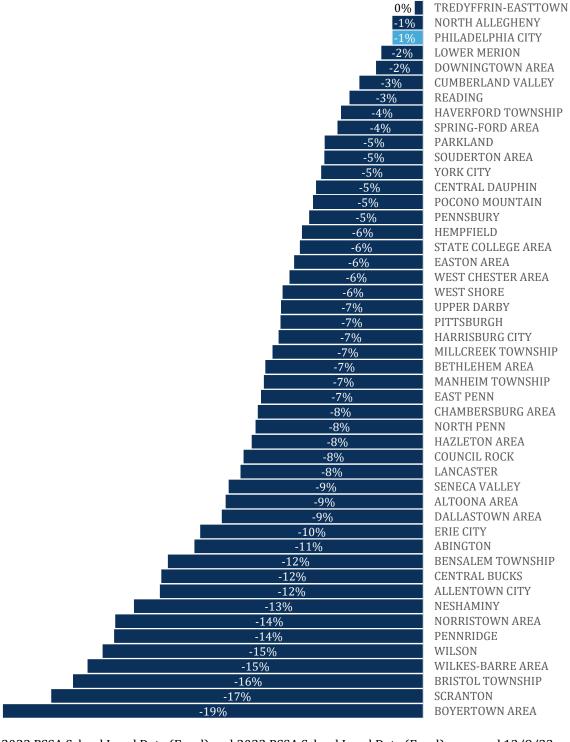
⁵ Data source: 2022 PSSA State Level Data (Excel) and 2022 PSSA State Level Data (Excel), accessed 12/8/22 https://www.education.pa.gov/DataAndReporting/Assessments/Pages/PSSA-Results.aspx

Table 1. Percentage of students who scored in the Proficient/Advanced performance groups on the ELA PSSA in 2019 and 2022 for Pennsylvania school districts with more than 2,500 ELA PSSA participants

School District	# of students		% Prof/Adv		Difference % Prof/
	2019	2022	2019	2022	Adv 2019 to 2022
ABINGTON	3578	3472	77%	66%	-11%
ALLENTOWN CITY	6907	6012	35%	22%	-12%
ALTOONA AREA	3234	2954	58%	49%	-9%
BENSALEM TOWNSHIP	2782	2630	54%	42%	-12%
BETHLEHEM AREA	5505	5201	56%	49%	-7%
BOYERTOWN AREA	3101	2873	75%	55%	-19%
BRISTOL TOWNSHIP	2932	2552	51%	35%	-16%
CENTRAL BUCKS	7907	7732	84%	72%	-12%
CENTRAL DAUPHIN	5368	5131	60%	55%	-5%
CHAMBERSBURG AREA	4088	3744	64%	56%	-8%
COUNCIL ROCK	4837	4626	81%	73%	-8%
CUMBERLAND VALLEY	4089	4355	79%	76%	-3%
DALLASTOWN AREA	2783	2729	73%	64%	-9%
DOWNINGTOWN AREA	5905	5766	84%	82%	-2%
EAST PENN	3623	3369	75%	67%	-7%
EASTON AREA	3673	3134	54%	48%	-6%
ERIE CITY	3975	3544	34%	24%	-10%
HARRISBURG CITY	2546	2539	21%	15%	-7%
HAVERFORD TOWNSHIP	2926	2891	86%	82%	-4%
HAZLETON AREA	4942	4641	45%	37%	-8%
HEMPFIELD	2995	2953	72%	67%	-6%
LANCASTER	4182	3662	39%	30%	-8%
LOWER MERION	3786	3674	87%	85%	-2%
MANHEIM TOWNSHIP	2551	2508	80%	72%	-7%
MILLCREEK TOWNSHIP	2828	2536	76%	69%	-7%
NESHAMINY	3951	3880	71%	58%	-13%
NORRISTOWN AREA	3951	3225	45%	30%	-14%
	3862		87%	85%	-1%
NORTH ALLEGHENY		3685			
NORTH PENN	5546	5124	76%	68%	-8%
PARKLAND	4106	4185	83%	78%	-5%
PENNRIDGE	3210	2858	76%	62%	-14%
PENNSBURY	4408	4205	77%	71%	-5%
PHILADELPHIA CITY	51070	44638	36%	35%	-1%
PITTSBURGH	8676	7555	48%	42%	-7%
POCONO MOUNTAIN	3694	2977	54%	49%	-5%
READING	7320	6565	24%	21%	-3%
SCRANTON	4058	3137	47%	30%	-17%
SENECA VALLEY	3153	3180	79%	70%	-9%
SOUDERTON AREA	2805	2621	75%	70%	-5%
SPRING-FORD AREA	3567	3484	83%	79%	-4%
STATE COLLEGE AREA	2791	2660	80%	74%	-6%
TREDYFFRIN-EASTTOWN	3136	3013	88%	88%	0%
UPPER DARBY	5347	4858	44%	38%	-7%
WEST CHESTER AREA	5108	5035	80%	74%	-6%
WEST SHORE	3387	3194	65%	59%	-6%
WILKES-BARRE AREA	2921	2811	42%	27%	-15%
WILSON	2669	2678	69%	55%	-15%
YORK CITY	2672	2529	24%	19%	-5%
Total	241,777	223,326	58%	52%	-6%

Source: 2022 PSSA School Level Data (Excel) and 2022 PSSA School Level Data (Excel), accessed 12/8/22

Figure 1. Change in percentage of students who scored in the Proficient/Advanced performance groups on the ELA PSSA in 2019 and 2022 for Pennsylvania school districts with more than 2,500 ELA PSSA participants



Source: 2022 PSSA School Level Data (Excel) and 2022 PSSA School Level Data (Excel), accessed 12/8/22 **Note**: This is the same data in the *Difference % Prof/Adv 2019 to 2022* column of Table 1. The different bar length for the same percentage labels on the bars are due to rounding.

Math Performance

The School District of Philadelphia saw a smaller Proficient/Advanced performance decline on the Math PSSA than 40 other districts from 2019 to 2022, but overall performance rates were lower than 35 districts in 2022.

Statewide, there was a decline in the number of Pennsylvania students participating in the Math PSSA from 2019 (747,972) to 2022 (699,265). There was also a six-point decline in the percentage of students scoring in the Proficient or Advanced performance groups on the Math PSSA from 2019 (42%) to 2022 (34%).

When including only school districts that had 2,500 students take the Math PSSA in 2019 and 2022 (about 32% of the total statewide test-taking population), there were similar declines in participation from 2019 (241,704) and 2022 (223,794) compared to the state overall (Table 2). When looking at the performance of just these school districts, there was a seven-point decline in the percentage of students performing Proficient or Advanced on the Math PSSA from 2019 (40%) to 2022 (33%). The averages are rather comparable to the statewide Proficient/Advanced performance in 2019 (42% statewide, 40% included in Table 2) and 2022 (34% statewide, 33% in Table 2).

The School District of Philadelphia, the largest school district in Pennsylvania, with the greatest number of students taking the Math PSSA in both years, saw a five-point decline in the percentage of students performing Proficient or Advanced on the Math PSSA from 2019 (21%) to 2022 (16%). This was a smaller percentage point decline than 40 other Pennsylvania school districts with 2,500 or more students who took the Math PSSA in 2019 and 2022 (Table 2 and Figure 2). However, the percentage of students scoring Proficient/Advanced was five to 58 percentage points higher in 35 of these school districts than in the School District of Philadelphia in 2022. Despite declines in the Proficient/Advanced rate from 2019 to 2022, these 35 school districts still had a higher percentage of students who scored Proficient or Advanced on the Math PSSA in 2022 than the School District of Philadelphia.

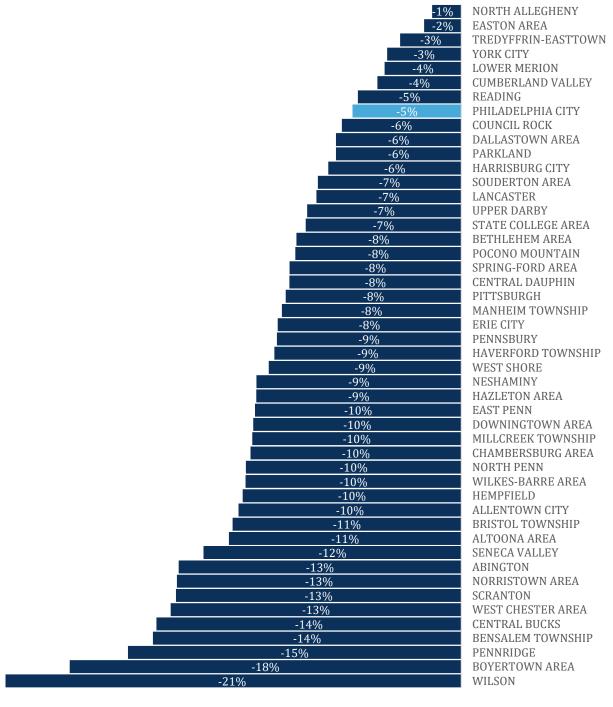
⁶ Data source: 2022 PSSA State Level Data (Excel) and 2022 PSSA State Level Data (Excel), accessed 12/8/22 https://www.education.pa.gov/DataAndReporting/Assessments/Pages/PSSA-Results.aspx

Table 2. Percentage of students who scored in the Proficient/Advanced performance groups on the Math PSSA in 2019 and 2022 for Pennsylvania school districts with more than 2,500 Math PSSA participants

School District	# of students		% Prof/Adv		Difference % Prof/
	2019	2022	2019	2022	Adv 2019 to 2022
ABINGTON	3577	3464	58%	45%	-13%
ALLENTOWN CITY	6910	6078	19%	8%	-10%
ALTOONA AREA	3233	2948	43%	33%	-11%
BENSALEM TOWNSHIP	2787	2634	36%	22%	-14%
BETHLEHEM AREA	5475	5215	33%	25%	-8%
BOYERTOWN AREA	3098	2864	62%	44%	-18%
BRISTOL TOWNSHIP	2932	2535	26%	16%	-11%
CENTRAL BUCKS	7899	7744	64%	50%	-14%
CENTRAL DAUPHIN	5368	5151	41%	33%	-8%
CHAMBERSBURG AREA	4085	3760	42%	32%	-10%
COUNCIL ROCK	4835	4599	66%	60%	-6%
CUMBERLAND VALLEY	4097	4364	60%	56%	-4%
DALLASTOWN AREA	2778	2724	50%	44%	-6%
DOWNINGTOWN AREA	5901	5761	65%	56%	-10%
EAST PENN	3618	3369	51%	42%	-10%
EASTON AREA	3659	3123	29%	27%	-2%
ERIE CITY	3958	3543	20%	11%	-8%
HARRISBURG CITY	2533	2572	10%	3%	-6%
HAVERFORD TOWNSHIP	2934	2877	68%	60%	-9%
HAZLETON AREA	4934	4628	19%	9%	-9%
HEMPFIELD	2996	2943	58%	48%	-10%
LANCASTER	4181	3670			-10% -7%
			21%	15%	
LOWER MERION	3790	3678	78%	74%	-4%
MANHEIM TOWNSHIP	2554	2515	62%	54%	-8%
MILLCREEK TOWNSHIP	2823	2540	57%	48%	-10%
NESHAMINY NORDICTIONAL AREA	3950	3879	48%	39%	-9%
NORRISTOWN AREA	3283	3242	28%	15%	-13%
NORTH ALLEGHENY	3861	3688	69%	68%	-1%
NORTH PENN	5531	5111	55%	45%	-10%
PARKLAND	4111	4182	70%	64%	-6%
PENNRIDGE	3205	2854	58%	42%	-15%
PENNSBURY	4399	4203	57%	48%	-9%
PHILADELPHIA CITY	51163	44974	21%	16%	-5%
PITTSBURGH	8670	7553	29%	21%	-8%
POCONO MOUNTAIN	3673	2968	40%	32%	-8%
READING	7316	6621	10%	5%	-5%
SCRANTON	4040	3142	25%	12%	-13%
SENECA VALLEY	3148	3185	61%	49%	-12%
SOUDERTON AREA	2804	2628	58%	51%	-7%
SPRING-FORD AREA	3565	3484	68%	60%	-8%
STATE COLLEGE AREA	2787	2654	65%	58%	-7%
TREDYFFRIN-EASTTOWN	3136	3014	72%	69%	-3%
UPPER DARBY	5336	4855	24%	17%	-7%
WEST CHESTER AREA	5114	5032	62%	49%	-13%
WEST SHORE	3388	3189	47%	38%	-9%
WILKES-BARRE AREA	2922	2809	21%	11%	-10%
WILSON	2668	2681	54%	33%	-21%
YORK CITY	2679	2545	10%	7%	-3%
Total	241,704	223,794	40%	33%	-7%

Source: 2022 PSSA School Level Data (Excel) and 2022 PSSA School Level Data (Excel), accessed 12/8/22

Figure 2. Change in percentage of students who scored in the Proficient/Advanced performance groups on the Math PSSA in 2019 and 2022 for Pennsylvania school districts with more than 2,500 Math PSSA participants



Source: 2022 PSSA School Level Data (Excel) and 2022 PSSA School Level Data (Excel), accessed 12/8/22 **Note**: This is the same data in the *Difference % Prof/Adv 2019 to 2022* column of Table 2. The different bar length for the same percentage labels on the bars are due to rounding.

Science Performance

The School District of Philadelphia saw a smaller Proficient/Advanced performance decline on the Science PSSA than 43 other districts from 2019 to 2022, but overall performance rates were lower than 48 districts in 2022.

Statewide, there was a decline in the number of Pennsylvania students participating in the Science PSSA from 2019 (245,747) to 2022 (232,909). There was also a six-point decline in the percentage of students scoring in the Proficient or Advanced groups on the Science PSSA from 2019 (68%) to 2022 (62%).⁷

When including only school districts that had 750 students or more take the Science PSSA in 2019 and 2022 (about 35% of the total statewide test-taking population), there were larger declines in participation from 2019 (86,275) to 2022 (80,766) compared to the state overall (Table 3). When looking at the performance of just these school districts, there was a six-point decline in the percentage of students performing Proficient or Advanced on the Science PSSA from 2019 (65%) to 2022 (59%).

The School District of Philadelphia, the largest school district in Pennsylvania, with the highest number of students taking the Science PSSA in both years, experienced a three-point decline in the percentage of students performing Proficient or Advanced on the Science PSSA from 2019 (41%) to 2022 (38%). This was a smaller percentage point decline than 43 other Pennsylvania school districts with 750 or more students who took the Science PSSA in 2019 and 2022 (Table 3 and Figure 3). However, the percentage of students scoring Proficient/Advanced was five to 52 percentage points higher in 48 of these school districts than in the School District of Philadelphia. Despite declines in the Proficient/Advanced rate from 2019 to 2022, these 48 school districts still had a higher percentage of students who scored Proficient or Advanced on the Science PSSA in 2022 than the School District of Philadelphia.

Table 3. Percentage of students who scored in the Proficient/Advanced performance groups on the Science PSSA in 2019 and 2022 for Pennsylvania school districts with more than 750 Science PSSA participants

School District	# of st	# of students		of/Adv	Difference % Prof/
	2019	2022	2019	2022	Adv 2019 to 2022
ABINGTON	1161	1144	85%	75%	-10%
ALLENTOWN CITY	2233	2036	43%	29%	-15%
ALTOONA AREA	1065	982	69%	60%	-9%
BENSALEM TOWNSHIP	968	867	68%	52%	-16%
BETHLEHEM AREA	1872	1702	62%	54%	-8%
BOYERTOWN AREA	1044	968	82%	71%	-11%
BRISTOL TOWNSHIP	960	845	55%	45%	-10%
BUTLER AREA	905	843	76%	64%	-12%
CANON-MCMILLAN	763	816	85%	76%	-9%
CENTENNIAL	764	757	68%	68%	0%
CENTRAL BUCKS	2618	2633	86%	75%	-11%
CENTRAL DAUPHIN	1772	1725	68%	58%	-9%
CHAMBERSBURG AREA	1342	1275	72%	69%	-3%
COUNCIL ROCK	1601	1520	83%	78%	-5%
CUMBERLAND VALLEY	1363	1425	83%	81%	-2%
DALLASTOWN AREA	921	903	77%	67%	-10%

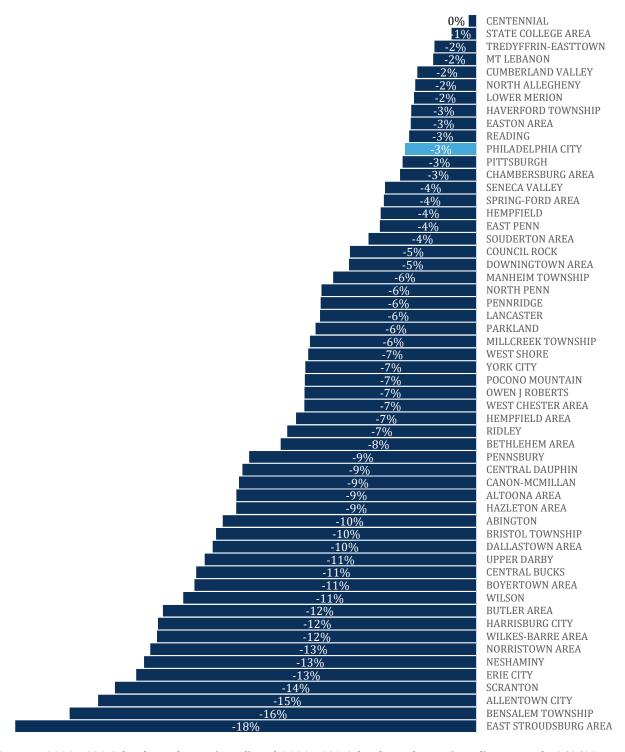
⁷ Data source: 2022 PSSA State Level Data (Excel) and 2022 PSSA State Level Data (Excel), accessed 12/8/22 https://www.education.pa.gov/DataAndReporting/Assessments/Pages/PSSA-Results.aspx

February 2023 · Office of Research and Evaluation

School District	# of students		% Prof/Adv		Difference % Prof/
	2019	2022	2019	2022	Adv 2019 to 2022
DOWNINGTOWN AREA	1961	1903	87%	82%	-5%
EAST PENN	1232	1160	76%	72%	-4%
EAST STROUDSBURG AREA	951	777	71%	54%	-18%
EASTON AREA	1169	1043	58%	56%	-3%
ERIE CITY	1268	1176	48%	35%	-13%
HARRISBURG CITY	790	847	34%	22%	-12%
HAVERFORD TOWNSHIP	960	913	87%	84%	-3%
HAZLETON AREA	1621	1553	53%	44%	-9%
HEMPFIELD AREA	817	766	81%	74%	-7%
HEMPFIELD	973	961	78%	74%	-4%
LANCASTER	1346	1204	49%	43%	-6%
LOWER MERION	1273	1197	90%	88%	-2%
MANHEIM TOWNSHIP	842	803	86%	80%	-6%
MILLCREEK TOWNSHIP	928	876	82%	75%	-6%
MT LEBANON	867	762	90%	89%	-2%
NESHAMINY	1302	1317	76%	63%	-13%
NORRISTOWN AREA	1033	1063	59%	46%	-13%
NORTH ALLEGHENY	1281	1180	87%	85%	-2%
NORTH PENN	1846	1687	79%	73%	-6%
OWEN J ROBERTS	795	822	87%	81%	-7%
PARKLAND	1342	1431	86%	80%	-6%
PENNRIDGE	1085	943	82%	76%	-6%
PENNSBURY	1380	1395	83%	75%	-9%
PHILADELPHIA CITY	16741	14926	41%	38%	-3%
PITTSBURGH	2811	2516	51%	48%	-3%
POCONO MOUNTAIN	1224	964	67%	60%	-7%
READING	2484	2201	34%	32%	-3%
RIDLEY	802	759	61%	54%	-7%
SCRANTON	1338	1088	58%	44%	-14%
SENECA VALLEY	1052	1076	83%	80%	-4%
SOUDERTON AREA	916	884	78%	74%	-4%
SPRING-FORD AREA	1137	1178	89%	86%	-4%
STATE COLLEGE AREA	953	838	84%	84%	-1%
TREDYFFRIN-EASTTOWN	1037	1036	91%	90%	-2%
UPPER DARBY	1745	1641	53%	42%	-11%
WEST CHESTER AREA	1717	1642	85%	79%	-7%
WEST SHORE	1118	1137	75%	68%	-7%
WILKES-BARRE AREA	997	959	54%	42%	-12%
WILSON	887	882	78%	67%	-11%
YORK CITY	902	818	31%	24%	-7%
Total	86,275	80,765	65%	59%	6%

Source: 2022 PSSA School Level Data (Excel) and 2022 PSSA School Level Data (Excel), accessed 12/8/22

Table 3. Change in percentage of students who scored in the Proficient/Advanced performance groups on the Science PSSA in 2019 and 2022 for Pennsylvania school districts with more than 750 Science PSSA participants



Source: 2022 PSSA School Level Data (Excel) and 2022 PSSA School Level Data (Excel), accessed 12/8/22 **Note**: This is the same data in the *Difference % Prof/Adv 2019 to 2022* column of Table 3. The different bar length for the same percentage labels on the bars are due to rounding.

Summary of Results

Statewide, there was a decline in the number of students taking the ELA, Math, and Science PSSA exams from 2019 to 2022. There was also an average decline across the state in the percentage of students performing in the Proficient or Advanced performance groups on the three PSSA exams.

Among school districts that had more than or equal to 5% of the number of School District of Philadelphia test-takers participate in the ELA, Math, and Science PSSA exams in 2022, there were similar declines in the numbers of students participating and performing Proficient or Advanced on the three exams during the two years analyzed.

The School District of Philadelphia saw smaller declines in Proficient/Advanced performance rates from 2019 to 2022 than 40-43 other school districts in these analyses on the ELA, Math, and Science PSSA exams. For all exams, however, between 35-48 of the other school districts had Proficient/Advanced performance rates five to 58 percentage points higher than the School District of Philadelphia. Thus, while the School District of Philadelphia experienced less severe declines from 2019 to 2022 than other districts, its 2022 performance was still below those districts.

Appendix A: All Pennsylvania School Districts

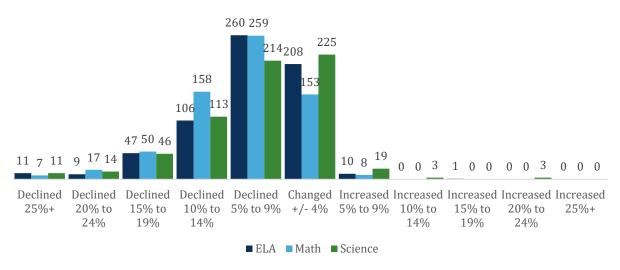
The majority of Pennsylvania school districts across the state, regardless of the number of test takers, saw a 5-9% or 10-14% decline in Proficient/Advanced performance on the ELA, Math, and Science PSSAs from 2019 to 2022 (Figure A1). This includes 366 school districts for ELA, 417 school districts for Math, and 327 school districts for Science.

Additionally, 56 school districts saw a 15-19% or 20-24% decline in Proficient/Advanced performance on the ELA PSSA, while 67 districts saw these same declines for Math, and 60 districts experienced them for Science. When looking at districts with declines of 25% or more in Proficient/Advance performance from 2019-2022, 11 school districts saw such a decline for ELA, seven districts for Math, and 11 districts for Science.

Some school districts experienced no change or a minimal change of +/- 4% or less in the number of students who scored in the Proficient/Advanced performance groups on the ELA, Math, and Science PSSAs from 2019 to 2022. This includes 208 school districts for ELA, 153 school districts for Math, and 225 school districts for Science.

A small number of school districts saw a 5-9% or 10-14% increase in Proficient/Advanced performance on the ELA, Math, and Science PSSAs from 2019 to 2022. This includes 10 school districts for ELA, eight school districts for Math, and 22 school districts for Science. Finally, three school districts experienced an increase of 20% or more in Proficient/Advanced performance on the Science PSSA from 2019 to 2022.

Figure A1. Numbers of school districts by percentage point change in Proficient/Advanced performance on the ELA, Math, and Science PSSAs from 2019 to 2022 for all Pennsylvania school districts with valid data for both years



Source: 2022 PSSA School Level Data and 2022 PSSA School Level Data, downloaded 12/8/22 **Note**: 6 school districts were excluded from the ELA PSSA, 6 school districts were excluded from the Math PSSA, and 8 schools were excluded from the Science PSSA due to limited or missing data. Changes were calculated by subtracting the percent of students who scored Proficient and Advanced in each school district between 2019 and 2022.