THE SCHOOL DISTRICT OF PHILADELPHIA

Progress Monitoring
End of Year Performance
Keystones & NOCTI

October 12, 2023

High School Preliminary Performance

Goal 4: The percentage of students who are proficient on all three state high school assessments (Algebra 1, Literature, and Biology) by the end of their 11th grade year

Goal 5: The percentage of Career and Technical Education (CTE) students who pass an industry standards-based competency assessment by the end of their 12th grade year

Performance Highlights: High School

Keystone Performance since 2018-19

- In **Literature, Proficiency increased** (+6.2) and **Below Basic decreased** (-7.3)
- In **Algebra 1, Proficiency decreased** (-6.6) and **Below Basic increased** (+8.3)
- In **Biology, Proficiency decreased** (-3.6) and **Below Basic decreased** (-5.1)
- The percentage of students **Proficient on all Keystones declined** (-7.7)

CTE Student NOCTI Performance since 2021-22

- The percentage of CTE students **passing the NOCTI increased** (+5.6)

Circumstances for 11th graders in 2022-23

- 11th graders in 2022-23 were in 8th grade in 2019-20, when schools were closed in March due to the pandemic.

- Students took Algebra 1 in 2020-21 during the fully virtual year and were not able to take the end-of-course Keystone until September 2021.

- The biggest declines in proficiency were seen in Learning Network 1 among the criteria-based schools. Proficiency in LN 4, 13 and Innovation remained low.

SY 2022-23 *Preliminary* Performance Highlights*

PSSA Assessment	Proficiency Results	Below Basic Results
Grade 3 Reading	+3.2 percentage points	-8 percentage points
Grade 3 - 8 Reading	-0.3 percentage points	-2.8 percentage points
Grade 3 Math	+5.2 percentage points	-6.8 percentage points
Grade 3 - 8 Math	+3.6 percentage points	-4.4 percentage points
Grade 4 and 8 Science	+3.4 percentage points	-2.6 percentage points
Best by 11th grade Keystones^	Proficiency Results	Below Basic Results
Literature	+6.2 percentage points	-7.3 percentage points
Algebra 1	-6.6 percentage points	+8.3 percentage points
Biology	-3.6 percentage points	-5.1 percentage points

*Pending state verification; ^Keystone results compare 2022-23 to 2018-19.

Where Have We Been?

Beginning in 2021, we made the following changes to High School and Career and Technical Education:

Expanded 9th Grade Success Networks

CTE Audit and Strategy Development

Expanded and enhanced instruction approaches

Expanded and enhanced school-wide climate approaches

Re-envisioned professional development for teachers and leaders

Established Universal Screeners and provided more space and time for collaboration and using data

Where Are We Now?

Goal 4:
Keystones, Best by 11th Grade

Students take Keystone courses and exams at different points in high school; their performance is solidified in 11th grade, when their "best" results are tallied

Students typically take Algebra in 9th grade, and Literature & Biology in 10th grade. However, students may take courses earlier or later, and can retake the Keystones when they choose.

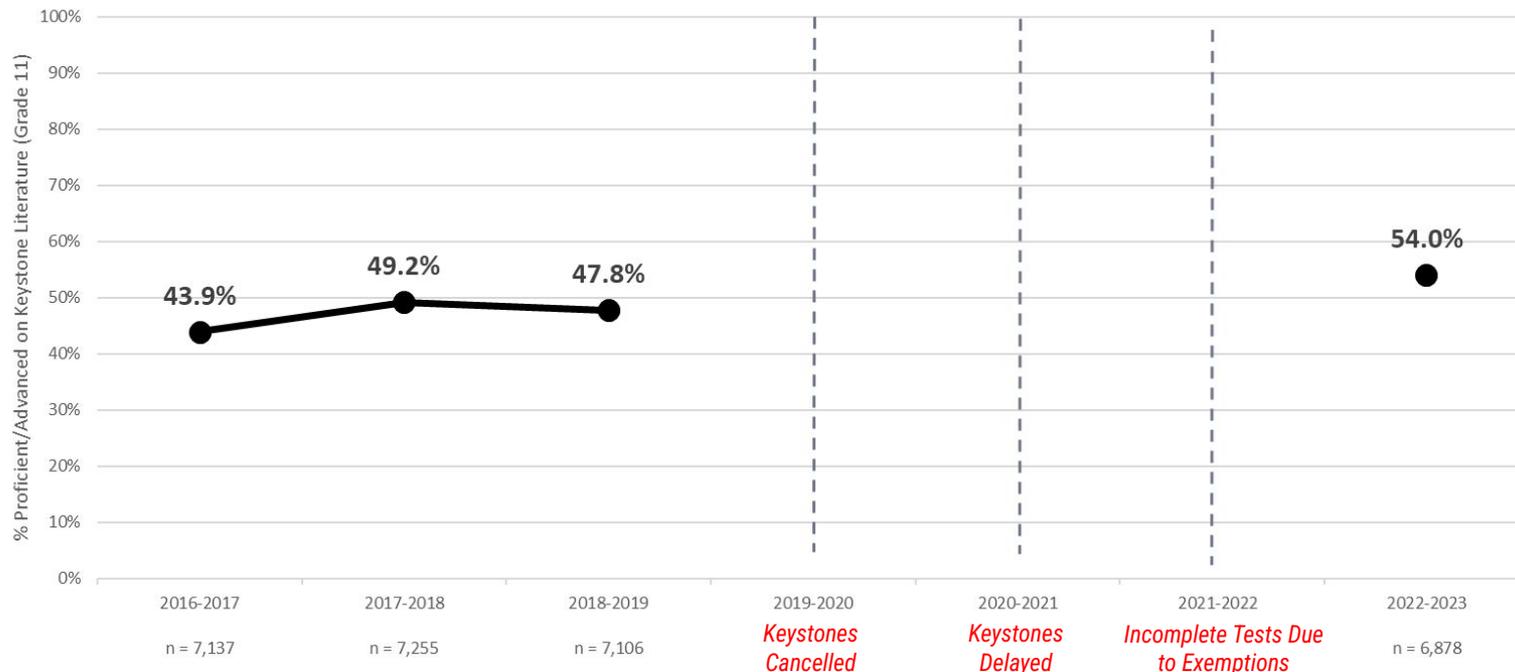**Let's look at three students who were in 11th grade in 2022-23:**

	Student A		Student B		Student C	
	Courses Taken	**Keystones Taken**	**Courses Taken**	**Keystones Taken**	**Courses Taken**	**Keystones Taken**
2019-20 (8th grade)	*No PSSAs or Keystones (Math, ELA, & Science) due to Covid-19*					
2020-21 (9th grade)	Algebra	*Postponed until September 2021*	Algebra & Biology	*Postponed until September 2021*	Algebra	*Postponed until September 2021*
2021-22 (10th grade)	Literature & Biology	Algebra Literature Biology	Literature	Algebra Biology Literature	Biology	Algebra Biology
2022-23 (11th grade)	-	Biology (Retake)	-	Biology (Retake)	Literature	Algebra (Retake) Literature

Goal 4

Keystone Literature Performance by 11th Grade Cohort

The percentage of students who scored **Proficient or Advanced on the Keystone Literature** by 11th grade increased from 47.8% in 2018-19 to 54.0% in 2022-23 (**+6.2 percentage points**).

Keystone Literature Proficiency Rate (Best by 11th)

% Proficient/Advanced on Keystone Literature (Grade 11)

43.9%
49.2%
47.8%
54.0%

2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
n = 7,137	n = 7,255	n = 7,106	*Keystones Cancelled*	*Keystones Delayed*	*Incomplete Tests Due to Exemptions*	n = 6,878

The "n" count for each year indicates how many total students took the Keystone Literature exam.

Data includes all District schools except PVA and Widener

Goal 4
Keystone Literature Performance by 11th Grade Cohort

The percentage of 11th grade students who scored **Below Basic on the Keystone Literature** by 11th grade decreased from 25.6% in 2018-19 to 18.3% in 2022-23 (**-7.3 percentage points**).

Keystone Literature Below Basic Rate (Best by 11th)
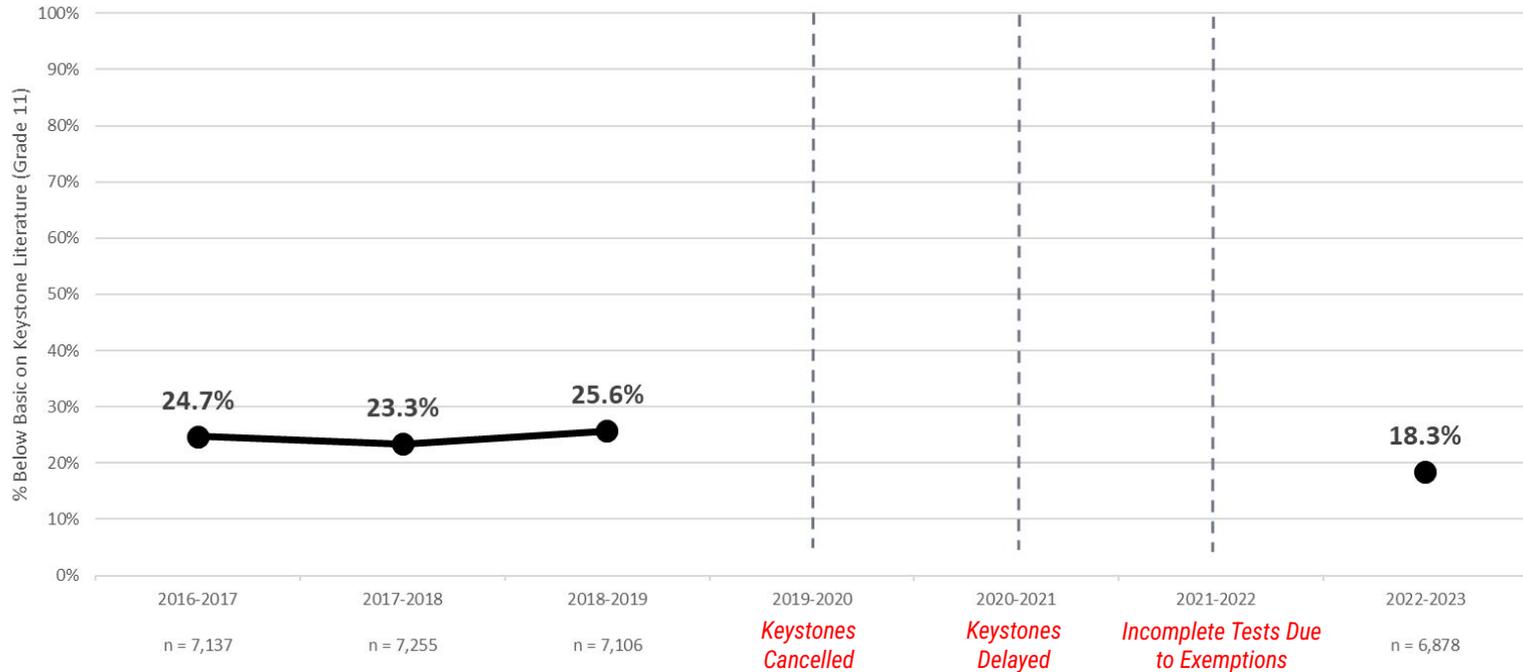
% Below Basic on Keystone Literature (Grade 11)

- 2016-2017: 24.7% — n = 7,137
- 2017-2018: 23.3% — n = 7,255
- 2018-2019: 25.6% — n = 7,106
- 2019-2020: *Keystones Cancelled*
- 2020-2021: *Keystones Delayed*
- 2021-2022: *Incomplete Tests Due to Exemptions*
- 2022-2023: 18.3% — n = 6,878

The "n" count for each year indicates how many total students took the Keystone Literature exam.

Data includes all District schools except PVA and Widener

The percentage of 11th grade students who scored **Proficient or Advanced on the Keystone Algebra** by 11th grade declined from 36.6% in 2018-19 to 30.0% in 2022-23 (**-6.6 percentage points**).

Keystone Algebra 1 Proficiency Rate (Best by 11th)

The "n" count for each year indicates how many total students took the Keystone Algebra 1 exam.

Data includes all District schools except PVA and Widener

The percentage of 11th grade students who scored **Below Basic on the Keystone Algebra** by 11th grade increased from 25.7% in 2018-19 to 34.0% in 2022-23 (**+8.3 percentage points**).
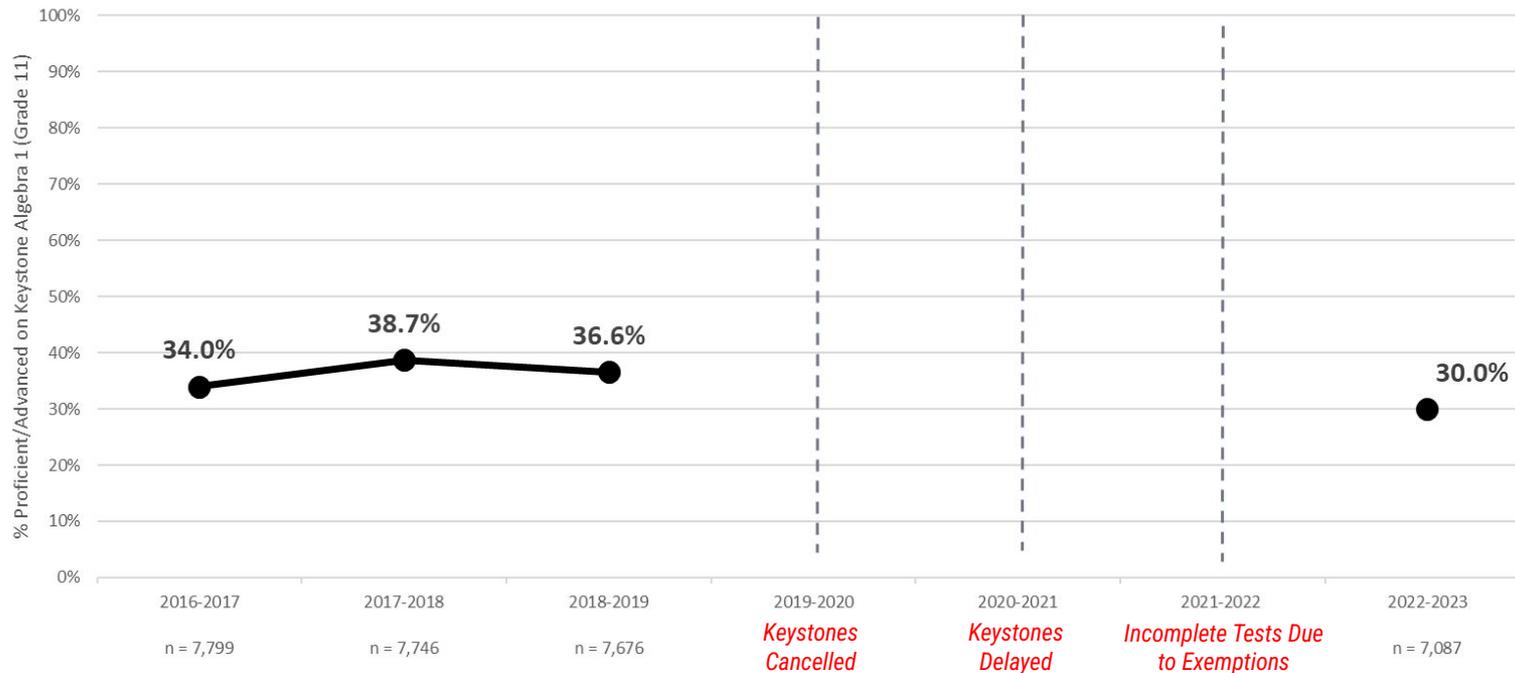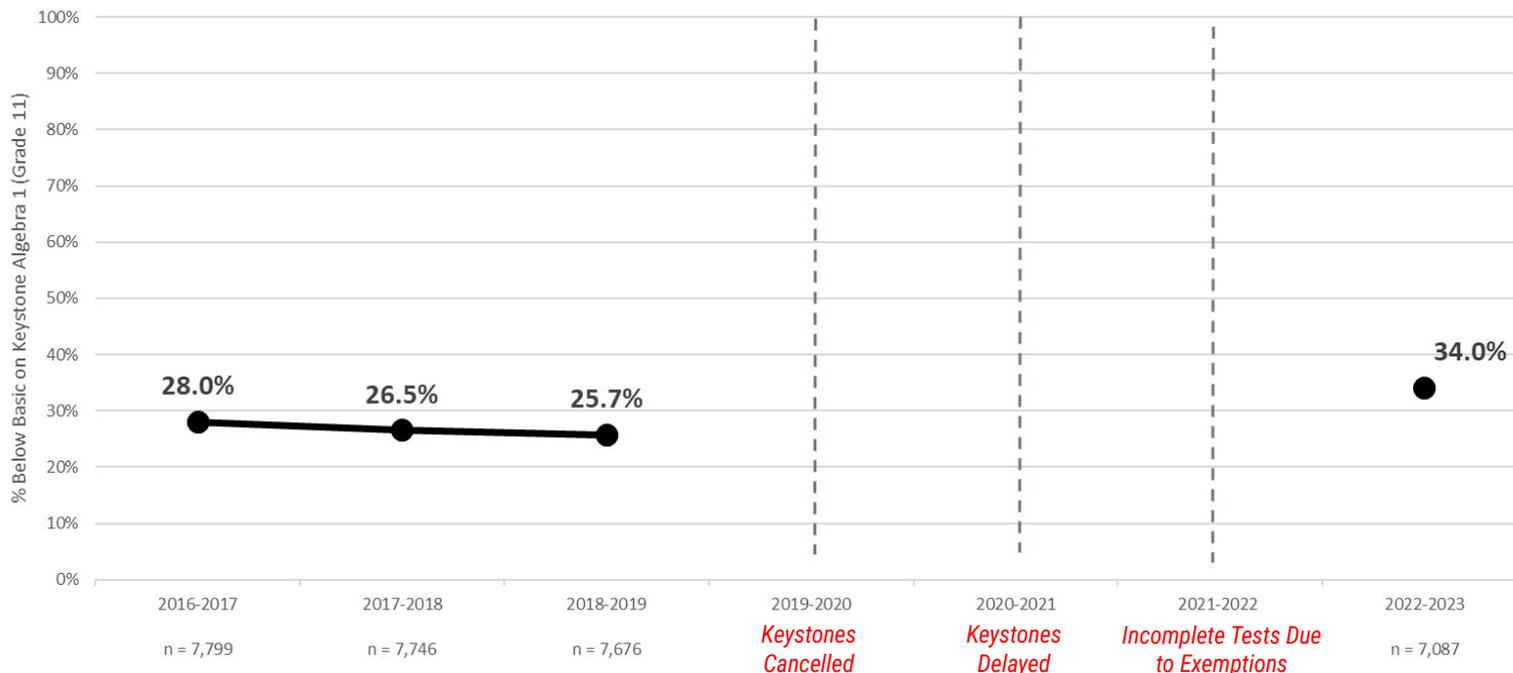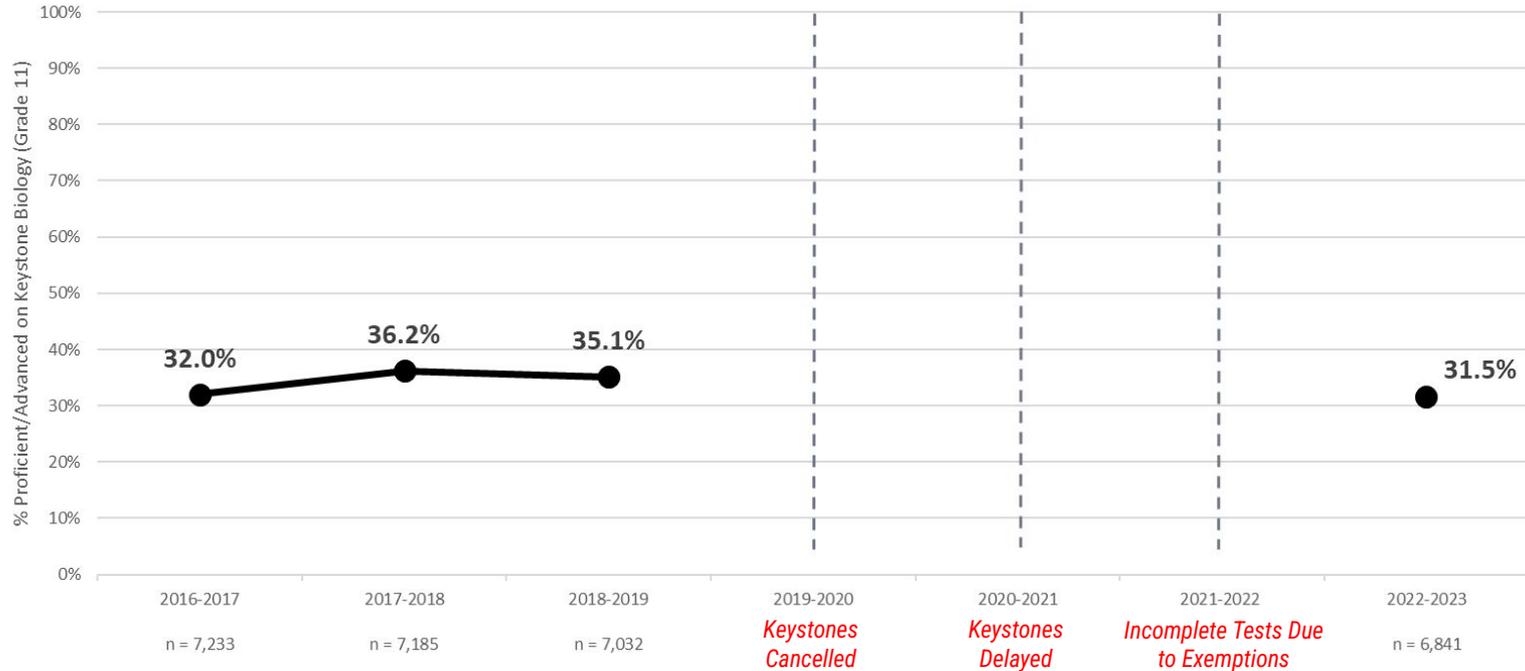

Keystone Algebra 1 Below Basic Rate (Best by 11th)

The "n" count for each year indicates how many total students took the Keystone Algebra 1 exam.

Data includes all District schools except PVA and Widener

Goal 4
Keystone Biology Performance by 11th Grade Cohort

The percentage of 11th grade students who scored **Proficient or Advanced on the Keystone Biology** by 11th grade declined from 35.1% in 2018-19 to 31.5% in 2022-23 (**-3.6 percentage points**).

Keystone Biology Proficiency Rate (Best by 11th)

% Proficient/Advanced on Keystone Biology (Grade 11)

Year	Value	n
2016-2017	32.0%	n = 7,233
2017-2018	36.2%	n = 7,185
2018-2019	35.1%	n = 7,032
2019-2020	*Keystones Cancelled*	
2020-2021	*Keystones Delayed*	
2021-2022	*Incomplete Tests Due to Exemptions*	
2022-2023	31.5%	n = 6,841

The "n" count for each year indicates how many total students took the Keystone Biology exam.

Data includes all District schools except PVA and Widener

Goal 4

Keystone Biology
Performance by 11th Grade Cohort

The percentage of 11th grade students who scored **Below Basic on the Keystone Biology** by 11th grade decreased from 42.9% in 2018-19 to 37.8% in 2022-23 (**-5.1 percentage points**).
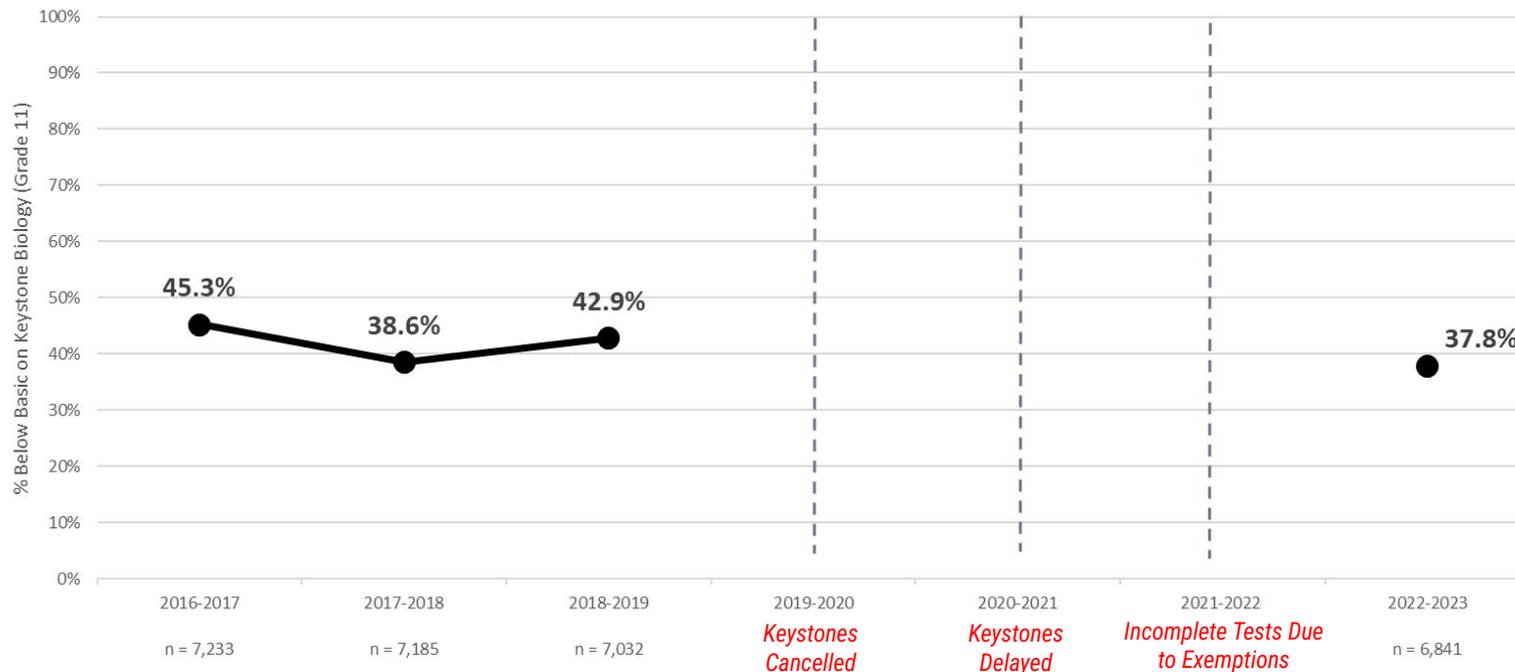
Keystone Biology Below Basic Rate (Best by 11th)

% Below Basic on Keystone Biology (Grade 11)

45.3%	2016-2017, n = 7,233
38.6%	2017-2018, n = 7,185
42.9%	2018-2019, n = 7,032
	2019-2020, *Keystones Cancelled*
	2020-2021, *Keystones Delayed*
	2021-2022, *Incomplete Tests Due to Exemptions*
37.8%	2022-2023, n = 6,841

The "n" count for each year indicates how many total students took the Keystone Biology exam.

Data includes all District schools except PVA and Widener

The percentage of 11th grade students who **achieved proficiency on all three Keystone exams** (Literature, Algebra 1, and Biology) by 11th grade decreased from 26.1% in 2018-19 to 18.5% in 2022-23 (**-7.7 percentage points**).

### Keystone Proficiency - All Three Keystones (Best by 11th)

Year	Value	n
2016-2017	20.7%	n = 7,950
2017-2018	27.5%	n = 7,902
2018-2019	26.1%	n = 7,846
2019-2020		Keystones Cancelled
2020-2021		Keystones Delayed
2021-2022		Incomplete Tests Due to Exemptions
2022-2023	18.5%	n = 7,279
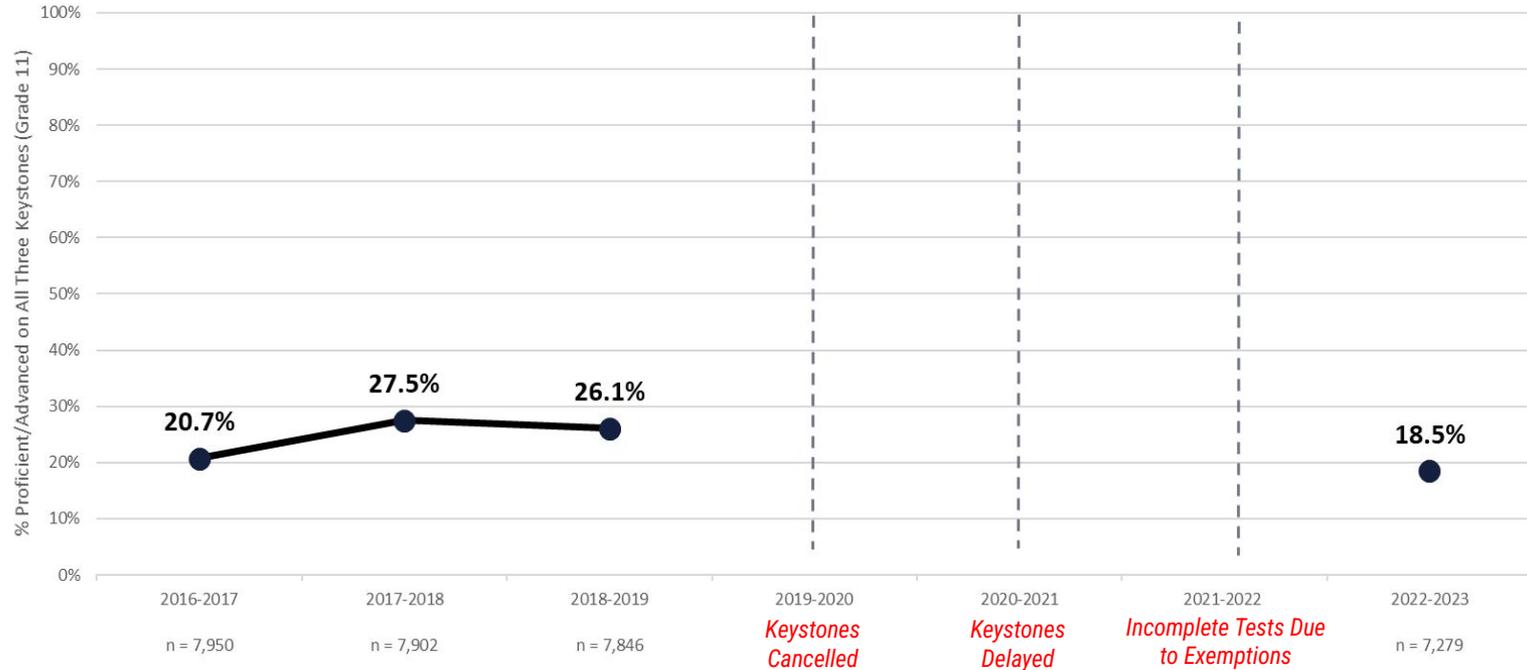
The "n" count for each year indicates how many total students took all three Keystone exams.

Data includes all District schools except PVA and Widener

Changes in Keystone performance from 2018-19 to 2022-23 by Student Group

	Literature		Algebra		Biology	
	Prof/Adv	Below Basic	Prof/Adv	Below Basic	Prof/Adv	Below Basic
Black/African American	↑	↓	↓	↑	↓	↓
Hispanic/Latino	↑	↓	↓	↑	▬	↓
White	↑	↓	↓	↑	↓	↓
Asian	↑	↓	↓	↑	↓	↓
Multiracial	↑	↓	↓	↑	↓	↓
English Learners	↑	↓	↑	↑	↑	↓
Non English Learners	↑	↓	↓	↑	↓	↓
Special Education	↓	↓	▬	↑	↓	↓
Non-Special Education	↑	↓	↓	↑	↓	↓

Particular challenges in Algebra for high schools students
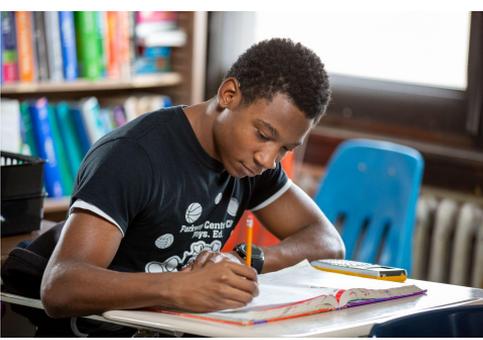
- **Math proficiency is based on learning a series of skills at each grade that build on each other but are unique.**

- **Literature proficiency relies on a deepening of the same skills (spiraling) that were already introduced in earlier grades.**

- **Biology performance is influenced by literacy, and to a certain extent by math skills.**
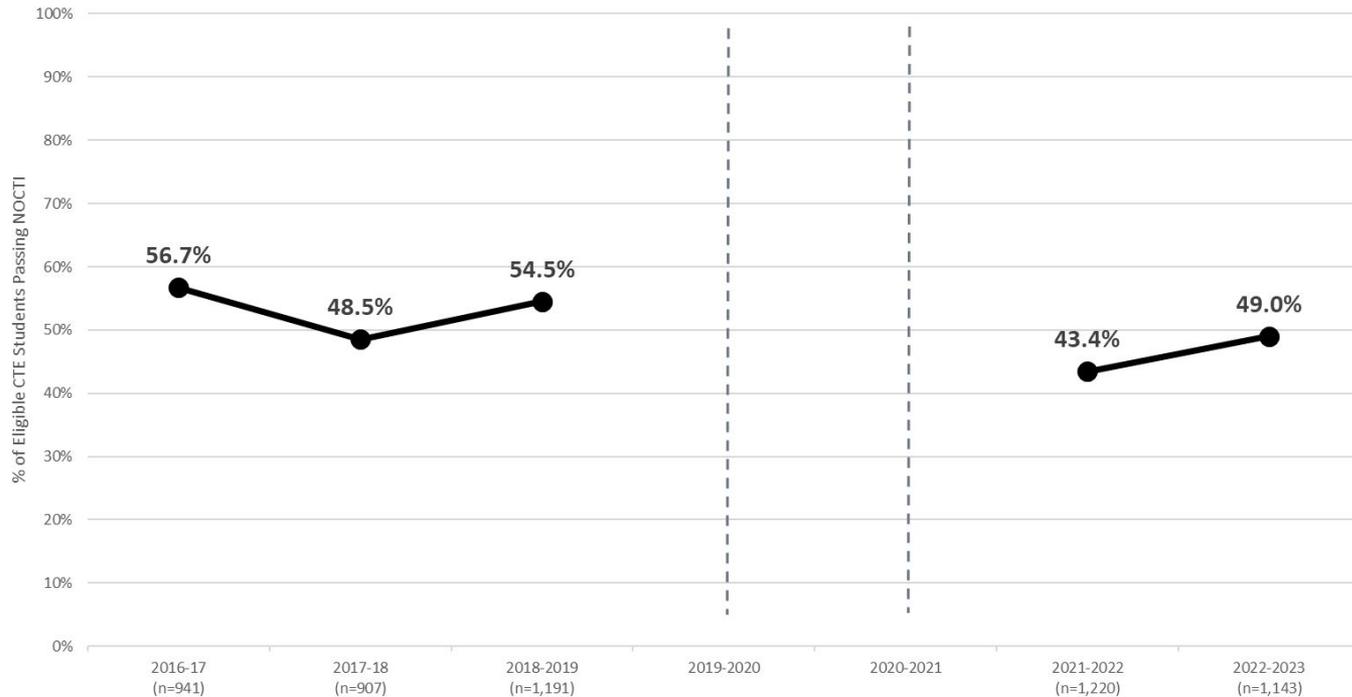
Goal 5:
NOCTI

Goal 5

NOCTI
Grade 12

The percentage of 12th Grade on-level CTE students who **scored Competent or Advanced on the NOCTI** increased, (**+5.6 percentage points**), going from 43.4% in 2021-22 to 49.0% in 2022-23.
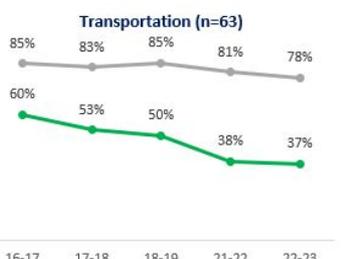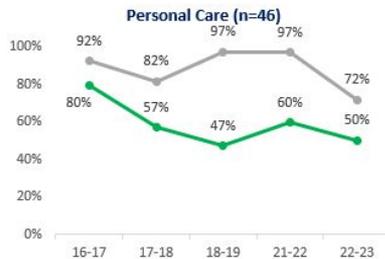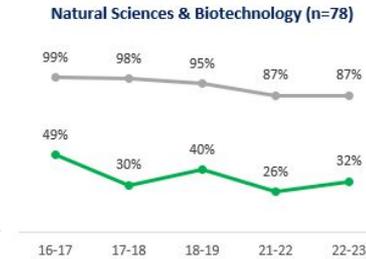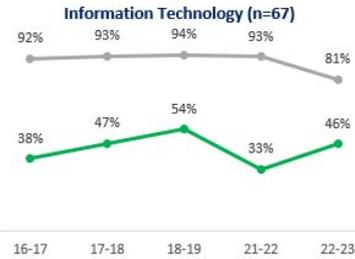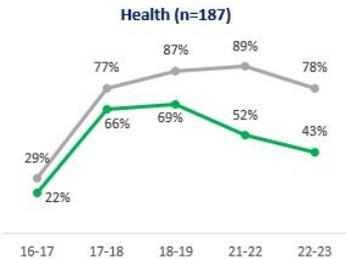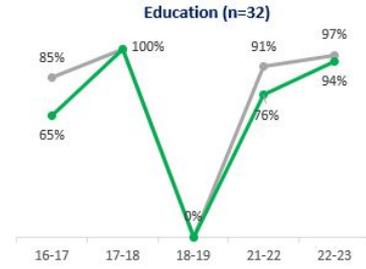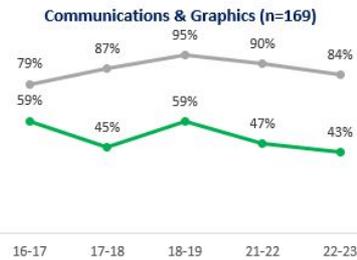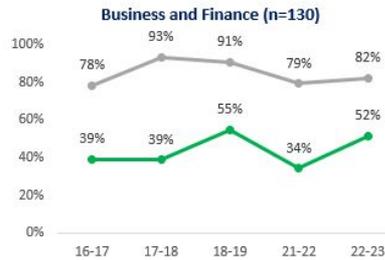
NOCTI Competent/Advanced Rate (12th Grade CTE Students)

Goal 5
NOCTI
Grade 12

The percentage of 12th grade CTE students who `participated` and the percentage who `scored Competent or Advanced` by CTE Cluster

Business and Finance (n=130)

	16-17	17-18	18-19	21-22	22-23
Participated	78%	93%	91%	79%	82%
Competent/Advanced	39%	39%	55%	34%	52%

Communications & Graphics (n=169)

	16-17	17-18	18-19	21-22	22-23
Participated	79%	87%	95%	90%	84%
Competent/Advanced	59%	45%	59%	47%	43%

Construction & Manufacturing (n=209)

	16-17	17-18	18-19	21-22	22-23
Participated	91%	79%	87%	91%	89%
Competent/Advanced	56%	38%	45%	37%	42%

Education (n=32)

	16-17	17-18	18-19	21-22	22-23
Participated	85%	100%	0%	91%	97%
Competent/Advanced	65%	100%	0%	76%	94%

Hospitality (n=162)

	16-17	17-18	18-19	21-22	22-23
Participated	89%	92%	94%	95%	91%
Competent/Advanced	83%	69%	71%	65%	75%

Health (n=187)

	16-17	17-18	18-19	21-22	22-23
Participated	29%	77%	87%	89%	78%
Competent/Advanced	22%	66%	69%	52%	43%

Information Technology (n=67)

	16-17	17-18	18-19	21-22	22-23
Participated	92%	93%	94%	93%	81%
Competent/Advanced	38%	47%	54%	33%	46%

Natural Sciences & Biotechnology (n=78)

	16-17	17-18	18-19	21-22	22-23
Participated	99%	98%	95%	87%	87%
Competent/Advanced	49%	30%	40%	26%	32%

Personal Care (n=46)

	16-17	17-18	18-19	21-22	22-23
Participated	92%	82%	97%	97%	72%
Competent/Advanced	80%	57%	47%	60%	50%

Transportation (n=63)

	16-17	17-18	18-19	21-22	22-23
Participated	85%	83%	85%	81%	78%
Competent/Advanced	60%	53%	50%	38%	37%

Notes: 2019-20 and 2020-21 are omitted from the charts; (n=) indicates total number of eligible CTE students in each cluster in 2022-23.

NOCTI participation and performance by student subgroup

Student Group	# Eligible CTE Students	% Participating	% Competent or Advanced
White	123	88.6%	77.2%
Asian	40	95.0%	60.0%
Multi-Racial/ Other	40	87.5%	60.0%
Black/African American	616	84.7%	45.3%
Hispanic/ Latino	324	79.3%	42.6%
Male	575	84.0%	49.2%
Female	563	84.0%	48.8%

Student Group	# Eligible CTE Students	% Participating	% Competent or Advanced
Does not have IEP	1,061	84.8%	50.3%
Has IEP	82	74.4%	31.7%
Former ELs	73	91.3%	67.1%
Never ELs	934	83.7%	49.7%
Current ELs	136	82.4%	34.6%

Where Are We Going?

Beginning in 2021, we focused here:

		From 2023-24 forward, we will expand our efforts:
Expanded 9th Grade Success Networks	✚	Increase number of schools participating in the Success Network each year through 2027-28
CTE Audit and Strategy Development	✚	Act on CTE audit results from 5 CTE Comprehensive schools; Finalize audit for remaining CTE programs
Expanded and enhanced instruction approaches	✚	Establish clear coherence between skills at different grade levels and how they build upon each other; Create math pathways and expand advanced course offerings to lead into 8th grade Algebra
Expanded and enhanced school-wide climate approaches	✚	Audit and Improve School Climate Programs; Expand Safe Paths Program; Increase School Safety Officers
Re-envisioned professional development for teachers and leaders	✚	Provide wraparound services to teachers with emergency certifications; Continue right level of coaching and supports for all teachers
Established Universal Screeners and provided more space and time for collaboration and using data	✚	Supporting schools with implementing Professional Learning Communities and school-wide problem solving meetings; Continue monitoring Universal Screener data

Accelerate Philly: Actions 2023-24

Recruit, onboard, and support teachers and principals

- **3.9** Provide more support to teachers in the areas of content knowledge, student engagement, and instructional practices
- **4.3** Create recommendations to address long-term District staffing needs
- **4.5** Recruit more Black and Latino male teachers and principals
- **4.7** Expand "Grow-Your-Own" programs for aspiring teachers and leaders
- **5.3** Streamline onboarding process to improve hiring timelines
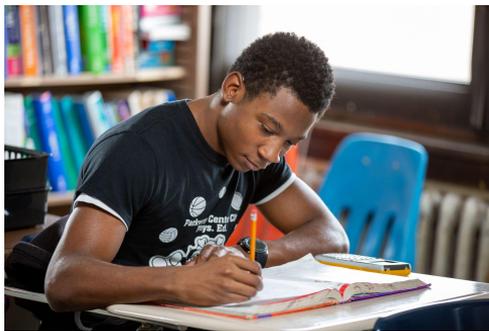
High Quality Core Instructional Resources

- **3.2** Initial implementation of new core instructional resources for math

Improve School Safety & Climate

- **1.5** Expand Safe Path Program to 18 high schools
- **1.7** Identify, audit, and improve school climate programs

Optimizing Learning Opportunities

- **3.10** Establish baseline standards for which courses, programs, and academy models will be offered in all schools
- **3.13** Expand 9th Grade On-Track Success Networks