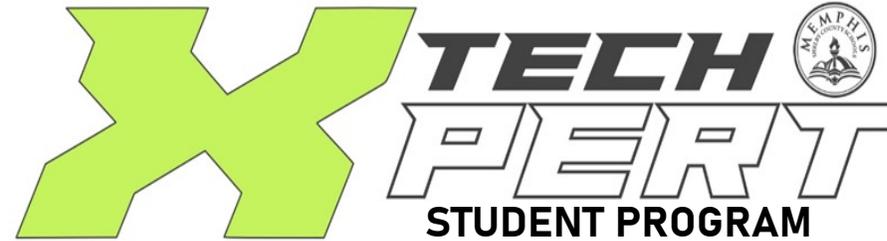# ESSER KPIs: September 2022

Program Overview

STUDENT PROGRAM

This <u>year-round program</u> supports middle school technology exposure and exploration, specifically in the areas of **eGaming, game design, coding, robotics, mobile app development and utilization of 1:1 student devices.** Students also serve as a technology expert in the classroom, supporting teachers and peers with student devices and applications such as Teams. Students will earn a MOS industry certification at the conclusion of the program.

The Tech Xpert Program:
a) provides students with the skills and knowledge needed to master new computer science standards to be implemented in all Tennessee schools starting in the 2023-24 school year;
b) equips parents and students with early interest in technology needed to make informed decisions about high school and post-secondary options; and
c) ensures that students enter high school with, at minimum, 1 industry certification qualifier to be a Ready Graduate.
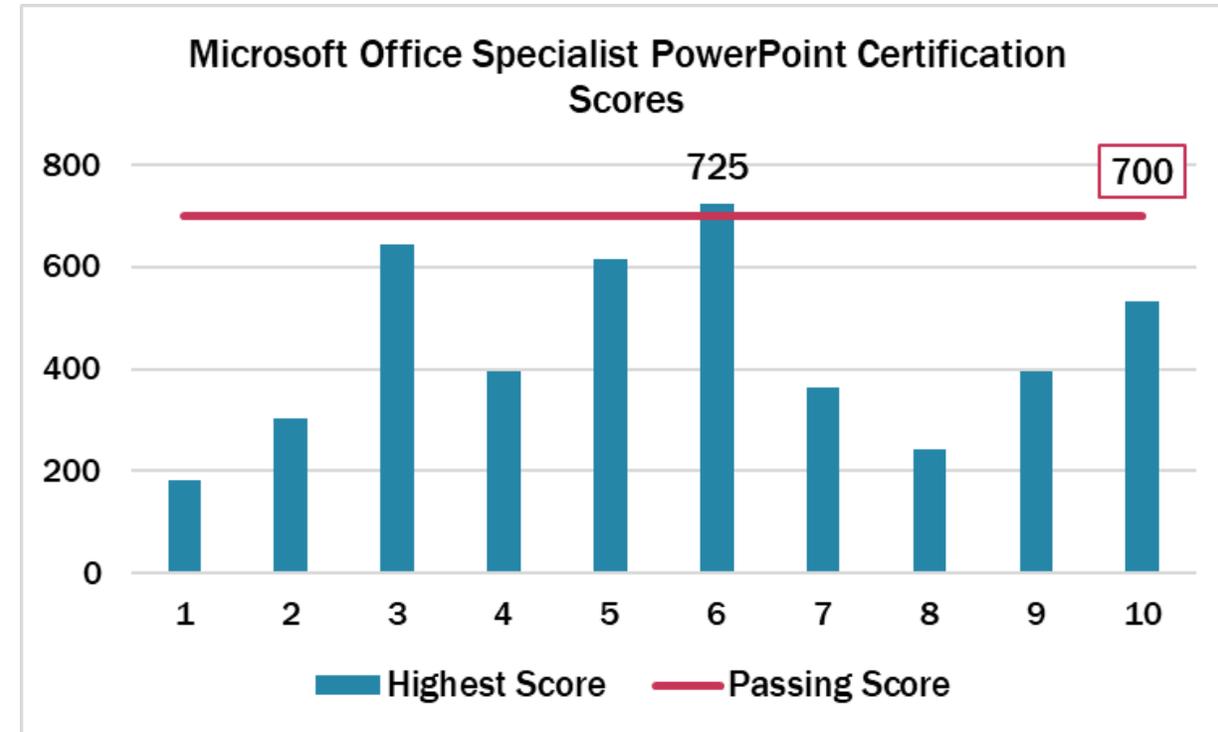
Key Performance Indicators

Key Performance Indicators	Status
Students will earn 1 industry certification to build essential 21st century skills.	🟡
Students will deepen technical knowledge.	🟢
Students will develop hands-on computer technical skills through working with the facilitator and DDA at the school.	TBD

ROI Analysis: ROI will be calculated at the conclusion of the year-long program.

Student Tech Xpert
Summer Immersion Program

- TechXpert is now a **year-round program** that also includes a **2-week intensive summer component**.

- **37 middle schoolers from 20 MSCS schools participated** in the two-week Tech Xpert Summer Immersion Program hosted at Middle College HS.

- **After just 2 weeks**, the top 30% of students who successfully mastered the Test Out pretest were given the opportunity to take the Microsoft Office Specialists (MOS) PowerPoint Certification exam.

- **1 student earned their industry certification,** with 3 more students on the cusp.

Microsoft Office Specialist PowerPoint Certification Scores

725

700

800
600
400
200
0

1 2 3 4 5 6 7 8 9 10

■ Highest Score   — Passing Score

Student Tech Xpert
2022-23 Participating Schools

North
Division I
- Craigmont MS
- Douglass K-8 *
- EE. Jeter K-8
- Georgian Hills MS
- Grandview Heights MS
- Kingsbury MS
- Treadwell MS
- Raleigh Egypt MS
- Woodstock MS

West
Division II
- A Maceo Walker MS*
- Chickasaw MS
- Geeter MS
- Havenview MS
- John P. Freeman K-8
- Oakhaven MS
- Riverview MS

Central
Division III
- Bellevue MS
- B. T. Washington 6-12
- Cummings K-8
- Hamilton K-8
- Ida B. Wells MS*
- Maxine Smith Academy
- Snowden School K-8*

South
Division IV
- American Way MS
- Colonial MS*
- Germantown MS
- Hickory Ridge MS
- Highland Oaks MS
- Lowrance School K-8*
- Ridgeway MS
- Sherwood MS
- White Station MS

East
Division V
- Barrett's Chapel School
- Cordova MS
- Dexter MS*
- Kate Bond MS*
- Mt. Pisgah MS

Using MSCS school location map, the city was divided into 5 divisions based on geographical location.

Student Tech Xpert
2022-23 Participating Schools

- Bellevue Middle
- Chickasaw Middle
- Cordova Middle
- Cummings School (grades 6-8)
- Grandview Heights Middle
- Havenview Middle
- Hickory Ridge Middle
- Mt. Pisgah School (grades 6-8)
- Sherwood Middle
- Treadwell Middle

All MSCS middle schools will participate in the Tech Xpert Student Ambassador Program in the 2023–24 school year.

What's Next for Tech Xpert?

- Tech Xpert Student Ambassadors will engage in Digital Device Troubleshooting **training led by Informational Technology** to troubleshoot 1:1 devices and help reduce the number of inoperable devices.

- The Tech Xpert Program, in partnership with Code Crew and Amazon, will **host a District-wide, full day coding camp, Get Ready! Let's Code!** for middle schoolers that includes coding and programming. We are expecting **300+ students** to attend on Saturday, October 1st at Parkway Village ES. Learning sessions include activities such as:
  - Sphero Bolt
  - Mobile app development
  - Video game creation

- As part of the year-long program, Tech Xpert Student Ambassadors will **participate in the Amazon Cyber Robotics Challenge.** Students will:
  - Learn computer science 101
  - Program an AmazonBot (robot) to fill orders received through Amazon's website

- Tech Xperts will also engage in **learning excursions to the local Amazon Fulfillment Centers** to learn how robotics is used every day to fill millions of product orders around the world.

Summer Learning Academy (SLA)

Program Overview:

The Summer Learning Academy is a four-week summer educational program, as part of the learning loss remediation and student acceleration program, that is designed to support student academic needs and remediate student learning loss.

Program Goals:

Provide academic enrichment for students during the summer to decrease the "summer slide" and improve student academic skills in literacy and math.

Key Performance Indicators	Status
Increase student mastery by **5** percentage points on the Summer Learning Academy pre- and post-assessment, for students who attend at least **95%** of the program.	TBD
Reduce the number of students identified as Tier 3 by **7–10** percentage points, based on **RTI** diagnostic data, for students who attend at least **95%** of the program.	TBD
Provide summer learning opportunities for **MSCS** students.	🟢

ROI Analysis:

ROI will be calculated once the iReady fall data is available.

Summer Learning Academy

SLA Average Attendance Rate by Grade

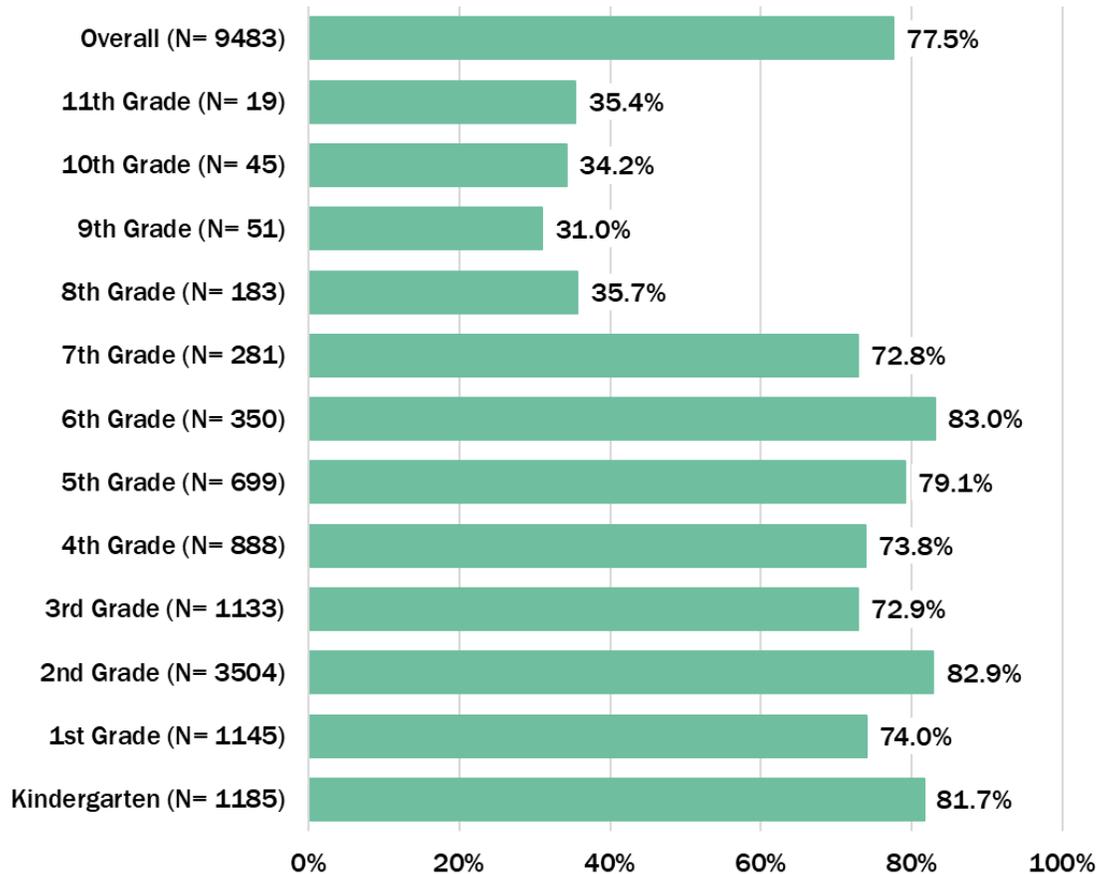| Grade	Attendance Rate
Overall (N= 9483)	77.5%
11th Grade (N= 19)	35.4%
10th Grade (N= 45)	34.2%
9th Grade (N= 51)	31.0%
8th Grade (N= 183)	35.7%
7th Grade (N= 281)	72.8%
6th Grade (N= 350)	83.0%
5th Grade (N= 699)	79.1%
4th Grade (N= 888)	73.8%
3rd Grade (N= 1133)	72.9%
2nd Grade (N= 3504)	82.9%
1st Grade (N= 1145)	74.0%
Kindergarten (N= 1185)	81.7%

Enrollment

- **9,483 students attended SLA** (not inclusive of summer school).

- **2nd grade students participated at the highest rate**, (n = 3,504), while **K–3 students made up 73%** of the students served.

Attendance

- **The attendance rate was 78%** overall, with **rates for K–8 ranging from 73% to 83%.**

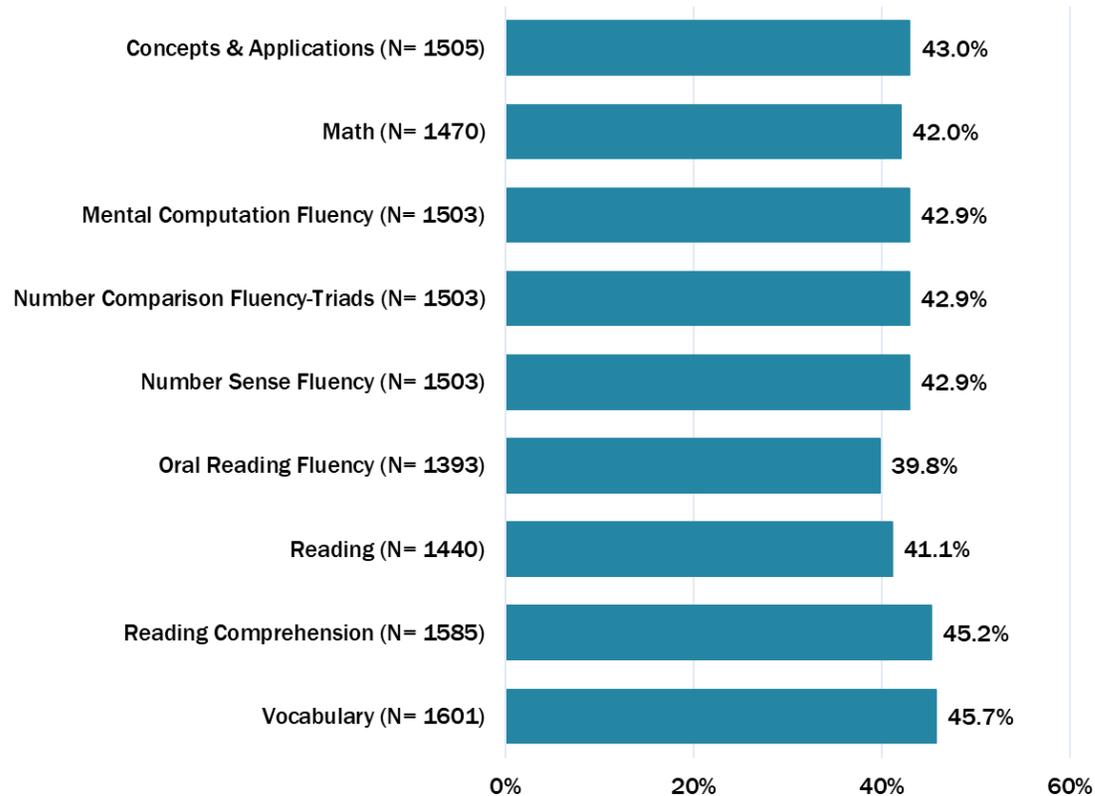- SLA took place over 23 days, so students **missed an average of 5 days** of the program.

Summer Learning Academy

Assessments

Percent of Total SLA 2nd Graders who took a Pre & Post Test for each AIMSweb Test

Test	Percent
Concepts & Applications (N= 1505)	43.0%
Math (N= 1470)	42.0%
Mental Computation Fluency (N= 1503)	42.9%
Number Comparison Fluency-Triads (N= 1503)	42.9%
Number Sense Fluency (N= 1503)	42.9%
Oral Reading Fluency (N= 1393)	39.8%
Reading (N= 1440)	41.1%
Reading Comprehension (N= 1585)	45.2%
Vocabulary (N= 1601)	45.7%

- **AIMSWeb was new to SLA in 2022.**
  - The District received guidance on AIMSWeb just prior to the start of SLA.
  - **Limited time for training** and **difficulty accessing the platform** caused enrollment issues.
  - **10,000+ students had to be enrolled** in the platform.
- **K–2 students took various subsections** of the assessment.
- **40–46% of 2nd graders completed pre- & post-tests** on the tested domains.
- **Kindergarteners' and first graders' completion ranged from 3–34%** on their domains.
  - For both grades **at least half the domains had 18–34% completion rates**.

Summer Learning Academy

Assessments

- **3rd Grade students were supposed to take the SchoolNet state-mandated test.** The SchoolNet assessment is offered in ELA and Math through the online SchoolNet platform.

- This was **the first year using this test during this program** and **schools faced challenges** in administering the tests during the windows.

- **The iReady Spring to Fall diagnostic will be used** to assess the extent to which SLA decreased the "summer slide" for participating students, available in October.

3rd Grade SchoolNet Testing

ELA Testing

- 18.2%
- 27.5%
- 54.3%

Math Testing

- 14.0%
- 29.4%
- 56.6%
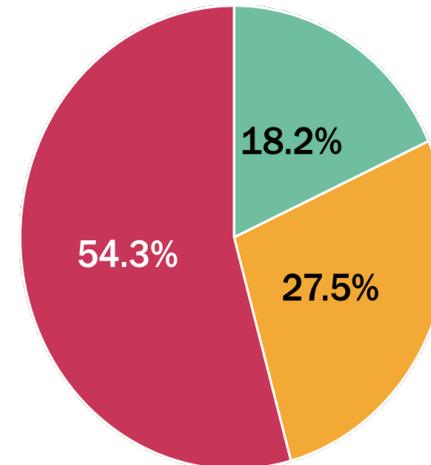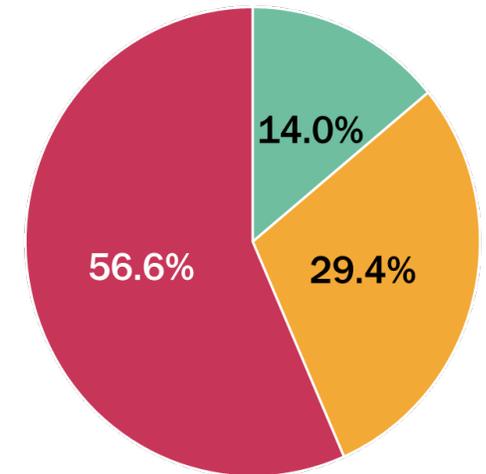
AP Virtual Academy

Program Overview:

The AP Virtual Academy provides access to online AP courses taught by MSCS AP-certified instructors to increase access for ALL MSCS students.

Program Goals:

Provide additional advanced academic opportunities to students who might otherwise not have the opportunity to participate in AP courses at their school.

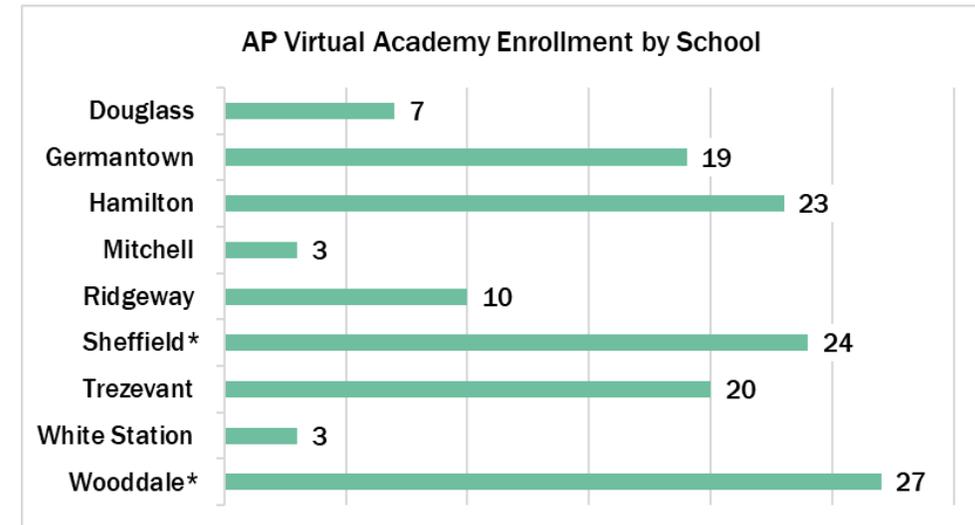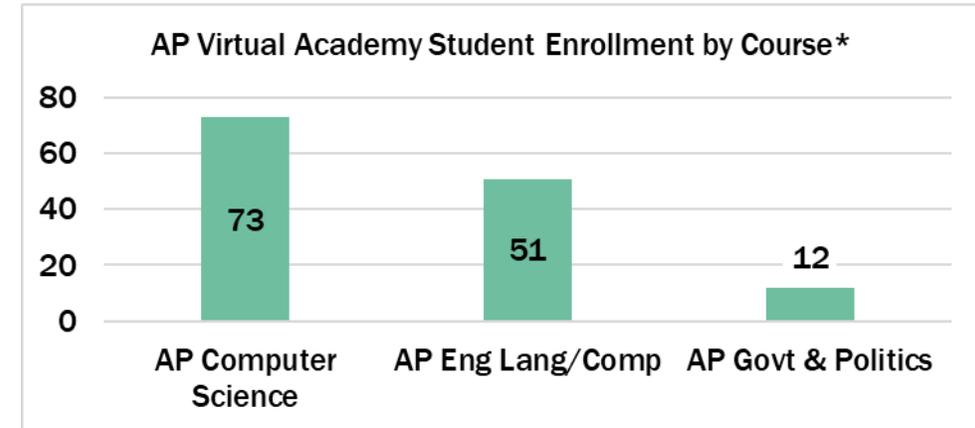| Key Performance Indicators	Status
Increase the percent of students enrolled in advanced courses.	🟢

ROI Analysis:

ROI will be calculated at the conclusion of the year-long program after AP scores are received.

AP Virtual Academy

- **AP Virtual Academy launched in August 2022 and is one part** of the ESSER initiatives that focus on increasing AP access.

- **3 courses are being offered** this fall **serving 136* students.**
  - AP Computer Science Principles (*n* = 73)
  - AP English Language and Composition (*n* = 51)
  - AP Government and Politics (*n* = 12)

- **4 additional courses are planned for 2023–24.**

- **9 schools are participating**, and **8 schools would not be able to offer the respective AP course** without AP Virtual Academy.

- The MSCS AP Virtual Academy **teachers provide additional support across the District.**
  - Weekly virtual/in-person tutoring.
  - Weekly mentoring of novice teachers.

AP Virtual Academy Student Enrollment by Course*

AP Computer Science: 73
AP Eng Lang/Comp: 51
AP Govt & Politics: 12

AP Virtual Academy Enrollment by School

Douglass: 7
Germantown: 19
Hamilton: 23
Mitchell: 3
Ridgeway: 10
Sheffield*: 24
Trezevant: 20
White Station: 3
Wooddale*: 27

* Numbers may fluctuate down by about 10 students after schools correct any enrollment errors.

AP Virtual Academy

Challenges

- **Launch Challenges**
  - AP Academy was not launched as planned in 2021-22 because **ESSER Funds were received too late to hire teachers**; positions were posted but viable candidates were not available.
  - For 2022-23, **one teacher who was hired resigned; another teacher was recommended but not hired through HR**; two additional AP Academy teachers will be hired for 23-24.
  - The AP **Computer Science Principles teacher was hired the week before school started**, which limited enrollment in the course.
  - **AP Access for All courses** (state-run asynchronous AP courses) **are used to supplement AP Academy courses to ensure students have access to AP courses.**
- **Scheduling Challenges**
  - AP Virtual Academy's Hybrid schedule incorporates both block and traditional scheduling; **high schools with conflicting bell schedules cannot currently participate.**

Advanced Academics

Other ESSER-Funded Activities that Expand AP Districtwide

- **31 AP teachers were trained and authorized to teach AP courses** for 2022-23.
- 1 ESSER-funded AP Manager and 2 advisors **provide oversight for the AP Academy and build teacher capacity** in all AP courses & District- managed HS throughout the District.
- **AP exam fees were paid for economically disadvantaged students** or students experiencing economic challenges.
- **The Pre-AP Program increased by 25%,** offering a total of 75 Pre-AP courses in 27 District-managed high schools.
- **Mentoring, tutoring, summer camps, and supplementary materials** are funded to support AP students.

Senior Reading Advisors

Program Overview:

The Senior Reading Advisor (SRA) is a highly-skilled, 12-month instructional position in select middle and high schools.

Program Goals:

Improve literacy skills in middle- and high-schoolers who have severe foundational literacy deficits.

| Key Performance Indicators	Status
Achieve at least Level 4 TVAAS on English Language Arts TCAP assessment	N/A
Increase in percentage of students achieving on-track and mastered performance on English Language Arts by 5 percentage points	🟡
Increase the percentage of students achieving on-track and mastered performance across subgroups by at least 5 percentage points	🟡
Achieve a pre-test to post-test gain of 20 percentage points on the Reading Horizons diagnostic	🟢
Gain an average of 100 Lexiles from pre-test to post-test on Reading Horizons diagnostic	🟢

Senior Reading Advisors

Lexile Scores

- **Lexile measures are a valid, universal scale to evaluate students' reading level** and potential growth over the course of a year.
- Students participating in the SRA program have **severe deficits in foundational literacy skills.**
- Middle school students **started the year with a Lexile score around 300** and based on this starting point had an **expected growth of 142 Lexiles for the year.**
- High school students **started the year with a Lexile score around 500** and based on this starting point had an **expected growth of 87 Lexiles.**

Senior Reading Advisors

Reading Horizons

Average Lexile Gains

Average Diagnostic Gains
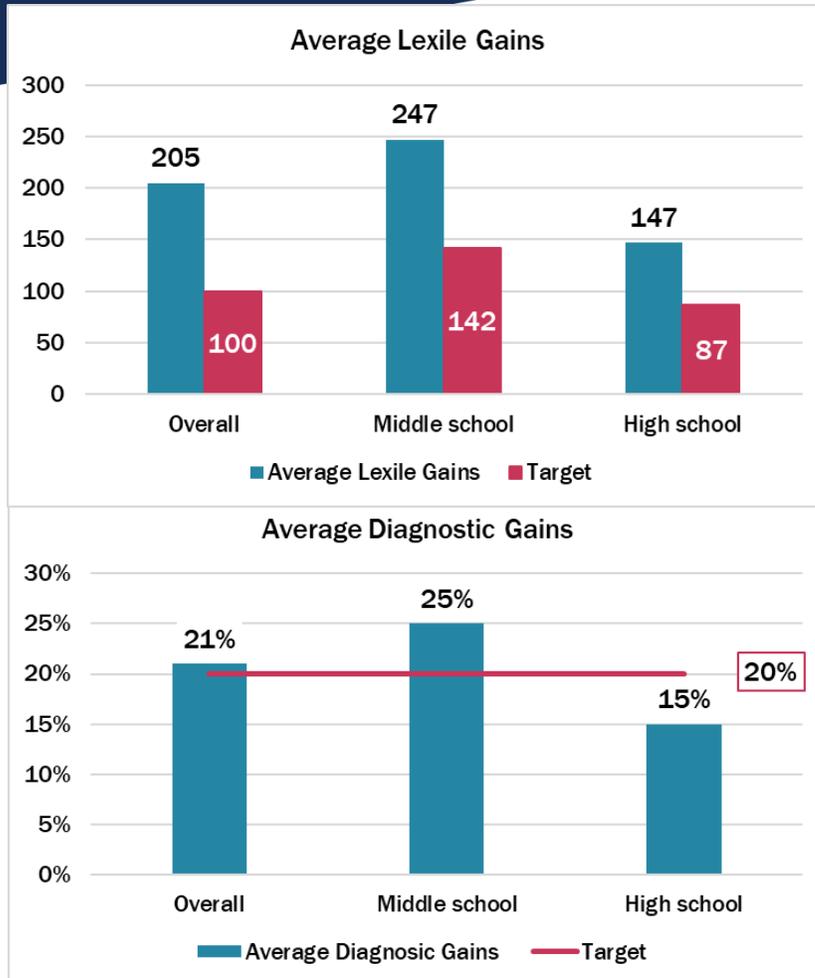
- SRA-taught students **increased their performance on the diagnostic by an average of 21%** from the beginning of the year to the end.

- Students **gained an average of 205 Lexiles** throughout the year.

Gains by Grade Band

- Middle schoolers **increased performance by 25%** and averaged **247 Lexile gains** or 142 Lexiles above what was expected.

- High schoolers showed **15% diagnostic gains** and **gained an average of 147 Lexlies** or 60 Lexiles above what was expected.

Senior Reading Advisors

Subgroups

Gains on Reading Horizons Diagnostic from Beginning to End of 2021-22

Subgroup	N	Mean Percentage Gain		Mean Lexile Gain	
Black/African American	553	🟢	20%	🟢	204
Latinx	70	🟢	24%	🟢	161
Native American, Multiracial, or White	20	🟠	18%	🟢	422
Direct Certified	492	🟢	21%	🟢	213
English Learners	37	🟢	28%	🟢	164
Students with Disabilities	17	🟢	26%	🟢	135

Reading Horizons Assessments

- Mean diagnostic **gains ranged from 18% to 28%.**

  - **English Learners and Students with Disabilities showed the highest gains** (28% & 26%, respectively).

- Mean Lexile **gains ranged from 135 to 422** and **all groups met the target goal.**

  - Students who identify as **Native American, Multiracial, or White gained an average of 422 Lexiles**.

  - Students with Disabilities had the lowest Lexile growth, but **it was still 35 Lexiles over the goal** of 100.

Senior Reading Advisors

TCAP

- **TCAP is a standards-based assessment** and many students participating in the SRA program are **multiple grade levels behind**.
- After participating in the SRA program, **students showed positive movement on their TCAP** compared to 2020–21.
- **16.1% of students who participated showed a net-positive move in TCAP performance-level** (*n = 497*)
  - 123 moved up a performance level
  - 331 scored in the same level
  - 43 moved down one category

SRA Served Student TCAP Performance

	2020–21	2021–22
Below	71%	58%
Approaching	28%	37%
Met Expectations	2%	5%
Exceeded Expectations	0%	0%
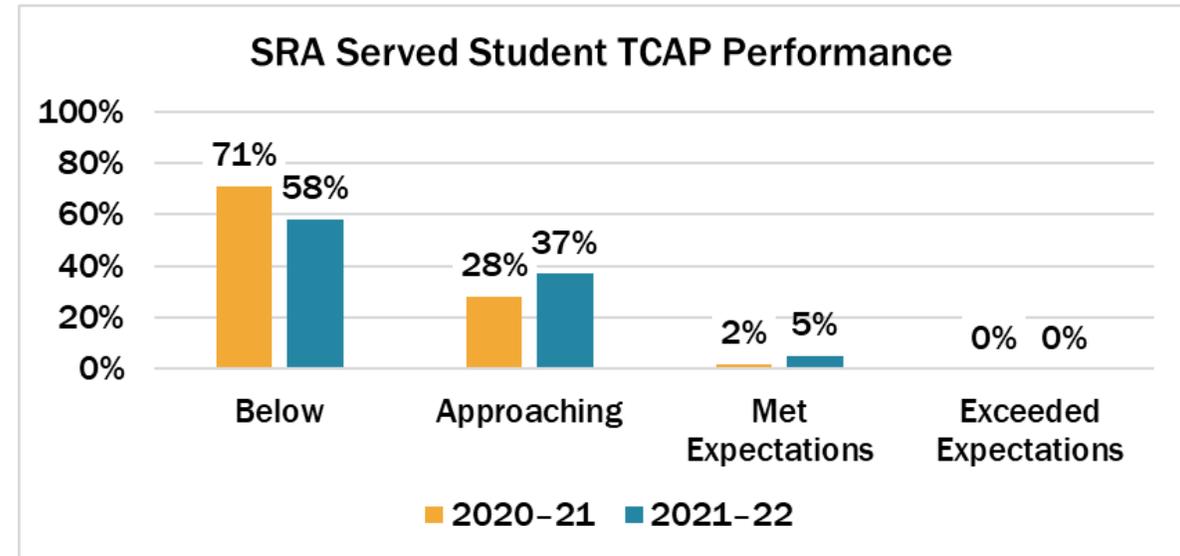
Senior Reading Advisors

TCAP

Students who Met or Exceeded Expectations on TCAP						
	N	2020–21		2021–22		Percentage-Point Gain
		#	%	#	%	
Middle Schoolers	288	4	1%	6	2%	🔴 0.7
High Schoolers	209	4	2%	17	8%	🟢 6.2
Overall	497	8	2%	23	5%	🟡 3.0

Students who Met or Exceeded Expectations on TCAP						
Subgroup	N*	2020-21		2021-22		Percentage-Point Gain
		#	%	#	%	
Black/African American	425	6	1%	19	4%	🟡 3.1
Latinx	56	1	2%	2	4%	🟡 1.8
Native American, Multiracial, or White	16	1	6%	2	13%	🟢 6.3
Direct Certified	372	5	1%	10	3%	🟡 1.3
English Learners	32	0	0%	0	0%	🔴 0
Students with Disabilities	13	1	8%	1	8%	🔴 0

* Sample size is smaller than Reading Horizons sample due to missing TCAP data for one of the years.

Overall

- The percentage of SRA-taught students who **met or exceeded expectations increased by 3 percentage points.**
- On average **students performed 1.8 percentile points higher** than their projected TCAP percentile ranking after participating in the program.

Subgroups

- The gains among **Black and Latinx students were 3.1 and 1.8 percentage points**, respectively.
- **Direct-certified students improved by 1.3 percentage points.**
- Met or Exceeded Expectations rates for English learners and students with disabilities remained unchanged.

Senior Reading Advisors- Costs per Student

$1,954,713 total program cost (2021–22)/ 644 students= **$3,035 per student**

Costs by Grade Band

- 10 middle schools had a total program cost of $1,149,831 / 364 students = **$3,158.88 per MS student**

- 7 high schools had a total program cost of $804,882 /280 students = **$2,874.58 per HS student**

Senior Reading Advisors- Return on Investment

ROI as measured by Lexile Gains*

- Middle Schools
  - It costs the SRA program $30 to move a MS student with sever literacy deficits one Lexile higher than they would otherwise be expected to gain.
  - **To move a MS student an additional half year of growth beyond what is expected it costs the SRA program =$2,130**
- High Schools
  - It costs the SRA program $48 to move a HS student with sever literacy deficits one Lexile higher than they would otherwise be expected to gain.
  - **To move a HS student an additional half year of growth beyond what is expected it costs the SRA program =$1,440**

- After prorating by grade band and number of students served, **to move a student an additional half year of growth beyond what is expected it costs the SRA program = $1,988**

*Lexile scores were computed from the Reading Horizon Platform.

Senior Reading Advisors

Additional Analyses

A full program evaluation report is forthcoming at the end of the month from the Research team**.** It will include additional analyses.

- **Correlation between iReady Lexile scores and Reading Horizon's Lexile scores** to confirm the validity of the Reading Horizon measures.

- **Performance and ROI calculations for the middle school grade band using iReady growth scores** between fall and spring.