

Department of Education & Workforce



### **DEEP DIVE INTO OHIO'S SCHOOL REPORT CARDS**

#### **Progress Component**

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# AGENDA

# Overall Value-added Progress Measure

• SAS Models







#### **Traditional School and District Report Cards**

Districts and schools report information for the Ohio School Report Cards on specific measures within six broader components. The components are Achievement, Progress, Gap Closing, Early Literacy, Graduation, and College, Career, Workforce and Military Readiness (CCWMR). Districts and schools earn a star rating on the components and an overall star rating. This helps give Ohio parents and schools a snapshot of the quality of education they are providing to students. The <u>complete technical document for the Traditional School</u> Report Card Report Card walks through each component and calculation. For more information,



#### **Progress Component**

#### Overview

Print Component Information

Progress looks closely at the growth all students are making based on their past state test

performances. The Progress Component measures the academic performance of students compared to expected growth on Ohio's State Tests. This calculation uses a "value-added" model of measuring academic growth that compares the change in achievement of a group of students to an expected amount of change in achievement that is based on the students' prior achievement history.

The Progress Component has one measure, the overall value-added progress measure, that contributes fully to the star rating. Students' state tests results are examined through a series of calculations by the department's vendor, SAS, to produce an overall value-added score. The overall value-added score is used to assign a star rating to schools and districts. There are additional data reported with the Progress Component which do not factor into the star rating and are noted below.

Previous component ratings were assigned based solely on a "growth index." The growth index provides a level of evidence that the growth observed is statistically different than the growth expected. Another way to interpret this is that the growth index tells us how sure we are that the growth happened in comparison to what we expected.

As set forth in legislation, and through consultation with stakeholders, the updated Progress Component includes a second step to assign ratings. The second step uses an "effect size" to measure the magnitude and it helps standardize and interpret the value-added growth measurement. Another way to say this is that the effect size helps measure the amount of the growth that took place between the two years' tests.

#### Technical Documentation and Resources

- 2022-2023 Progress Component Technical Documentation 1/15
- SAS EVAAS Analysis Technical Documentation 5 New (10/3/23)

#### $\bigcirc$

#### 2022-2023 SCHOOL YEAR Progress Component Technical Documentation TRADITIONAL DISTRICT AND SCHOOL REPORT CARDS

#### Introduction

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### **PROGRESS COMPONENT**



#### Here's the data.

So What?

### Now What?

So, what does the data tell us?

Now what do we do?



### TEST YOUR KNOWLEDGE: PROGRESS COMPONENT

# Retakes for end-of-course exams are included in the calculations for the progress component.







# **OVERALL VALUE-ADDED PROGRESS MEASURE**

### **HERE'S WHAT**

- The Progress Component measures how groups of students made progress as compared to the statewide expectation of growth.
- The expectation of growth is based on how students in the group performed, on average, compared to other students like them across the state.

 Evidence that the district met student growth expectations.
 Progress Component measures the academic performance of students compared to expected growth on Ohio's State Tests. For more detailed data on Progress and Value-Added, click here.

#### Progress Details

These tables show the Progress scores by test grade and subject for students in grades 4-8 and some end-of-course tests, and includes up to three years of data as available.



Significant evidence that the district exceeded student growth expectations by a larger magnitude.

- Significant evidence that the district exceeded student growth expectations.
- Evidence that the district met student growth expectations.
- Significant evidence that the district fell short of student growth expectations.
- Significant evidence that the district fell short of student growth expectations by a larger magnitude.
- Value Added data is not available.



# SAS MODELS





### **GAIN BASED MODEL**

#### **ELA AND MATH TESTS IN GRADES 4-8**

- Measures growth between two points in time for a group of students.
- To estimate the average achievement of a group of students, EVAAS uses all end-of-grade scores across years, grades, and subjects.
- The growth expectation is met when a cohort of students from grade to grade maintains the same relative position with respect to statewide student achievement in that year for a specific subject and grade.



### **PREDICTIVE MODEL**

#### **5<sup>TH</sup> GRADE SCIENCE AND EOC**

- Measures the difference between students' expected scores for a particular subject/year with their actual scores
- Calculates an expected score for each student
   The model includes the scores of all students based on their individual testing history.
   in the state or reference group along with the
- Growth expectation is met when students made the same amount of progress as students in the average district/school/teacher within the state for that same year/subject/grade.

- A student must have at least three prior assessment scores for an expected score to be generated.
- The model includes the scores of all students in the state or reference group along with their testing histories across years, grades, and subjects.



### Background

Two Approaches to Measuring Growth

- Gain Model (a.k.a. MRM)
  - Measures the change in relative achievement from one grade to the next.
  - Traditionally has been used for assessments given in consecutive grades, such as OST English Language Arts and Math assessments in grades 4-8.
- Predictive Model (a.k.a. URM)
  - Measures the difference between students' actual and expected scores, where the expected score is based on students' prior test scores and assumes the average experience (based on average teacher, school, or district results as applicable, with the average district only including traditional districts)
  - Traditionally has been used for assessments given in non-consecutive grades, such as OST Science and OST EOCs.

As these are two different methods of measuring growth, they do not produce identical results.

### So, what? What students count in the Measure?





# What tests count in the Measure?

#### **Ohio State Assessments**

- Grades 4-8 English Language Arts
- Grades 4-8 Mathematics
- Grades 5 & 8 Science

#### End of Course Assessments

- English Language Arts II
- Algebra I
- Geometry
- Biology
- American/United States Government
- American/United States History



# HOW MANY STUDENTS MUST WE HAVE?

#### GAIN MODEL EXAMPLE

- Must have at least 6 accountable students in the subject, grade and year
- For example, to report an estimated NCE gain for a school OST Math grade 5 for this year, there must be the following requirements:
  - There must be at least six fifth-grade students with an OST Math grade 5 score at school A for this year.
  - Of the fifth-grade students at school A this year in all subjects, not just Math, there must be at least six students with an OST Math grade 4 score from last year.
  - At least one of the fifth-grade students at school A this year must have an OST Math grade 5 score from this year and an OST Math grade 4 score from last year.

#### **PREDICTIVE MODEL EXAMPLE**

- Must have at least 10 students in a specific subject, grade, and year.
- Students must have three prior test scores to receive an expected score in that subject, grade, and year.



# **TWO STEPS TO ASSIGN COMPONENT RATING**

### • Step 1

- Use the growth index value to determine if there is statistical evidence that the observed growth was indeed above or below the growth expectation
- Every measure starts at 3 stars, and then either stays at 3, or moves to 2 or 4 at this step.

### • Step 2

- Use the **effect size to determine if the magnitude of growth** was large enough for...
  - Schools and districts showing above expected growth to be considered 5 stars.
  - Schools and districts showing below expected growth to be considered 1 star.



# **RATING DIFFERENCES FOR DISTRICTS AND SCHOOLS**

#### DISTRICT RANGE

Growth index of at least +2 and effect size of at least +0.1

Growth index of at least +2 and effect size of less than +0.1

Greater than or equal to -2 but less than +2

Less than -2 and effect size of at

least -0.1

Less than -2 and effect size of less than -0.1

#### SCHOOL RANGE

Growth index of at least +2 and effect size of at least +0.2

Growth index of at least +2 and effect size of less than +0.2

Greater than or equal to -2 but less than +2

Less than -2 and effect size of at least -0.2

Less than -2 and effect size of less than -0.2

2022-2023 Progress Component Technical Documentation







### **NOW WHAT?**

- Do we notice any trends?
- Are there any grade levels that are doing very well? Any grade levels that are struggling?
- How does this match up with our achievement data?
- What are the year over year trends with progress?



# SECURE DATA CENTER





Choose a School Year	Choose a District					Ch	oose a Subgroup	
2022-2023 School Year	District Name				$\sim$			<u> </u>
	Composite Year	Two most	recent ye	ars of gains d	Curren	t year ga	ins only	
	School Year	2022-2	2023 Sch	ool Year	2022-2	023 Scho	ool Year	
Subject	Subgroup	Gain Index	Grade	Effect Size	Gain Index	Grade	Effect Size	
Overall Composite	Overall	7.90	5 Stars	0.13	4.11	4 Stars	0.09	
• • • • • • • • • • • • • • • • • • •	Gifted Students	5.47	5 Stars	0.29	4.01	5 Stars	0.29	
	Students with Disabilities	1.50	3 Stars	0.05	0.63	3 Stars	0.03	
nglish Language Arts	Overall	0.88	3 Stars	0.03	-1.41	3 Stars	-0.05	
	Gifted Students	1.17	3 Stars	0.10	0.94	3 Stars	0.11	
	Students with Disabilities	-1.85	3 Stars	-0.11	-2.66	1 Star	-0.23	
Mathematics 0	Overall	5.58	5 Stars	0.14	1.44	3 Stars	0.05	
	Gifted Students	3.85	5 Stars	0.31	2.04	5 Stars	0.23	
	Students with Disabilities	2.53	5 Stars	0.14	2.07	5 Stars	0.16	
Science	Overall	13.78	5 Stars	0.52	11.70	5 Stars	0.60	
	Gifted Students	6.46	5 Stars	0.65	6.01	5 Stars	0.70	
	Students with Disabilities	4.73	5 Stars	0.36	3.94	5 Stars	0.41	
Social Studies	Overall	-3.36	1 Star	-0.15	-1.36	3 Stars	-0.08	
	Students with Disabilities	-2.17	1 Star	-0.20	-1.71	3 Stars	-0.22	



### **COMPONENT CALCULATOR**



• Progress Tab



### **SAS REPORTS**

For more detailed data on Progress and Value-Added, <u>click here.</u>





### **CLICK PATHS**



#### I want to know... What do I click? What will I see? Our school's student The recent year of data for all available assessments Log in to EVAAS $\Rightarrow$ growth for the most Go to the Reports $\Rightarrow$ recent reporting year Subject 4- Year 4- Grade Effectivement Level menu ⇒ Select the School OST Mathematics - Accountable 2112 Vellerat 0 0 Light Bloo Value-Added report 0 Green Tip: Click refresh 🔁 to return to this view anytime! EVAAS OHIO Public Access Log In



### STUDENT GROWTH FOR MOST RECENT REPORTING YEAR

- This is the recent year of data for all assessments for one school
- For ELA, there is evidence that the students made expected growth in grades 4 and 5
- ELA grades 6 and 8 made more growth than expected

OST English Language Art		← Year	← Grade	Effect	iveness Level							
	<b>s</b> - Accountable	2023	4	•	Green				0		)	
			5	<b>~</b>	Green		•					
			6	•	Light Blue					0		
			7	•	Yellow	•					)	
			8	•	Light Blue					0		
OST Mathematics - Accou	intable	2023	4	•	Green			•			)	
			5	~	Green			ģ			)	
			6		Light Blue					0		
			7	~	Green		(	D			)	
			8	<	Green		•					
DST Science - Accountabl	e	2023	5	~	Yellow	•						
			8	~	Green			a			)	



How our most recent year compares to previous years' data	<ul> <li>⇒ In the filter panel, scroll down to Years</li> <li>⇒ Select the desired years</li> <li>⇒ Click the Grade column to shift it left</li> </ul>	Sobject       Cross       Year       Effectiveness Level         OST English Language Arts - Accountable       4       2110       2111         2111       Cross       Cross       0							
+ Add a Comparison         Value-Added       ₽         Accountability Value-Added	This report enables you to select data of i explore growth and achievement data. De (NCEs) or scale scores and does not reflect	Only the data for the grades or subjects you selected	s						
Data to Display	OST Accountable reports include only the	ose students accountable to that district.							
<ul> <li>Effectiveness Level</li> <li>Growth</li> </ul>	Subject	← Year ← Grade Effectiveness Level							
Achievement	OST English Language Arts - Accounta	able 2023 4 Green O							
Legend and Glossary		6 • Light Blue O							



### HOW DOES THE MOST RECENT YEAR COMPARE TO THE PREVIOUS YEAR?

- 4<sup>th</sup> grade ELA maintained expected growth from 2022 to 2023
- 5<sup>th</sup> grade ELA increased their index score in the positive while maintaining growth from 2022 to 2023
- 6<sup>th</sup> grade and 8<sup>th</sup> grade ELA showed significant growth from one year to the next
  - What factors contributed to this growth?
  - Was it a change in curriculum or teaching methods?
  - What interventions were put in place that could be replicated?





How to compare our school's student growth to that of the district or another school	<ul> <li>⇒ In the filter panel, scroll up to Districts &amp; Schools</li> <li>⇒ Click on Add a Comparison</li> <li>⇒ Choose up to 10 options</li> </ul>	Data for each dis	trict or scho trict or scho trict or scho trict trict or scho trict trich	Sool you selected       Soap     Decisions Lood       Soat Mades School     Soaps Street       Made School     Soaps Street       Made School     Street						
<ul> <li>+ Add a Comparison</li> <li>Value-Added</li> <li>Accountability Value-Added</li> <li>Data to Display</li> </ul>	What are the trends in growth and achievement? This report enables you to select data of interest, assess trends over time, and compare results. Use the filters on the left to explore growth and achievement data. Depending on the assessment, achievement is reported in Normal Curve Equivalents (NCEs) or scale scores and does not reflect proficiency level. OST Accountable reports include only those students accountable to that school.									
<ul> <li>Effectiveness Level</li> <li>Growth</li> <li>Achievement</li> <li>Legend and Glossary</li> </ul>	Subject OST English Language Arts – Accountabl	<ul> <li>← Year</li> <li>← Grade</li> <li>e</li> <li>2023</li> <li>4</li> <li>5</li> </ul>	Effectivenes Gree Light	en O t Blue						



### HOW DOES OUR SCHOOL'S STUDENT GROWTH COMPARE TO THAT OF THE DISTRICT?

- This view is comparing years and Pfeiffer elementary to the district
- From 2022 to 2023 in 4<sup>th</sup> grade math, Pfeiffer elementary had more growth than that of the district
  - Pfeiffer elementary maintained their growth from one year to the next, while the district improved their growth index
- For 5<sup>th</sup> grade math, Pfeiffer saw a downward trend in growth; there is significant evidence that students made less growth than expected while the district maintained their growth





### **NOW WHAT?**

#### Follow the research and evidence!

Explore the same main areas that you would explore for achievement:

- How strong is the core curriculum?
- When/where/how are students receiving interventions?
- Is it a curriculum/instruction issue, a chronic absenteeism issue, or both?
- What trends do you notice across grade levels?



# CONTACT

Please contact the Office of Accountability with additional questions: <a href="mailto:accountability@education.ohio.gov">accountability@education.ohio.gov</a>





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