

A large teal circular graphic on the right side of the page, containing a blurred background image of students walking in a school hallway.

post- pandemic learning recovery in adv schools:

Policy Insights for
Educational Leaders

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Executive Summary

The COVID-19 pandemic impacted student learning across all school types globally. For ADVIS schools, the story is one of resilience and uneven, but remarkable recovery. While overall average gains suggest that academic performance has rebounded, these figures mask that pandemic impacts varied significantly by achievement level, grade, and subject area. The data and subsequent analyses reveal no single, uniform *pandemic effect* that affected all students equally. Instead, different student populations experienced distinctly different disruptions and recovery paths. This variation makes tailored interventions essential, as broad-brush approaches based solely on averages can mislead leaders into adopting potentially ineffective one-size-fits-all solutions.

Notably, ADVIS schools demonstrated stronger year-over-year learning gains than the broader NAIS cohort, particularly in mathematics and quantitative reasoning, suggesting distinctive strengths in their instructional approaches in these subject areas.

Our analysis shows:

- Student baseline achievement level in the upper, middle, or lower groups is by far the strongest predictor of post-pandemic recovery.
- Grade level influences recovery considerably, with older students exhibiting different trajectories than their younger peers.
- Subject areas matter. Mathematics rebounded strongly, while writing and verbal reasoning did not.
- Pandemic effects varied by achievement level: students in the upper-scoring group experienced the greatest short-term disruption but later accelerated most rapidly. In contrast, students in other groups maintained steady progress.

Implications for Policy and Practice

ADVIS schools have demonstrated remarkable resilience in recovering from COVID-19 disruptions, with most academic areas now meeting or exceeding pre-pandemic performance levels. However, this recovery has been uneven across student groups and subjects, creating both opportunities and challenges for educational leaders.

Introduction: The National Context

The March 2020 closure of schools due to COVID-19 created unprecedented disruption to education (Maranto & Marshall, 2024; Reimers, 2022, 2024). Recent results from the National Assessment of Educational Progress (NAEP), produced by the U.S. Department of Education, underscore the severity of this impact nationally, providing a sobering backdrop against which to compare ADVIS school performance.

National Challenges: NAEP Reveals Persistent Declines

Five years after the onset of the COVID-19 pandemic, 2024 NAEP results reveal that American students have not recovered from the educational disruptions they experienced (National Center for Education Statistics, 2024b, 2024a). National scores remain below 2019 pre-pandemic levels across all tested grades and subjects, with particularly troubling patterns emerging around educational equity. While fourth-grade mathematics showed a modest 2-point gain nationally, this progress was driven almost entirely by middle- and higher-performing students, leaving lower performers behind. Eighth-grade mathematics scores remained flat despite the historic 8-point decline in 2022, masking a concerning reality: higher-performing students made gains while lower-performing students continued to decline. Reading results were uniformly discouraging, with scores declining in both fourth and eighth grades. Most alarming, one-third of eighth graders are now reading below the NAEP Basic level, the highest percentage ever recorded, meaning these students struggle to identify fundamental literary elements such as character traits or main ideas.

The widening achievement gap means that lower-performing students now score approximately 100 points below their higher-performing peers on NAEP's 500-point scale. This gap has been expanding for over a decade and accelerated during the pandemic.

The ADVIS School Context: A Different Story?

Within this broader national context, schools affiliated with ADVIS offer an important perspective on pandemic recovery patterns. The key question explored in this report is not whether ADVIS schools recovered—data show that they did—but how recovery patterns varied, and what lessons those patterns hold for policy and practice.

This analysis examines data from ADVIS schools that administered the Educational Records Bureau's Comprehensive Testing Program (CTP) in grades 3-8. CTP is a summative standardized assessment that covers a wide variety of academic domains, serving to measure both content-specific, standards-based performance and broader reasoning abilities essential for academic success.

The focus of this study includes five core academic domains aligned with grade-level learning objectives:

- **Reading Comprehension:** Understanding and analyzing written text
- **Mathematics:** Computational skills and mathematical concepts
- **Verbal Reasoning:** Logic and critical thinking with language
- **Quantitative Reasoning:** Mathematical problem-solving and analytical thinking
- **Writing Concepts & Skills:** Organization; purpose, audience, and focus; supporting details, and style and craft

This comprehensive approach enables educators to assess both students' subject-area knowledge and their ability to apply reasoning skills across different academic contexts. The dataset captures the elementary through middle school transition period, a critical developmental window for academic skill building, making CTP's robust psychometric properties and standardized administration procedures particularly well-suited for longitudinal analysis of learning trajectories.

Data & Methodology

Study Design and Timeframe

This analysis spans testing across two pre-COVID academic years (school years ending in 2018 and 2019) and five post-COVID years (school years ending in 2021, 2022, 2023, 2024, and 2025). The absence of data in the 2019-2020 school year reflects the widespread disruption to standardized assessments during the height of the pandemic, making the 2020-2021 academic year particularly valuable as the first comprehensive post-disruption measurement point.

	Pre-Pandemic		No Testing	Post-Pandemic				
School Year	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25

Data Sources and Sample

Our analysis draws on CTP assessment data from two populations:

- ADVIS schools: Approximately 1,000-1,700 students per year across five academic domains
- NAIS schools: Approximately 30,000-55,000 students per year across the same domains

Complete sample sizes by domain and year appear in Tables 2-3 in the Appendix.

Measurement Approach

The growth data analyzed in this report represent year-over-year academic gains, measured using CTP scale scores that were converted into percentage growth gain scores. This conversion allows for meaningful comparisons across subjects and grade levels. For example, to calculate the average year-over-year learning gain in Quantitative Reasoning, Spring 2017-2018 scores were compared with Spring 2018-2019 scores.

Year-Over-Year	Pre-Pandemic	No Data	Post-Pandemic			
Spring-to-Spring	2018-2019	2019-2020	2021-2022	2022-2023	2023-2024	2024-2025

Performance data are disaggregated by performance groups (i.e., lower, middle, and upper thirds of the first of two spring-to-spring assessments), revealing differential recovery patterns that aggregate statistics alone would mask.

Analytical Advantages

This longitudinal CTP dataset provides several analytical advantages for understanding pandemic recovery. First, the assessment's stability across time periods enables reliable trend analysis. Second, its coverage of both computational skills (Mathematics) and reasoning abilities (Quantitative and Verbal Reasoning) allows for differentiated analysis of how different cognitive domains responded to disruption and recovery efforts. Third, the inclusion of communication skills assessment (Reading Comprehension and Writing Concepts & Skills) captures areas that proved particularly vulnerable to remote learning limitations.

CTP's design as a standards-based assessment also means that score improvements reflect genuine advances in academic skills rather than test preparation artifacts, providing educational leaders with actionable insights about the effectiveness of their instructional programs and recovery interventions.

All detailed data tables, including year-over-year student counts and percentage learning gains by domain, are provided in the Appendix (Tables 2-5).

How ADVIS Schools Compare: Performance Relative To NAIS Schools

Before examining ADVIS schools in detail, it's helpful to understand how they performed relative to the broader independent school landscape. We compared year-over-year learning gains between ADVIS schools and the larger NAIS cohort across all five academic domains.

The Bottom Line

ADVIS schools demonstrated higher year-over-year learning gains than NAIS schools across all five academic domains.

Key Findings

Two domains showed statistically significant differences favoring ADVIS schools. Quantitative Reasoning data, presented in Figure 1, show ADVIS students demonstrated 1.63 percentage points higher year-over-year gains compared to NAIS students. This represents the greatest difference observed across all domains.

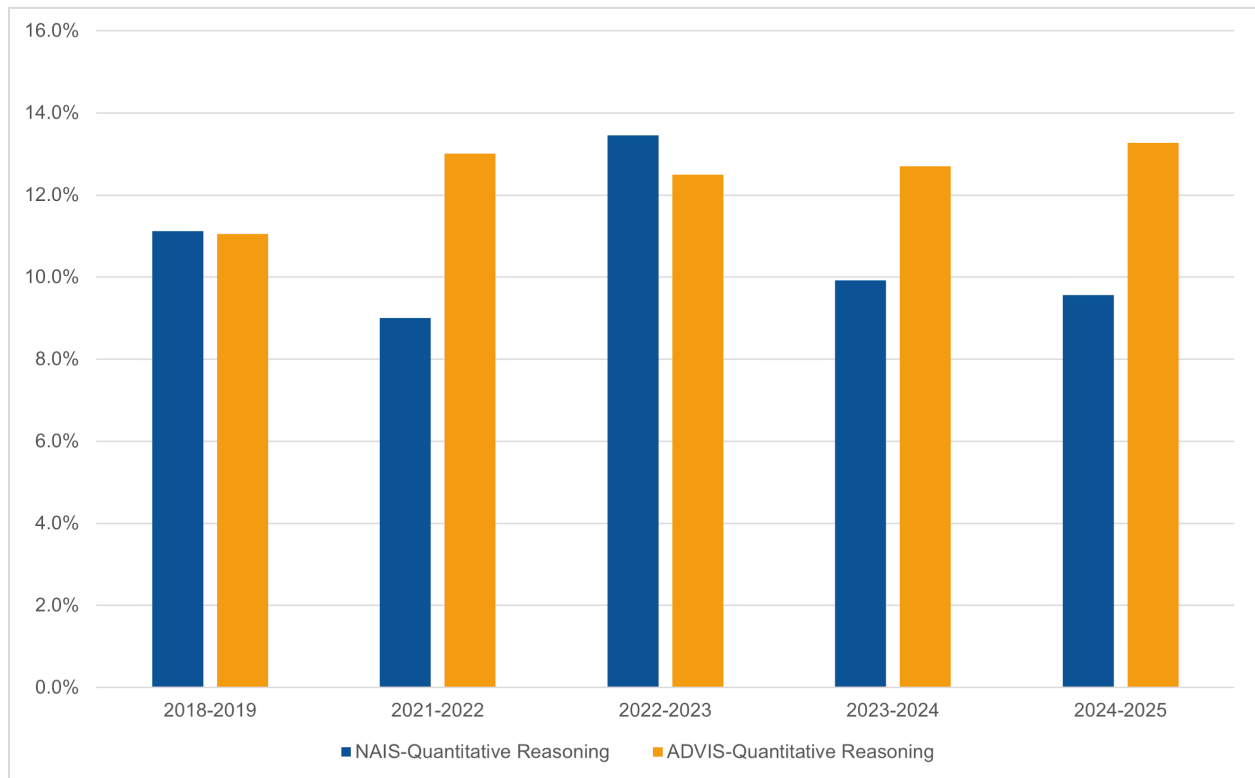


Figure 1. Year-Over-Year Learning Gains in Quantitative Reasoning: Comparison of ADVIS and NAIS Students, 2018-2025

In Mathematics, as shown in Figure 2, ADVIS students showed 0.89 percentage points higher year-over-year gains than NAIS students.

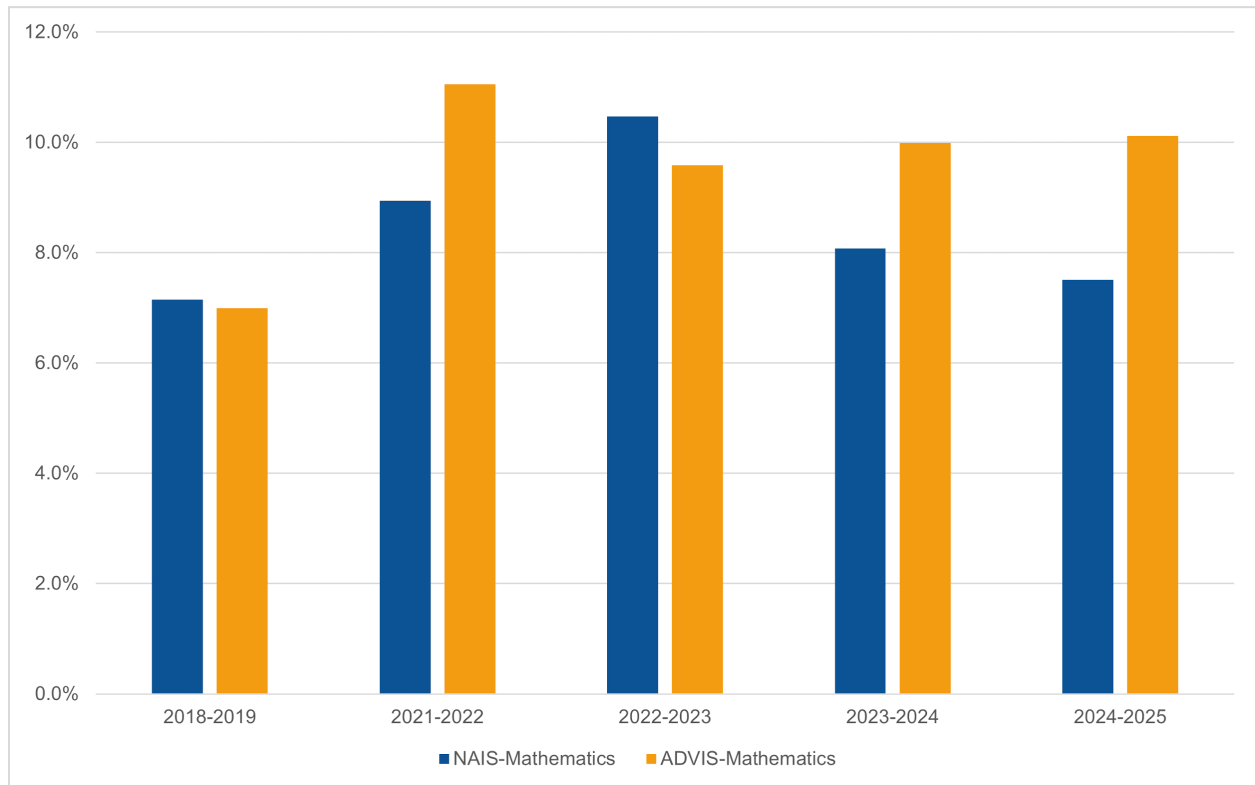


Figure 2. *Year-Over-Year Learning Gains in Mathematics: Comparison of ADVIS and NAIS Students, 2018-2025*

Three additional domains showed positive trends favoring ADVIS, although the differences were not statistically significant. As shown in Figure 3, ADVIS students achieved year-over-year gains that were 0.53 percentage points higher than those of NAIS students. Similarly, in Reading Comprehension (Figure 4), ADVIS students outperformed NAIS students by 0.49 percentage points. In Verbal Reasoning (Figure 5), ADVIS students also demonstrated greater improvement, with gains 0.36 percentage points higher than those of NAIS students.

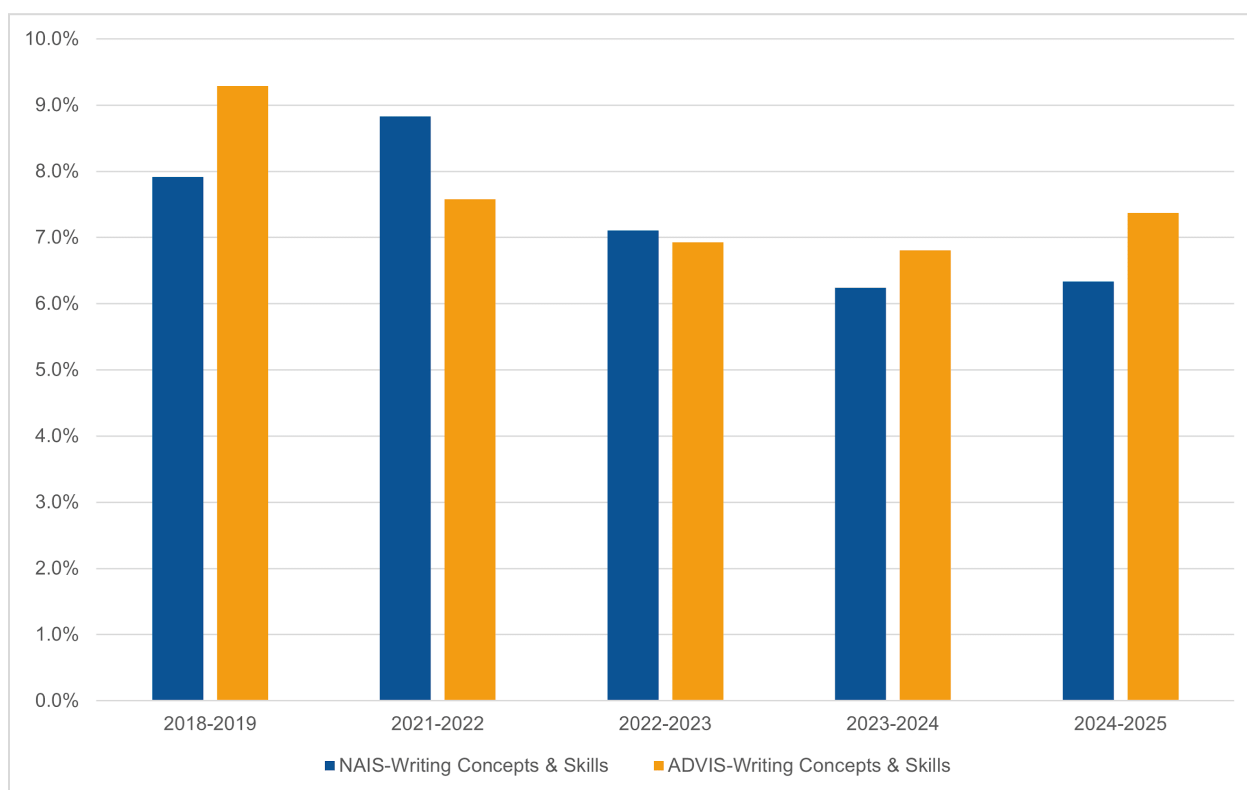


Figure 3. *Year-Over-Year Learning Gains in Writing Concepts & Skills: Comparison of ADVIS and NAIS Students, 2018-2025*

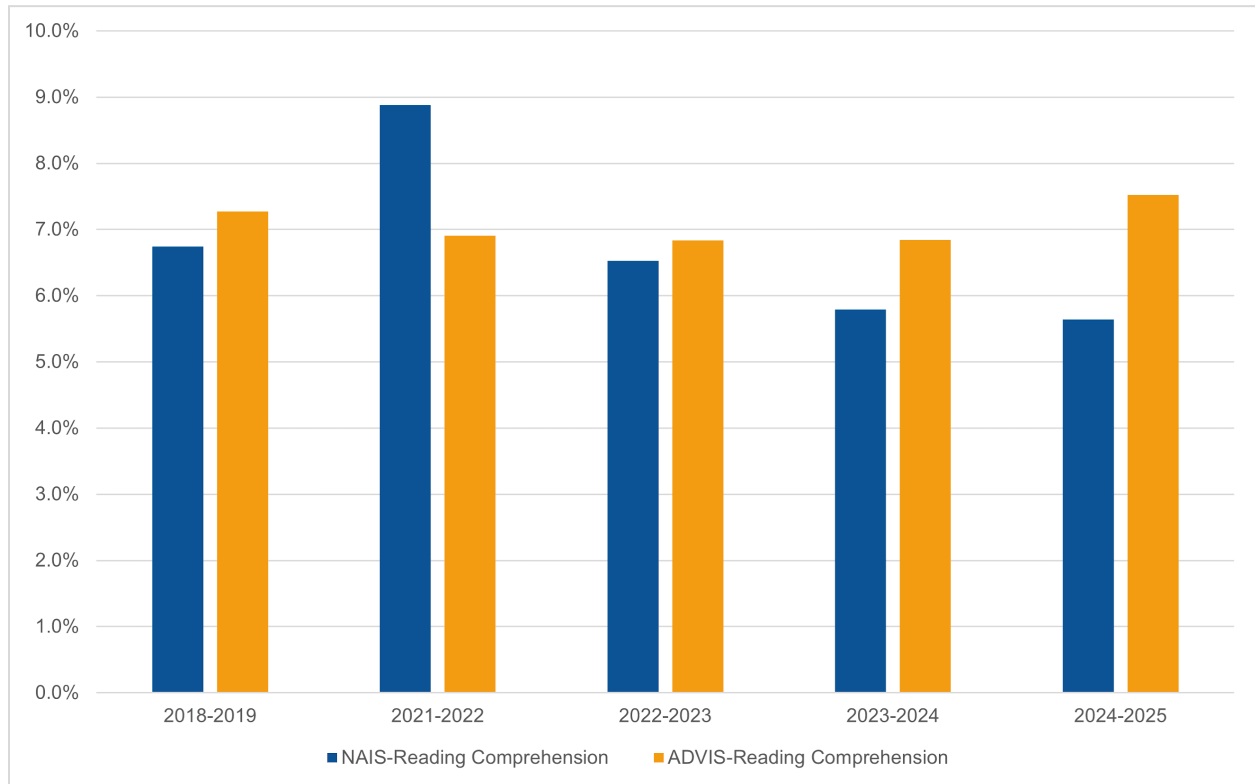


Figure 4. *Year-Over-Year Learning Gains in Reading Comprehension: Comparison of ADVIS and NAIS Students, 2018-2025*

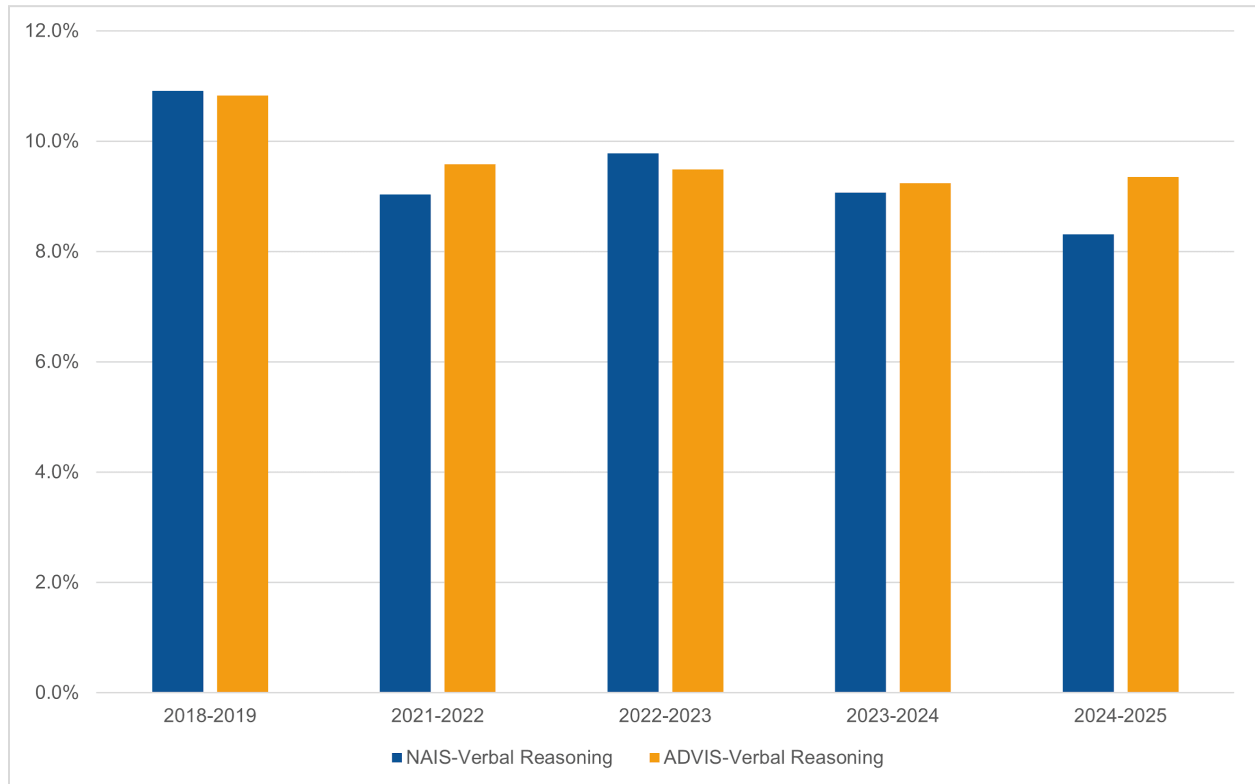


Figure 5. *Year-Over-Year Learning Gains in Verbal Reasoning: Comparison of ADVIS and NAIS Students, 2018-2025*

Understanding Effect Sizes

The observed differences, while statistically significant in quantitative domains, are considered ‘trivial’ by conventional research standards. However, these seemingly modest differences are meaningful in educational contexts. Small annual advantages compound over multiple years of student development. A student who consistently gains an extra 1.6 percentage points per year in quantitative reasoning, for example, accumulates substantial advantages over their elementary and middle school career.

What This Means

ADVIS schools demonstrate systematic advantages in year-over-year learning gains, with a consistent pattern of higher growth across all five academic domains. Detailed statistical results, including sample sizes, test statistics, and effect sizes, appear in Table 1 in the Appendix.

ADVIS Schools: A Closer Look At Recovery Patterns

Having established that ADVIS schools outperformed the broader NAIS cohort, on average, we now examine the detailed patterns within ADVIS schools themselves. The story that emerges is one of recovery with important variations by subject area and student achievement level.

Overall Achievement Trends Across Subjects

Figure 6 and Table 4 (Appendix) display the average year-over-year learning gains across all five subjects for ADVIS students from Spring 2018-Spring 2019 through Spring 2024-Spring 2025. These percentages represent how much students grew relative to their starting achievement levels each year.

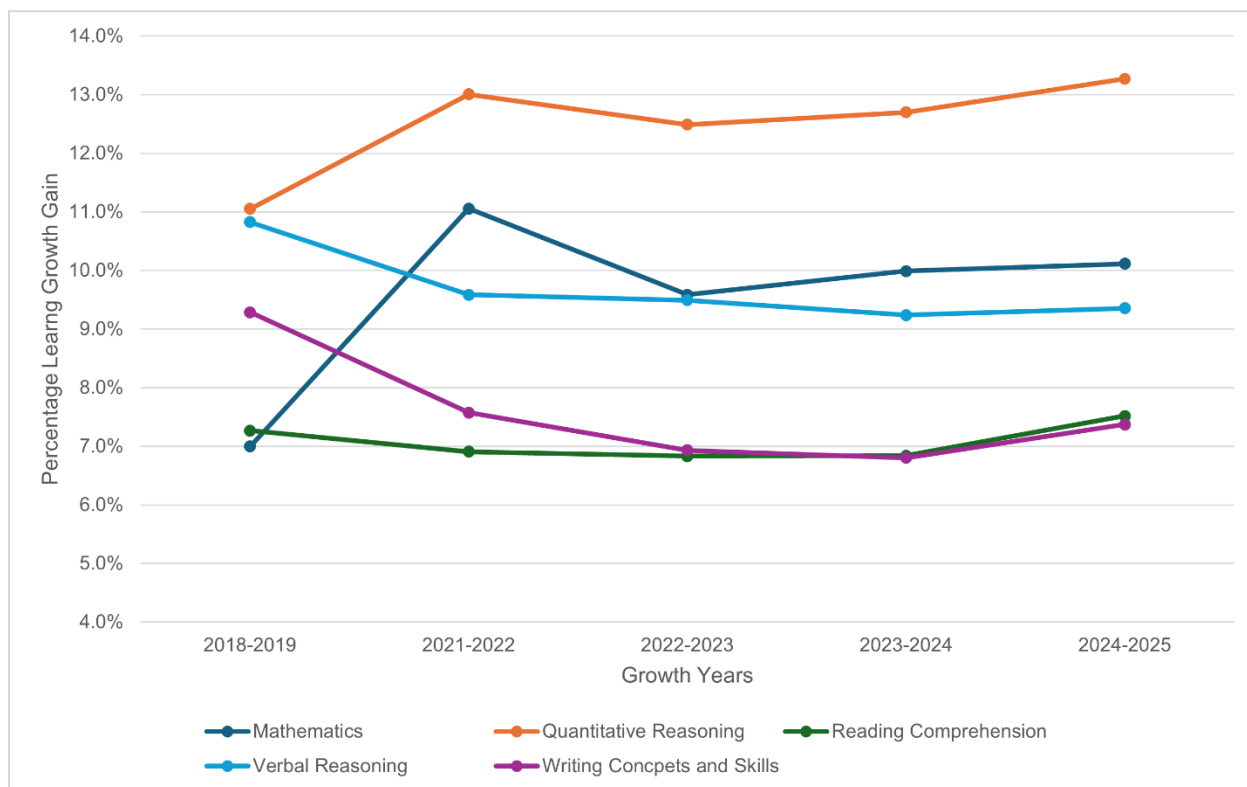


Figure 6. *Overall Academic Achievement Trends in ADVIS Schools by Subject Area, 2018-2025*

The overall achievement data reveals a fundamentally positive story: every data point across all subjects and all years shows positive year-over-year growth. This means that regardless of subject area or year, including through the pandemic disruption and recovery, ADVIS students consistently made progress relative to their starting achievement levels. Within this context of universal growth, distinct trajectories of learning acceleration and consolidation emerge across subject areas.

Each CTP subtest measures achievement on its own scale, which makes it difficult to compare the size of learning gains across different subjects. For example, a 10% gain in Mathematics may not represent the same amount of learning as a 10% gain in Reading Comprehension because the tests use different scales. The clearest way to understand achievement trends is to look at how each subject has changed over time within its own scale.

Quantitative Reasoning: Accelerating Growth. Year-over-year learning gains in Quantitative Reasoning show consistent acceleration throughout the period. Starting at 11.1% in 2018-2019, gains increased to 13.0% in 2021-2022 and continued climbing to 13.3% in 2024-2025. This means that regardless of where students begin each year, they consistently made progress, and that progress has been increasing.

Mathematics: Dramatic Recovery and Sustained Strength. Mathematics shows the most dramatic shift in year-over-year learning patterns. In 2018-2019, students' year-over-year gains averaged 7.0%. By 2021-2022, this jumped to 11.1%. This acceleration has been largely sustained, with gains remaining between 9.6% and 10.1% through 2024-2025.

Verbal Reasoning: Steady Performance. Verbal Reasoning began with strong year-over-year gains of 10.8% in 2018-2019. Gains adjusted to the 9.2%-9.6% range from 2021-2022 onward and have stabilized at 9.4% in 2024-2025.

Reading Comprehension: Consistent and Improving. Reading Comprehension demonstrates consistency in year-over-year gains, hovering between 6.8% and 7.3% throughout most of the period. The most recent year (Spring 2024-Spring 2025) shows gains of 7.5%, the highest in the entire period.

Writing Concepts & Skills: Recovery and Renewed Growth. Writing shows the most complex trajectory. Year-over-year gains declined from 9.3% in 2018-2019 to a low of 6.8% in 2022-2023 and 2023-2024, indicating students were making less progress relative to their starting points during the pandemic recovery period. However, the rebound to 7.4% in 2024-2025 represents a learning acceleration.

Key Patterns

Two important patterns emerge from this within-subject analysis:

- **Quantitative subjects thrive.** Both Mathematics and Quantitative Reasoning show strong performance and recovery, with Quantitative Reasoning reaching its highest levels ever and Mathematics maintaining significant post-pandemic gains.
- **Language arts remain stable.** Reading Comprehension, Verbal Reasoning, and Writing Concepts & Skills all show stability and recent positive trends.

Understanding Recovery By Achievement Level

While overall trends tell an important story, they mask significant variation in how distinct groups of students experienced and recovered from pandemic disruption. By examining students in three performance groups, we gain insights for better understanding trends and tailored interventions.

ERB defines performance groupings based on students' scores on the first of two springtime assessments: lower tertile = bottom third of students; middle tertile = middle third of students; and upper tertile = top third of students.

Lower Tertile Students: Highest Growth, Greatest Responsiveness

Lower tertile students demonstrate the highest absolute learning growth gains across all subjects, with scores ranging between 10.9% and 19.2% (see Figure 7 and Table 6 in the Appendix). This finding makes sense when we understand the measurement: these students have more room for growth, and interventions designed for emerging learners often produce more dramatic, measurable improvements.

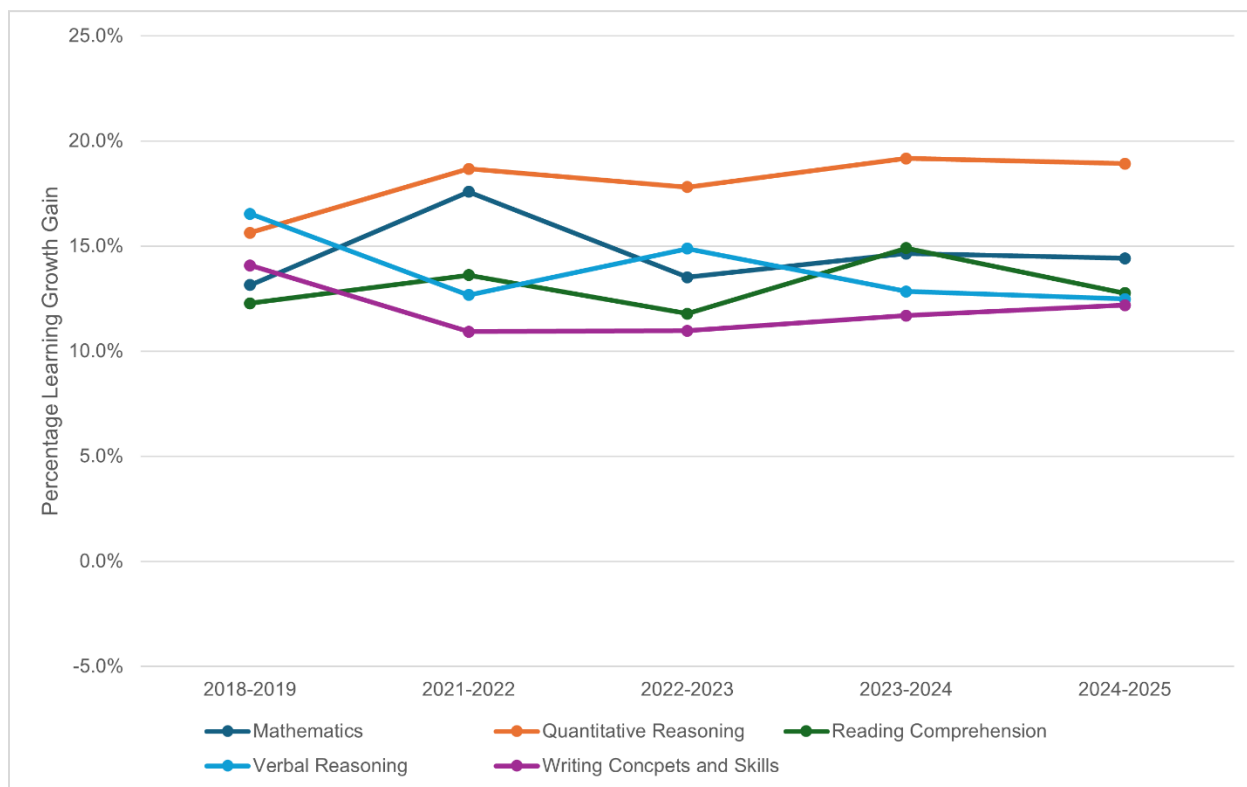


Figure 7. Academic Achievement Trends of Lower Tertile Students, 2018-2025

Quantitative Reasoning represents exceptional achievement for lower tertile students, beginning at 15.6% in 2018-2019 and climbing steadily to 18.9% by 2024-2025, with a notable peak of 19.2% in 2023-2024. This 21% improvement demonstrates that mathematical reasoning interventions for lower tertile students have been highly effective and continue to build momentum.

Mathematics shows responsiveness, increasing from 13.1% to 17.6% in 2021-2022, a 34% increase, before stabilizing around 13.5% to 14.6%. This pattern demonstrates that teaching and learning in ADVIS schools during the pandemic transition was especially impactful, creating lasting benefits for struggling mathematics students.

Verbal Reasoning presents an opportunity for renewed investment. While scores have adjusted from 16.5% pre-pandemic to around 12.5% to 12.8% by 2024-2025, this stabilization provides a clear baseline for implementing enhanced language-based reasoning strategies tailored to these students' needs.

Reading Comprehension and **Writing Concepts & Skills** show dynamic patterns, with Reading Comprehension demonstrating strong engagement (ranging from 11.8% to 14.9%) and Writing Concepts & Skills showing promising recovery momentum.

What This Means

Lower tertile students show the greatest volatility, both the highest gains and the largest fluctuations, suggesting they are most responsive to intervention but also most vulnerable to disruption. The strong quantitative gains indicate that structured, systematic instruction in mathematics and mathematical reasoning is highly effective for these learners.

Middle Tertile Students: Steady Progress

Middle tertile students demonstrate consistent and reliable patterns, with scores ranging between 5.4% and 11.4% (see Figure 8 and Table 6 in the Appendix). This group represents steady pandemic recovery, showing predictable growth patterns that provide clear direction for continued improvement.

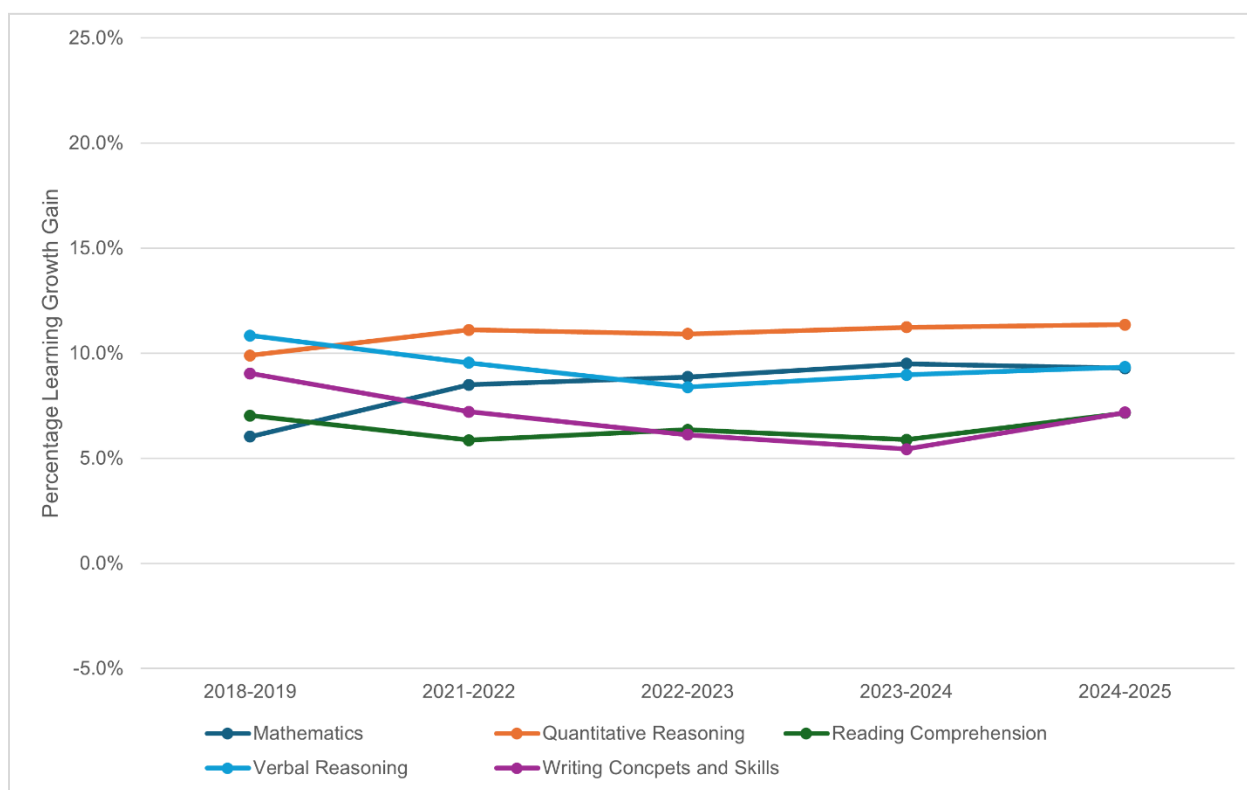


Figure 8. *Academic Achievement Trends of Middle Tertile Students, 2018-2025*

Mathematics tells a success story, progressing steadily from 6.0% in 2018-2019 to 9.3% in 2024-2025. The consistent upward trend suggests that mathematics instruction has been particularly effective for middle-performing students, who benefit from foundational support and advancement opportunities.

Quantitative Reasoning maintains steady growth, increasing from 9.9% to 11.4%, which demonstrates resilience in mathematical thinking skills.

Reading Comprehension shows stability, maintaining performance around 5.9% to 7.2% throughout the period. This stability provides a solid foundation and clear baseline for implementing growth-focused strategies.

Verbal Reasoning has adjusted from 10.8% in 2018-2019 to 9.3% in 2024-2025, but shows encouraging recent recovery momentum from 8.4% in 2022-2023. This 11% rebound in just two years demonstrates responsiveness to instructional focus on language-based skills.

Writing Concepts & Skills faced the steepest challenges for middle tertile students, declining from 9.0% to 5.4% in 2023-2024, before recovering to 7.2% in 2024-2025. This recovery trajectory demonstrates that writing skills are highly responsive to intervention, with students showing strong capacity for improvement when given appropriate support.

What This Means

Middle tertile students show the most consistent, predictable recovery patterns. The mathematics success story indicates that appropriate scaffolding and challenge work well for these students. The recent rebounds in Verbal Reasoning and Writing Concepts & Skills suggest that a renewed focus on language arts is already paying dividends.

Upper Tertile Students: Strong Performance Despite Ceiling Effects

Upper tertile students operate in a much lower gain score range, mostly between -1.0% and 10.4% (see Figure 9 and Table 6 in the Appendix). This pattern primarily reflects ceiling effects: when students already perform at high levels, there is less room for measured improvement. The gains are necessarily smaller even though learning continues.

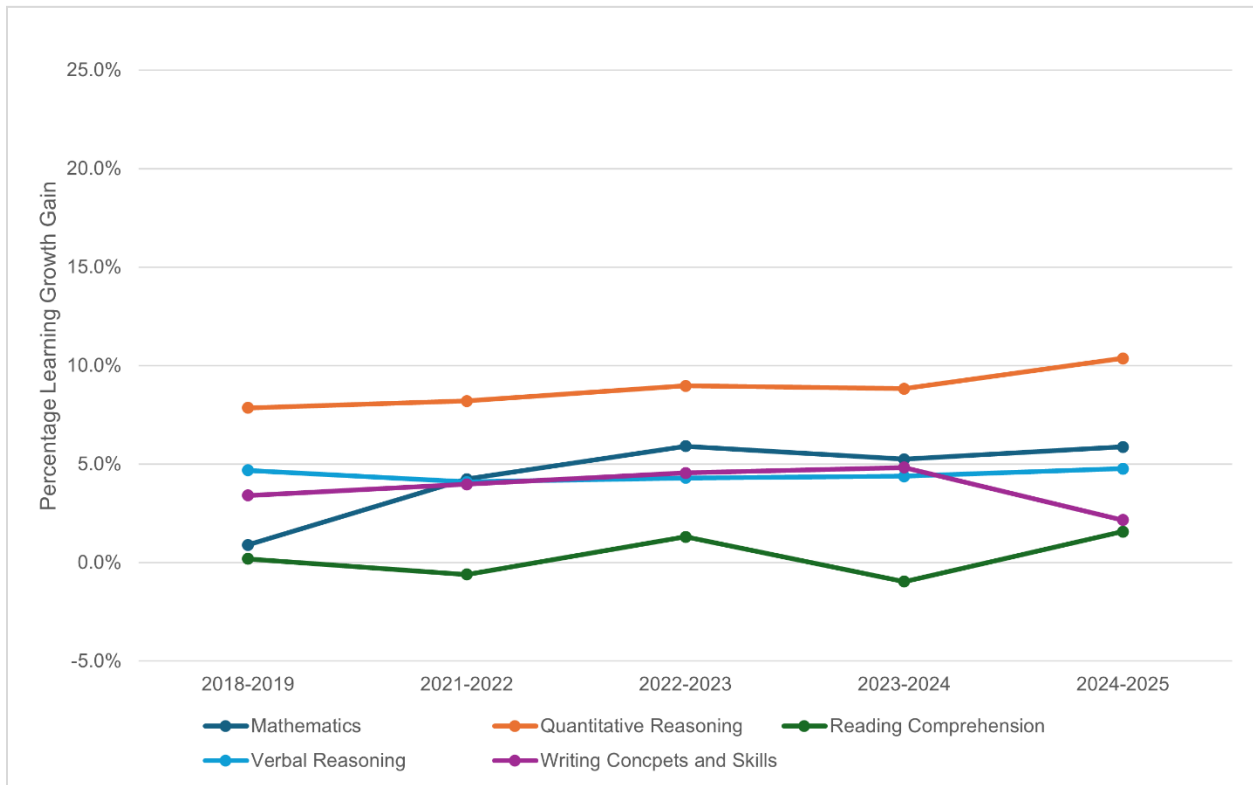


Figure 9. Academic Achievement Trends of Upper Tertile Students, 2018-2025

Quantitative Reasoning represents exceptional learning growth, growing from 7.9% to 10.4%. This demonstrates that advanced mathematical reasoning instruction has been highly effective and continues to challenge high-performing learners, even those already scoring at the top of the distribution.

Mathematics shows substantial improvement, increasing from 0.9% to 5.9%, a six-fold improvement that, while starting from a very low base, demonstrates meaningful progress in mathematical achievement even for students who began at high levels.

Reading Comprehension presents dynamic performance, ranging from -1.0% to 1.6%. Given these students' already high baseline proficiency, this performance reflects the natural variability of measuring gains among students who have already mastered foundational skills and are working at advanced levels. The negative and near-zero scores don't indicate regression; rather, they show how difficult it is to achieve and measure continued growth at the highest performance levels.

Verbal Reasoning demonstrates consistent strength, maintaining steady performance between 4.1% and 4.8%. This stability reflects a sustained high level of growth among advanced learners.

Writing Concepts & Skills shows promising development, with growth from 3.4% to a peak of 4.8% by 2023-2024. The recent adjustment to 2.2% demonstrates sustained positive growth.

What This Means

Upper tertile students face unique measurement challenges due to ceiling effects, making their modest gains less concerning than they might initially appear. The strong quantitative performance indicates that advanced mathematics instruction successfully challenges high achievers. The language arts patterns suggest opportunities to develop more sophisticated enrichment approaches that can push students beyond conventional assessment boundaries.

Critical Implications Across Achievement Levels

The disaggregated data reveal that pandemic recovery is not a uniform phenomenon across achievement levels:

- **Lower tertile students** show the most dramatic swings, both positive and negative, suggesting they are most responsive to intervention but also most vulnerable to disruption.
- **Middle tertile students** demonstrate the most consistent progress in mathematics while showing strong recent rebounds in language arts.
- **Upper tertile students** show modest gains that primarily reflect ceiling effects rather than lack of progress.

Most notably, quantitative subjects show improvement across all achievement levels, while language-based skills show more varied patterns.

What Drives These Patterns: Statistical Insights

We have seen the patterns in the data; now let's understand what's really driving them. Given the substantial variation in scores and the complexity of this longitudinal dataset, we need to go beyond simple comparisons to understand the underlying dynamics. Using Analysis of Variance (ANOVA) and mixed-effects modeling, we can identify which factors matter most for predicting student recovery.

The complete statistical tables appear in the Appendix (Tables 7-8). Here, we will focus on what these analyses mean for educational leaders.

Analysis of Variance: Identifying What Matters Most

ANOVA helps leaders understand which factors deserve their attention and resources. Think of it as asking: "If I had to predict a student's recovery trajectory, which pieces of information would give me the best odds?"

Our ANOVA results reveal a clear hierarchy of importance:

- 1. Where Students Started Matters Most.** Whether a student was already struggling (lower tertile), in the middle of the pack (middle tertile), or excelling (upper tertile) on the first of two springtime assessments is the single biggest factor in how they recovered. This finding has profound implications: different student groups need different support to achieve learning growth.
- 2. The Subject Makes a Big Difference.** The trajectory of mathematics recovery looks different from reading recovery. Language arts recovery differs from quantitative reasoning. This suggests that tailored subject-specific instructional strategies will have a greater impact on learning and growth.
- 3. Age and Grade Level Matter.** Younger students recovered differently from older ones, with challenges intensifying as students moved into upper middle school grades. Developmentally appropriate instructional strategies will support continued learning and growth.

4. Just Being “Post-Pandemic” Doesn’t Tell Us Much. Simply looking at whether something happened before or after the pandemic wasn’t a strong predictor of student performance on its own. The disruption impacted every group of students differently, and recovery was further impacted by what they were learning.

5. Different Students Experienced Different Pandemics. Top-performing students didn’t just bounce back differently from their peers. They actually experienced different disruptions. The statistical interaction between pandemic status and achievement level confirms that recovery strategies must be tailored to specific student groups.

Bottom Line

Student recovery is personal and context-specific. Who students are and what they’re learning matters far more than when the disruption happened.

Mixed-Effects Modeling: Understanding Not Just What Matters, But How Much and In What Ways

The ANOVA revealed which factors are important. Now, the mixed-effects model reveals the magnitude and direction of each factor’s impact.

The Achievement Level Story: Who’s Actually Gaining Ground?

Struggling students are making real progress. Students who started in the bottom tertile are growing faster than middle-performing students, and significantly so. This is genuinely good news. It means that whatever ADVIS schools are doing to support these students is working. They’re not just treading water; they’re closing gaps.

Top students show smaller measured gains. Students who started in the top tertile show lower growth rates than middle-performing students. Two things to consider. First, ceiling effects. When you’re already at the top, there’s less room for measurable growth. Second, and potentially more concerning, it might mean that teaching approaches in ADVIS schools, which work well for other students, aren’t providing sufficient challenge for their highest achievers.

The Subject Story: What's Working and What's Thriving?

Quantitative Reasoning is thriving. Mathematical problem-solving and logical reasoning show exceptionally strong performance across all student groups. This suggests that when we teach students to think through problems rather than just calculate answers, they develop skills that are more resilient to disruptions.

Reading Comprehension shows different patterns. Language-based skills appear to have taken a bigger hit during the pandemic and need different, more intensive recovery strategies than quantitative subjects.

Writing and Verbal Skills. While we're seeing some recent positive trends, particularly in Writing Concepts & Skills for middle tertile students, both writing and verbal reasoning generally trend below pre-pandemic growth levels.

The Age/Grade Story: Older Students Face Greater Challenges

The pattern changes as students get older, with statistically significant effects emerging:

- **Grade 5:** Modest challenges begin to appear
- **Grade 6:** Bigger, statistically significant challenges
- **Grade 7:** Even larger, statistically significant challenges

This steady progression suggests that disruptions compound as students advance through middle school. This could be because academic work becomes more complex and builds on prior knowledge, social and emotional factors intensify during adolescence, learning gaps from earlier grades accumulate, and independence and executive function demands increase.

The Recovery Story: A Silver Lining for High Achievers

An encouraging finding emerges from recent data: while high-performing students may have experienced challenges during the disruption, they show accelerated recovery in recent periods. The positive interaction between post-pandemic status and high achievement indicates that these students are increasing their year-over-year growth.

Conclusion

The story of COVID-19 learning recovery in ADVIS schools is, as promised at the outset, one of resilience and uneven but remarkable recovery. This analysis confirms what educational leaders intuitively understand: there was no single, uniform pandemic effect. Rather, different students experienced different disruptions and followed distinctly different paths back to, and often beyond, their pre-pandemic trajectories.

The data reveal three compelling truths that should guide decision-making:

First, ADVIS schools have demonstrated distinctive strengths in learning and teaching.

Outperforming the broader NAIS cohort across all five academic domains, ADVIS schools have shown that their approaches to teaching mathematical thinking and problem-solving are effective and resistant to disruption. These quantitative domains stand out as consistent strengths, reflecting learning and teaching that emphasize conceptual understanding, problem solving, and analytical reasoning. The gains held strong through disruption and have continued to build momentum, suggesting that ADVIS schools refined instructional practices during and after the pandemic.

Second, performance on the first of two springtime assessments remains the single strongest predictor of post-pandemic growth, underscoring the need for tailored instructional and support strategies. Lower-performing students, while initially hardest hit, have demonstrated the highest growth rates, indicating that ADVIS schools' interventions for struggling learners are both well-designed and effective.

Middle-performing students show steady, predictable progress. Upper-performing students, though constrained by ceiling effects that make gains harder to measure, display renewed acceleration in recent years, suggesting that high-achieving learners are again being appropriately challenged. These divergent patterns make clear that broad-brush, one-size-fits-all recovery strategies will miss the mark.

Third, subject-specific and developmental differences require sustained, strategic attention.

Quantitative disciplines have rebounded most strongly, whereas literacy-based areas such as reading, writing, and verbal reasoning have shown slower but encouraging progress. Grade-level differences further highlight developmental needs: recovery has been more straightforward in the elementary grades but grows increasingly complex through middle school, where academic demands and cognitive challenges intersect with adolescent development. Sustained focus on grade-appropriate scaffolding, executive function skills, and student engagement will be essential to maintain upward trajectories.

In sum, the data and findings presented in this report reveal a portrait of resilience and adaptability. ADVIS schools not only mitigated the academic consequences of the pandemic but also demonstrated their capacity to strengthen instructional programs through challenge. The most important lesson is that recovery is not a single event. It is a continuous process shaped by who students are, what they learn, and how schools respond. The next phase for ADVIS leaders is to build upon these demonstrated strengths and ensure that every student, regardless of starting point, has access to the conditions that make recovery and accelerated growth possible.

Exploring Further

The analyses in this report illustrate broad trends in learning and growth across NAIS and ADVIS schools. For schools interested in examining their own patterns more closely, ERB's 360 Access platform offers interactive tools for exploring longitudinal data and customized visualizations, with metrics such as Achievement over Time, Content Mastery, and Growth Percentiles. Educators can extend the kinds of analyses presented here to support a deeper, ongoing understanding of their own students' learning and growth.

Readers can learn more about these school-level measures through the ERB Insights Blog at www.erblearn.org/blog/growth-percentiles.

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Appendix

Table 1. Comparison of Average Year-Over-Year Learning Gains Between ADVIS and NAIS Schools by Academic Domain, 2018-2025

Domain	ADVIS		NAIS		Difference	Cohen's <i>h</i>	<i>p</i>
	<i>M</i> (%)	<i>n</i>	<i>M</i> (%)	<i>n</i>			
Mathematics	9.26	5,509	8.36	233,230	0.89	0.032	.018*
Quantitative Reasoning	12.34	5,415	10.71	223,624	1.63	0.051	< .001***
Reading Comprehension	7.10	5,583	6.62	236,772	0.49	0.019	.148
Verbal Reasoning	9.85	5,595	9.49	221,411	0.36	0.012	.361
Writing Concepts and Skills	7.74	5,056	7.21	184,588	0.53	0.019	.155

Note. Year-over-year learning gains represent the average percentage improvement for students who completed assessments in consecutive years, weighted by sample size across five time periods (2018-2019, 2021-2022, 2022-2023, 2023-2024, 2024-2025). *Mdiff* = ADVIS mean minus NAIS mean. All statistical tests used two-sample z-tests for proportions. Cohen's *h* values represent effect sizes for differences in proportions ($|h| < 0.2$ = negligible, 0.2-0.5 = small, 0.5-0.8 = medium, > 0.8 = large).

Table 2. ADVIS Year-Over-Year Student Counts by Academic Domain

Academic Domain	2018-2019	2021-2022	2022-2023	2023-2024	2024-2025
Reading Comprehension	1727	910	970	973	1003
Mathematics	1595	950	973	982	1009
Verbal Reasoning	1748	894	971	979	1003
Quantitative Reasoning	1574	906	963	974	998
Written Communication Skills	1374	841	915	975	951

Table 3. NAIS Year-Over-Year Student Counts by Academic Domain

Academic Domain	2018-2019	2021-2022	2022-2023	2023-2024	2024-2025
Reading Comprehension	53,880	39,208	46,934	48,912	47,838
Mathematics	52,974	39,346	46,304	48,003	46,603
Verbal Reasoning	52,548	34,515	44,744	45,050	44,554
Quantitative Reasoning	53,477	35,270	44,816	45,229	44,832
Written Communication Skills	46,030	27,603	36,769	37,552	36,634

Table 4. ADVIS Year-Over-Year Student Percent Learning Gains by Academic Domain

Academic Domain	2018-2019	2021-2022	2022-2023	2023-2024	2024-2025
Mathematics	7.0%	11.1%	9.6%	10.0%	10.1%
Quantitative Reasoning	11.1%	13.0%	12.5%	12.7%	13.3%
Reading Comprehension	7.3%	6.9%	6.8%	6.8%	7.5%
Verbal Reasoning	10.8%	9.6%	9.5%	9.2%	9.4%
Writing Concepts and Skills	9.3%	7.6%	6.9%	6.8%	7.4%

Table 5. NAIS Year-Over-Year Student Percent Learning Gains by Academic Domain

Academic Domain	2018-2019	2021-2022	2022-2023	2023-2024	2024-2025
Mathematics	7.1%	8.9%	10.5%	8.1%	7.5%
Quantitative Reasoning	11.1%	9.0%	13.5%	9.9%	9.6%
Reading Comprehension	6.7%	8.9%	6.5%	5.8%	5.6%
Verbal Reasoning	10.9%	9.0%	9.8%	9.1%	8.3%
Writing Concepts and Skills	7.9%	8.8%	7.1%	6.2%	6.3%

Table 6. ADVIS Academic Achievement Scores by Subject, Time Period, and Growth Level Gain

Subject	Time Period	Growth Level Gain			
		Average	Lower	Mid	Upper
RC	2018-2019	0.073	0.123	0.070	0.002
RC	2021-2022	0.069	0.136	0.059	-0.006
RC	2022-2023	0.068	0.118	0.064	0.013
RC	2023-2024	0.068	0.149	0.059	-0.010
RC	2024-2025	0.075	0.128	0.072	0.016
MA	2018-2019	0.070	0.131	0.060	0.009
MA	2021-2022	0.111	0.176	0.085	0.042
MA	2022-2023	0.096	0.135	0.089	0.059
MA	2023-2024	0.100	0.146	0.095	0.053
MA	2024-2025	0.101	0.144	0.093	0.059
VR	2018-2019	0.108	0.165	0.108	0.047
VR	2021-2022	0.096	0.127	0.095	0.041
VR	2022-2023	0.095	0.149	0.084	0.043
VR	2023-2024	0.092	0.128	0.090	0.044
VR	2024-2025	0.094	0.125	0.093	0.048
QR	2018-2019	0.111	0.156	0.099	0.079
QR	2021-2022	0.130	0.187	0.111	0.082
QR	2022-2023	0.125	0.178	0.109	0.090
QR	2023-2024	0.127	0.192	0.112	0.088
QR	2024-2025	0.133	0.189	0.114	0.104
WCS	2018-2019	0.093	0.141	0.090	0.034
WCS	2021-2022	0.076	0.109	0.072	0.040
WCS	2022-2023	0.069	0.110	0.061	0.046
WCS	2023-2024	0.068	0.117	0.054	0.048
WCS	2024-2025	0.074	0.122	0.072	0.022

Note. RC = Reading Comprehension; MA = Mathematics; VR = Verbal Reasoning; QR = Quantitative Reasoning; WCS = Written Communication Skills. Achievement levels: Low = lowest performing students; Mid = middle performing students; Upper = highest performing students; Overall = all students combined.

Table 7. Analysis of Variance for Percentage Academic Growth Gain of ADVIS Students

Source	χ^2	df	p
Intercept	83.49	1	< .001***
Time	0.69	1	.406
Pandemic	0.41	1	.520
Achievement Tertile	93.11	2	< .001***
Subject	27.61	4	< .001***
Grade Level	43.62	4	< .001***
Pandemic × Achievement Tertile	8.16	2	.017*

Note. Type III Wald chi-square tests. ** $p < .001$, $p < .05$

Table 8. Linear Mixed Effects Model Predicting Academic Performance Change of ADVIS Students

Predictor	B	SE	df	t	p
Fixed Effects					
Intercept	0.137	0.015	72.54	9.14	< .001***
Time	0.001	0.001	296.00	0.83	.407
Post-Pandemic	-0.004	0.007	296.00	-0.64	.521
Low Performers	0.061	0.012	97.02	5.11	< .001***
High Performers	-0.054	0.012	97.02	-4.54	< .001***
Subject: QR	0.034	0.014	64.00	2.47	.016*
Subject: RC	-0.033	0.014	64.00	-2.37	.021*
Subject: VR	-0.005	0.014	64.00	-0.38	.704
Subject: WCS	-0.023	0.014	64.00	-1.65	.104
Grade 4	-0.026	0.014	64.00	-1.90	.062
Grade 5	-0.039	0.014	64.00	-2.84	.006**
Grade 6	-0.065	0.014	64.00	-4.68	< .001***
Grade 7	-0.083	0.014	64.00	-5.96	< .001***
Interactions					
Post-Pandemic × Low Performers	0.000	0.007	296.00	-0.02	.986
Post-Pandemic × High Performers	0.016	0.007	296.00	2.47	.014*

Note. N = 375 observations from 75 groups. ** $p < .001$, * $p < .01$, $p < .05$



About ERB

ERB is a not-for-profit member-based organization with a nearly century-long history of serving private and independent schools. Our membership includes 130 Catholic Schools across the United States, and an additional 90 Catholic Schools that ERB supports through our partnership with the Committee for Children (Second Step brand).

We help enable everyone — schools, educators, and families — to be a part of unlocking student potential. With our portfolio, we support educators in thoughtfully and thoroughly tracking the entire student journey, extending beyond the measures of academic performance to include understanding students' well-being, belonging, and social-emotional skills. We are committed to advancing every student's potential by leveraging data-driven insights to support educators and families and drive student growth.

About the Author

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Dr. Edward Dieterle is the Founder and Chief Learning Scientist of Education Research Partners, LLC, where he leads research initiatives addressing critical challenges across the education landscape. With over 25 years of experience in research and education, Dr. Dieterle helps educators translate complex research findings into usable knowledge for local, national, and global impact.



Prior to founding Education Research Partners, Dr. Dieterle was an executive director at Educational Testing Service (ETS), overseeing the organization's externally funded research portfolio and R&D consulting services. His previous roles include Director of Commercial Data Science practice at Summit Consulting, where he and his team applied AI methodologies to administrative data in litigation analytics and program evaluations, and Senior Program Officer for Research at the Gates Foundation, where he developed the Foundation's personalized learning research portfolio. He also served as a researcher at SRI International, leading projects for the Department of Defense, NASA, and the Andrew Mellon Foundation.

Dr. Dieterle's career began in the classroom as a high school chemistry teacher and has included roles as an instructor at Johns Hopkins University and curriculum developer for Public Television and the National Park Service. He has served on the National Academy of Sciences' Committee on Improving Learning with Information Technology, New York City Public School's iZone Research Advisory Council, Microsoft Corporation's Partners in Learning National Projects Advisory Board, and Learning Forward's Professional Development Redesign Technical Working Group.

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