

MOSCHOLARS PROGRAM: STUDENT OUTCOMES

*Student Academic Performance, 2023 to
2025*

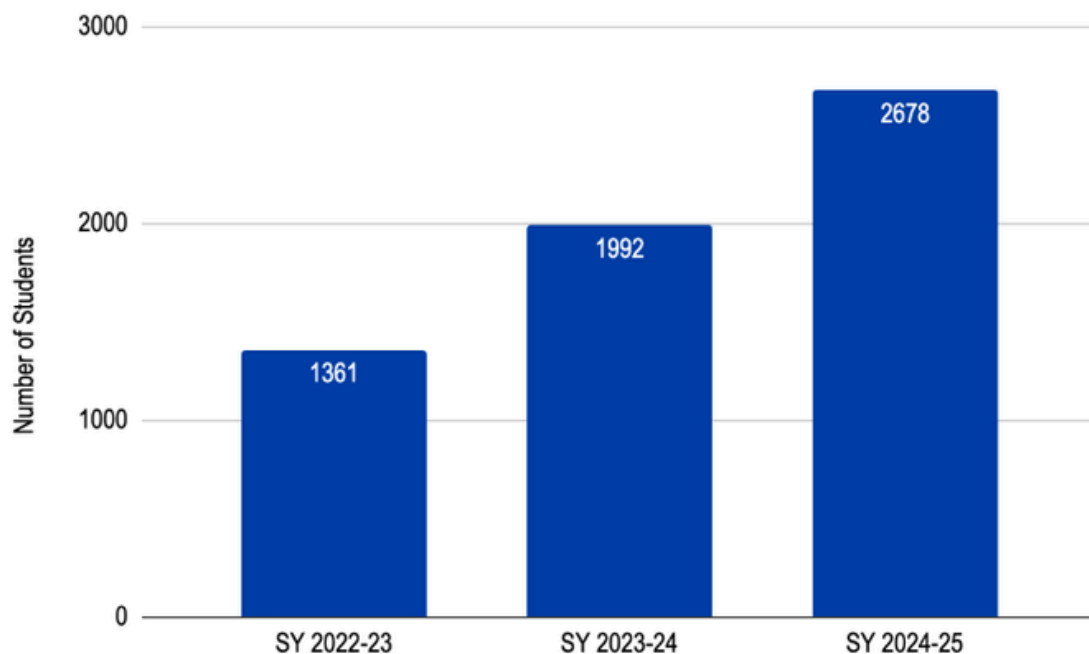
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Student participation in the MOScholars program has increased each year

Number of students participating in the MOScholars program by year (SY 2022-23 to SY 2024-25)



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MOScholars Program: Student Outcomes

Student Academic Performance, 2023 to 2025

October 28, 2026

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MOScholars is Missouri's education savings account (ESA) scholarship program, designed to expand access to educational opportunities for eligible students, primarily those with disabilities or from low-income households, through scholarships administered by approved Educational Assistance Organizations (EAOs). These scholarships can be used for tuition, tutoring, therapies, curriculum, and a range of other educational expenses, giving families greater flexibility in meeting their children's learning needs.

This three-year report provides the first public results on student academic performance across the entire program from the 2022-23 school year to the 2024-25 school year, including average performance on nationally normed educational assessments and changes in assessment performance over time, overall and aggregated to different student populations.

Key Points

- The number of students in the MOScholars program grew from 1,361 in 2022-23 to 2,678 in 2024-25. The number of students in tested grades grew from 629 to 1,351 during that period. The Missouri Treasurer's Office announced in October 2026 that 10,235 students received funding through MOScholars for the 2026-27 school year.
- Participating students in grades 3-10 are required to take a nationally norm-referenced test. After data cleaning and validation, the final analysis included 2,156 nationally norm-referenced assessment scores from 19 test types across the first three program years.
- Average MOScholars ELA scores increased from the 46th to the 51st national percentile over the first three years of the program.
- Average MOScholars Math scores increased from the 47th to the 49th national percentile over the first three years of the program.
- For comparison, the average Missouri public school student scores at approximately the 45th to 47th percentile on the National Assessment of Educational Progress.
- Nearly 40 percent of the testing sample were special needs students with an Individualized Education plan, far higher than the state average. The remaining students were admitted based on statutory income limits.



- Longitudinal results from the currently limited sample suggest that MOScholars students experience achievement growth on par with their national peers, maintaining similar national percentile rankings in ELA and Math from year to year. The longitudinal sample is expected to grow substantially as additional years of data become available.
- High school graduation rates are not yet available, as four years of data are needed to calculate graduation rates. Standard graduation-rate calculations track first-time ninth graders through an expected graduation date four years later. This report covers the first three years of MOScholars data. First-time 9th graders in the program's pilot year would have only completed 11th grade by the end of this reporting period.



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Introduction

This report provides a three-year overview of academic performance on nationally normed educational assessments for students participating in the Missouri Empowerment Scholarship Accounts Program (MOScholars) as required by the 2021 Missouri Statutes, 135.716(5). This is the first report to evaluate the achievement of MOScholars program participants and is designed to support the Treasurer's Office, EAOs, and partner organizations in understanding academic performance among students participating in the MOScholars program.

The analysis of this report focuses on two key metrics for MOScholars students overall and disaggregated by Educational Assistance Organization (EAO) and student group:

1. **Average performance** (national percentile rank) on nationally norm-referenced assessments for English Language Arts (ELA) and math
2. **Average growth** on nationally norm-referenced assessments for English Language Arts (ELA) and math

This report does not directly compare the academic performance of MOScholars students with that of public school students, due to the difference in the tests that each group takes. While MOScholars participating students take a nationally normed assessment, public school students take the Missouri Assessment Program (MAP) test. There is no simple cross-walk between the MAP and the nationally norm-referenced tests. Missouri MAP results are not expressed in national percentiles.

For simple reference, results of the MOScholars program are compared to Missouri results on the National Assessment of Educational Performance, otherwise known as the Nation's Report Card. NAEP is administered to a representative sample of Missouri 4th and 8th graders every other year. The subjects tested include Reading and Mathematics. Because the NAEP is given nationally, Missouri results can be approximately normed into a national percentile. That national percentile can then be compared to the national percentiles scores in the MOScholars program. There are important differences, including the fact that MOScholars students test in grades 3 through 10, versus grades 4 and 8 for the NAEP. Nevertheless, this comparison remains useful.



MOScholars Program Overview

The Missouri Empowerment Scholarship Accounts Program, MOScholars, was established in 2021, with the passing of HB349 and SB86 by the Missouri General Assembly. The purpose of this program is to provide Missouri students and families with access to educational opportunities and resources through scholarships funded through a tax credit system. Educational Assistance Organizations (EAOs), nonprofit organizations approved by the Missouri State Treasurer's Office, distribute scholarships to qualified students. Eligible families may use these scholarships to seek a variety of educational services, including private schools, tutoring, and therapeutic services.

Eligibility Requirements

According to Missouri Revised Statutes 166.700(9), eligible students must meet one or both of the following criteria:

- A. Have an approved Individualized Education Plan (IEP) developed under the Individuals with Disabilities Education Act (IDEA)
- B. Is a member of a household whose total annual income does not exceed an amount equal to 300%¹ of the free and reduced lunch income standard, and meets one or more of the following criteria:
 - Attended a public school as a full-time student for at least one semester during the previous twelve months; or
 - Is a child who is eligible to begin kindergarten or first grade; or
 - Is a sibling of a qualified student who received a scholarship grant in the previous school year and will receive a scholarship grant in the current school year.

Testing Requirements for Participating Students

To maintain eligibility for scholarship renewal, MOScholars students in grades that require state testing must complete an annual nationally standardized norm-referenced achievement test. Students in 3rd-8th grades are required to take English Language Arts (ELA) and Math assessments. High school students in courses with End-of-Course (EOC) exams are required to take equivalent assessments (i.e. English I, English II, Algebra I, Algebra II, Geometry, etc.).

Students designated as MAP-A eligible on their IEP are exempt from the testing requirement. Most students with IEPs are required to test with appropriate accommodations as noted in their IEPs. Per Missouri Revised Statute 135.714, it is the duty of each EAO to ensure that participating students in grades that require testing take an appropriate assessment. The EAO also has a responsibility to provide the test results to the Treasurer's Office on an annual basis.

¹The income eligibility threshold was initially set at 200% of the FRL standard but was raised to 300% in 2024.



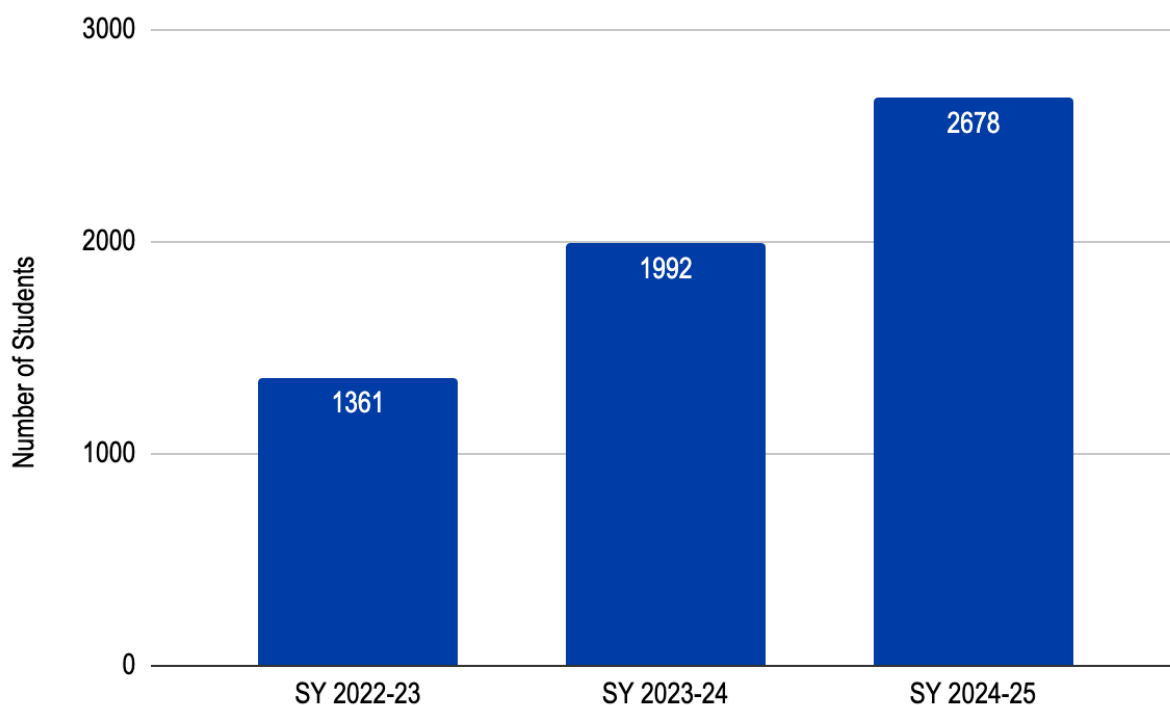
Program Demographics (SY 2022-23 to SY 2024-25)

This section provides a summary of program participation trends from SY 2022-23 to SY 2024-25.² Across the first three program years, participation increased by approximately 97%, reflecting consistent expansion of the MOScholars program in its first three years. Participation grew steadily each year.

FIGURE 1.1

Student participation in the MOScholars program has increased each year

Number of students participating in the MOScholars program by year (SY 2022-23 to SY 2024-25)



**Note: Numbers from the previous report and the present report may vary slightly. This is due to further data verification and updated sources of information.³*

² For a more in-depth analysis of program demographics from each year, please see *MOScholars: Program Demographics and Participation Trends, SY 2022-23 to 2025-26* (<https://www.primecenter.org/education-reports-database/mo-scholars>).

³ Like most student populations, the MOScholars participant population is a mobile group that may transition schools or services during the course of the school year and between years. Due to the mobile nature of the population, our team took additional verification steps (i.e. contacting parents, schools, and EAOs) to update the data set. The prior report relied on data collected at one point in time during the student's application to the program. These new numbers more accurately reflect the MOScholars participant population for SY 2022-23 to SY 2024-25.



It is crucial to note that **the population of the MOScholars participants is dissimilar from the national population**. Each of the following subsections describe the demographics of MOScholars participants as well as the national and state student population demographics.



Participation by Grade Level (SY 2022-23 to SY 2024-25)

Enrollment increased across almost all grade levels between SY 2022-23 and SY 2024-25, with the largest concentrations of students in the elementary grades. Participation in kindergarten through second grade grew particularly quickly. While middle and high school participation also increased over time, these grades saw smaller growth. Because the testing requirement for continued eligibility only applies to participants in grades 3-10, the majority of students in the first three program years were not required to test.

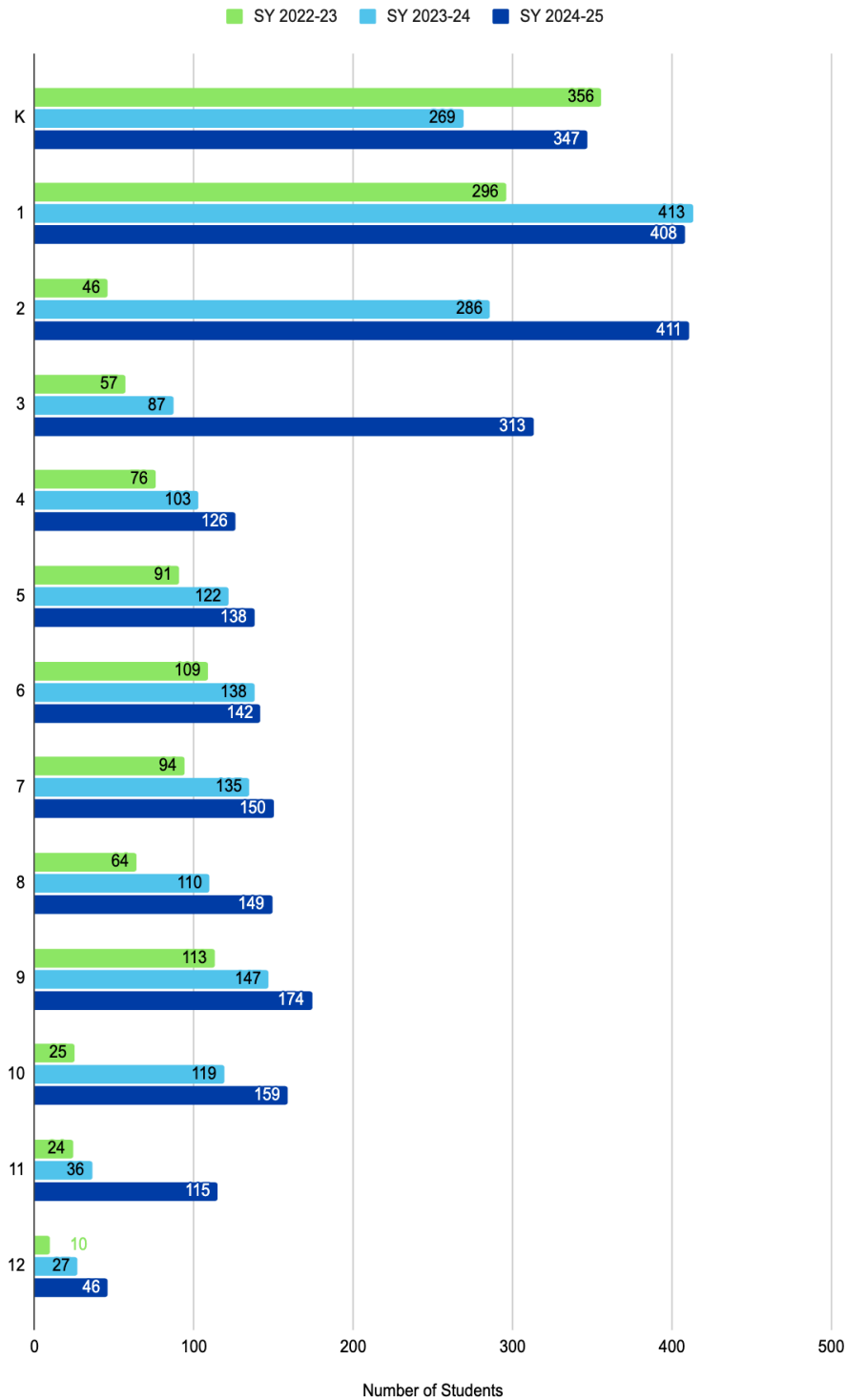
The MOScholars student population on average was much younger than both the national and state student populations from SY 2022-23 to SY 2024-25. In the first three program years, approximately 47% of MOScholars participants were in grades K-2. Comparatively, both nationally and in the state of Missouri each grade level represents 7-8% of the total K-12 student population, with K-2 students comprising roughly 22% of students (DESE, 2025; NCES, 2024a).



FIGURE 1.2

Student participation grew the fastest in grades K-2 during the first three years of the program

Count of participating students by grade level (SY 2022-23 to SY 2024-25)





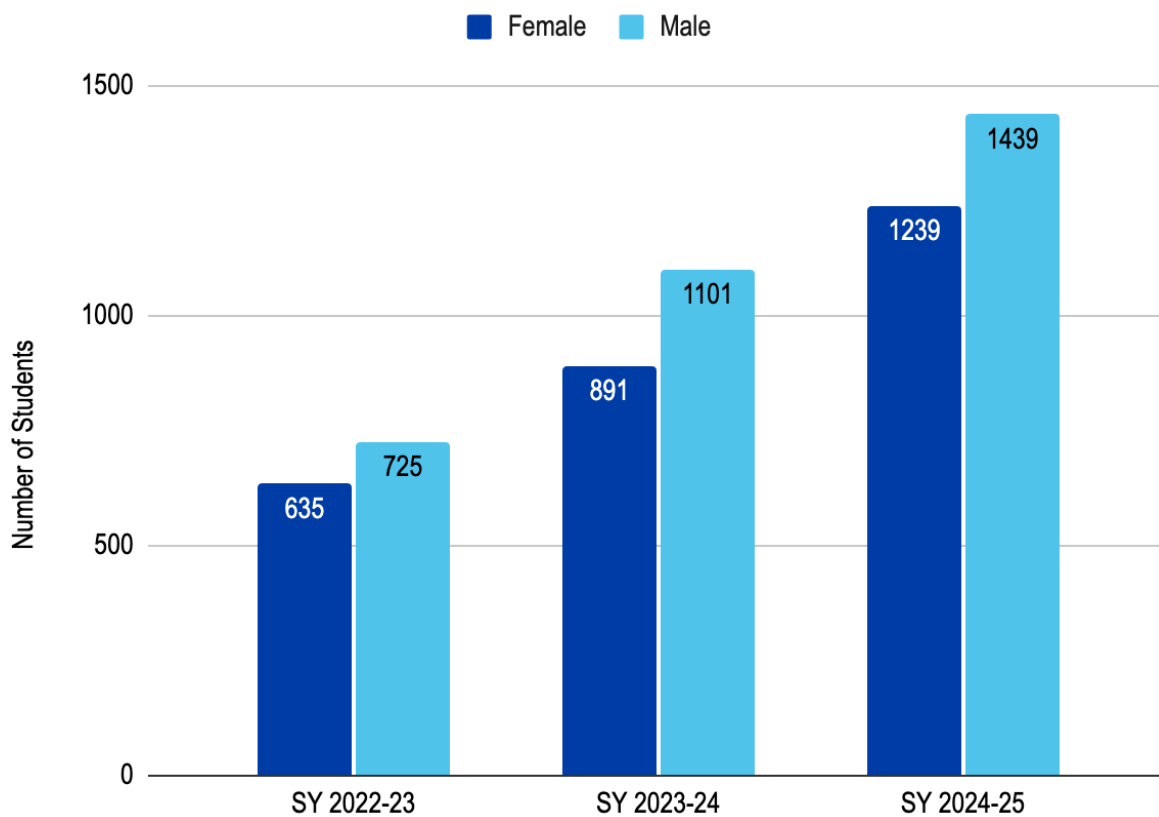
Participation by Gender (SY 2022-23 to SY 2024-25)

Enrollment by gender remained relatively balanced across all three years of the program. In each year, male students comprised a slight majority of participants (54% across the three years). Overall growth in participation occurred for both male and female students.

FIGURE 1.3

In each of the first three program years more male students participated than female students

*Count of participating students by gender (SY 2022-23 to SY 2024-25)**



**Note. Totals may not equal total program enrollment as gender data were missing for some students.*

The MOScholars student population had a comparatively higher percentage of male than female students than both the national and state student populations from SY 2022-23 to SY 2024-25. In the first three program years, approximately 54% of MOScholars participants were male and 46% were female. Nationally, the proportion of male and female students is nearly equal (50%), and in the state of Missouri, approximately 52% of K-12 students are male and 48% are female (NCES, 2024a).



Participation by Race/Ethnicity (SY 2022-23 to SY 2024-25)

The racial and ethnic composition of MOScholars participants remained relatively stable from SY 2022-23 to SY 2024-25. White students consistently comprised the majority of participants, followed by students identifying as Black or African American and Hispanic or Latino. Smaller proportions of participants identified as Asian, Two or More Races, or Other. Although total enrollment increased over time, the proportional distribution across racial and ethnic groups changed only modestly.

The MOScholars participant population varied racially/ethnically from the national population. Nationally, in SY 2022-23 (the most recent year for which there is data) the racial/ethnic distribution of the national student population was 44% White, 15% Black/African American, 29% Hispanic/Latino, 5% Asian, 1% American Indian/Alaska Native, and 5% Multirace (NCES, 2024b).

In the state of Missouri in SY 2022-23, the racial/ethnic distribution of students was 69% White, 15% Black/African American, 8% Hispanic/Latino, 2% Asian, <1% American Indian/Alaska Native, and 6% Multirace (NCES, 2024a).

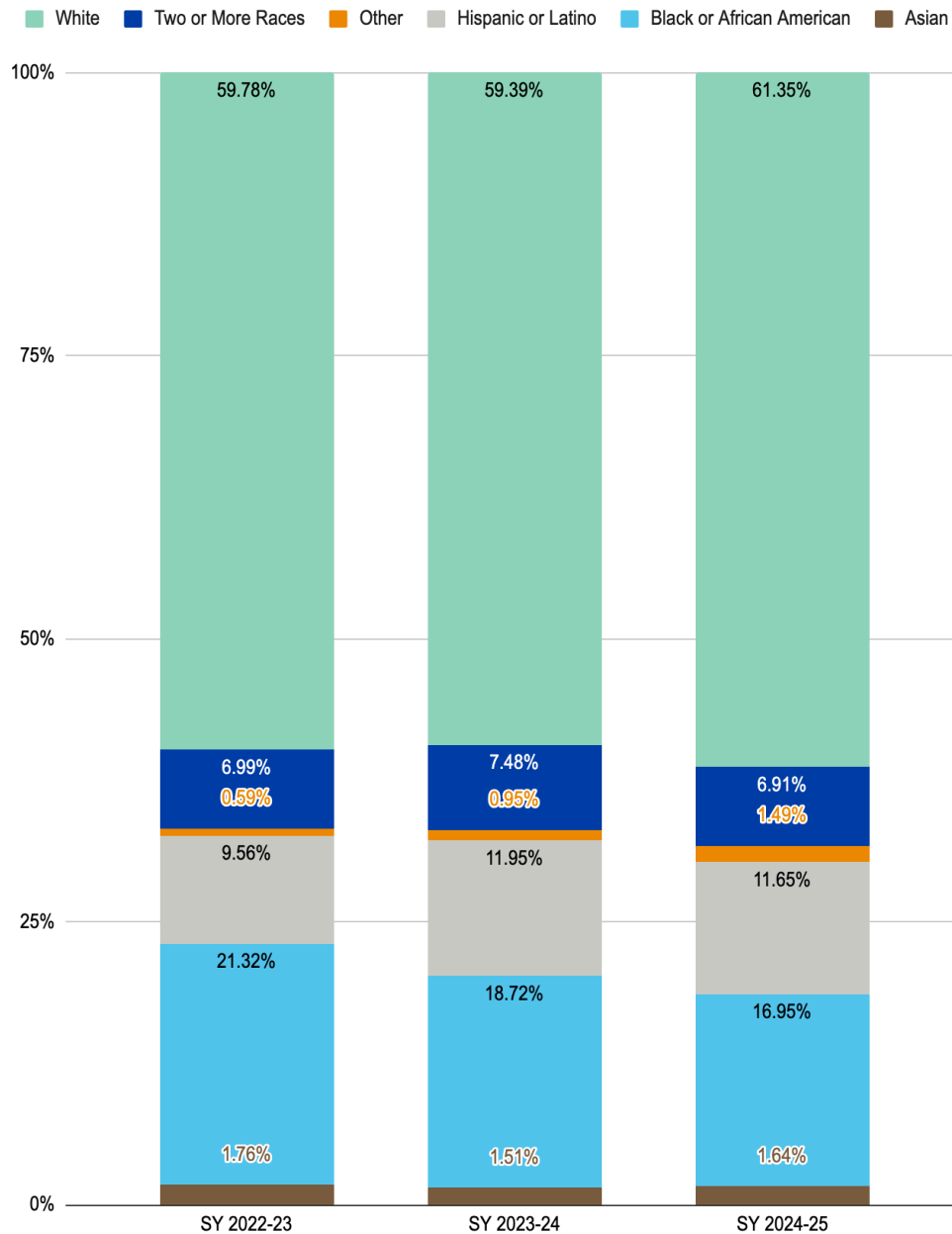
Across the first three program years, the racial/ethnic distribution of the MOScholars student population was 61% White, 19% Black/African American, 11% Hispanic/Latino, 2% Asian, <1% American Indian/Alaska Native, and 7% Multirace.



FIGURE 1.4

The racial/ethnic composition of the program has remained relatively consistent across the first three program years

Percentage of participating students by race/ethnicity (SY 2022-23 to SY 2024-25)





Participation by IEP Status (SY 2022-23 to SY 2024-25)

Participation among students with verified IEPs increased at a slightly faster rate than students without verified IEPs. While students without IEPs continue to represent the majority of MOScholars participants, the growing share of students with IEPs suggests increasing utilization of the program by students with special needs.

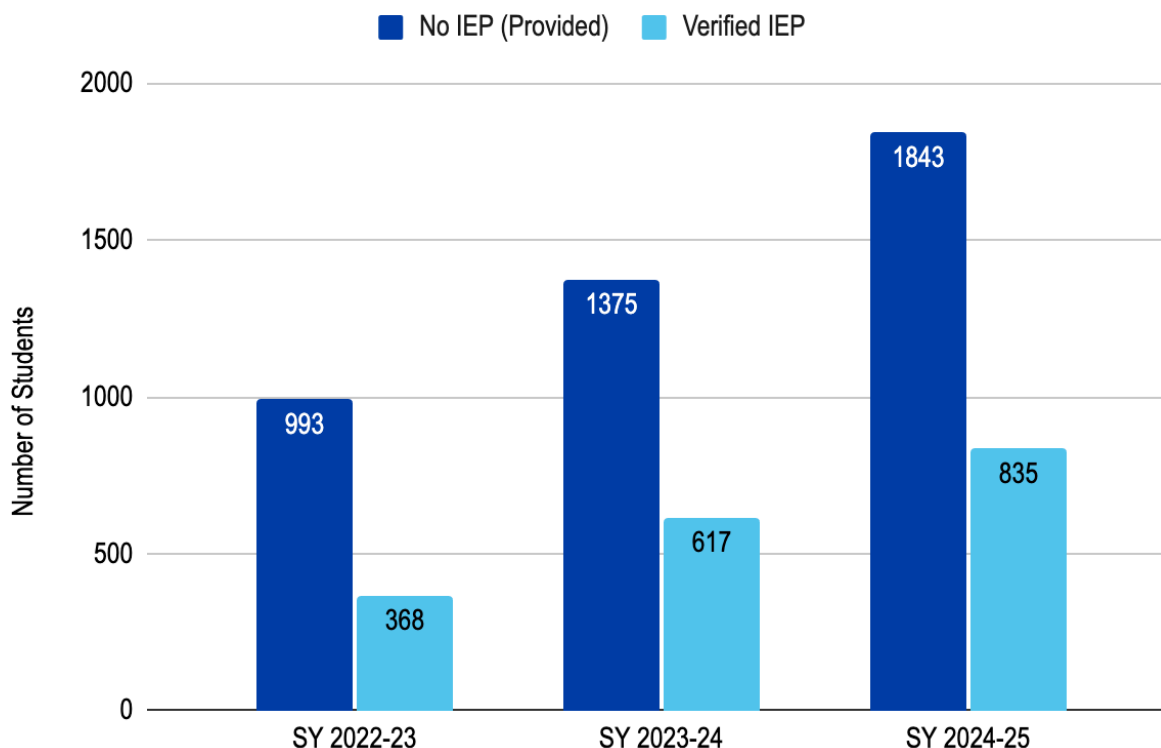
Compared to the national and state averages, the MOScholars participant population had significantly more students with IEPs. Nationally, in SY 2022-23 (the most recent year for which there is data) approximately 15% of students had an IEP (NCES, 2024), and in the state of Missouri, nearly 14% of public school students had an IEP (Childress, 2025). In the first three program years, roughly 30% of MOScholars participants had an IEP.



FIGURE 1.5

Over the first three program years, the number of participating students with IEPs increased more than 125% and the number of participating students without verified IEPs has increased 86%

Count of participating students by IEP status (SY 2022-23 to SY 2024-25)



**Note: Numbers from the previous report and the present report may vary slightly. This is due to further data verification and updated sources of information.⁴*

⁴Like most student populations, the MOScholars participant population is a mobile group that may transition schools or services during the course of the school year and between years. Due to the mobile nature of the population, our team took additional verification steps (i.e. contacting parents, schools, and EAOs) to update the data set. The prior report relied on data collected at one point in time during the student's application to the program. These new numbers more accurately reflect the MOScholars participant population for SY 2022-23 to SY 2024-25.



Participation by Family Income Level (SY 2022-23 to SY 2024-25)

While Missouri Revised Statutes 135.714 requires reporting aggregated by students' family income level, insufficient data were collected to accurately report this information.

The family income level data were gathered via the MOScholars program application; however, only applicants who did not provide an IEP were required to submit family income information, since the existence of an IEP was sufficient for qualification for the program (conditional on geographic eligibility at that time).

Additionally, the format for recording family income level was updated year-over-year (e.g. "<200% FRL qualification standard", "71355", "76", etc.). This resulted in incomplete and inconsistent data that was therefore unable to be analyzed.



Award Amounts (SY 2022-23 to SY 2024-25)

This section provides a summary of award amount trends from SY 2022-23 to SY 2024-25.⁵ With the rise in program participation, EAOs have significantly increased the total amount of awards given each year. The total amount awarded across all six EAOs increased 120% from the first to the third program year. In total, nearly \$37.5 million in awards was distributed to students across the first three program years.

TABLE 2.1

The total amount of awards given by EAO has increased each year

Total award amount distributed each year by each EAO (SY 2022-23 to SY 2024-25)

EAO	2022-23	2023-24	2024-25
AIM	\$478,125	\$739,500	\$1,155,960
BFF	\$2,272,695	\$4,615,500	\$6,693,750
CTF	\$184,875	\$325,125	\$479,960
HTF	\$3,197,165	\$3,385,125	\$3,833,600
LCMS	\$382,537	\$860,625	\$1,094,548
TTEF	\$1,217,625	\$2,773,125	\$3,780,375
MOScholars Total	\$7,733,022	\$12,699,000	\$17,038,193

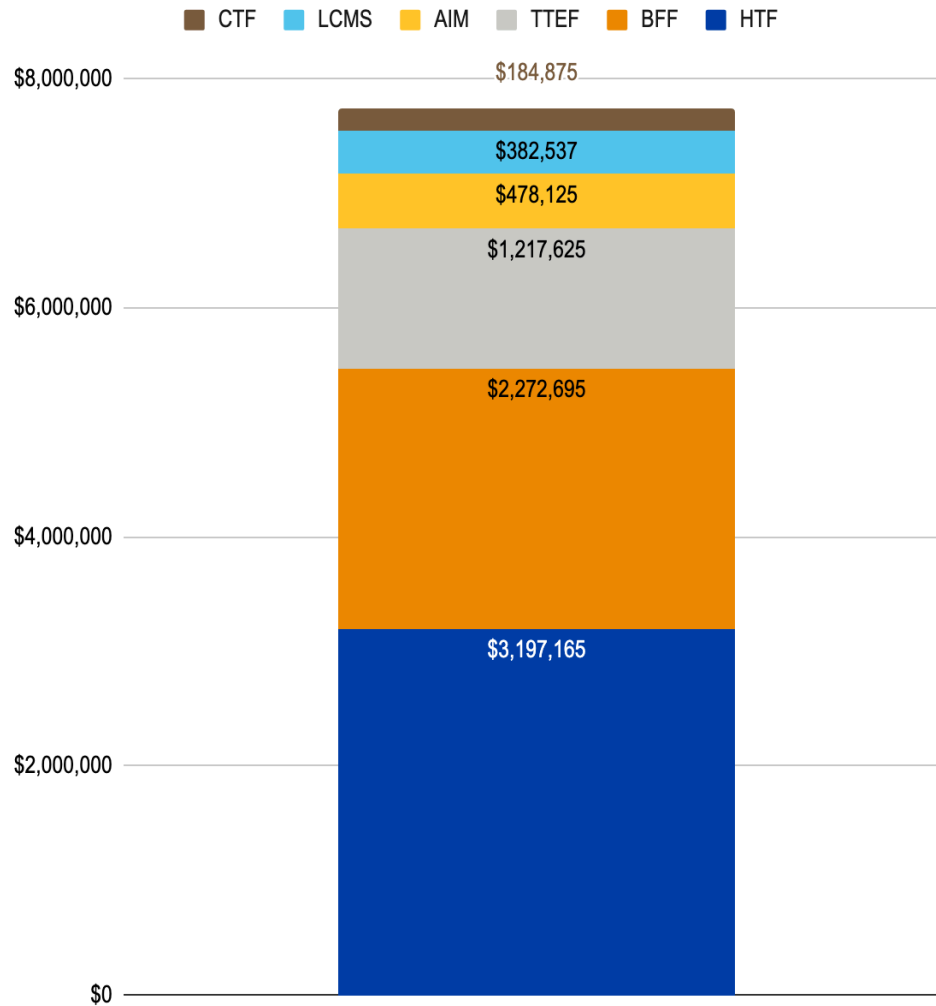
Note. EAO = Educational Assistance Organization (EAO); AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation.

⁵ For a more in-depth analysis of program award amounts from each year, please see *MOScholars: Program Demographics and Participation Trends, SY 2022-23 to 2025-26* (<https://www.primecenter.org/education-reports-database/mo-scholars>).

FIGURE 2.1

In the first program year EAOs distributed \$7.7 million in scholarships

Total award amount distributed by each EAO (SY 2022-23)



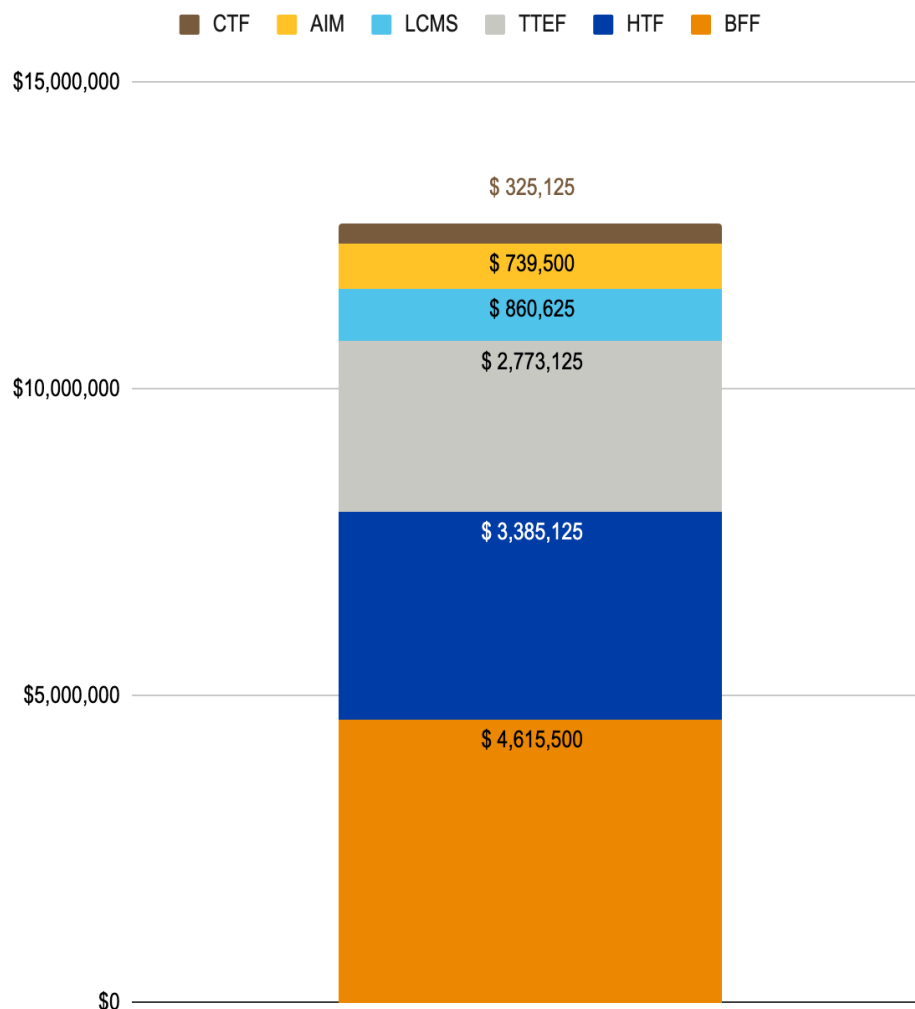
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FIGURE 2.2

Nearly \$13 million was awarded across all six EAOs in the second program year

Total award amount distributed by each EAO (SY 2023-24)

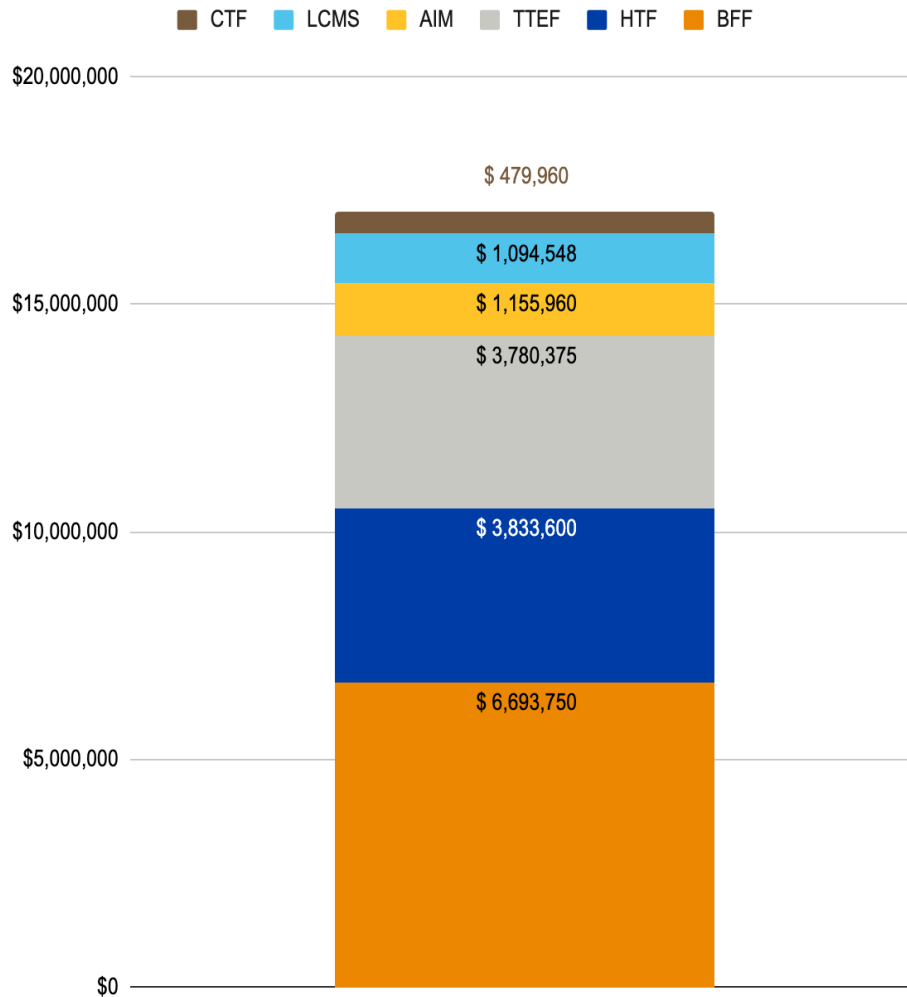


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FIGURE 2.3

Over \$17 million was awarded across all six EAOs in the third program year

Total award amount distributed by each EAO (SY 2024-25)



Note. EAO = Educational Assistance Organization (EAO); AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation.



Data Sources and Methods

Definitions

- **Total Students Served:** All students served by an EAO in the given year
- **Students in Tested Grades:** Students enrolled in 3rd-10th grades
- **Score Received:** Score file submitted matched to student in tested grade
- **Valid Score:** Score received met criteria for appropriate test type, administration date, grade-level alignment, and completeness of subject-area score
- **Invalid Score:** Score received either was missing information for validation (i.e. no test date, no test name, etc.) or did not meet validation criteria (i.e. test administered outside appropriate school year, not a nationally normed test, etc.)
- **Best Score:** If an assessment reported multiple subject-area subtests (e.g., separate scores for “reading” and “verbal reasoning”), a consistent rule determined which score was used in our analysis. A secondary measure was used only when the preferred score was unavailable. The rule for each assessment is listed in [Appendix A](#).

Data Collection

As the state does not mandate which nationally normed test participating students must take, during the first three years of MOScholars implementation, student assessment data were collected from a wide range of sources and in multiple formats. Educational Assistance Organizations (EAOs) serve as the primary data collectors and intermediaries. Because participating families and schools used different assessment systems and reporting processes, EAOs receive data through a variety of methods, including parent-submitted score reports, school-provided spreadsheets, and survey-based data collection tools.

From August to October 2025, EAOs compiled student-level assessment results from SY 2022-23, SY 2023-24, and SY 2024-25 and transmitted these files via an online, secure platform to the PRiME Center for cleaning, validation, norming, and reporting. From November 2025 to June 2026, the PRiME Center followed up with EAOs to locate missing or incomplete test scores. In the case of missing or invalid student scores, EAOs were instructed to provide an explanation for each missing or invalid student score for descriptive analysis.

As score data were received, three data entry staff recorded students’ test scores and information in a secure server.

Documentation of Variability in Testing Contexts

Unlike state accountability systems such as MAP—which is administered statewide during a standardized spring testing window (typically April through early May) with centralized score



release timelines—MOScholars reporting draws from dozens of nationally normed assessments administered across different months, grade levels, and testing contexts. This means that MOScholars data reflect substantially more variation in testing windows, assessment types, and reporting timelines than traditional state assessment systems.

Prior to the 2025-26 school year there had not been a uniform process for collecting test scores. As a result, PRiME reconciled data across multiple vendors, file structures, score types, and reporting conventions. In total, for the first three program years, the PRiME Center received nearly 2,600 scores representing 27 different test types (not all were nationally norm-referenced).

This multi-source structure introduced substantial variability in data completeness, score formats, testing windows, and grade-level alignment, requiring extensive standardization prior to analysis.

To address this variability, all eligible test scores were standardized to a common metric (National Percentile Rank) prior to reporting. This approach allows MOScholars outcomes to be summarized across assessments in a consistent, comparable format, despite differences in test design, administration schedules, and reporting structures.

A relatively small percentage of students took the Missouri Assessment Program, as allowed in state law. MAP scores are not reported on a national percentile scale. No simple crosswalk exists. Nor is technical documentation available from the test provider that advises on the conversion of MAP scores into a nationally norm referenced scale. Therefore, at this juncture, MAP scores from MOScholars students are not included in the aggregate analyses that follow.



TABLE 3.1

MOScholars students took 27 different test types across the first three program years

Count of Scores Received by Test Type (SY 2022-23 to SY 2024-25)

Test Type	2022-23	2023-24	2024-25	Total
ACT	8	31	39	78
ACT Success	0	0	2	2
Aimsweb Plus	0	1	7	8
CLT	1	3	11	15
CogAT	0	1	0	1
ERB	16	33	34	83
FastBridge	0	0	2	2
HSPT	0	10	8	18
Iowa Assessments (ITBS)	178	397	510	1,085
Iowa Flex	0	1	0	1
iReady	5	7	25	37
IXL	0	0	1	1
Missouri Assessment Program (MAP)	69	0	5	74
Missouri End of Course Exam (EOC)	0	0	4	4
NWEA	69	208	300	577
Plan	0	1	0	1
Practice ACT	2	2	4	8
Pre-ACT	23	73	110	206
Pre-ACT 8/9	17	50	54	121
PSAT	6	16	20	42



PSAT 8/9	4	2	2	8
Renaissance STAR	1	20	39	60
SAT	0	3	6	9
Secondary School Admissions Test	0	1	0	1
Stanford 10	13	3	23	39
Terra Nova	7	16	45	68
Woodcock-Johnson IV	1	20	26	47
Total	420	899	1,277	2,596

Data Cleaning and Inclusion Criteria

All submitted assessment records are subjected to a standardized, multi-step cleaning and validation process prior to inclusion in MOScholars reporting. Records were reviewed for test type, administration date, grade-level alignment, and completeness of subject-area scores. For inclusion in analysis, scores had to be from a nationally norm-referenced assessment aligned to the student's grade level and taken during the appropriate school year (August-July).

Scores were excluded when they did not meet MOScholars reporting criteria, including:

- Assessments that were not nationally norm-referenced (e.g., MAP, Practice ACT).
- Test administrations outside of approved testing windows (e.g., test taken in September 2024 is not valid for SY 2023-24).
- Scores that did not align with the student's enrolled grade level (e.g., PSAT 8/9 scores reported for 10th-grade students).
- Incomplete subject reporting (e.g., composite scores submitted without corresponding ELA or mathematics scores).

When multiple scores were submitted for the same student within a reporting window, the most recent score in each subject area (ELA and Math) was retained to reflect the student's most up-to-date learning progress.

After data cleaning and validation, **the final data set for analysis included 2,156 scores from 19 test types across the first three program years.**⁶

⁶ This count excludes 74 Missouri Assessment Program (MAP) scores and four Missouri End-of-Course exams that participating MOScholars students submitted. While these scores count towards the testing requirement for continued eligibility, these scores are not nationally norm-referenced and were thus removed from the analysis.



TABLE 3.2

Valid scores represent 19 different test types across the first three program years

Count of valid scores received by test type by year (SY 2022-23 to SY 2024-25)

Test Type	2022-23	2023-24	2024-25	Total
ACT	4	14	16	34
Aimswest Plus	0	0	3	3
CLT	1	3	10	14
CoGAT	0	1	0	1
ERB	15	27	31	73
FastBridge	0	0	2	2
HSPT	0	0	1	1
Iowa Assessments	166	371	475	1012
iReady	5	6	14	25
NWEA	61	164	257	482
Pre-ACT	21	70	85	176
Pre-ACT 8/9	17	49	42	108
PSAT	6	9	13	28
PSAT 8/9	3	2	2	7
Renaissance STAR	1	17	30	48
SAT	0	2	0	2
Stanford 10	13	1	19	33
Terra Nova	7	16	45	68
Woodcock-Johnson IV	1	17	21	39
Total	321	769	1,066	2,156

Norming Procedures

To allow comparison across the wide range of assessments submitted by EAOs, all eligible scaled scores were converted to National Percentile Ranks (NPRs) using official publisher-provided norm tables. In instances where the NPR was provided on the student's score report, no conversion was used.



No percentiles were estimated, interpolated, or derived independently by the research team. Only nationally norm-referenced assessments with publicly documented percentile conversions were included in our analysis.

For each assessment system (e.g., ACT, PSAT, NWEA, i-Ready, Iowa Assessments, Woodcock-Johnson IV, etc.), NPRs were assigned by matching student scale scores to the corresponding national norm tables based on grade level and testing season, when applicable. When percentiles were not published by the test vendor (e.g., certain placement tests or assessments reporting only readiness categories), scores were excluded from normed reporting and retained only for descriptive or placement-level summaries where appropriate.

Selection of Assessments and Best-Score Rules

For each approved assessment, a consistent set of “best score” rules was applied to determine which subject scores were used for analysis (see [Appendix A](#)). When multiple content subtests were available within a testing system, preferred measures were used when available, with clearly defined secondary options used only when preferred scores were missing. These rules were applied uniformly across all EAOs and reporting cycles to ensure comparability.

Score Collection and Validation by EAO

Six EAOs participated in the first three program years:

- ACSI Children’s Tuition Fund (CTF)
- Agudath Israel of Missouri (AIM)
- (BFF)
- Herzog Tomorrow Foundation (HTF)
- The Missouri District of the Lutheran Church-Missouri Synod (LCMS)
- Today and Tomorrow Education Foundation (TTEF)

The number of participants served varied by EAO according to each organization’s carrying capacity. Each of the first three program years, every EAO (with the exception of HTF) increased the number of students served. The Bright Futures Fund saw the most growth, increasing the number of students served by nearly 190% from SY 2022-23 to SY 2024-25.

Only students in grades 3-10 (excluding MAP-A exempt students) are required to take a nationally norm-referenced test for continued program eligibility. As the majority of program participants in the first three years of the program entered in grades K-2, the number of students required to test was significantly less than total program enrollment. Nonetheless, the number of students in testing-required grades increased 115% over the first three program years.



TABLE 3.3

Student participation in the MOScholars program has increased each year across most EAOs

Count of participating students served by each EAO (SY 2022-23 to SY 2024-25)

EAO	2022-23	2023-24	2024-25
AIM	75	116	171
BFF	363	724	1,050
CTF	29	51	71
HTF	605	531	599
LCMS	97	135	194
TTEF	192	435	593
MOScholars Total	1,361	1,992	2,678

Note. EAO = Educational Assistance Organization (EAO); AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation.



TABLE 3.4

MOScholars participating students enrolled in testing grades has increased each year

Count of students in testing grades served by each EAO (SY 2022-23 to SY 2024-25)

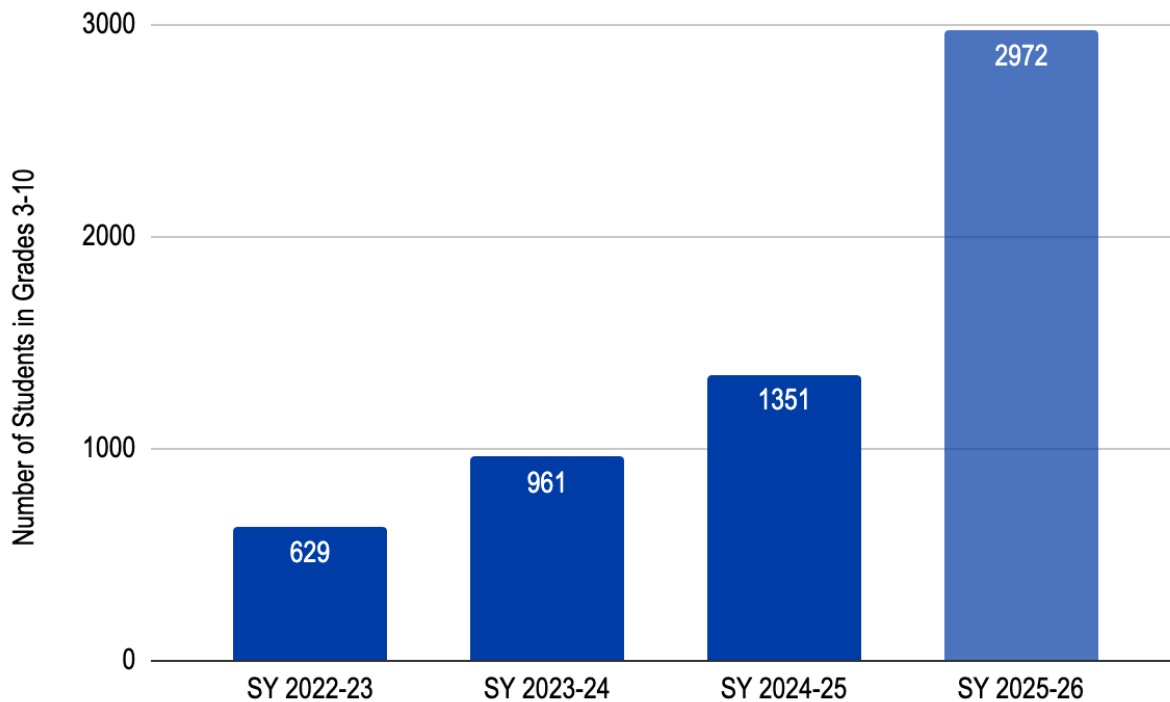
EAO	2022-23	2023-24	2024-25
AIM	18	33	59
BFF	142	312	477
CTF	10	21	29
HTF	275	242	333
LCMS	56	73	91
TTEF	128	281	362
MOScholars Total	629	961	1,351

Note. EAO = Educational Assistance Organization (EAO); AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation.

FIGURE 3.1

The number of MOScholars students enrolled in testing grades is projected to more than double from SY 2024-25 to SY 2025-26

Count of students in testing grades served by each EAO (SY 2022-23 to SY 2025-26)



Per Missouri Revised Statute 135.714, the EAO has a responsibility to provide the necessary test results to the Missouri State Treasurer’s Office on an annual basis for publication of public reports. However, as described in the Data Collection section of this report, during the first three program years there was not a uniform process for collection and monitoring of this data. In early program years, EAOs employed differing methods of collection and reporting resulting in varying levels of validity and completeness of scores reported. The PRiME Center has developed protocols and procedures with the STO to increase the uniformity, speed and accuracy of reporting in future program years.

For 2023-2025, only those scores that could be validated according to the standards outlined in the Data Cleaning and Inclusion section of this report are included in this analysis. Across the three program years, valid scores were received for 77% of testing-required students (2% of testing-grade students were reported as being exempt due to IEP provisions).

There were a variety of reasons why 22% testing-required participants in the first three program years did not provide a valid score to EAOs. Reasons provided by parents and EAOs for missing or invalid scores include students being absent on testing day, students arriving late on testing day not being permitted entry, and students being administered tests that were not nationally normed



(i.e. Practice ACT) among reasons given. For some students, scores from prior school years were given in the absence of a present-level score.

Tables 3.5, 3.6, and 3.7 show the status of scores collected for students in testing grades that the PRiME Center received from each EAO. The following are codes for interpreting the TTables 3.5, 3.6, and 3.7:

- Y = Score received and validated (appropriate test type, test date, in testing range, etc.)
- I = School/parent reported that student was IEP exempt
- U = Unable to retrieve scores because student did not test
- NR = Student not renewed by EAO or student withdrew
- NV = Score not valid or score not able to be validated (partial information received)
- NO = Nothing received

In SY 2022-23, EAOs with fewer students (i.e. AIM and CTF) had higher rates of valid score collection than EAOs with greater numbers of students (i.e. HTF and TTEF). This is likely due to the added complexity of gathering larger amounts of data. However, the rates of valid score collection for larger EAOs improved significantly in SY 2023-24 as all EAOs refined their data collection procedures from the first program year.

Between SY 2023-24 and SY 2024-25, there was a 40% increase in testing-grade students. Despite the challenges that come along with a significant increase in students required to test, the rate of valid scores received was consistent between the second and the third program year.

Overall, the percentage of scores received and validated increased SY 2022-23 to SY 2024-25, suggesting that EAOs refined their score collection and reporting procedures since the initial program year. Notably, the percentage of students who did not test fell 50% and the percentage of unvalidated scores fell 44%. The rates of valid scores received may continue to improve with uniform data collection and reporting processes put forth by the State Treasurer's Office.



TABLE 3.5

The percentage of testing-age student scores received and validated varied greatly by EAO in the first program year

Percentage of 3rd-10th grade students' scores received and validated by EAO (SY 2022-23)

EAO	N	Y	I	U	NR	NV	NO
AIM	18	83%	0%	0%	17%	0%	0%
BFF	142	77%	1%	11%	0%	6%	6%
CTF	10	100%	0%	0%	0%	0%	0%
HTF	275	45%	2%	1%	19%	32%	1%
LCMS	56	79%	0%	11%	2%	4%	5%
TTEF	128	50%	20%	12%	0%	1%	18%
Total	629	59%	5%	6%	9%	16%	6%

Note. N = number of students; Y = score received and validated; I = school/parent reported that student was IEP exempt; U = unable to retrieve scores because student did not test; NR = student not renewed by EAO or student withdrew; NV = score not valid or score not able to be validated; NO = nothing received; EAO = Educational Assistance Organization (EAO); AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation.



TABLE 3.6

The percentage of testing-age student scores received and validated varied greatly by EAO in the second program year

Percentage of 3rd-10th grade students' scores received and validated by EAO (SY 2023-24)

EAO	N	Y	I	U	NR	NV	NO
AIM	33	73%	3%	21%	0%	3%	0%
BFF	312	84%	2%	8%	0%	4%	3%
CTF	21	86%	10%	0%	5%	0%	0%
HTF	242	71%	2%	0%	11%	14%	1%
LCMS	73	79%	0%	7%	3%	7%	4%
TTEF	281	85%	2%	5%	1%	6%	1%
Total	962	80%	2%	5%	3%	7%	2%

Note. N = number of students; Y = score received and validated; I = school/parent reported that student was IEP exempt; U = unable to retrieve scores because student did not test; NR = student not renewed by EAO or student withdrew; NV = score not valid or score not able to be validated; NO = nothing received; EAO = Educational Assistance Organization (EAO); AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation.



TABLE 3.7

The percentage of testing-age student scores received and validated varied by EAO in the third program year

Percentage of 3rd-10th grade students' scores received and validated by EAO (SY 2024-25)

EAO	N	Y	I	U	NR	NV	NO
AIM	59	88%	0%	10%	2%	0%	0%
BFF	477	90%	0%	5%	0%	4%	1%
CTF	29	82%	4%	0%	11%	4%	0%
HTF	333	77%	1%	0%	8%	13%	1%
LCMS	91	77%	0%	10%	2%	10%	1%
TTEF	362	67%	3%	1%	1%	13%	14%
Total	1,351	80%	1%	3%	3%	9%	4%

Note. N = number of students; Y = score received and validated; I = school/parent reported that student was IEP exempt; U = unable to retrieve scores because student did not test; NR = student not renewed by EAO or student withdrew; NV = score not valid or score not able to be validated; NO = nothing received; EAO = Educational Assistance Organization (EAO); AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation.



Characteristics of Students Without Valid Assessment Scores

In SY 2022-23, 260 testing-grade students did not provide a valid score, 30% of whom were in grades 9-10. In general, secondary grades (6-10) had higher percentages of missing/invalid scores than students in elementary grades (3-5).

Of students for whom valid scores were not received, 32% did not return to the MOScholars program the following year.

In SY 2023-24, 188 testing-grade students did not provide a valid score, 43% of whom were in grades 9-10. In general, students in grades 8-10 had higher percentages of missing/invalid scores than students in grades 3-7.

Of the students for whom valid scores were not received, 51% did not return to the MOScholars program the following year.

In SY 2024-25, 275 testing-grade students did not provide a valid score, 38% of whom were in grades 9-10. Students in high school (grades 9-10) had higher percentages of missing/invalid scores than elementary and middle school students (grades 3-8).

Of the students for whom valid scores were not received, 47% did not return to the MOScholars program the following year.



TABLE 3.8

Secondary students had higher percentages of missing/invalid scores than elementary students in the first program year

Percentage of testing-grade students lacking valid scores by grade level (SY 2022-23)

Grade	N	% of Missing Scores Total	% of Grade Level Missing Score	% of Grade Level Missing Score Not Returning
3	15	5.77%	26.32%	46.67%
4	21	8.08%	27.63%	28.57%
5	24	9.23%	26.37%	41.67%
6	57	21.92%	52.78%	29.82%
7	35	13.46%	37.23%	17.14%
8	30	11.54%	46.88%	40.00%
9	65	25.00%	57.52%	20.00%
10	13	5.00%	52.00%	100.00%
Total	260	100.00%	41.40%	32.31%

Note. N = number of students without valid scores



TABLE 3.9

The proportion of students missing scores significantly decreased in the second program year

Percentage of testing-grade students lacking valid scores by grade level (SY 2023-24)

Grade	N	% of Missing Scores Total	% of Grade Level Missing Score	% of Grade Level Missing Score Not Returning
3	8	4.26%	9.20%	1.60%
4	12	6.38%	11.65%	2.66%
5	17	9.04%	13.93%	4.79%
6	17	9.04%	12.32%	4.26%
7	18	9.57%	13.33%	3.19%
8	35	18.62%	31.82%	9.57%
9	46	24.47%	31.29%	6.91%
10	35	18.62%	29.41%	17.55%
Total	188	100.00%	19.56%	50.53%

Note. N = number of students without valid scores



TABLE 3.10

In general, high school students had higher percentages of missing scores than elementary and middle school students in the third program year

Percentage of testing-grade students lacking valid scores by grade level (SY 2024-25)

Grade	N	% of Missing Scores Total	% of Grade Level Missing Score	% of Grade Level Missing Score Not Returning
3	52	18.91%	16.61%	5.45%
4	16	5.82%	12.70%	2.55%
5	26	9.45%	18.84%	1.82%
6	23	8.36%	16.20%	2.55%
7	28	10.18%	18.67%	2.91%
8	26	9.45%	17.45%	7.45%
9	55	20.00%	31.61%	6.91%
10	49	17.82%	30.82%	17.82%
Total	275	100.00%	20.36%	47.45%

Note. N = number of students without valid scores



Student Growth: Analytic Approach

To examine changes in academic achievement over time, longitudinal analyses were conducted using students' nationally normed English language arts (ELA) and mathematics percentile scores. Analyses were restricted to students with valid assessment scores. Student records were organized into a longitudinal panel using a unique student identifier, allowing students to be linked across multiple school years. As mentioned previously, when multiple scores were submitted for the same student within a reporting window, the most recent score in each subject area was retained to reflect the student's most up-to-date learning status.

Descriptive statistics, including the number of observations, mean, standard deviation, minimum, maximum, median, and interquartile range, were calculated for ELA and mathematics national percentile scores by school year to summarize achievement trends over time.

Simple Models: To assess year-to-year changes in achievement, paired-sample t-tests were conducted for students with assessment scores in consecutive school years. Prior-year ELA and mathematics percentile scores were created using lagged variables within the longitudinal panel. The paired t-tests compared each student's current-year score with his or her own prior-year score, thereby controlling for between-student differences and evaluating whether average achievement changed significantly from one year to the next. Separate analyses were conducted for the full sample, students with Individualized Education Programs (IEPs), and students without IEPs.

Preferred Models: To better examine longitudinal achievement trajectories, student fixed-effects regression models were estimated separately for ELA and mathematics. Fixed-effects models account for repeated observations within students. Consequently, the estimated effects represent within-student changes in achievement over time rather than differences between students.

The primary independent variable in the fixed-effects models was test year, modeled as a continuous variable representing years since the first observed school year in the analytic sample. Additional subgroup analyses were conducted by IEP status. Separate fixed-effects models were estimated for students with and without IEPs to determine whether achievement trajectories differed between these populations after accounting for prior achievement.

All fixed-effects models were estimated using robust standard errors clustered at the student level to account for within-student correlation across repeated observations. Statistical significance was evaluated using two-tailed tests with an alpha level of .05. Together, the paired-sample t-tests and fixed-effects regression models provide complementary evidence regarding student achievement over time. The paired t-tests quantify average year-to-year changes between consecutive assessments, whereas the fixed-effects models estimate longitudinal changes across all available school years while controlling for stable student characteristics. This combination of methods provides a rigorous assessment of changes in nationally normed achievement among MOScholars participants.



Student Performance on Nationally Normed Assessments (SY 2022-23)

This section summarizes MOScholars participating students' performance on nationally norm-referenced English Language Arts (ELA) and math assessments during the first year of the program. The analyses are descriptive and are intended to characterize participating students rather than evaluate program effectiveness. Results are presented overall as well as aggregated by grade level, Individualized Education Plan (IEP) status, gender, race/ethnicity, and Educational Assistance Organization (EAO).

Participant Characteristics and Analytic Sample (SY 2022-23)

During SY 2022–23, 1,361 students participated in the MOScholars program, including 629 students in testing-required grades. Valid ELA and mathematics assessment scores were obtained for approximately one-half of testing-grade students (321 and 322 students, respectively). The demographic composition of students with valid assessment scores closely resembled that of the overall testing-grade population (Table 4.1). These similarities suggest that the students included in the achievement analyses were broadly representative of the testing-grade participants with respect to these characteristics despite minor differences in IEP status, gender, and race/ethnicity.

TABLE 4.1

The sample of valid scores received approximately reflects the population of testing-grade students
Characteristics of MOScholars student population by IEP status, gender, and race/ethnicity (SY 2022-23)

Student Population	N	IEP		Gender		Race/Ethnicity	
		Yes	No	Male	Female	White	Of Color
Total Program	1,361	27.04%	72.96%	51.73%	44.75%	59.88%	40.12%
Testing-Grades	629	40.86%	59.14%	53.74%	43.40%	57.55%	42.45%
Valid Score(s) Received	322	39.95%	60.05%	58.15%	41.58%	58.42%	41.58%

Note. N = number of students; Yes = student has a verified IEP; No = student does not have a verified IEP; Of Color = all students not identified as White (i.e. American Indian or Native Alaskan, Asian, Black or African American, Hispanic or Latino, Middle Eastern or North African, Multirace, Native Hawaiian or Other Pacific Islander, or Other).

**Totals may not equal total program enrollment as gender data were missing for some students.*

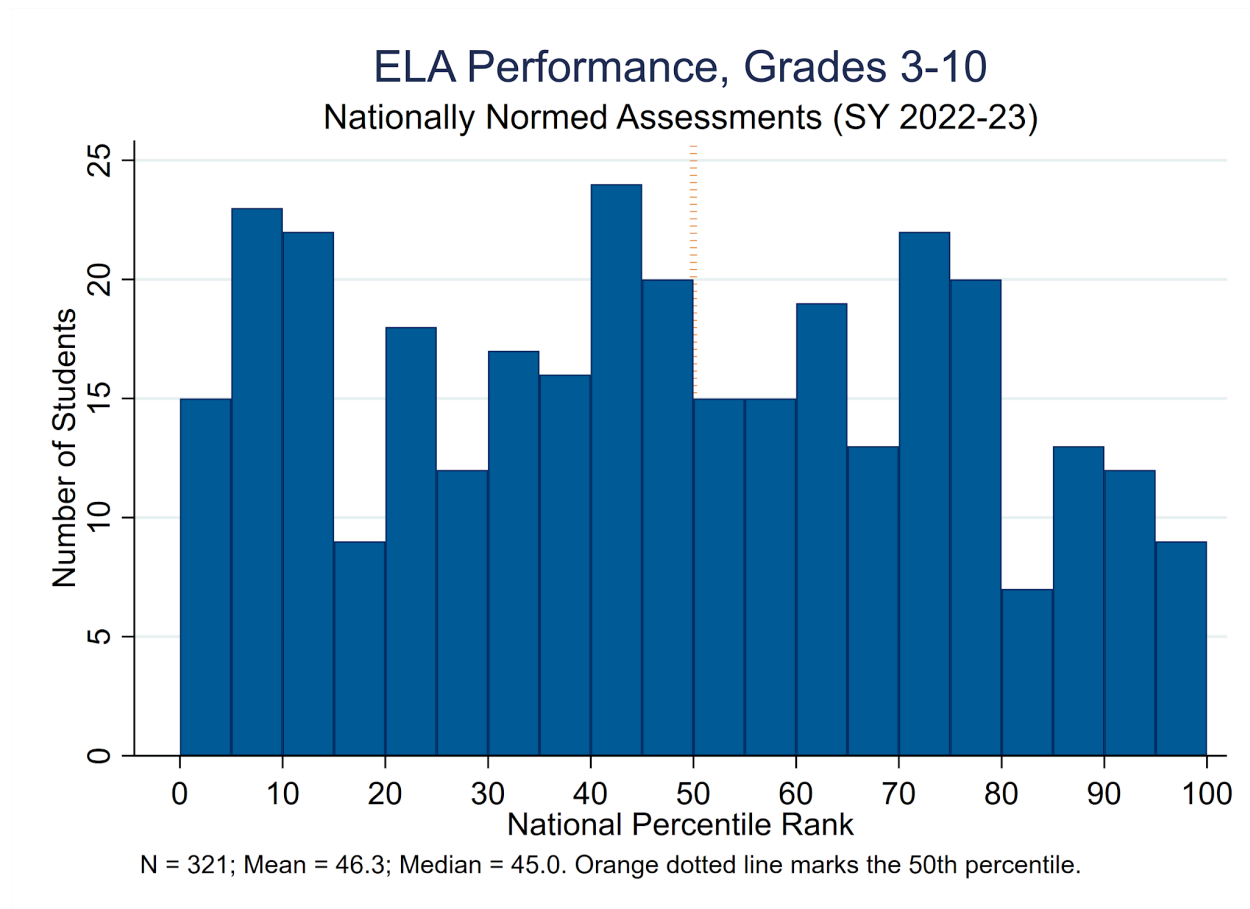
Overall Assessment Performance (SY 2022-23)

The average performance on nationally norm-referenced ELA assessments in SY 2022-23 of MOScholars participants in grades 3-10 for whom valid scores were received was in the 46th national percentile rank.

FIGURE 4.1

The average ELA national percentile rank of MOScholars students with valid scores was slightly below the national average

Distribution of MOScholars participants' scores on nationally normed ELA assessments (SY 2022-23)

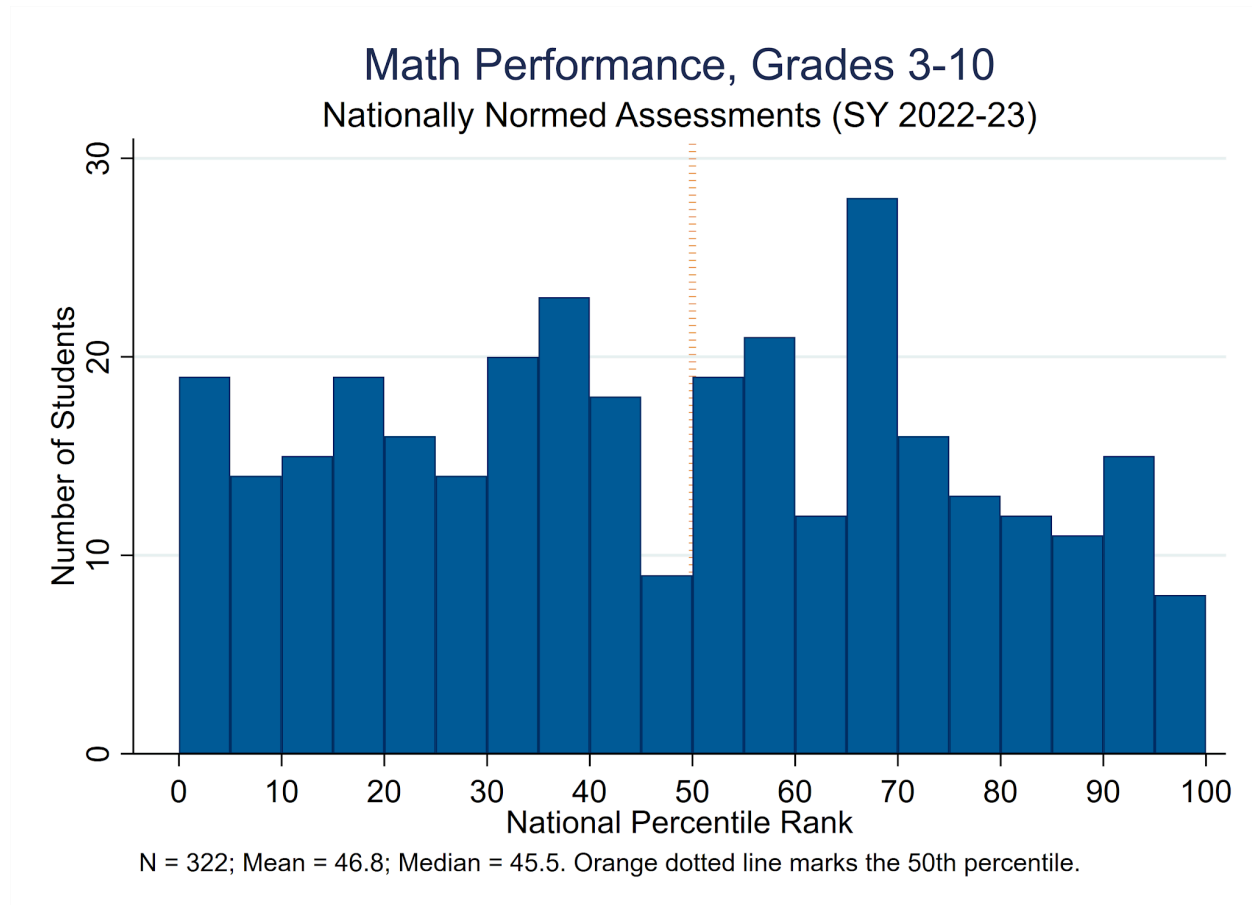


The average performance of MOScholars participants in grades 3-10 in SY 2022-23 on nationally norm-referenced math assessments was in the 46th national percentile.

FIGURE 4.2

The average math national percentile rank of MOScholars students with valid scores was slightly below the national average

Distribution of MOScholars participants' scores on nationally normed math assessments (SY 2022-23)





Assessment Performance by Grade Level (SY 2022-23)

In SY 2022-23, 42% of testing-age students who provided valid scores were in elementary grades (grades 3-5) and 58% were in secondary grades (grades 6-10).

The average ELA performance was relatively consistent across grade levels. ELA scores ranged from the 43rd national percentile (3rd grade) to the 51st national percentile (10th grade), with most grades performing in the mid-40th percentile range. Although 10th grade had the highest average ELA percentile rank, this result should be interpreted cautiously as it was based on a small number of students (N = 12).

Mathematics performance followed a similar pattern as ELA, with average percentile ranks ranging from the 44th national percentile (7th and 9th grades) to the 49th national percentile (4th grade).

Overall, differences in average performance across grades were modest, suggesting similar levels of achievement among participants regardless of grade level. Within each grade for both ELA and math, however, percentile ranks varied substantially, indicating considerable diversity in student-level performance.



TABLE 4.2

The average ELA performance of MOScholars students with valid scores was relatively consistent across grade levels

Average performance on nationally normed ELA assessments by grade level (SY 2022-23)

Grade	N	AVG	SD	Max	Min
3	36	43.86	28.35	93	1
4	47	49.15	27.11	99	1
5	52	46.54	28.43	97	1
6	50	46.38	26.63	97	1
7	51	46.16	25.72	92	1
8	25	45.36	30.30	94	2
9	48	44.10	28.16	98	1
10	12	51.75	35.15	98	2
Total	321	46.27	27.68	99	1

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.



TABLE 4.3

The average math performance of MOScholars students with valid scores was relatively consistent across grade levels

Average performance on nationally normed math assessments by grade level (SY 2022-23)

Grade	N	AVG	SD	Max	Min
3	37	45.32	26.76	96	1
4	47	49.81	29.03	94	1
5	52	48.23	32.04	99	1
6	50	48.40	27.27	98	1
7	51	44.33	25.42	96	1
8	25	47.20	32.37	93	1
9	48	44.33	21.22	98	3
10	12	46.33	28.07	94	9
Total	322	46.80	27.46	99	1

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.



Assessment Performance by IEP Status (SY 2022-23)

Although 40% of testing-age students who provided valid scores had an IEP, the proportion of students with an IEP varied by grade level with higher proportions of students with an IEP in older grades than younger grades.

Across grades 3-10, students without IEPs generally had higher average national percentile ranks than students with IEPs in both ELA and mathematics. Although differences between the two groups were observed across grade levels, the magnitude of the difference varied.

Students with an IEP in grades 3-10 averaged in the 38th national percentile in ELA, whereas students in grades 3-10 without an IEP averaged in the 50th national percentile. Average ELA scores by grade level for students with an IEP ranged from the 28th national percentile (3rd grade) to the 48th national percentile (10th grade), while average ELA scores by grade level for students without an IEP ranged from the 47th national percentile (7th grade) to the 54th national percentile (6th grade). The gap between students with and without IEPs was smallest in grade 7 and larger in grades 3, 6, and 9.

Mathematics demonstrated a similar pattern as ELA, with students without IEPs generally outperforming students with IEPs across grade levels. The overall average math score of students in grades 3-10 with an IEP was in the 37th national percentile, and the overall average math score of students in grades 3-10 without an IEP was in the 51st national percentile. Average math scores by grade level for students with an IEP ranged from the 26th national percentile (8th grade) to the 43rd national percentile (10th grade), while average math scores by grade level for students without an IEP ranged from the 46th national percentile (7th and 9th grades) to the 61st national percentile (8th grade). Estimates for grades with small sample sizes, particularly 10th grade, should be interpreted cautiously.

Overall, these results indicate that while average achievement differed by IEP status, substantial variation in performance existed within both groups and across grades.



TABLE 4.4

Students without verified IEPs had higher average ELA scores than students with verified IEPs, although there was substantial variability within groups and across grade levels

Performance on nationally normed ELA assessments for students with an IEP by grade level (SY 2022-23)

Grade	IEP Status	N	AVG	SD	Max	Min
3	Yes	7	28.57	30.72	81	1
	No	29	47.55	27.02	93	2
4	Yes	14	46.71	30.70	99	1
	No	33	50.18	25.88	90	4
5	Yes	19	39.32	24.53	89	3
	No	33	50.70	30.02	97	1
6	Yes	17	30.35	21.84	76	1
	No	33	54.64	25.31	97	9
7	Yes	15	44.07	26.94	83	5
	No	36	47.03	25.54	92	1
8	Yes	10	41.00	30.40	93	8
	No	15	48.27	30.94	94	2
9	Yes	22	34.77	23.78	96	1
	No	26	52.00	29.57	98	6
10	Yes	9	48.00	30.55	90	2
	No	< 5	*	*	*	*
Total	Yes	113	38.81	26.49	99	1
	No	208	50.33	27.52	98	1

Note. Yes = student has a verified IEP; No = student does not have a verified IEP; N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.

**Suppression applied to populations < 5.*



TABLE 4.5

Students without verified IEPs had higher average math scores than students with verified IEPs although there was substantial variability within groups and across grade levels

Performance on nationally normed math assessments for students with an IEP by grade level (SY 2022-23)

Grade	IEP Status	N	AVG	SD	Max	Min
3	Yes	7	28.00	23.51	69	1
	No	30	49.37	26.18	96	1
4	Yes	14	41.79	32.53	93	1
	No	33	53.21	27.23	94	1
5	Yes	19	36.16	28.39	93	1
	No	33	55.18	32.34	99	4
6	Yes	17	34.12	29.93	94	1
	No	33	55.76	22.95	98	10
7	Yes	15	39.33	25.87	86	1
	No	36	46.42	25.30	96	9
8	Yes	10	26.40	29.33	93	1
	No	15	61.07	26.99	93	1
9	Yes	22	41.50	23.09	98	3
	No	26	46.73	19.63	79	5
10	Yes	9	43.78	24.93	86	9
	No	< 5	*	*	*	*
Total	Yes	113	37.25	27.11	98	1
	No	209	51.97	26.29	99	1

Note. Yes = student has a verified IEP; No = student does not have a verified IEP; N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.

**Suppression applied to populations < 5.*



Assessment Performance by Gender (SY 2022-23)

In SY 2022-23, 58% of testing-age students who provided valid scores were male and 42% were female. Only grades 3 and 8 had higher proportions of females than males.

Average achievement differed modestly by gender in ELA. The overall average ELA score of male students in grades 3-10 was in the 47th national percentile, while the overall average ELA score of female students in grades 3-10 was in the 44th national percentile. Average ELA scores by grade level for male students ranged from the 35th national percentile (9th grade) to the 59th national percentile (10th grade), while average ELA scores by grade level for female students ranged from the 37th national percentile (3rd grade) to the 60th national percentile (9th grade).

The overall average math score of male students in grades 3-10 was in the 51st national percentile, and the overall average math score of female students in grades 3-10 was in the 40th national percentile. Average math scores by grade level for male students ranged from the 43rd national percentile (9th grade) to the 56th national percentile (6th grade), while average math scores by grade level for female students ranged from the 33rd national percentile (7th grade) to the 47th national percentile (4th grade).

Across grade level, male students generally had higher average percentile ranks than female students in both subjects, although there were several exceptions (i.e. grade 4 ELA, grade 9 ELA, and grade 9 math). These grade-specific differences should be interpreted cautiously as grade-level comparisons were based on a relatively small number of students. Considerable variation in performance was observed within both gender groups, indicating that percentile ranks may not capture the full range of student achievement.

For both ELA and math, male students with IEPs had a higher average score than female students with IEPs. The same pattern held true for male and female students without IEPs.

When examined jointly by gender and IEP status, differences associated with IEP status were larger than differences associated with gender alone. Among both male and female students, those without verified IEPs had higher average national percentile ranks than students with verified IEPs in both ELA and mathematics. Within each IEP group, male students also had higher average scores than female students, with the largest gender difference observed in mathematics among students without IEPs. Although these subgroup comparisons provide additional context for understanding student achievement, several groups included relatively small numbers of students and should therefore be interpreted cautiously. As with the previous analyses, substantial variability in student performance was evident within each subgroup.



TABLE 4.6

Male students generally had slightly higher average ELA scores than female students although there was substantial variability within groups and across grade levels

Performance on nationally normed ELA assessments for students by gender by grade level (SY 2022-23)

Grade	Gender	N	AVG	SD	Max	Min
3	Male	17	50.47	29.96	93	2
	Female	19	37.95	26.21	81	1
4	Male	27	47.74	27.21	90	1
	Female	20	51.05	27.55	99	7
5	Male	29	51.76	26.94	95	1
	Female	23	39.96	29.48	97	5
6	Male	29	51.00	27.15	97	5
	Female	21	40.00	25.13	94	1
7	Male	30	49.03	26.92	92	1
	Female	20	42.05	24.57	83	6
8	Male	12	49.50	33.30	94	2
	Female	13	41.54	28.05	85	8
9	Male	32	35.94	26.50	98	1
	Female	16	60.44	24.63	97	11
10	Male	8	59.75	30.45	90	2
	Female	< 5	*	*	*	*
Total	Male	184	47.93	27.92	98	1
	Female	136	44.06	27.39	99	1

*Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score. *Suppression applied to populations < 5.*



TABLE 4.7

Male students generally had slightly higher average math scores than female students although there was substantial variability within groups and across grade levels

Performance on nationally normed math assessments for students by gender by grade level (SY 2022-23)

Grade	Gender	N	AVG	SD	Max	Min
3	Male	18	53.17	25.01	96	2
	Female	19	37.89	26.87	85	1
4	Male	27	51.59	30.44	94	1
	Female	20	47.40	27.60	93	2
5	Male	29	54.72	30.43	96	4
	Female	23	40.04	32.79	99	1
6	Male	29	56.83	27.40	98	2
	Female	21	36.76	22.92	92	1
7	Male	30	51.67	25.25	96	1
	Female	20	33.40	22.74	86	5
8	Male	12	51.33	32.38	93	1
	Female	13	43.38	33.20	92	1
9	Male	32	43.13	21.85	98	3
	Female	16	46.75	20.35	79	5
10	Male	8	54.38	29.01	94	11
	Female	< 5	*	*	*	*
Total	Male	185	51.71	27.17	98	1
	Female	136	40.16	26.62	99	1

*Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score. *Suppression applied to populations < 5.*



TABLE 4.8

For both ELA and math, male students had higher average scores than female students, and students without verified IEPs had higher average scores than students with verified IEPs

Performance on nationally normed ELA and math assessments for students by gender by IEP status (SY 2022-23)

ELA						
Gender	IEP Status	N	AVG	SD	Max	Min
Male	Yes	74	39.77	25.83	96	1
	No	110	53.43	28.04	98	1
Female	Yes	39	36.97	27.97	99	1
	No	97	46.91	26.77	98	2
Math						
Gender	IEP Status	N	AVG	SD	Max	Min
Male	Yes	74	41.32	26.58	98	1
	No	111	58.63	25.40	98	1
Female	Yes	39	29.51	26.73	93	1
	No	97	44.44	25.47	99	1

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.



Assessment Performance by Race/Ethnicity (SY 2022-23)

For SY 2022-23, of testing-age students who provided valid scores 58% identified as White, 25% identified as Black or African American, 9% identified as Hispanic or Latino, and 6% identified as Multiracial (other race/ethnicities represented < 2% of population).

Average national percentile ranks varied across racial and ethnic groups in ELA. White students had the highest average ELA among racial/ethnic groups with reportable sample sizes with a 51st percentile average national percentile rank, while average ELA percentile ranks for Black or African American, Hispanic or Latino, and Multiracial students averaged between the 38th and 39th percentiles. Although Asian students had similar average national percentile ranks as White students, this subgroup only included five students and should be interpreted with caution.

As with ELA, average national percentile ranks varied across racial and ethnic groups in mathematics. Among racial/ethnic groups with reportable sample sizes, Asian students had the highest average math national percentile rank (70th percentile), although this subgroup only included five students and should be interpreted with caution. Average math percentile ranks for White students was in the 51st percentile, while Black or African American, Hispanic or Latino, and Multiracial students averaged between the 36th and 46th percentiles.

As subgroup sizes varied substantially and the population size of several racial/ethnic groups was small, these findings are descriptive only and should not be interpreted as representative of broader populations. As with other subgroup analyses, considerable variation in student performance was observed within each racial/ethnic group.



TABLE 4.9

Among racial/ethnic groups of reportable sample size, average performance on ELA assessments varied greatly both within and across groups

Performance on nationally normed ELA assessments for students by ethnicity (SY 2022-23)

Race	N	AVG	SD	Max	Min
American Indian or Alaska Native	< 5	*	*	*	*
Asian	5	51.20	31.04	91	12
Black or African American	76	38.50	25.07	90	1
Hispanic or Latino	31	38.77	32.98	94	3
Middle Eastern or North African	< 5	*	*	*	*
Multirace	20	37.85	29.41	92	1
Native Hawaiian or Other Pacific Islander	< 5	*	*	*	*
White	188	51.39	26.59	99	1

*Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score. *Suppression applied to populations < 5.*



TABLE 4.10

Among racial/ethnic groups of reportable sample size, average performance on math assessments varied greatly both within and across groups

Performance on nationally normed math assessments for students by ethnicity (SY 2022-23)

Race	N	AVG	SD	Max	Min
American Indian or Alaska Native	< 5	*	*	*	*
Asian	5	70.80	19.94	95	45
Black or African American	76	35.84	24.59	91	1
Hispanic or Latino	32	43.91	29.43	96	1
Middle Eastern or North African	< 5	*	*	*	*
Multirace	20	45.60	26.75	93	1
Native Hawaiian or Other Pacific Islander	< 5	*	*	*	*
White	188	51.20	27.23	99	1

*Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score. *Suppression applied to populations < 5.*



Assessment Performance by EAO (SY 2022-23)

EAOs varied considerably in both the number of testing-grade students with valid scores (see Table 3.5) and the average student achievement during SY 2022-23. Differences in average achievement across EAOs should be interpreted cautiously because EAOs differ substantially in the number of students they serve, the characteristics of participating students, and the proportion of students with verified IEPs. Consequently, these descriptive results should not be interpreted as measures of EAO effectiveness or program quality. As with the other subgroup analyses, substantial variability in student performance was observed within each EAO.

Average ELA national percentile ranks varied considerably across EAOs, ranging from the 29th percentile for CTF to the 56th percentile for HTF. BFF, which had one of the larger testing samples (N = 109), averaged at approximately the 40th percentile. Average achievement for AIM, LCMS, and TTEF fell between the lowest and highest EAO averages. Results for AIM, CTF, and TTEF should be interpreted cautiously because they are based on relatively small numbers of students.



TABLE 4.11

With substantial differences in student population, average ELA achievement varied both within and across EAOs

Average performance on nationally normed ELA assessments by EAO (SY 2022-23)

EAO	N	AVG	SD	Max	Min
AIM	15	54.67	28.97	98	13
BFF	109	39.81	27.83	97	1
CTF	10	29.30	21.56	74	8
HTF	125	55.92	25.36	99	1
LCMS	44	34.91	24.99	89	1
TTEF	18	48.67	27.67	96	1

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score; AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation.



TABLE 4.12

With substantial differences in student population, average Math achievement varied both within and across EAOs

Average performance on nationally normed math assessments by EAO (SY 2022-23)

EAO	N	AVG	SD	Max	Min
AIM	15	47.07	23.32	79	3
BFF	110	46.42	26.71	99	1
CTF	10	30.00	15.77	57	2
HTF	125	54.62	27.57	98	1
LCMS	44	28.77	23.39	85	1
TTEF	18	48.06	26.29	98	3

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score; AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation



TABLE 4.13

Across EAOs, students without verified IEPs generally had higher average ELA scores than students with verified IEPs

Average performance on nationally normed ELA assessments by EAO by IEP status (SY 2022-23)

EAO	IEP Status	N	AVG	SD	Max	Min
AIM	Yes	12	43.92	20.92	80	13
	No	< 5	*	*	*	*
BFF	Yes	23	28.52	23.72	72	1
	No	86	42.83	28.19	97	2
CTF	Yes	8	21.75	14.56	43	8
	No	< 5	*	*	*	*
HTF	Yes	35	44.91	28.80	99	1
	No	90	60.20	22.66	97	1
LCMS	Yes	18	35.44	25.16	89	1
	No	26	34.54	25.36	89	1
TTEF	Yes	17	48.12	28.43	96	1
	No	< 5	*	*	*	*

*Note. Yes = student has a verified IEP; No = student does not have a verified IEP; N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score; AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation. *Suppression applied to populations < 5.*

TABLE 4.14

Across EAOs, students without verified IEPs had higher average math scores than students with verified IEPs
Average performance on nationally normed math assessments by EAO by IEP status (SY 2022-23)

EAO	IEP Status	N	AVG	SD	Max	Min
AIM	Yes	12	41.17	21.83	76	3
	No	< 5	*	*	*	*
BFF	Yes	23	32.78	27.48	93	1
	No	87	50.02	25.45	99	1
CTF	Yes	8	31.88	17.14	57	2
	No	< 5	*	*	*	*
HTF	Yes	35	39.54	30.84	94	1
	No	90	60.49	23.91	98	5
LCMS	Yes	18	28.28	24.15	85	1
	No	26	29.12	23.33	82	1
TTEF	Yes	17	47.82	27.08	98	3
	No	< 5	*	*	*	*

*Note. Yes = student has a verified IEP; No = student does not have a verified IEP; N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score; AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation. *Suppression applied to populations < 5.*



Student Performance on Nationally Normed Assessments (SY 2023-24)

This section summarizes MOScholars participating students' performance on nationally norm-referenced English Language Arts (ELA) and math assessments during the second year of the program. The analyses are descriptive and are intended to characterize participating students rather than evaluate program effectiveness. Results are presented overall as well as aggregated by grade level, Individualized Education Plan (IEP) status, gender, race/ethnicity, and Educational Assistance Organization (EAO).

Participant Characteristics and Analytic Sample (SY 2023-24)

In SY 2023–24, the MOScholars program expanded to serve 1,992 students, including 962 students in testing-required grades. Valid assessment scores were received for 766 students in testing-required grades. The demographic composition of students with valid assessment scores closely mirrored that of the overall testing-grade population; similarities suggest that the students included in the achievement analyses were broadly representative of the testing-grade participants with respect to these characteristics.



TABLE 5.1

The sample of valid scores received approximately reflects the population of testing-grade students
Characteristics of MOScholars student population by IEP status, gender, and race/ethnicity (SY 2023-24)

Student Population	N	IEP		Gender		Race/Ethnicity	
		Yes	No	Male	Female	White	Of Color
Total Program	1,992	30.97%	69.03%	55.20%	44.80%	59.71%	40.29%
Testing-Grades	962	46.67%	53.33%	57.90%	42.10%	59.36%	40.64%
Valid Score(s) Received	765	48.12%	51.88%	56.78%	43.22%	59.25%	40.75%

Note. N = number of students; Yes = student has a verified IEP; No = student does not have a verified IEP; Of Color = all students not identified as White (i.e. American Indian or Native Alaskan, Asian, Black or African American, Hispanic or Latino, Middle Eastern or North African, Multirace, Native Hawaiian or Other Pacific Islander, or Other).

**Totals may not equal total program enrollment as gender data were missing for some students.*



Overall Assessment Performance (SY 2023-24)

The average performance of MOScholars participants in grades 3-10 in SY 2023-24 on nationally norm-referenced ELA assessments was in the 46th national percentile. The average performance of MOScholars participants in grades 3-10 in SY 2023-24 on nationally norm-referenced math assessments was in the 45th national percentile.



FIGURE 5.1

The average ELA national percentile rank of MOScholars students with valid scores was slightly below the national average

Distribution of MOScholars participants' scores on nationally normed ELA assessments (SY 2023-24)

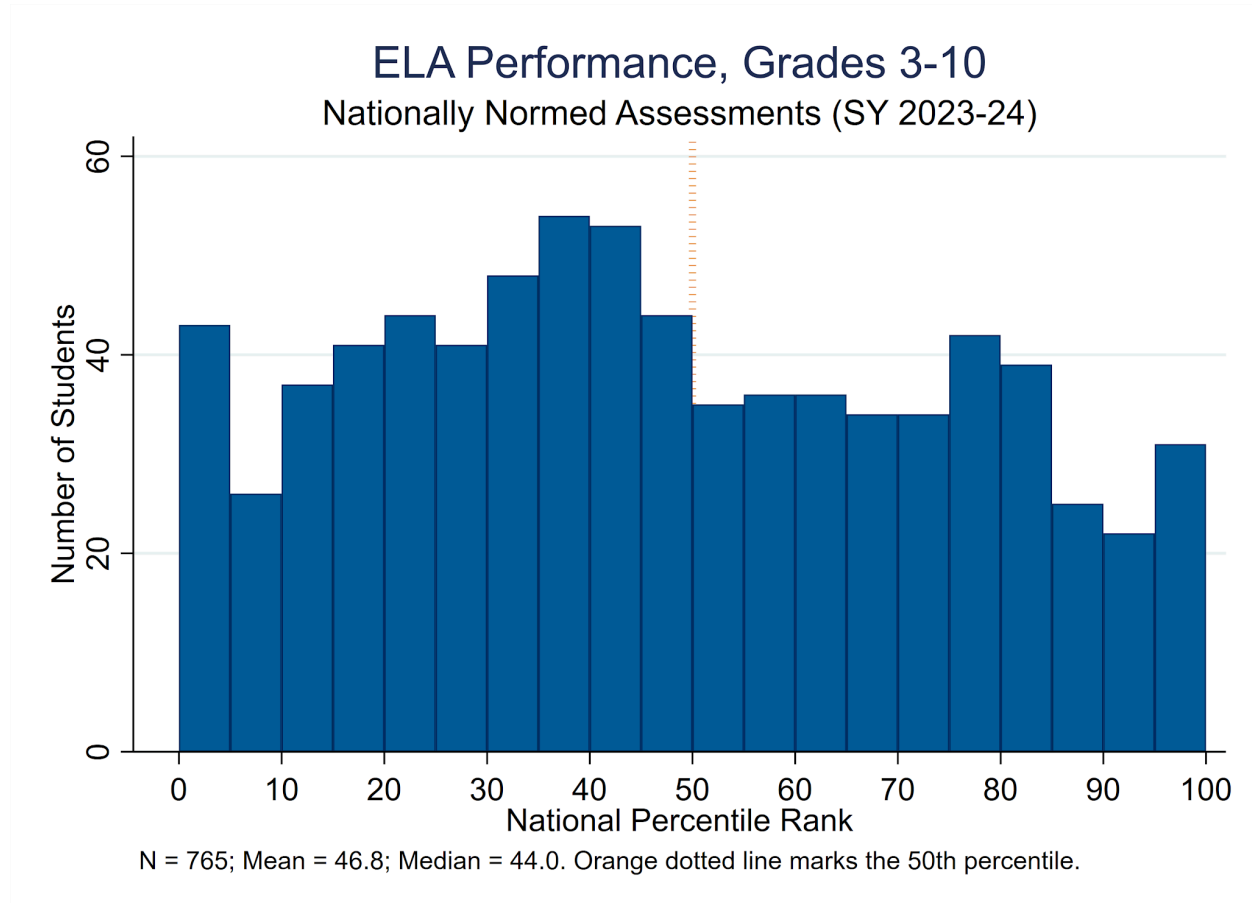
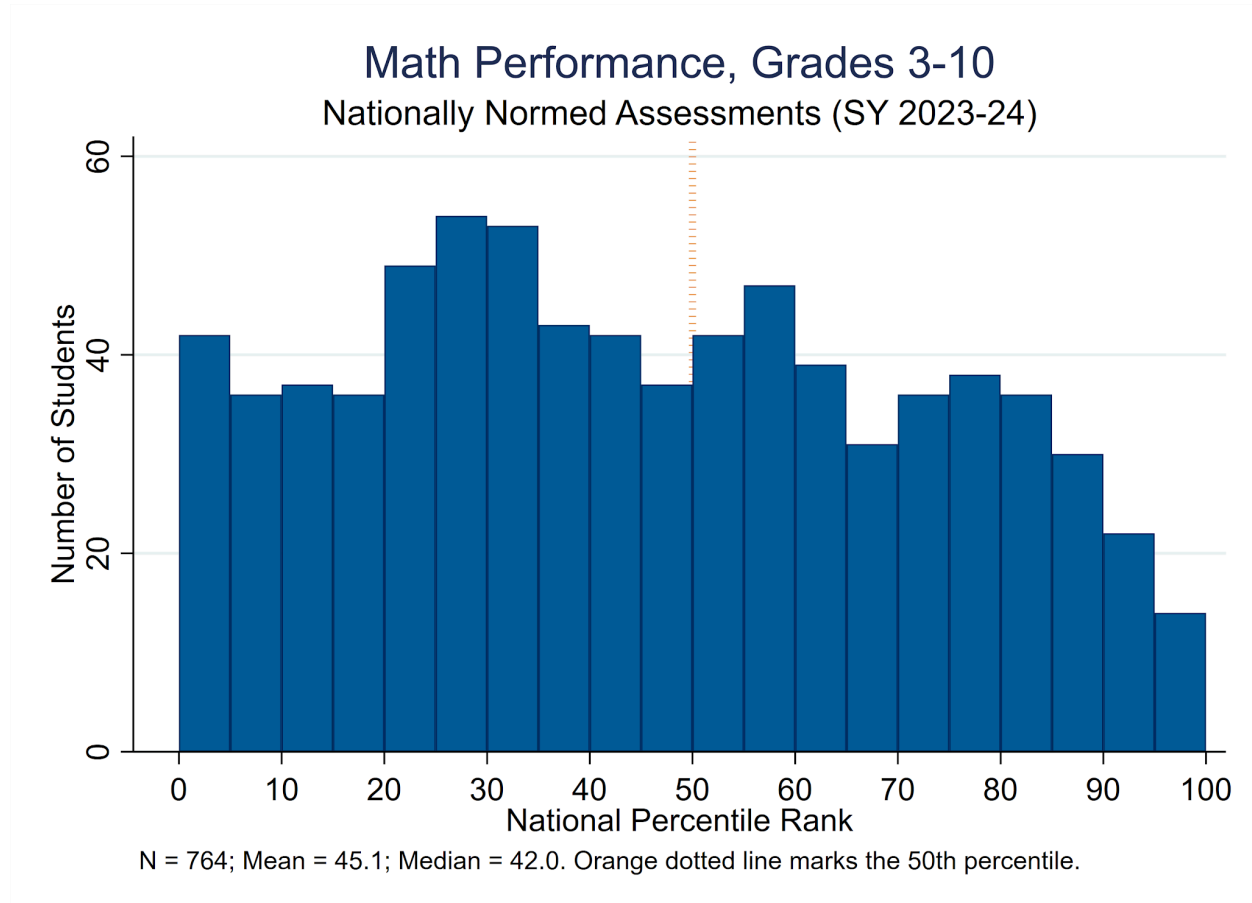


FIGURE 5.2

The average math national percentile rank of MOScholars students with valid scores was slightly below the national average

Distribution of MOScholars participants' scores on nationally normed math assessments (SY 2023-24)





Assessment Performance by Grade Level (SY 2023-24)

In SY 2023-24, 35% of testing-age students who provided valid scores were in elementary grades (grades 3-5) and 65% were in secondary grades (grades 6-10). Average performance on nationally norm-referenced assessments remained relatively consistent across grade levels.

Mean ELA scores by grade level generally fell within the mid-40th to low 50th percentile, ranging from the 41st national percentile (10th grade) to the 52nd national percentile (3rd grade), with only modest differences observed across grades.

Mathematics demonstrated a similar pattern to ELA, with mean percentile ranks varying somewhat by grade but remaining relatively consistent overall. Average math scores by grade level ranged from the 37th national percentile (10th grades) to the 57th national percentile (3rd grade).

Compared with SY 2022–23, grade-level patterns in both ELA and mathematics were largely stable, with no substantial shifts in average achievement across grades. As in the previous year, considerable variation in student performance was observed within each grade level, indicating that average percentile ranks mask a wide range of individual achievement. Estimates for grades with relatively small numbers of tested students should be interpreted cautiously.



TABLE 5.2

The average ELA performance of MOScholars high school students with valid scores was generally lower than elementary and middle school students with valid scores

Average performance on nationally normed ELA assessments by grade level (SY 2023-24)

Grade	N	AVG	SD	Max	Min
3	76	52.46	28.39	99	0
4	91	48.62	28.55	98	1
5	104	48.89	25.64	99	4
6	119	42.66	26.29	99	0
7	117	50.17	26.99	99	1
8	74	47.42	27.81	97	0.2
9	101	43.03	24.82	100	0.4
10	83	42.00	28.73	100	1
Total	765	46.73	27.16	100	0

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.



TABLE 5.3

The average math performance of MOScholars high school students with valid scores was lower than elementary and middle school students with valid scores

Average performance on nationally normed math assessments by grade level (SY 2023-24)

Grade	N	AVG	SD	Max	Min
3	76	57.20	28.27	98	0.1
4	91	45.05	25.85	91	1
5	103	44.22	26.48	94	1
6	120	42.74	26.73	99	0.1
7	117	48.62	25.59	98	1
8	74	45.35	30.43	98	0.1
9	100	41.85	25.53	96	0.1
10	83	37.57	22.63	99	0.1
Total	764	45.13	26.75	99	0.1

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.



Assessment Performance by IEP Status (SY 2023-24)

In SY 2023-24, while 48% of testing-age students who provided valid scores had an IEP, the proportion of students with an IEP varied by grade level. Notably, grades 4, 7, and 9 had a greater proportion of students (>50%) with IEP than those without an IEP.

Across grades 3-10, students without IEPs generally had higher average national percentile ranks (50th percentile) in ELA than students with IEPs (42nd percentile). Average ELA scores by grade level for students with an IEP ranged from the 37th national percentile (6th and 9th grades) to the 46th national percentile (5th and 7th grades), while average ELA scores by grade level for students without an IEP ranged from the 43rd national percentile (10th grade) to the 59th national percentile (3rd grade).

Similar to ELA, across grade levels students without an IEP had higher average mean national percentile ranks (48th percentile) than students with IEPs (40th percentile). Average math scores by grade level for students with an IEP ranged from the 35th national percentile (6th and 10th grades) to the 51st national percentile (3rd grade), while average math scores by grade level for students without an IEP ranged from the 38th national percentile (10th grade) to the 62nd national percentile (3rd grade).

Patterns of achievement by IEP status in SY 2023-24 were largely consistent with those observed in the program's first year. Overall differences between the two groups remained similar to those observed in SY 2022–23. Although the magnitude of these differences varied across grade levels, no consistent grade-specific pattern emerged.

As in the previous year, substantial variation in student performance was observed within both IEP groups, indicating that average percentile ranks do not reflect the full range of achievement among students. In addition, several grade-level comparisons were based on relatively small numbers of students and should be interpreted cautiously.

TABLE 5.4

Students without verified IEPs had higher average ELA scores than students with verified IEPs, although there was substantial variability within groups and across grade levels

Performance on nationally normed ELA assessments for students with an IEP by grade level (SY 2023-24)

Grade	IEP Status	N	AVG	SD	Max	Min
3	Yes	38	45.45	29.28	95	0
	No	38	59.47	25.98	99	1
4	Yes	49	44.14	31.27	98	1
	No	42	53.83	24.35	95	3
5	Yes	48	46.90	24.96	99	11
	No	56	50.61	26.32	93	4
6	Yes	53	37.51	25.43	98	0
	No	66	46.79	26.43	99	2
7	Yes	60	46.20	27.72	99	1
	No	57	54.35	25.79	99	6
8	Yes	28	43.47	29.78	97	0.2
	No	46	49.83	26.59	97	1
9	Yes	55	37.66	24.90	100	0.4
	No	46	49.46	23.41	99	2
10	Yes	40	39.53	30.45	100	1
	No	44	43.61	27.23	99	1
Total	Yes	371	42.51	27.79	100	0
	No	395	50.70	25.97	99	1

Note. Yes = student has a verified IEP; No = student does not have a verified IEP; N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.

TABLE 5.5

Students without verified IEPs had higher average math scores than students with verified IEPs although there was substantial variability within groups and across grade levels

Performance on nationally normed math assessments for students with an IEP by grade level (SY 2023-24)

Grade	IEP Status	N	AVG	SD	Max	Min
3	Yes	37	51.64	29.67	98	0.1
	No	39	62.49	26.16	94	1
4	Yes	49	39.88	26.73	91	1
	No	42	51.10	23.69	89	2
5	Yes	47	43.89	24.87	94	6
	No	56	44.50	27.98	88	1
6	Yes	54	35.61	25.28	85	0.1
	No	66	48.56	26.66	99	1
7	Yes	60	44.07	25.30	98	1
	No	57	53.40	25.22	96	3
8	Yes	28	39.72	31.50	96	0.1
	No	46	48.78	29.59	98	2
9	Yes	54	39.00	25.80	92	0.1
	No	46	45.20	25.09	96	1
10	Yes	40	35.15	24.25	99	0.1
	No	44	38.93	21.60	92	4
Total	Yes	369	40.97	26.55	99	0.1
	No	396	48.89	26.45	99	1

Note. Yes = student has a verified IEP; No = student does not have a verified IEP; N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.



Assessment Performance by Gender (SY 2023-24)

In SY 2023-24, 58% of testing-age students who provided valid scores were male and 42% were female. No grade had a higher proportion of females than males.

Similar to the first program year, across grades 3-10, male students continued to have slightly higher average national percentile ranks than female students in ELA. However, the overall average national percentile rank was the same for both male and female students (46th percentile). Average ELA scores by grade level for male students ranged from the 36th national percentile (10th grade) to the 54th national percentile (7th grade), while average ELA scores by grade level for female students ranged from the 39th national percentile (6th grade) to the 58th national percentile (3rd grade).

Male students had more noticeably higher average percentiles than females in math than in ELA. The overall average math score of male students in grades 3-10 was in the 48th national percentile, and the overall average math score of female students in grades 3-10 was in the 40th national percentile. Average math scores by grade level for male students ranged from the 38th national percentile (10th grade) to the 57th national percentile (3rd grade), while average math scores by grade level for female students ranged from the 35th national percentile (9th grade) to the 57th national percentile (3rd grade).

Compared with SY 2022–23, differences in average ELA achievement between male and female students appeared somewhat smaller, while the mathematics pattern remained largely unchanged. Across grade levels, differences between male and female students varied in magnitude, and several grades showed only modest differences in average achievement.

As with the other subgroup analyses, substantial variation in student performance was observed within both gender groups, indicating that average percentile ranks do not capture the full range of student achievement. Additionally, several grade-level comparisons were based on relatively small numbers of students and should be interpreted cautiously.

For both ELA and math, male students with IEPs had a higher average score than female students with IEPs. The same pattern held true for male and female students without IEPs.

When examined jointly by gender and IEP status, the patterns observed in SY 2023–24 were consistent with those reported in the previous year. Within both the male and female student groups, students without verified IEPs generally had higher average national percentile ranks than students with verified IEPs in both ELA and mathematics. Likewise, within each IEP group, male students generally had higher average percentile ranks than female students, with the largest gender differences again observed in mathematics.

Overall, differences associated with IEP status remained more pronounced than differences associated with gender alone. As several subgroups included relatively small numbers of students,



these findings should be interpreted cautiously. As with the previous analyses, substantial variability in student performance was evident within each subgroup.



TABLE 5.6

There was substantial variability of average ELA scores within and across both gender and grade level student groups

Performance on nationally normed ELA assessments for students by gender by grade level (SY 2023-24)

Grade	Gender	N	AVG	SD	Max	Min
3	Male	51	49.49	29.25	97	0
	Female	25	58.52	26.05	99	11
4	Male	48	51.79	29.56	97	2
	Female	43	45.07	27.29	98	1
5	Male	53	45.64	26.33	99	8
	Female	51	52.27	24.70	98	4
6	Male	66	45.11	27.31	99	0
	Female	53	39.60	24.88	95	1
7	Male	68	54.16	28.75	99	1
	Female	49	44.63	23.51	94	2
8	Male	44	47.57	30.17	97	0.2
	Female	30	47.20	24.45	97	1
9	Male	69	42.17	25.12	100	1
	Female	32	44.89	24.47	96	0.4
10	Male	46	36.89	27.78	97	1
	Female	38	47.45	29.11	100	1
Total	Male	445	46.72	28.16	100	0
	Female	321	46.76	25.75	100	0.4

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.



TABLE 5.7

Male students had higher average math scores than female students although substantial variability existed both within and across student groups

Performance on nationally normed math assessments for students by gender by grade level (SY 2023-24)

Grade	Gender	N	AVG	SD	Max	Min
3	Male	51	57.12	28.98	98	0.1
	Female	25	57.38	27.32	93	1
4	Male	48	52.75	25.10	91	3
	Female	43	36.47	24.16	88	1
5	Male	52	46.73	26.67	94	3
	Female	51	41.67	26.30	94	1
6	Male	68	46.86	25.50	98	0.1
	Female	52	37.35	27.58	99	1
7	Male	68	53.32	24.40	98	5
	Female	49	42.08	26.00	97	1
8	Male	45	48.82	31.32	96	0.1
	Female	29	39.97	28.70	98	1
9	Male	68	44.78	25.88	96	1
	Female	32	35.63	23.99	88	0.1
10	Male	45	39.34	24.31	99	0.1
	Female	38	35.47	20.56	76	2
Total	Male	445	48.76	26.71	99	0.1
	Female	319	40.06	26.00	99	0.1

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.



TABLE 5.8

For both ELA and math, male students had higher average scores than female students, and students without verified IEPs had higher average scores than students with verified IEPs

Performance on nationally normed ELA and math assessments for students by gender by IEP status (SY 2023-24)

ELA						
Gender	IEP Status	N	AVG	SD	Max	Min
Male	Yes	243	43.08	28.70	100	0
	No	202	51.09	26.92	99	1
Female	Yes	128	41.42	26.03	100	0.4
	No	193	50.30	25.01	99	1
Math						
Gender	IEP Status	N	AVG	SD	Max	Min
Male	Yes	241	45.52	26.91	99	0.1
	No	205	52.35	26.70	98	1
Female	Yes	128	32.42	23.69	97	0.1
	No	191	45.18	26.28	99	1

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score



Assessment Performance by Race/Ethnicity (SY 2023-24)

From SY 2023-24, of testing-age students who provided valid scores 59% identified as White, 22% identified as Black or African American, 11% identified as Hispanic or Latino, and 6% identified as Multirace (other race/ethnicities represented < 3% of population).

Average national percentile ranks varied across racial/ethnic groups in ELA. Among racial/ethnic groups with reportable population sizes, Asian students had the highest average percentile rank (57th percentile), although the population size was small and should be cautiously interpreted. White students had the second highest average national percentile (51st percentile), while the average achievement among Black or African American, Hispanic or Latino, and Multiracial students was between the 37th and 43rd percentiles.

As with ELA, average national percentile ranks varied across racial/ethnic groups in mathematics. Among racial/ethnic groups with reportable population sizes, Asian students had the highest average percentile rank (56th percentile), although the population size was small and should be cautiously interpreted. White students had the second highest average national percentile (50th percentile), while the average achievement among American Indian or Alaska Native, Black or African American, Hispanic or Latino, and Multiracial students was between the 32nd and 46th percentiles.

Patterns of achievement by race/ethnicity in SY 2023-24 were generally consistent with those observed during the previous program year with the overall pattern of results changing slightly. Because subgroup sizes varied substantially, these findings are descriptive only and should not be interpreted as representative of broader populations or as evidence of underlying differences among racial or ethnic groups. As with the other subgroup analyses, considerable variation in student performance was observed within each racial and ethnic group.



TABLE 5.9

Among racial/ethnic groups of reportable sample size, average performance on ELA assessments varied greatly both within and across groups

Performance on nationally normed ELA assessments for students by ethnicity (SY 2023-24)

Race	N	AVG	SD	Max	Min
American Indian or Alaska Native	5	37.00	30.55	81	2
Asian	10	57.90	30.46	95	13
Black or African American	168	37.58	23.86	95	1
Hispanic or Latino	84	43.02	25.28	99	1
Middle Eastern or North African	< 5	*	*	*	*
Multirace	44	41.16	28.22	97	0
Native Hawaiian or Other Pacific Islander	< 5	*	*	*	*
White	452	51.18	27.48	100	0

*Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score. *Suppression applied to populations < 5.*



TABLE 5.10

Among racial/ethnic groups of reportable sample size, average performance on math assessments varied greatly both within and across groups

Performance on nationally normed math assessments for students by ethnicity (SY 2023-24)

Race	N	AVG	SD	Max	Min
American Indian or Alaska Native	5	32.60	17.34	58	12
Asian	10	56.10	23.73	90	27
Black or African American	166	34.50	24.74	98	1
Hispanic or Latino	84	37.43	24.16	98	1
Middle Eastern or North African	< 5	*	*	*	*
Multirace	44	46.50	28.01	96	0.1
Native Hawaiian or Other Pacific Islander	< 5	*	*	*	*
White	453	50.08	26.65	99	0.1

*Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score. *Suppression applied to populations < 5.*



Assessment Performance by EAO (SY 2023-24)

In SY 2023-24, as with the prior school year, EAOs varied in both the number of testing-grade students with valid scores and average student achievement.

Average national percentile ranks differed across EAOs in both ELA and mathematics, with means ranging from the 39th to the 55th percentile in ELA and from the 34th to the 52nd percentile in math.

While average national percentile ranks differed across EAOs in both ELA and mathematics, the overall pattern of results was generally consistent with that observed during SY 2022-23.

Some EAOs experienced modest changes in average achievement relative to SY 2022–23; however, no consistent pattern of improvement or decline was evident across organizations. Several EAOs continued to have relatively small numbers of tested students (i.e. AIM and CTF), and average percentile ranks for these organizations should therefore be interpreted with caution.

Additionally, as with the previous year, EAOs differed in the number and characteristics of the students they served, including the proportion of students with IEPs and other demographic characteristics. Therefore, these descriptive results should not be interpreted as measures of EAO effectiveness or program quality. As with the other subgroup analyses, substantial variability in student performance was observed within each EAO.



TABLE 5.11

With substantial differences in student population, average ELA achievement varied both within and across EAOs

Average performance on nationally normed ELA assessments by EAO (SY 2023-24)

EAO	N	AVG	SD	Max	Min
AIM	24	54.75	23.71	99	13
BFF	260	45.53	26.07	99	1
CTF	18	42.78	28.32	93	4
HTF	170	55.56	27.69	99	1
LCMS	58	39.64	24.68	88	1
TTEF	235	43.04	27.34	100	0

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score; AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation.



TABLE 5.12

With substantial differences in student population, average math achievement varied both within and across EAOs

Average performance on nationally normed math assessments by EAO (SY 2023-24)

EAO	N	AVG	SD	Max	Min
AIM	24	47.42	26.46	98	2
BFF	260	47.17	25.68	99	1
CTF	18	37.67	22.65	92	1
HTF	171	52.05	28.76	98	1
LCMS	58	34.86	24.63	86	1
TTEF	234	40.50	25.83	99	0.1

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score; AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation.

TABLE 5.13

Across EAOs, students without verified IEPs generally had higher average ELA scores than students with verified IEPs

Average performance on nationally normed ELA assessments by EAO by IEP status (SY 2023-24)

EAO	IEP Status	N	AVG	SD	Max	Min
AIM	Yes	22	52.23	22.57	95	13
	No	< 5	*	*	*	*
BFF	Yes	64	39.94	28.53	97	1
	No	196	47.36	25.02	99	1
CTF	Yes	12	33.33	25.37	82	4
	No	6	61.67	25.87	93	20
HTF	Yes	54	44.31	28.81	98	2
	No	116	60.80	25.63	99	1
LCMS	Yes	26	35.58	22.82	83	1
	No	32	42.94	25.98	88	4
TTEF	Yes	192	43.40	28.37	100	0
	No	43	41.44	22.39	81	3

*Note. Yes = student has a verified IEP; No = student does not have a verified IEP; N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score. AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation. *Suppression applied to populations < 5.*

TABLE 5.14

Across EAOs, students without verified IEPs generally had higher average math scores than students with verified IEPs

Average performance on nationally normed math assessments by EAO by IEP status (SY 2023-24)

EAO	IEP Status	N	AVG	SD	Max	Min
AIM	Yes	22	45.64	26.82	98	2
	No	< 5	*	*	*	*
BFF	Yes	64	43.59	28.70	98	2
	No	196	48.34	24.58	99	1
CTF	Yes	12	35.58	17.82	65	6
	No	6	41.83	31.86	92	1
HTF	Yes	53	42.06	28.69	96	1
	No	117	57.01	27.39	98	1
LCMS	Yes	26	31.92	21.84	86	5
	No	32	37.25	26.78	86	1
TTEF	Yes	191	41.04	26.07	99	0.1
	No	43	38.12	24.86	90	1

Note. Yes = student has a verified IEP; No = student does not have a verified IEP; N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score; AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation. *Suppression applied to populations < 5.



Student Performance on Nationally Normed Assessments (SY 2024-25)

This section summarizes MOScholars participating students' performance on nationally norm-referenced English Language Arts (ELA) and math assessments during the third year of the program. The analyses are descriptive and are intended to characterize participating students rather than evaluate program effectiveness. Results are presented overall as well as aggregated by grade level, Individualized Education Plan (IEP) status, gender, race/ethnicity, and Educational Assistance Organization (EAO).

In SY 2024-25, there were 2,678 participants, 1,351 of which were in testing-required grades. Of those students in testing-required grades, 44% had an IEP. Valid ELA scores were received for 1,054 students, and valid mathematics scores were received for 1,047 students. Of students for whom valid scores were received, 41% had an IEP.

Participant Characteristics and Analytic Sample (SY 2024-25)

In SY 2024–25, the MOScholars Program continued to grow, serving 2,678 students statewide, including 1,351 students in testing-required grades. Valid assessment scores were received for 1,054 students in testing-required grades. The demographic composition of students with valid assessment scores remained similar to that of the overall testing-grade population. Overall, the analytic sample closely reflected the demographic characteristics of the testing-grade population, suggesting that the achievement results presented in the following sections are representative of students with valid assessment scores.



TABLE 6.1

The sample of valid scores received approximately reflects the population of testing-grade students
Characteristics of MOScholars student population by IEP status, gender, and race/ethnicity (SY 2024-25)

Student Population	N	IEP		Gender		Race/Ethnicity	
		Yes	No	Male	Female	White	Of Color
Total Program	2,678	31.18%	68.82%	53.73%	46.27%	61.53%	38.47%
Testing-Grades	1,351	43.93%	56.07%	57.48%	42.52%	62.52%	37.48%
Valid Score(s) Received	1,053	41.26%	58.74%	56.78%	43.22%	63.57%	36.43%

Note. N = number of students; Yes = student has a verified IEP; No = student does not have a verified IEP; Of Color = all students not identified as White (i.e. American Indian or Native Alaskan, Asian, Black or African American, Hispanic or Latino, Middle Eastern or North African, Multirace, Native Hawaiian or Other Pacific Islander, or Other).

**Totals may not equal total program enrollment as gender data were missing for some students.*



Overall Assessment Performance (SY 2024-25)

The average performance of MOScholars participants in grades 3-10 in SY 2024-25 on nationally norm-referenced ELA assessments increased modestly from the high-40s the previous two program years to the 51st national percentile.

The average performance of MOScholars participants in grades 3-10 in SY 2024-25 on nationally norm-referenced math assessments was in the 48th national percentile, staying consistent with previous years and remaining near the national average.



FIGURE 6.1

The average ELA national percentile rank of MOScholars students with valid scores was slightly above the national average

Distribution of MOScholars participants' scores on nationally normed ELA assessments (SY 2024-25)

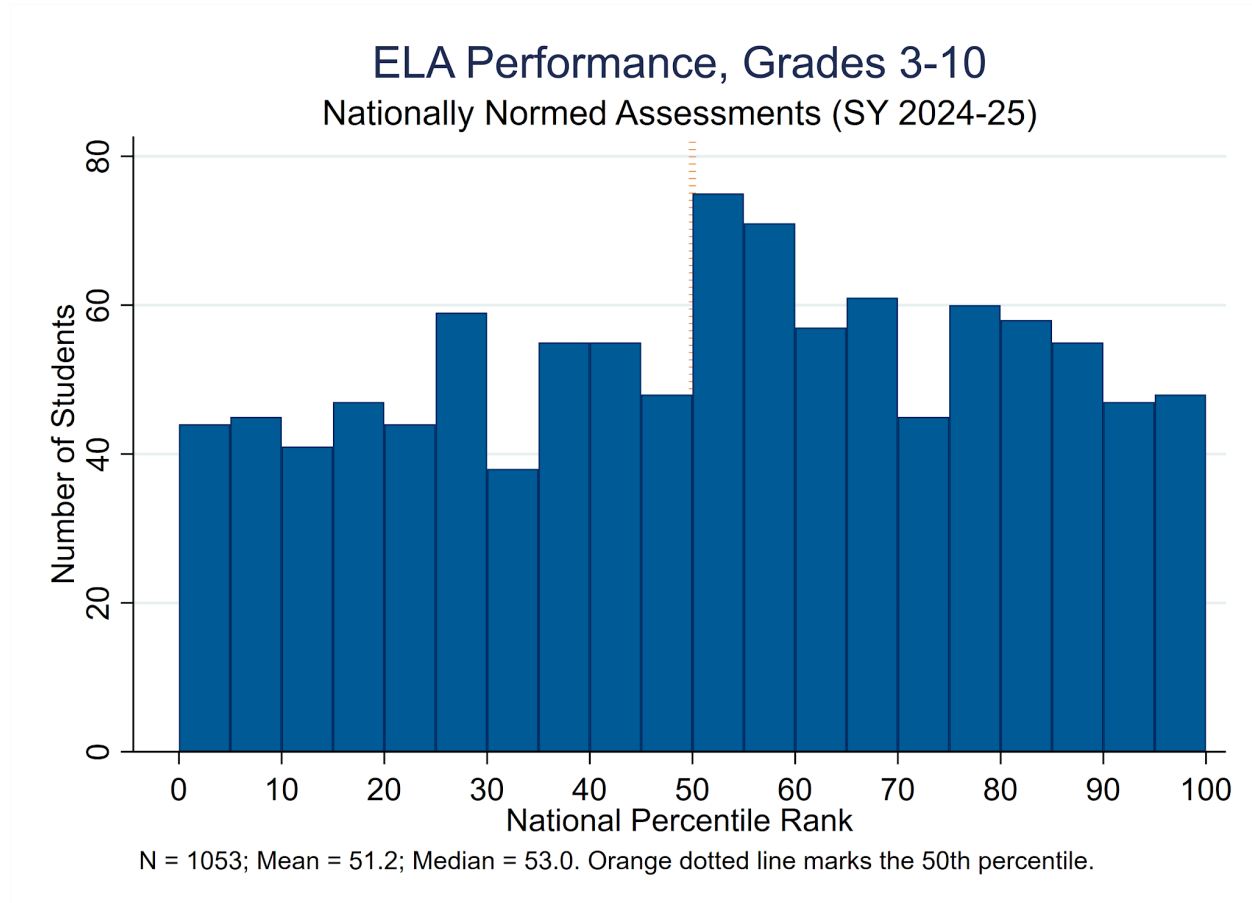
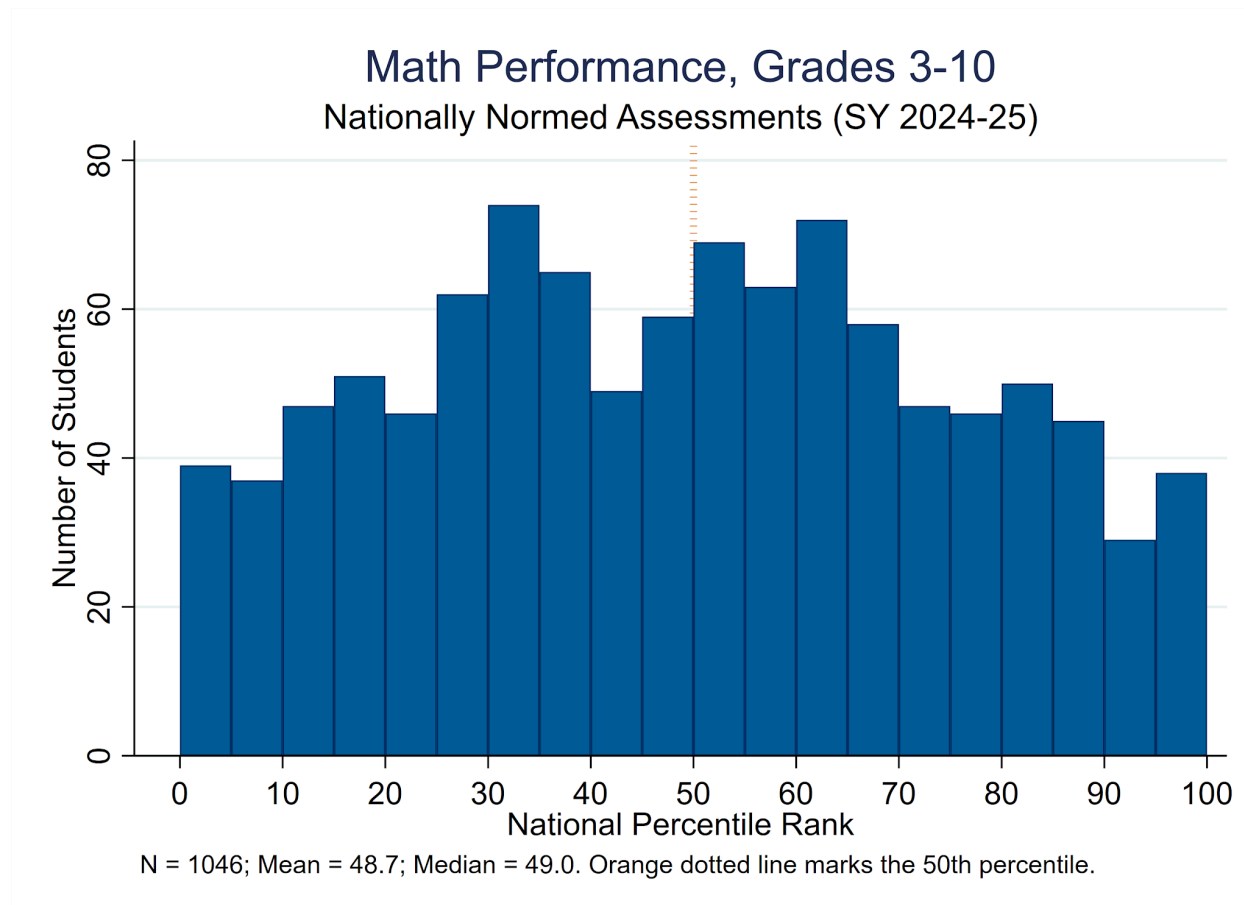




FIGURE 6.2

The average math national percentile rank of MOScholars students with valid scores was slightly below the national average

Distribution of MOScholars participants' scores on nationally normed math assessments (SY 2024-25)





Assessment Performance by Grade Level (SY 2024-25)

In SY 2024-25, 45% of testing-age students who provided valid scores were in elementary grades (grades 3-5) and 55% were in secondary grades (grades 6-10)

Across grade levels, the average performance on nationally norm-referenced ELA assessments remained relatively consistent. Mean ELA scores by grade level ranged from the 44th national percentile (6th grade) to the 57th national percentile (3rd grade).

As with ELA, the average national percentile rank remained relatively consistent across grade levels. Mean math scores by grade level ranged from the 44th national percentile (7th grades) to the 54th national percentile (3rd grade).

The general patterns observed during the first two program years remained relatively consistent in the third program year. Compared with the previous two program years, overall grade-level achievement remained relatively stable, although 3rd grade students demonstrated somewhat higher average percentile ranks than students in older grades in both ELA and math. Aside from this pattern, differences in average achievement across grades remained modest.

As in previous years, considerable variation in student performance was observed within each grade level, indicating that student percentile ranks mask a wide range of individual achievement.



TABLE 6.2

The average ELA performance of MOScholars students with valid scores was relatively consistent across grade levels

Average performance on nationally normed ELA assessments by grade level (SY 2024-25)

Grade	N	AVG	SD	Max	Min
3	256	57.79	27.10	99	1
4	109	48.36	29.49	99	0.1
5	112	46.99	27.49	99	0.2
6	119	44.78	27.30	99	1
7	118	48.08	27.54	99	1
8	118	52.72	29.13	99	1
9	116	51.97	25.89	100	2
10	106	50.95	24.81	91	1
Total	1,053	51.21	27.62	100	0.1

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.



TABLE 6.3

The average math performance of MOScholars students with valid scores was relatively consistent across grade levels

Average performance on nationally normed math assessments by grade level (SY 2024-25)

Grade	N	AVG	SD	Max	Min
3	253	54.37	25.45	99	1
4	109	45.43	29.60	99	0.3
5	111	45.79	27.14	98	0.1
6	118	45.57	26.34	99	0.5
7	117	44.72	25.61	98	1
8	118	52.09	28.65	97	1
9	114	48.80	24.20	99	1
10	106	45.10	22.62	95	1
Total	1,046	48.66	26.40	99	0.1

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.



Assessment Performance by IEP Status (SY 2024-25)

In SY 2024-25, although 41% of testing-age students who provided valid scores had an IEP, the proportion of students with an IEP varied by grade level. Notably, grades 4, 6, and 8 had a greater proportion of students (>50%) with IEP than those without an IEP.

The overall average ELA score of students in grades 3-10 with an IEP was in the 46th national percentile, and the overall average ELA score of students in grades 3-10 without an IEP was in the 54th national percentile. Average ELA scores by grade level for students with an IEP ranged from the 39th national percentile (6th grade) to the 51st national percentile (10th grade), while average ELA scores by grade level for students without an IEP ranged from the 46th national percentile (5th grade) to the 59th national percentile (3rd grade).

The overall average math score of students in grades 3-10 with an IEP was in the 42nd national percentile, and the overall average math score of students in grades 3-10 without an IEP was in the 52nd national percentile. Average math scores by grade level for students with an IEP ranged from the 39th national percentile (4th grade) to the 46th national percentile (8th grade), while average math scores by grade level for students without an IEP ranged from the 46th national percentile (5th grades) to the 59th national percentile (8th grade).

Patterns of achievement by IEP status in SY 2024-25 remained generally consistent with those observed during the first two years of the MOScholars program. Across grades 3–10, students without IEPs continued to have higher average national percentile ranks than students with IEPs in both ELA and mathematics. However, compared with the previous two program years, the differences in average achievement between the two groups were somewhat smaller, particularly in ELA, although mathematics continued to demonstrate a slightly larger difference than ELA overall.

As in prior years, the magnitude of these differences varied across grade levels, with no consistent grade-specific pattern emerging. Considerable variation in student performance was observed within both IEP groups, indicating that average percentile ranks do not reflect the full range of achievement among students. Although this year's analyses include a larger number of students with IEPs than in earlier program years, some grade-level comparisons remain based on relatively small numbers of students and should therefore be interpreted cautiously.



TABLE 6.4

Students without verified IEPs generally had higher average ELA scores than students with verified IEPs, although there was variability within groups and across grade levels

Performance on nationally normed ELA assessments for students with an IEP by grade level (SY 2024-25)

Grade	IEP Status	N	AVG	SD	Max	Min
3	Yes	51	50.65	30.70	99	1
	No	205	59.56	25.91	99	2
4	Yes	57	44.09	30.95	99	0.1
	No	52	53.04	27.32	99	3
5	Yes	54	47.47	30.00	99	0.2
	No	58	46.55	25.18	98	4
6	Yes	60	39.00	29.14	99	1
	No	59	50.66	24.15	99	1
7	Yes	57	43.02	26.01	99	2
	No	61	52.80	28.29	99	1
8	Yes	64	48.56	29.63	99	1
	No	54	57.65	27.99	99	2
9	Yes	42	50.21	27.82	100	2
	No	74	52.96	24.87	100	3
10	Yes	45	51.82	24.19	91	9
	No	61	50.31	25.45	89	1
Total	Yes	430	46.51	28.83	100	0.1
	No	624	54.45	26.28	100	1

Note. Yes = student has a verified IEP; No = student does not have a verified IEP; N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.

TABLE 6.5

Students without verified IEPs had higher average math scores than students with verified IEPs, although there was variability within groups and across grade levels

Performance on nationally normed math assessments for students with an IEP by grade level (SY 2024-25)

Grade	IEP Status	N	AVG	SD	Max	Min
3	Yes	48	44.27	27.94	98	1
	No	205	56.73	24.31	99	1
4	Yes	57	39.20	30.61	99	0.3
	No	52	52.27	27.13	97	1
5	Yes	53	45.21	29.66	98	0.1
	No	58	46.33	24.87	96	2
6	Yes	59	40.38	26.86	96	0.5
	No	59	50.76	24.96	99	4
7	Yes	56	41.00	25.64	87	1
	No	61	48.13	25.32	98	1
8	Yes	65	46.38	28.23	96	1
	No	53	59.09	27.85	97	3
9	Yes	42	43.71	20.68	92	1
	No	73	51.81	25.53	99	1
10	Yes	45	41.40	22.27	92	1
	No	61	47.84	22.67	95	1
Total	Yes	425	42.70	26.86	99	0.1
	No	622	52.73	25.28	99	1

Note. Yes = student has a verified IEP; No = student does not have a verified IEP; N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.



Assessment Performance by Gender (SY 2024-25)

In SY 2024-25, 57% of testing-age students who provided valid scores were male and 43% were female. No grade had a higher proportion of females than males.

The overall average ELA achievement was nearly identical for male and female students, with female students averaging slightly higher (50th percentile and 51st percentile respectively). Average ELA scores by grade level for male students ranged from the 43rd national percentile (6th grade) to the 55th national percentile (3rd grade), while average ELA scores by grade level for female students ranged from the 44th national percentile (6th grade) to the 61st national percentile (3rd grade).

As in the previous two program years, male students continued to have higher average mathematics percentile ranks than female students, although the difference was somewhat smaller than the program's first year. The overall average math score of male students in grades 3-10 was in the 51st national percentile, and the overall average math score of female students in grades 3-10 was in the 45th national percentile. Average math scores by grade level for male students ranged from the 46th national percentile (6th grade) to the 58th national percentile (8th grade), while average math scores by grade level for female students ranged from the 39th national percentile (7th grade) to the 54th national percentile (3rd grade).

Patterns of achievement by gender in SY 2024-25 differed modestly from those observed in the first two program years, with a more narrow gap between male and female students' mean percentile ranks. Across grade levels differences between male and female students varied in both magnitude and direction, with some grades showing higher average achievement among female students and others showing higher average achievement among male students.

These findings suggest that gender differences in average achievement remained modest overall, particularly in ELA. As with other subgroup analysis, considerable variation in student performance was observed within both gender groups, and grade-level comparisons should be interpreted cautiously due to relatively small subgroup population sizes.

For both ELA and math, male students with IEPs had a higher average score than female students with IEPs. The same pattern held true for male and female students without IEPs on math assessments; however, female students without IEPs had a higher average score on ELA assessments than male students without IEPs.

When examined jointly by gender and IEP status, the patterns observed in SY 2024-25 were generally consistent with those reported during the first two years of the MOScholars program. Within both the male and female student groups, students without IEPs continued to have higher average national percentile ranks than students with IEPs in both ELA and mathematics. Gender differences among students without IEPs were relatively small in ELA, while male students continued to demonstrate somewhat higher average mathematics percentile ranks than female students within both IEP groups.



Overall, differences associated with IEP status remained more pronounced than differences associated with gender alone. Because several of the combined subgroups included relatively small numbers of students, these findings should be interpreted cautiously. As with the previous analyses, substantial variability in student performance was evident within each subgroup.



TABLE 6.6

The average ELA performance of MOScholars students with valid scores was relatively consistent across genders and grade levels

Performance on nationally normed ELA assessments for students by gender by grade level (SY 2024-25)

Grade	Gender	N	AVG	SD	Max	Min
3	Male	144	55.20	27.45	99	1
	Female	112	61.11	26.39	99	1
4	Male	64	48.56	29.58	99	1
	Female	45	48.07	29.68	97	0.1
5	Male	57	49.65	27.19	99	0.2
	Female	55	44.24	27.77	99	1
6	Male	63	43.40	28.24	99	1
	Female	56	46.34	26.37	99	1
7	Male	66	48.15	28.39	99	1
	Female	52	47.98	26.69	94	3
8	Male	71	54.86	29.30	99	1
	Female	47	49.49	28.87	99	1
9	Male	75	52.13	26.97	100	2
	Female	41	51.66	24.09	100	6
10	Male	57	48.75	25.36	91	1
	Female	49	53.51	24.17	91	2
Total	Male	597	50.89	27.93	100	0.2
	Female	457	51.63	27.23	100	0.1

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.



TABLE 6.7

Male students generally had higher average math scores than female students although substantial variability existed both within and across student groups

Performance on nationally normed math assessments for students by gender by grade level (SY 2024-25)

Grade	Gender	N	AVG	SD	Max	Min
3	Male	140	54.31	25.37	99	1
	Female	113	54.43	25.66	98	1
4	Male	64	47.77	30.34	99	1
	Female	45	42.12	28.53	92	0.3
5	Male	57	49.70	27.67	98	0.1
	Female	54	41.67	26.20	90	0.1
6	Male	63	46.20	28.12	99	0.5
	Female	55	44.85	24.37	89	4
7	Male	65	48.52	26.19	98	1
	Female	52	39.96	24.29	94	1
8	Male	70	58.54	27.39	97	1
	Female	48	42.69	28.10	97	1
9	Male	74	51.93	25.33	99	1
	Female	41	43.29	20.84	99	6
10	Male	57	47.33	23.50	95	1
	Female	49	42.51	21.50	83	1
Total	Male	590	51.18	26.76	99	0.1
	Female	457	45.40	25.55	99	0.1

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score.



TABLE 6.8

For both ELA and math, students without verified IEPs had higher average scores than students with verified IEPs, although there were gender-level differences between the two subject areas

Performance on nationally normed ELA and math assessments for students by gender by IEP status (SY 2024-25)

ELA						
Gender	IEP Status	N	AVG	SD	Max	Min
Male	Yes	260	47.42	29.26	100	0.2
	No	338	53.54	26.55	99	1
Female	Yes	171	45.11	28.12	99	0.1
	No	286	55.53	25.97	100	2
Math						
Gender	IEP Status	N	AVG	SD	Max	Min
Male	Yes	256	45.84	27.35	99	0.1
	No	335	55.14	25.68	99	1
Female	Yes	170	37.77	25.47	97	0.1
	No	287	49.92	24.55	99	1



Assessment Performance by Race/Ethnicity (SY 2024-25)

From SY 2024-25, of testing-age students who provided valid scores 64% identified as White, 15% identified as Black or African American, 12% identified as Hispanic or Latino, and 6% identified as Multirace (other race/ethnicities represented < 3% of population).

Average national percentile ranks varied across racial/ethnic groups in ELA. Among racial/ethnic groups with reportable sample sizes, White and Multiracial generally had the highest average percentile ranks (54th percentile). The mean achievement among Asian, Black or African American, and Hispanic or Latino students was between the 43rd and 52nd percentile. Unreportable in prior years, Native Hawaiian or Other Pacific Islander students averaged in the 28th national percentile; however, these results should be cautiously interpreted due to the small population size.

In math, as with ELA, average national percentile ranks varied across racial/ethnic groups, with the pattern of results remaining consistent with the first two program years. Among racial/ethnic groups with reportable sample sizes, Asian students generally had the highest average percentile rank (58th percentile). The mean achievement in math for White students remained consistent with previous program years. The average achievement among Black or African American, Hispanic or Latino, and Multiracial students was between the 39th and 51st percentile. Native Hawaiian or Other Pacific Islander students averaged in the 34th national percentile; however, these results should be cautiously interpreted due to the small population size.

Patterns of achievement by race and ethnicity in SY 2024–25 were generally consistent with those observed throughout the first three years of the MOScholars program. As with previous years, subgroup sizes varied substantially across racial/ethnic groups. These findings are descriptive only and should not be interpreted as representative of broader populations or as evidence of underlying differences among racial or ethnic groups. As with the other subgroup analyses, considerable variation in student performance was observed within each racial/ethnic group.



TABLE 6.9

Among racial/ethnic groups of reportable sample size, average performance on ELA assessments varied greatly both within and across groups

Performance on nationally normed ELA assessments for students by ethnicity (SY 2024-25)

Race	N	AVG	SD	Max	Min
American Indian or Alaska Native	< 5	*	*	*	*
Asian	17	52.88	29.21	99	2
Black or African American	162	43.77	26.40	96	1
Hispanic or Latino	126	44.66	26.88	99	1
Middle Eastern or North African	< 5	*	*	*	*
Multirace	65	54.14	27.05	95	1
Native Hawaiian or Other Pacific Islander	8	28.38	16.04	48	3
White	670	54.08	27.64	100	0.1

*Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score. *Suppression applied to populations < 5.*



TABLE 6.10

Among racial/ethnic groups of reportable sample size, average performance on math assessments varied greatly both within and across groups

Performance on nationally normed math assessments for students by ethnicity (SY 2024-25)

Race	N	AVG	SD	Max	Min
American Indian or Alaska Native	< 5	*	*	*	*
Asian	17	58.29	28.23	98	7
Black or African American	162	39.71	26.04	99	0.1
Hispanic or Latino	125	43.82	25.86	98	1
Middle Eastern or North African	< 5	*	*	*	*
Multirace	66	51.06	24.21	94	1
Native Hawaiian or Other Pacific Islander	8	34.38	11.76	53	16
White	663	51.21	26.34	99	0.1

*Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score. *Suppression applied to populations < 5.*



Assessment Performance by EAO (SY 2024-25)

In SY 2024-25, as with prior program years, EAOs continued to vary in the number of testing-grade students with valid scores and average student achievement.

Average national percentile ranks differed across EAOs in both ELA and mathematics, although the overall pattern of variation remained generally consistent with that observed throughout the first three years of the MOScholars program.

While some EAOs experienced modest year-to-year changes in average achievement, no consistent pattern of improvement or decline was evident across organizations over time. Although larger participation in several EAOs contributed to more stable estimates than in the program's first year, some organizations (i.e. AIM and CTF) continued to have relatively small numbers of tested students, and their average percentile ranks should therefore be interpreted cautiously.

As with previous years, in SY 2024-25, EAOs differ in the number and characteristics of the students they serve, including the proportion of students with verified IEPs and other demographic characteristics. Consequently, these descriptive results should not be interpreted as measures of EAO effectiveness or program quality. As with the other subgroup analyses, substantial variability in student performance was observed within each EAO.



TABLE 6.11

With substantial differences in student population, average ELA achievement varied both within and across EAOs

Average performance on nationally normed ELA assessments by EAO (SY 2024-25)

EAO	N	AVG	SD	Max	Min
AIM	52	57.38	28.65	99	1
BFF	428	48.98	26.25	100	1
CTF	22	36.95	25.82	86	4
HTF	248	58.01	26.98	99	1
LCMS	67	43.13	27.13	92	1
TTEF	237	50.39	29.12	100	0.1

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score; AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation.



TABLE 6.12

With substantial differences in student population, average math achievement varied both within and across EAOs

Average performance on nationally normed math assessments by EAO (SY 2024-25)

EAO	N	AVG	SD	Max	Min
AIM	46	52.93	27.66	98	1
BFF	427	48.41	24.90	99	1
CTF	22	45.14	26.82	97	1
HTF	249	56.12	26.36	99	1
LCMS	67	42.09	25.65	97	3
TTEF	236	42.59	27.07	98	0.1

Note. N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score; AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation.



TABLE 6.13

Across EAOs, students without verified IEPs had higher average ELA scores than students with verified IEPs

Average performance on nationally normed ELA assessments by EAO by IEP status (SY 2024-25)

EAO	IEP Status	N	AVG	SD	Max	Min
AIM	Yes	35	54.83	29.89	99	1
	No	17	62.65	25.97	99	22
BFF	Yes	89	38.97	26.26	99	1
	No	339	51.61	25.65	100	2
CTF	Yes	13	30.38	19.68	65	4
	No	9	46.44	31.58	86	7
HTF	Yes	62	48.85	28.90	99	1
	No	185	61.04	25.73	99	1
LCMS	Yes	30	40.40	27.54	92	1
	No	37	45.35	26.96	89	1
TTEF	Yes	201	49.64	29.47	100	0.1
	No	36	54.61	27.03	96	1

Note. Yes = student has a verified IEP; No = student does not have a verified IEP; N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score; AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation.



TABLE 6.14

Across EAOs, students without verified IEPs generally had higher average math scores than students with verified IEPs

Average performance on nationally normed math assessments by EAO by IEP status (SY 2024-25)

EAO	IEP Status	N	AVG	SD	Max	Min
AIM	Yes	30	48.13	29.28	98	1
	No	16	61.94	22.48	95	8
BFF	Yes	90	40.63	26.41	99	1
	No	337	50.49	24.09	99	1
CTF	Yes	13	35.69	20.94	73	7
	No	9	58.78	29.61	97	1
HTF	Yes	62	46.73	27.48	96	4
	No	186	59.25	25.36	99	1
LCMS	Yes	30	41.03	27.90	85	3
	No	37	42.95	24.04	97	4
TTEF	Yes	200	42.28	26.72	98	0.1
	No	36	44.36	29.29	98	1

Note. Yes = student has a verified IEP; No = student does not have a verified IEP; N = number of students; AVG = average national percentile rank; SD = standard deviation; Max = maximum score; Min = minimum score; AIM = Agudath Israel of Missouri; BFF = Bright Futures Fund; CTF = Children's Tuition Fund; HTF = Herzog Tomorrow Foundation; LCMS = The Missouri District of the Lutheran Church-Missouri Synod; TTEF = Today and Tomorrow Education Foundation.



Student Growth on Nationally Normed Assessments (SY 2022-23 to SY 2024-25)

A longitudinal data set was constructed to track student-level achievement growth over time. The analytic sample for this group of students is relatively small, compared to overall program enrollment and the overall testing sample, and it is projected to roughly double in each of the next two years. Results from this limited longitudinal sample suggest that MOScholars students generally maintained their academic standing relative to national peers. On average, students tracked over time maintained similar national percentile rankings in ELA and math from year to year.



Paired T-Test

These results are from the paired t-tests, which compare each student's score with their own score from the previous year. This is a stronger comparison than simply comparing annual averages because it follows the same students over time.

TABLE 7.1

MOScholars students generally maintained stable achievement from year to year

T-test results (SY 2022-23 to SY 2024-25)

School Year	Subject	Subgroup	N	Prior-Year Mean NPR	Current-Year Mean NPR	Mean Change	p-value
2023–24	ELA	All Students	251	46.89	48.02	1.13	0.32
		No IEP	161	51.71	53.94	2.23	0.109
		IEP	90	38.26	37.42	-0.83	0.673
	Math	All Students	249	47.90	46.5	-1.39	0.224
		No IEP	160	54.13	52.36	-1.78	0.235
		IEP	89	36.69	35.98	-0.71	0.689
2024–25	ELA	All Students	505	49.54	50.01	0.47	0.627
		No IEP	259	54.43	52.59	-1.84	0.166
		IEP	246	44.39	47.30	2.91	0.04*
	Math	All Students	504	48.53	48.16	-0.37	0.657
		No IEP	261	53.45	52.81	-0.64	0.545
		IEP	243	43.24	43.17	-0.07	0.956

*Note. Values are paired comparisons of students with valid national percentile (NPR) scores in consecutive years. Positive mean changes indicate improvement in achievement between years. Statistical significance is based on two-tailed paired t-tests. * = $p < .05$.*

The paired analyses indicate that MOScholars students generally maintained stable achievement from year to year. Across the full sample, neither ELA nor mathematics national percentile rankings changed significantly between consecutive school years. Similar patterns were observed among students without IEPs.

The one notable exception was among students with IEPs. Between SY 2023-24 and SY 2024-25 school years, these students experienced a statistically significant increase of approximately 2.9

national percentile points in ELA performance ($p = .040$). No statistically significant changes were observed for mathematics among students with IEPs.

Overall, these findings suggest that nationally normed achievement remained relatively stable over time, with evidence of modest improvement in ELA performance for students with IEPs during the most recent year of the study.

Student Fixed-Effects Models

Neither model shows evidence of a statistically significant overall time trend in either ELA or mathematics achievement. The fixed-effects analyses indicate that MOScholars students generally maintained stable national percentile rankings over the study period after accounting for stable student characteristics.

TABLE 7.2

MOScholars students generally maintained stable national percentile rankings across years after accounting for stable student characteristics

MOScholars fixed-effects models (SY 2022-23 to SY 2024-25)

	Basic	
	Mean ELA NPR	Mean Math NPR
Years since first available school year	0.554 (0.618)	-0.449 (0.564)
Constant	48.13*** (0.829)	47.71*** (0.755)
Observations	2,139	2,131
Students	1,370	1,364
Within R-Squared	0.001	0.001

*Note. Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ s*

Taken together with the paired t-test results, the findings suggest that MOScholars participants largely maintained their relative academic standing compared with national peers across consecutive years. The absence of statistically significant declines is encouraging, particularly because national percentile ranks are norm-referenced; maintaining a stable percentile indicates that students, on average, continued to perform at a level comparable to their peers nationwide.

Student Fixed-Effects Models by IEP Status

To examine whether achievement trajectories differed by disability status, separate student fixed-effects models were estimated for students with and without Individualized Education Programs (IEPs). These models estimate within-student changes in achievement over time while controlling for stable student characteristics.

TABLE 7.3

Achievement trajectories did not change significantly over time for students with or without IEPs
MOScholars fixed-effects models by IEP status (SY 2022-23 to SY 2024-25)

	Students without an IEP		Students with an IEP	
	Mean ELA NPR	Mean Math NPR	Mean ELA NPR	Mean Math NPR
Years since first available school year	-0.214 (0.750)	-1.099 (0.702)	1.582 (1.049)	0.475 (0.927)
Constant	52.82*** (1.004)	52.83*** (0.937)	41.83*** (1.413)	40.73*** (1.247)
Observations	1226	1226	913	906
Students	796	794	575	571
Within R-Squared	0.000	0.006	0.007	0.001

*Note. Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$*

FIGURE 7.1

Estimated annual change in ELA percentile was near zero for students without IEPs and positive for students with IEP, though neither differed significantly from zero

MOScholars ELA fixed-effects models by IEP status (SY 2022-23 to SY 2024-25)

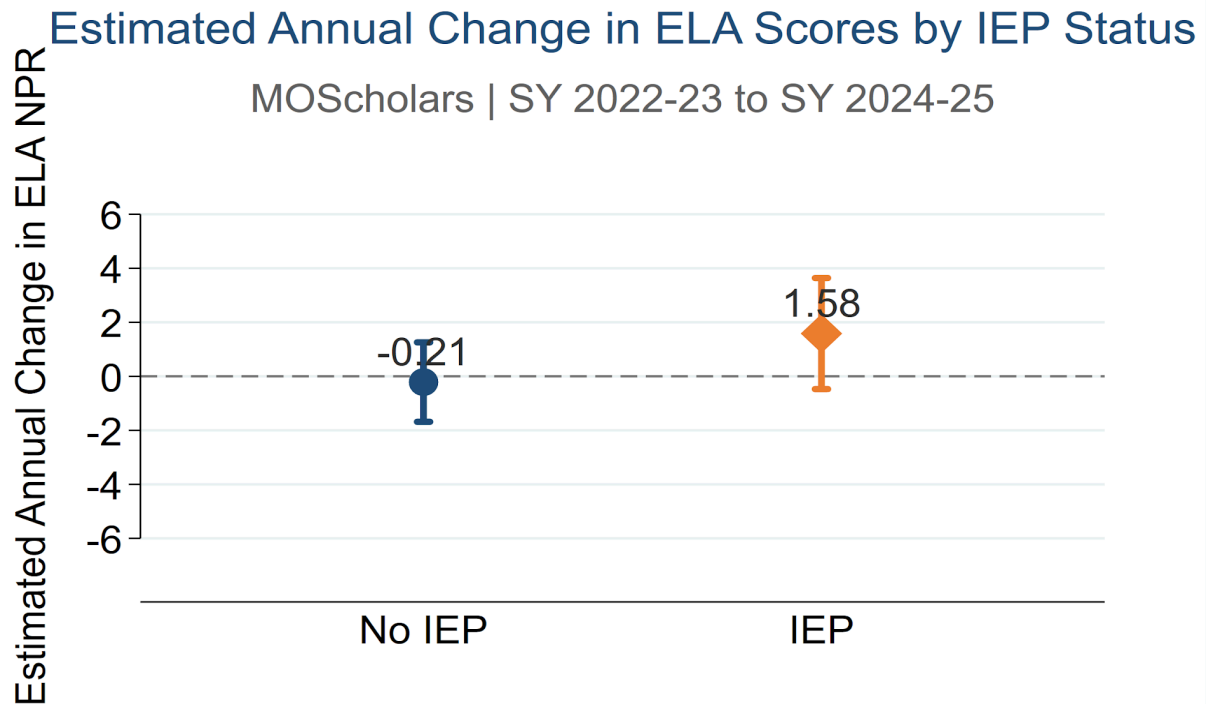
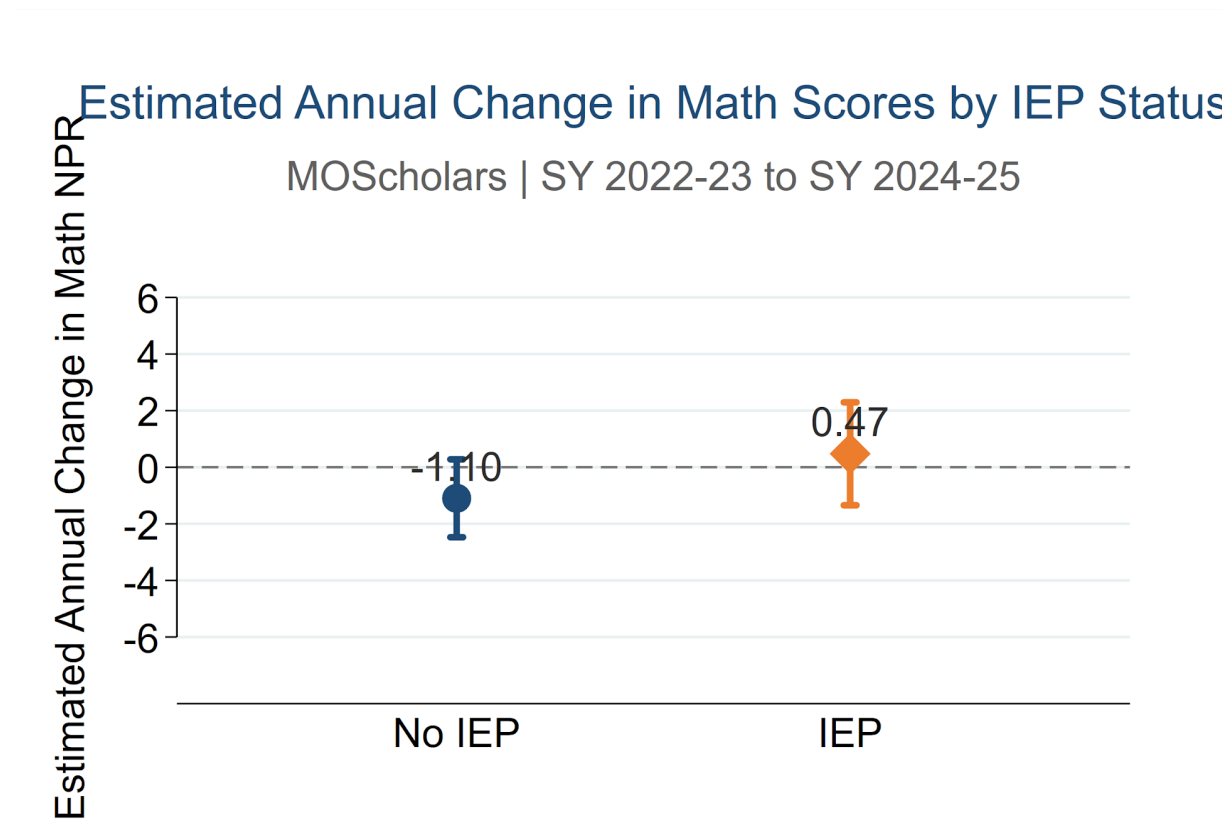


FIGURE 7.2

Estimated annual change in math percentile was negative for students without IEPs and near zero for students with IEPs, though neither differed significantly from zero

MOScholars math fixed-effects models by IEP status (SY 2022-23 to SY 2024-25)



Among students without IEPs, estimated annual changes were small and negative in both ELA and math, while estimates for students with IEPs were positive. None of these changes were statistically significant. Although the positive ELA estimate for students with IEPs is consistent with the paired t-test finding of improvement between SY 2023–24 and SY 2024–25, the fixed-effects analysis does not provide evidence of a sustained change across the full study period. Overall, achievement trajectories remained relatively stable for both groups.

Student Fixed-Effects Models by Gender

To examine whether achievement trajectories differed by gender, separate student fixed-effects models were estimated for female and male students. These models estimate within-student changes in achievement over time while controlling for stable student characteristics.

TABLE 7.4

Achievement trajectories did not differ significantly over time for either male or female students
MOScholars fixed-effects models by gender (SY 2022-23 to SY 2024-25)

	Female Students		Male Students	
	Mean ELA NPR	Mean Math NPR	Mean ELA NPR	Mean Math NPR
Years since first available school year	0.856 (0.936)	0.126 (0.895)	0.337 (0.823)	-0.863 (0.725)
Constant	47.64*** (1.264)	42.58*** (1.210)	48.50*** (1.100)	51.52*** (0.966)
Observations	914	912	1224	1219
Students	585	585	784	778
Within R-Squared	0.003	0.000	0.000	0.003

*Note. Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$*

FIGURE 7.3

Estimated annual change in ELA percentile was small and non-significant for both female and male students

MOScholars ELA fixed-effects models by gender (SY 2022-23 to SY 2024-25)

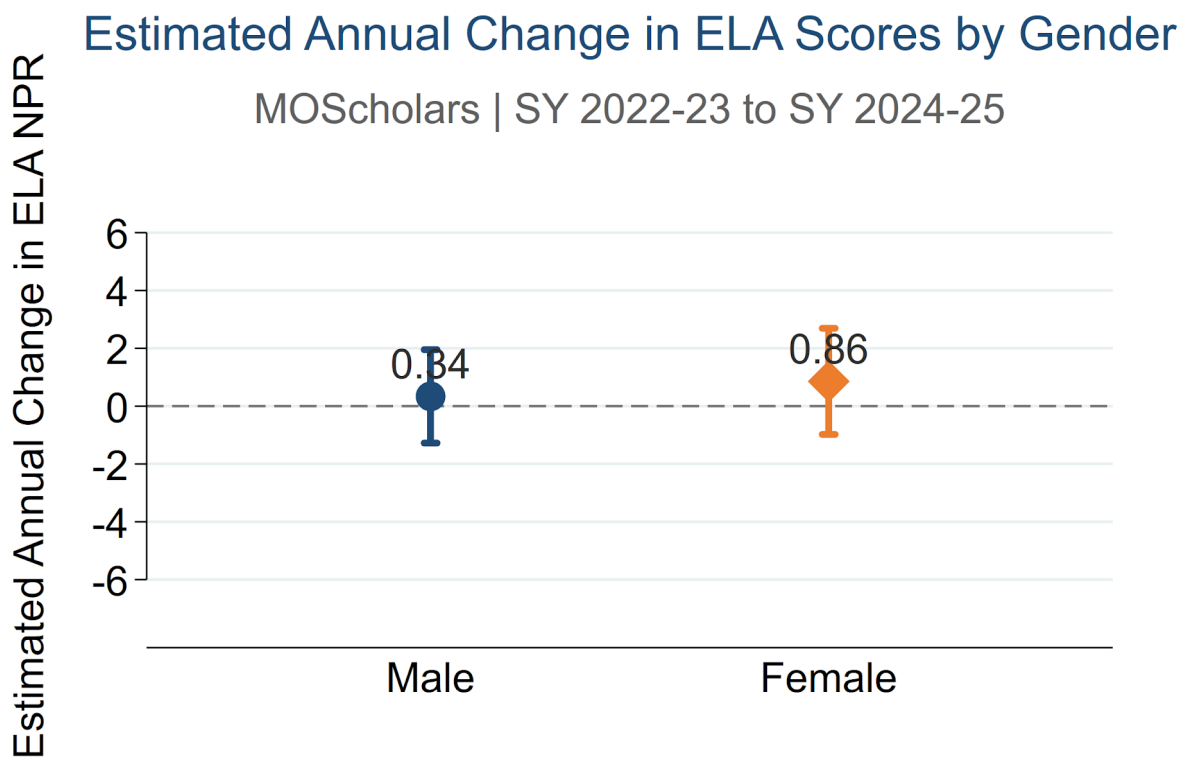
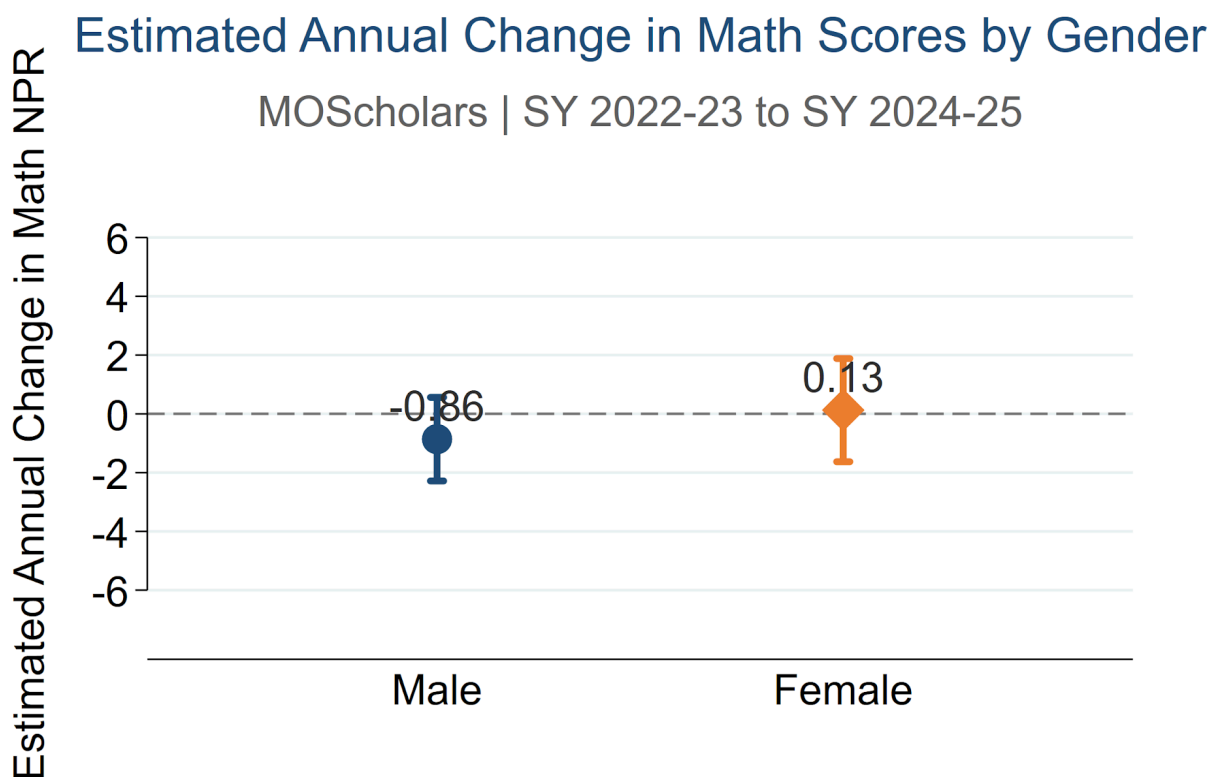


FIGURE 7.4

Estimated annual change in math percentile was small and non-significant for both female and male students

MOScholars math fixed-effects models by gender (SY 2022-23 to SY 2024-25)



Among female students, there was no evidence of statistically significant changes in either ELA or mathematics achievement over time. The estimated annual changes in ELA ($\beta = 0.86$, $SE = 0.94$) and mathematics ($\beta = 0.13$, $SE = 0.9$) were both small and statistically insignificant. Among male students, there was likewise no statistically significant evidence of changes in achievement over time. The estimated annual changes in ELA ($\beta = 0.34$, $SE = 0.82$) and mathematics ($\beta = -0.86$, $SE = 0.73$) were both small and statistically insignificant. Overall, the gender subgroup analyses provide no evidence that achievement trajectories differed over time for either female or male MOScholars participants. National percentile rankings remained relatively stable across the study period for both groups. Although the explanatory power of the models varied somewhat by gender, the absence of statistically significant year effects suggests that students maintained similar academic standing relative to national peers regardless of gender.

Student Fixed-Effects Models by Race/Ethnicity

To examine whether achievement trajectories differed by race, separate student fixed-effects models were estimated for White students and students of color. These models estimate within-student changes in achievement over time while controlling for stable student characteristics.

TABLE 7.5

MOScholars participants maintained relatively stable national percentile rankings regardless of racial subgroup

MOScholars fixed-effects models by race/ethnicity (SY 2022-23 to SY 2024-25)

	White Students		Students of Color	
	Mean ELA NPR	Mean Math NPR	Mean ELA NPR	Mean Math NPR
Years since first available school year	-0.0508 (0.813)	-1.359* (0.727)	1.584* (0.931)	1.081 (0.878)
Constant	52.77*** (1.112)	52.70*** (0.991)	40.79*** (1.213)	39.83*** (1.142)
Observations	1309	1303	830	829
Students	832	827	538	537
Within R-Squared	0.000	0.008	0.009	0.005

*Note. Standard errors in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$*



FIGURE 7.5

Estimated annual change in ELA percentile was positive for students of color and near zero for White students, only student of color growth was weakly significant ($p < .10$)

MOScholars ELA fixed-effects models by race/ethnicity (SY 2022-23 to SY 2024-25)

Estimated Annual Change in ELA Scores by Race/Ethn

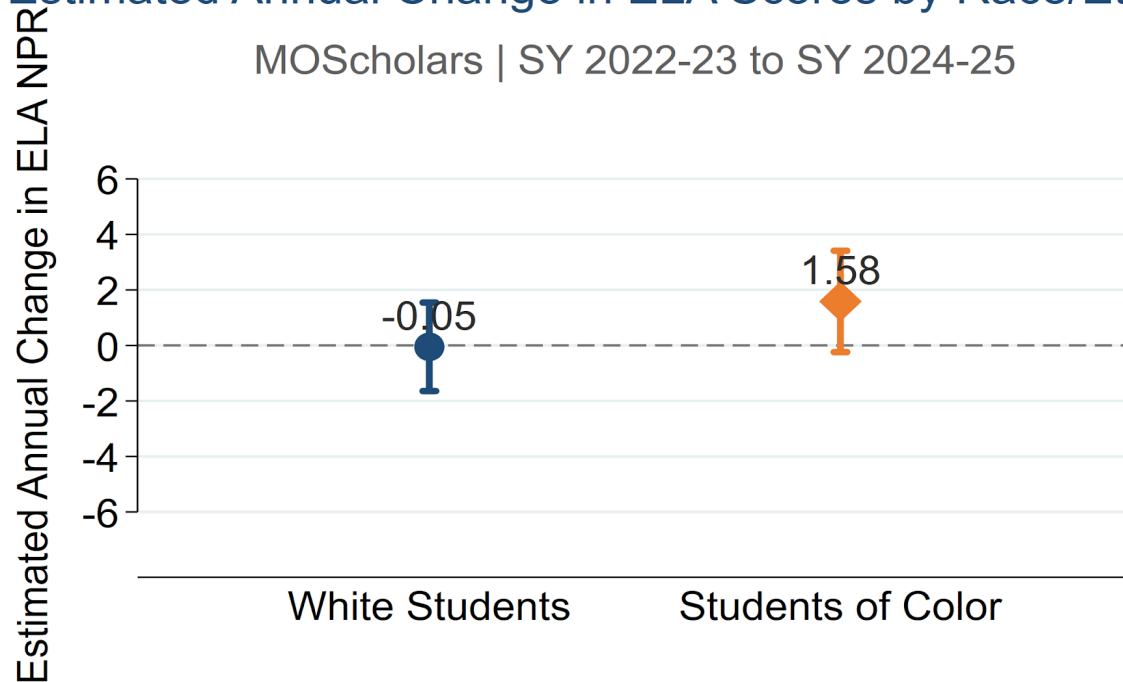
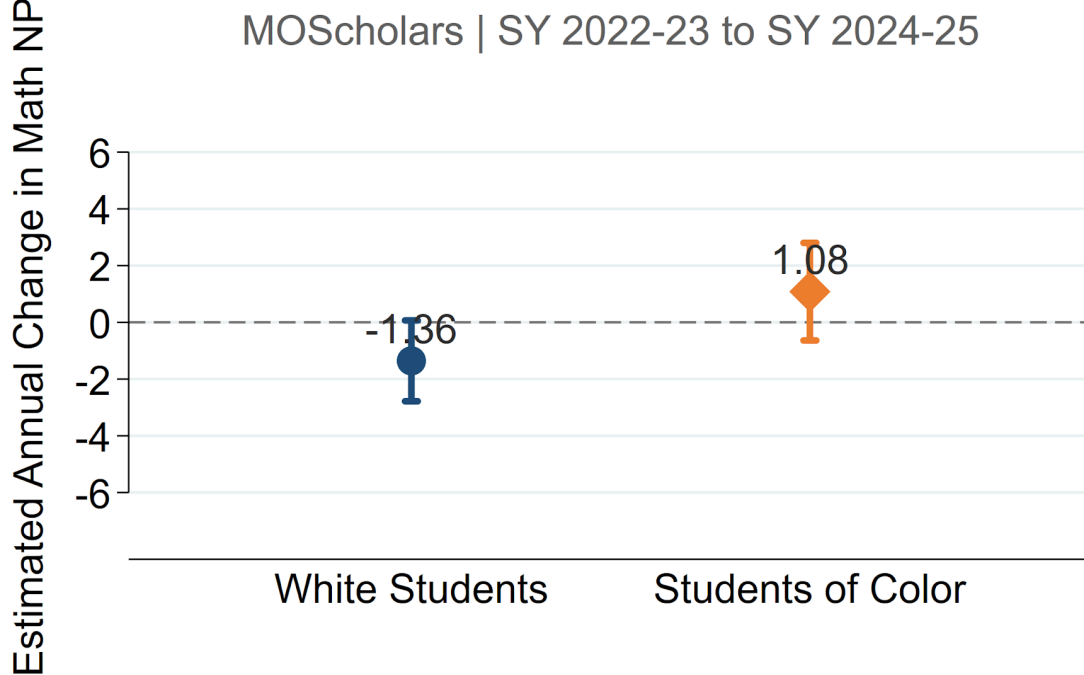


FIGURE 7.6

Estimated annual change in math percentile was positive for students of color and negative for white students, only white student decline was weakly significant ($p < .10$)

MOScholars math fixed-effects models by race/ethnicity all available years

Estimated Annual Change in Math Scores by Race/Ethn



Among White students, ELA achievement showed essentially no change over time ($\beta = -0.05$, $SE = 0.81$). The mathematics model estimated a decline that was weakly significant ($\beta = -1.36$, $SE = 0.73$, $p < .10$). Among students of color, the estimated annual change in ELA was positive and weakly significant ($\beta = 1.58$, $SE = 0.93$, $p < .10$), while the change in mathematics was positive but did not reach statistical significance ($\beta = 1.08$, $SE = 0.88$). Overall, the race subgroup analyses indicate that MOScholars participants maintained relatively stable national percentile rankings across racial subgroups. A decline in mathematics among White students and a gain in ELA among students of color reached the $p < .10$ threshold but neither met conventional levels of statistical significance. Given the number of coefficients estimated across the subgroup models, results at this threshold are merely suggestive and should not be treated as evidence of systematically differing achievement trajectories.



Conclusion

This report provides the first three-year examination of academic performance among students participating in the MOScholars program. As the program has grown, so has the amount of assessment data available to understand how participating students are performing relative to students nationally. After data cleaning and validation, the analysis included 2,156 nationally norm-referenced assessment scores from 19 different assessment types across the first three program years. Overall:

- The number of students in the MOScholars program grew from 1,361 in 2022-23 to 2,678 in 2024-25. The number of students in tested grades grew from 629 to 1,351 during that period. This figure is projected to exceed 2,900 in 2025-26 and will likely double again in 2026-27.
- Participating students in grades 3-10 are required to take a nationally norm-referenced test. After data cleaning and validation, the final analysis included 2,156 nationally norm-referenced assessment scores from 19 test types across the first three program years.
- Average MOScholars ELA scores increased from the 46th to the 51st national percentile over the first three years of the program.
- Average MOScholars Math scores increased from the 47th to the 49th national percentile over the first three years of the program.
- By comparison, the average Missouri student scores at approximately the 45th to 47th percentile on the National Assessment of Educational Progress, which tests students in Reading and Math in the 4th and 8th grades.
- Nearly 40 percent of the testing sample were special needs students with an Individualized Education plan, far higher than the state average. The remaining students were admitted based on statutory income limits.
- Longitudinal results from the currently limited sample suggest that MOScholars students experience achievement growth on par with their national peers, maintaining similar national percentile rankings in ELA and Math from year to year. *The findings should be viewed as preliminary, given the small number of students with test scores available across multiple years.* The longitudinal sample is expected to grow substantially as additional years of data become available.

These findings should be interpreted within the context of a relatively new and rapidly growing program. The number of MOScholars participants increased substantially during the first three years, and the longitudinal sample will grow substantially as additional years of assessment data



become available. A larger longitudinal sample will provide greater statistical power and allow future reports to examine achievement trajectories and differences among student groups with greater precision.

At this stage, the findings are best understood as an early baseline of academic performance rather than evidence of the causal impact of MOScholars participation. The first three years of data show that participating students, including a substantial population of students with Individualized Education Programs (IEPs), are generally performing near national averages and maintaining their relative academic standing over time. Continued annual data collection will be key for determining whether these patterns persist as the program matures and for providing Missouri families, policymakers, and program administrators with a more complete understanding of student outcomes.

Ultimately, long-term outcomes such as high school graduation rates will be available. Such results, by their very nature, take time to observe. At least four years of data are needed to track high school graduation rates. This report covers the first three years of program data.

In the coming years, the number of students enrolled in the program will grow. The number of students in tested grades will expand exponentially, as nearly half of the students enrolled in MOScholars are presently in grades K-2, pre-testing grades. In turn, the longitudinal sample will grow - allowing achievement growth, graduation rates and long-term outcomes to be reported with precision and confidence.

This report provides the baseline against which to compare future performance.



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References

Childress, D. (2025). Doubled up: Housing instability and homelessness among students in Missouri. Policy Research in Missouri Education, 7(16). Saint Louis University.
www.primecenter.org/education-reports-database/homelessness

National Center for Education Statistics. (2024a). Digest State Dashboard: Missouri. U.S. Department of Education, Institute of Education Sciences.
<https://nces.ed.gov/programs/digest-dashboard/state/missouri>.

National Center for Education Statistics. (2024b). Racial/Ethnic Enrollment in Public Schools. Condition of Education. U.S. Department of Education, Institute of Education Sciences.
<https://nces.ed.gov/programs/coe/indicator/cge>.



Appendix A: Score Selection Procedures

MOScholars students in testing grades (3rd-10th) are required to take a nationally normed assessment in Math and English Language Arts (ELA) to maintain eligibility for program participation. For inclusion in analysis, scores had to be from a nationally norm-referenced assessment aligned to the student's grade level and taken during the appropriate school year (August-July) to be considered valid.

Valid scores for SY 2022-23, 2023-24, and 2024-25, represented 19 different nationally normed assessments. To allow comparison across the wide range of assessments submitted, all eligible scaled scores were converted to National Percentile Ranks (NPRs) using official publisher-provided norm tables. In instances where the NPR was provided on the student's score report, no conversion was used.

The process for selection of ELA and Math scores for each assessment type received is outlined below.

ACT

Note: The Practice ACT is not a nationally norm-referenced test.

Grades: 10-12

Preferred ELA Subtest: Reading

Alternate ELA Subtest: English

Preferred Math Subtest: Math

Alternate Math Subtest: N/A

AimswestPlus

Grades: PreK-12

Preferred ELA Subtest: Early Literacy & Reading

Alternate ELA Subtest: Reading Comprehension

Preferred Math Subtest: Early Numeracy & Math

Alternate Math Subtest: N/A



Classic Learning Test (CLT)

Grades: 3-12

Preferred ELA Subtest: Verbal Reasoning

Alternate ELA Subtest: Grammar & Writing

Preferred Math Subtest: Quantitative Reasoning

Alternate Math Subtest: Algebra

CogAT

Grades: K-12

Preferred ELA Subtest: Verbal

Alternate ELA Subtest: N/A

Preferred Math Subtest: Quantitative

Alternate Math Subtest: N/A

ERB

Grades: 2-12

Preferred ELA Subtest: Reading

Alternate ELA Subtest: Verbal Reasoning

Preferred Math Subtest: Mathematics Achievement

Alternate Math Subtest: Quantitative Reasoning

FastBridge

Grades: K-12



Preferred ELA Subtest: Reading

Alternate ELA Subtest: N/A

Preferred Math Subtest: Math

Alternate Math Subtest: N/A

High School Placement Test (HSPT)

Grades: 8

Preferred ELA Subtest: Reading

Alternate ELA Subtest: Language

Preferred Math Subtest: Mathematics

Alternate Math Subtest: Quantitative Skills

Iowa Assessments (ITBS)

Grades: K-12

Preferred ELA Subtest: Reading Total

Alternate ELA Subtest: ELA Total

Preferred Math Subtest: Math Total

Alternate Math Subtest: Mathematics

i-Ready

Grades: K-12

Preferred ELA Subtest: Reading

Alternate ELA Subtest: N/A

Preferred Math Subtest: Math

Alternate Math Subtest: N/A



NWEA

Grades: K-12

Preferred ELA Subtest: Reading

Alternate ELA Subtest: Language Arts

Preferred Math Subtest: Math

Alternate Math Subtest: N/A

Pre-ACT

Grades: 9-10

Preferred ELA Subtest: Reading

Alternate ELA Subtest: English

Preferred Math Subtest: Math

Alternate Math Subtest: N/A

Pre-ACT 8/9

Grades: 8-9

Preferred ELA Subtest: Reading

Alternate ELA Subtest: English

Preferred Math Subtest: Math

Alternate Math Subtest: N/A

PSAT

Grades: 10-11

Preferred ELA Subtest: Reading & Writing



Alternate ELA Subtest: N/A

Preferred Math Subtest: Math

Alternate Math Subtest: N/A

PSAT 8/9

Grades: 8-9

Preferred ELA Subtest: Reading & Writing

Alternate ELA Subtest: N/A

Preferred Math Subtest: Math

Alternate Math Subtest: N/A

Renaissance STAR

Grades: PreK-12

Preferred ELA Subtest: Reading

Alternate ELA Subtest: N/A

Preferred Math Subtest: Math

Alternate Math Subtest: N/A

SAT

Grades: 10-12

Preferred ELA Subtest: Evidence-Based Reading & Writing

Alternate ELA Subtest: N/A

Preferred Math Subtest: Math

Alternate Math Subtest: N/A



Stanford Achievement Test (Stanford 10)

Grades: K-12

Preferred ELA Subtest: Reading Total

Alternate ELA Subtest: N/A

Preferred Math Subtest: Mathematics

Alternate Math Subtest: Total Math or Problem Solving

Terra Nova

Grades: K-12

Preferred ELA Subtest: Reading Comprehension

Alternate ELA Subtest: Language

Preferred Math Subtest: Mathematics Composite

Alternate Math Subtest: N/A

Woodcock-Johnson

Grades: K-12

Preferred ELA Subtest: Broad Reading

Alternate ELA Subtest: N/A

Preferred Math Subtest: Broad Mathematics

Alternate Math Subtest: N/A