

# Texas GEAR UP: Beyond Grad

## Biennial Impact Report

### Evaluation of Years 3 and 4

**Submitted to:**

Texas Education Agency  
William B. Travis Building  
1701 North Congress  
Avenue  
Austin, TX 78701-1494

**Submitted by:**

ICF  
1902 Reston Metro Plaza  
Reston, VA 20190

and

Agile Analytics  
1621 West 6th Street  
Austin, TX 78703

**Submitted on:**

September 2023



## Executive Summary

The Texas Education Agency’s (TEA) Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP): Beyond Grad grant program (referred to as “GEAR UP” in this report) serves approximately 10,000 students from six Texas independent school districts (ISDs), including 12 middle schools and high schools in rural communities in West Texas, Southeast Texas, and the Coastal Bend.

GEAR UP provides targeted services to a grade-specific **primary cohort** of students who are expected to graduate in the 2023–24 school year (i.e., the **class of 2024**) through their first year of postsecondary education. Services include targeted academic tutoring, teacher professional development to increase academic rigor, individualized college and career counseling, and workshops/events aimed at students and parents.

GEAR UP also provides basic services to a **priority cohort** of students consisting of all other students in Grade 9–12 attending participating high schools in the grantee districts during each year of the 7-year grant (i.e., from school years 2018–19 to 2024–25).

## Evaluating GEAR UP and the Purpose of this Report

This report presents findings from the impact evaluation during the middle program years—school years 2020–21 (Year 3) and 2021–22 (Year 4) and focuses on the following evaluation questions:

- What outcomes are associated with participation in GEAR UP? How do these differ by district?
- How do trends in outcomes for the class of 2024 GEAR UP cohort students compare to state averages?
- How do trends in outcomes for the class of 2024 GEAR UP cohort students compare to a carefully matched sample of class of 2024 students in similar districts (i.e., the matched comparison cohort)?
- How do trends in outcomes for the class of 2024 students compare to students who are in the priority cohort (e.g., the classes of 2023 and 2025, the retrospective and follow-on cohorts)?
- How do trajectories of outcomes differ based on the length of time students attended GEAR UP schools? For example, does Algebra II completion increase for students who attended GEAR UP schools in all grades compared to students who only attended in high school?

The external evaluation is a longitudinal design that spans 7 years and follows a cohort model. There are four key cohort groups in the study:

- The **class of 2024 GEAR UP cohort** includes students at the six GEAR UP districts to whom services were provided.

- The **matched comparison cohort** consists of a statistically matched sample of students also from the class of 2024 attending similar districts who did not participate in GEAR UP.
- The **retrospective cohort** includes students who attended GEAR UP districts 1 year prior to the class of 2024. These students are from the class of 2023.
- The **follow-on cohort** includes students who attended the GEAR UP districts 1 year after the class of 2024. These students are from the class of 2025.

This report focuses on Years 3 and 4, when the class of 2024 was in Grade 9 and 10. The outcomes examined included Algebra I and II completion, on-time promotion from Grade 9 to 10, and performance on four State of Texas Assessments of Academic Readiness (STAAR) end-of-course (EOC) exams typically administered in Grades 9 and 10: Algebra I, Biology, English I, and English II. Outcomes for the class of 2024 were compared to those from the state of Texas and to those in the matched comparison, retrospective and follow-on cohorts. The number of years students were enrolled in a GEAR UP campus was also analyzed as a predictive factor for outcomes.

## Summary of Findings

### Mathematics Course Completion

Three in four (75%) students in the class of 2024 completed Algebra I by Grade 9; the class of 2024 missed the 85% completion target defined by Project Objective 1.1. A significantly higher percentage of class of 2024 students completed Algebra I by Grade 9 than students in the matched comparison cohort, but the effect size of the difference was small and there was substantial variation in Algebra I completion by school. Cohort was not a significant predictor of Algebra I completion in a multilevel model (MLM) that controlled for school and student characteristics. Algebra I completion was 80% by Grade 9 for the follow-on cohort; students in the follow-on cohort were significantly more likely to complete Algebra I by Grade 9 than students in the class of 2024—both at the group level and in the MLM.

Thirty-six percent of propensity score matching (PSM)-matched class of 2024 students completed Algebra II by Grade 10, significantly more than the matched comparison cohort (28%). However, as with the findings for Algebra I, there was significant variation by school, and cohort was not statistically significant in the MLM. Analyses comparing the class of 2024 to the retrospective cohort found that students in the retrospective cohort had even higher Algebra II completion levels by Grade 10 (46%), and cohort was a significant predictor of Algebra II completion in the MLM.

Length of time in cohort analyses revealed that students who had been in the class of 2024 cohort for more years were more likely to complete both Algebra I by Grade 9 and Algebra II by Grade 10 than those who had been in the cohort for fewer years, even when controlling for school and student characteristics. This finding indicates that the benefits of GEAR UP on advanced math course completion may require several years to develop (see Table ES.1).

**Table ES.1. Mathematics Course Completion Differences by Cohort Group**

Outcome	Class of 2024 vs. Comparison		Class of 2024 vs. Retrospective		Class of 2024 vs. Follow-On		Longer Time in Cohort
	Group Level	MLM	Group Level	Logistic Regression	Group Level	Logistic Regression	Logistic Regression
Algebra I by Grade 9	Higher	None	-	-	Lower	Lower	Higher
Algebra II by Grade 10	Higher	None	Lower	Lower	-	-	Higher

*Note.* MLM – Multilevel model. Color indicates the direction of effect (blue = class of 2024 higher, orange = class of 2024 lower) and confidence in the observed results (darker shaded items, from the MLMs or logistic regressions, indicate more reliability). “-” indicates that the outcome was not measured.

### On-Time Promotion

A significantly higher percentage of students in the matched comparison cohort than students in the class of 2024 were promoted on time from both Grade 9 and Grade 10 to a higher grade level. However, the effect sizes of these differences were small, and cohort was not a statistically significant predictor of on-time promotion at either grade level in the MLMs. Class of 2024 students were less likely to be promoted on time from Grade 9 to 10 or above than the follow-on cohort but were more likely to be promoted on time from Grade 10 to 11 or 12 than the retrospective cohort. Finally, students who were members of the class of 2024 cohort for a longer period of time were more likely to be promoted on time than students in the cohort for fewer years (see Table ES.2).

**Table ES.2. On-Time Promotion Differences by Cohort Group**

Outcome	Class of 2024 vs. Comparison		Class of 2024 vs. Retrospective		Class of 2024 vs. Follow-On		Longer Time in Cohort
	Group Level	MLM	Group Level	Logistic Regression	Group Level	Logistic Regression	Logistic Regression
Grade 9 to 10 or Above	Lower	None	-	-	Lower	Lower	Higher
Grade 10 to 11 or 12	Lower	None	Higher	Higher	-	-	Higher

*Note.* MLM – multilevel model. Color indicates the direction of effect (blue = class of 2024 higher, orange = class of 2024 lower) and confidence in the observed results (darker shaded items, from the MLMs or logistic regressions, indicate more reliability). “-” indicates that the outcome was not measured.

### STAAR EOC Performance

Compared to the matched comparison cohort, significantly more students in the class of 2024 achieved the Approaches Grade Level standard on the Algebra I and Biology EOC exams and Masters Grade Level standard on the Biology EOC exam. On the other hand, more students in the matched comparison cohort achieved the Approaches Grade Level standard for the English II EOC exam. However, the effect sizes of these differences were small, and cohort was not a statistically significant predictor of performance in any of the MLM models for the EOC exams.

Compared to the retrospective cohort, students in the class of 2024 were more likely to achieve the Approaches Grade Level standard on the English II EOC exam, both at the group level and in the MLM. On the other hand, students in the follow-on cohort were more likely to achieve the Approaches and Masters Grade Level standards on the Algebra I EOC exam than class of 2024 students.

Students who had been in the class of 2024 cohort for a longer period of time were more likely to achieve the Approaches Grade Level standards on all four STAAR EOC exams. They were more likely to achieve Masters Grade Level standard for the Biology EOC exam. On the other hand, students who were in the cohort for a longer period of time were less likely to meet the standard for Masters Grade Level on English II EOC exam than students who were newer to the cohort.

**Table ES.3. STAAR EOC Exam Differences by Cohort Group**

EOC Exam & Grade Level Standard	Class of 2024 vs. Comparison		Class of 2024 vs. Retrospective		Class of 2024 vs. Follow-On		Longer Time in Cohort
	Group Level	MLM	Group Level	Logistic Regression	Group Level	Logistic Regression	Logistic Regression
Algebra I Approaches	Higher	None	-	-	Lower	Lower	Higher
Algebra I Masters	None	None	-	-	Lower	Lower	None
Biology Approaches	Higher	None	-	-	None	None	Higher
Biology Masters	Higher	None	-	-	None	None	Higher
English I Approaches	None	None	-	-	None	None	Higher
English I Masters	None	None	-	-	None	None	None
English II Approaches	Lower	None	Higher	Higher	-	-	Higher
English II Masters	None	None	None	None	-	-	Lower

Note. MLM – multilevel model. Color indicates the direction of effect (blue = class of 2024 higher, orange = class of 2024 lower) and confidence in the observed results (darker shaded items, from the MLMs or logistic regressions, indicate more reliability). “-” indicates that the outcome was not measured.

## Limitations

- The study was negatively affected by the coronavirus disease 2019 (COVID-19) pandemic, and associated disruptions negatively impacted student achievement. It is difficult to accurately separate the impact of GEAR UP programming from the impact of the pandemic, particularly across school years.
- The study was quasi-experimental, and not a randomized controlled trial, which means there is a possibility that other factors—such as pre-existing differences between the cohorts—may have influenced the results.

- The study was conducted over a relatively short period of time, which may not have been sufficient to determine the full impact of GEAR UP programming. Therefore, some of the positive outcomes of the program may not be recognized until the end of the program.
- The study only looked at a limited number of outcomes that were available for participants and non-participants in GEAR UP. It is possible that GEAR UP programming had other positive impacts that were not measured in the study, such as knowledge of financial aid or interest in attending college.